SERSCIDA, Deliverable 4.1:
Detailed action plan for establishment of social science digital data archives

Introduction

The purpose of task 4.1 of WP4 was to complete initial "roadmaps" or "blueprints" to guide the establishment and operation of new data services in the three participating regional countries of the SERSCIDA project, Bosnia and Herzegovina, Serbia, and Croatia. The general aim of the roadmaps is to detail all activities deemed as necessary prerequisites for functional data services, including: definition of institutional scope and organizational structure; staffing and training; technical infrastructure (e.g., computers, software, and telecommunications); archiving policy and procedures; and outreach and communications.

This work follows in a logical progression the earlier steps of the SERSCIDA FP7 project, specifically mapping the research, policy, and legal landscapes within the three countries (WP2), and then publicizing findings and promoting social science data services among key stakeholders by way of an international conference (WP3), which was held in Belgrade in March 2013. The work of WP4.1 has been conducted in parallel with ongoing training activities (WP4.2 – so far, one instance held in July 2013 at the UK Data Service in Colchester). The establishment roadmaps were designed to facilitate and formalize the steps required to realize all of the preliminary conditions needed to "go live" with new data services, work to be carried out in WP5 of the project, to begin in January 2014.

Most of the features of the establishment plan will indeed be realized before the end of the SERSCIDA project. Other features, such as hiring of new staff, will lie outside of the scope of the project, and will depend on future financing from various national and international sources. In any event, it should be noted that the establishment plan is meant to be a “living document”. The current version reflects our most recent thinking and expectations, but we assume that it will evolve over time in response to changing practical, political, financial, and technical conditions. Toward the end of the SERSCIDA project, we will update this document so that it represents the work remaining toward establishing data services in Bosnia and Herzegovina, Serbia, and Croatia, to be carried out during the period after SERSCIDA and before "day one".

Discerning the outlines of future data services has been made possible by earlier work within the project. The work of task 4.1 of WP4, however, has taken things a step further by adding a great deal of detail to the outlines, effectively making matters more concrete. Following the Belgrade conference, the SERSCIDA partners met in Ljubljana, Slovenia to discuss lessons learned, prospects for new data services, and a draft structure for the roadmaps. The good news was that prospects for data services are very promising in the three countries, although the new institutions will be somewhat different in terms of their host institutions, partnerships, and dependencies. In Bosnia, the new data service will be hosted at the University of Sarajevo Human Rights Centre. In Serbia, the Institute of Economic Sciences (IES) Belgrade will be the lead institution and host of the future data service, while the Belgrade University Computer Center (RCUB) will provide IT and data management support. In Croatia, the new data service will also involve the cooperation of two existing institutions, the University of Zagreb’s Faculty of Humanities and Social Sciences and the University of Zagreb University Computing Centre. The former will provide expertise in data management and will promote use of the archived data, and the latter will provide technical infrastructure and support.

It was also decided in Ljubljana that while three separate national data services is the most realistic approach, important synergies can be generated by relying on some shared infrastructure, databases, standards, and a regional data portal that will allow for discovery of data and research information from all three services. Further, the data services will share skills and specific expertise in different areas (e.g., IES on how to handle complex economic data and BH on treating qualitative data). Commonalities of approach will also be necessitated to some degree by specific requirements of the Council of European Social Science Data Archives (CESSDA), since the three data services will be committed to aligning themselves with the operational obligations for CESSDA service providers. This will facilitate the entry process should the newly established data services wish to seek membership within CESSDA.

As for the roadmap structure, the meeting in Ljubljana led to important revisions of the document, specifically with respect to the features of both the establishment plan and for the operational plan. Besides these revisions, the three regional teams started work at the meeting filling in the details, with support from the CESSDA partners present (from the UKDA, ADP, and FORS). It is now clear that while there are significant commonalities between the three countries, there are also national specificities that make it necessary to produce three separate establishment plans. The weeks following the meeting have involved completion and refinement of the establishment plans, with iterative feedback from CESSDA partners and subsequent revisions.

The current establishment plans are presented in the rest of this document. The plans are each divided into four major sections: 1. Definition of organisation and internal structure; 2. Human resources; 3. Technical infrastructure; and 4. Policy, quality control, and workflows. For each activity there is a description that provides further detail. The document attached in the appendix goes further by including for each activity the "period", "dependencies", and "ownership/resources". The period notes the point at which the work should be completed in relation to the first day of real operation ("day one"). Many of the activities are qualified by dependencies, that is, conditions that may influence the realization or direction of the planned activities. In some cases we have also noted ownership and/or resources, which means those who are responsible for carrying out the work, and the additional resources that will be required.

The focus of this deliverable is the establishment plans for new data services within each of the three regional countries, since this falls squarely within the scope of SERSCIDA, whose primary aim is reflected in its acronym: Support for the Establishment of national/regional social SCIence Data Archives. However, we also have made an effort to envision what will be needed *after* the establishment of new data services for their daily operation, maintenance, and sustainability. This is provided in the "operational plan", also in the appendix, which for the moment figures in a single generic spreadsheet. In sum, this deliverable will serve as a basis for upcoming work and for preparing a time-limited plan for continued development in the near future. It will provide a source of information for the tasks that will need to be funded after SERSCIDA to ensure sustainability, and it will also serve the purpose of demonstrating to stakeholders how much has already been achieved toward establishing new data services in Bosnia and Herzegovina, Serbia, and Croatia.

Establishment Plan – Bosnia and Herzegovina

I. Definition of organisation and internal structure

a. Identify organisation(s) to assume the data service

The University of Sarajevo - Human Rights Centre (HRC/UNSA) will assume the data service, in anticipation of future agreements and cooperation with other universities and institutions in Bosnia and Herzegovina.

b. Define organisation(s) and scope of collection

The focus of the archive collection will be on both quantitative and qualitative data in the Social Sciences and Humanities (SSH). The collection will include quantitative data in the disciplines of anthropology, sociology, psychology, education science, information science, economics and demographics; qualitative data will encompass in the first phase oral history and life story projects, as well as other narrative studies, currently undertaken within academia and NGOs. Later on we will undertake retrospective screening of empirical data produced by NGOs, IGOs, and academic institutions, as well as data from the period of the former SFR Yugoslavia (records of the Communist Party). Confidential and Top Secret data will also have to be accommodated, as these data currrently exist but are accessible in part only through the Information and Documentation Center of BiH (IDC), as well as the Genocide Video Library, Bosnian Memory Project (BiHME).

c. Establish the set of services to be provided

The new data service will provide a range of services, including: 1) a searchable inventory of existing national projects with data; 2) preservation, documentation, and dissemination of social science data; 3) user education, user support, and consultancy; 4) regional collaboration and establishment of networks of both researchers and data repositories; 5) trainings for researchers (how to use the data service, how to prepare data for inclusion in the archive, and how to deposit prepared data); and 6) trainings for students on usage of data services.

d. Develop a sustainable financing scheme and budget

Funding will have to be secured through the Federal Ministry for Education and Science and the Ministry for education and science of the Sarajevo Canton. In addition to this, funding will be sought from donor support. Detailed budgets will be developed as part of WP5 after accessing costs of needed staffing and techical infrastructure. Funding will be secured through collaboration with CESSDA members in the implementation of specific projects (e.g., digitalisation of materials).

e. Develop a governance structure (e.g. oversight board, scientific board), along with goals, roles, and responsibilities

The University of Sarajevo Management Board (Upravni odbor) will be in charge of the usual mandate of executive and steering boards. Funders that support the DS will inevitably join the Management Board meetings pertaining to the DS. A scientific/Expert Group will be created with at least seven members, including stakeholders. The goals, roles, and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.

f. Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms

The BH Data service will host two types of data: restricted and public. For restricted data, different levels of access are envisioned: funder-determined access, depositor-determined access, open access to sensitive data under special protocols (in accordance with the Personal Data Protection Act and contracts with researchers or research institutions that deposit sensitive data). For public data, open access will be applied with individual and group level access.

g. Define stakeholders and partners

The key stakeholders will include the Ministries of Science and Technology (RS) and Science and Education (Federation of BH), the Statistical Agency of Bosnia and Herzegovina, the Ministry of Civil Affairs of Bosnia and Herzegovina (Science Dept.), the State Archives, the Archive of Republika Srpska, the Archive of the Federation of Bosnia and Heregovina, Cantonal ministries of education and science, the Statistical Agency of the Federation of Bosnia and Herzegovina, the Statistical institute of Republika Srpska, the Central Bank of Bosnia and Herzegovina, the Agency of Higher Education, public and private universities, the Private Research agencies, and the Genocide Video Library, Bosnian Memory Project (BiHME), as well as other relevant projects. This should also include a study of the legal questions concerning formal relationships with stakeholders.

h. Establish formal and informal communication channels with and between partner institutions and stakeholders

It will be important to set up lines of communication with key stakeholders so that they are kept informed about the development and direction of the new data service. Key representatives from each stakeholder institution will be identified and contacted to obtain their consent to participate as representatives on behalf of their institution. Representatives will be included in a contact database that will be used for communicating information about the data service.

i. Define internal structure of organisation, including an organisational chart

The new BH data service will include at least the following positions: Director of Data Service; Quantitative Data Archivist; Qualitative Data Archivist; Statistician; Data Acquisition Officer; Dissemination and User Management Officer; Legal Officer; Information Technology Specialist; and Systems Librarian. An organisational chart will be developed that shows divisions of responsibility and hierarchy. It may be necessary to hire an adminstrative assistant. Whether this is a dedicated position, or rather part of someone's time who already is employed within the host institution will need to be decided later.

j. Identify work space/facility

The data service will be housed at the HRC.

k. Create institutional brand and logo

The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.

l. Create website

A website will be created that presents the institution in the national languages and in English. It will clearly present on the homepage the services and mission of the infrastructure. In

addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites.

m. Begin promotional activities to establish continuous visibility among key stakeholders

Promotional activities to raise visibility have already begun and should be ongoing. These should include targeted messages for specific audiences, by way of different means and platforms. The means could include meetings and workshops, email and letter campaigns, and invited visits by key stakeholders.

II. Human Resources

a. Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)

At a minimum, staff should include a Director, an archivist who specialises in quantitative data, an archivist who specialises in qualitative data, a statistician, a data acquisition specialist, a dissemination and user-management officer, a legal expert, an IT specialist, and a systems librarian. It may be that a single individual could assume two or more of these roles. A document will be produced that describes staff roles and responsibilities.

b. Prepare job descriptions, advertise, interview, issue contracts (near to day one once funding has been secured), and/or incorporate responsibilities into existing positions

Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.

c. Develop knowledge and skills of staff through ongoing training

Some trainings for possible future staff members have already begun within the SERSCIDA project. Any staff that is hired for the data service before day one should begin training with respect to their future roles and responsibilities, either within the context of SERSCIDA or through other training mechanisms.

d. Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)

Staff will be subject to the respective rules and regulations of HRC.

III. Technical infrastructure

a. Select hardware, including servers, desktop computers, security and backup systems

The data service will determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have a high level of security and several backup points. Also, collected data will require storage options, one of which is to host data with the UK Data Service Centre. Dimensioning

of the system will be done in cooperation with other SERSCIDA participants, i.e., Data Services being established in Croatia and Serbia.

b. Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR

An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.

c. Select databases and archiving system tools

The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.

d. Select network infrastructure and telecommunications

Network infrastructure and telecommunications will be accessed with respect to the extent to which existing options can be relied upon (e.g., using a host organisation's systems). Whatever is needed but not available from a host institution will have to be accessed, selected, costed, and integrated before day one.

IV. Policies, quality control procedures, and workflows

a. Establish data policies and written protocols for data management and access

Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.

b. Create a data archiving plan

The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.

c. Develop policy and plans for data backup and security

A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use of the data. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for datafiles, plans for updating and migrating formats.

d. Ensure standardisation of policy and tools (including compliance with CESSDA and DSA)

A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected

policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.

e. Develop guides for researchers and training events to promote good practice and data sharing

The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website. It may be possible to invite international experts to provide some of the trainings.

f. Study legal background and develop contracts

The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed, keeping in mind different types of data accessed (e.g., through usual procedures, and those received through the legacy processes, in particular qualitative data that will be deposited in an expedited process in order to ensure its survival). These should be applicable for researchers within the country, but also for others in the region and internationally.

g. Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)

In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.

h. Create database of users

To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.

i. Create database of researchers

The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).

Establishment Plan – Croatia

I. Definition of organisation and internal structure

a. Identify organisation(s) to assume the data service

The new data service will be established within a cooperation of two existing institutions, the University of Zagreb Faculty of Humanities and Social Sciences (FFZG) and the University of Zagreb University Computing Centre (SRCE).

b. Define organisation(s) and scope of collection

The FFZG will provide expertise in data management and will promote the use of the data. The SRCE will provide technical infrastructure and services (maintenance of server equipment and software), as well as technical support for the archive. The holdings will include social science data. The primary focus will be on quantitative data in the disciplines of sociology, psychology, education science, information science, political science, and economics. The data service will also collect and curate qualitative data, but with more careful selection and with consideration of available resources (e.g., it will not deal with time-consuming qualitative data management if there are quantitative data still waiting for processing).

c. Establish the set of services to be provided

The services offered will include: selecting and acquiring data; processing and cataloguing data and documentation; data dissemination; promotion of open access; enabling secure access for sensitive data; digital preservation and (technical) systems development and maintenance; technical support; education and support for depositors (how to manage data, data management plan) and users (how and why to use data for secondary research); establishment and coordination of a data librarians network (persons who promote and facilitate data depositing and data use in their local institutions); consortia subscription to commercial datasets (primarily for economic data); cooperation with national statistics office, other government institutions, and other stakeholders.

d. Develop a sustainable financing scheme and budget

Ideally, services will be financed from the state budget as a regular activity (permanent employment status and yearly budget). More realistically, data services could be financed through 2-5 year projects. The Croatian Science Foundation, which currently finances competitive research projects, may consider opening a new category for financing infrastructure projects as well. In any case (and in the meantime), the data service should participate in international projects (EC calls and others) to support further development and education, and also in regional projects to continue cooperation in the region (because of linguistic and cultural similarities, as well as common history). A detailed budget will be developed as part of WP5 after accessing costs of needed staffing and technical infrastructure.

e. Develop a governance structure (e.g. oversight board, scientific board), along with goals, roles, and responsibilities

An Oversight board will be created that includes: representatives of the Ministry of Science, Education and Sports; representatives of the Croatian Science Foundation; management representatives from FFZG and SRCE, as well as individuals in management positions within major research and education institutions; and representatives of the Croatian NSI and other governmental agencies (potential major depositors). A Scientific/expert board will also be put together, including researchers, data experts/archivists, and data librarians. The goals, roles,

and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.

f. Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms

The Oversight board will make the final decision, but different levels of access will be offered: funder-determined access; depositor (researcher)-determined access (individual- and group-level); access to sensitive data; and open access (with possible embargo period).

g. Define stakeholders and partners

Stakeholders and partner institutions will include: the Ministry of Science, Education and Sports (MSES) as the main science policy institution, which also provides multi-annual institutional financing of research activities (distributed to universities and public institutes); the Croatian Science Foundation as the main funding body for competitive research projects; the SRCE as partner institution and technical infrastructure provider; all scientific institutions in Croatia in the social sciences - including faculties (constituents of universities) and public institutes - that can have their own policies about data archiving and also usually have their local information specialists/librarians who can promote and facilitate data depositing and data use; the National Statistical Institute, which produces national statistics, valuable and very heavily used data for the social sciences (sociology, economics); the National Labour Services Agency and other government agencies, which produce data and statistics of value for some researchers, with possibilities for data linking; and the National Archive, which can play a role in long-term preservation of some kinds of data (e.g., publicly available data as national heritage). This should also include a study of the legal questions concerning formal relationships with stakeholders.

h. Establish formal and informal communication channels with and between partner institutions and stakeholders

Formal communication should be established with the managers of relevant institutions. Formal letters should be sent to inform institutions about ongoing activities. Also, we need one contact person in every relevant institution. During the SERSCIDA project, contact persons in some institutions have already been identified. In some institutions, there are librarians, and in other institutions they are researchers and/or members of a management team. Good candidates for contact persons are researchers who are involved in international research projects. Annual meetings with representatives should be organised. A mailing list will be used for disseminating information about ongoing activities. All interested researchers/librarians can be members of this mailing list.

i. Define internal structure of organisation, including an organisational chart

The internal structure of the data service will be defined according to funding possibilities. It is possible that some of the tasks and duties will be distributed to persons that work in other institutions.

j. Identify work space/facility

The data service will be located within the partner institutions, FFZG and SRCE.

k. Create institutional brand and logo

The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that

graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.

l. Create website

A website will be created that presents the institution in the national language and in English. It will clearly present on the homepage the services and mission of the infrastructure. In addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites.

m. Begin promotional activities to establish continuous visibility among key stakeholders

Promotional activities to raise visibility have already begun and should be ongoing. These should include targeted messages for specific audiences by way of different means and platforms. The means could include meetings and workshops, email and letter campaigns, and invited visits by key stakeholders.

II. Human Resources

a. Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)

For the new data service a minimum of four dedicated staff members is needed. One should assume the role of the head/director of the data service, and he or she should be responsible for financial and executive management, communication with stakeholders, and regional and international partners. There should be two data experts - persons with proven knowledge in social science methodology and data management, one at a senior level and the other at a junior level. A fourth person should be an IT expert - someone with appropriate IT knowledge, with experience in data management, software applications, documentation standards, and data exchange protocols, with programming and database skills. In addition, other staff in the host institutions will be used on a part-time basis, e.g., the IT department at FFZG and system administrators from SRCE, as well as staff employed within financial/administrative services.

b. Prepare job descriptions, advertise, interview, issue contracts (near to day one once funding has been secured), and/or incorporate responsibilities into existing positions

Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.

c. Develop knowledge and skills of staff through ongoing training

Some trainings for possible future staff members has already begun within the SERSCIDA project. Any staff that is hired for the data service before day one should begin training with respect to their future roles and responsibilities, either within the context of SERSCIDA or through other training mechanisms.

d. Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)

Staff will be subject to the rules and regulations of FFZG and SRCE.

III. Technical infrastructure

a. Select hardware, including servers, desktop computers, security and backup systems

The data service will need to determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have high level of security and several backup points. Also, collected data will require storage options. Dimensioning of the system should be done in cooperation with other SERSCIDA participants.

b. Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR

An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.

c. Select databases and archiving system tools

The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.

d. Select network infrastructure and telecommunications

Network infrastructure and telecommunications will be accessed with respect to the extent to which existing options can be relied upon (e.g., using a host organisation's systems). Whatever is needed but not available from a host institution will have to be accessed, selected, costed, and integrated before day one.

IV. Policies, quality control procedures, and workflows

a. Establish data policies and written protocols for data management and access

Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.

b. Create a data archiving plan

The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.

c. Develop policy and plans for data backup and security

A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for data files, plans for updating and migrating formats.

d. Ensure standardisation of policy and tools (including compliance with CESSDS and DSA)

A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.

e. Develop guides for researchers and training events to promote good practice and data sharing

The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website.

f. Study legal background and develop contracts

The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed. These should be applicable for researchers within the country, but also for others in the region and internationally.

g. Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)

In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.

h. Create database of users

To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.

i. Create database of researchers

The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research

institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).

Establishment Plan – Serbia

I. Definition of organisation and internal structure

a. Identify organisation(s) to assume the data service

The Institute of Economic Sciences (IES) Belgrade will be the leading institution and the host of the future Social Science Data Service institution in Serbia. The University of Belgrade Computer Center (RCUB) will mainly be responsible for data management and IT activities. The Memorandum between IES and RCUB has already been prepared. The main topics are: cooperation in scientific and technical fields; opportunity to exchange books, specialized magazines, and other pedagogical, scientific and technical materials; use of information and communication services and resources that have mutual interests; participation in scientific meetings that are organized by the party or organized in collaboration with other higher education institutions or scientific associations and societies, upon submission of tender applications for the domestic and international scientific and technological projects; and support of each other and possibly applying jointly or through bilateral partners for supplementary funding.

b. Define organisation(s) and scope of collection

The new data service will collect, and then preserve and disseminate all types of data, both quantitative and qualitative. The data scope will cover all disciplines in the social sciences and humanities. Within a regional framework IES will develop specific knowledge and skills regarding collection and preservation of economic data. In that matter IES will be support for regional partners.

c. Establish the set of services to be provided

The Serbian Social Science Data Archive (SR-SSDA) will collect and preserve data for potential secondary use - analysis for research, teaching and learning, and confirmatory analysis based on the principle of Open data access. It will also store sensitive data, which will be forbidden for use without proper security procedures (researcher/teacher accreditation, safe room, etc.) and user-licences. SR-SSDA will organize trainings for the research and teaching community, as well as round tables and conferences. IES will be responsible for data solicitation, trainings, and promotion in cooperation with specialists in the specific fields. The RCUB will be in charge of infrastructure, data dissemination, and data security.

d. Develop a sustainable financing scheme and budget

In Serbia, the Ministry of Education, Science and Technological Development announces competitions for technological development projects every 3-5 years. In the negotiations with the representatives of the Ministry, IES has gained the impression that they are willing to finance the establishment and further development of the SR-SSDA from the state budget through the fund for technical development of the Republic of Serbia. IES and RCUB will submit an application for these funds together. For the additional funds, IES and RCUB will participate in various EU calls primarily in order to support further development of the SR-SSDA, and to organize trainings and conferences for the staff in the region, including colleagues from Bosnia and Herzegovina and Croatia, and in the future as well possibly from Montenegro. A detailed budget will be developed as part of WP5 after accessing costs of needed staffing and technical infrastructure.

e. Develop a governance structure (e.g. oversight board, scientific board), along with goals, roles, and responsibilities

The SR-SSDA will create an Oversight board with at least 10 selected representatives from: The Ministry of Education, Science, and Technological Development, the RCUB, the National library, IES, the Statistical Office of the Republic of Serbia, and from Serbian universities. The goals, roles, and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.

f. Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms

The Oversight board with the general manager will decide on this subject, but as already mentioned SR-SSDA will work with two types of data: public data that are openly accessible and distributed through software like Nesstar, and sensitive data that will be distributed through safe rooms and other controlled settings.

g. Define stakeholders and partners

Partners of SR-SSDA will be University IT Centre (RCUB), and regional archives from Bosnia and Herzegovina and Croatia. The main stakeholder will be the Ministry of Education, Science and Technology Development of the Republic of Serbia. Other institutions will be connected with the SR-SSDA, such as: The National library; CESSDA; the Statistical Office of the Republic of Serbia; research institutes in social sciences disciplines; faculties in the field of social sciences; the National Labour Service in Serbia; and private research companies. This should also include a study of the legal questions concerning formal relationships with stakeholders.

h. Establish formal and informal communication channels with and between partner institutions and stakeholders

This network will connect key persons in each partner and stakeholder institution with IES representatives. Formally IES as legal representative of SR-SSDS will sign the memorandum of understanding with each stakeholder. It will be important to set up lines of communication with key stakeholders and partners so that they are kept informed about the development and direction of the new data service. Key representatives from each stakeholder institution will be identified and contacted to obtain their consent to participate as representatives on behalf of their institution. Representatives will be included in a contact database that will be used for communicating information about the data service.

i. Define internal structure of organisation, including an organisational chart

The director of SR-SSDS will be in charge of funding, relationships with stakeholders, and public relations. At the very beginning the data service will need one person with knowledge about the whole process of data archiving (acquisition procedures, data appraisal and licensing, acquiring data, data preservation and security, and data processing - quantitative and qualitative etc.). Later, the processes can be divided into phases in order to be performed by more than one person. The data service will need one IT specialist and at least two practitioners for manual processes. It may be necessary to hire an administrative assistant. Whether this is a dedicated position, or rather part of someone's time who already is employed within the host institution will need to be decided later.

j. Identify work space/facility

Space for the director, data specialist, IT specialist and practitioners will be in the offices of the IES building. Servers for data storage will be located in the facilities of RCUB.

k. Create institutional brand and logo

The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.

l. Create website

A website will be created that presents the institution in the national language and in English. It will clearly present on the homepage the services and mission of the infrastructure. In addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites

m. Begin promotional activities to establish continuous visibility among key stakeholders

IES has already started promotional activities. During the last spring IES organized a meeting with the most important researchers in the social sciences within the country. The meeting was at the Ministry and the representative from RCUB and National Library of Serbia also attended. We will also use scientific conferences and scientific journals to promote SR-SSDA during the establishment phase. The workshops and trainings will be a part of this activity.

II. Human Resources

a. Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)

The data service will have the following positions: 1) a Director, someone with proven knowledge in IT and data management: responsible for financial and executive management, communications with stakeholders, regional and international partners, and promotion; 2) a data specialist, someone with demonstrated knowledge of statistical methodology and data management: data quality control and monitoring of the data lifecycle; 3) an IT specialist, someone with appropriate IT knowledge: to maintain hardware, software, and technical operations; 4) two data processing specialists, responsible for documentation and data ingest.

b. Prepare job descriptions, advertise, interview, issue contracts (near to day one once funding has been secured), and/or incorporate responsibilities into existing positions

Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.

c. Develop knowledge and skills of staff through ongoing training

This has already started within the SERSCIDA project and will develop as an on-going activity. In the future we will need to improve the knowledge and skills of the data specialists and IT specialist in the field of data archiving. Our plan is to provide funds for trainings in the centres like GESIS.

d. Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)

The SR-SSDA will be a part of an existing institution, and staff will be subject to its human resource rules and regulations.

III. Technical infrastructure

a. Select hardware, including servers, desktop computers, security and backup systems

The data service will determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have high level of security and several backup points. Also, collected data will require storage options. Dimensioning of the system should be done in cooperation with other SERSCIDA participants.

b. Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR

An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.

c. Select databases and archiving system tools

The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.

d. Select network infrastructure and telecommunications

Configuration of network in this case asks for high level of security. At the same time it should be capable of handling large number of users at the same time.

IV. Policies, quality control procedures, and workflows

a. Establish data policies and written protocols for data management and access

Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.

b. Create a data archiving plan

The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.

c. Develop policy and plans for data backup and security

A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use of the data. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for data files, plans for updating and migrating formats.

d. Ensure standardisation of policy and tools (including compliance with CESSDS and DSA)

A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.

e. Develop guides for researchers and training events to promote good practice and data sharing

The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website.

f. Study legal background and develop contracts

The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed. These should be applicable for researchers within the country, but also for others in the region and internationally.

g. Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)

In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.

h. Create database of users

To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.

i. Create database of researchers

The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research

institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. The database should be suitable for quantitative data at first. The Ministry will be of help for this purpose. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).

Establishment Plan (before day 1) – Bosnia and Herzegovina

I. Definition of organisation and internal structure

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Identify organisation(s) to assume the data service	The University of Sarajevo - Human Rights Centre (HRC/UNSA) will assume the data service, in anticipation of future agreements and cooperation with other universities and institutions in Bosnia and Herzegovina.	Complete	The Chancellor of the University of Sarajevo, Ministry for Education and Science of the Sarajevo Canton, Research Council of the Sarajevo Canton.	
b.	Define organisation(s) and scope of collection	The focus of the archive collection will be on both quantitative and qualitative data in the Social Sciences and Humanities (SSH). The collection will include quantitative data in the disciplines of anthropology, sociology, psychology, education science, information science, economics and demographics; qualitative data will encompass in the first phase oral history and life story projects, as well as other narrative studies, currently undertaken within academia and NGOs. Later on we will undertake retrospective screening of empirical data produced by NGOs, IGOs, and academic institutions, as well as data from the period of the former SFR Yugoslavia (records of the Communist Party). Confidential and Top Secret data will also have to be accommodated, as these data currently exist but are accessible in part only through the Information and Documentation Center of BiH (IDC), as well as the Genocide Video Library, Bosnian Memory Project (BiHME).	Complete	The specific archive holdings will depend on the willingness of data producers to provide their data. This will also depend on the IDC's and other projects' willingness to be part of the future data service.	
c.	Establish the set of services to be provided	The new data service will provide a range of services, including: 1) a searchable inventory of existing national projects with data; 2) preservation, documentation, and dissemination of social science data; 3) user education, user support, and consultancy; 4) regional collaboration and establishment of networks of both researchers and data repositories; 5) trainings for researchers (how to use the data service, how to prepare data for inclusion in the archive, and how to deposit prepared data); and 6) trainings for students on usage of data services.	Complete	This will depend on the availability of qualified staff trained through SERSCIDA, and availability of funds for new job positions and running costs of the data service.	
d.	Develop a sustainable financing scheme and budget	Funding will have to be secured through the Federal Ministry for Education and Science and the Ministry for education and science of the Sarajevo Canton. In addition to this, funding will be sought from donor support. Detailed budgets will be developed as part of WP5 after accessing costs of needed staffing and technical infrastructure. Funding will be secured through collaboration with CESSDA members in the implementation of specific projects (e.g., digitalisation of materials).	To complete at least one month before day one.	All relevant prerequisites should be decided on and costed before finalising the budget (e.g., hardware, software, staff size, etc.).	

e.	Develop a governance structure (e.g. oversight board, scientific board), along with goals, roles, and responsibilities	The University of Sarajevo Management Board (Upravni odbor) will be in charge of the usual mandate of executive and steering boards. Funders that support the DS will inevitably join the Management Board meetings pertaining to the DS. A scientific/Expert Group will be created with at least seven members, including stakeholders. The goals, roles, and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.	To determine at least three months before day one.	Ministry of Science and Education of Sarajevo Canton	
f.	Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms	The BH Data service will host two types of data: restricted and public. For restricted data, different levels of access are envisioned: funder-determined access, depositor-determined access, open access to sensitive data under special protocols (in accordance with the Personal Data Protection Act and contracts with researchers or research institutions that deposit sensitive data). For public data, open access will be applied with individual and group level access.	Complete	The IDC, the data that they hold, and their infrastructure will have a significant role in this process.	IDC secure room and existing IT and office infrastructure.
g.	Define stakeholders and partners	The key stakeholders will include the Ministries of Science and Technology (RS) and Science and Education (Federation of BH), the Statistical Agency of Bosnia and Herzegovina, the Ministry of Civil Affairs of Bosnia and Herzegovina (Science Dept.), the State Archives, the Archive of Republika Srpska, the Archive of the Federation of Bosnia and Heregovina, Cantonal ministries of education and science, the Statistical Agency of the Federation of Bosnia and Herzegovina, the Statistical institute of Republika Srpska, the Central Bank of Bosnia and Herzegovina, the Agency of Higher Education, public and private universities, the Private Research agencies, and the Genocide Video Library, Bosnian Memory Project (BiHME), as well as other relevant projects..	Complete		
h.	Establish formal and informal communication channels with and between partner institutions and stakeholders	It will be important to set up lines of communication with key stakeholders so that they are kept informed about the development and direction of the new data service. Key representatives from each stakeholder institution will be identified and contacted to obtain their consent to participate as representatives on behalf of their institution. Representatives will be included in a contact database that will be used for communicating information about the data service.	To complete at least three months before day one.	Development of communication channels with the Expert Group.	

Bosnia and Herzegovina

i.	Define internal structure of organisation, including an organisational chart	The new BH data service will include at least the following positions: Director of Data Service; Quantitative Data Archivist; Qualitative Data Archivist; Statistician; Data Acquisition Officer; Dissemination and User Management Officer; Legal Officer; Information Technology Specialist; and Systems Librarian. An organisational chart will be developed that shows divisions of responsibility and hierarchy. It may be necessary to hire an administrative assistant. Whether this is a dedicated position, or rather part of someone's time who already is employed within the host institution will need to be decided later.	To complete at least five months before day one.	These positions of course will depend on sufficient long-term funding.	
j.	Identify work space/facility	The data service will be housed at the HRC.	Complete	Additional working space will have to be negotiated with the University of Sarajevo	
k.	Create institutional brand and logo	The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.	Complete at least six months prior to day one.	The data service will need to ensure that the visibility of NUBRS and UNSA/HRC is not lost in the brand creation due to entity division of education and science.	
l.	Create website	A website will be created that presents the institution in the national languages and in English. It will clearly present on the homepage the services and mission of the infrastructure. In addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites.	Creating the website should be done in the few months leading up to day one. A prototype website is a deliverable of WP5.	The website will have to be accessible in the three official BiH languages, plus English.	Creating a website will require skills in website design and construction, selection of a suitable content management system, and possibly some programming time to create a template with some customisation. To set it up will require about 2 weeks of work by a competent team.
m.	Begin promotional activities to establish continuous visibility among key stakeholders	Promotional activities to raise visibility have already begun and should be ongoing. These should include targeted messages for specific audiences, by way of different means and platforms. The means could include meetings and workshops, email and letter campaigns, and invited visits by key stakeholders.	To begin immediately and last until day one and beyond.		

II. Human Resources

Activity		Description	Period	Dependencies	Ownership/Resources
a.	Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)	At a minimum, staff should include a Director, an archivist who specialises in quantitative data, an archivist who specialises in qualitative data, a statistician, a data acquisition specialist, a dissemination and user-management officer, a legal expert, an IT specialist, and a systems librarian. It may be that a single individual could assume two or more of these roles. A document will be produced that describes staff roles and responsibilities.	To complete at least five months before day one.		
b.	Prepare job descriptions, advertise, interview, issue contracts (near to day one once funding has been secured), and/or incorporate responsibilities into existing positions	Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.	To complete at least during the two months prior to day one.	The timing is dependent on funding and knowing the number of staff that can be hired.	
d.	Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)	Staff will be subject to the respective rules and regulations of HRC.	Complete	Close collaboration with the University of Sarajevo.	
e.	Develop knowledge and skills of staff through ongoing training	Some trainings for possible future staff members have already begun within the SERSCIDA project. Any staff that is hired for the data service before day one should begin training with respect to their future roles and responsibilities, either within the context of SERSCIDA or through other training mechanisms.	Up to and after day one.	Persons who received Training of trainers during the SERSCIDA project will contribute to the staff capacity building process. Additional training can be sought through CESSDA trainings.	

III. Technical infrastructure

Activity		Description	Period	Dependencies	Ownership/Resources
a.	Select hardware, including servers, desktop computers, security and backup systems	The data service will determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have a high level of security and several backup points. Also, collected data will require storage options, one of which is to host data with the UK Data Service Centre. Dimensioning of the system will be done in cooperation with other SERSCIDA participants, i.e., Data Services being established in Croatia and Serbia.	To complete six months prior to day one.	Confirmation of the University of Essex UK Data Service Centre that they can host BiH DS data.	
b.	Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR	An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.	To complete six months prior to day one.	Depending on existing systems, data types to be archived, staff skills.	
c.	Select databases and archiving system tools	The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.	This should be completed at least three months before day one.	The adoption and customisation of archiving tools and databases will depend on finding something that exists, is open-source, and that can be integrated into the infrastructure.	If a proprietary solution is desired, there will be costs associated with this. Even in the case of open-source solutions, there will need to be some degree of customisation programming, which means developer time. This work could be carried out as part of WP5 of SERSCIDA.
d.	Select network infrastructure and telecommunications	Network infrastructure and telecommunications will be accessed with respect to the extent to which existing options can be relied upon (e.g., using a host organisation's systems). Whatever is needed but not available from a host institution will have to be accessed, selected, costed, and integrated before day one.	To complete two months prior to day one.	Depends on current infrastructure/system.	

IV. Policies, quality control procedures, and workflows

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Establish data policies and written protocols for data management and access	Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.	This should be completed at least two months before day one.		The BiH data service, in collaboration with FORS and other CESSDA partners.
b.	Create a data archiving plan	The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.	This will be done during the six months before day one.		
c.	Develop policy and plans for data backup and security	A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use of the data. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for data files, plans for updating and migrating formats.	The paper will be completed within two months of day one.	Some details in the policy paper will depend on the services made available from the host institutions, including their existing and available security and backup systems.	The BiH data service, in collaboration with FORS and other CESSDA partners.
d.	Ensure standardisation of policy and tools (including compliance with CESSDA and DSA)	A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.	The will be done within two months of day one.	This will depend on whether the new CESSDA-ERIC has formalised its rules for member institutions.	
e.	Develop guides for researchers and training events to promote good practice and data sharing	The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website. It may be possible to invite international experts to provide some of the trainings.	This will be done before day one. A workshop on data management will be done after day one, during the first year of operation.		There will need to be sufficient resources to organise and carry out a national workshop for researchers and/or university librarians.

f.	Study legal background and develop contracts	The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed, keeping in mind different types of data accessed (e.g., through usual procedures, and those received through the legacy processes, in particular qualitative data that will be deposited in an expedited process in order to ensure its survival). These should be applicable for researchers within the country, but also for others in the region and internationally.	This will be done within three months of day one.	It may be necessary to confer with legal experts familiar with national data protection laws.
g.	Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)	In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.	This will be done by day one.	The ability to employ certain measures could depend on the tools adopted by the data service.
h.	Create database of users	To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.	This will be done by one month before day one.	Creating such a list will depend on familiarity with the research community and researchers who are likely to re-use data.
i.	Create database of researchers	The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).	The will be done by one month before day one.	Having a complete database will depend on having contacts at the different institutions.

Establishment Plan (before day 1) - Croatia

I. Definition of organisation and internal structure

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Identify organisation(s) to assume the data service	The new data service will be established within a cooperation of two existing institutions, the University of Zagreb Faculty of Humanities and Social Sciences (FFZG) and the University of Zagreb University Computing Centre (SRCE).	This arrangement was identified during the first phases of the SERSCIDA project (WP2 and WP3)	There must be a signed agreement of cooperation between the two institutions as a basis for sharing resources.	FFZG (SERSCIDA) / Srce
b.	Define organisation(s) and scope of collection	The FFZG will provide expertise in data management and will promote the use of the data. The SRCE will provide technical infrastructure and services (maintenance of server equipment and software), as well as technical support for the archive. The holdings will include social science data. The primary focus will be on quantitative data in the disciplines of sociology, psychology, education science, information science, political science, and economics. The data service will also collect and curate qualitative data, but with more careful selection and with consideration of available resources (e.g., it will not deal with time-consuming qualitative data management if there are quantitative data still waiting for processing).	Complete - defined during the SERSCIDA project	The content of the cooperation agreement will define the exact roles for FFZG and SRCE. Extending the scope of collection to qualitative data depends on available funding for experts who can deal with qualitative data, and the volume of quantitative data for processing.	FFZG (SERSCIDA) / Srce
c.	Establish the set of services to be provided	The services offered will include: selecting and acquiring data; processing and cataloguing data and documentation; data dissemination; promotion of open access; enabling secure access for sensitive data; digital preservation and (technical) systems development and maintenance; technical support; education and support for depositors (how to manage data, data management plan) and users (how and why to use data for secondary research); establishment and coordination of a data librarians network (persons who promote and facilitate data depositing and data use in their local institutions); consortia subscription to commercial datasets (primarily for economic data); cooperation with national statistics office, other government institutions, and other stakeholders.	Complete - defined during the SERSCIDA project	The available services will depend on funding for experts and expert training. Secure access for sensitive data might need to be very basic at the beginning (e.g., having one computer without Internet access).	FFZG (SERSCIDA) / Srce
d.	Develop a sustainable financing scheme and budget	Ideally, services will be financed from the state budget as a regular activity (permanent employment status and yearly budget). More realistically, data services could be financed through 2-5 year projects. The Croatian Science Foundation, which currently finances competitive research projects, may consider opening a new category for financing infrastructure projects as well. In any case (and in the meantime), the data service should participate in international projects (EC calls and others) to support further development and education, and also in regional projects to continue cooperation in the region (because of linguistic and cultural similarities, as well as common history). A detailed budget will be developed as part of WP5 after accessing costs of needed staffing and technical infrastructure.	To complete at least one month before day one	This will all depend on the establishment of a funding model for science and infrastructure in Croatia.	FFZG / Srce / Ministry

Croatia

e.	Develop a governance structure (e.g. oversight board, scientific board)	An Oversight board will be created that includes: representatives of the Ministry of Science, Education and Sports; representatives of the Croatian Science Foundation; management representatives from FFZG and SRCE, as well as individuals in management positions within major research and education institutions; and representatives of the Croatian NSI and other governmental agencies (potential major depositors). A Scientific/expert board will also be put together, including researchers, data experts/archivists, and data librarians. The goals, roles, and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.	To determine at least three months before day one	Depending on participation of stakeholders and partner institutions.	all stakeholders
f.	Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms	The Oversight board will make the final decision, but different levels of access will be offered: funder-determined access; depositor (researcher)-determined access (individual- and group-level); access to sensitive data; and open access (with possible embargo period).	A proposal with different options should be ready six months before day one.	The types of data will depend to some extent on whether funders mandate the archiving of data (EC projects will mandate this, but there are not very many EC projects for the social sciences in Croatia). Final classification will be decided on the first Oversight board meeting after day one.	FFZG / governing body
g.	Define stakeholders and partner institutions	Stakeholders and partner institutions will include: the Ministry of Science, Education and Sports (MSES) as the main science policy institution, which also provides multi-annual institutional financing of research activities (distributed to universities and public institutes); the Croatian Science Foundation as the main funding body for competitive research projects; the SRCE as partner institution and technical infrastructure provider; all scientific institutions in Croatia in the social sciences - including faculties (constituents of universities) and public institutes - that can have their own policies about data archiving and also usually have their local information specialists/librarians who can promote and facilitate data depositing and data use; the National Statistical Institute, which produces national statistics, valuable and very heavily used data for the social sciences (sociology, economics); the National Labour Services Agency and other government agencies, which produce data and statistics of value for some researchers, with possibilities for data linking; and the National Archive, which can play a role in long-term preservation of some kinds of data (e.g., publicly available data as national heritage). This should also include a study of the legal questions concerning formal relationships with stakeholders.	Complete - defined during the SERSCIDA project	Institutions should recognise the value of data depositing and sharing.	FFZG / SERSCIDA

h.	Establish formal communication channels with and between stakeholders and partner institutions	Formal communication should be established with the managers of relevant institutions. Formal letters should be sent to inform institutions about ongoing activities. Also, we need one contact person in every relevant institution. During the SERSCIDA project, contact persons in some institutions have already been identified. In some institutions, there are librarians, and in other institutions they are researchers and/or members of a management team. Good candidates for contact persons are researchers who are involved in international research projects. Annual meetings with representatives should be organised. A mailing list will be used for disseminating information about ongoing activities. All interested researchers/librarians can be members of this mailing list. This should also include a study of the legal questions concerning formal relationships with stakeholders.	This should start six months before day one and continue.	Managers with stakeholder and partner institutions need to be identified.	FFZG / SERSCIDA
i.	Define internal structure of organisation, including an organisational chart	The internal structure of the data service will be defined according to funding possibilities. It is possible that some of the tasks and duties will be distributed to persons that work in other institutions.	Three months before day one	Funding, budget	
j.	Identify work space/facility	The data service will be located within the partner institutions, FFZG and SRCE.	Defined during the SERSCIDA project	Signed agreement between two institutions	FFZG / SRCE
k.	Create institutional brand and logo	The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.	This will be done by at least four months prior to day one. A deliverable for WP5 is a website for the data service, and so the brand and logo can be created for this site.		FFZG
l.	Create website	A website will be created that presents the institution in the national language and in English. It will clearly present on the homepage the services and mission of the infrastructure. In addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites.	Creating the website should be done in the two months leading up to day one. The website is a deliverable of WP5.	The website should not be published until policies have been defined and a data management plan defined.	FFZG / SERSCIDA
m.	Begin promotional activities to establish continuous visibility among key stakeholders	Promotional activities to raise visibility have already begun and should be ongoing. These should include targeted messages for specific audiences by way of different means and platforms. The means could include meetings and workshops, email and letter campaigns, and invited visits by key stakeholders.	To begin immediately and last until day one and beyond. Promotional activities are already well underway in the SERSCIDA project.		FFZG

II. Human Resources

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)	For the new data service a minimum of four dedicated staff members is needed. One should assume the role of the head/director of the data service, and he or she should be responsible for financial and executive management, communication with stakeholders, and regional and international partners. There should be two data experts - persons with proven knowledge in social science methodology and data management, one at a senior level and the other at a junior level. A fourth person should be an IT expert - someone with appropriate IT knowledge, with experience in data management, software applications, documentation standards, and data exchange protocols, with programming and database skills. In addition, other staff in the host institutions will be used on a part-time basis, e.g., the IT department at FFZG and system administrators from SRCE, as well as staff employed within financial/administrative services.	To finalise at least five months before day one.	Staffing decisions will depend on funding levels.	
b.	Prepare job descriptions, advertise, interview, issue contracts (near to "day one" once funding has been secured) and/or incorporate responsibilities into existing positions	Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.	To complete at least during the two months prior to day one.		
c.	Develop knowledge and skills of staff through ongoing training	Some trainings for possible future staff members has already begun within the SERSCIDA project. Any staff that is hired for the data service before day one should begin training with respect to their future roles and responsibilities, either within the context of SERSCIDA or through other training mechanisms.	Up to and after day one.	This will depend on available funding and training opportunities.	
d.	Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)	Staff will be subject to the rules and regulations of FFZG and SRCE.	Complete		

III. Technical infrastructure

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Select hardware, including servers, desktop computers, security and backup systems	The data service will need to determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have high level of security and several backup points. Also, collected data will require storage options. Dimensioning of the system should be done in cooperation with other SERSCIDA participants.	To complete five months prior to day one.		FFZG, SERSCIDA
b.	Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR	An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.	To complete six months prior to day one.		FFZG, SERSCIDA
c.	Select databases and archiving system tools	The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.	This should be completed at least three months before day one.	This adoption and customisation of archiving tools and databases will depend on finding something that exists, is open-source, and that can be integrated into the new infrastructure.	FFZG, SERSCIDA
d.	Select network infrastructure and telecommunications	Network infrastructure and telecommunications will be accessed with respect to the extent to which existing options can be relied upon (e.g., using a host organisation's systems). Whatever is needed but not available from a host institution will have to be accessed, selected, costed, and integrated before day one.	To complete two months prior to day one.	We will use existing academic and research IT infrastructure. Some aspects depend on negotiations with SRCE.	FFZG, SERSCIDA

IV. Policies, quality control procedures, and workflows

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Establish data policies and written protocols for data management and access	Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.	This should be completed at least two months before day one.	This will depend in part on data providers and data types to be ingested, and on the scope of the collection.	FFZG, with support from SERSCIDA regional and CESSDA partners.
b.	Create a data archiving plan	The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.	This will be done during the six months before day one.	This will depend in part on data-providers and data types to be ingested, and on the scope of the collection.	
c.	Develop policy and plans for data backup and security	A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for data files, plans for updating and migrating formats.	The paper will be completed within two months of day one.	Some details in the policy paper will depend on the services made available from the host institutions, including their existing and available security and backup systems.	
d.	Ensure standardisation of policy and tools (including compliance with CESSDA and DSA)	A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.	The will be done within two months of day one.	This will depend on whether the new CESSDA-ERIC has formalised its rules for member institutions.	
e.	Develop guides for researchers and training events to promote good practice and data sharing	The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website.	This will be done before day one. A workshop on data management will be done after day one, during the first year of operation.	Data policies and written protocols for data management and access should be defined.	There will need to be sufficient resources to organise and carry out a national workshop for researchers and/or university librarians.

Croatia

f.	Study legal background and develop contracts	The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed. These should be applicable for researchers within the country, but also for others in the region and internationally.	This will be done within three months of day one.	It may be necessary to confer with legal experts familiar with national data protection laws.
g.	Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)	In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.	The will be done by day one.	The ability to employ certain measures could depend on the tools adopted by the data service.
h.	Create database of users	To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.	This will be done by one month before day one.	Creating such a list will depend on familiarity with the research community and researchers who are likely to re-use data.
i.	Create database of researchers	The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).	The will be done by one month before day one.	Having a complete database will depend on having contacts at the different institutions.

Establishment Plan (before day 1) - Serbia

I. Definition of organisation and internal structure

	Activity	Description	Period	Dependencies	Ownership/Resources
a.	Identify organisation(s) to assume the data service	The Institute of Economic Sciences (IES) Belgrade will be the leading institution and the host of the future Social Science Data Service institution in Serbia. The University of Belgrade Computer Center (RCUB) will mainly be responsible for data management and IT activities. The Memorandum between IES and RCUB has already been prepared. The main topics are: cooperation in scientific and technical fields; opportunity to exchange books, specialized magazines, and other pedagogical, scientific and technical materials; use of information and communication services and resources that have mutual interests; participation in scientific meetings that are organized by the party or organized in collaboration with other higher education institutions or scientific associations and societies, upon submission of tender applications for the domestic and international scientific and technological projects; and support of each other and possibly applying jointly or through bilateral partners for supplementary funding.	To be formalised by the end of September 2013.	During the next few months the two institutions will sign a memorandum of understanding as a basis for their future cooperation.	
b.	Define organisation(s) and scope of collection	The new data service will collect, and then preserve and disseminate all types of data, both quantitative and qualitative. The data scope will cover all disciplines in the social sciences and humanities. Within a regional framework IES will develop specific knowledge and skills regarding collection and preservation of economic data. In that matter IES will be support for regional partners.	Complete		
c.	Establish the set of services to be provided	The Serbian Social Science Data Archive (SR-SSDA) will collect and preserve data for potential secondary use - analysis for research, teaching and learning, and confirmatory analysis based on the principle of Open data access. It will also store sensitive data, which will be forbidden for use without proper security procedures (researcher/teacher accreditation, safe room, etc.) and user-licences. SR-SSDA will organize trainings for the research and teaching community, as well as round tables and conferences. IES will be responsible for data solicitation, trainings, and promotion in cooperation with specialists in the specific fields. The RCUB will be in charge of infrastructure, data dissemination, and data security.	Complete	The extent of the services provided will depend on resources available to the new service.	

d.	Develop a sustainable financing scheme and budget	In Serbia, the Ministry of Education, Science and Technological Development announces competitions for technological development projects every 3-5 years. In the negotiations with the representatives of the Ministry, IES has gained the impression that they are willing to finance the establishment and further development of the SR-SSDA from the state budget through the fund for technical development of the Republic of Serbia. IES and RCUB will submit an application for these funds together. For the additional funds, IES and RCUB will participate in various EU calls primarily in order to support further development of the SR-SSDA, and to organize trainings and conferences for the staff in the region, including colleagues from Bosnia and Herzegovina and Croatia, and in the future as well possibly from Montenegro. A detailed budget will be developed as part of WP5 after accessing costs of needed staffing and technical infrastructure.	Jan 2015 - Dec 2019	We are expecting a new call for project applications at the end of the SERSCIDA project, around mid-July 2014; all relevant prerequisites should be decided on and costed before finalising the budget (e.g., personnel costs, direct costs etc.).	Ministry of Education, Scientific and Technological Development of the Republic of Serbia.
e.	Develop a governance structure (e.g., oversight board, scientific board)	The SR-SSDA will create an Oversight board with at least 10 selected representatives from: The Ministry of Education, Science, and Technological Development, the RCUB, the National library, IES, the Statistical Office of the Republic of Serbia, and from Serbian universities. The goals, roles, and responsibilities of these bodies will be defined in a "governance structure" document. The document will also define the number of meetings per year and the procedural rules.	To be create at least five months before day one.	This will depend on confirmation from the institutions involved.	IES will be responsible for establishing the Oversight board.
f.	Create a classification scheme of data types to be archived (according to risk level) and corresponding distribution mechanisms	The Oversight board with the general manager will decide on this subject, but as already mentioned SR-SSDA will work with two types of data: public data that are openly accessible and distributed through software like Nesstar, and sensitive data that will be distributed through safe rooms and other controlled settings.	To be done at least two months before day one.		
g.	Define stakeholders and partner institutions , with their roles and limitations	Partners of SR-SSDA will be University IT Centre (RCUB), and regional archives from Bosnia and Herzegovina and Croatia. The main stakeholder will be the Ministry of Education, Science and Technology Development of the Republic of Serbia. Other institutions will be connected with the SR-SSDA, such as: The National library; CESSDA; the Statistical Office of the Republic of Serbia; research institutes in social sciences disciplines; faculties in the field of social sciences; the National Labour Service in Serbia; and private research companies. This should also include a study of the legal questions concerning formal relationships with stakeholders.	Complete	Confirmation of the institutions involved	IES wlll lead this task.

h.	Establish formal and informal communication channels with and between partner institutions and stakeholders	This network will connect key persons in each partner and stakeholder institution with IES representatives. Formally IES as legal representative of SR-SSDS will sign the memorandum of understanding with each stakeholder. It will be important to set up lines of communication with key stakeholders and partners so that they are kept informed about the development and direction of the new data service. Key representatives from each stakeholder institution will be identified and contacted to obtain their consent to participate as representatives on behalf of their institution. Representatives will be included in a contact database that will be used for communicating information about the data service.	To complete at least three months before day one.	Confirmation of the institutions involved. Through this project IES will try to strengthen the social science research community.	IES + RCUB
i.	Define internal structure of organisation, including an organisational chart	The director of SR-SSDS will be in charge of funding, relationships with stakeholders, and public relations. At the very beginning the data service will need one person with knowledge about the whole process of data archiving (acquisition procedures, data appraisal and licensing, acquiring data, data preservation and security, and data processing - quantitative and qualitative etc.). Later, the processes can be divided into phases in order to be performed by more than one person. The data service will need one IT specialist and at least two practitioners for manual processes. It may be necessary to hire an administrative assistant. Whether this is a dedicated position, or rather part of someone's time who already is employed within the host institution will need to be decided later.	To complete at least five months before day one.	These positions will depend on sufficient long-term funding.	IES + RCUB
j.	Identify work space/facility	Space for the director, data specialist, IT specialist and practitioners will be in the offices of the IES building. Servers for data storage will be located in the facilities of RCUB.	Complete		
k.	Create institutional brand and logo	The new data service will need an institutional brand and logo, so that it will be easily recognised by users, stakeholders, and the public. A brand and logo should be created that graphically presents the institution and its mission. The brand and logo will ideally be linked graphically to those developed for other new data services in the region.	Complete at least six months prior to day one.	This will depend on coordination with SERSCIDA partners.	IES
l.	Create website	A website will be created that presents the institution in the national language and in English. It will clearly present on the homepage the services and mission of the infrastructure. In addition, the website will include at least the following elements: information about how to deposit and access data, contact details, links for resources for researchers, and news and events. The website will also include information about its internal organisation, stakeholders, funders, and institutional partner. There will be links to regional data service partner websites.	Creating the website should be done in the few months leading up to day one. Creating a prototype website for the data service is a deliverable for WP5.	Coordination with SERSCIDA partners	Creating a website will require skills in website design and construction, selection of a suitable content management system, a possibly some programming time to create a template with some customisation. It will require about 2 weeks of work by a competent team to set up.

m.	Begin promotional activities to establish continuous visibility among key stakeholders	IES has already started promotional activities. During the last spring IES organized a meeting with the most important researchers in the social sciences within the country. The meeting was at the Ministry and the representative from RCUB and National Library of Serbia also attended. We will also use scientific conferences and scientific journals to promote SR-SSDA during the establishment phase. The workshops and trainings will be a part of this activity.	In progress, to last until day one and beyond.	Will depend on funding, coordination with stakeholders, and SERSCIDA partners.	IES, RCUB, Ministry, National Library, SERSCIDA

II. Human Resources					
Activity		Description	**Period**	**Dependencies**	**Ownership/Resources**
a.	Define minimum number of staff needed and roles and responsibilities for likely staff positions (i.e. who does what)	The data service will have the following positions: 1) a Director, someone with proven knowledge in IT and data management: responsible for financial and executive management, communications with stakeholders, regional and international partners, and promotion; 2) a data specialist, someone with demonstrated knowledge of statistical methodology and data management: data quality control and monitoring of the data lifecycle; 3) an IT specialist, someone with appropriate IT knowledge: to maintain hardware, software, and technical operations; 4) two data processing specialists, responsible for documentation and data ingest.	To complete at least five months before day one.	This will depend on funding and availability of qualified individuals.	Ministry + IES + RCUB
b.	Prepare job descriptions, advertise, interview, issue contracts (near to "day one" once funding has been secured) and/or incorporate responsibilities into existing positions	Once staff size and positions have been determined, the search for suitable candidates should begin. The search will require detailed job descriptions that are appropriately publicized. If the positions are taken over by existing staff, it should be clarified which of their responsibilities are to be transferred and which are to be maintained.	These activities should be during the initial phase of our project financed by Ministry of Education and Sciences.		Ministry + IES
c.	Develop knowledge and skills of staff through ongoing training	This has already started within the SERSCIDA project and will develop as an on-going activity. In the future we will need to improve the knowledge and skills of the data specialists and IT specialist in the field of data archiving. Our plan is to provide funds for trainings in the centres like GESIS.	Up to and after day one.	Will depend on funding and training opportunities.	
d.	Define institutional rules and regulations for staff (e.g. regarding sick leave) (but only needed if a new institution is envisioned)	The SR-SSDA will be a part of an existing institution, and staff will be subject to its human resource rules and regulations.	Complete		IES + RCUB

III. Technical infrastructure					
Activity		Description	**Period**	**Dependencies**	**Ownership/Resources**
a.	Select hardware, including servers, desktop computers, security and backup systems	The data service will determine the hardware and systems that it will need to become operational, including decisions about the number of desktop computers and accessories, security and backup, and the number of servers required. This kind of system is expected to have high level of security and several backup points. Also, collected data will require storage options. Dimensioning of the system should be done in cooperation with other SERSCIDA participants.	To complete six months prior to day one.	Will depend on available funding and technical infrastructure. Many things depend on the existing infrastructure (e.g., security measures).	RCUB
b.	Select and prepare software and tools, including statistical analysis programs (like NVivo, SPSS, STATA), NESSTAR	An analysis based on expected data types and future services will help to decide on needed software and tools for the data service. Considering a variety of open-source solutions should be the first option. Experience from Slovenia could be valuable for this activity.	To complete six months prior to day one.	Depending on existing systems, data types to be archived, staff skills.	RCUB
c.	Select databases and archiving system tools	The data service will need to identify and select the databases and archiving tools that best suit their needs and available resources, based on the types of data that are expected to be archived. It will probably be necessary to customise the adopted tools and databases according to local needs and goals.	This should be completed at least three months before day one.	The adoption and customisation of archiving tools and databases will depend on finding something that exists, is open-source, and that can be integrated into the new infrastructure.	RCUB. If a proprietary solution is desired, there will be costs associated with this. Even in the case of open-source solutions, there will need to be some degree of customisation programming, which means developer time. This work could be carried out as part of WP5 of SERSCIDA.
d.	Select network infrastructure and telecommunications	Configuration of network in this case asks for high level of security. At the same time it should be capable of handling large number of users at the same time.	To complete two months prior to day one.	Depends on current infrastructure/system.	RCUB

IV. Policies, quality control procedures, and workflows					
Activity		Description	**Period**	**Dependencies**	**Ownership/Resources**
a.	Establish data policies and written protocols for data management and access.	Before day one, the data service will have established policies and written protocols concerning all aspects of data management and workflow, as well as for data access. This will include policy documents on: the scope and types of data that can be included in the archive; workflow rules on how data are to be ingested and treated; guidelines for data depositors; and eligible users of archive data.	This should be completed at least two months before day one.		IES, in collaboration with FORS and other CESSDA partners

Serbia

b.	Create a data archiving plan	The data service will create a list of research projects from which data could be obtained, either from past collections, or from projects in progress, including contact information for project leaders. For each project there will be a brief description of the data and a justification for its importance for the data service. Letters will be sent to project leaders to inquire about the possibility of archiving the data, and explaining the benefits of long-term preservation and sharing.	This will be done during the six months before day one.		IES
c.	Develop policy and plans for data backup and security	A policy paper will be written that explains how data will be safeguarded and preserved on a long-term basis, so as to minimize data loss or improper use of the data. The paper will discuss procedures for backup, storage, and access conditions. It will describe storage formats for data files, plans for updating and migrating formats.	The paper will be completed within two months of day one.	Some details in the policy paper will depend on the services made available from the host institutions, including their existing and available security and backup systems.	IES, in collaboration with FORS and other CESSDA partners
d.	Ensure standardisation of policy and tools (including compliance with CESSDA and DSA)	A review will be untaken to ensure that all policies and tools adopted by the data service are consistent and compliant with international standards. This includes compliance with CESSDA member rules and the Data Seal of Approval for trusted digital repositories. First, the relevant existing standards will be identified. Second, an evaluation of the expected policies and practices will identify any areas where there are differences that. Third, it will be determined what could be done to bring the data service closer to international standards and policies.	The will be done within two months of day one.	This will depend on whether the new CESSDA-ERIC has formalised its rules for member institutions.	IES
e.	Develop guides for researchers and training events to promote good practice and data sharing	The data service will have to engage the research community and raise awareness about issues in data sharing and data management. As part of establishing the infrastructure, the data service will develop some promotional materials and events to be offered to researchers. This will include a workshop on data management to be given after day one, as well as guidelines for data depositors, to appear on the website.	This will be done before day one. A workshop on data management will be done after day one, during the first year of operation.		There will need to be sufficient resources to organise and carry out a national workshop for researchers and/or university librarians. IES
f.	Study legal background and develop contracts	The data service will need to start on a sound legal footing, which means aligning its policies and practices with national law. The work already done in this area as part of WP2 should be updated and extended to produce a paper that summarises national law and its implications for the data service. Also, licenses for data deposit and data use will be developed. These should be applicable for researchers within the country, but also for others in the region and internationally.	This will be done within three months of day one.	It may be necessary to confer with legal experts familiar with national data protection laws.	

Serbia

g.	Develop basic performance monitoring system (i.e. indicators, measures for monitoring change over time)	In order to assess the progress and success of the data service, it will be important to develop and later implement a system of performance indicators and measures, linked to institutional objectives. Each indicator will address a specific objective of the data service. As an example, a typical indicator would be researcher use of data available from the data service, with the number of datasets downloaded or delivered as the measure. This would be related to the objective of promoting usage of secondary data. This will be done as part of WP5.	This will be done by day one.	The ability to employ certain measures could depend on the tools adopted by the data service.	
h.	Create database of users	To the extent possible the data service will create and maintain a database of potential users of the data that will be available in the archive. This will be used for communication and promotional purposes before and after day one. Individuals in the database will have the option of "unsubscribing", so that they no longer received communications from the data service.	This will be done by one month before day one.	Creating such a list will depend on familiarity with the research community and researchers who are likely to re-use data.	IES
i.	Create database of researchers	The data service will create a database of researchers who could be either users or providers of data. They could be associated with universities, public administration, or private research institutes. The database will be used to gather information about research activities, and for communication and promotional purposes. The database should be suitable for quantitative data at first. The Ministry will be of help for this purpose. Researchers will have the option of "unsubscribing", so that they no longer received communications from the data service. Given potential overlap, the researchers and users may be included in a single database, where there is a flag for users (who will be a subset of the researchers).	The will be done by one month before day one.	Having a complete database will depend on having contacts at the different institutions	IES

Operational Plan (after day 1)

I. Implement and maintain technical systems

Activity	Period
a. Install desktop computers for staff	1 week after day one
b. Licence and install appropriate software (e.g. SPSS, R STATA, Nvivo)	2 weeks after day one
c. Install servers	1 month after day one
d. Install security and backup systems	1 month after day one
e. Licence and install tools (e.g. self-deposit software, NESSTAR)	1 month after day one
f. Install databases and catalogues	1 month after day one

II. Data acquisition and curation - solicit and process research data

Activity	Period
a. Contact data producers and request deposit of their data	2 months after day one
b. Process data that arrive through archiving system	beginning 3 months after day one
c. Publish data catalogue	beginning 6 months after day one

III. Governance, outreach and promotion

Activity	Period
a. Develop and conduct promotional activities, both short- and long-term	beginning 5 months after day one
b. Hold meetings of Oversight and Scientific boards	beginning month one
c. Communications with stakeholders	continuously

d.	Collaborate with international partners in order to maintain best practices (e.g., certification as a Digital Trusted Repository), networks, and most effective available tools	continuously
e.	Join and participate in CESSDA and CESSDA projects and activities	1 year after day one
f.	Participate in relevant international conferences and workshops	continuously
g.	Begin gathering measures for indicators in performance monitoring system	1 month after day one
h.	Maintain and update database of users and researchers	ongoing
i.	Maintain and update website	ongoing

V. Ensure sustainability

Activity		**Period**
a.	Conduct regular meetings with high-level ministry officials	beginning 6 months after day one
b.	Keep the public and ministries aware of data service activities and benefits	continuously
c.	Annual reporting	After end of first calendar year

VI. Work toward growth

Activity		**Period**
a.	Search for new funding opportunities, domestic and foreign	beginning 6 months after day one
b.	Submit proposals for grants	when opportunity appears