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SERISS (Synergies for Europe’s Research Infrastructures in the Social Sciences) aims to exploit synergies, foster collaboration and develop shared standards between Europe’s social science infrastructures in order to better equip these infrastructures to play a major role in addressing Europe’s grand societal challenges and ensure that European policymaking is built on a solid base of the highest-quality socio-economic evidence.

The four year project (2015-19) is a collaboration between the three leading European Research Infrastructures in the social sciences – the European Social Survey (ESS ERIC), the Survey of Health Ageing and Retirement in Europe (SHARE ERIC) and the Consortium of European Social Science Data Archives (CESSDA AS) – and organisations representing the Generations and Gender Programme (GGP), European Values Study (EVS) and the WageIndicator Survey.

Work focuses on three key areas: Addressing key challenges for cross-national data collection, breaking down barriers between social science infrastructures and embracing the future of the social sciences.

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Glossary
CESSDA               Consortium of European Social Science Data Archives
CSES                 Comparative Study of Electoral Systems
ESS                  European Social Survey
EVS                  European Value Study (1st pilot survey project for SMAP)
FORS                 The Swiss Centre of Expertise in the Social Sciences
GGP                  Generations and Gender Programme (2nd pilot survey project for SMAP)
GLES                 German Longitudinal Election Survey
ISSP                 International Social Survey Programme
myEVS                Pilot portal of the EVS 2017 wave
NIDI                 Netherlands Interdisciplinary Demographic Institute
NSD                  Norwegian Centre for Research Data
PIAAC                Programme for the International Assessment of Adult Competencies
SMaP                 Survey Project Management Portal
SHARE                The Survey of Health, Ageing and Retirement in Europe
SLC                  Survey lifecycle
TMT                  Translation Management Tool
Acknowledgements

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The project would not have been possible without the pilot user project, the EVS 2017/18 survey. Our special thanks go to the EVS research group, in particular the EVS central team at Tilburg University and the national teams participating in the current EVS wave.

1. Introduction and objectives

The idea behind the present project was to explore the possibilities and ways to develop a service that supports project management in distributed collaborative data collection projects. The main objective was twofold: First, to make it easier for members of survey projects to perform their daily management tasks, and second, to significantly improve the quality of process documentation by better designed and standardized workflows. Therefore, we aimed to develop a platform that brings together a simple version of business-related project management tools with specific configurations for the roles, tasks and responsibilities of research projects. As a ‘shell’, the platform should also provide structured ‘entry points’ for further tools used during the survey lifecycle and other stand-alone tools.

The main objectives of the task were:
- To provide an online platform that supports researchers in the management of survey projects collaborating with archives or other providers of infrastructure services.
- To implement, test, and maintain the platform for the European Values Study (EVS) wave 2017/18, to serve as pilot project.
- To support the generic nature of the platform to allow its use by other survey programs after configuration and minor software customization.

2. Executive summary

In the course of the project, a team of researchers from GESIS, FORS, and the Tilburg University selected a proven online collaboration software, developed a project management concept that can be adapted to distributed data collection projects, tested the deployment process for a real-life pilot, and successfully supported the data collection campaign of the European Values Study wave (EVS) 2017/18.

The results of the individual steps are briefly summarized below:

The Survey Project Management Portal (SMaP) was set up to support easy, structured and secure information and file exchange throughout the stages of the survey life cycle: consultation process, fieldwork, data collection and data deposit.

Initially, a number of functional and non-functional requirements were defined for teams and stakeholders of survey projects. Then, various open source project management programs were
evaluated. In cooperation with the FORS\textsuperscript{1} team, the decision for the basic portal software to be used was made. The software eXo Platform\textsuperscript{2} Community Edition was selected because it allows both simple and complex organisational and workflow activities to be carried out within a single and secure environment, so that large research projects with organisational complexity and distributed structure as well as projects with more than one cycle and longer duration can benefit. Especially its modular character facilitates the combination of existing software solutions with further tools developed in task 4.4, and other stand-alone tools to improve team synergies, fosters structured and secure communication, and workflow management. Key functionalities include:

- **Communication management**: secure communication structures and information transfer supported by a notification system, activity stream, chat and discussion rooms
- **Document management**: supporting file transfer, real-time editing and versioning, and file storage in a repository
- **Workflow management**: featuring easy and transparent workflows by scheduling, assigning and monitoring tasks
- **Monitoring and quality assurance**: monitoring and documentation of working processes during consultation process, fieldwork, data deposit and processing
- **Role management**: defining roles, rights and duties for portal users and manager.

As a basis for the definition of the special needs of data collecting projects, three building blocks were identified which together form the SMaP concept: (1) the organizational structure and actors of a survey project, (2) the survey lifecycle (SLC) phases, tasks and responsibilities of the actors, and (3) the tools and features of the selected portal software that fit both the organizational structure and the project lifecycle phases. The implementation of SMaP for a survey project therefore always requires systematic analysis of their communication and collaboration requirements.

The mapping of technical and project-specific requirements to available software functionalities is the object of the deployment process. It includes testing cycles and the implication of improved concepts such as optimized communication between the actors, adapted interface design and workflows, file transfer and exchange in the whole course of the project as well as compliance with legal regulations on data protection and storage of data on a portal.

The fifth wave of the European Values Study (EVS)\textsuperscript{3} conducted in 2017/18 was the pilot survey to adapt SMaP for project management, i.e. to specify and test the survey requirements, necessary configurations, and deployment steps. This was done by implementing a version of SMaP under the name of “myEVS”. The experiences of both the SERISS team and the EVS group in this real life project were overall very positive: Since the launch of the myEVS portal in October 2017, it has been, and continues to be, the central working environment for the EVS group (currently 165 users from more than 40 European countries), supporting the EVS particularly in the cooperation cycle between three actors, the EVS planning groups, the national teams, and the GESIS data archive.

So far two EVS 2017 data pre-releases have been published, meaning that 30 national teams have successfully gone through the workflows designed and implemented on the portal, and for the published data and documentation have completed all necessary review and approval processes.

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\textsuperscript{1} FORS is the Centre of Expertise in the Social Sciences https://forscenter.ch/

\textsuperscript{2} eXo Platform: https://www.exoplatform.com/

\textsuperscript{3} European Values Study: https://europeanvaluesstudy.eu/
About 10 countries are still working in progress for the data publication; therefore, the portal will be supported by the GESIS data archive and the EVS group until the full data release in 2020. As a last step in the SLC, an EVS 2017 Repository will be exported for the EVS group and the GESIS data archive. By mirroring the myEVS portal structure, it will contain the most important documentation and data files and keep decision processes and changes traceable even after completion of the EVS 2017/18 survey project.

To enable further exploitation of the project results, a mySMaP DEMO portal has been set up for inspection by potential new users. It is a simplified and generalized snapshot of the myEVS portal, allowing for real life project use cases and user experiences. Together with a Quick DEMO Guide, it can be made available to interested survey projects to get a first impression of the structure and capabilities of the portal with the possibility to perform tests.

Finally, both portals were made accessible to SERISS partners ESS and GGP (as guest users on the myEVS portal) and SHARE (as users of the mySMaP DEMO portal) to support further testing and elicit suggestions for improvement from these projects.

With the successful conducting of a pilot implementation, and the observation of serious interest from the other survey projects involved in SERISS (and a few outside groups), we consider Task 4.4 of SERISS to have been a full success.

3. Report on activities

Operationally, the objectives of task 4.4 were to develop a project management concept for survey projects based on the results of a stakeholder analysis, to find a suitable portal solution from the wide range of existing project management web applications, to implement the SMaP concepts, i.e. deploy the pilot portal for the EVS 2017 (myEVS), and to summarize results and experiences for the scientific community.

The work plan was divided into three stages of activities:

1. We consulted different stakeholders of survey projects, identified the common workflows and specified the software requirements. Subsequently, we evaluated a large number of software options for meeting the requirements. After deciding about the software and negotiations with the software provider, the adaptation of the SMaP concept and requirements began (September 2015 to January 2017).

2. We implemented the platform for the EVS pilot, migrated contents of EVS 2017 from the previous DNN\(^5\) portal and Google Drive\(^6\) to the new myEVS portal, developed new tools, planned and ran test phases, and set up guides and help materials in close collaboration with the FORS team. Subsequently, we opened the portal to the EVS group (February 2017 to September 2018).

3. Finally, we analysed the deployment process, technical development effort and customer experience, established the mySMaP DEMO Portal and produced manuals for portal users and developers. At the same time, we consulted with and provided support to other survey projects during their test procedures on myEVS and mySMaP (October 2018 to August 2019).

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\(^5\) DNN (DotNetNuke) CMS: https://www.dnnsoftware.com/

\(^6\) Google Drive at https://www.google.com/drive/
The main milestones depicted in Figure 1 were agreed in the beginning of the project between the EVS team at Tilburg University and the project team and are related to the development of SMaP, the setup of the myEVS pilot portal, and the release dates of EVS 2017 data.

Starting with the launch of myEVS in October 2017, the project team in collaboration with the EVS central team continuously maintained the portal, kept the EVS 2017 contents up to date, registered and guided new EVS team members and new EVS national teams, and provided user support.

Figure 1: Timeline of EVS/SMaP milestones

3.1. First project phase: Defining requirements and selecting software

The main question in the first phase was: What requirements does SMaP have to meet in order to provide adequate service and support for survey projects, and does adequate software exist? After an initial phase that identified a basic set of core features for the platform and proposed respective workflows for these, we consulted representatives of comparative survey projects to find out more specifics and commonalities between different survey infrastructures (see Appendix 2: Stakeholder analysis). Parallel to the consultation, a systematic evaluation of possible software solutions, including the platform FORSbase, was performed. The approach and results of these activities are documented in full detail in the ‘Report on the comparative evaluation of software for the development of SMaP’ (see Appendix 1: Deliverables of Task 4.4).

3.1.1. Defining requirements of collaborative survey projects

The purpose of stakeholder analysis is to identify the needs of survey projects that are considered as potential users of the portal and to specify use cases as well as feature requirements and recommendations for an efficient project workflow. To support this and to balance the different demands and interests of larger and smaller survey projects, a standardized questionnaire was developed addressing topics concerning organisational structure, actors and their roles, general workflows, means of internal communication and collaboration, and issues that need improvement (see App 2: Questionnaire for stakeholder analysis). Altogether eight interviews (face-to-face and telephone) were conducted: seven with representatives of large-scale international survey projects (ESS, SHARE, GGP, ISSP, CSES, EVS, and PIAAC), and one with a national survey project (GLES).
The information collected by the stakeholder survey, but also through consultation with experienced colleagues, from project documentation, and other information sources such as guideline documents of the ESS, EVS, and GGP, as well as the Cross-cultural survey guidelines led to specification of the survey processes. This again laid the basis for the software requirement catalogue, as described in Figure 2.

Figure 2: Initial steps in software evaluation process

One of the biggest challenges in distributed survey projects is the implementation of an efficient information flow between the central teams that manage the survey and develop the guideline documents, and the national teams that implement the recommendations to obtain comparable data. The final quality of the data and documentation depends largely on whether the right information reaches the right actors at the right time so they can take the next step in the workflow.

For this purpose the main tasks of each survey lifecycle phase were identified, for each task the main actors, and for each actor the main roles, i.e., its position and responsibilities within and among the survey lifecycle phases were described (see Appendix 2: Deliverables; Survey Project Management Portal: The myEVS concept). In collaboration with the FORS team, generic user scenarios that imply processes, actors and tools for achieving a specific task goal were then described. This in turn was the basis for derivation the functional as well as non-functional software requirements that the SMaP portal must fulfil.

The compiled requirements were based on three main categories: Community, Functionality, and Technical Basis. For illustration, some requirements are specified below; the complete list is provided in the SMaP Requirement Catalogue.

(1) Community
- License model (commercial, open source, or dual-license)
- Documentation
- If it is open source, how the codes are maintained
- Software dependency
(2) Functionality
- Projects with different subprojects / modules
- Tasks management to working groups
- Document Management System
- Search function
- Reporting
(3) Technical Basis
- Scalability
7 CCSW Website: http://www.ccsg.isr.umich.edu/index.php/how-to-cite-page
- Compatible with industry standard operating systems, such as Microsoft Windows, Unix or Linux
- Encrypted connection between server and client
- Web-based and cross-browser compatible

3.1.2. Software evaluation and software selection

Based on the features listed in the SMaP Requirement Catalogue, different open source project management software was evaluated. The evaluation was carried out as a qualitative assessment of software properties in terms of functionality, usability, and maintainability and refined stepwise by taking into account further evaluation criteria. The search yielded in total 40 available software tools for collaborative projects. The following five key inclusion criteria were given high priority:

- Software is web-based
- License model is open source
- File management system is present
- Task management features are present
- Low license costs

Based on that, an in-depth evaluation of the archiving platform FORSbase was conducted. From the start of the project, FORSbase was taken into consideration as a potential tool to form the basis of the SMaP platform. However, since FORSbase focuses more on a data archive and a searchable database rather than a project management tool, some of the key features required by SMaP are missing. Incorporating additional features such as workflow management into FORSbase would have been a too demanding task. The FORS team was involved in the task so lessons learnt in the development of FORSbase could be fed in as appropriate. Additionally, the complex use cases for data preparation and archiving for cross-national survey projects were identified and tested by FORS and then implemented in the SMaP concept.

In the final screening step, three software solutions were selected for test installation and evaluation of functionality and programmability (Alfresco, eXo Platform, Open Project). According to the assessment results, the Community Edition of eXo Platform was considered to be the best software candidate that suits the SMaP concept in terms of feature availability and functions, terms of license and support, and extension options. It also leaves open the possibility to implement further customisation and development work in the free/community version and at a later time to acquire a supported license model (Standard Enterprise) and install and configure the enterprise platform instance into SMaP. However, the negotiations with the eXo vendor on a user-based subscription plan at that time were not successful.

The goal of the last evaluation step was to become acquainted with eXo, both from the users’ and developers’ point of view and to set up a standardized documentation for the eXo tools and features that were important for the SMaP concept. Subsequently, the basic customisation steps were identified in eXo and usability tests with real users were implemented. Only a few SMaP features were not fulfilled by eXo Platform. The expectation was that this gaps could be closed with the help of an (IDE) embedded in eXo Platform which allows to develop, customize, and extend sites with gadgets and dashboards.

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3.1.3. The SMaP concept

In the following step, the SMaP concept was implemented on eXo Platform. As shown in Figure 3, in this tool a personal, group and global user approach to various applications and functions as well as contents is available. As a key benefit, SMaP should generally provide a central access route to all tools and information used throughout the project lifecycle and enable collaboration and social interaction between teams and individual members to improve connectivity and engagement. It should also be possible to tailor SMaP to new survey projects within a short period of time and with limited development effort.

Figure 3: SMaP concept based on features of eXo Platform

Although the open source web application eXo Platform offers a suitable digital workplace for project management tools, further adaptation and extension of eXo features (code modification) and further developments were necessary in order to best meet project requirements that arise especially for survey projects. Eventually, after a few iterative learning phases that partly only occurred during the actual implementation work, the conceptual and technical use cases were sufficiently refined, and applications and features that did not meet the requirements or had to be developed were identified.

We have defined two stages for building SMaP, focusing on the simplification of eXo Platform applications and on the extension of tools and features. In the ‘simplification stage’ the main objective was to remove non-needed features from the platform, thereby reducing its complexity. This has led to decisions that should, in particular, facilitate the use of the portal while keeping the learning curve of portal users low:

1. The decision was made for a static (pre-defined) portal structure
   - User profiles and roles were set, access rights were based on the ‘need-to-know’ principle
   - Personal features for social networking were dropped
   - Workspaces were closed, folder structure and tasks were pre-defined
   - Workflows supporting cross-team communication and collaboration were implemented

2. The best combination of easy to use applications was implemented
   - Workspaces were only equipped with applications that were necessary for the respective team
   - Settings of applications were pre-defined as much as possible
   - Applications were always provided with short step-by-step guides

3. The approach for migration of the EVS pilot project to SMaP was ‘keep things equal’
   - All content already created for EVS 2017 were migrated from the old portal to myEVS
   - Familiar layout, features, permission settings and support materials have been retained.
In the second stage, SMaP was extended by adding functionalities. The possibilities to use third party add-ons have been examined and the conceptualization and development of new tools/features has been started. The examples below in particular supported reporting and monitoring workflows for fieldwork and data deposit/data processing, as well as file export and storage:

- Fieldwork reporting/monitoring featured by implementation of tables in Google Docs\(^9\)
- Submission of national data/documentation supported by the online form ‘Data Deposit’
- Information on creation/processing of national data compiled in the online form ‘Methodological Questionnaire’ and exported as Method Report
- Interface for accessing and exporting a structured file repository at the end of the survey project.

In summary, the customisation included, on the one hand, the requirements for the ‘software set up’ workflow such as establish server infrastructure, database structure, installation of third-party add-ons, and security aspects (e.g., secure connection, back up of contents, etc.). On the other hand, it required several steps for transformation of the eXo software into SMaP, i.e., a platform tailored for management of large-scale survey projects. Figure 4 depicts the customisation and deployment path from eXo Platform to a ready-to-use portal.

Figure 4: The SMaP deployment steps

<table>
<thead>
<tr>
<th>SMaP team</th>
<th>Software concepts &amp; features</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMaP team &amp; Survey project manager</td>
<td>SMaP templates for survey projects</td>
</tr>
<tr>
<td>Survey project manager</td>
<td>Instance myEVS</td>
</tr>
<tr>
<td></td>
<td>Check, supplement and generalize concepts</td>
</tr>
<tr>
<td></td>
<td>SMaP DEMO portal</td>
</tr>
<tr>
<td></td>
<td>Further Customization</td>
</tr>
<tr>
<td></td>
<td>Test and customization</td>
</tr>
</tbody>
</table>

Based on this, the project team worked closely with the EVS project manager at the GESIS data archive and the members of the EVS central team at Tilburg University to adapt SMaP to the specific organizational and workflow structure of the EVS 2017/18 survey project. For reasons of time and resources constraints, the testing of the underlying software, the technical customisation process, and conceptual deployment were overlapping tasks. Below are listed the prioritized features that were considered necessary for a fully featured and customised EVS pilot portal.

(1) Web content page within workspace
   - Provide introductory and guidance information for specific SLC workflows and task
   - Provide documents related to SLC phases for download

(2) Progress report to monitor processes
   - Collect information from national teams on fieldwork progress

\(^9\) Google Docs at https://www.google.com/docs/about/#start
- Compile overviews of regular updated information for monitoring by central team

(3) Consultation processes between national teams and EVS central teams
- Set up a folder structure that supports sign-off processes of data and documentation
- Set up a repository including templates, working files, and final file that allows trace modifications

(4) Deliver metadata
- Capture methodological / technical metadata through reporting
- Submission of metadata (information on study and file level) to ingest system of an archive

(5) Check deliverables/To-Do Lists
- Support communication between actors on results of validation processes of timeliness, completeness and quality of deliverables or tasks
- Allow automated and repeated processes as notifications on actions or tasks

(6) Messaging system within portal
- Send messages to single users or groups of users
- Get notification online and in the private email program.

It was not possible to roll out another pilot implementation of SMaP to a further survey program, e.g., GGP, as originally envisioned. However, the overall concept and its three building blocks (survey lifecycle concept, organisational structure and portal tools) were confirmed in the discussions with the EVS team and the SHARE representatives as well as in the intensive test phase carried out by the ESS representatives. Therefore, the mySMaP DEMO portal was developed as a simplified and generalised form of myEVS and can be passed on for practical testing to survey projects.

3.1.4. Initial testing of tools/functionalities and adjustments

The aim of the initial testing of SMaP/the eXo base software was to find out whether the prototype portal meets the main project needs of the EVS, to detect missing or defective functionalities, and to implement all critical and major issues before the prototype underwent a second testing phase with the future users of myEVS. The usability tests passed through two phases: (1) functional and non-functional test and (2) feasibility test. Social researchers (GESIS employees and FORS colleagues) in consultation with the developer constructed the test case scenarios.

During the first test phase, the functionality of features was tested by using test case scenarios, which were a combination of general SMaP tool requirements and EVS project requirements. Non-functional tests included compatibility tests of main features in the web version of the portal application using different internet browsers. The following functional and non-functional use cases were tested:

(1) General features
- Secure login and edit profile information
- Get informed about portal activities (notifications, activity stream)

(2) Applications
- Access to workspaces and member list
- Open, download and upload files, edit files
- Create calendar events
- Share ideas and files via Activity Stream
- Create and manage tasks
- Communicate with other users via Chat
- Search within platform by keyword
In the second test phase (with members of the EVS group) the feasibility test of features for collaborative work was carried out with test cases describing the realistic EVS workflow. Tests were performed by using shared screening via Skype. The overall impressions of the tool were collected in a short evaluation questionnaire for testers. The results were evaluated and the concepts adapted to the project requirements.

During the test implementation process, the SMaP team technically tested and reviewed applications that were newly developed during the project, such as an integrated email distribution function, automatic user registration, automatic creation of spaces, and table creation. After exploration, some of these functionalities were ultimately not pursued further for the time being. Additionally, the usability testing helped to test the modified (simplified) features of eXo Platform and to detect functionality issues. Critical matters were solved before the implementation of myEVS beta version (i.e., the portal was opened only for few members of EVS planning groups and a few national teams).

The test phase was also helpful to identify weaknesses in the deployment concept and to plan the help materials and guidelines by setting more emphasis on compound portal features. The final revision and adjustment of the deployment referred mainly to collaboration aspects regarding communication management (notification streams), document sharing across spaces, and task management between the national and central teams.

3.2. Second project phase: Implementation and launch of myEVS

The goal of this project phase was to set up a ready-to-launch pilot portal that the EVS group could use during the EVS 2017/18 wave to collaborate efficiently and effectively. Therefore, the myEVS portal (beta version) was set up and hands-on training with portal managers and usability tests with members of national teams were conducted. Customized digital and printable portal guides for the portal users (managers and members) were created, and finally, myEVS was launched for the EVS group with an easy starting point in the survey lifecycle. This process is briefly described in Appendix 3: The myEVS pilot portal.

3.2.1. Implementation and deployment of myEVS

Applying the SMaP concept required a deep understanding of the specific needs and goals of the EVS group during the EVS 2017 survey. A common goal was to connect the different teams conducting the survey and have all the information they need on the myEVS portal, so everyone knows what the workflows and tasks are, where to find files and where to put those to be deposited. For mapping the processes, the ‘profile of the survey project’ and the user stories had to be refined. For this purpose a detailed checklist was run through to define and prioritize the tasks and activities, to identify the start and end of workflows, to list the steps that need to be taken, and the actors in charge (see Appendix 2: Checklist for defining the profile of survey projects).
A structured consultation process was established in which the specific knowledge of the SERISS team was combined with those of the EVS data processing team at GESIS and the EVS group at Tilburg University. With the EVS planning groups (EVS central teams), the national teams, and the GESIS data archive, the main user groups were identified, and their user stories were described and finally translated into portal structure. Practical steps were:

1. Set up team workspaces that reflect the organisational structure of the EVS group
2. Implement tools and features that in particular support collaboration between the EVS central team and the national teams
3. Pre-define workflows and a folder structure for consultation process, fieldwork and data deposit and data processing
4. Pre-define user roles and create user accounts for the EVS group
5. Produce customized user guides in collaboration with the FORS team

These steps were closely linked to further testing and bug-fixing and the improvement of the implemented workflows.

The portal structure and workflows were presented in several meetings to the EVS planning groups and in workshops to the whole EVS group, including the program directors and members of the national teams. The concepts were discussed and refined, and the myEVS pilot was step-by-step further customized (see Appendix 1: Deliverables, Survey Project Management Portal: The myEVS concept).

Figure 5 depicts the final structure of the portal as agreed with the EVS group. The blue bar shows the EVS project phases and workflows the portal members have to pass through. The main features are web pages that are used to provide information that is necessary to all portal members and private workspaces for each planning group and national team to exchange team-specific information.

Figure 5: The big picture of the myEVS pilot: user groups, workflows, tools

The large size of the EVS survey (more than 50 cooperating teams) and its pilot character required special solutions to support cross-team collaboration in particular between the EVS central team and the national teams. For this purpose, official contact persons from the EVS central team and the GESIS data archive were agreed and a linked folder structure was implemented to transport...
experiences and files, keep the guideline documents updated, and make the common knowledge accessible to all portal members.

Since the data collection campaign for EVS 2017 survey covers a rather longer time period, the data of the first countries have at the time of writing this report already been published, while other countries are still in the consultation process or fieldwork. Therefore, great efforts have been made to define and implement standardized workflows, as sign-posted paths to documents and tools and standardized step-by-step processes, to make sure that all countries go through the same procedures. Workflows are especially defined for the consultation process, fieldwork reporting/monitoring, and for data deposit and data processing.

The example in Figure 6 is taken from the quick guide 'Your steps on myEVS: I. Consultation and Fieldwork'. It shows how the different tools available in a typical workspace of a national team can interact to support communication and collaboration between and across teams. This workflow is also an example for the implementation of third party add-ons. The icon ‘FW Report’ in Figure 6 opens Google Docs tables supporting the national teams in providing fieldwork outcome codes and the EVS central team in monitoring the aggregated information.

Figure 6: Workflow fieldwork (FW) progress reporting

A further task of the pre-defined workflows was to support the secure transfer of output documents across project phases and between the portal and external tools. For example, the EVS questionnaire went through several sign-off steps during the consultation process and was transferred between the portal and the Translation Management Tool (TMT)\(^\text{10}\) (task 3.4) for this purpose. The workspace ‘CharmStats’\(^\text{11}\) (task 4.5) was set up on myEVS to feature the collaboration between the EVS data processing team and the CharmStats team as well as the file and information transfer during the data harmonization and documentation process.

### 3.2.2. myEVS beta test and launch of the portal

The beta test of myEVS (as opposed to the tests conducted on the more basic SMaP/eXo platform, see 3.1.4) was conducted to get feedback from the future portal users, to further train the EVS central team and to prepare the launch of the portal for the EVS group. Schedule and approach for opening myEVS were discussed and agreed with the EVS planning groups, some milestones are listed below:

\(^\text{10}\) Translation Management Tool (TMT): https://seriss.centerdata.nl/

\(^\text{11}\) CharmStats: https://www.gesis.org/angebot/daten-analyseren/datenharmonisierung/
- May 2017: Intro to myEVS for the EVS group at the EVS General Assembly meeting in Athens
- June/July 2017: Internal start of myEVS for the project team and EVS central team
- July/August 2017: Internal test phase together with members of three national teams
- October 2017: First launch round: EVS planning groups and 15 national teams
- November 2017: Second launch round: further members of the EVS group and 19 national teams.

Starting with the launch of myEVS in October 2017, the project team in collaboration with the EVS central team continuously maintained the portal, kept the contents up to date, onboarded new team members and further national teams, and provided user and technical support.

Internal tests and feedback

Before the launch of the portal, different methods were applied to get feedback from potential portal users. The members of the EVS central team started work on the portal, some members of national teams were guided through the portal, others were provided with login information and had to find their way, and one team was equipped with a workspace to especially check collaboration within teams.

All portal users were asked to check the access to guidance documents, the usability of the applications in workspaces and the pre-defined workflows. Their feedback was useful to learn how EVS teams differ concerning: (1) size: one-person teams to six-person teams, (2) distribution over workplaces: one to three workplaces, and (3) tasks they had to perform: depending on funding there were teams that could finance full fieldwork institute services and teams that had to perform most tasks by themselves.

Feedback of the national teams concerned the usability of the portal (impressive, looks good, offers many useful functions). They stressed in particular the importance of transparency in order to reduce miscommunication and errors and to support the exchange of experience. The main advantages and features mentioned were:

(1) Quick access to documents, not only to final version but also to templates, main working files, and signed-off documents to be able to track amendments
(2) File repository also available for team members joining the project at later stages
(3) An overview of central tasks and deadlines supporting workflow management
(4) Reminders of crucial steps that help stay in time (e.g., file deposit and data release deadlines).

Feedback from the members of the EVS central team focused in particular on functions that help to facilitate and automate work steps:

(1) Sign-off processes linking folders, tasks, notifications, and reminders for deadlines
(2) Chat to internally discuss questions in meetings and share notes with other portal members
(3) Temporary workspaces for, e.g., survey lifecycle phase or the organization of workshops
(4) The use of third party tools, e.g., Google Docs for fieldwork reporting/monitoring processes
(5) The transfer of output documents across tools, e.g., between myEVS and TMT or CharmStats.
Conclusions and launch of myEVS

In preparation for the launch of myEVS, support focused on the EVS central team. The workflows were checked and simplified, the EVS central team members were trained and the step-by-step instructions for the workflows were refined in cooperation with the FORS team.

myEVS was opened with a personal invitation from the EVS Secretary (see Appendix 3: The myEVS pilot portal; Invitation letter). In the first round, it opened for all EVS planning groups and for the national teams that already started fieldwork or were very close to fieldwork. In the second round, the next batch of national teams was invited and the program directors of those countries that are not taking part in EVS 2017/18. As a result, myEVS has served the whole EVS group as the exclusive internal communicative and collaborative means for all operative and most strategic purposes since November 2017.

3.3. Third project phase: Development of deliverables and further user tests

The focus in this phase was on the preparation of the deliverables of Task 4.4 and the webinar in collaboration with the Task 5.1 team. In addition, the SERISS partners ESS, SHARE, and GGP were given consultation and supported in the further testing of the myEVS pilot and the mySMaP DEMO portal.

3.3.1. Development of deliverables

The planned deliverables for this task include a web-based survey project management platform available to external survey projects (D4.11), the project implementation report (D4.12), and two manuals: one for researchers for using the project management platform (D4.13), and one for implementation and use for maintainers of the project management platform (D4.14).

The experiences of the project team during the implementation and maintenance of the myEVS pilot portal as well as the evaluation results of the SERISS partners have shown that SMaP should not be regarded as ready-to-run portal software that can be used by most survey projects after some configuration and minor software adaptation. One lesson of the pilot phase is that the use of SMaP for a concrete survey project requires more effort than originally expected: Experienced staff (a social scientist and a software developer) are required not only to support a new survey project in defining their own requirements (that was expected), but also to adapt the SMaP concepts and portal software to these requirements and to provide technical and user-related support in maintaining the portal. Despite the generally good pilot experience, after consultation with the other SERISS partners, we now believe that the individual adaptation needs of each new project likely cannot be satisfied by taking existing software components “off the shelf” and then re-configuring/re-combining them, but will rather require moderate development efforts for each new implementation. Further, the required skill levels for the ongoing software maintenance will likely be at full software developer level, and not only at system administrator level, as the original hope had been.

For this reason, the outcomes partly differ from those originally planned. Instead of a generic (ready-to use) SMaP portal, they comprise a SMaP demo version, and additional materials (‘Other’) to make the portal evaluation and development process and applied survey lifecycle concepts transparent. In
how far the mySMaP DEMO version would be the actual core of a future implementation for a new project would then be decided during the implementation phase with that new project group.

**Besides the project implementation report at hand the main outcomes of Task 4.4 are:**

**Web-based survey project management platform**

The SMaP DEMO portal (mySMaP) is based on the myEVS pilot but transferred into a more general portal structure. Users can use the ‘Quick guide to the demo version of mySMaP’, login to the portal and slip into different roles to perform real life tests (view the portal structure, perform tasks, upload files, post messages on Activity Stream or discuss in Chat).

**Researcher and Administrator manuals**

The Researcher and Administrator manuals describing in detail the steps from eXo Platform to SMaP and the steps portal users will take on the portal to accomplish their tasks

**Others**

The Software evaluation report summarizes the most important steps and results from the stakeholder analysis to the final implementation and deployment of the selected software.

The collection of quick guides includes portal and workflow guides; a summarized presentation generally refers to the survey lifecycle concept and in particular to the workflows implemented on the myEVS pilot and the mySMaP DEMO portal.

**The outcomes are available via different channels:**

- The open source version of eXo Platform (Community Edition) is available via eXo Company\(^\text{12}\).
- The code for the modification and extension of eXo Platform functionalities as well as the instructions for installation, configuration resources, and implementation of SMaP are available online via the GESIS git repository\(^\text{13}\) and in the Administrator’s Manual.
- The Quick guide to the demo version mySMaP, Researcher and Administrator manuals, the Software evaluation report, and as all other material are available for download from the official SERISS web page\(^\text{14}\).

**3.3.2. Tests of myEVS/mySMaP by further pilot users**

The project team is in contact with the SERISS partners ESS, GGP and SHARE, which have expressed an interest adopting SMaP in the future. In various meetings, the possibilities and implications were discussed (meetings with the representatives of ESS/NSD in Cologne in January 2019, of SHARE in Cologne in April 2019, of ESS and SHARE at the ESRA conference in July 2019, and several Skype meetings with representatives of ESS, GGP, and SHARE).

**Practical test rounds of the portal were supported by guest accounts and guest workspaces:**

- For the GGP team, a guest user account on myEVS has been available since August 2018.
- Members of ESS (HQ and NSD team) carried out an initial requirements analysis for ESS Round 10 and tested the myEVS portal with the support of the project team, first with a guest account for a national team workspace (November 2018) and later in their own ESS-Test workspace (since mid-January 2019). Since the tests had to be real-life, communication and collaboration between


\(^{13}\) GESIS git repository at https://git.gesis.org/davarimd/myEvs-Releases/wikis/home

\(^{14}\) SERISS Deliverable at https://seriss.eu/resources/deliverables/
ESS/NSD and SMaP/EVS was also organized via myEVS tools such as Chat, Activity Stream, Document Management System, and Wiki as part of the test phase. Based on that the technical requirements for the ESS Round 10 were discussed as well as possible solutions and necessary resources.

- Since July 2019, the SHARE team has had access to the mySMaP DEMO portal to perform further tests of the tools and the implemented concepts.

4. Deviations from the tasks/milestones outlined in the Description of Activities

Work on this task has been delayed by 4-5 months, so a few milestones were not achieved on time as scheduled. The main reasons for this were the complexity of the task, personnel changes in the project team (staffing gaps in software development and maternity leave), delays in negotiations with external partners (e.g., software provider), and the overall tight planning of resources. The main causes are briefly explained below:

**Timing and resources:**

- Due to the complexity of the task and a staff change in the developer position (2 PM without a developer), it took longer than anticipated to evaluate software requirements, to select suitable software, and to negotiate licensing terms (postponed from March 2016 to July 2016).

- Due to allocation of work and funds not spent in the early project phase (social scientist in maternity leave and computer scientist extended contract until M50 with reduced working hours) the conclusion of the project and the deliverables were postponed to M48 and M50 respectively.

  - D4.11 Web-based survey project management platform available to external survey projects: postponed from August 2018 to July 2019 (M36 to M48)
  - D4.12 Project implementation report for web-based survey project management platform: postponed from August 2018 to August 2019 (M36 to M50)

- Due to the extension of the developer’s contract, the maintenance of the myEVS pilot portal could be maintained until the end of August 2019. The maintenance of myEVS until the end of the EVS 2017/18 wave is funded by GESIS.

**Postponed milestones:**

- The implementation of the myEVS pilot for usability testing had to be postponed (from January 2017 to March 2017). Therefore, the portal could not support the design phase of EVS 2017, especially the development of the guideline documents. To resolve this, an updated timetable was agreed with the EVS group.

- The deliverable D4.11 “Web-based survey project management platform” was originally planned as a ready-to-use tool. However, according to the SMaP concept, the portal must be adapted to the requirements of the respective survey project. Therefore, the mySMaP DEMO portal will be available to interested survey projects for testing purposes.

**Not achieved:**
- Negotiations with software provider: The intention was to invest in eXo Enterprise rather than use the free eXo community edition during the development phase of the project (2017 & 2018) as this would have ensured better technical support for the developer. Different options for purchasing a supported licence of eXo platform were investigated. However, the negotiations with the software vendor were very slow and did not lead to a realizable result in the end. Therefore, most of the development and implementation, but also the later operation, had to be carried out with the free eXo community edition.

- Beyond the linkage to the CharmStats tool, we have not yet intensively pursued the idea of offering access to further specialist survey tools. The EVS pilot had no pressing need for this, and the respective SERISS tasks working on the translation, coding, and fieldwork management tools had no resources planned for this task. Conceptually and technically, it remains easy to approach this at a later stage. The unifying element across the various tools would be a shared authentication mechanism of the Shibboleth type, the integration of which will require moderate programming effort for each participating tool.

5. Conclusions and recommendations

5.3. Project review and first conclusions

The biggest challenge in this project was to develop a new web-based project management platform and at the same time test it on a large-scale international surveys project like the European Values Study. Even though not all project dates and milestones could be met, we consider the result to be a success. This is also reflected in the myEVS pilot portal, on which 165 researchers from 44 countries currently work in 65 workspaces, and in the rapid publication and quality of the data and documentation for the first 30 countries of the EVS wave 2017/18.

As the proposed solution should comply with the increasing number and importance of medium and large data collection projects, the expertise of representatives of various national and international long-standing projects was used and implemented in the project. The following partners have contributed to the result and ensured that the project outcome is not an EVS specific solution:

- In the course of the project: SERISS project team at GESIS and at FORS, EVS data processing team and the CharmStats team at GESIS, the EVS central team at Tilburg University and the EVS national teams participating in the EVS 2017/18 wave
- During stakeholder analysis: ESS, SHARE, GGP, ISSP, CSES, EVS, PIAAC, GLES
- In the course of the EVS wave 2017/18: the EVS central team at Tilburg University, EVS national teams, EVS data processing team and the CharmStats team at GESIS
- During the test phases of myEVS and mySMaP: EVS, ESS, SHARE, GGP.

Based on the conceptual knowledge and the direct experience in the management of EVS wave 2017/18 via the portal, the following conclusions can be drawn:

- It is possible to adapt data and project management software to the needs of survey projects, to manage large-scale international survey projects with distributed actors in a virtual environment and to attract researchers to replace e-mails with online communication.
- The main advantages of such a virtual workplace are the transparency for all portal members over the entire project lifecycle, the online collaboration of the actors to generate real-time results, standardized workflows as well as a structured repository at the end of the survey project.
Challenges identified during the project are that the portal needs to be continuously maintained to remain attractive for its users, that maintenance for larger projects requires a resourceful central team, and that some tools need to be further developed to meet the requirements of the workflow.

For the subsequent use of the portal by further survey projects, our experience was that this always requires a project-specific adaptation and deployment process as well as the maintenance of the portal by experienced personnel.

Therefore, the main positive effect of using our approach for managing distributed research projects are not short-term savings in staff effort or time, but improvements in the transparency and quality of internal processes and the ultimate results.

5.4. Perspectives for post-SERISS uses of SMaP

With the approach having been shown to be useful and feasible, the main objectives of this SERISS task, which we believe to be the first attempt of building a management environment dedicated to distributed research data collection projects in the Social Sciences, have been achieved. Therefore, we can proceed to begin outlining the options for a further exploitation of the present results.

First, we need to restate that the intended user community for this kind of tool consists of large-scale and long-term distributed project teams with a high degree of division of labour. Small-scale and short-term projects do usually not justify the considerable implementation and maintenance effort for a dedicated online platform, and single-sited projects, even if sufficiently large-scale to make unstructured direct communication between all partners too demanding, would often have access to existing software solutions offered by their respective hosting organisation.

Each research group or project implementing SMaP will be confronted with several kinds of costs. A first major bloc is the implementation cost, which comprises the initial workflow analysis – for which not all projects will have extant articulated models – and the adaptation of the software, then the actual implementation effort, including training for all users/project participants and for one or two persons of the project staff who will need to take on administration roles for content and everyday configuration issues.

After the implementation stage, the operation of the platform will require ongoing staff availability on the content management and on the technical administration side, which constitutes the second major bloc of costs. Given that the technical system appeared to be quite reliable in the pilot, the actual work effort will usually be significant only for the content- and user-management persons, as the usual intensive but dispersed communication demands of large distributed projects will now be ‘crystallized’ within the platform. The SERISS team strongly recommends that user projects plan and budget sufficient staff time dedicated to such management and communication activities. Still, the continuous availability of technical maintenance staff will also be crucial for the viability of using the platform. With basically all communications and document exchange going through the portal, technical failures or delayed responses to any user/participant support issues may pose severe risks to the operational success of the projects, and would consequentially destroy the acceptance of the technology if not addressed in a very timely way. Although the software basis of SMaP is entirely open source and allows for re-use without any licence cost, the implied cost of hosting the software can thus still be significant. Having competent technical staff ‘on hold’ for maintenance and further development is a necessity, even if their actual workload may be low for extended periods of time. This potentially creates challenges in resource and staff time allocation for the technical staff. Especially if projects using the platform would have to employ the technical staff themselves, the
associated cost might appear high and be difficult to fund through the usual research funding sources.

If there is an organisation that is technically hosting the platform on behalf of various ‘user projects’, this might alleviate the resource problem in so far as the fixed cost for the technical maintenance of the platform can be distributed over those various user projects. However, fostering for ‘24/7’ availability needs of the platform over long time spans could still be challenging for the hosting organisation in terms of staff organization and of contractual obligations potentially associated with offering the platform as a ‘service’ to external partners. Investigating the organisational and technical options for both routes – self-hosting of the platform by user projects and hosting it as a service for multiple partners in a ‘user consortium’ or similar – would ideally be done in a follow-up infrastructure development project. At the time of writing this report, discussions have begun with SERISS partners ESS, SHARE, GGP, and CESSDA to explore the options for establishing such follow-up projects. One of the goals of such follow-up projects, besides of course actually supporting the operation of these partner projects, should be to spread the technical competence for hosting/maintaining the software to a wider group as well.
### Appendix 1: Main Task 4.4 activities and deliverables

**Meetings which have taken place under the WP 4/ Task 4.4**

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Task number</th>
<th>Date</th>
<th>Location</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS, NSD, SHARE, and SMaP team</td>
<td>4.4</td>
<td>18/07/2019</td>
<td>ESRA conference</td>
<td>Discuss requirements and possibilities of the usage of SmAP after the SERISS project</td>
</tr>
<tr>
<td>ESS/NSD and SMaP team</td>
<td>4.4</td>
<td>09/01-10/01/2019</td>
<td>GESIS</td>
<td>Discuss ESS R10 requirements for SMaP</td>
</tr>
<tr>
<td>ESS/NSD and SMaP team</td>
<td>4.4</td>
<td>11/03/2019</td>
<td>Web-meeting</td>
<td>Discuss ESS R10 additional requirements for SMaP</td>
</tr>
<tr>
<td>CESSDA Training (EVS team and SMaP team)</td>
<td>5.1</td>
<td>08/02/2019</td>
<td>GESIS</td>
<td>Planning of webinars</td>
</tr>
<tr>
<td>Data Harmonization (CharmStats team, EVS team and SMaP team)</td>
<td>4.5</td>
<td>08/02/2019</td>
<td>GESIS</td>
<td>Design a refined EVS harmonization workflow for using CharmStats and VHH</td>
</tr>
<tr>
<td>SMaP demo for ESS (SMaP team, ESS team)</td>
<td>4.4</td>
<td>19/09/2017</td>
<td>Skype</td>
<td>GESIS to give the ESS team a demo of the tool as it is currently set up and to hear any preliminary feedback from EVS on the user experience. Map out how the tool might need to be adapted to fit ESS needs (ESS round 9)</td>
</tr>
<tr>
<td>Discuss SMaP (GESIS, FORS, EVS, SERISS HQ)</td>
<td>4.4</td>
<td>30/05/2017</td>
<td>Skype</td>
<td>Update from GESIS on the tool’s development and functionality and discuss plans/options for EVS testing</td>
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<tr>
<td>SERISS meeting of developers and tools WP task leaders</td>
<td>All WP4 tasks</td>
<td>29/06/2016</td>
<td>Germany, Cologne</td>
<td>Synergies between WP4 tools</td>
</tr>
<tr>
<td>SMaP teams at FORS and DAS</td>
<td>4.4</td>
<td>16 and 17/11/2015</td>
<td>GESIS, Cologne</td>
<td>Further collaboration, planning</td>
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</table>
### Dissemination and communication activities directly related to Task 4.4

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>Details</th>
<th>Date</th>
<th>Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESRA conference</td>
<td>Informal meeting of representatives of ESS, SHARE, and SMaP teams at GESIS</td>
<td>17/07/2019</td>
<td>Scientific community</td>
</tr>
<tr>
<td>eXo Tribe Spotlight</td>
<td>How GESIS Institute uses eXo as a collaborative project management solution</td>
<td>11/06/2019</td>
<td>Scientific community</td>
</tr>
<tr>
<td>5th Meeting of SERISS Board of Strategic Advice, City, University of London</td>
<td>Survey Project Management Platform SMaP - Current status</td>
<td>25/04/2019</td>
<td>SERISS Board of Strategic Advice</td>
</tr>
<tr>
<td>EVS workshop, Ljubljana</td>
<td>EVS2017: Data Processing and myEVS workflows until the full data release</td>
<td>02/22/2019</td>
<td>EVS planning groups; national program directors</td>
</tr>
<tr>
<td>CSDI workshop, Warshaw</td>
<td>The myEVS Project Management Portal: A Case Study for Survey Projects</td>
<td>03/19/2019</td>
<td>Members of the CSDI workshop and external researchers</td>
</tr>
<tr>
<td>SERISS website</td>
<td>SERISS Newsletter</td>
<td>Issue 04/11/2018</td>
<td>open</td>
</tr>
<tr>
<td>8th ESRC Research Methods Festival 2018, Bath</td>
<td>Trialling a new Survey Project Management Portal on the European Values Study 2017</td>
<td>05/07/2018</td>
<td>Scientific community</td>
</tr>
<tr>
<td>EVS workshop, Cologne, Germany</td>
<td>The myEVS portal - Technical administration and practical tips</td>
<td>15/03/2018</td>
<td>EVS planning groups; national program directors</td>
</tr>
<tr>
<td>EVS workshop Cologne, Germany</td>
<td>The myEVS portal: data deposit and data processing workflows</td>
<td>15/03/2018</td>
<td>EVS planning groups; national program directors</td>
</tr>
<tr>
<td>Workshop at the Czech Academy of Sciences, “Challenges in the Organisation of International Comparative Social Surveys”</td>
<td>The myEVS portal for the EVS 2017 survey</td>
<td>30/11/2017</td>
<td>Scientific community, survey practitioners</td>
</tr>
<tr>
<td>Meeting of the EVS planning groups, Athens, Greece</td>
<td>myEVS portal for the EVS 2017 survey</td>
<td>04/05/2017</td>
<td>EVS planning groups</td>
</tr>
<tr>
<td>EVS workshop, Athens, Greece</td>
<td>myEVS portal for the EVS 2017 survey</td>
<td>05/05/2017</td>
<td>Scientific community (EVS Council of program directors)</td>
</tr>
<tr>
<td>GESIS Data Archive – Audit</td>
<td>SERISS Poster: Supporting distributed projects</td>
<td>19/10/2015</td>
<td>Scientific and User Board</td>
</tr>
<tr>
<td>41st IASSIST Conference</td>
<td>Survey project management portal</td>
<td>03/06/2015</td>
<td>Scientific community</td>
</tr>
</tbody>
</table>
Deliverables of Task 4.4

<table>
<thead>
<tr>
<th>Deliverable number</th>
<th>Title</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>D4.11</td>
<td>Survey Project Management Portal: Quick guide to the demo version of mySMaP (including login information for mySMaP) Web-based survey project management platform available to external survey projects - mySMaP Demo version (Access is granted by GESIS upon request <a href="mailto:myevs.support@gesis.org">myevs.support@gesis.org</a>)</td>
<td>M44</td>
</tr>
<tr>
<td>D4.12</td>
<td>Project implementation report for web-based survey project management platform (SMaP)</td>
<td>M50</td>
</tr>
<tr>
<td>D4.13</td>
<td>Survey Project Management Portal (SMaP): Manual for researchers for using the project management platform</td>
<td>M44</td>
</tr>
<tr>
<td>Supporting material 1</td>
<td>Report on the comparative evaluation of software for the development of SMaP</td>
<td>Nov 2016</td>
</tr>
<tr>
<td>Supporting material 2</td>
<td>Survey Project Management Portal: The myEVS concept</td>
<td>Aug 2019</td>
</tr>
<tr>
<td>Supporting material 3</td>
<td>Survey Project Management Portal: SmaP/myEVS tool and workflow guides</td>
<td>Aug 2019</td>
</tr>
<tr>
<td></td>
<td>SMaP Webinar (<a href="https://www.youtube.com/watch?list=PLZBHD2mBPPr8QXEMxZuV2FcodgxhWirX_&amp;time_continue=3&amp;v=1ocTeTKIpRw">https://www.youtube.com/watch?list=PLZBHD2mBPPr8QXEMxZuV2FcodgxhWirX_&amp;time_continue=3&amp;v=1ocTeTKIpRw</a>)</td>
<td>July 2019</td>
</tr>
</tbody>
</table>

Overview of help materials created for the myEVS pilot portal

<table>
<thead>
<tr>
<th>Quick helps and workflow guides</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>myEVS portal guides</td>
<td>Introduction to the myEVS pilot portal</td>
</tr>
<tr>
<td></td>
<td>Document management (tool)</td>
</tr>
<tr>
<td></td>
<td>Tasks (tool)</td>
</tr>
<tr>
<td></td>
<td>Activity Stream (tool)</td>
</tr>
<tr>
<td></td>
<td>Chat (tool)</td>
</tr>
<tr>
<td>Workflow guides for national teams</td>
<td>Consultation process and Fieldwork reporting</td>
</tr>
<tr>
<td></td>
<td>Introduction to EVS 2017 Fieldwork reporting (template)</td>
</tr>
<tr>
<td></td>
<td>Online forms for Data Deposit and Methodological Questionnaire</td>
</tr>
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<td>Data Processing workflow</td>
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<tr>
<td>Workflow guides for EVS central teams</td>
<td>Consultation process: Folder and Notifications</td>
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<tr>
<td></td>
<td>Consultation &amp; Fieldwork reporting: Workflow</td>
</tr>
</tbody>
</table>
Appendix 2: Stakeholder analysis

Questionnaire for stakeholder analysis

Interview with Survey project: ....
Date: ...

Organisational structure:
(1) How is the survey project guided/organized?
(2) Which are the working groups or bodies?
(3) How is the work organised within each Survey Lifecycle phase (SLC)?

Actors:
(4) Who are the actors in each research project phase? How are their roles defined?
(5) Up to how many actors approximately are involved in one project phase?
(6) On average how many tasks need to be completed -and with what capacity- in one SLC-phase?

Communication:
(7) How do the actors communicate with each other while working in one phase/task?
(8) Which are the standard means of internal communication you use in the project?
(9) How do you communicate task issues in the time between the meetings?

Workflow:
(10) At what time point do you define project workflows and tasks?
(11) Who is responsible for task assignment and task monitoring?
(12) Do you monitor work progress? How?
(13) What type of input/materials do different actors need in order to carry out their task?
(14) What type of output/content should be submitted in order to complete a particular task?
    (Which outputs are a prerequisite for the next working step or phase?)
(15) How is the workflow for data preparation and processing organised?

Suggestions for improvement:
(16) Are there any problems or issues in your project that need improvement?
(17) Which processes are the most costly in terms of time and resources?
(18) Do you have ideas for improving the processes? Do you have any wishes?
(19) Are there already any internal developments or solutions to specific problems?
Checklist for defining the profile of survey projects

(1) Is your survey project
- National
- Cross-national

(2) The survey design is
- Cross-sectional
- Longitudinal/Panel study

(3) Is your organisational and operational structure
- Centralised
- Decentralised, i.e. several coordination centres exist

(4) Which actors will be involved in the project portal?
- Project Manager/coordinator
- Planning groups/central team
- Expert groups (sampling, translation, classifications)
- National teams
- Translation centre
- Fieldwork agency
- Data archive

(5) Do you monitor work progress?
- Yes / No

(6) Which survey lifecycle phase should be supported?
- Planning phase
- Consultation process
- Translation
- Fieldwork
- Data deposit
- Data processing and verification

(7) Up to how many actors are actively involved in total
- Less than 25
- 25-50
- 50-100
- More than 100

(8) Which are your means of internal communication?
- Personal meetings
- E-mail
- Web-conference / Skype
- Phone
- SharePoint or other project management software
- Project-specific tool(s)
Appendix 3: The myEVS pilot portal

Profile of the EVS 2017 survey and user stories

European Values Study (EVS)
The EVS is a large-scale and cross-national survey research program on basic human values. It is a unique research project on how Europeans think about life, family, work, religion, politics and society. It started in 1981 and is repeated every nine years (http://www.europeanvaluesstudy.eu).

Profile of the EVS pilot
- **Survey project:** EVS wave 2017
- **Actors:** EVS planning groups, national EVS teams, external experts, DAS archive
- **Time period:** start of preparations in 2015, start of fieldwork in Sep 2017, full data release in 2019
- **Project lifecycle phases:** planning phase, consultation process, fieldwork, data deposit/processing
- **Key communication/cooperation:** between EVS central teams and national teams
- **Key challenge:** 9 year intervals between the waves.

User stories implemented on myEVS

1st user story: Members of national teams

*National teams are in charge of the data collection, going through the project phases and creating data and documents that meet the required standards. Their work load is high. The less routine they have in working with project-specific workflows and protocols, the higher the burden.*

*Solutions*
- ... sign-posted paths to documents and tools and standardized step-by-step processes to support team members and allow them to concentrate on their actual tasks.

2nd user story: Members of the EVS central team

*The EVS central team supports the national teams with guidelines and advice to enable compliance with agreed standards and workflows. Countries are at different project stages: while some have already completed data processing, others are still in the consultation phase or even in the questionnaire translation.*

*Solutions*
- ... cross-team collaboration moderated by contact persons and linked standardized folders to transport experiences and files, keep guidelines updated, and make the common knowledge accessible to all.

3rd user story: Data archive

*Data archives are in charge of the publication of well processed and documented data. They often have to deal with an enormous number of files and file versions or even with information loss when projects use e-mail as a communication channel and e-mail attachments as the main medium for exchanging documents.*

*Solutions*
- ... ensure transparent and customized communication flows; a centralized document management allowing both keeping files in their context of origin and tracking changes; a final EVS 2017 Repository hosted at GESIS as a trusted academic institution.
Dear All,

We are pleased to inform you that the first version of the myEVS portal is open now!

MyEVS is a virtual work environment that allows direct access to the data and documentation items that you need, and it enables you to manage EVS-related work in a single place.

We kindly ask you to change to the new portal for basically all EVS internal communications from now on. The portal allows you to access the EVS guidelines, it is the mandatory channel for uploading all required data and documentation items for all country studies, and it is the main communication route for all EVS internal process monitoring work. Besides file management, the portal supports communication and collaboration of portal members and will provide full transparency for internal processes.

The EVS 2017/18 Survey project will use the portal until the data is publicly released and the project repository is handed over to the GESIS data archive. In the end, this will result in publicly available multi-country data files and documentation materials reporting on the quality of EVS 2017.

In this first phase of the portal usage, the EVS planning groups and those 15 national teams that have already started fieldwork or are about to begin fieldwork soon are invited to join myEVS. In a second phase, by mid-November, we will invite the other national teams participating in the EVS wave.

Your first steps on myEVS

You will shortly receive an e-mail with the portal address and your personal login information. Before you log in, we below briefly explain the structure of the portal to facilitate its use. After logging in, you will first see the myEVS landing page where you can access user guides. This landing page also informs about new developments and events.

- **The Calendar** in the left-hand navigation area will keep you informed about central events, EVS 2017 deadlines, and events you entered in your workspace Calendar. The small box in the right-hand area will display your today’s events.
- **EVS 2017 Survey** in the left-hand navigation area provides the guidance documents via links for download, allows tracking amendments to the final versions (subpage Version History), and describes the main steps during the EVS 2017 project (subpage EVS 2017 Checklist).
- **Current Status** will keep you informed about the current EVS 2017 progress. The summarized figures are generated by information provided by countries and the central team. We kindly ask you always to submit the required information to be able to display current information to all portal members.
- **Workspaces** are provided for every national team and planning group. Depending on your role in EVS 2017, you may be a member of one or several teams/workspaces. They are private, so the information and documents are visible and accessible to its members only. Please access your workspaces to view the last activities on the Activity Stream, to check work status in Tasks, or files in Documents.

MyEVS generates on-site and email notifications about actions in your workspace(s). Please adapt the notification settings to your needs when you log in. As in the past, you will be notified by the Secretary Methodology Group about new/updated guidelines documents by email.

Depending on your role in EVS and on the current phase of the fieldwork that your country is in (if any), you will use different areas and functions of the portal. The attached guides ‘myEVS Introduction’ and ‘myEVS Consultation and Fieldwork’ should help ease your first steps on the portal. They give an overview of the structure of myEVS and its applications and define minimum requirements for its use, to guarantee similar workflows and comparable outputs. Depending on your current status they will guide you to complete the Translation or Consultation process and to transfer information necessary for fieldwork monitoring.

**How can we support you?**

On the myEVS landing page, you can access various quick guides. This includes portal guides and customised guidelines on EVS workflows for country teams and the central team. We will keep the guides updated and produce new guides for the upcoming workflows. A detailed description of portal features and functions is available in section Help. For technical issues consult the FAQs.

Best wishes, your EVS central team
Welcome to the myEVS portal

myEVS is the first implementation of the Survey Project Management Platform – OERP developed in the Horizon 2020 work programme. It is a project management platform providing a virtual collaborative workspace for survey teams and different stakeholders of survey projects. If you experience any technical issues, discover errors or you have any questions, please feel free to contact us. We appreciate your feedback and will continuously improve the portal.

A typical workspace on myEVS

myEVS: A typical workspace

Worksaces allow
- To quickly switch between tools
- Stay informed about team activities
- Manage contents that are private for the team
- Share files with other teams
- Posts, tasks, upload/edit files trigger notifications.

Worksaces are featured by
- Activity Stream is for communication between team members
- Tasks supports workflow management
- Documents provides access to files shared
- Wall collects workflow information
- Agenda informs about central team events
- FW Report form covers FW outcomes codes
- Members always have an overview of workspace members

Source: Survey Project Management Portal: The myEVS concept (see Supporting materials 2 for D 4.12)
Standardized workflows implemented on myEVS

Source: Survey Project Management Portal: The myEVS concept (see Supporting materials 2 for D 4.12)

1st example: Keep guideline documents up-to-date

The guideline documents are created in the planning and design phase.

During fieldwork and data processing, new problems may occur that need to be addressed to keep all portal members informed.

2nd example: Fieldwork reporting and monitoring

Fieldwork progress reporting template is available as part of the guideline documents.

National teams are asked to provide fieldwork projections before the start of fieldwork and fieldwork outcome codes at agreed intervals.

This allows the planning groups to see a light version of fieldwork progress at a glance.
3rd example: Report on creation and processing of data

The Methodological Questionnaire online form is one of the developments for SMaP.

The finally exported Method Report is part of the data documentation and provides necessary information on creation and processing of the national data.

4th example: Create an EVS 2017 Repository

The picture shows the customized and linked folder structure set up on myEVS.

Focus of the planning groups is on meetings; documents are design, reviewed, and agree on.

Guidelines folder is linked to all other workspaces.

The folders in the national team workspace follow the SLC phases.

It makes the transfer of files through the individual processing stages transparent and traceable.
Appendix 4: The mySMaP DEMO portal

Profile of the TEST survey project and user stories

Profile of the TEST Survey Project

<table>
<thead>
<tr>
<th>Survey project</th>
<th>TEST survey project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actors</strong></td>
<td>Members of two national teams, a central team and a data archive</td>
</tr>
<tr>
<td><strong>Time period</strong></td>
<td>Start of the planning phase in May 2019, data release in Dec 2019</td>
</tr>
<tr>
<td><strong>Project lifecycle phases</strong></td>
<td>Planning phase, consultation phase, data deposit and processing</td>
</tr>
<tr>
<td><strong>Key communication/cooperation</strong></td>
<td>Between central teams (planning groups) and national teams</td>
</tr>
<tr>
<td><strong>Main tools</strong></td>
<td>Web pages, workspaces with standard applications, online forms</td>
</tr>
</tbody>
</table>

The actors, their roles and responsibilities

The main collaboration during the TEST survey project takes place between the members of the central team and the national teams. The five team members and their main goals and tasks are described below.

Steven and Max are members of national teams. They are in charge of data collection and have to go through the survey project phases. Their work load is high. Therefor they need sign-posted paths to documents and tools and standardized step-by-step processes.

Luca is a member of a central team. He is in charge of supporting the national teams with guidelines and advice to enable compliance of the national data and documentation with the agreed standards and workflows.

Carla is in the role of a contact person. To support cross-team collaboration, she is a member of both central teams and national teams. So she can transport experiences and files, keep guidelines updated, and make the common knowledge accessible to all.

Sania is member of a data archive. Her goal is to publish well processed and documented data. Therefor she needs transparent communication flows and a centralized document management. She finally wants to export a Project Repository from the portal.
Welcome to the Demo portal!

SMAp is a Survey Project Management Platform developed in the Horizon 2020 demo programme. It provides a collaborative workspace for different stakeholders of survey projects. The demo portal is a hands-on showcase of SMAp.” Fina 2017 it has successfully supported the efficient work of the demo teams. It allows for real-time collaboration, a simplified view of the project, and easy navigation that enhances the demo portal. Members of the demo group and national teams can communicate and collaborate through the Communication and Data Processing phase.

The big picture

Central persons deal things running and update by connecting teams and experts.

Web pages for Guidelines

Central team members

Central team support

Quick Help
On mySMaP, teams follow standardized workflows that help them organize and exchange files with other countries or organizations involved in the survey. These workflows include templates and documentation that can be used for communication between central and national teams, and for providing a structured repository to support the project's objectives.

How can researchers use mySMaP?

The pilot project myEVs was developed in collaboration with the European Values Study Group (EVSG). However, it is anticipated that the tool will also be used by other surveys or projects, for example the European Social Survey (ESS), or the Generations and Gender Programme.

Where to find out more about mySMaP?

If you are interested in learning more about mySMaP and how it was customized for the EVS, please get in touch via e-mail to myevs.support@seriss.eu.

www.seriss.eu

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.

www.seriss.eu

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
Appendix 5

Implementation of SMaP and the myEVS pilot portal — roles and groups:

Roles:

Work package (WP 4) leader: Brian Kleiner
Task 4.4 leader: Markus Quandt

Working groups:

SERISS task 4.4 team at GESIS
- Dafina Kurti (GESIS)
- Masoud Davari (GESIS) (since December 2016)
- Evelyn Brislinger (GESIS)
- Andias Wira-Alam (GESIS) (until September 2016)
- Alexandra Stam (FORS)
- Bojana Tasic (FORS)
- Brian Kleiner (FORS)

EVS team at GESIS-DAS
- Markus Quandt
- Evelyn Brislinger
- Ivet Solanes
- Vera Lomazzi

EVS team at Tilburg University
- Ruud Luijks (team lead)
- Angelica Maineri
- Claudia Brunori
- Laura Barbonetti
- Lucilla Losi
- Laura Tanzini
- Giovanni Borghesan
Appendix 6

Link directory

- CCSW Website: http://www.ccsg.isr.umich.edu/index.php/how-to-cite-page
- CharmStats: https://www.gesis.org/angebot/daten-analysieren/datenharmonisierung/
- DNN CMS: https://www.dnnsoftware.com/
- European Values Study: https://europeanvaluesstudy.eu/
- eXo Platform: https://www.exoplatform.com/
- Installing eXo Platform Community Edition:
  https://docs.exoplatform.org/en/5.2/installation.html#communityedition
- FORS: https://forscenter.ch/
- Google Docs: https://www.google.com/docs/about/#start
- Google Drive: https://www.google.com/drive/
- SERISS Deliverables: https://seriss.eu/resources/deliverables/
- Translation Management Tool (TMT): https://seriss.centerdata.nl/
Deliverable Number: Supporting materials 1 for D 4.12

Deliverable Title: Report on the comparative evaluation of software for the development of SMaP

Work Package: 4 – Interactive tools for cross-national surveys

Deliverable type: Other

Dissemination status: Public

Submitted by: GESIS, CESSDA ERIC

Authors: Dafina Kurti (GESIS), Andias Wira-Alam (GESIS), Brian Kleiner (FORS), Bojana Tasic (FORS), Evelyn Brislinger (GESIS), Markus Quandt (GESIS), Claus-Peter Klas (GESIS)

Date Submitted: August 2019

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
SERISS (Synergies for Europe’s Research Infrastructures in the Social Sciences) aims to exploit synergies, foster collaboration and develop shared standards between Europe’s social science infrastructures in order to better equip these infrastructures to play a major role in addressing Europe’s grand societal challenges and ensure that European policymaking is built on a solid base of the highest-quality socio-economic evidence.

The four year project (2015-19) is a collaboration between the three leading European Research Infrastructures in the social sciences – the European Social Survey (ESS ERIC), the Survey of Health Ageing and Retirement in Europe (SHARE ERIC) and the Consortium of European Social Science Data Archives (CESSDA AS) – and organisations representing the Generations and Gender Programme (GGP), European Values Study (EVS) and the WageIndicator Survey.

Work focuses on three key areas: Addressing key challenges for cross-national data collection, breaking down barriers between social science infrastructures and embracing the future of the social sciences.

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APPENDIX A:
   Table A1. SMAP stakeholder tasks in data preparation, deposit, and processing phase
   Table A2. SMAP actors and roles as a result of stakeholder analysis
   Table A3. SMAP user stories

APPENDIX B
   SMAP Requirement Catalogue

APPENDIX C
   Table C1. FORSbase software assessment result
   Table C2. List of evaluated collaborative software

APPENDIX D
   Table D1. Comparative evaluation of software packages
1. Main objectives of the Survey Project Management Portal

The EU project ‘Synergies for Europe’s Research Infrastructures in the Social Sciences’ (SERISS at http://seriss.eu/) aims to bring together three ESFRI research infrastructures in the social sciences: the European Social Survey (ESS), the Survey for Health Ageing and Retirement in Europe and the Consortium of European Social Science Data Archives (CESSDA), and the non-ESFRI research infrastructures: the Generations and Gender Programme (GGP), the European Values Survey (EVS) and the Wage Indicator Survey. The project’s scientific aim is to exploit the interactions among the infrastructures to their fullest extent and to leverage these interactions to influence the still rather fragmented landscape of smaller infrastructures.

The goal of WP 4 ‘Interactive tools for cross-national surveys’ is twofold: to build on existing survey design and management tools to ensure they are up to date, fit for purpose as well as shared and used as widely as possible across Europe’s social survey infrastructures (tasks 4.1, 4.2, 4.3, 4.5), and to develop a web-based project management platform providing a virtual collaborative workspace for national and international survey programs (task 4.4).

With regard to the project management platform the following main objectives are formulated:

- Foster easy, structured and secure communication as well as documentation, file and workflow management throughout the design, fieldwork, and data deposit phase of the survey life cycle.
- Provide structured ‘entry’ options for using actual survey preparation and data processing tools, thus providing a ‘sign-posted’ pathway to the use of the more specialized tools developed in SERISS and other external projects.
- Support structured documentation of studies and datasets following the international standard DDI, thus allowing the resulting metadata to be shared across institutions and imported into the CESSDA databases or another repository.

As a result, an integrated portal, subsequently named Survey Project Management Portal – SMaP, will be set up. It allows complex organisational and workflow activities to be carried out within a single and secure environment. This is beneficial for multi-national surveys with many partners and stakeholders as well as smaller data collection projects with a distributed membership. It will help to overcome various organizational issues by providing simple and structured ways of communication, document and workflow management in compliance with the survey life cycle principles. Since a great number of collaborative software systems for project management for business-oriented enterprises already exist, SMaP will build on well-established open source software which, if necessary, will be further developed in order to best meet survey projects’ requirements if necessary. Based on a set of functional and non-functional requirements identified for teams and stakeholders of various survey projects, different open source project management software were evaluated and the final decision on what portal software to use was taken in collaboration with FORS (The Swiss Foundation for Research in Social Sciences).

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1 SERISS Annex I 14092015.pdf, pp. 3
2 SERISS_Part B Sections 1-3 final_approved.pdf pp. 8
3 SERISS_Part B Sections 1-3 final_approved.pdf, pp. 9
2. Methodology

For the purpose of software assessment it was necessary to identify the basic requirements that SMAP must fulfil in order to provide an adequate service and support for survey projects. Methodological steps include three conceptual work packages that precede software evaluation (see Figure 1), i.e. software choice and in-depth functional tests of three candidate platforms for the final decision⁴.

At an early stage of the project we identified and interviewed stakeholder survey organisations, which on the one hand might be directly affected by our portal infrastructure service. Present or future collaborators and their work and concepts may shape our project and improve its quality at the initial stage on the other hand. In the course of these meetings, data about the organizational structure, capacity, workflows, communication, quality control and assessment, as well as issues they struggled with while carrying out a particular survey project was collected.

Information collected from stakeholder interviews was used to define standardised survey project processes that describe general workflows in each survey lifecycle phase: survey design, data collection, and data deposit. Using these processes we ingested from several project documentations and from stakeholder interviews, we derived specific software requirements, i.e. we conducted the requirement catalogue that serves as basis for the software evaluation process.

Figure 1. Initial steps in software evaluation process

The Requirement Catalogue is a list of functional and non-functional requirements that SMAP should fulfil. Based on this, the evaluation was carried out as a qualitative assessment of software properties in terms of functionality, usability, and maintainability and refined stepwise by taking into account further evaluation criteria.

The software evaluation process involved the following steps

1. Assessment of the online platform FORSbase⁵
2. After the resulting functional limitations to build SMAP on FORSbase, the following evaluation step was to identify features/tools that need to be customized or further developed.
   - Start a systematic search for software alternatives.

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⁵ https://forsbase.unil.ch/
A multi-stage evaluation and selection process was applied to take a final decision for the software showing the best assessment results with regard to the requirements specified.

2.1. Stakeholder analysis

The purpose of stakeholder analysis for our complex tool was to identify key stakeholder survey organisations and determine their preferences and requirements concerning management of the project, i.e. what kind of knowledge, skills, tools and techniques do they apply to accomplish their survey project goals. Based on collected input from stakeholders in personal interviews, by fostering project documentation, or search websites, we define general project demands and goals, and specify software requirements, which we tested during the software evaluation process.

In the first step, we identified key stakeholder survey organisations and individual stakeholders within the organisations to communicate with. In total we identified eight stakeholders, national and international, internal and external survey projects, focusing on specific survey life cycle phase or overall project organisation processes. These are:

- European Value Study EVS (1st pilot survey project for SMAP)
- European Social Survey ESS
- The Survey of Health, Ageing and Retirement in Europe SHARE
- Generations and Gender Programme (2nd pilot survey project for SMAP)
- International Social Survey Programme ISSP
- Comparative Study of Electoral Systems CSES
- German Longitudinal Election Survey GLES (national survey)
- Programme for the International Assessment of Adult Competencies PIAAC

In order to focus on relevant topics that help us identify use cases and define user stories for the functionality of the survey management tool, we developed a standardised questionnaire. We addressed topics concerning organisational structure, actors and their roles, general workflows, standard means of internal communication, and issues that need improvement (specific requirements). However, with some stakeholders the interview was conducted freely, i.e. we focused more on specific topics that are more significant for the development work and therefore require more attention. Some conversations were not elaborate enough so that own research of details was necessary.

In order to prioritize our stakeholders, we focused on their contribution to the SMAP project. Based on the information they provided, we classified them by influence over our project and their interest in SMAP. An internal report summarises the results of stakeholder analysis at management level.

2.2. Survey processes

All the significant information we collected in different ways: through consultation with experienced colleagues, stakeholder interviews, project documentation, and other information sources (such as Cross-Cultural Survey Guidelines6) led to specification of different survey processes, which build the basis for the software requirement catalogue. Initially we identified survey processes at higher level,

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6 CCSW Website: http://www.ccsg.isr.umich.edu/index.php/how-to-cite-page
which we refer to as SLC tasks. Each task involves actors, who are assigned specific role(s). We tried to identify these key actors and describe their positions and responsibilities within each SLC stage. Subsequently we described generic user scenarios that imply processes, actors and tools for achieving a specific task goal. An example of the results with regard to the survey operations and workflows in data deposit and processing phase is displayed on the table A1 in appendix A.

Identify SLC tasks

Our stakeholders are large collaborative national and cross-national survey projects with either longitudinal or cross-sectional design with data collection cycles. A common characteristic of stakeholders is that they are well-established survey projects, implemented within the structure of organizations that carry out on-going operational activities. However, there are marked differences between the stakeholders concerning workflows. For example, while in SHARE and EVS data cleaning and processing may start immediately after the data in the country has been collected, in ESS the collected data is processed and documented only after the main fieldwork is done for all countries. Drawing on the information at hand, we grouped the relevant project management information and processes according to SLC phases (survey design, data collection, and data deposit) as the upper-level category. Despite the variety in some tasks, we identified and generalised tasks that we describe as broad processes. These include following aspects:

Survey design
- sampling procedure
- development of (source) questionnaire
- pre-testing
- translation of field questionnaires
- pre-test of final translations
- (translation adaptation)
- (interviewer training)
- fieldwork preparation

Data collection
- fieldwork
- fieldwork monitoring
- data capturing and check procedures (in PAPI data collection mode)
- final reporting

Data deposit
- data deliverables by survey agency / country

Data processing
- data cleaning
- data harmonisation (and integration)
- data documentation
- data archiving

Identify actors, their roles and functions

Collaborative survey projects, especially cross-national studies have a complex organizational structure due to different languages, cultures, work ethics, and different funding situations. In a
centralized organisational structure decisions concerning study design and operational aspects are usually made and monitored by a central managing body. A centralized infrastructure is preferred in international studies to standardise and monitor processes easier and to maintain quality requirements of the study. In a decentralised cross-national survey the central managing team sets general design guidelines for participating countries, however, each country makes their own operational decisions.

A survey project typically contains a management team known also as the project team, an overall project director, a project manager, and project stakeholders who are indirectly guided by the project managers. Stakeholders include for example an advisory board, the funding agency, the government representatives in countries as well, data archives, and others.

The management team generally consists of project manager(s), chairs of expert groups, principal investigators of participating countries as well, and other scientific experts. The members have assigned roles and responsibilities for completing specific tasks of the project. The management team is responsible for:

- the overall project leadership (coordination and management of all tasks)
- budget and scheduling
- monitoring the progress and assessing survey quality
- create guidelines and recommendations
- item development in collaboration with expert groups
- approve the final version of survey instrument
- providing translation trainings
- consulting in translation review process
- collaborate with and report to country team leaders
- facilitate the collaboration between the different actors

The overall project director is also known as the scientific lead, principal investigator or in some cases they may serve as project managers. Usually the project director is the mediator between the scientific experts and the project manager. Moreover, they are responsible for budgeting and contracting issues as well as monitoring the progress.

The project manager is there to ensure realisation of the project objectives, i.e. to make sure the project is completed within financial budget and time frame, while meeting special requirements and quality standards of the project. Depending on the complexity of the survey there might be more than one project manager responsible for the supervision of work and people involved in particular SLC tasks or working groups. In this case the overall project manager is the lead project manager.

A draft overview of actors and their responsibilities of the interviewed stakeholders is given in table A2 in appendix A.

**Describe user scenarios**

Drawing on the information on survey lifecycle processes and the actors involved we captured user stories that build the basis for defining requirements that SMAP software must provide. A user story describes the actor’s *role*, their *goal* and *benefit* of a requirement in a simple and concise way.
User stories described in our task are a primary way to derive functional as well as non-functional software requirements that facilitated the assessment of the selected software packages. However, user stories presented at this stage (see Table A3) are not definite, since requirements tend to change throughout the software evaluation and development lifecycle. Each user story is assigned a unique number. In the table the linkage to the requirement number specified in the Requirement Catalogue (see next section) is given.

2.3. Requirement Specification

To specify the system requirements we needed to identify who the user is and what their requirements are from the future software Survey Project Management Portal. Each requirement was defined and documented in the Requirements Catalogue on a catalogue entry form that contains the following details:

- **Project** - the proposed abbreviation of the name of the system.
- **Version** - a version number and date is assigned to the catalogue sheet rather than to a requirement. The initial version of the Requirement Catalogue is number one.
- **Requirement Number** - a unique requirement number is assigned to each requirement, starting with one.
- **Category** - the compiled requirements are based on three main categories: Community, Functionality, and Technical Basis.
- **Requirement Title** - each function / feature is described with a short name.
- **Priority** - a priority is assigned to the requirement. There are three priority levels: high, medium, and low. High priority is assigned when the requirement is mandatory. Medium priority is assigned when the requirement is desirable while requirements with low priority are optional.
- **Comments** - in comments column developer can put all kind of remarks.

The software requirements were updated in the course of the software assessment process. In this case, the updated version number of the requirements catalogue reflected this change. When testing the functions of selected software solutions the Requirement Catalogue complemented with additional information:

- **Description** – a short description of the requirement follows
- **Proposed solutions** - a section to express ideas for any possible solution or general comments
- **Status** - the status of the requirement is either ongoing or complete.
- **Related Documents** - reference to any related documents, e.g. user documentation, data flow diagrams.

**Requirement Catalogue**

The compiled requirements are based on three main categories: Community, Functionality, and Technical Basis. For illustration, some requirements are specified below; the complete list is provided in the Requirement Catalogue (updated version 4) in appendix B.

- **Community**
  - License model (commercial, open source, or dual-license)
- Documentation
- If it is open source, how the codes are maintained
- Software dependency

- Functionality
  - Projects with different subprojects / modules
  - Tasks management to working groups
  - Document Management System
  - Search function
  - Reporting

- Technical Basis
  - Scalability
  - Compatible with industry standard operating systems, such as Microsoft Windows, Unix or Linux
  - Encrypted connection between server and client
  - Web-based and cross-browser compatible

2.4. Evaluation strategy and criteria

Different software alternatives were evaluated with regard to the features listed in the Requirement Catalogue. Therefore, we developed a strategy that implies a stepwise rating of software features. We carried out the evaluation in four stages, each of them applying specific criteria of evaluation, for a stepwise elimination of inappropriate software packages and keep the suitable ones.

First evaluation stage: FORSbase assessment

In collaboration with FORS, the feasibility of the platform FORSbase was evaluated as it already meets a wide range of requirements such as archiving tools for documentation and deposit of research data, functions that enable researchers to access and exchange data and information and facilitate contacts and communication for researchers.

Second evaluation stage: Progressive and selective approach

As a result of our software search strategy 43 software systems supporting collaborative work could be listed. They were evaluated based on five key inclusion criteria in the given order of sequence:

- Software is web-based
- License model is open source
- File management system is present
- Task management features are present
- License costs do not exceed the resources defined in the business’s model

After filtering out the software platforms that do not meet the key inclusion criteria, the next evaluation step of the remaining portal software implied a detailed comparative evaluation based on the Requirement Catalogue.

7 License fee per project is estimated at around EUR 5.000 per year; low-cost user support should apply only to technical questions.
Third evaluation stage: Comparative assessment of each software package

In this stage, we checked in detail to what extent the selected software solutions meet the defined requirements, how software platforms differ and what their advantages and disadvantages are. For this purpose, all features/requirements were included in the comparative evaluation. Based on the quick check of single predefined requirement in Alfresco, eXo, and OpenProject, they were rated by the quality criteria of feature availability ‘0=not fulfilled/not present’, ‘1=partly fulfilled’, or ‘2=fully present’. In the next step we introduced a priority criterion ‘must have’ or ‘nice to have’ for the following detailed check process. Each feature that meets the availability criteria ‘not fulfilled/not present’ or ‘partly fulfilled’ and priority ‘must have’ was discussed in detail. Another rating criterion that helped in decision making was the subjective estimation of development effort (high, middle or low effort) for a particular feature or tool in terms of own development work or efforts necessary for adaptation/integration of external features.

Fourth evaluation stage: Assessment of single software

During this stage, we primarily addressed facts about the conditions for Enterprise as opposed to Community solution with respect to feature availability and possibilities for platform integrations, i.e. application development, software updates and support conditions, subscription and pricing. These factors were counted additionally to enrich the above quantifiers for the final software decision.

Fifth evaluation stage: Customization and further development

Additional assessment criteria are interface user friendliness and usability tests focusing on both simple and complex tasks/workflows. While studying the documentation, consulting with the development environment, and searching for the extensibility options of tools we can better estimate the development effort of own creation or adaptation of external systems into SMAP. The goal is to better examine the gap between the current and ideal state with the available resources within the scope of the project.

3. Evaluation

3.1. First Evaluation Stage: FORSbase assessment

The initial step in the software evaluation was to assess the applicability and suitability of the online platform FORSbase in order to examine the possibility to further develop this platform according to the available resources and within the scope of the project. Based on the Requirement Catalogue, we rated the features implemented in FORSbase in accordance with the availability criteria:

The requirement is:

- 0 not fulfilled/not present
- 1 partly fulfilled
- 2 fully present (latest available information, based on real test or documentation).

In the process of the feature evaluation we realised that specific requirements are not fulfilled or at least are not identifiable. The FORSbase developer team supported further assessment by
commenting in detail the preliminary evaluation scores (see Requirement Catalogue with FORSbase evaluation result in appendix C).

Workflow and file management features

Workflow management features are crucial for SMAP. The functional requirements such as create, describe, assign, and schedule a task, or the possibility to monitor and report on work progress are not covered by FORSbase and would require larger development effort. Moreover, at its current development stage, the portal’s structure and interface is not configurable without further development.

The FORSbase file management system is advanced. It allows easy upload and download of files as well as file versioning and file sharing with other users. There is a possibility for researcher to enter metadata to respective uploaded file. However, real-time-editing, i.e. collaborative and controlled editing of a same document is not possible. Document management system which includes document editing in real-time is a demanding tool in terms of software development. For this reason, we weighted higher its relevance for SMAP.

The survey design, data collection as well as data processing phase of survey life cycle require a collaborative environment that supports functionally the management of the project. For a successful collaboration between different teams it is essential to have workflow management features such as scheduled task, check and approval processes, timelines or progress charts. Further, the possibility to work collectively on one document (e.g. questionnaire development, fieldwork report, guidance material etc.) eases the communication, review as well as documentation of the processes. Consequently, based on final assessment results and information the FORSbase team provided during this period, we jointly came to the conclusion that the FORSbase system requires a higher development effort in order to make the programme suitable for the project management platform as described in WP 4.4.

Both the FORS and the GESIS team agreed on a decision to search for software platform alternatives that allow establish SMAP on software that requires less time and financial resources for developing crucial features. Moreover, FORSbase provides highly functional features, especially for purpose of data deposit and dissemination. At advanced stage of software evaluation process, FORSbase portal concept was considered for integration of relevant extension systems into SMAP.

Search for project management software alternatives

Following the result of FORSbase portal evaluation we developed a search strategy for identifying appropriate software that meets our key criteria for implementation of SMAP. First, in order to collect the portal software to be evaluated, we made use of two sources to compile an appropriate list: our institutional knowledge and internet research, especially Google search and Wikipedia.

The first key criterion for the search was the characteristic of a software program being "collaborative" that is, looking for an adequate project management portal that allows collaboration between different types of users or groups using one workspace. By combining both institutional

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8 In the initial evaluation we used another quantifier -1 “not fulfilled / not present” and 0 “unknown/to be determined”. In the following evaluation step we omitted the 0 quantifier in order to avoid uncertainties and misunderstanding in the evaluation results.
and internet sources, we identified 43 software systems supporting collaborative work in diverse projects (see overview of search result for collaborative software, table C2).

3.2. Second Evaluation Stage: Progressive and selective approach

In the first evaluation stage we rated 43 software systems and selected the most appropriate ones based on key selection criterion starting with the software property web-based. Since our concept is based on a virtual workspace that enables collaboration between project members and partners no matter of their geographical location, the criteria "web-based" software is mandatory. At this point, we went through the tools documentation available at websites in order to fill the checklist by “yes” or “no” value.

In the next step, we defined another two key requirements/features - file management and task management - covering significant functional aspects in order to narrow down the selection of portal software from 34 web-based to 22 software candidates that provide general features for file and task management and whose functionalities need to be tested in depth in the next assessment round.

Software criteria open source helped to identify the tools that make their source code freely available, i.e. ‘open’ source. These software programs naturally offer a wide range of possibilities to be further developed and customized according to the requirements. In contrast, the commercial portals are supported by the corresponding company, providing both bug-fixing service and customer assistance. The check resulted in nine software candidates that are web-based, have file management and task management system and are open source, with or without the option of having commercial support, and 13 non-open source portal software that are also web-based.

Table C2 in appendix gives an overview of the open source portals we exclude for the next stage of evaluation based on the complete Requirements Catalogue. After taking the availability of file or document management as well as task management features into account, we summarize this software feature assessment as follows:

1. Filtered out Open Science Framework (OSF) since this tool has a different group of users. OSF strongly focuses on laboratory experiments which is not compatible with our targeted users.
2. Filtered out Kolab, Kune, and 2-Plan as they lack support of document management and file sharing. In the entire phases of the survey life cycle, we deal with documents; therefore this feature is considered as a “must to have” which cannot be compensated.
3. Filtered out WordPress and OpenAtrium because these tools have a strong focus on the content management rather than document management.
   - OpenProject has its strength in workflow management with advanced features and functions, and less focus on document management. The next check is to estimate whether expanding current functionalities in the existing document management system in OpenProject is feasible.
   - Alfresco Community Edition and eXo Platform in turn have strong features in document management and file sharing, such as document versioning and collaborative editing, but they are not as strong in workflow management features compared to OpenProject.

Three software programs, which most effectively have met the selection criteria, were chosen for further assessments: Alfresco, eXo Platform and OpenProject.
3.3. Brief description of software packages

The following section provides some basic information about each of the software programs evaluated comprehensively in this report. The information presented in this section includes a brief description of software use rather than reviews on the functionality of the features of each software package.

All three portal systems, Alfresco, eXo and OpenProject, come in three software solutions: Community Edition, Enterprise Edition and Cloud Edition. Cloud software editions imply that the project content is hosted on Software Company’s server and therefore, Cloud solution are not compatible with the security concept foreseen for SMAP, which is ‘working in safe and secure application and content environment’ provided within our institutional server. For this reason the Cloud editions will not be part of software evaluation.

3.3.1. Alfresco

Version reviewed: Alfresco 5.0.2

Developed by Alfresco Software, Inc., Alfresco⁹ is an innovative, open source Enterprise Content Management (ECM) system.

Alfresco Enterprise Edition - Alfresco One is an open, standards-based platform designed for users who require enterprise-class capabilities within the platform such as customisable ECM, simplified administration, higher scalable performance, including support. Its hybrid cloud ECM platform allows selective management and content-synchronisation across cloud and on-premises repositories. The major functionality strengths are:

- Customizable search for relevant files, sites and people and customizable filters to refine searches by document property, format, content author, site, tag and more
- Collaboration tools including team sites, discussion threads, project wikis, task lists and activity feeds
- Document management system with ability to in-line preview, mark up and editing across multiple file types, version control, secure user access and policy-based collaboration
- Integrated Workflows and Business Process Management, simple task and workflow creation by users.

Alfresco One offers a wide range of modules and add-ons including integration with familiar tools like Microsoft Office, Microsoft SharePoint and Google Docs, Microsoft Outlook.

Alfresco One enterprise CMS subscription includes customer support from Alfresco experts, upgrades and maintenance.

Alfresco Community Edition is free to download and intended for developers and other users who are able to self-support and do not require additional modules provided by enterprise edition. Alfresco Community Edition is developed and maintained by Alfresco with the help of an active community of developers. There are periodic, stable releases. Community Edition has limited QA on an open source stack.

⁹https://www.alfresco.com/products/enterprise-content-management/community
Alfresco Community Edition is not supported\(^\text{10}\) by Alfresco or its certified partners. Support from active community of open source developers can be called upon for help via forums, wiki and online chat. Additionally, there is a registered German company that offers an ad-hoc support for the Alfresco Community Edition\(^\text{11}\) on an hourly basis.

3.3.2. eXo Platform

Version reviewed: eXo Platform 4.3.0

Founded in 2003 in Paris, eXo Platform\(^\text{12}\) is an open source Enterprise Social Collaboration Platform designed for enterprises with a strong focus on Social Network.

eXo Enterprise and Community Edition offer collaboration tools such as wikis, forums, calendars and documents, which are integrated around activity streams, social networking and workspaces. The social component of eXo Platform supports building of online communities of customers, partners, or fans and providing them with different applications. SMAP relevant features are summarised in the following categories:

- **Content management**: allowing creation of advanced websites by developing or extending templates or builds intranets, extranets and corporate websites using the same platform, and store and manage file documents in an xCMIS-compliant repository.
- **Collaboration and knowledge management**: enterprise wiki improves knowledge capture and sharing, discussion forum is a message board with built-in security, rating, polls and moderation. Integrated calendar allows users to manage multiple personal and group agendas and share them with others.
- **Social intranets and websites**: eXo Platform allows any user to create a collaboration space or topic-oriented sub-communities or workgroups, equipped with various applications (dashboards, discussion forums, documents, tasks, and calendar) and invite other users to join. Activity stream helps users to stay updated on the information and follow the activities taking place within and outside spaces.
- **Workflow**: shared document library allows browsing and management of process-related documents via the Content Explorer using a dedicated drive. Task management add-on supports creation and management of projects and tasks that can be attributed by assignee, priority level, due date, label/tag etc.

With respect to document management, eXo Platform supports easy file upload and download, preview, sharing, and editing remotely via WebDAV\(^\text{13}\). Advanced document management capabilities are available such as document editing in office, versioning, metadata, advanced search and digital asset management. Additional functions such as website templates, video calls, clustering and high availability are provided in the Enterprise edition package. Support is provided through own

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\(^{10}\) The release updates are provided by Alfresco as the owner of the open source version and Customers of Alfresco Community Edition are responsible to download and install the updates.

\(^{11}\) [https://www.contentreich.de/alfresco-community-adhoc-support](https://www.contentreich.de/alfresco-community-adhoc-support)

\(^{12}\) [https://www.exoplatform.com/](https://www.exoplatform.com/)

\(^{13}\) [https://en.wikipedia.org/wiki/WebDAV](https://en.wikipedia.org/wiki/WebDAV)
branding/logo, single sign-on, active directory integration and possibility to connect to 3rd party apps.

In terms of features eXo Community Platform includes the same features as the Enterprise edition, excluding task management, remote edit “Open in Office”, website templates, video call and chat, which features can be installed on the Community edition in the form of add-ons.

Upgrades on the Community and Enterprise editions work the same except that Enterprise edition come with a stricter release management. Like Alfresco, technical support with Service Level Agreement (SLA), consultation and maintenance is only provided for Enterprise customers.

3.3.3. OpenProject

Version reviewed: OpenProject 5.0.4

OpenProject\textsuperscript{14} is an open source software management system for collaborative projects being actively developed by an open source community.

OpenProject is designed for management of projects in rather computer and technology environment than content and business process management. It has strong features to support and efficiently manage projects with collaborative project planning and adaptive timeline reports. From the project managers’ point of view, the platform allows us to easily monitor all project activities, delegate and manage tasks, and requirements. Creating and managing task hierarchies and dependencies are also its strength. It comes with free regular updates and new releases. The most relevant features are:

- Manage project activities (tasks, requirements, bugs, risks, etc.), set up custom fields, create work package relations, see all changes and comments in the work package history
- Filter, group, analyse and extract work packages, save work package filters and reports
- Project monitoring via project timelines, track dependencies and report dates
- Create Wiki pages and project news announcements
- Document management supports linking documents to work packages and versioning of files
- Time tracking via Back log feature
- Time and costs reporting tool allows overseeing time and money spent, as well as keep track of the remaining budget for the project.

OpenProject Enterprise Edition\textsuperscript{15} builds on top of the Community Edition and includes extra features mainly aimed at organizations with more than 10 users that manage business critical projects with OpenProject. The Enterprise Edition includes a variety of additional premium features such as single-sign-on, own logo, synchronisation of LDAP Groups, custom colour scheme and professional support services such as maintenance and support, custom development, and training and consulting.

\textsuperscript{14} https://www.openproject.org/

\textsuperscript{15} https://www.openproject.org/enterprise/
3.4. Third Evaluation Stage: Comparative evaluation

This section compares the relative performance of each software package on the basis of the evaluation criteria retained for this report. For a better overview, this section is structured in three sub-sections: License model and conditions, Community, and Functionality. Each sub-section evaluates the performance of the software packages with respect to one particular dimension of evaluation. Referring to the assessment results given in table D1 Comparative Evaluation file version 5 (appendix D), we weighted the scores achieved for each feature, amplified by the properties “must have” or “nice to have” as a part of prioritization, as well as by development effort and subjective rating scales based on our impression. Table 1 compiles the criteria taken into consideration in the stepwise evaluation of features/tools of portal software with regard to the requirements specified.

### Table 1. Main criteria applied for assessment of requirements

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Score</td>
<td>0 not fulfilled/not present</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>1 partly fulfilled</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2 fully present</td>
<td></td>
</tr>
<tr>
<td>2  Priority</td>
<td>must have</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>nice to have</td>
<td></td>
</tr>
<tr>
<td>Requirements rated as ‘must have’ and ‘not fulfilled’ or ‘partly fulfilled’ were further evaluated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  Development effort</td>
<td>high</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>no general estimation possible</td>
<td></td>
</tr>
<tr>
<td>4  Effort to integrate/ adapt external system</td>
<td>high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>depends on the certain plug-in/tool</td>
<td></td>
</tr>
<tr>
<td>5  Assessment</td>
<td>Pros and cons</td>
<td>Yes</td>
</tr>
<tr>
<td>6  ‘Nice to have’ features</td>
<td>Additional features provided by the portal software</td>
<td></td>
</tr>
<tr>
<td>7  Customisation</td>
<td>Assessment of usability and maintainability issues (e.g. intuitive interface)</td>
<td></td>
</tr>
</tbody>
</table>

3.4.1. License models and conditions

All three collaborative software packages selected for the next evaluation stage, Alfresco, eXo Platform and OpenProject, have dual license model, i.e. they are open source software with the option of subscription for commercial support. A dual license model is attractive, especially when IT resources are limited. The advantage of professional support over community-based support model is that it allows customers to keep the freedom to study and modify the software with own developments and extensions and even distribute it, and on the other hand, customer is eligible for maintenance program and professional services provided by the software company for technical issues such as application extension mechanisms or extension adaptation for release updates. We compared the licensing condition for Community and Enterprise editions of all three software packages to collect arguments that support the software decision process.

**Alfresco**

The annual license costs for subscription of *Alfresco One Enterprise Edition*, further development and maintenance range between 20,000 and 25,000 EUR for a three-year plan. The commercial support is bundled in product Alfresco One for up to 300 users, including some additional packages and...
customization. Alfresco One includes licence conditions aimed at organisations and enterprises
dealing with large-scale business projects. A possibility to obtain a licence for one year or to scale down the number of users in order to achieve a partial subscription price is not given.

*Alfresco Community Edition* is an innovative, open source Enterprise Content Management platform intended for use in non-critical environments\(^{16}\). Distributed under the LGPLv3\(^{17}\) license, a permissive open-source license that emphasizes the freedom to use and alter the software. Software edition is free for download and best suited for developers who are willing to self-support and do not require the additional enterprise-class modules and features\(^{18}\). There is a possibility to get *Alfresco Community adhoc Support* for a price of 100 Euro / hour (VAT excluded). It includes services such as release updates, bugfixing, and extension adaptation for release updates, consultation and training via Skype, email or phone, etc.

eXo Platform

eXo Platform offers the community an enterprise software solution as well. An *eXo Enterprise* subscription comes with an associated support service agreement. According to the official website, customers can choose between three subscription models for one year or three-year plan: Basic, Standard, and Premium, which can be tailored to customers’ needs. Comparing to *Alfresco One*, *eXo Enterprise* edition, *eXo* provides a rather moderate option with 6.000 USD for the annual subscription for up to 100 users, software maintenance, and basic support.

*eXo Community Edition* is licensed under LGPL and is community-supported through the community website and in particular through the forums, wiki and documentation. Community and Enterprise have same codebase and content structure, which supports an easy migration of contents in case of upgrade or downgrade of licence/subscription models. Binary packages, however, do not contain exactly the same features. Enterprise edition has additional features which can be installed on the Community edition in the form of add-ons, but without support regarding the stability.

OpenProject

*OpenProject Enterprise* on-premise installation comes with three types of support with user-based subscription: Standard Support price per month 500 Euro up to registered 100 users, Premier Support price per month 980 Euro, and Corporate Premier Support price on request.

OpenProject Community Edition is licensed under the terms of the GNU General Public License version 3 (GNU v3). It offers an open source solution with option for commercial support that is not user-based but service-based and costs between 100 and 150 EUR per hours for consultancy. Another option is a fully corporate support that costs 1500 EUR monthly, with approx. 18000 Euro per year making it more expensive than the user-based Enterprise Standard subscription model. The community support is provided through blog and documentation.

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\(^{16}\) A critical environment reflects a system that regularly used by many (mostly external) users concurrently and a Service Level Agreement.  
\(^{17}\) http://www.gnu.org/licenses/lgpl-3.0.en.html  
\(^{18}\) https://www.alfresco.com/products/enterprise-content-management/community
3.4.2. Community

Community category relates with the facts in the previous sub-section licence models and conditions. It refers additionally to the availability of the source codes, as well as the dependencies with other software.

It is rather unlikely to identify a web-based software platform that meets all functional requirements and has reasonably priced license for an easy and intuitive management of a collaborative survey project. For this reason, we identified features and applications that need to be customized or further developed in order to meet our requirements. Subsequently, the development effort was estimated (corresponding step 3 and 4 in Table 1). In the following we summarize the main comparative assessment results with regard to license conditions and technical support issues in case of own development of application extensions.

**Alfresco**

Professional adhoc support for *Alfresco Community Edition* is an external service that is very costly and has a reaction time up to 36 hours. This relates with the risk of purchasing many hours of support in the process of developing features and adapting extensions. Moreover, the upgrade from Alfresco Community to Enterprise is not realistic if we take the subscription fee for a three-year-plan Enterprise edition into account.

**OpenProject**

Like Alfresco and eXo, professional support and maintenance in *OpenProject* is included in the subscription model for Enterprise Edition. The user-based *Enterprise Edition* subscription offers user-based support. As SMAP projects will exceed total number of 100 users, only the subscription model for unlimited number of users is significant for this evaluation. Monthly price for this subscription is 1000 Euro (12000 Euro per annum).

For *Community Edition* users *OpenProject* offers the option to obtain commercial support. Similar to Alfresco adhoc support, this commercial support is on hourly bases, i.e. customer has the possibility to purchase service hours for consultancy, or buy a fully corporate support. Using a pricey reasonable hourly support is advantageous only if the estimated effort for customisation and the development of extensions and/or additional features is low and the required technical support by OpenProject can be calculated.

**eXo Platform**

The free *eXo Platform Community* provides technical support through online developer community, eXo forum, documentation and wiki. Few relevant features are available only in Enterprise solution such as website templates or video calls, and some features need further adaption such as linking task to an integrated project workflow management and document management application. Comparing to Alfresco and Open Project enterprise models, *eXo Platform Enterprise* offers a timely flexible (one-year or three-year plan) Basic or Professional enterprise subscription model with up to 100 users (6000 US Dollar per year). However, this eXo package does not include development environment as well as support service for custom development. In a scenario where own development work is inevitable in order to provide a fully featured tool for researchers, we have to consider other eXo Enterprise models. The *Enterprise* solutions, both Standard and Premium,
provide a fully featured, fully packaged\(^{19}\) collaborative platform as well as access to all add-ons\(^{20}\) developed from and for the eXo community. The subscription plan for these Enterprise models is not user-based. It complies with number of cores / CPUs on the server or multiple servers. The subscriber can host multiple eXo instances in order to operate in different projects as long as the overall number of CPUs is not exceeded. The details about the subscriptions are recapped in the so-called Master Subscription Agreement\(^{21}\). In addition, the Enterprise Premium offers a custom software development made by eXo with additional cost.

According to our assessment results at this point, we excluded *Alfresco Enterprise* and *OpenProject Enterprise* edition from a consideration as potential software for our project because of the high cost and no alternative option for the subscription.

Reviewed features in Alfresco One are shown in the evaluation table in appendix D in order to compare in detail the differences in the functionality between both editions *Alfresco One Enterprise* and *Alfresco Community*.

### 3.4.3. Functionality

In this category, we reviewed thoroughly the available features of each software portal with regard to our requirements, i.e. what the portal must do, can do, and shall do. We consider the requirements/features in this category as very important for the later implementation. Our main focus is to check features in project task and document management. For reasons of simplicity, we divide the results based on feature functionality in two groups: document or file management (e.g. versioning and collaborative file editing) and file sharing, and project workflow management, i.e. creation of collaborative projects and tasks with workflow attributes such as description, scheduling, assign to users, interdependencies etc. (see table D1).

**Document Management**

- *Alfresco* combines document management system (DMS) and build-in workflow capabilities for example, for document review and approval. It supports real-time editing of documents and automated record management. It has multiple layers of access permissions to view, modify and delete documents.
- *eXo Platform* provides an open source document management system with collaboration and social features. It allows full version control and tracking by keeping the edit history. A user management concept allows people to have different access rights for applications, workspaces, folders and files.
- *OpenProject* has a strong focus on project management collaboration tools such as work packages. Linking documents to work packages/tasks is possible. The disadvantage to Alfresco and eXo is that editing documents in real time is not possible, i.e. users must download documents/files and edit locally. Advanced file sharing is not possible, that is all of the uploaded documents will be visible to all of the project members.

\(^{19}\) https://www.exoplatform.com/#/#features  
\(^{20}\) https://community.exoplatform.com/add-ons  
Workflow Management

- **Alfresco** workflow management is rather an extended DMS, where documents are reviewed and approved by specific actors. There are different types of workflows that underlie the same structure: assign task to user, schedule task, set task priority, attach content (file) for review and approval, and edit workflow status. The disadvantage is the restrictions of collaboration within a specific team to only few activities: the ability for assigned people or groups to download file/s, review (e.g. write comments in the task) and approve (edit task status).

- **eXo Platform** allows for creation of collaborations workspaces for teams or project groups which can be private or public respective to member permissions. Within the workspace members can share projects, tasks, documents, calendar, wikis etc. eXo add-on application Task Management allows for project, sub-project and task creation including task description, scheduling, assignment, tagging, and commenting. Some functions in Task Management, however, are not connected to other default applications in eXo, e.g. scheduled tasks created with Task Management will not appear in the enterprise Calendar.

- **OpenProject** has strong features in project workflow management, such as managing tasks with collaborative project planning and adaptive timeline reports. This is based on the fact that OpenProject was created initially for management of software-related projects. Task dependency possible through „Relations“ (e.g. parent/child) and through "Backlog" Plug-In. Possibility to attach file and upload multiple files to a work package.

In addition to the features listed in the Requirement Catalogue, we searched for “nice to have” features in each portal software that we might consider for the final decision.

- **OpenProject** has a useful feature to generate report and estimate cost/budget whereas the other two do not.
- **eXo Platform** provides a feature for video conference, which can be purchased as additional plug-in.
- **Alfresco** has also a nice feature to define project’s specific activities/tasks through workflows.

In terms of technical issues such as security and scalability, all tools are well prepared. Content and file transfer takes place in a secure environment. It is possible to integrate encryption over the connection between server and clients, e.g. through Transport Layer Security (TLS). The requirement for storing highly sensitive data, in addition to the secured connection, can be solved by secured file system supported by most operating systems.

Based on the evaluation scores, there are no definite differences in the overall results among the tools (Total result score: OpenProject = 115, Alfresco = 118, eXo = 123). Filtered by the criteria “must have” and “nice to have” features, especially the document management feature, OpenProject was highly ranked in terms of further development effort since this functionality is not covered by the default software package. Alfresco and eXo Platform were assessed with similar scores, which made it difficult to make a final decision at this evaluation stage.
3.5. Fourth Evaluation Stage: Assessment of single software

Before proceeding with customisation and usability test, we summarise facts about the conditions for Enterprise as opposed to Community solution with respect to feature availability and application development, subscription and pricing.

Feature availability and development framework

Concerning community and commercial support, the functionalities meeting SMAP requirements are in similar conditions. The features that are available only within the subscription are for business-specific needs. In eXo Platform there is e.g. video chat that is only available with the subscription. In Alfresco there is e.g. a Cloud Sync feature for files that comes only with the subscription. There are pros and cons for both programs in the performance of document management system and workflow management functions. In Alfresco the workflow process is estimated as an advanced or extended DMS which functions for document editing, review and approval, security control and repository structure are sophisticated. However, the collaborative component at team or project level is not given in Alfresco. In eXo the collaboration occurs within a (work)space that is agile and allows for inclusion of different applications, depending on the design of the project. DMS in eXo is also a progresses default tool with the limitation, that it is not directly linked to task management. In terms of development effort for platform adaptations we estimate less resources for connecting existing tools as DMS to task management in eXo Platform than developing platform integrations to Alfresco for integral and collaborative work purposes.

Alfresco and eXo Platform enable us to have their Community editions with the source codes. Community and Enterprise have same codebase and content structure. Whereas the Alfresco’s source codes are officially provided in SVN (Subversion), which is not comfortable comparing to Git, eXo Platform maintains the source codes in Git. This makes it easy to fork the source codes of the eXo Platform, make improvements, and share them with others. Modifications in the source code are not supported in the Enterprise solution. Platform integrations are possible through extension mechanism in eXo and Alfresco Share web application. Both products allow customizations through add-ons.

Subscription and pricing

eXo Platform offers flexible subscription models (Professional and Enterprise) with promised discounts for non-profitable organisations. Migration from the community edition into the enterprise edition should not be a problem since the basic functionalities between these two editions are the same. It is helpful also for the future in case we have to reduce the resource capacity of the development beyond the project. We summarize the subscription plans as shown in table 2.

Generally, in order to guarantee the service-level agreement (SLA) in terms of the availability it is reasonable to obtain support through enterprise subscription plan. In this case, migration from Alfresco community to enterprise solution is not easily possible due to the high licence costs in a three-year-plan.

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22 Three year period corresponds to SERISS project scheduling for SMAP development and implementation as project management portal rather than being a fully established marketed product.
Table 2. Subscription plans for eXo Platform Enterprise

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<tr>
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<th>Professional</th>
<th>Enterprise Standard</th>
<th>Enterprise Premium</th>
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<tbody>
<tr>
<td>Registered Users</td>
<td>Up to 100</td>
<td>Unlimited</td>
<td>Unlimited</td>
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<td>Available Distributions</td>
<td>Windows/Mac/Linux</td>
<td>Tomcat Bundle – JBoss EAP</td>
<td>Tomcat Bundle – JBoss EAP</td>
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<td>Authorized Deployments</td>
<td>Single Server</td>
<td>Multiple Server – High Availability</td>
<td>Multiple Server – High Availability</td>
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<td>Named Contacts</td>
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<td>Support Channel</td>
<td>Web</td>
<td>Web</td>
<td>Web + Phone</td>
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<tr>
<td>Response Time</td>
<td>± 2 business days</td>
<td>± 1 business hour</td>
<td>± 1 hour on 24x7</td>
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Drawing on the administrative and technical advantages of eXo Platform, as stated previously in the section 3.4., we focused on further in-depth assessment of software applications, features and functions available in eXo Platform that are crucial for SMAP’s successful implementation. Consequently, we were able to derive the required development steps, which are conform to our business model. We implemented use cases that build on the SLC-processes, project management principles, as well as (generalized) survey project demands, in order to reduce the complexity of applicable features and to facilitate easy handling and management of the portal functions.

3.6. Fifth Evaluation Stage: Customization and further development

According to assessment results, eXo Platform is considered to be the best software candidate that suits our SMAP concept in terms of feature availability and functions, terms of license and support, and extension options. In this last evaluation step the goal was to become familiar with the tool, both from the users’ point of view and developers’ point of view. In eXo Community (free package) we are in the process of identifying the basic customisation steps and implementation of usability test with real users. Simultaneously we will upgrade by an enterprise subscription and install the SMAP portal for the pilot project EVS (portal myEVS). eXo Platform Enterprise subscription provides not only access to all eXo features and add-ons but also technical support that makes further development and customisation of required portlets and gadgets within our SERISS task easier and compatible through the eXo Platform extension mechanism. Developing extensions does not violate the eXo’s Master Subscription Agreement since they are independent of the main source codes. In case of financial shortage there is a possibility to quit the enterprise subscription contract and migrate projects and their data to the Community Edition.

Few SMAP features are not fulfilled given the functionalities provided by eXo Platform, or at least there are no ad-hoc solutions to date of this report. An integrated web development environment (IDE) is embedded in eXo Platform which enables an IT team to develop, customize, and extend sites with gadgets and dashboards. Below are listed prioritized features that are necessary for establishing a fully featured, customised and tested portal for the pilot survey project European Values Study 2017.
• Web content page within workspace
  o Provide introductory and guidance information for specific SLC-task
  o Provide documents for download

• Progress report to monitor processes
  o Collect information from countries on fieldwork progress
  o Compile an overview of regular updated information by central management team

• Deliver metadata
  o Capture methodological / technical metadata through reporting
  o Submission of metadata (information on study and file level) to ingest system of an archive

• Check deliverables / To-Do Lists
  o Support communication between actors on results of validation processes of
timeliness/completeness/quality of deliverables or tasks
  o Allow automated and repeated processes as notifications on completed actions or
overdue tasks

• Messaging system within portal
  o Send message to one or a group or users (with or without attachment)
  o Get notification in the private email program

The first test of the eXo extension mechanism was done on the application Task Management (e.g.
integrate button for printing task description, attach files to tasks etc.). So far it proved to be a stable
and compatible tool for the extendibility of the platform. In the next step we will describe use cases
for the development of the above listed feature extensions and discuss possibilities and solutions with
the eXo professional developer team.

4. Conclusion

To establish a Survey Project Management portal – SMAP that supports complex and multi-actor
workflows in large-scale international surveys, we searched for appropriate collaborative, web-based
and open source software. Initially, the FORSbase portal was taken into consideration as a potential
tool as basis of the SMAP platform. The limitations of FORSbase refer to the lack of collaboration
features that support management of survey projects in the earlier phase of SLC. However, with the
expertise from colleagues from FORS, we are able to identify use cases for data preparation and
archiving processes which will be tested by FORS and then implemented in SMAP prototype.

Based on the predefined criteria and list of required features we were able to narrow the software
possibilities considerably. Three software packages were shortlisted: Alfresco, OpenProject and eXo
Platform. As expected, no software product matches all the SMAP requirements. This implies that
development work is needed in order to customise and extend the existing applications, or even to
develop add-on features in cases were a certain tool does not provide an essential functionality. Being
aware of limited software development resources and minimal IT staff for SMAP, we focused on
minimal development effort in software evaluation and decision making process.

According to the assessment results in table D1, eXo Platform scored highest in terms of availability of
features that have high priority (must have) and for which development is associated with high effort.
OpenProject scored lowest meaning that, in contrast to eXo Platform, it has lower coverage
of requirements, especially of those that are important and which would need to be developed (must have / high = 64). Alfresco software yielded an assessment score that lies between eXo and OpenProject. After narrowing the software selection down to Alfresco and eXo platform we dealt in greater detail with the issue of professional support, availability of the system, and extensibility options for integration of homemade applications or adaptation of external systems into SMAP. Given the fact that eXo Platform requires less development resources for its customisation into SMAP and it offers a considerably less expensive solution for enterprise license model with professional support than Alfresco Company, we came to conclude that eXo Platform is the best suited software for SMAP. With eXo Platform we have the flexibility to implement further customisation and development work in the free/community version and at the same time acquire the supported license model (Standard Enterprise), install and configure the enterprise platform instance into SMAP when the pilot project is ready to start.

After a comprehensive software evaluation process that concludes with a choice eXo Platform as open source software for implementing SMAP the next step is to test customisation options that the platform offers as well as the potential for feature extension. With reference to eXo’s software architecture, its portal framework and features we present a simplified concept for SMAP and its deployment steps as shown in Figure 2 below.

**Figure 2. SMAP concept: deployment steps**

In summary, customisation is based on different concepts such as role-based policy for delivery of content and applications, portal-based sites including content management, document management, collaboration, and more. The deployment process undergoes three main customisation steps by different administrators (software consultant, SMAP team and survey project team). In the next steps we will first conceptualise the SMAP templates, i.e. identify and define feasible options to tailor portal structure, layout, and specific set of features that best suit the needs of the three phases of the lifecycle of survey projects. Then we will set up and test a pilot implementation (myEVS) for the EVS group supporting the EVS 2017 wave.
## Data preparation

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<th>Functional Unit</th>
<th>SMAP</th>
<th>Action/Goal</th>
<th>Output/Deletable</th>
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<td>CT</td>
<td>NTs in consultation with country teams</td>
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<td>NTs in consultation with country teams</td>
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<td>NTs in consultation with country teams</td>
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<td>NTs in consultation with country teams</td>
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<td>NTs</td>
<td>NTs</td>
<td>NTs</td>
</tr>
<tr>
<td>Task Owner</td>
<td>Task</td>
<td>Activity</td>
<td>Output / Deliverable</td>
<td></td>
</tr>
<tr>
<td>------------</td>
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<td>----------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>CT or Archive</td>
<td>Create a task for data processing.</td>
<td>Exchange of file format with NCs</td>
<td>delivered documents and check results</td>
<td></td>
</tr>
<tr>
<td>NTs</td>
<td>Upload data cleaning files for CT to check.</td>
<td>Create To-Do-lists / Validation</td>
<td>delivered data &amp; check results</td>
<td></td>
</tr>
<tr>
<td>CT or Archive</td>
<td>Create a task for data processing.</td>
<td>Exchange of file format with NCs</td>
<td>delivered documents and check results</td>
<td></td>
</tr>
<tr>
<td>NTs</td>
<td>Upload data cleaning files for CT to check.</td>
<td>Create To-Do-lists / Validation</td>
<td>delivered data &amp; check results</td>
<td></td>
</tr>
</tbody>
</table>

### Data Check

- CT or Archive will check deposited data for completeness and documented as table outcomes.
- NTs will check deposited data for completeness and documented as table outcomes.
- CT or Archive will upload data cleaning files for CT to check.
- NTs will upload data cleaning files for CT to check.

### Preparing the Data

- CT or Archive will create a new task.
- CT or Archive will upload data cleaning files for CT to check.
- CT or Archive will upload data cleaning files for CT to check.
- CT or Archive will upload data cleaning files for CT to check.

### Statistical Adjustment

- NTs will give feedback to CT.
- CT or Archive will create a new task.
- CT or Archive will upload data cleaning files for CT to check.
- NTs will give feedback to CT.

### Activity Summary

- **EXS**: Enter information on file format with NCs.
- **ES**: Enter information on file format.
- **SA**: Enter information on file format.
- **NI**: Enter information on file format.
- **NPD**: Enter information on file format.

### Actors

- **CT**: Central
- **TC**: Technical Center
- **NT**: National Team
- **NC**: National Coordinator
- **PI**: Principal Investigator
- **SDDF**: SHARE Central
- **SHARE Central**: SHARE Central
- **SHARE**: SHARE Central
- **SHARE Compliance Profile**: SHARE Central

### Goals

- **Data Quality Issues**: Prevent data quality issues from being carried forward to subsequent activities.
- **Data Completeness**: Ensure that all required data is collected.
- **Data Timeliness**: Ensure that data is provided on time.
- **Data Accuracy**: Ensure that data is accurate.
- **Data Consistency**: Ensure that data is consistent across different sources.
- **Data Usability**: Ensure that data is usable for research purposes.

### Deliverables

- **Data Cleaning Report**: A report that describes the data cleaning process.
- **Data Quality Issues**: A list of data quality issues identified during the data cleaning process.
- **Data Completeness Issues**: A list of data completeness issues identified during the data cleaning process.
- **Data Timeliness Issues**: A list of data timeliness issues identified during the data cleaning process.
- **Data Accuracy Issues**: A list of data accuracy issues identified during the data cleaning process.
- **Data Consistency Issues**: A list of data consistency issues identified during the data cleaning process.
- **Data Usability Issues**: A list of data usability issues identified during the data cleaning process.

### Stakeholders

- **NC**: National Coordinator
- **NT**: National Team
- **PI**: Principal Investigator
- **SDDF**: SHARE Central
- **SHARE Central**: SHARE Central
- **SHARE Compliance Profile**: SHARE Central

### Notes

- **Data Quality Issues**: Data quality issues that need to be clarified.
- **Data Completeness Issues**: Data completeness issues that need to be clarified.
- **Data Timeliness Issues**: Data timeliness issues that need to be clarified.
- **Data Accuracy Issues**: Data accuracy issues that need to be clarified.
- **Data Consistency Issues**: Data consistency issues that need to be clarified.
- **Data Usability Issues**: Data usability issues that need to be clarified.
<table>
<thead>
<tr>
<th>IC</th>
<th>Actor/Contact</th>
<th>Task</th>
<th>Activity</th>
<th>Output / Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
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<td>1B</td>
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<td>1T</td>
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</tbody>
</table>
## SHARE Programme Structure

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair/Project Director</td>
<td>Project Director &amp; Project Manager</td>
<td>Chair the project, steer the project, ensure the smooth running of all aspects of the project, and serve as the main point of contact for all stakeholders.</td>
</tr>
<tr>
<td>Management Team</td>
<td>Management Team (MT)</td>
<td>High-level decision-making body for the entire project. Includes 6 official positions: Project Director, Project Manager, National Team Leaders, Country ESS Respondents, Coordinators, and Technical Steering Committee.</td>
</tr>
<tr>
<td>Technical Office</td>
<td>Technical Office (TO)</td>
<td>Responsible for the data collection in their country, including fieldwork planning, implementation, and data cleaning.</td>
</tr>
<tr>
<td>Policy Advisory Committee</td>
<td>Policy Advisory Committee (PAC)</td>
<td>Provides advice on policy-related aspects of the project.</td>
</tr>
<tr>
<td>Expert Group</td>
<td>Expert Group (EG)</td>
<td>Responsible for conceptual and topical development of the project.</td>
</tr>
<tr>
<td>Coordination Team</td>
<td>Coordination Team (CT)</td>
<td>Chairs of expert groups, country PIs, and other stakeholders.</td>
</tr>
</tbody>
</table>

## SHARE Collaboration Structure

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>National Director</td>
<td>The National Director is responsible for the overall management of the national team, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Coordinator</td>
<td>National Coordinator</td>
<td>Is the head of the Management Team, the direct representative of the ESS ERIC, and the scientific leader of the Research Consensus.</td>
</tr>
<tr>
<td>Coordinators</td>
<td>Coordinators</td>
<td>Are appointed by a national institution and are responsible for the ESS ERIC.</td>
</tr>
<tr>
<td>Members</td>
<td>Members</td>
<td>Are researchers at Munich Center for the Economics of Aging (MEA), responsible for the implementation of the SHARE project workflow and joint activities.</td>
</tr>
<tr>
<td>Collaborators</td>
<td>Collaborators</td>
<td>Are responsible for supporting the SHARE project, including the implementation of specific design tasks, laying down rules for implementation of specific design tasks, and providing advice on questionnaire development.</td>
</tr>
<tr>
<td>Investigators</td>
<td>Investigators</td>
<td>Are responsible for the implementation of the national survey, including fieldwork planning and data cleaning.</td>
</tr>
</tbody>
</table>

## SHARE Governance Structure

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>Chair</td>
<td>Responsible for the overall management and quality assurance of the project.</td>
</tr>
<tr>
<td>Programs</td>
<td>Programs</td>
<td>Responsible for steering the project workflow and joint activities.</td>
</tr>
<tr>
<td>Task Forces</td>
<td>Task Forces</td>
<td>Responsible for implementing specific design tasks, laying down rules for implementation of specific design tasks, and providing advice on questionnaire development.</td>
</tr>
<tr>
<td>Committees</td>
<td>Committees</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Forums</td>
<td>Forums</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
</tbody>
</table>

## SHARE Data Management

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>Data Manager</td>
<td>Responsible for the overall management and quality assurance of the project.</td>
</tr>
<tr>
<td>Experts</td>
<td>Experts</td>
<td>Responsible for supporting the SHARE project, including the implementation of specific design tasks.</td>
</tr>
<tr>
<td>Consultants</td>
<td>Consultants</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Investigators</td>
<td>Investigators</td>
<td>Are responsible for the implementation of the national survey, including fieldwork planning and data cleaning.</td>
</tr>
</tbody>
</table>

## SHARE Communication

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>Chair</td>
<td>Responsible for steering the project workflow and joint activities.</td>
</tr>
<tr>
<td>Programs</td>
<td>Programs</td>
<td>Responsible for steering the project workflow and joint activities.</td>
</tr>
<tr>
<td>Task Forces</td>
<td>Task Forces</td>
<td>Responsible for implementing specific design tasks, laying down rules for implementation of specific design tasks, and providing advice on questionnaire development.</td>
</tr>
<tr>
<td>Committees</td>
<td>Committees</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Forums</td>
<td>Forums</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Forums</td>
<td>Forums</td>
<td>Responsible for monitoring the progress of the project, including budgeting and contracting issues.</td>
</tr>
<tr>
<td>Table A2: SHARE actors and roles as a result of stakeholder analysis</td>
<td></td>
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<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assistant Team Leader (ATL)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Usually responsible for coordination of operational tasks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Planning and executing operations in accordance with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>project timelines and requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organize meetings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Monitor work of the team.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Quality control of tasks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Manage communication.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Country Team Operator (CTO)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Runs day-to-day operations in each country, supported by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a central team.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Supports CTO in obtaining national funding and reporting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Software testing (SOS, CAPI) data base activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fieldwork preparation and data collection activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Monitor progress of tasks, including data collection and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>data quality checks, cleaning, checking, coding, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>review of interview reports.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assistant Project Manager</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Responsible for coordination of operational tasks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Planning and executing operations in accordance with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>project timelines and requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organize meetings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Check work progress.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Quality control.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Report problems, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Advisory Board</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No active role in the portal, i.e.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>only special tasks such as maintaining scientific quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EVS Foundation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Provides financial support and advice on scientific</td>
<td></td>
<td></td>
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<tr>
<td>quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scientific Monitoring Board</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Consists of a team of scientists.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Monitors scientific quality of SHARE.</td>
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</tr>
<tr>
<td><strong>Technical Advisory Group (TAG)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- A scientific body (experts) that supports and consults</td>
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<tr>
<td>with international organizations on scientific matters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Provides technical support and advice on scientific</td>
<td></td>
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<tr>
<td>quality.</td>
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<td></td>
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<tr>
<td><strong>Council</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Involves in approval processes, including scientific,</td>
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<td></td>
</tr>
<tr>
<td>methodological, financial, or ethical issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Elects a Chairperson and a Vice-Chairperson from the</td>
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<tr>
<td>delegations of the Contracting Parties for a period of</td>
<td></td>
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<tr>
<td>two years.</td>
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<td></td>
</tr>
<tr>
<td>- Approves the annual report, the financial statement, and</td>
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<tr>
<td>the budget.</td>
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<td></td>
</tr>
<tr>
<td>- Receives reports by the Scientific Monitoring Board.</td>
<td></td>
<td></td>
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<tr>
<td><strong>General Assembly</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- All participating countries send one or two representatives</td>
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<tr>
<td>to the General Assembly.</td>
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<td></td>
</tr>
<tr>
<td>- The General Assembly elects a Chairperson and a Vice-</td>
<td></td>
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</tr>
<tr>
<td>Chairperson from among the representatives of the</td>
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<td></td>
</tr>
<tr>
<td>Contracting Parties for a period of two years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Approves the annual report, the financial statement, and</td>
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<tr>
<td>the budget.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Receives reports by the Scientific Monitoring Board.</td>
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</tr>
<tr>
<td>US #</td>
<td>Story</td>
<td>Linkage</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>As a user, I am able to configure my workspace (dashboard)</td>
<td>2.1.1, 2.1.2</td>
</tr>
<tr>
<td>2</td>
<td>As a user, I can set up projects, sub projects, tasks and subtasks in a specific order</td>
<td>2.1.3, 2.1.4, 2.1.5</td>
</tr>
<tr>
<td>3</td>
<td>As a user, I can upload and download a file, or create new and remove files from my working space</td>
<td>2.2.1, 2.2.2, 2.2.3, 2.2.4</td>
</tr>
<tr>
<td>4</td>
<td>As a user, I am able to edit and save changes of the document in real time (online)</td>
<td>2.2.5</td>
</tr>
<tr>
<td>5</td>
<td>As a user, I can track changes if someone edited the document</td>
<td>2.2.7</td>
</tr>
<tr>
<td>6</td>
<td>As a user, I will be notified when relevant file has been uploaded or updated</td>
<td>2.2.8</td>
</tr>
<tr>
<td>7</td>
<td>As a user, I want to create a task and assign task to other user</td>
<td>2.3.1</td>
</tr>
<tr>
<td>8</td>
<td>As a user, I can give a short task description and manage task settings such as set priority, due date, dependency, etc.</td>
<td>2.3.3, 2.3.5, 2.3.6, 2.3.7</td>
</tr>
<tr>
<td>9</td>
<td>As a user, I want to view the work progress of a task and evaluate after finishing, e.g. task accepted or completed or sign off</td>
<td>2.3.2, 2.3.8</td>
</tr>
<tr>
<td>10</td>
<td>As a user, I want to document/comment on the task, write a report</td>
<td>2.3.4, 2.3.9</td>
</tr>
<tr>
<td>11</td>
<td>As a user, I want to print/export project overviews as charts, e.g. PERT or Gantt</td>
<td>2.3.11, 2.3.12</td>
</tr>
<tr>
<td>12</td>
<td>As a user, I want to print out (export) a report of task or parts of project (metadata)</td>
<td>2.3.13</td>
</tr>
<tr>
<td>13</td>
<td>As a user/manager, I am able to create groups and join particular users to the groups and define user roles in each project</td>
<td>2.4.1, 2.4.3</td>
</tr>
<tr>
<td>14</td>
<td>As a user, I am able to edit my own profile, add contact information</td>
<td>2.4.2, 2.4.4</td>
</tr>
<tr>
<td>15</td>
<td>As a user, I want to communicate via internal messages or e-mails/ email distribution lists with other users.</td>
<td>2.5.1, 2.5.2, 2.5.3</td>
</tr>
<tr>
<td>16</td>
<td>As a user, I can attach files to emails</td>
<td>2.5.5</td>
</tr>
<tr>
<td>17</td>
<td>As a user, I want to have a web conference with other user(s).</td>
<td>2.5.7</td>
</tr>
<tr>
<td>18</td>
<td>As a user, I can invite other user to discuss about a particular topic (group chat/forum)</td>
<td>2.5.8</td>
</tr>
<tr>
<td>19</td>
<td>As a user, I want to search for specific element within the platform by keyword; search for uploaded documents?</td>
<td>2.6.1, 2.6.2</td>
</tr>
<tr>
<td>20</td>
<td>As a user, I can search in search in particular fields or types of entry, metadata (faceted, advanced search)</td>
<td>2.6.3, 2.6.4</td>
</tr>
<tr>
<td>21</td>
<td>As a user, I can search for a particular keyword also in PDF and word documents (Full-text search)</td>
<td>2.6.5</td>
</tr>
<tr>
<td>Category</td>
<td>No.</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>I - Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>1</td>
<td>Open Source License. Everyone is able to download and install it</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Annual costs for licence and support</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>At least had been used by several institutions</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Dashboard monitoring system, to monitor the overall progress of the project</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Capability to be implemented / customized as project management platform for survey projects</td>
</tr>
<tr>
<td>Software Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Documentation of the software well written and maintained</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Codes are maintained using version control system</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>The dependency with other software components is tidily maintained</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>If not open source, at least open APIs, and common programming language is used</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Possibility to buy Plugins (Addons) for features not included in open source ed.</td>
</tr>
<tr>
<td><strong>II - Functionality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configurability</td>
<td>1</td>
<td>Dashboard is configurable (or link to access areas for eligible users)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>More than one project simultaneously is configurable</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>A project can have different subprojects/modules (research design, data collection etc.)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Modules/subprojects are arranged in specific order or structure</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>It is possible to skip modules, if not relevant for the user</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>One can create tasks and subtasks within a module/subproject</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Is there a possibility to integrate other modules e.g. Questions Database</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Is it possible to connect with file server application e.g. OwnCloud</td>
</tr>
<tr>
<td>File Management</td>
<td>1</td>
<td>Is it possible to upload files</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Is it possible to download files</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Is it possible to create new files (folder, text document, tables, charts) (optional)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Is it possible to remove files</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Is real-time editing possible</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Is there a versioning system for files</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Is it possible to track changes (e.g. by DATE/TIME and AUTHOR)</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Is it possible to connect the file server to the desktop file manager e.g. Windows Explorer</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Is there a possibility to create repository for files</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Upload auditory files (sensitive interviews), secure transfer and storage</td>
</tr>
<tr>
<td>Workflow Management</td>
<td>1</td>
<td>Assign task to certain user</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Is it possible to view the work progress of a task? Task status</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Write a short description about the task</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Is it possible to document/comment on the work in each task</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Task dependency</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Task priority</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Task due</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Fill in the evaluation form after finishing the task (optional)</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Write a short report for the task leader (optional)</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Calculate costs (costing tool)</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Are project overviews as PERT/ charts supported? (More general version: are overview features of proper project management software implemented in the online software)</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Are project overviews as Gantt charts supported</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Export parts of project; reports</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Export overviews of tasks (including metadata) in Excel format</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Print a single task description (including History) as report</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Link documents/versions to tasks to replace E-mail communication</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Combined filter by task properties, save filter</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Check-list box in tasks (complex tasks, verification, &amp; review, sign off of task, other steps of processes, …)</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Create task templates for recurring tasks; clone and adjust projects/tasks templates</td>
</tr>
</tbody>
</table>
### III - Technical Basis

#### 1. Platform

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Compatibility with operating systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific commercial software are not required</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Is the connection between server and client encrypted?</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Synchronize calendar and MS Outlook?</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Synchronization with other tools (e.g., MS Project)?</td>
</tr>
</tbody>
</table>

#### 2. Performance

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Scalability e.g. with many users simultaneously</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>User-friendly, clear and intuitive structure?</td>
</tr>
</tbody>
</table>

#### 3. Safety & Security

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Is the data and information protected? Backup?</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Is the information &amp; data stored? [how, where?]</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Is the sensitive information &amp; data well stored? [how, where?]</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Is the connection between server and portal (and client) secure?</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Is it possible to share particular files with other users?</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Can files stored online be encrypted?</td>
</tr>
</tbody>
</table>

#### 4. Extras

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Is there an integrated calendar</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Possibility to follow (or subscribe) for an activity?</td>
</tr>
</tbody>
</table>

**Evaluation Result**

<table>
<thead>
<tr>
<th></th>
<th>Overall Result</th>
</tr>
</thead>
</table>

---

*new requirement tested in the comparative evaluation*

*requirement excluded in the comparative evaluation*
## Table C1. FORSbase software assessment result

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Score</th>
<th>Comments: SERISS team Cologne</th>
<th>Comments: FORSbase team</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I - Community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open Source License? Everyone is able to download and install it.</td>
<td>0</td>
<td>FORSbase based on Fedora Commons, but FORS further developed it and not published as open source</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>It has been used by several institutions</td>
<td>-1</td>
<td>One tool, others? Not sure</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Dashboard monitoring system, to monitor the overall progress of the project?</td>
<td>1</td>
<td>At least, an overview whether the submission is submitted</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>Does it have capability to be implemented / customized as project management platform for surveys projects?</td>
<td>1</td>
<td>FORSbase has potential as archiving platform, so could be extended to cover the whole survey management project</td>
<td>2</td>
</tr>
<tr>
<td><strong>II - Functionality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Documentation of the software well written and maintained. Codes are maintained using version control system. The dependency with other software components is tidy maintained. If not open source, at least open APIs, and common programming language is used.</td>
<td>0</td>
<td>No open documentation for developers. No information available</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>General</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configurability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is it possible to set up a project with different subprojects/work packages (research design, data collection, etc.)?</td>
<td>0</td>
<td>depends on extensions - how flexible can these be made?</td>
<td>Not without further development -1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to skip subprojects, if not relevant for the user?</td>
<td>0</td>
<td>Not without further development -1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is it possible to create tasks and subtasks within a subproject?</td>
<td>0</td>
<td>Not without further development -1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does it have capability to be implemented / customized as project management platform for surveys projects?</td>
<td>0</td>
<td></td>
<td>Not without further development -1</td>
</tr>
<tr>
<td></td>
<td>Users can create and/or configure (through users!) forms for structured collection of information (metadata)?</td>
<td>-1</td>
<td>Currently not part of the design</td>
<td>Not without further development -1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to connect with file server application e.g. OwnCloud?</td>
<td>0</td>
<td></td>
<td>Not without further development -1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>File Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is it possible to upload files?</td>
<td>1</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Is it possible to download files?</td>
<td>1</td>
<td>Researcher: data download link available, document download could not be initiated because downloadable files not available; Collaborator: yes</td>
<td>Yes 2</td>
</tr>
<tr>
<td></td>
<td>Is it possible to create new files (text document, tables, charts, etc.)?</td>
<td>-1</td>
<td>feature doesn’t exist</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to remove files?</td>
<td>1</td>
<td>Possible to delete the whole document description &amp; related files</td>
<td>No -1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to edit files simultaneously?</td>
<td>1</td>
<td>Possible versions of the files within one document entry: downloadable older file versions are stored, but no metadata about the files are provided</td>
<td>Yes 1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to track changes (e.g. by DATE/TIME and AUTHOR)?</td>
<td>0</td>
<td>Older file versions don’t provide metadata/information</td>
<td>Last date and time 1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to share particular files to particular users?</td>
<td>1</td>
<td>When linking a person, they become automatically co-author of the study and has the rights to upload/download and edit/remove files</td>
<td>Yes 2</td>
</tr>
<tr>
<td></td>
<td>Is it possible to connect the file server to the desktop file manager e.g. Windows Explorer?</td>
<td>0</td>
<td>No, purely online tool</td>
<td>No -1</td>
</tr>
<tr>
<td></td>
<td>Can files stored online by encrypted?</td>
<td>0</td>
<td>No, file could test upload function of already encrypted file</td>
<td>Not sure 0</td>
</tr>
<tr>
<td></td>
<td>Is it possible to get a notification, when a file/document has been uploaded?</td>
<td>0</td>
<td></td>
<td>Not without further development -1</td>
</tr>
<tr>
<td></td>
<td>Is it possible to get a notification, when a file/document has been uploaded?</td>
<td>0</td>
<td></td>
<td>Not without further development -1</td>
</tr>
<tr>
<td>Table C1. FORSbase software assessment result</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Flow Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it possible to view the work progress of a task?</td>
<td>1</td>
<td>The task in FORSbase refers to submission process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write a short description about the task?</td>
<td>0</td>
<td>Not Found.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it possible to document/comment on the work in each task?</td>
<td>1</td>
<td>Collaborators can shortly comment on a task.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceed with the next task when the last task is complete?</td>
<td>1</td>
<td>In case of submission, yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categorize the task according to its relevance (importance only temporary or for the long term access and preservation policy to be defined)</td>
<td>1</td>
<td>In the sense of archiving process, it should be available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set task deadline?</td>
<td>0</td>
<td>Unknown.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fill in an evaluation form after finishing the task (optional)</td>
<td>0</td>
<td>No information available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write a short report for the task leader (optional)</td>
<td>-1</td>
<td>No information available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculate costs (posting tool)</td>
<td>-1</td>
<td>No information available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are project overviews as Gantt charts supported? Are project overviews as PERT charts supported? (More general version: are overview features of proper project management software implemented in the online software?)</td>
<td>0</td>
<td>No information available, but highly unlikely, given the different focus of previous development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation Result</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is able to create groups and join/particular users to the groups?</td>
<td>2</td>
<td>Yes, and there is a circle for creating own groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users are able to edit their own profiles.</td>
<td>2</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possibility to define roles in each project (rights and permissions for access, edit and other activities).</td>
<td>2</td>
<td>In the context would be Admin, Reviewer / Curator, Data Provider.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it possible to assign person(s) to tasks (or vice versa)?</td>
<td>0</td>
<td>To be determined.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decentralized data management with sufficient detail.</td>
<td>0</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UF or similar standards supported for exchange of user information</td>
<td>2</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface to external authentication system (AAX) possible</td>
<td>0</td>
<td>Yes, we have 1950 users that are using our system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users are able to communicate with each other via platform internal messages.</td>
<td>0</td>
<td>To be determined.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal messages can be configured with the external email application (synchronized mail correspondence).</td>
<td>0</td>
<td>No, if FORSbase supports this feature.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users are able to have a web conference with other user(s), (low priority).</td>
<td>0</td>
<td>No, to be determined.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users are able to invite other user to discuss about a particular topic (group chat/forum)?</td>
<td>0</td>
<td>No, also the feature is missing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attach files to emails (optional)</td>
<td>-1</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search within platform by keyword?</td>
<td>2</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it possible to search for uploaded documents?</td>
<td>0</td>
<td>It depends on the file format of the uploaded files, PDF from text documents should be possible, however not in the standard distribution, needs further development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search for facets?</td>
<td>2</td>
<td>If they have metadata, yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced search? Is it possible to search in particular fields or types of entry? (search in a database)</td>
<td>2</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-text search also for PDF and word processor formats?</td>
<td>-1</td>
<td>Not yet available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web Interface</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with common browsers?</td>
<td>2</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usability for standard user interface (low, medium, high)</td>
<td>1</td>
<td>Easy to use and intuitive. Interface could be more user friendly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supports mobile/small screen end-user devices</td>
<td>0</td>
<td>Standard view on mobile devices (tested with android smartphone).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation Result</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>II - Technical Basis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatibility with common browsers</td>
<td>2</td>
<td>Common problem in all web-based applications that use Javascript, but generally yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation Result</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Result</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation Result</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Table C2. List of evaluated collaborative software

<table>
<thead>
<tr>
<th>Software Name</th>
<th>Description</th>
<th>Web-based</th>
<th>File Management (General)</th>
<th>Task Management (General)</th>
<th>Open Source</th>
<th>Task Management (specific features)</th>
<th>Activities</th>
<th>Assignment</th>
<th>Status</th>
<th>Type</th>
<th>Due</th>
<th>Tags</th>
<th>Priority</th>
<th>Notification</th>
<th>Attach file</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe LiveCycle</td>
<td>SOJavaEE server software product used to build applications that automate broad range of business processes for enterprises and government agencies</td>
<td>yes/no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Alfresco</td>
<td>Free/libre enterprise content management system for Microsoft Windows and Unix-like operating systems.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Altova MetaTeam</td>
<td>Collaborative decision-making, team performance management and project management software</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Assembla</td>
<td>Set of cloud-based task and code management tools for software developer</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Bitrix24</td>
<td>Cross-platform collaboration suite with CRM and telephony</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Clearspace (Jive SBS)</td>
<td>Jive’s communication and collaboration solutions help people and organizations work better together.</td>
<td>yes/no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>CollaborateCloud</td>
<td>Social work management platform that helps organization get productive through unified collaboration and communication.</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>ConceptDraw Office</td>
<td>Collaborative software suite composed of mind mapping, project management and business diagramming tools.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Confluence</td>
<td>Confluence is team collaboration software. Written in Java and mainly used in corporate environments.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Eclipse (suite)</td>
<td>Suite of software applications, intended for use by aerospace project and mission teams in managing their CM/QA/PA/PM activities</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>eXoPlatform</td>
<td>The Open Source Enterprise Social Platform</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Drupal (OpenAtrium)</td>
<td>Free and open-source content management framework</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>GodDrive</td>
<td>GodDrive is an on-premise solution that provides Enterprise File Sync and Sharing (EFSS) services for employees and partners.</td>
<td>yes/no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Google Drive</td>
<td>File storage and synchronization service created by Google. It allows users to store files in the cloud, share files, and edit documents, spreadsheets, and presentations with collaborators.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>IBM Lotus Quickr</td>
<td>Social team collaboration software, used by teams of people to share content.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>InLoox</td>
<td>Collaboration software that offers web-based and on-premises solutions, supports task management, document management, and workflow</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Kolab</td>
<td>Security-focused Open Source groupware collaboration solution with web client, CalDAV and ActiveSync and its own native client</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Kune</td>
<td>Free/open-source distributed social network focused on collaboration rather than just on communication</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>LogicalDOC</td>
<td>On-line and on-premises document management system with collaboration and workflow features</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Microsoft Exchange</td>
<td>Calendaring and mail server developed by Microsoft that runs exclusively on the Microsoft Windows Server product line.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Microsoft Lync / Skype</td>
<td>Skype for Business Server is real-time communications server software for enterprise instant messaging, presence, VoIP, ad hoc and structured audio, video and web conferencing.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>
## Table C2. List of evaluated collaborative software

<table>
<thead>
<tr>
<th>Software Name</th>
<th>Description</th>
<th>Web-based</th>
<th>File Management (General)</th>
<th>Task Management (General)</th>
<th>Open Source</th>
<th>Task Management (specific features)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Office</td>
<td>Desktop tools for collaboration</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microsoft Project</td>
<td>Project management software program developed by Microsoft, designed to assist a project manager in developing a plan, assigning resources to tasks, tracking progress, managing the budget, and analyzing workloads.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microsoft SharePoint Server</td>
<td>Web application platform in the Microsoft Office server suite.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>MindView</td>
<td>Program is targeted towards professionals and is used to visually brainstorm, organize and present ideas.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nefis</td>
<td>Multi-party online collaboration and video conferencing software for businesses</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>OpenProject</td>
<td>Open source project collaboration suite</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Open Science Framework</td>
<td>Scholarly commons to connect the entire research cycle. The code base for the OSF is entirely open source, which enables other groups to continue maintaining and expanding it if we aren't able to.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Oracle WebCenter</td>
<td>Group Spaces</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>QuickBase</td>
<td>Low-code platform for building expressive, scalable, interoperable applications for organizations of all sizes, without compromising IT governance and controls.</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP Enterprise Portal (former SAP NetWeaver)</td>
<td>Service-oriented application and integration platform that can be used for custom development and integration with other applications and systems.</td>
<td>yes / no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>TeamWox</td>
<td>Web-based collaboration software with file storage, email client, contact book, bagtracking, IP PBX, chat and forum.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Tiki Wiki CMS Groupware</td>
<td>Free and open source Wiki-based content management system and online office suite written primarily in PHP and distributed under the GNU Lesser General Public License (LGPL) license</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>TinyPM</td>
<td>Lightweight and smart agile collaboration tool with product management, backlog, taskboard, user stories and wiki.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Typo3</td>
<td>TYPO3 is a free and open source web content management system written in PHP.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>TrackerSuite.Net</td>
<td>Web based, modular software business suite</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traction TeamPage</td>
<td>Enterprise social software</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Wrike</td>
<td>Interactive, web-based tool for project management and collaboration</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>WordPress (WP Project Manager Pro)</td>
<td>WordPress is a free and open-source content management system (CMS) based on PHP and MySQL.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Xaitporter</td>
<td>Web-based document collaboration software with integrated workflow, for enterprise and SMEs.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>2-Plan</td>
<td>2-plan is an integrated project management software that combines several tools for project planning and project execution.</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Clarizen</td>
<td>Clarizen, Inc. is a cloud-based project management software and collaborative work management company.</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>
### Table D1. Comparative evaluation of software packages

<table>
<thead>
<tr>
<th>Req. #</th>
<th>Requirement description</th>
<th>Section</th>
<th>Category</th>
<th>Priority</th>
<th>Developmen t effort</th>
<th>Score</th>
<th>Comment</th>
<th>Column E / F</th>
<th>Column I / K / M</th>
<th>Column O / P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1</td>
<td>Open Source License. Everyone is able to download and install it.</td>
<td>I Community</td>
<td>General</td>
<td>must have</td>
<td>2</td>
<td>Enterprise Edition (Alfresco One) is proprietary; Community Edition is LGPL v3</td>
<td>2</td>
<td>Community Edition is LGPL v3</td>
<td>2</td>
<td>GPL with Enterprise Option (Corporate Supports)</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Annual costs for licence and support</td>
<td>I Community</td>
<td>General</td>
<td>must have</td>
<td>2</td>
<td>Subscription contract, 20-25,000 EUR (three-year, 300 users)</td>
<td>0</td>
<td>eXo Platform Enterprise Basic Edition, annual price: up to 25/50/75/100 users</td>
<td>2</td>
<td>Support Contract, 100-150 EUR per hour</td>
</tr>
<tr>
<td>1.1.3</td>
<td>At least had been used by several institutions</td>
<td>I Community</td>
<td>General</td>
<td>nice to have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>nice to have/</td>
<td>2/2/2</td>
</tr>
<tr>
<td>1.1.4</td>
<td>Dashboard monitoring system, to monitor the overall progress of the project</td>
<td>I Community</td>
<td>General</td>
<td>must have</td>
<td>2</td>
<td>Administration</td>
<td>2</td>
<td>Administration</td>
<td>2</td>
<td>Administration must have/ high</td>
</tr>
<tr>
<td>1.1.5</td>
<td>Capability to be implemented / customized as project management platform for survey projects?</td>
<td>I Community</td>
<td>General</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Documentation of the software well written and maintained.</td>
<td>I Community</td>
<td>Software-Development</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Codes are maintained using version control system.</td>
<td>I Community</td>
<td>Software-Development</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ medium</td>
<td>2/2/2</td>
</tr>
<tr>
<td>1.2.3</td>
<td>The dependency with other software components is tidily maintained.</td>
<td>I Community</td>
<td>Software-Development</td>
<td>must have</td>
<td>2</td>
<td>Tomcat, SOLR</td>
<td>2</td>
<td>Tomcat, SOLR, PostgreSQL, LibreOffice</td>
<td>2</td>
<td>Yes: Tomcat, JBoss EAP</td>
</tr>
<tr>
<td>1.2.4</td>
<td>If modules/features not open source, at least open APIs, and common programming language is used.</td>
<td>I Community</td>
<td>Software-Development</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Provided as add-ons</td>
<td>2/2/2</td>
</tr>
<tr>
<td>1.2.5</td>
<td>Possibility to buy Plugins (Add-ons) for features not included in the open source version</td>
<td>I Community</td>
<td>Software-Development</td>
<td>must have</td>
<td>2</td>
<td>Based on the information given by the support partner (Westermann)</td>
<td>2</td>
<td>In OpenSource Version, source codes are available, possible to be further developed</td>
<td>2</td>
<td>Based on <a href="https://www.opensource/">https://www.opensource/</a></td>
</tr>
<tr>
<td>2.1.1</td>
<td>Dashboard is configurable (or link to access areas for eligible users)</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
</tr>
<tr>
<td>2.1.2</td>
<td>More than one project simultaneously is configurable</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ medium</td>
<td>2/2/2</td>
</tr>
<tr>
<td>2.1.3</td>
<td>A project can have different subprojects/modules (research design, data collection etc.)</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>must have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
</tr>
<tr>
<td>2.1.4</td>
<td>Subprojects can be arranged in specific order or structure</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>nice to have</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>nice to have/</td>
<td>2/2/2</td>
</tr>
<tr>
<td>2.1.5</td>
<td>It is possible to skip modules, if not relevant for the user</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>nice to have</td>
<td>2</td>
<td>There are several modules that can be ac- or deactivated, e.g. Document Library, Discussions, Wiki, Calendar</td>
<td>2</td>
<td>There are several modules that can be ac- or deactivated, e.g. Document Library, Discussions, Wiki, Calendar</td>
<td>2</td>
<td>Under “Space Settings”</td>
</tr>
<tr>
<td>2.1.6</td>
<td>One can create tasks and subtasks within a module/subproject</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>must have</td>
<td>2</td>
<td>In Alfresco it is called “Workflows”</td>
<td>2</td>
<td>In Alfresco it is called “Workflows”</td>
<td>2</td>
<td>Under “Work packages”</td>
</tr>
<tr>
<td>Req.</td>
<td>Requirement description</td>
<td>Section</td>
<td>Category</td>
<td>Priority</td>
<td>Developmen t effort</td>
<td>Score</td>
<td>Comment</td>
<td>Score</td>
<td>Comment</td>
<td>Score</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------</td>
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<td>----------</td>
<td>----------</td>
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<td>-------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>2.1.7</td>
<td>Is there a possibility to integrate other SERRIS tools</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>nice to have</td>
<td>high</td>
<td>1</td>
<td>Direct integration would be difficult, but as reference</td>
<td>1</td>
<td>Direct integration would be resource intensive</td>
<td>1</td>
</tr>
<tr>
<td>2.1.8</td>
<td>Is there a possibility in general to connect to other systems</td>
<td>II Functionality</td>
<td>Configurability</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>Possible via reference link (e.g. URL)</td>
<td>2</td>
<td>Possible via reference link (e.g. URL)</td>
<td>2</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Is it possible to upload files?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>By default, users can create plain text and html/xml files as well as Google Documents. Furthermore, we can upload document templates and users are able to create files based on those templates.</td>
<td>2</td>
<td>By default, users can create plain text and html/xml files as well as Google Documents. Furthermore, we can upload document templates and users are able to create files based on those templates.</td>
<td>2</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Is it possible to download files?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>low</td>
<td>2</td>
<td>The documents/files will be downloaded and users are able to edit them locally</td>
<td>2</td>
<td>The documents/files will be downloaded and users are able to edit them locally</td>
<td>2</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Is it possible to create new files (text document, tables)? (optional)</td>
<td>II Functionality</td>
<td>File Management</td>
<td>nice to have</td>
<td>high</td>
<td>2</td>
<td>By default, users can create plain text and html/xml files as well as Google Documents. Furthermore, we can upload document templates and users are able to create files based on those templates.</td>
<td>2</td>
<td>By default, users can create plain text and html/xml files as well as Google Documents. Furthermore, we can upload document templates and users are able to create files based on those templates.</td>
<td>2</td>
</tr>
<tr>
<td>2.2.4</td>
<td>Is it possible to remove/delete files?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>low</td>
<td>2</td>
<td>The documents/files will be saved automatically in the server.</td>
<td>2</td>
<td>The documents/files will be saved automatically in the server.</td>
<td>2</td>
</tr>
<tr>
<td>2.2.5</td>
<td>Is real-time editing possible?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>Users can submit and watch to any documents in their project or particular activities</td>
<td>2</td>
<td>Users can submit and watch to any documents in their project or particular activities</td>
<td>2</td>
</tr>
<tr>
<td>2.2.6</td>
<td>Is there a versioning system for files?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>Version based on timestamp</td>
<td>2</td>
<td>Version based on timestamp</td>
<td>2</td>
</tr>
<tr>
<td>2.2.7</td>
<td>Is it possible to track changes (e.g. by DATE/TIME and AUTHOR)?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>Through notification settings</td>
<td>2</td>
<td>Through notification settings</td>
<td>2</td>
</tr>
<tr>
<td>2.2.8</td>
<td>Notification system when a file/document has been updated?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>SVN and GIT integration is possible</td>
<td>2</td>
<td>SVN and GIT integration is possible</td>
<td>2</td>
</tr>
<tr>
<td>2.2.9</td>
<td>Is there a possibility to create repository for files?</td>
<td>II Functionality</td>
<td>File Management</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>Assign task to certain user</td>
<td>2</td>
<td>Assign task to certain user</td>
<td>2</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Assign task to certain user</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>Assign task to certain user</td>
<td>2</td>
<td>Assign task to certain user</td>
<td>2</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Is it possible to view the work progress of a task? Task status</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>Is it possible to view the work progress of a task? Task status</td>
<td>2</td>
<td>Is it possible to view the work progress of a task? Task status</td>
<td>2</td>
</tr>
<tr>
<td>2.3.3</td>
<td>Write a short description about the task?</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>Write a short description about the task?</td>
<td>2</td>
<td>Write a short description about the task?</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table D1. Comparative evaluation of software packages**

**Criteria**
- ALFRESCO ONE: Version 5.0.2.5, Date: 25.02.2016
- ALFRESCO COMMUNITY: Version 5.1.0, Date: 29.02.2016
- eXo Platform: Version 4.3.0, Date: 29.02.2016
- OpenProject: Version 5.0.15, Date: 29.02.2016

**Summary**
<table>
<thead>
<tr>
<th>Req. #</th>
<th>Requirement description</th>
<th>Section</th>
<th>Category</th>
<th>Priority</th>
<th>Developmen t effort</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.4</td>
<td>Is it possible to document/comment on the work in each task?</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.5</td>
<td>Task dependency</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
<td>For this purpose, a new workflow needs to be created, where processes are chained and must be executed sequentially</td>
<td>1</td>
<td>For this purpose, a new workflow needs to be created, where processes are chained and must be executed sequentially</td>
<td>0</td>
<td>1</td>
<td>Through &quot;Backlog&quot; Plug-In</td>
<td>must have/ high</td>
<td>1/0/1</td>
<td>must have/ high/ 1/0/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.6</td>
<td>Task priority</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.7</td>
<td>Task due</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.8</td>
<td>Task evaluation after finishing, e.g. task accepted or completed</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.9</td>
<td>Write a short report for the task leader (optional)</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>rise to have</td>
<td>medium</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>nice to have/ medium</td>
<td>1/1/1</td>
<td>nice to have/ medium/ 1/1/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.10</td>
<td>Calculate costs (costing tool)</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>rise to have</td>
<td>Ngh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>Based on <a href="https://www.openproject.org/help/user-guides/time-costs/">https://www.openproject.org/help/user-guides/time-costs/</a></td>
<td>nice to have/ high</td>
<td>0/0/2</td>
<td>nice to have/ high/ 0/0/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.11</td>
<td>Are project overviews as PERT charts supported? (overview features of proper project management)</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(see the next criterion)</td>
<td>must have/ high</td>
<td>0/0/0</td>
<td>must have/ high/ 0/0/0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.12</td>
<td>Are project overviews as Gantt charts, timelines supported?</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>&quot;Timeline&quot; Plug-In can generate timeline reports (similar to Gantt chart).</td>
<td>must have/ high</td>
<td>0/0/2</td>
<td>must have/ high/ 0/0/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3.13</td>
<td>Status reporting, export reports of tasks, WPs or whole project</td>
<td>II Functionality</td>
<td>Workflow Management</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
<td>Based on our Telco with Westermacher, reports need to created manually based on the project activities. An ad-hoc solution is not available (same as in Enterprise Edition)</td>
<td>1</td>
<td>Based on our Telco with Westermacher, reports need to created manually based on the project activities. An ad-hoc solution is not available (same as in Enterprise Edition)</td>
<td>1</td>
<td>&quot;Timeline&quot; Plug-In can generate status reports. See: <a href="https://www.openproject.org/help/user-guides/timelines/">https://www.openproject.org/help/user-guides/timelines/</a></td>
<td>must have/ high</td>
<td>1/1/1</td>
<td>must have/ high/ 1/1/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4.1</td>
<td>Is able to create groups and join particular users to the groups?</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4.2</td>
<td>Users are able to edit their own profiles.</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4.3</td>
<td>Possibility to define roles in each project.</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4.4</td>
<td>Contact and address management with sufficient detail</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>must have/ medium</td>
<td>2/2/2</td>
<td>must have/ medium/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4.5</td>
<td>VCF or similar standards supported for exchange of user information</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>nice to have</td>
<td>Ngh</td>
<td>1</td>
<td>Alfresco provides detailed contact information for the users, no profile export / import available</td>
<td>1</td>
<td>Alfresco provides detailed contact information for the users, no profile export / import available</td>
<td>1</td>
<td>Eixo provides detailed contact information for the users, no profile export / import available</td>
<td>1</td>
<td>OpenProject provides detailed contact information for the users, no profile export / export available</td>
<td>nice to have/ high</td>
<td>1/1/1</td>
<td>nice to have/ high/ 1/1/1</td>
<td></td>
</tr>
</tbody>
</table>
### Table D1. Comparative evaluation of software packages

<table>
<thead>
<tr>
<th>Criteria</th>
<th>ALFRESCO ONE: Version 5.0.2.5, Date: 25.02.2016</th>
<th>ALFRESCO COMMUNITY: Version 5.1.0, Date: 29.02.2016</th>
<th>eXo Platform: Version 4.3.0, Date: 29.02.2016</th>
<th>OpenProject: Version 5.0.15, Date: 29.02.2016</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement description</td>
<td>Section</td>
<td>Category</td>
<td>Priority</td>
<td>Developmen t effort</td>
<td>Score</td>
</tr>
<tr>
<td><strong>2.4.6</strong> Interface to external authentication system (AAI) possible</td>
<td>II Functionality</td>
<td>Users Management</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
</tr>
<tr>
<td><strong>2.5.1</strong> The administrator of the platform is able to send E-Mails to the users.</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
</tr>
<tr>
<td><strong>2.5.2</strong> Users communicate with each other via platform internal messages.</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
</tr>
<tr>
<td><strong>2.5.3</strong> Users communicate with each other via e-mail distribution lists.</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
</tr>
<tr>
<td><strong>2.5.4</strong> External e-mail program and internal messages can be connected</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
</tr>
<tr>
<td><strong>2.5.5</strong> Attach files to emails possible?</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
</tr>
<tr>
<td><strong>2.5.6</strong> Archive emails possible?</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
</tr>
<tr>
<td><strong>2.5.7</strong> Users are able to have a web conference with other users().</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>must have</td>
<td>Ngh</td>
<td>0</td>
</tr>
<tr>
<td><strong>2.5.8</strong> Users are able to invite other users to discuss about a particular topic (group chat/forum)?</td>
<td>II Functionality</td>
<td>Messaging</td>
<td>nice to have</td>
<td>Ngh</td>
<td>1</td>
</tr>
<tr>
<td><strong>2.6.1</strong> Search within platform by keyword?</td>
<td>II Functionality</td>
<td>Search Functionality</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
</tr>
<tr>
<td><strong>2.6.2</strong> Is it possible to search for uploaded documents?</td>
<td>II Functionality</td>
<td>Search Functionality</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
</tr>
<tr>
<td><strong>2.6.3</strong> Faceted search?</td>
<td>II Functionality</td>
<td>Search Functionality</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
</tr>
<tr>
<td><strong>2.6.4</strong> Is advanced search possible? (search in particular fields or types of entry, metadata)</td>
<td>II Functionality</td>
<td>Search Functionality</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
</tr>
</tbody>
</table>
## Table D1. Comparative evaluation of software packages

| Req. # | Requirement description | Section | Category | Priority | Developmen
t effort | Score | Comment | Score | Comment | Score | Comment | Score | Comment | Column F/F | Column M/M | Column O/P |
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6.5</td>
<td>Full-text search also for PDF and word processor formats?</td>
<td>II Functionality</td>
<td>Search Functionality</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>Had been tested for PDF and MS Word files</td>
<td>2</td>
<td>Had been tested for PDF and MS Word files</td>
<td>2</td>
<td>Had been tested for PDF and MS Word files</td>
<td>0</td>
<td>must have/ high</td>
<td>2/2/0</td>
<td>must have/ high/ 2/2/0</td>
<td></td>
</tr>
<tr>
<td>2.7.1</td>
<td>Compatible with common browsers?</td>
<td>II Functionality</td>
<td>Web Interface</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>Tested in Firefox, Chrome, and IE11</td>
<td>2</td>
<td>Tested in Firefox, Chrome, and IE11</td>
<td>2</td>
<td>Tested in Firefox, Chrome, and IE11</td>
<td>2</td>
<td>must have/ medium</td>
<td>2/2/2</td>
<td>must have/ medium/ 2/2/2</td>
<td></td>
</tr>
<tr>
<td>2.7.2</td>
<td>Usability for standard user interface (low, medium, high)</td>
<td>II Functionality</td>
<td>Web Interface</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
</tr>
<tr>
<td>2.7.3</td>
<td>Supports mobile/small screen end-user devices</td>
<td>II Functionality</td>
<td>Web Interface</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td>Based on <a href="https://www.alfresco.com/alfresco-mobile-document-management">https://www.alfresco.com/alfresco-mobile-document-management</a></td>
<td>2</td>
<td>Based on <a href="https://www.alfresco.com/alfresco-mobile-document-management">https://www.alfresco.com/alfresco-mobile-document-management</a></td>
<td>2</td>
<td>Based on <a href="https://www.exoplatform.com/company/en/products/mobile">https://www.exoplatform.com/company/en/products/mobile</a></td>
<td>0</td>
<td>Based on forum comments: <a href="https://community.openproject.org/topics/2003/">https://community.openproject.org/topics/2003/</a></td>
<td>must have/ high</td>
<td>2/2/0</td>
<td>must have/ high/ 2/2/0</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Compatibility with operating systems</td>
<td>III Technical Basis</td>
<td>Platform</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>must have/ medium</td>
<td>2/2/2</td>
<td>must have/ medium/ 2/2/2</td>
<td></td>
</tr>
<tr>
<td>3.2.1</td>
<td>Scalability e.g. with many users simultaneously</td>
<td>III Technical Basis</td>
<td>Performance</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
</tr>
<tr>
<td>3.2.2</td>
<td>Usable through slow internet connections</td>
<td>III Technical Basis</td>
<td>Performance</td>
<td>nice to have</td>
<td>Ngh</td>
<td>1</td>
<td>Can not be tested</td>
<td>1</td>
<td>Can not be tested</td>
<td>1</td>
<td>Can not be tested</td>
<td>1</td>
<td>Can not be tested</td>
<td>nice to have/ high</td>
<td>1/1/1</td>
<td>nice to have/ high/ 1/1/1</td>
</tr>
<tr>
<td>3.2.3</td>
<td>User-friendly, clear and intuitive structure?</td>
<td>III Technical Basis</td>
<td>Performance</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>must have/ high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
</tr>
<tr>
<td>3.3.2</td>
<td>Is the information &amp; data stored? [how, where?]</td>
<td>III Technical Basis</td>
<td>Security</td>
<td>must have</td>
<td>medium</td>
<td>2</td>
<td>All data and files are stored locally depending where the server is located</td>
<td>2</td>
<td>All data and files are stored locally depending where the server is located</td>
<td>2</td>
<td>All data and files are stored locally depending where the server is located</td>
<td>2</td>
<td>All data and files are stored locally depending where the server is located</td>
<td>must have/ medium</td>
<td>2/2/2</td>
<td>must have/ medium/ 2/2/2</td>
</tr>
<tr>
<td>3.3.3</td>
<td>Is the sensitive information &amp; data well stored? [how, where?]</td>
<td>III Technical Basis</td>
<td>Security</td>
<td>must have</td>
<td>Ngh</td>
<td>1</td>
<td>There is no extra feature from Alfresco by default, but we can secure our own server to do this, e.g. by using encrypted file systems</td>
<td>1</td>
<td>There is no extra feature from Alfresco by default, but we can secure our own server to do this, e.g. by using encrypted file systems</td>
<td>1</td>
<td>There is no extra feature from Alfresco by default, but we can secure our own server to do this, e.g. by using encrypted file systems</td>
<td>1</td>
<td>There is no extra feature from Alfresco by default, but we can secure our own server to do this, e.g. by using encrypted file systems</td>
<td>must have/ high</td>
<td>1/1/1</td>
<td>must have/ high/ 1/1/1</td>
</tr>
<tr>
<td>3.3.4</td>
<td>Is the connection between server and portal (and client) secure?</td>
<td>III Technical Basis</td>
<td>Security</td>
<td>must have</td>
<td>low</td>
<td>2</td>
<td>Through HTTPS (Transport Layer Security)</td>
<td>2</td>
<td>Through HTTPS (Transport Layer Security)</td>
<td>2</td>
<td>Through HTTPS (Transport Layer Security)</td>
<td>2</td>
<td>Through HTTPS (Transport Layer Security)</td>
<td>must have/ low</td>
<td>2/2/2</td>
<td>must have/ low/ 2/2/2</td>
</tr>
<tr>
<td>3.3.5</td>
<td>Is it possible to share particular files with other users?</td>
<td>III Technical Basis</td>
<td>Security</td>
<td>must have</td>
<td>Ngh</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td>All uploaded files are visible to all project members. Advance sharing is not possible.</td>
<td>must have/ high</td>
<td>2/2/1</td>
</tr>
</tbody>
</table>
Table D1. Comparative evaluation of software packages

<table>
<thead>
<tr>
<th>Req. #</th>
<th>Requirement description</th>
<th>Section</th>
<th>Category</th>
<th>Priority</th>
<th>Development effort</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Score</th>
<th>Comment</th>
<th>Column E/F</th>
<th>Column I/K/M</th>
<th>Column O/P</th>
<th>Overall Result</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.6</td>
<td>Can files stored online be encrypted?</td>
<td>III Technical Basis</td>
<td>Security</td>
<td>nice to have</td>
<td>high</td>
<td>1</td>
<td>The connection between client and server can be made through HTTPS (Transport Layer Security)</td>
<td>1</td>
<td>The connection between client and server can be made through HTTPS (Transport Layer Security)</td>
<td>1</td>
<td>The connection between client and server can be made through HTTPS (Transport Layer Security)</td>
<td>nice to have/ high</td>
<td>1/1/1</td>
<td>nice to have/ high/ 1/1/1</td>
<td>122</td>
<td></td>
<td></td>
<td>118</td>
</tr>
<tr>
<td>3.7.1</td>
<td>Is there an integrated calendar?</td>
<td>III Technical Basis</td>
<td>Extras</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>must have / high</td>
<td>2</td>
<td>must have / high</td>
<td>2</td>
<td>must have / high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.7.2</td>
<td>possibility to follow (or subscribe) for an activity?</td>
<td>III Technical Basis</td>
<td>Extras</td>
<td>must have</td>
<td>high</td>
<td>2</td>
<td>must have / high</td>
<td>2</td>
<td>must have / high</td>
<td>2</td>
<td>must have / high</td>
<td>2/2/2</td>
<td>must have/ high/ 2/2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Main criteria for evaluation of requirements:
- Score:
  - 0 = not fulfilled/not present
  - 1 = partly fulfilled
  - 2 = fully present
- Priority:
  - must have
  - nice to have
  - high
  - medium
  - low
- General development effort:
  - no general estimation possible

<table>
<thead>
<tr>
<th>Availability</th>
<th>Priority</th>
<th>General development effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0=not fulfilled/not present</td>
<td>1=partly fulfilled</td>
</tr>
<tr>
<td>2=fully present</td>
<td>must have</td>
<td>nice to have</td>
</tr>
<tr>
<td>high</td>
<td>medium</td>
<td>low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column E/F</th>
<th>Column I/K/M</th>
<th>Column O/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>74</td>
<td>64</td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Deliverable Number: Supporting materials 2 for D 4.12

Deliverable Title: Survey Project Management Portal: The myEVS concept

(Summary presentation)

Work Package: 4 – Interactive tools for cross-national surveys

Deliverable type: Other

Dissemination status: Public

Submitted by: GESIS, CESSDA ERIC

Authors: Evelyn Brislinger, Dafina Kurti, Masoud Davari, Markus Quandt, Claus-Peter Klas (GESIS)

Date Submitted: August 2019

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
SERISS (Synergies for Europe’s Research Infrastructures in the Social Sciences) aims to exploit synergies, foster collaboration and develop shared standards between Europe’s social science infrastructures in order to better equip these infrastructures to play a major role in addressing Europe’s grand societal challenges and ensure that European policymaking is built on a solid base of the highest-quality socio-economic evidence.

The four year project (2015-19) is a collaboration between the three leading European Research Infrastructures in the social sciences – the European Social Survey (ESS ERIC), the Survey of Health Ageing and Retirement in Europe (SHARE ERIC) and the Consortium of European Social Science Data Archives (CESSDA AS) – and organisations representing the Generations and Gender Programme (GGP), European Values Study (EVS) and the WageIndicator Survey.

Work focuses on three key areas: Addressing key challenges for cross-national data collection, breaking down barriers between social science infrastructures and embracing the future of the social sciences.

Please cite this deliverable as: Brislinger, E., Kurti, D., Davari, M., Quandt, M., Klas, C-P. (2019). Survey Project Management Portal: The myEVS concept. Supporting materials 2 for D 4.12 of the SERISS project funded under the European Union’s Horizon 2020 research and innovation programme GA No: 654221. Available at: www.seriss.eu/resources/deliverables
Survey Project Management Platform
SMaP

Evelyn Brislinger, Dafina Kurti, Masoud Davari, Markus Quandt, Claus-Peter Klas

Summary presentation of the myEVS concept
Purpose of the tool

Challenges

- High communication cost, loads of e-mails, attachments, spread sheets
- Difficult navigation between tools throughout the project lifecycle
- Lack of monitoring capacity and loss of information

Possible solution

- Set up a project collaboration environment
- Combine project and data management applications
- Provide ‘software as a supported service’ to survey projects

Current results

- myEVS pilot portal supporting EVS 2017
- SMaP Demo portal
European Values Study (EVS)

The EVS is a large-scale and cross-national survey research program on basic human values. It is a unique research project on how Europeans think about life, family, work, religion, politics and society. It started in 1981 and is repeated every nine years (http://www.europeanvaluesstudy.eu).

Profile of the pilot

- **Survey project**: EVS wave 2017
- **Actors**: EVS planning groups, national EVS teams, external experts, DAS archive
- **Time period**: start of preparations in 2015, start of fieldwork in Sep 2017, full data release in 2019
- **Project lifecycle phases**: planning phase, consultation process, fieldwork, data deposit/processing
- **Key communication/cooperation**: between central teams and national teams
- **Key challenge**: 9 year intervals between the waves
EVS/SMaP Milestones

- **SMaP developments**
- **myEVS deployment**
- **EVS 2017 deadlines**
- **Launch of the myEVS portal**

**Use cases**
- User stories

**Software Evaluation**
- **Set up**
  - myEVS pilot
  - Bug fixing
- **Quick Guides**

**data Deposit Form**
- Implementation
- **myEVS launch**
  - 2nd round
- **1st EVS data release**

**Deliverables:**
- SMaP Demo Manuals
- Full EVS data release

**2016**
- Survey of functions
- SMaP concept

**2017**
- Developments
  - Adjustments of eXo Platform
- Test phase

**2018**
- Workflow Guides
- **myEVS launch**
  - 1st round
- **Implementation Method Quest. Form**

**2019**
- **2nd EVS data release**
- Deliverables:
  - Final Report

**2020**
- **EVS 2017 Repository**

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
The building blocks of SMaP

Organisational structure of survey projects

- CPD - Council of program directors
- EC – Executive Group
- TG - Theory Group
- MG - Methodology Group
- NT - National team

Example: EVS 2017


Project lifecycle phases, task, responsibilities

The portal is based on the open source version of the eXo Platform - Community Edition.

https://www.exoplatform.com/

Portal with workspaces, applications, workflows

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
Our goals

- Connect the different teams of a survey project
- Have all the information they need in one system
- Make sure that everyone knows what the workflows and tasks are, where to find files and where to put them

Three user stories

- National Team
- Central Team
- Data Archive
User story: Members of national teams (1)

National teams are in charge of the data collection, going through the project phases and creating data and documents that meet the required standards. Their work load is high. The less routine they have in working with project-specific workflows and protocols, the higher the burden.

Our solutions

... sign-posted paths to documents and tools and standardized step-by-step processes to support team members and allow them to concentrate on their actual tasks.
User story: Members of national teams (2)

Access EVS 2017 Guidelines
Pass through consultation process
Report on FW progress
Deposit data & documentation
Pass through data verification process

Guidelines, national delivery, and communication easily accessible in one place

Web page for guideline documents
Workspace for country-specific information
User story: Members of the central team (1)

The central team supports the national teams with guidelines and advice to enable compliance with agreed standards and workflows. Countries are at different project stages: while some have already completed data processing, others are still in the consultation phase or even in the questionnaire translation.

Our solutions

... cross-team collaboration moderated by contact persons and linked standardized folders to transport experiences and files, keep guidelines updated, and make the common knowledge accessible to all.
User story: Members of the central team (2)

Access EVS 2017 Guidelines
Pass through consultation process
Report on FW progress
Deposit data & documentation
Pass through data verification process

Contact persons keep things running and updated by connecting teams and expertise

Web pages for Guidelines
Workspaces for team-specific information

Central team
Contact person
Shared folder
National team

Central team members
Cross-team collaboration

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
User story: Data archive (1)

Data archives are in charge of the publication of well processed and documented data. They often have to deal with an enormous number of files and file versions or even with information loss when projects use e-mail as a communication channel and e-mail attachments as the main medium for exchanging documents.

Our solutions

... ensure transparent and customized communication flows; a centralized document management allowing both keeping files in their context of origin and tracking changes; a final EVS 2017 Repository hosted at GESIS as a trusted academic institution.
User story: Data archive (2)

Access data and documents and track changes across phases, workflows, and actors

Folder structure adjusted to the tasks of EVS member groups

Executive group workspace
- Meetings
- Review Documents
- Final Documents
- EVS2017 Guidelines

Methodology group workspace
- EVS2017 Guidelines
- Meetings
- Review Documents
- Consultation process
- Translation
- Data Release
- Data Processing

National team workspace
- EVS2017 Guidelines
- Consultation process
- Translation
- Data Deposit
- Original Files
- Working Files
- Final Files
- 1st Version
- 2nd Version
- Internal Data Release
- Internal Country Folder

EVS 2017 Repository
Profile of the EVS 2017 pilot

- **Actors**: EVS planning groups, national teams, external experts, DAS
- **Time period**: start of preparations in 2015, start of fieldwork in Sep 2017, full data release in 2019
- **Project lifecycle phases**: planning phase, consultation process, fieldwork, data deposit/processing
- **Key communication/cooperation**: between central teams and national teams
- **Key challenge**: 9 year intervals between waves

- **Current status on myEVS**
  - 165 members
  - 44 countries
- **Mid-2017 to end of 2019**
  - 62 standing & short-term workspaces
- **Contact persons & shared folders**
- **Standardized workflows & sign-posted paths**
myEVS: The landing page

A
- Project lifecycle phases
- Quick Helps

B
- Guideline documents
- Current status
- My workspaces

C
- Announcements
- Portal members online
- Quick Tips
- Events

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
myEVS: A typical workspace

Workspaces allow
- To quickly switch between tools
- Stay informed about team activities
- Manage contents that are private for the team
- Share files with other teams

Posts, tasks, upload/edit files trigger notifications.
Workflow: **Keep guideline documents updated**

Contact persons support communication between national and central teams

- National team posts a question on Activity Stream
- Contact person transfers question to central team
- Experts comment on posted question
- Contact persons transfer decision back to national team
- Central team updates guideline documents if necessary

Online discussions replace e-mails

Claudia Brunori: myEVS Background activities of the central team. EVS Workshop, Cologne, 15 March 2018.
Workflow: Support fieldwork progress

Linked online forms feature reporting & monitoring process

- Central team provides templates prior FW
- National team fills in information at agreed intervals
- Central team monitors compiled results across countries
- Central team publishes summarized results along with the data
Workflow: **Compile methodological information**

Ease compilation, review and release of information

- Central team provides PDF document as part of guidelines
- National team fills in information after FW
- Central team approves information
- Central team published information as Method Report

Methodological Questionnaire online form

<table>
<thead>
<tr>
<th>Methodological Questionnaire Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
</tr>
<tr>
<td>V1 - Persons and Institutions</td>
</tr>
<tr>
<td>V2 - Funding</td>
</tr>
<tr>
<td>V3 - Translation</td>
</tr>
<tr>
<td>V4 - The data collection</td>
</tr>
<tr>
<td>V5 - Interviewers training</td>
</tr>
<tr>
<td>V6 - Employment status of the interview</td>
</tr>
<tr>
<td>V7 - Visits to the respondents</td>
</tr>
<tr>
<td>V8 - Enhancing the interview, recent</td>
</tr>
<tr>
<td>V9 - Strategy for refusal conversion</td>
</tr>
<tr>
<td>V10 - Fieldwork reporting</td>
</tr>
<tr>
<td>V11 - Quality control back-checks</td>
</tr>
<tr>
<td>V12 - Verification of the questionnaires</td>
</tr>
<tr>
<td>V13 - Checking of data</td>
</tr>
<tr>
<td>V14 - Characteristics of the sample</td>
</tr>
<tr>
<td>V15 - General documentation: Region</td>
</tr>
<tr>
<td>V16 - General documentation: Educat</td>
</tr>
<tr>
<td>V17 - General documentation: Occupa</td>
</tr>
<tr>
<td>V18 - General documentation: Politica</td>
</tr>
<tr>
<td>V19 - General documentation: Religion</td>
</tr>
<tr>
<td>V20 - General documentation: Income</td>
</tr>
<tr>
<td>V21 - Additional country-specific questions</td>
</tr>
</tbody>
</table>

V3.1 *
- TMT has been used fully
- TMT has not been used fully, the final translation has been uploaded to the platform
- TMT has not been used (fully), the final translation has not been uploaded to the platform

**ANSWER ONLY IF TMT HAS NOT BEEN USED AND THE FINAL TRANSLATION WAS NOT UPLOADED TO THE MYEVS PLATFORM**

V3.2 Translation of questionnaire items changed since EVS 2008
- Yes
- No

V3.3 If yes, please list the question numbers:

V3.4 Who did the translation of the questionnaire? (tick all that apply) *
- Professional translators
- The Programme Director or his/her team
- The fieldwork agency
- Any other person (please specify)
Current state

139 portal members from 44 countries

- work in multiple teams and workspaces
- access and provide required information
- collaborate within and across teams
- discuss substantive and methodological problems
- complete project lifecycle phases

The current state of work in the phases of the EVS2017 lifecycle
Workflows
EVS 2017 tasks & contents

EVS2017 Documents
- Master questionnaire
- Guidance documents/Help
- Methodological questionnaire

Classifications
- Excel sheet & Help
- C-sp. response categories
- Harmonization codebook

EVS2008/17 Questions
- Comments in TMT on modifications of translations

TMT procedures
- Information on TMT procedures applied

Reporting
- Excel sheet with FW outcome codes

Data Processing & Standardization
- Processed nat. data
- Syntax files
- Data cleaning report

Data Processing & Harmonization
- Edited, standardized, harmonized & integrated data & documentation
- Internal process information

Deposit D&D
- Date & documentation uploaded to online form

Planning & Consultation

Translation

Fieldwork

NT Processing & Upload

Processing & Release

FW Reporting
- Excel sheet FW reporting
- Contact & interviewer form

XML-FQ Information
- Export as XML-FQ & comments

Field questionnaires
- Export as TMT-FQ for survey organization

Create
- Data & information
- Survey & para data information on interview

Methodological Questionnaire
- Methodological information entered in online form

Methodological

Preservation
- DAS standards
- Internal and released data & documentation

Data Releases
- DAS standards
- Pre & full releases

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 654221.
Classifications: Tasks/Folders/Reporting

Central Team

Main tasks
- Excel sheet with EVS2008/ESS information & Guidelines
- Sign off classifications or go back to step 2
- Create Harmonization Codebook/Syntax for variables
- Generate harmonized variables & final documentation

Folder for data and documentation
- Meetings
- EVS2017 Guidelines
- Consultation Translation process
- FW Monitoring
- Data Processing

Country Team

Main tasks
- Check/adapt classifications and provide feedback
- Derive verified response lists and show cards for FQ
- Check/verify Harmonization Codebook/Syntax
- Check/verify final data & documentation

Folder for data and documentation
- EVS2017 Guidelines
- Consultation FW Report
- D&D Upload
- Data Processing
- Internal Data Release

Central reporting on state of main tasks (CT WSP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Information delivered by country</th>
<th>Information verified by CT</th>
<th>Harmonization Codebook created by CT</th>
<th>Harmonization Codebook verified by country</th>
<th>Harmonized variable generated by CT</th>
<th>Harmonized variables &amp; documentation verified by country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country 1</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
<td></td>
</tr>
<tr>
<td>Country 2</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
Translation: Division of work

Translation

Step 1: Supply EVS2017 MQ and further information
Step 2: Carry out translation, enter comments on amendments
Step 3: Sign off translation process or go back to step 2
Step 4: Export TMT FQ for survey organization
Step 5: If amendments necessary, adapt FQ and submit to MG for verification
Step 6: Check and verify FQ to be used or go back to step 5
Step 8: Export TMT FQ in XML-format
Step 9: Import XML-FQ in DSDM, adapt to used FQ, set up original language documentation
Step 10: Check and verify original language documentation or go back to step 9

II. Data Processing/Release
Translation: Tasks/Folders/Reporting

**Tasks**
- Supply EVS2017 MQ and further information
- Sign off translation process or go back to step 2
- Check and verify FQ to be used or go back to step 5
- Export TMT FQ in XML-format and upload
- Import XML-FQ, adapt to used FQ, set up documentation

**Folder for data and documents**
- Meetings
- EVS2017 Guidelines
- Consultation process
- Translation
- FW Monitoring
- Processing

**Tasks**
- Carry out translation, enter comments on amendments
- Export TMT FQ for survey organization
- If amendments necessary, submit FQ to MG for verification
- Upload FQ and FQ version with amendments highlighted
- Check & verify documentation or go back to step 9

**Folder for data and documents**
- EVS2017 Guidelines
- Consultation
- FW process
- Report
- D&D Upload
- Data Processing
- Internal Data Release

**Central reporting on state of translation tasks (CT WSP)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Translation finished by Country</th>
<th>Signoff of Translation</th>
<th>TMT FQ exported by Country</th>
<th>Amendments in exported FQ verified by MG</th>
<th>OL documentation set up by CT</th>
<th>OL documentation verified by Country</th>
<th>Documentation released by CT (version)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>v1</td>
</tr>
<tr>
<td>Country 2</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>v2</td>
</tr>
</tbody>
</table>
Fieldwork reporting: Division of work

Before & during Fieldwork

Step 1
Methodological Guidelines, Excel sheet and Help finished

Step 2
Agree on FW reporting with country

Step 3
Start FW and enter FW projection and outcome codes in Excel sheet

Step 4
Upload Excel sheet at agreed intervals to myEVS

I. Data Processing/Upload

Step 5
Review FW outcome codes and provide consultation

II. Data Processing/Release

Step 7
Final check of fieldwork outcome codes

Step 8
Publish information as part of EVS2017 documentation

Central Team

Country Team

NOW
Fieldwork reporting

Central Team

Tasks
- Methodological Guidelines, Excel sheet & Help finished
- Agree on FW reporting with country
- Review FW outcome codes and provide consultation
- Final check of fieldwork outcome codes
- Publish information as part of EVS2017 documentation

Folder for data and documents
- Meetings
- EVS2017 Guidelines
- Consultation
- Translation process
- FW Monitoring
- Data Processing

Country Team

Tasks
- Start FW and enter agreed FW projection and outcome codes in Excel sheet
- Upload Excel sheet at agreed intervals
- Upload final Excel sheet after fieldwork

Folder for data and documents
- EVS2017 Guidelines
- Consultation FW process
- Report
- D&D Upload
- Data Processing
- Internal Data Release

Central reporting on state of classification tasks (CT WSP)

<table>
<thead>
<tr>
<th>Country</th>
<th>FW reporting to be delivered by country agreed</th>
<th>Excel sheet &amp; Help stored in country folder</th>
<th>FW start</th>
<th>FW end</th>
<th>Excel sheet filled in and uploaded</th>
<th>FW outcome codes verified by CT (T1)</th>
<th>FW outcome codes verified by CT (final)</th>
<th>FW documentation verified by country</th>
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</thead>
<tbody>
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<td>20.05.17</td>
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<td></td>
<td></td>
<td>X</td>
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<td>Country 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Methodological Questionnaire

### Planning phase
- **Step 1**: Draft of Methodological Questionnaire

### Data Processing/Upload
- **Step 2**: Online Form available in country workspace
- **Step 3**: Enter/update method information in online form
- **Step 4**: Submit information after completion
- **Step 5**: Review and verify information or go back to step 3

### Data Processing/Release
- **Step 6**: Set up method report for final verification
- **Step 7**: Verify method report before publication or go back to step 5
- **Step 8**: Create final method report for publication
Methodological Quest.: Tasks/Folders/Reporting

Central Data Team

Main tasks
- Draft of Methodological Quest. provided
- Online Form in country workspace
- Review and verify information or go back
- Set up method report for final verification
- Create final method report for publication

Folder for data and documentation
- Meetings
- EVS2017 Guidelines
- Consultation process
- Translation
- FW Monitoring
- Data Processing

Country Team

Main tasks
- Enter/update method information in online form
- Submit information after completion
- Verify method report before publication or go back

Folder for data and documentation
- EVS2017 Guidelines
- Consultation process
- FW Report
- D&D Upload
- Data Processing
- Internal Data Release

Central reporting on state of main tasks

<table>
<thead>
<tr>
<th>Country</th>
<th>Online Form implemented by CDT</th>
<th>Information submitted by Country</th>
<th>Information review &amp; verify by CDT</th>
<th>PDF file of method report delivered for verification</th>
<th>Method report verified by Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country 1</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Country 2</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Deposit Data and Documentation

Planning phase

Step 1
Overview of required deliverables in Guidelines

Data Processing & Upload

Step 2
Template with predefined deliverables in country workspace

Step 3
Upload/update required data & documentation in due time

Data Processing/Release

Step 5
Check completeness and quality of deliverables

Step 4
Confirm complete D&D delivery

Step 6
Confirm complete & timely delivery or go back to step 3

Step 7
Agree on release date and start central data processing

Central Data Team

Country Team

NOW
Deposit D&D: Tasks/Folders/Reporting

Central Team

- **Main tasks**
  - Overview of required deliverables in EVS guidelines
  - Template with predefined deliverables in country workspace
  - Check completeness and quality of deliverables
  - Confirm complete & timely delivery or go back to step 3
  - Agree on release date and start central data processing

Country Team

- **Main tasks**
  - Upload required data & documentation in due time
  - Confirm complete D&D delivery

**Folder for data and documentation**

- Meetings
- EVS2017 Guidelines
- Consultation process
- Translation
- FW Monitoring
- Data Processing

- **Folder for data and documentation**
- EVS2017 Guidelines
- Consultation process
- FW Report
- D&D Upload
- Data Processing
- Internal Data Release

**Central reporting on state of main tasks**

<table>
<thead>
<tr>
<th>Country</th>
<th>Template in country WSP</th>
<th>Deliverables uploaded by country</th>
<th>Uploaded D&amp;D checked by CDT</th>
<th>Complete and timely delivery confirmed by CDT</th>
<th>Release data agreed</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>
First conclusion

- **It is possible**
  - To adapt portal software to the needs of survey projects
  - To manage projects with distributed actors in a virtual environment
  - To attract researchers to replace e-mails by online communication

- **Big benefits are**
  - Transparency for all portal members across the project lifecycle
  - Online collaboration of actors to generate real-time results
  - Standardized workflows and structured repositories at the end

- **Challenges identified so far**
  - The portal only lives and attracts its members if it is continuously maintained
  - For larger projects, maintenance requires a resourceful central team
  - Some tools need further development to fit workflow requirements
  - Survey projects need specific customization and deployment processes
myEVS is supported by

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SERISS (Synergies for Europe’s Research Infrastructures in the Social Sciences) aims to exploit synergies, foster collaboration and develop shared standards between Europe’s social science infrastructures in order to better equip these infrastructures to play a major role in addressing Europe’s grand societal challenges and ensure that European policymaking is built on a solid base of the highest-quality socio-economic evidence.

The four year project (2015-19) is a collaboration between the three leading European Research Infrastructures in the social sciences – the European Social Survey (ESS ERIC), the Survey of Health Ageing and Retirement in Europe (SHARE ERIC) and the Consortium of European Social Science Data Archives (CESSDA AS) – and organisations representing the Generations and Gender Programme (GGP), European Values Study (EVS) and the WageIndicator Survey.

Work focuses on three key areas: Addressing key challenges for cross-national data collection, breaking down barriers between social science infrastructures and embracing the future of the social sciences.

Tool and workflow guides

Introduction to myEVS
Document Management System
Task Management
Consultation and Fieldwork
Online forms for National Delivery
Activity Stream
Chat
Introduction to myEVS

This guide provides:
- A brief introduction to the portal, its structure and its main tools
- Basic knowledge to get started quickly on myEVS
- Links to advanced guidance on specific topics

What is ‘myEVS’?

MyEVS is a virtual work environment for the EVS research group with the current focus on the EVS 2017 Survey. It provides access to key EVS-related information (such as documents and schedules), and allows team members to collaborate by providing access to useful project planning and production tools. It allows making data creation and processing as transparent as possible, saving effort and reinforcing data quality. Depending on the tasks the portal may be used with different intensity. Here are some of the things you can do with myEVS:

- Keep track of the main EVS developments
- Keep track of your own tasks and schedules
- Access needed materials and guidelines to accomplish your tasks
- Edit and share documents simultaneously and in real time
- Assign tasks to team members
- Find out about the latest developments in your work groups
- Communicate and consult with portal members via chat
The portal at a glance

The landing page provides two entry points:

1. **My EVS**: Common area for accessing documents, tasks, the overall calendar and other information that relate to the EVS survey.

2. **MY WORKSPACES**: Access to your workspaces to collaborate with team members. Workspaces are memberships in specific groups relating to the EVS workflow. Depending on your roles you may be part of one or several workspaces, like for example national team workspaces, methodology group, etc. Workspaces provide a secure place for communicating within your team as well as sharing and accessing corresponding data and documents.

Please note that some features/functions described in this guide may not be visible to you. The interface of the portal is to some extent customized with respect to your role within the EVS survey.

The landing page also provides access to some useful **shortcuts** (upper right corner):

- Access the instant chat application. For more on chat functions, see ‘other key features’ below
- Access, define, and modify your account details
- Search for keywords (e.g. people, documents, tasks, events)
- Consult FAQs. For more on help options, see ‘other key features’ below
- Notifications: See your notifications in real-time. For more on notifications, see ‘other key features’ below

Note that you can always return to the landing page by clicking on the EVS or SERISS logo.
MY EVS

The myEVS section provides all the resources you need to start working on your various tasks. You will have access to the main EVS documents, as well as important information about the survey and its progress. This is where you need to come for materials and guidelines, but also to keep track of the latest developments and the overall progress of the survey.

**EVS 2017 Survey**

- **Main EVS documents**
  Access to all main documents created by the EVS planning groups: e.g. master questionnaire, guidance documents, templates, manuals, webinars.

- **EVS 2017 Fieldwork Checklist**
  Check the main steps and overall schedule of the EVS 2017 survey.

- **Version history of EVS 2017 Documentation**
  Track amendments to final versions of guidance documents.

**People**

*Directory of all EVS actors registered in the portal. You can search members of the EVS research group by name.*

**Calendar**

*Central calendar and group calendars. See all EVS deadlines at a glance, including your various involvements across your workspaces (tasks and agenda).*

**Tasks**

*Tasks management application. Set up and manage tasks and workflows within and across your workspaces.*

**Current status**

*EVS 2017 current state. Get an overview of the fieldwork status of EVS 2017 and access relevant fieldwork information from previous EVS rounds.*
MY WORKSPACES

MY WORKSPACES has been designed to facilitate collaboration among team members. All the workspaces you are a member of are listed under ‘MY WORKSPACES’. Click on the name of a specific workspace to open it. You will then see a menu with applications combining project and data management features.

From the Activity Stream tab you can see recent actions and activities that happened within a specific workspace. It also allows you to share messages with all workspace members. Simply use the text box to post comments and/or attach files. If the comment is addressed to a specific member, include that person’s name using the @ symbol (i.e @ Hans Alexander). This will trigger a specific notification. For more information, consult the myEVS portal guide: Activity stream.

The Tasks tab allows you to set up and manage tasks and workflows within your workspace. For more information consult Tasks Management.

The Documents tab provides access to the folders and documents specific to the workspace. You can also work directly on files – the portal offers a practical work environment with advanced features to preview and edit files, as well as to manage file versions.

Practical information:
Permissions: Depending on your permission settings you may have full rights to edit and manage folders, or limited rights (read only). To view your rights, click on a folder in the file explorer pane and then on ‘permissions’.

Symlink symbol: this means that the current file or folder is a (sym)link referring to a source object in another workspace. Actions performed on a symlink are automatically synchronised with the content to which the symlink points.

For more information, consult myEVS portal guide: Document Management System.

Consult your agenda and the main deadlines with respect to the specific workspace.

See who are members of the workspace and access their contact details.

For country teams, fieldwork reporting is a workflow tool that allows you to indicate your fieldwork progress. Access the table, enter your fieldwork projections and outcome codes, and see progress at a glance.
Other key features

Notifications:

Workspace members get notifications onsite and via e-mail per default when the following actions occur:

- A message is posted on activity stream
- A file is uploaded in your workspace
- An event is created or edited in calendar
- Someone comments on a post
- A task has been assigned to you or altered
- You have been mentioned in a post or a task

Notifications are customisable under notification settings (click on your profile)

For more information, consult the myEVS portal guide Stay informed.

Communications:

As a collaborative environment, communications within myEVS are possible at different levels:

- Get notified (see above)
- Post onsite: use the activity stream to share information with all members of a workspace
- Chat in real time: the portal provides a range of different chat tools, from instant messaging to setting up online team meetings. See Communications via chat for more information.
- Access email details in the directory (people)

Help:

There are different ways to get help:

- Consult our advanced myEVS portal guides:
  - Document management system
  - Activity stream
  - Stay informed
  - Tasks management
  - Communications via chat
- Consult the help icon menu under myEVS
- Consult FAQs on the upper right-hand side
- Contact us: myevs.support@gesis.org or via chat
myEVS Document management system

Consult this guide to learn about:
- Your document environment
- Permissions and actions
- Working with files

Your document environment

Once you are in your workplace, for instance Switzerland, you can easily search for documents, consult the folder structure at a glance, and access documents.

1. Use the **search function** to:
   - start a quick search within documents
   - view content path history
   - refresh and go to previous page

2. Use the **file explorer** to:
   - see the folder structure
   - navigate through documents

We would appreciate any questions or comments on this first version of myEVS: myevs.support@gesis.org
Use the **browsing view** to:

- display the list of the files in a given folder
- click on a file’s name to open in Document viewer
- perform folder and file actions in the action bar (e.g. view folder permissions, upload file, etc.)
- sort content

**Permissions and actions**

In general, subfolders and files inherit the parent folders’ permission settings.

Depending on your permission settings, you can perform different actions on the contents of a folder:

- **Read and modify**: you can create a new sub-folder and upload new files. You can also modify folders and files.
- **Read rights only**: you can view but cannot make any additions or modifications to folders or files.
- **Remove rights**: you can delete contents of a folder, subfolders and files.

To view your permissions, click on a folder or a file in the file explorer, and then on ‘permissions’. Alternatively select a folder in the browsing view window. The menu bar will show the actions that are available to you.

Note that some folders contain a reference to another workspace: symlink (sym). A symlink folder is marked with a small yellow symbol. When you perform an action on its contents, the action is also performed on the contents to which the symlink points.

**Working with files**

Depending on your rights and the browsing view, there are different actions you can undertake, such as (pre)viewing a file, uploading a file, working with file versions, and editing files. The action bar will adapt to your rights.

To **(pre)view a file**: Click on the file name to open the document preview. For non-symlink files you can alternatively click on ‘view document’ in the action bar once the action box next to the file name is selected. It is possible to preview the following formats: pdf, office files, png, jpg, jpeg, gif, mp3, mp4. It is not possible to preview zip and ppsx formats.
To upload a file: Go to the destination folder. Click on ‘upload’ and either select a file from the menu or drag and drop a file into the folder.

To work with versions of files: Open a file. You can then upload a new version or click on ‘versions’ to find out about the different versions. To compare versions, select the versions you are interested in comparing and then click on ‘compare selected versions’. From the ‘action’ menu under the versions tab you can also restore a base version, or delete a version.

To edit a file: Go to the document you wish to edit. Click on ‘open document in word’, enter your credentials and edit your document. A new file version is created automatically. Alternatively you can download the file (B). If you chose option B you will need to upload the edited file.
myEVS Project management via tasks

Consult this guide to learn about:
- Managing projects via tasks
- Setting assignees
- Keeping track of tasks and due dates

The task function

The task function allows you to assign tasks to a person (assignee) and add co-workers, as well as keep track of your tasks and due dates. You can access all tasks related to you (across workspaces) through the global task application in the left navigation. Workspace specific tasks (i.e. filtered view of projects and tasks) are provided under the tasks tab in each workspace.

1. Access tasks from your workspace to set up and manage tasks within your workspace.

2. Access tasks from the landing page to monitor progress across workspaces. This is particularly useful if you belong to different workspaces, or for members of the central team to monitor progress across countries.

We would appreciate any questions or comments on this first version of myEVS: myevs.support@gesis.org
A country workspace contains predefined projects and tasks classified following important stages in the survey process or relevant topics. By default, projects and tasks are listed on the screen. Within a project you can switch to board view to access task workflows.

**Determine the status of a task:**

Board view allows you to quickly determine statuses of tasks at a glance. Use board view to:

**a) filter and group tasks:**
- by due date and status
- by assignee and due date, and more.

**b) change a task’s status via drag and drop**
Edit a task:

To edit a task, click on a task from either the list or board view to open the task description pane on the right. From there you can:

1. Assign a task to a project
2. Add a label
3. Edit a task’s name
4. Set a due date
5. Set assignee and coworkers
6. Select task’s status
7. Add task description
8. Arrange the schedule for a task
9. Comment on a task
10. Track the task changes history

Get notified:
Tasks sends you an onsite or email notification if:

- Someone assigns a task to you
- Someone changes the due date for your task
- Someone marks your task as complete
- Someone comments on your task

Collaborate in a workspace via tasks:

Here is an example of how you can collaborate in a workspace. Let’s take the task represented above, which is about filling in the methodological questionnaire template. In order to do so, several steps are needed:

1. Set assignee of country and change status “in progress”

   ![Image showing task status change]

2. Central and country team arrange schedule and due date and set them

   ![Image showing scheduled task details]
3. Country team finishes task, sets assignee of central team and changes status to “submit for verification”

📅 13.06.17 ⬅️ Central team ➡️ Submit for verification

4. If verified, central team sets assignee of country and changes status to “verified” or marks as complete

📅 13.06.17 ⬅️ Country ➡️ Verified

If not verified, central team sets assignee of country, changes status to “in progress” and arranges new due date with country

📅 20.06.17 ⬅️ Country ➡️ In progress

### Monitor progress across workspaces

The global task application will help the central team monitor work progress across countries. To do so, select ‘Tasks’ in the left navigation.

![Tasks page screenshot](image)

From here you can aggregate and group task items by:

- Assignee
- Project
- Label
- Due date
- Status
Your steps on myEVS: I. Consultation and Fieldwork

Consult this guide to ease your first steps on myEVS. The national teams are in different project stages of the EVS 2017 Survey and will use the portal with varying intensity. The workflow guide at hand is one of four documents related to processes that need to be completed by all national teams in collaboration with the central team. If your country team involves people working in several workplaces, you may also use myEVS for organizing team internal communication and decision-making processes.

After joining the portal, please take the following steps:

» Apply notification settings to your needs
» Access guidance documents through the EVS 2017 Survey menu item
» Check the status of the Consultation process and take the next steps
» Check the status of the Fieldwork reporting process and take the next steps

Select notification settings

The default settings displayed below will send daily digest emails and online notifications. They are triggered by actions in your workspace related to Agenda, Activity Stream, Documents, and Tasks.

💡 You can control how you want to be notified. Please click on your profile and customize Notifications to make sure to get information how and when you want to be notified. In busy EVS times, we recommend applying ‘Send me an email right away’ settings.
Access EVS 2017 Guidelines to stay informed

Up-to-date EVS guidelines are provided via the menu item **EVS 2017 Survey** in the left-side navigation.

» EVS 2017 Survey
» EVS 2017 Fieldwork Checklist
» Version history of EVS 2017 Documentation

Alternatively, you can download all guidelines from your workspace document repository directly. For this, please go to **Documents**, then to folder **EVS2017 Guidance doc** and view or download required documents.

昇 As in the past, you will be notified by the Secretary Methodology Group (MG) via email if new guidelines are uploaded.

Check and pass through the Consultation process

The Consultation process is complete when classifications, sampling design, and the final field questionnaire are signed off by the MG. As in the past, Angelica and Claudia from the central team will support this process.

昇 Please check the work status on menu item **Current Status**, and in your workspace in **Tasks** and **Documents**.

Tasks

The ‘Country’ project in **Tasks** in your workspace contains predefined tasks that need to be accomplished before proceeding to the next workflow step Deposit Data and Metadata. The tasks go through a life cycle, starting with a to-do request and finishing with the task’s completion.

» The Consultation process is considered as complete when the three tasks have the status Verified→Completed. After a final check, if signed off documents are uploaded to myEVS, Angelica/Claudia mark the tasks as complete and remove them from board view.

» If the Consultation process is not yet complete, tasks may have the status To Do, In Progress, or Submit for Verification. Angelica/Claudia will proceed to the next step. They will finish the Sign off process and upload files (with notification) or send you a to-do request via a task (with notification).

昇 When you proceed to the next step and move the task on the board, please choose Angelica’s or Claudia’s name as assignee. They will be notified and make sure that information is also updated on menu item **Current Status** to keep portal members informed on work progress.

昇 Tasks management will help the members of your team stay informed about work progress. The tool additionally allows aggregate all countries’ tasks to get an overall view of the work status and better organize workflows and plan next steps.
In workspace **Documents**, the folder **Consultation Process** contains all documents transferred between you and Angelica/Claudia during the Sign off process. It includes two main folders:

- **1_Submitted_Central_Team**: In this folder, the central team provides the templates in subfolder **Templates**, feedback on files that need to be modified by national team in subfolder **Check_and_Submit** and the documents approved by the MG in subfolder **Signed_Off**.

- **2_Submitted_National_Team**: This folder includes all files modified by you and submitted for approval.

**Main steps**

1. If the consultation process is not yet complete and awaits your action, please
   - Download the templates from folder **Templates** and upload the modified document into folder **2_Submitted_National_Team**, or
   - Download documents including feedback on files from folder **Check_and_Submit**, revise the document and upload it to folder **2_Submitted_National_Team**.

2. If the consultation process is not yet complete and requires action by the central team,
   - Angelica/Claudia will download the file from folder **2_Submitted_National_Team**, check it and upload feedback to subfolder **Check_and_Submit** if further modifications are necessary, or
   - Upload the approved file to folder **Signed_Off**.

3. If the Consultation process is complete, the final documents (classifications, sampling design, and field questionnaire) are available in folder **1_Submitted_Central_Team**, subfolder **Signed_Off**.

All file uploads will automatically generate posts on **Activity Stream** and trigger notifications to the members of your workspace (team members as well as Angelica/Claudia).

In **Activity Stream** you can discuss modifications as well as comment on or edit a document. For this, post a message on **Activity Stream** and attach a respective file from your workspace **Documents**.
Check the status of Fieldwork reporting

For Fieldwork reporting, please follow the procedure described in the Introduction to ‘EVS 2017 Fieldwork progress reporting’ submitted by the Secretary MG. The link to your fieldwork reporting template provided there is implemented in your workspace tab **FW Report**. All members of your team can fill in information and monitor fieldwork progress there.

**Main workflow steps**
» Provide information on the fieldwork period and agree with MG on reporting intervals
» Enter FW projections into the FW reporting Excel template
» Enter fieldwork outcome codes in the white cells at agreed intervals until fieldwork is complete
» The gray cells contain formulas to calculate outcome codes for fieldwork monitoring by you and the MG
» Please inform the MG (evs2017mg@gmail.com) if the Excel template needs any adjustments

To apply the workflow, please use the features in your workspace.

Please check the work progress on the menu item **Current Status** and in your workspace **FW Report and Tasks**.

Please view the current status of EVS 2017

The menu item **Current Status** in the left-side navigation will keep you informed about the status of the translation and consultation process, and fieldwork progress across countries. The summarized figures are generated by both information you provide to Angelica/Claudia and information you enter in the Fieldwork reporting form.

**Introductions and Guides**

**EVS 2017 workflow guides**
I. Consultation and Fieldwork
II. Introduction to EVS 2017 Fieldwork progress reporting
III. Deposit Data and Metadata (available soon)
IV. Data Processing and Documentation (available soon)

**myEVS portal guides**
» Introduction to myEVS
» myEVS Document Management System
» myEVS Project management via tasks
» For further guides, please go the myEVS landing page
Introduction to EVS2017 Fieldwork progress reporting

Based on the Fieldwork Scenario agreed with the EVS-MG, all participating countries are asked to report fieldwork projections before the start of fieldwork and to provide fieldwork outcome codes at agreed intervals during the fieldwork period. Please enter the required information in the Excel sheet you can open via the link below¹. Thank you very much for your cooperation!

Link to the [country] fieldwork reporting template

[URL]

The following procedure will be in place (please see an example of the table on the next page)

1. Provide information on fieldwork period and agree with EVS-MG on reporting intervals²
   - FW-Period
   - Number of reports

2. Enter FW projections into the FW reporting template³
   - FW-Period
   - Number of reports
   - Projected Net Sample Size⁴
   - Projected Gross Sample Size⁵

3. Enter fieldwork outcome codes in the white cells at agreed intervals until fieldwork complete
   - Number and date of report
   - Total sample units allocated to interviewers
   - Number of selected sample units where no contact attempt has yet been made
   - Completed interviews
   - Number of non-contacts
   - Number of refusals & breakoff
   - Number of confirmed ineligibles
   Only if this information is not available, then the minimum of information to be provided is the number of completed interviews and number of selected sample units where no contact attempt has been made

4. The gray cells contain formula to calculate outcomes codes for fieldwork monitoring by the EVS-MG
   - Completed interviews cumulative
   - Total sample units allocated to interviewers cumulative

¹ The Excel sheet is saved in Google Drive. After switching to myEVS it will be available on the portal too.
² Each country is asked to provide a report every three weeks during the fieldwork. Alternative due dates can be negotiated with the EVS-MG.
⁴ From the approved sampling form.
⁵ From the approved sampling form.
- Response Rate cumulative (Formula: N of completed interviews/Total selected sample size Minus ineligibles)
- Refusal Rate cumulative (Formula: N of refusals & breakoff/Total selected sample size Minus ineligibles)

5. Please inform the EVS-MG (evs2017mg@gmail.com) if the Excel template needs any adjustments.

To print or download information in Excel or Word format, go to Print or File in the menu bar.

Figure 1. Example of fieldwork reporting template

<table>
<thead>
<tr>
<th>FW-Period</th>
<th>1st to 4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Net Sample Size</td>
<td>2200</td>
</tr>
<tr>
<td>Projected Gross Sample Size</td>
<td>1734</td>
</tr>
<tr>
<td>Number of completed interviews</td>
<td>1230</td>
</tr>
<tr>
<td>Total sample units allocated to interviews</td>
<td>1800</td>
</tr>
<tr>
<td>Percentage of issued sample</td>
<td>104</td>
</tr>
<tr>
<td>Refusal Rate</td>
<td>0.07</td>
</tr>
<tr>
<td>Response Rate</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Ineligibles comprise for samples of individuals:
- Respondent deceased
- Address not occupied by respondent (not occupied/demolished / not yet built/weekend or second homes)
- Respondent emigrated/left the country long term (for more than 6 months)
- Respondent resides in an institution

For samples of households or addresses:
- Address not occupied at all/demolished premises
- Address not yet built/under construction
- Non-residential address (e.g. used solely for business / industrial purposes or as an institutional address e.g. factory, office or school)
- Address occupied, but no resident household (e.g. weekend or second homes)
- Address occupied by resident household, but no eligible respondent (no one aged 15 +).

Acknowledgements: The tables and introduction partly build on experiences of other survey projects, especially procedures designed for the European Social Survey accessible at [http://www.europeansocialsurvey.org/](http://www.europeansocialsurvey.org/).

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Online forms on myEVS for the national delivery

After fieldwork and data processing in the country is completed, the national teams are asked to use the online forms ‘Data Deposit’ and ‘Methodological Questionnaire’ for delivery of their national data and documentation. The link to Data Deposit and Data Processing web page is available on page ‘EVS 2017 Survey’. It shortly describes the whole workflow including Documents, Tasks, and Calendar.

Online forms for Data Deposit and Methodological Questionnaire

Data Deposit form

All participating countries are kindly asked to deliver the relevant data and documentation resulting from the Consultation and Translation process and generated during Fieldwork and Data Processing. For the 2017 Survey we provide a Data Deposit form to document the delivery of data and documentation by national teams. The files that the central teams expect to receive are also listed in the EVS 2017 Data Processing Guidelines, App. 9.1, accessible on page EVS 2017 Survey.

💡 Please upload the required files to the folder 04_Data Deposit in the Documents repository of your workspace prior to filling the Data Deposit form.

Methodological Questionnaire form

As part of the Data Deposit task, the participating countries are asked to document their national survey methodology by completing the Methodological Questionnaire (MQ). The Methodological Questionnaire online form will support you in collecting the relevant information. It is also accessible in PDF and fillable doc format on page EVS 2017 Survey.

💡 Please start filling in the required information in the Methodological Questionnaire online form as soon as your country has finished the fieldwork and deliver your national data and documents.

Access the online forms

Click on the Data Deposit or the Methodological Questionnaire link in the Announcement box on the right side of the Landing page, or go to page EVS 2017 Survey and click on Data Deposit and Data Processing, and click the

A. Data Deposit form
B. Methodological Questionnaire form
Main steps

1. Before filling in information, please make sure that the respective files are uploaded to folder **04_Data Deposit** in the Documents repository of your workspace.

2. Go to the online form and click on the arrow  ➔  next to ‘Country Team’ and then select your country.

3. Tick the **Delivered box** for each uploaded file.
   - In case of updates, do not delete/remove any files from the folder, but upload new file versions (v0, v1, v2, v3) and tick the corresponding boxes.

4. Always click **Save** button after you have filled in or updated information.

5. Clicking the Save button generates the **delivery timestamp**. After the Data Deposit is complete, post on Activity Stream to inform the central team.

6. The central team will check and verify your Data Deposit; this will generate a **verification timestamp**.

7. If you want to deliver more files than listed in the **Data Deposit form**, please upload them to folder **04_Data Deposit** and post a message on Activity Stream.

💡 If the **Methodological Questionnaire form** has been filled and submitted online, the corresponding checkbox ‘METHOD’ in the **Data Deposit form** will be filled automatically.
**Fill in the Methodological Questionnaire form**

### Main steps

<table>
<thead>
<tr>
<th>Step</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Go to the <strong>MQ online form</strong> and select your Country in the <strong>dropdown menu</strong> – this will activate the items in the left-hand side.</td>
</tr>
<tr>
<td>2</td>
<td>You will be automatically redirected to the first item <strong>V1</strong> to start entering information.</td>
</tr>
<tr>
<td>3</td>
<td>Click the <strong>Save</strong> button to store the changes <strong>on each tab</strong> and move on with the next item section. <strong>The Save</strong> button is active once you have answered at least <strong>all the compulsory questions</strong> in one section. Its function is to store <strong>ALL</strong> the answers in the particular section (no single item answers). <strong>Click outside a fillable text field to activate the Save button.</strong> <strong>Simultaneous editing of the online form by country members is possible but not recommended.</strong> The last saved information will be stored and is visible.</td>
</tr>
</tbody>
</table>
| 4    | After filling the **MQ submit** the information to the central team by clicking on the **Submit** button on the **Home** tab. **Beware; you should submit the MQ form only twice:**  
  a. **Version 1** is to deliver before the anonymity of survey data to be released is checked against national data protection requirements (answer item V24.3 with NO).  
  b. **Version 2** is to deliver after the anonymization of survey data to be released is verified by national team and item V24.3 can be answered with YES. **The box "Anonymized data entered" on the Home tab will be automatically selected, when item V24.3 has been answered YES.** |
| 5    | A submission timestamp will be generated under “Submitted versions” on the **Home** tab. |
| 6    | Post a message in the **Activity Stream** to inform the central team about the submission. **The checkbox of the item METHOD in the Data Deposit form** will be automatically filled. |
| 7    | The central team will review the submitted information and export the MQ in Excel/PDF format for verification and potential revisions by the national team. **To edit the saved information, go back to the respective section/item, edit it and Save the changes.** |
How to display the full information:
- Adjust the window size of the question section by moving the cursor to the left window’s border (the line between the item navigation and the page) and drag the border to shrink or enlarge the window.
- Minimize the Instruction window above the form by clicking on the icon in the top right corner.

Compulsory questions:
- Questions end with a red asterisk (*)
- Answer texts field are marked in red

Filter questions:
- Some text fields become visible after you have ticked the ‘If yes’ or ‘If no’ box.
- Some text fields become visible after you have selected the answer option ‘Other’

💡 If the information is not available, please enter ‘No information available’.
Some items become **compulsory** after you have selected a certain answer option in a previous question (example: item v4.3.1 Mode of data collection and item v12 description of mode).

### v4.3.1 Mode(s) of administration of the data collection (tick all applicable):

- [ ] CAPI (Computer-assisted)
- [ ] PAPI (Paper)
- [ ] CAWI (Computer-assisted Web interviewing)
- [ ] Mail format
- [ ] Any other (details)

### Following CAPI questions

**Answer options in table format:**

- **Double-click** in the cell to enter the information
- **Save each answer** (separately per item)

<table>
<thead>
<tr>
<th>Item</th>
<th>Interviews</th>
<th>Refusals</th>
<th>Non-contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>v12.3.1 For country using CAPI: Please give a short description of the procedure for checking the CAPI programme that is implemented before the fieldwork started. How was the CAPI questionnaire programme checked?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v12.3.2 Who did the CAPI questionnaire checking? (tick all applicable)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fieldwork agency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Programme director or his/her team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other please specify</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v12.3.3 What software has been used for the CAPI survey?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the answer is large, a scroll bar will appear on the bottom of the table, which you can move to left/right.
myEVS

Activity Stream
Collaborate and transfer information within your workspaces
You learn in this presentation, how to

1. Post a *message* on Activity Stream

2. Attach a *file* to a message on Activity Stream

3. Work with *notifications* from Activity Stream

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 654221.
But first a short introduction to Activity Stream

✓ On Activity Stream you can share messages or actions with all workspace members

✓ Workspace members get notifications *onsite* and via *e-mail* when following actions are taken:

  ▪ a *message* is posted on Activity Stream
  ▪ a *file* is uploaded in your workspace
  ▪ an *event* is created in Calendar
  ▪ Someone *comments* on a post
But first a short introduction to Activity Stream

Activity Stream

• Go to your workspace (here: Germany)
• Activity Stream is displayed
• It shows all recent actions and activities
• Here you can post a comment
• You can upload/attach a file or a link to your post
An example of how to work with Activity Stream

Tobias

- created the file “Fieldwork Checklist”
- wants to ask workspace member Sascha to check it
- goes to Activity Stream and uploads the file with a message
  - Select destination folder
  - Upload file from PC into destination folder
  - Add a comment: @sa.....
An example of how to work with Activity Stream

Sascha

• gets a notification
• opens the file directly in MS Word
• checks the file, saves changes and closes it
• ... a new version is created automatically
• ... on Activity Stream, the version is updated
• Sascha adds a comment
An example of how to work with Activity Stream

Tobias

- gets a notification
- opens the file in Documents to view changes
- clicks on “Versions” to track changes between versions
- goes back to Activity Stream and adds a comment for Sascha
- Sascha gets a notification
Sorry, some software errors could not yet be fixed

- If you have problems with files from symlink folders → see Activity Stream in the FAQ.
Let’s get started

Please try it and let us know

myevs.support@gesis.com
myEVS

Communication via Chat
Communicate in real time, solve urgent issues, and take actions with chats
You learn in this presentation, how to

1. Organize a project via chat team meetings
   - Assign tasks
   - Create events
   - Attach files
   - Capture meeting notes

2. Open ad hoc discussions
   - Invite members of other workspaces

3. Ask someone a brief question
   - Via Mini-Chat
   - Via Chat room
But first a short introduction to Chat

### Notification Settings
- Click on Settings
- Change Notification Settings according to your preferences

### Open chat application
- Click on the Chat icon
- Open Chat
- Chat opens in new window
How to organize a project via chat meeting

Step by step

- Choose the workspace
- Check who is online
- Start a meeting (Chat settings)
- Write a comment
- Add an event
- Assign a task
- Attach a file
- Stop the meeting
- Save meeting notes
Where to find **events**, tasks, files, and minutes created in Chat

**Events**

- Go to your workspace
- Go to Agenda
- Select month of task
- Via right mouse click on task you can...
  - ... View Event
  - ... Edit Event
  - ... Delete Event
  - ... Export Event
Where to find events, *tasks*, files, and minutes created in Chat

Tasks

- Go to Tasks on Landing page
- Go to “Incoming”
- Click on the task
- Edit the task
- Task is not yet assigned to project
- ... select a project to move task item into Task of your workspace (e.g. Germany)
Where to find events, tasks, *files*, and minutes created in Chat

Files

- Go to your workspace
- Go to Documents
- Files are stored in root folder
- ... move file via drag and drop into another folder
Where to find events, tasks, files, and minutes created in Chat

Minutes

- Go to your workspace
- Go to Wiki
- Go to your meeting notes
- ... export meeting notes as PDF

Welcome to your Wiki

<table>
<thead>
<tr>
<th>Event</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>test</td>
<td>07/13/2017 12:00 AM</td>
<td>07/27/2017 11:59 PM</td>
</tr>
</tbody>
</table>

Attendees
- Nora Huth
- myEVS Admin
- Sascha Hänel
- Rost Root
- Tobias Gummer
- Angelika Mainzl

Discussions

[Meeting started]

[Event "test" from 07/13/2017 12:00 AM to 07/27/2017 11:59 PM]

[Meeting finished]
How to open *ad hoc discussions*

**Step by step**

- Create a new room/discussion in Chat
- Choose name for discussion
- Invite people to discussion (even member of different workspaces possible)
- Please do not create events or tasks, upload a file, or start a meeting in discussions!
How to ask someone a brief question: **Mini-Chat**

**Option 1: Mini-Chat**

- *Nora* opens Chat
- ... checks who is online
- ... selects Tobias
- ... asks a question
- *Tobias* gets a notification
- ... opens Mini-Chat window
- ... answers question
- *Nora* gets the information
How to ask someone a brief question: *Chat room*

**Option 2: Chat room**

- *Nora* asks Tobias a question
- *Tobias* gets a notification
- ... opens Chat
- ... opens private chatroom
- ... answers the question
- *Nora* gets the information
Sorry, some software errors could not yet be fixed

- Chat settings are not accessible → see Chat in the FAQ
- I can't save meeting notes → see Chat in the FAQ
- Where can I access meeting notes? → see Chat in the FAQ
Let’s get started

Please try it and let us know

myevs.support@gesis.com