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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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Summary ................................................................. 4

1. Introduction ......................................................................................................................... 5
   1.1 Current status of the tool ............................................................................................... 5
   1.2 Report overview ........................................................................................................... 5
   1.3 Further information ....................................................................................................... 6
   1.4 Definitions, Acronyms and Abbreviations ................................................................. 7
   1.5 Acknowledgements ....................................................................................................... 7

2. Developing a Questionnaire Design and Documentation Tool for the ESS ............... 8
   2.1 Current ESS questionnaire design process ............................................................... 8
   2.2 Overview of QDDT: Key features ............................................................................... 9
   2.3 Extending the QDDT to other surveys ....................................................................... 10

3. Testing the QDDT in ESS Round 9 ............................................................................... 11
   3.1 Testing phase 1: Entering content from previous ESS rounds ................................... 11
   3.2 Testing phase 2: Documenting ESS Round 9 ........................................................... 12
   3.3 Testing phase 3: ESS Round 10 ................................................................................... 13

4. Next steps ............................................................................................................................ 14

Annex 1 Question Design and Documentation Tool for the European Social Survey:
Technical Documentation ......................................................................................................... 21

Annex 2 Question Design and Documentation Tool for the European Social Survey: User
manual ................................................................................................................................. 21

Annex 3 Versioning and Publication Example from ESS Round 9 ............................... 21
Summary

This report provides information on the development of the Questionnaire Design and Documentation Tool (QDDT) developed for the European Social Survey and beta tested during the development of the ESS Round 9 questionnaire (2016-2018) prior to a large scale roll out for ESS Round 10. The QDDT is an interactive and dynamic web-based tool which can be used to both document and retrieve information on the complex process of designing a cross-national survey questionnaire. It uses a metadata model based on the Data Documentation Initiative (DDI), specifically DDI-Lifecycle 3.2 XML. The report is accompanied by full technical documentation for the QDDT, a QDDT user guide and conventions document, a step by step worked example of how content is versioned and published within the QDDT and example PDF outputs from the documentation of the two Round 9 rotating modules.
1. Introduction

This report provides information on the development of the Questionnaire Design and Documentation Tool (QDDT) developed for the European Social Survey and beta tested during the development of the ESS Round 9 questionnaire (2016-2018). The QDDT is an interactive and dynamic web-based tool which can be used to both document and retrieve information on the complex process of designing a cross-national survey questionnaire. The QDDT is being developed primarily with the European Social Survey in mind. However, it is anticipated that the tool will also be usable by other national and cross-national surveys including SERISS partners SHARE, GGP and EVS and the International Social Survey Programme (ISSP).

1.1 Current status of the tool

The original goal under SERISS was to take an earlier version of the QDDT, developed under the EU funded FP7 project Data Service Infrastructure for the Social Sciences and Humanities (DASISH - GA No: 283846) and use it to document the development of the questionnaire in ESS Round 8. However, ongoing and rapid developments in software meant that the software used to develop the prototype tool during DASISH was no longer considered optimal by the start of the SERISS project (mid-2015). The decision was taken, at the start of the SERISS project, to redevelop the tool using better performing software. This led to the roll out of the tool being postponed. Furthermore, the complexity of the workflows to be documented mean that development was more time consuming than anticipated. Nevertheless, a version of the QDDT was ready for beta testing in ESS Round 9 and will be given a full roll out in ESS Round 10 (starting September 2018).

Version 1 of the tool, released in May 2018, incorporates most but not all of the core functionalities intended for the QDDT. These functionalities are sufficient to enable researchers at ESS ERIC HQ to document the different stages of the ESS questionnaire development process and to share content with other ESS stakeholders for review/comment. It is possible to enter questionnaire concepts, question items and question constructs, to search for elements entered into the tool, to comment on items in development, to upload supporting background documentation into the tool, to version elements and track their development history and use over time, and to reuse elements across surveys and survey rounds. It is also possible to ‘publish’ subsets of elements for comment/review and to assign these published elements to key development milestones in the design process, for example to identify question items included in pre-testing or piloting. However, it is not yet possible to use the tool to produce a final field-ready questionnaire, a long term goal of the tool.

Version 1 of the tool focuses primarily on the needs of internal stakeholders involved in the questionnaire development process. Some additional work may be necessary to develop the user interface for external users interested in retrieving questionnaire metadata. However, key functionalities necessary for an external facing tool – e.g. search capability, publication milestones, different user access rights - are already in place.
Version 1 of the tool currently operates as a standalone tool. The facility to import/export data from the other questionnaire documentation tools, for example the Translation Management Tool, being developed under SERISS has not yet been implemented in practice. However, given that these tools have been developed according to a common metadata model, agreed as part of the DASISH project, interconnectivity and communication between the tools should be possible.

1.2 Report overview

The remainder of this report proceeds as follows. Section 2 provides further information on what the QDDT is, its main functionalities and the need it meets for the European Social Survey. Section 3 provides details of the different stages of testing carried out on the QDDT by researchers at ESS ERIC HQ to date and the main recommendations at each stage. It includes screenshots of the Round 9 questionnaire modules entered into the QDDT. Section 4 provides a brief overview of the next steps in the tool’s development and roll out.

The main value of this deliverable can be found in the supporting materials provided alongside the main report. These are:

- Annex 1: QDDT Technical documentation
  This report provides further details of the QDDT’s development including detailed use cases, information on the system architecture and hardware and software used and links to the source code and test tools.

- Annex 2: QDDT user guide
  This report provides a step by step ‘how to’ guide for users looking to use the QDDT to document the questionnaire, with particular reference to how the QDDT is set up to be used for the ESS. Informed by queries arising during beta testing, an appendix provides more information on how to record different types of questions and related elements in the QDDT using real world ESS examples.

- Annex 3: QDDT versioning and publication example from ESS Round 9
  This document provides a worked example from the ESS Round 9 questionnaire module on Justice and Fairness of how a concept developed over time and how the QDDT was used to record its development, paying particular attention to how the concept was versioned and published at different stages of development.

Also provided are PDFs of selected content entered into the QDDT whilst documenting ESS Round 9. It contains the following files:

- ESS R9 Timing of Life (REPEAT) Module export.pdf
- ESS R9 Justice and Fairness Module Distributive justice_1.pdf (cf. Annex 3)
- ESS R9 Justice and Fairness Module Distributive justice_2.pdf (cf. Annex 3)

1.3 Further information

The QDDT prototype and source code are available to view open access on GitHub: https://github.com/DASISH/qddt-client/wiki

To learn more about the European Social Survey: www.europeansocialsurvey.org

### 1.4 Definitions, Acronyms and Abbreviations

- **CST** ESS Core Scientific Team
- **ESS** European Social Survey
- **DDI** Data documentation Initiative
- **NC** ESS National Coordinator
- **QDDT** Questionnaire Design and Documentation Tool
- **QDT** Questionnaire Design Team
- **QVDB** Question Variable Data Base
- **TMT** Translation Management Tool

### 1.5 Acknowledgements

The QDDT was conceived as part of the EU funded FP7 project Data Service Infrastructure for the Social Sciences and Humanities (DASISH - GA No: 283846) and has been developed under the Horizon 2020 project Synergies for Europe’s Research Infrastructures in the Social Sciences (SERISS - GA No: 654221).

The tool is being developed by NSD – Norwegian Centre for Research Data, home of the ESS Data Archive, in consultation with members of the ESS Core Scientific Team based at ESS ERIC Headquarters.

The following people have been involved in the development of the QDDT:
- At ESS ERIC Headquarters, City, University of London: Sarah Butt, Yvette Prestage, Virginia Ros, Sally Widdop
- At NSD: Stig Norland, Yong Liu, Dag Øyvind Heradstveit, Håvard Venge Bakkmoen, Benjamin Beuster, Hilde Orten, Knut Kalgraff Skjåk
- Consultant: Joachim Wackerow
2. Developing a Questionnaire Design and Documentation Tool for the ESS

2.1 Current ESS questionnaire design process

Designing and documenting a questionnaire for a cross-national survey such as the European Social Survey is complex and time consuming. Questionnaire design is a multi-stage process involving different rounds of consultation, expert review and both qualitative and quantitative pre-testing (see Figure 1) and multiple actors (including subject experts, survey methodologists, a translation expert and the country teams responsible for implementing the survey across Europe and who bring knowledge of the local context). Most questionnaires also consist of a number of different hierarchical components; the ESS questionnaire for example is made up of a core questionnaire which remains the same from round to round and two ‘rotating’ modules of 30 items each which cover different topics in each round and which are developed for the ESS in collaboration with teams of external academic subject experts (Question Design Teams). Each module is organised around theoretical concepts and question items designed to measure each concept. Finally, different parts of the questionnaire develop at different rates (with some questions proving more difficult than others to finalise) meaning that the workflows involved can vary.¹

At the same time, maintaining a careful record of the development process is important, not only to ensure the effective realisation of a final questionnaire but also to provide survey users with valuable metadata for future reference. Many surveys are still reliant on paper-based tools to document the questionnaire development process. The European Social Survey, for example, relies on a word template which can have as many as 15-20 iterations and run to 150 pages or more in length. The template is time consuming to complete, cumbersome to use when retrieving information, and at risk of information being lost during manual updates. A separate documentation stage is required to produce the final field-ready questionnaire and to provide content for each separate stage of the design process, for example to provide to translators. For an example of the multiple iterations of the paper template completed for the rotating modules in ESS Rounds 4-8 see: https://www.europeansocialsurvey.org/methodology/ess_methodology/source_questionnaire/source_questionnaire_development.html.

Moving to designing and documenting cross-national questionnaires using an online tool offers the potential to streamline the process making it both more efficient and transparent.

¹ Fitzgerald (2015) Sailing in uncharted waters: Structuring and documenting cross-national questionnaire design GESIS working paper 2015|05
2.2 Overview of QDDT: Key features

The QDDT is intended to improve the efficiency of the questionnaire design process. The tool provides a means of managing the design process, tracking the development of question items over different stages of pre-testing and reviewing and incorporating input from multiple stakeholders. It is also intended, in the longer term, that the QDDT should provide the basis for generating the final field ready questionnaire from the question items developed and recorded within the tool.

For the QDDT to be an effective tool for survey infrastructures such as the ESS to manage and document the entire questionnaire design process in real time requires:

- Capacity to add, edit, delete and store different questionnaire meta elements (concepts, question items, response scales etc.) to a fine level of granularity;
- A database structure which allows for question items to be organised by theoretical concepts and provides space to input information on the rationale behind asking certain questions;
- Ability to version questionnaire elements and to track/compare different versions of the same element over time;
- Ability for multiple stakeholders to review and comment on elements in development at multiple stages in the design process with different access rights assigned to different users depending on their role in the questionnaire design process;
- Capacity to monitor questionnaire development progress and determine elements’ status at different stages of the development cycle (e.g. pre-testing, piloting, mainstage);
- Upload of background materials e.g. report on pre-testing results in common file formats (word, pdf).
The QDDT can also improve the transparency of the questionnaire design process and facilitate knowledge transfer both within the same survey infrastructure across time and across different survey infrastructures without having to navigate cumbersome paper template. The tool serves as an archive of survey metadata, including the rationale behind questions and results from pre-testing as well as the final questions developed, providing a complete and searchable record of the questionnaire design process. Built into the QDDT is:

- Capacity to reuse elements across multiple surveys and/or rounds within the same survey and to track in which surveys and/or studies an element has been used;
- Boolean field level search in all elements within selected fields;
- Download and printing of search results/user defined content in human readable format (pdf).

The tool is intended to form part of a suite of tools documenting different stages of the survey lifecycle including questionnaire design and translation. The QDDT’s underlying database for the tool is structured in line with the internationally coordinated Data Documentation Initiative (DDI), specifically DDI-Life cycle 3.2 XML. This will make it possible to import and export data from other DDI-compliant tools being developed under SERISS including a Translation Management Tool (TMT) and Question Variable Database (QVDB). The tools are not yet fully interoperable but, with their basis in DDI, the potential is there.

The QDDT is a web-based tool accessible using any up to date web browser.

### 2.3 Extending the QDDT to other surveys

The QDDT is being developed primarily with the European Social Survey in mind. However, it is anticipated that the tool will also be usable by other national and cross-national surveys including SERISS partners SHARE, GGP and EVS and the International Social Survey Programme (ISSP). The tool’s reusable database model can also be extended to other questionnaire development and documentation tools.
3. Testing the QDDT in ESS Round 9

Questionnaire design for ESS Round 9 was underway before a working version of the QDDT could be released. Therefore, the main documentation of ESS Round 9 took place, as in previous rounds, using the existing Word template. However, the QDDT was sufficiently developed to allow several stages of researcher-led testing during 2017-18 alongside the development of the ESS Round 9 questionnaire as well as, on completion of the design process, the retrospective documentation in the QDDT of the two rotating questionnaire modules developed for ESS Round 9.

This section of the report provides further details of a) beta testing of the QDDT by researchers at ESS ERIC HQ using questionnaire content from ESS Rounds 7 and 8, and b) the retrospective documentation of the ESS Round 9 rotating modules in the QDDT. It also discusses the upcoming roll out of the QDDT for ESS Round 10.

3.1 Testing phase 1: Entering content from previous ESS rounds

Throughout the development of the QDDT, researchers at ESS ERIC HQ worked closely with programmers and domain specialists at NSD to provide a specification for the QDDT and ensure that functionalities have been implemented as intended and that the tool appears fit for purpose. Individual components of the tool were frequently tested and retested with any bugs or possible improvements logged on Github and fixed where possible. In June 2017, once the QDDT was deemed to have reached a sufficient state of readiness, other members of the team at ESS ERIC HQ involved in questionnaire design but not previously involved in the QDDT’s development were invited to test the tool.

The purpose of this first phase of beta testing was for end users of the QDDT to test the tool using ‘real’ content which encompasses the variety, complexity and volume of data to be documented during a typical ESS questionnaire development cycle. The testing was designed to evaluate:

- Whether the QDDT can be used to document all elements within the ESS questionnaire
- Whether the QDDT can be used to document all stages in the questionnaire development process
- Whether the workflow within the tool meets the needs of ESS internal stakeholders
- Whether the tool’s user interface is fit for purpose

This testing also served as the basis to develop guidelines and documentation for how the tool should be used to document the ESS questionnaire development process e.g. versioning policy (see Annexes 2-3).

The testing was conducted over the course of several weeks by two researchers at ESS ERIC HQ who were at the same time directly involved in working with the Question Design Teams to develop the ESS Round 9 Questionnaire and so well acquainted with the complexities of the design process. They each tested the QDDT by entering content from past rotating modules developed for ESS Rounds 7 and 8. Issues arising during the testing were logged via an excel spreadsheet and classified according to whether they constituted a bug, a suggested improvement to the functionality/workflow, or a suggested improvement to the tool’s user interface.
There were four main outcomes from the testing: First, there was a generally positive reaction to the QDDT and an acknowledgement that the tool was relatively straightforward to use and had potential to be useful in supporting the ESS questionnaire design process, thereby justifying the further development of the tool. In particular, the scope the tool provided to search for and move between individual elements offered time savings compared with having to negotiate an unwieldy Word document. There were also potential efficiency gains from being able to reuse elements such as commonly recurring response domains and from being able to move between and compare different versions of the same element.

Second, the testing uncovered several bugs in the tool which needed to be fixed before the tool could be used more widely. These included the inability to attach missing values to question items and not being able to save a working version of a question item before attaching a response domain. There were also several improvements to the workflow and user interface identified including standardising the icons used on each screen/for each element in the QDDT and expanding the character length of some of the text entry boxes. All of the major issues raised were able to be resolved before phase 2 of the testing (see below).

Third, the beta testing gave rise to a series of queries about how particular types of ‘real’ questions and other elements within the questionnaire design process should be recorded in the QDDT. This gave rise to an ‘ESS Conventions’ document to serve as a guide to how to deal with certain content (see Annex 3). For example, the Round 8 welfare module contained a split ballot experiment with different respondents asked for their attitudes towards different types of benefit claimants. A decision had to be taken on how to document this (and similar) experiments in the QDDT. It was agreed to make use of the ‘based on’ feature within the QDDT to document the connection between related question items.

Perhaps most importantly, a decision had to be taken on how to document question batteries (for example a series of agree/disagree statements) in the QDDT. The long term solution for how to do this using DDI would be to employ ‘sequence’. However, this functionality necessary for producing final field-ready questionnaires is not yet fully operational within the QDDT. Therefore, a compromise solution had to be found. This involves recording the introduction to question batteries as a separate question item (without a response domain) and recording the fact that a question is part of a battery using the ‘question intent’ field.

Finally, although not testing in ‘real time’ or with multiple stakeholders, the beta testers raised important questions about whether and how the QDDT would be used to manage communication between stakeholders, for example, using the comments feature. It was clear that, without proper moderation, the extent of the comments entered into the tool could become unmanageable, especially as comments (unlike all other content in the QDDT) are not specific to a particular version of an element but appear cumulatively over time. It was agreed that the QDDT’s primary purpose was for documentation rather than communication and that only key discussion points and decisions should be retained as comments in the QDDT. It may be necessary for some questionnaire discussions (before a consensus is reached) to take place outside of the tool, e.g. via email and/or for someone at ESS HQ to periodically go through and tidy up the most important comments.

3.2 Testing phase 2: Documenting ESS Round 9

Once the bugs and other improvements identified in the first phase of testing had been dealt with, a production version (version 1) of the QDDT was released for final use in May 2018. The underlying database was empty and ready to be populated with content from ESS Round 9 and
previous modules.

By the time the production version of the QDDT was released, the development of the ESS Round 9 questionnaire was complete. The QDDT was therefore used to document the final versions of the two Round 9 rotating modules for future use (in case, for example, one of the modules is repeated in a future round). Full versions of both modules were documented including concepts and question items. Screen shots of the two modules entered into the QDDT are shown at the end of this report. In addition, a PDF of the full version of one of the Round 9 modules “Timing of Life”, exported from the QDDT, accompanies this report by way of an example.

There were some minor bugs and other suggested improvements identified during testing phase 2 which it is hoped can be resolved in the coming weeks. These include:

• It is not possible to scroll within an element. This means, for example, that if there is a very long element description, not everything will fit on screen at once. Most importantly it may mean that the ‘submit’ button will be off screen and cannot be reached. The user needs to use the zoom feature on the browser to shrink the content sufficiently to access the ‘submit’ button before zooming back out.

• The ordering of elements in the Table of Contents on the home screen. This is determined by the order in which elements are accessed and changed, meaning that the order is liable to change over time. This is not ideal and the order of e.g. concepts in a module should, rather, be user determined or, at least, stable - for example in alphabetical order.

• The contrast between the text (grey) and background (green) on some screens in the QDDT is not very user friendly. A greater contrast of colours would be helpful.

However, none of these bugs (some of which are the result of bugs in or limitations with the underlying software) prevent the QDDT from being used. The QDDT is now fully operational with the documentation of the question design process with all necessary functionalities present in the tool.

### 3.3 Testing phase 3: ESS Round 10

A full roll out of the QDDT will be made for the start of the ESS Round 10 questionnaire design process from September 2018. This will involve an extension on the previous testing and work with the QDDT to a) document the questionnaire development process in ‘real time’ from the first meetings with Questionnaire Design Teams to production of the final questionnaire b) use of the tool by multiple stakeholders including not only researchers at ESS ERIC HQ but also members of the Questionnaire Design Teams and other members of the ESS Core Scientific Team involved in the questionnaire design process.

In preparation for this roll out, different user access rights have been agreed and implemented in the QDDT and different stakeholders in the design process issued with QDDT log in credentials. User access rights have been defined as shown in Table 1. A draft workflow of how the QDDT will be used at different stages of the process and by different users is shown in Table 2 at the end of this document. This workflow will be updated as necessary throughout Round 10. Finally, to assist users with using the QDDT as a dynamic tool, in which content is regularly updated and in need of versioning, a worked example of how one of the concepts in the Round 9 Justice and Fairness Module was developed - and would have been correspondingly versioned and published within then QDDT had the module been documented in real time - has been provided (Annex 3).

<table>
<thead>
<tr>
<th>Table 1 ESS user access rights in the QDDT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>QDDT actor</strong></td>
</tr>
<tr>
<td>ESS ERIC HQ</td>
</tr>
</tbody>
</table>
to content entered within the tool and can add, edit, delete, version and publish any content elements. Takes primary responsibility for keeping the QDDT updated

| QDT head | Conceptual editor | User can view, search and export all content elements. Also have limited write access and can add, edit, delete and version concepts and sub-concepts (but not question items or question constructs) as the prime architects of the theoretical framework for the module. |
| Other CST | Conceptual editor | So that they can view and comment on all content |
| NCs | None | QDDT content to be exported from QDDT as PDF for comment |
| Scientific Advisory Board, Other stakeholders | None | QDDT content to be exported from QDDT as PDF for comment |

See Section 2.3 of Annex 1 for more on user access rights

4. Next steps

Development of the QDDT has now reached the stage that version 1 of the tool can be used to document the different stages of the ESS questionnaire development process and to share content with other ESS stakeholders for review/comment. PDFs of the QDDT content can also be produced to be shared with external stakeholders as required. The tool will be rolled out for ‘real time’ use across multiple stakeholders from the start of the questionnaire development process in ESS Round 10. Programmers at NSD will remain available throughout that process to fix major bugs should they occur and to ensure that there is minimal, if any, disruption to the questionnaire design process.

One other development to the tool will be pursued as part of the SERISS project; to develop the capacity for xml export of tool content. This is being developed to facilitate the interoperability of the QDDT and the Question Variable Database, which will provide a record of the final variables derived from the survey questionnaire, also being developed by NSD.

Further development work on the tool, for example developing the functionality within the QDDT to produce survey instruments from the entered content will not be pursued as part of the current project. First, the tool will be used in the field. Assuming, at the end of Round 10, the ESS remains committed to using the QDDT and other infrastructures show interest in using the tool, other sources of funding may be sought to develop these extra functionalities.
Screenshots of ESS Round 9 modules and content in the QDDT
Table 2: Workflow for ESS Questionnaire Design Process using the QDDT

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Action required</th>
<th>Implications for versioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to first meeting with Questionnaire Design Team (QDT)</td>
<td>ESS HQ: Enter the two selected rotating modules in the QDDT</td>
<td>Version 1 of entered elements</td>
</tr>
<tr>
<td></td>
<td>Designated QDT member: Enter draft concepts and sub concepts into QDDT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide any suggestions for question items as “comments” under the relevant concepts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upload background information on module to QDDT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other team members: Review initial module content in QDDT</td>
<td></td>
</tr>
<tr>
<td>First meeting with QDT</td>
<td>QDDT and its content will be available to view during the meeting</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>As users become more familiar with QDDT it may be appropriate to make edits to elements as they are discussed directly in the tool.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For R10, separate minutes of the discussion will be taken and the QDDT will be updated after the meeting.</td>
<td></td>
</tr>
<tr>
<td>After first meeting with QDT</td>
<td>ESS HQ: Enter key decisions/points for discussion from meeting as “comments” under the relevant concepts.</td>
<td>If any changes to modules or concepts are made: Save as “work in progress”</td>
</tr>
<tr>
<td></td>
<td>If specific question items have already been proposed, enter these in QDDT and “attach” to the relevant concepts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Designated QDT member: Add responses to meeting comments as appropriate Fill in any gaps in concept names/descriptions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Email will be used to communication to ESS HQ/QDT when the QDDT has been updated.</td>
<td></td>
</tr>
<tr>
<td>Milestone</td>
<td>Action required</td>
<td>Implications for versioning</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>Prior to NC meeting</td>
<td><strong>ESS HQ:</strong> Check through module and tidy up comments discussion within QDDT</td>
<td>Any concepts showing as “work in progress” should be assigned a new version number</td>
</tr>
<tr>
<td></td>
<td>Version concepts and module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Publish version 2 of the module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Export module as PDF to send to NCs and SAB experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other team members: Review content of PDF in preparation for meeting discussion</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Version concepts and module</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Publish version 2 of the module</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Export module as PDF to send to NCs and SAB experts</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Other team members: Review content of PDF in preparation for meeting discussion</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Any concepts showing as “work in progress” should be assigned a new version number</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The latest version of the module should be saved as version 2</strong></td>
<td></td>
</tr>
<tr>
<td>At NC meeting</td>
<td><strong>QDDT and its content will be available to view during the meeting</strong></td>
<td><strong>NA</strong></td>
</tr>
<tr>
<td></td>
<td>The meeting discussion will be documented separately. NCs will provide any follow up comments to ESS HQ via email.</td>
<td></td>
</tr>
<tr>
<td>After NC meeting and in preparation for 2nd QDT meeting</td>
<td><strong>ESS HQ:</strong> Collate all comments from NCs into one document and upload to QDDT</td>
<td><strong>If any changes to modules or concepts are made by QDT, save as “work in progress”</strong></td>
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<td></td>
<td>Add key points requiring further discussion as “comments” under the relevant concepts</td>
<td><strong>ESS HQ should make sure any elements showing as “work in progress” or “updated” have been considered for versioning</strong></td>
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<td></td>
<td><strong>Designated QDT member:</strong> Add responses to meeting comments as appropriate</td>
<td><strong>The latest version of the module should be saved as v4</strong></td>
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<td>Edit concept names/descriptions as appropriate</td>
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<td>Suggestions for question wording should be provided in a separate document / as comments (TBC)</td>
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<td><strong>ESS HQ:</strong> Document suggestions for question items in QDDT and attach to relevant concepts</td>
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<td>Add responses to QDT suggestions using “comments”</td>
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<td><strong>Version elements and publish version 3 of module</strong></td>
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<td><strong>Other team members: Review latest module content in QDDT</strong></td>
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<tr>
<td>Milestone</td>
<td>Action required</td>
<td>Implications for versioning</td>
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<tr>
<td>2\textsuperscript{nd} meeting with QDT</td>
<td>QDDT and its content will be available to view during the meeting</td>
<td>NA</td>
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</table>
| After 2\textsuperscript{nd} meeting with QDT | ESS HQ: Enter key decisions or points for discussion from meeting as “comments” under the relevant concepts and/or questions items  
Make any necessary updates to question items/response domains in light of meeting discussions  
Publish module  
Have the option to publish separately any concepts/question items that require further discussion in preparation for pre-testing  
Designated QDT member: Add responses to meeting comments as appropriate under the relevant elements  
Email will be used to communication to ESS HQ/QDT when the QDDT has been updated. | Save new versions of edited elements  
The latest version of the module should be saved as version 3 |
| For pre-testing                       | ESS HQ: Finalise question items and constructs for pre-testing and ensure correct versions are available in QDDT  
Publish entire module  
Publish separately a) question constructs included in quant pre-test b) question constructs included in cognitive interviewing  
Designated QDT member: Comment on element revisions as necessary | Question items/constructs to be versioned and/or published as often as required during discussion.  
Final pre-test elements must be saved as a business version.  
The module as at the time of pre-test should be saved as version 4 |
| Final module                          | ESS HQ: Make sure all final elements have been assigned correct business version  
Publish version x of module | Study - containing all content - including 2 x rotating modules to be versioned only once final questionnaire has been released.  
Any questionnaire alerts etc. should be |
<table>
<thead>
<tr>
<th>Milestone</th>
<th>Action required</th>
<th>Implications for versioning</th>
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<tbody>
<tr>
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<td>documented accordingly and a new version number attached to module and study</td>
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</tbody>
</table>
Annex 1 Question Design and Documentation Tool for the European Social Survey: Technical Documentation

Annex 2 Question Design and Documentation Tool for the European Social Survey: User manual

Annex 3 Versioning and Publication Example from ESS Round 9