

**COOPERATION ON MULTI-MODE DATA COLLECTION (MMDC)**

**MIXED MODE DESIGNS FOR SOCIAL SURVEYS - MIMOD**

GRANT AGREEMENT FOR AN ACTION WITH MULTIPLE BENEFICIARIES

AGREEMENT NUMBER – 07112.2017.010-2017.786

WP3 - Deliverable 5

Methodological report

*Final Report on Data Collection Systems within the ESS*

Date: MAR 25<sup>th</sup> 2019

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WP3: *Case management in MMDC and related data logistics*

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## Introduction

WP3 aimed to give an overview of current data collection systems in practice within the ESS. Doing so, WP3 focused on the challenges to the data collection system when running mixed-mode surveys, both technically and organizationally. Also, best practice solutions in the design of certain components and the overall system were presented.

In WP3 deliverable 1, two preliminary insights about the current data collection systems in use were given. Firstly, based on a review of commercial data collection systems available online and the own experiences with an in-house developed system; the most important components needed for modern data collection were listed. This checklist also includes potential valuable features for each component. Secondly, based on the standardized MIMOD survey<sup>1</sup>, a preliminary typology of data collection systems was deducted. It was shown, that currently the data collection systems within the ESS are quite heterogeneous. They differ in four main dimensions: i) the degree to which their components are integrated in one single system; ii) the completeness of components in use; iii) the degree of external software usage; and iv) the degree of survey integration.

WP3 deliverable 3 investigated the reasons for these differences. This was done by conducting in depth-telephone-interviews with experts on data collection in 8 NSIs. A special focus was given to the relationship of the organizational form of the NSIs and the technical system in use. It was found that much of the data collection system's differences can be explained by the NSI's mode tradition, the fact that the NSI had (not) tried to integrate business and social surveys in one system and the tradition for omnibus surveys. A very strong influence on the design of the data collection system also has the fieldwork organization, namely the degree of centralization, the roles of interviewers and the way respondent contact is handled. Finally, the IT strategy in regard of in-house development v.s. external software usage plays an important role. For that reason, the main arguments for and against using external tools were given, to stimulate a discussion about this topic.

WP3 deliverable 4 researches the thesis "with the development of a new data collection system also the organization changes" further and presents technical solutions for efficient data collection of mixed-mode surveys. This was done by enriching the data basis of deliverable 3 by conducting a study visit to one NSI, two more telephone-interviews and an analysis of three NSI's written answers. In total the data basis for deliverable 4 amounted to 14 NSIs. Deliverable 4 shows in which areas mixed-mode surveys challenge the process and technical tools of data collection. That is in the area of questionnaire production, case management and communication with respondents. In these three areas, the organization of the NSIs often underwent a similar change towards more centralization. And with that, similar technical solutions for the new data collection system arose: For questionnaire production, components

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<sup>1</sup> WP3 deliverable 2 gives methodological background information on the questions about data collection systems in the MIMOD survey.

that bring together the steps design, programming and testing the questionnaire in a user-friendly way have been implemented. For case management, components for centralized case administration and pre-defined survey plans that automatically execute certain fieldwork activities have been developed. For the area of respondent communication, components for designing and sending written communications (letters, emails, sms, etc.) are now in use. So are components for handling inbound contacts of respondents. Deliverable 4 also brought to light the topic of metadata, specifically the need for more collaboration in regard to questionnaire metadata and final disposition and temporary contact codes.

In this final report of WP3 the data of the MIMOD survey and of the 14 NSIs that were interviewed in-depth are brought together. In the first chapter, this report shows the landscape of data collection systems in use by profiling the main components needed for running complex mixed-mode designs. In the second chapter certain highlights within the systems of the interviewed countries are presented. Also, best practices in implementing the needs that arise from complex mixed-mode surveys are marked there. In the last chapter recommendations on the main components of a modern data collection system are given. The report concludes with showing possible ways for collaborating in this process of change.

# Landscape of data collection systems in the ESS

## Countries that have finished a new system

Six countries have reported that they already have finished major changes to their data collection system in the past. But does this mean that these countries are able to efficiently run mixed-mode surveys without further developments in their system? Based on the given data, only Portugal seems to have already succeeded in this. In the other three interviewed countries, there is still some work to do: Latvia does not have their case administration centralized and therefore reports about manual work assigning cases to modes in mixed mode surveys. Lithuania would like to change the system towards a more metadata design-based approach. By that they hope to need less IT staff when setting up a survey in the future. Luxembourg is striving towards single mode CAWI surveys for the future and is collecting data for CAPI/CATI externally, therefore believes not to require an internal system for mixed-mode.

**Table 1: Countries that have finished a new data collection system**

Country	Data Collection System Type <sup>1</sup>	Questionnaire			Case Management			Communication		Mon. Rep. <sup>10</sup>
		Design <sup>2</sup>	Tool <sup>3</sup>	Meta data <sup>4</sup>	Central Admin <sup>5</sup>	Survey Plan <sup>6</sup>	Individ. Case Treatm. <sup>7</sup>	Out <sup>8</sup>	In <sup>9</sup>	
<b>Estonia</b>	I1 S1 C? T1		?							
<b>Ireland</b>	I3 S4 C1 T4		Blaise							
<b>Latvia</b>	I1 S1 C2 T1	no	in-house	?	no	no	yes	yes	yes	yes
<b>Lithuania</b>	I1 S1 C2 T2	no	in-house	no	yes	yes	?	yes	?	yes
<b>Luxembourg</b>	I4 S3 C2 T?	no	?	?	yes	no	?	yes	?	?
<b>Portugal</b>	I1 S1 C1 T1	?	in-house	?	yes	?	?	?	?	++

<sup>1</sup>The data collection system type as suggested by MIMOD survey, but revised for the interviewed countries. For a description, please see data collection system typology in Annex 1 on page 15.

For a detailed description of <sup>2-10</sup>, please see WP3 deliverable 4: <sup>2</sup>Component for combining questionnaire design and programming in a user-friendly way. <sup>3</sup>Component for the electronic questionnaire tool itself. <sup>4</sup>Questionnaire Metadata Standard. <sup>5</sup>Component for centralizing the administration of cases. <sup>6</sup>Component for design and execution of a pre-defined survey plan. <sup>7</sup>Special measures that allow for individual case treatment. <sup>8</sup>Component for outbound communication. <sup>9</sup>Component for inbound communication. <sup>10</sup>Component for Monitoring and Reporting.

? "no data available, + "component has room for improvement", ++ "component fulfills basic needs", +++ "component highly advanced", yes "component implemented but no data on its completeness", no "component not implemented".

## Countries that are in the midst or end of developing a new system

Currently there are 10 countries that are all developing their own new data collection system. All of them strive towards the integration of at least all social surveys into the new system. Austria, Czech Republic and Poland have already succeeded in this. The other countries have also already started to run some of their surveys in the new system, the rest of the social surveys will gradually follow until 2020. The Netherlands and France have managed to also integrate business surveys in the systems.

**Table 2: Countries that are in the midst or end of developing a new data collection system**

Country	Data Collection System Type <sup>1</sup>	Questionnaire			Case Management			Communication		Mon. Rep. <sup>10</sup>
		Design <sup>2</sup>	Tool <sup>3</sup>	Meta data <sup>4</sup>	Central Admin <sup>5</sup>	Survey Plan <sup>6</sup>	Individ. Case Treatm. <sup>7</sup>	Out <sup>8</sup>	In <sup>9</sup>	
<b>Austria</b>	I1 S1 C1 T2	+++	in-house	own	+++	+++	++	+++	++	++
<b>Czech Republic</b>	I3 S1 C2 T3	yes	Blaise	own	yes	No	+++	no	no	?
<b>Finland</b>	I2 S2 C1 T3	no	Blaise	no	+++	Yes	?	yes	?	+++
<b>France</b>	I2 S2 C2 T1	yes	in-house	DDI	no	No	?	?	+++	?
<b>Italy</b>	I2 S2 C1 T1	no	in-house	?	+++	+++	+	yes	+++	+++
<b>Norway</b>	I2 S2 C2 T3	no	Blaise	no	++	No	++	+++	+	+
<b>Poland</b>	I1 S1 C2 T1	no	in-house	?	yes	No	?	?	?	++
<b>Spain</b>	I2 S2 C? T1		in-house							
<b>The Netherlands</b>	I2 S2 C1 T2	yes	Blaise	?	+++	+++	++	+++	+++	+++
<b>United Kingdom</b>	I? S? C? T3		?							

<sup>1</sup>The data collection system type as suggested by MIMOD survey, but revised for the interviewed countries. For a description, please see data collection system typology in Annex 1 on page 15.

For a detailed description of <sup>2-10</sup>, please see WP3 deliverable 4: <sup>2</sup>Component for combining questionnaire design and programming in a user-friendly way. <sup>3</sup>Component for the electronic questionnaire tool itself. <sup>4</sup>Questionnaire Metadata Standard. <sup>5</sup>Component for centralizing the administration of cases. <sup>6</sup>Component for design and execution of a pre-defined survey plan. <sup>7</sup>Special measures that allow for individual case treatment. <sup>8</sup>Component for outbound communication. <sup>9</sup>Component for inbound communication. <sup>10</sup>Component for Monitoring and Reporting.

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When looking at the case management needed for complex mixed-mode survey, it becomes clear that there are only a very few countries that already have every needed component in their systems. In fact, up to now, only Austria, Finland, Italy and The Netherlands are using highly advanced components for central case administration, survey plan, communication (inbound and outbound), and monitoring/reporting. When considering the efficient questionnaire production, only Austria and The Netherlands also have tools for this integrated

in the system. But even in these countries, there is still room for improvement in certain components. To fully self-develop every single component of the data collection system a very high budget is needed. Therefore, most countries seem to specialize in certain components:

So, if we change the perspective and start looking not on the whole system but on each separate component it is striking that every country has at least some components mastered. For example, Austria, Czech Rep., France and The Netherlands are all working on sophisticated questionnaire designer tools. Whereas Austria, Finland, Italy, Norway and The Netherlands have made big advances in the outbound communication tool. For that reason, joining forces in developing certain components separately would be most reasonable. Further European projects should be initiated to bring together those countries interested in a certain component.

Finally, it is shown, that almost half of the countries developing their own new system of data collection are using Blaise as their questionnaire tool. These countries build their own case management tools around Blaise. The other half of the countries have developed their own questionnaire tools.

## Countries that have just started or will soon start developing a new system

Five countries are currently conceptualizing their new system and will start developing it any time soon. Hungary and Sweden have already very concrete ideas of how their systems should look like. But it still might not be too late for these five countries to make use of knowledge and technology from the countries that were presented in the above chapter. Especially for Hungary as they rely on the DDI Standard and for Slovenia and Slovak Republic as they use Blaise questionnaires.

**Table 3: Countries that have just started or will soon start developing a new system for data collection**

Country	Data Collection System Type <sup>1</sup>	Questionnaire			Case Management			Communication		Mon. Rep.
		Design <sup>2</sup>	Tool <sup>3</sup>	Meta data <sup>4</sup>	Central Admin <sup>5</sup>	Survey Plan <sup>6</sup>	Individ. Case Treatm. <sup>7</sup>	Out <sup>8</sup>	In <sup>9</sup>	
<b>Slovenia</b>	<i>I? S3 C2 T4</i>		Blaise							
<b>Sweden</b>	<i>I4 S5 C1 T2</i>	no	in-house	?	yes	yes	yes	no	no	?
<b>Hungary</b>	<i>I3 S3 C2 T3</i>	yes	in-house	DDI	yes	yes	?	yes	?	+++
<b>Malta</b>	<i>I0 S3 C2 T1</i>		in-house							
<b>Slovak Rep.</b>	<i>I5 S? C? T3</i>		Blaise							

<sup>1</sup>The data collection system type as suggested by MIMOD survey, but revised for the interviewed countries. For a description, please see data collection system typology in Annex 1 on page 15.

For a detailed description of <sup>2-10</sup>, please see WP3 deliverable 4: <sup>2</sup>Component for combining questionnaire design and programming in a user-friendly way. <sup>3</sup>Component for the electronic questionnaire tool itself. <sup>4</sup>Questionnaire Metadata Standard. <sup>5</sup>Component for centralizing the administration of cases. <sup>6</sup>Component for design and execution of a pre-defined survey plan. <sup>7</sup>Special measures that allow for individual case treatment. <sup>8</sup>Component for outbound communication. <sup>9</sup>Component for inbound communication. <sup>10</sup>Component for Monitoring and Reporting.

? "no data available, + "component has room for improvement", ++ "component fulfills basic needs", +++ "component highly advanced", yes "component implemented but no data on its completeness", no "component not implemented".



## Countries that plan to start developing a new system in the next two years

Six countries plan to start developing a new system for data collection within the next two years. It is striking that most of them are using Blaise for questionnaire tool. Building an alliance for joint development together with countries that have already succeeded in certain Blaise compatible case management components would be our proposed approach.

**Table 4: Countries that plan to start developing a new system for data collection in the next two years**

Country	Data Collection System Type <sup>1</sup>	Questionnaire Tool
Greece	I3 S4 C? T1	in-house
Belgium	I5 S1 C1 T4	Blaise
Germany	I? S3 C2 T4	Blaise
Bulgaria	I5 S6 C3 T3	Blaise
Romania	I5 S6 C3 T3	Blaise
Iceland	I5 S? C? T3	Blaise

<sup>1</sup>The data collection system type as suggested by MIMOD survey. For a description, please see data collection system typology in Annex 1 on page 15.

## Countries that do not plan to develop a new system

Three countries do not plan to develop a new system in due time. Croatia reports, as reasons, that they have just implemented CATI and CAPI Blaise system in 2016. Switzerland has most of its surveys outsourced and therefore sees no need in it. Cyprus has set their medium-term priorities in the efficiency of the data production process, rather than investing in a new data warehouse.

**Table 5: Countries that do not plan to develop a new system for data collection**

Country	Data Collection System Type <sup>1</sup>	Questionnaire Tool
Croatia	I? S4 C2 T3	Blaise
Switzerland	I5 S5 C3 T?	in-house
Cyprus	I5 S3 C3 T4	Blaise

<sup>1</sup>The data collection system type as suggested by MIMOD survey. For a description, please see data collection system typology in Annex 1 on page 15.

# Highlights and Best Practices

## Highlight Portfolio of the systems in the Interviewed Countries

Country	Status, Highlights and Best Practices ★
<b>Austria</b>	<ul style="list-style-type: none"> <li>* System is already productive for all social surveys since 2018 and is continuously further developed.</li> <li>* CATI data collection is outsourced to external company. CAPI and CAWI are collected in-house. For one survey (SILC) CATI is also in-house.</li> <li>* External data collection company can use NSI's data collection system.</li> <li>* Special focus on effective questionnaire production. For this, question bank, questionnaire designer and questionnaire testing are combined in one user-friendly tool. ★</li> <li>* Special focus automated survey plan execution. For this, an external workflow tool is integrated into system. ★</li> </ul>
<b>Czech Republic</b>	<ul style="list-style-type: none"> <li>* Run certain social surveys together in one omnibus survey ★</li> <li>* Special focus on harmonization questions between surveys-&gt;modular approach to questionnaire design -&gt;question bank and designer tool.★</li> <li>* CAPI/ CATI interviewers are the same people. No central CATI-studio.</li> <li>* Interviewers are free to choose the main fieldwork activities per case, even which mode to offer.</li> </ul>
<b>Finnland</b>	<ul style="list-style-type: none"> <li>* Production has started for AES. All other social surveys will gradually be integrated within 2019-2020.</li> <li>* Follow ideal software design principles: Loosely coupled system with standardized interfaces. Other survey instrument tools may be plugged in in future ★</li> <li>* Have a staff administration tool connected, to better assign interviewer to cases</li> <li>* Will develop interfaces to other areas of the statistical production process, such as population register, data warehouse.★</li> </ul>
<b>France</b>	<ul style="list-style-type: none"> <li>* System is already productive for some business surveys since 2015 and will get gradually productive for social surveys starting 2019.</li> <li>* System is developed in-house but completely open-source.★</li> <li>* Special focus in the questionnaire production using the DDI metadata standard. ★</li> </ul>
<b>Hungary</b>	<ul style="list-style-type: none"> <li>* First developments have begun, plan to be productive by 2021 for census.</li> <li>* Plan to follow ideal software design principles: Loosely coupled system with standardized interfaces. System will be made up of about 10 modules.★</li> <li>* Special focus on question banks that generate DDI metadata ★</li> <li>* Special focus on a tool, that translates DDI metadata into layouts for questionnaire tool in different modes/devices</li> <li>* Components Monitoring and Outbound Communication are seen together. From Monitoring screen it is possible to directly send messages to cases.★</li> </ul>
<b>Italy</b>	<ul style="list-style-type: none"> <li>* Mode CAPI and CATI is outsourced to external companies. CAWI is collected in-house.</li> <li>* External data collection companies use the data collection system of NSI by simply logging in with their own user. User rights in the system are well implemented.</li> <li>* All relevant different teams can access the central case admin's event diary and record inbound communication.★</li> <li>* Production has started for census. All other social surveys will follow gradually beginning with 2020.</li> </ul>

<b>Latvia</b>	<ul style="list-style-type: none"> <li>* The new system went productive already in 2008. All social surveys and business surveys are run with it. Modes CAPI, CATI, CAWI can be mixed.</li> <li>* System was developed by an external company based on the NSI's needs.</li> <li>* CATI unit is located somewhere else than central NSI. CATI and CAPI within-mode case management components very similar, both run offline.</li> <li>* It will be evaluated if the questionnaire to change/exchange the questionnaire tool will be able to run for smartphones.</li> </ul>
<b>Lithuania</b>	<ul style="list-style-type: none"> <li>* All social and business surveys are already productive in the system. There is a module for household surveys and one for business surveys.★</li> <li>* The system relies heavily on IT staff for setting up each survey. This process could be more unified to gain effectiveness. But once all survey ingredients are set up and tested, data collection runs efficiently.</li> <li>* NSI sees the need for a more metadata-driven approach and has plans for developing in that direction.</li> </ul>
<b>Luxembourg</b>	<ul style="list-style-type: none"> <li>* Data collection for mode CAPI and CATI is outsourced to external company. CAWI is collected in-house.</li> <li>* External data collection companies use their own systems. Manually sample and questionnaire document are transferred to them. Data collection is black box until they receive back the dataset.</li> <li>* The in-house CAWI system is still under development.</li> <li>* It is not planned to run mixed-mode surveys with the internal system. Instead NSI strives towards single mode CAWI surveys for the future and develop their system according to this.</li> </ul>
<b>Norway</b>	<ul style="list-style-type: none"> <li>* System is already productive for social surveys mode CAWI, CATI. CAPI surveys are to be integrated within the next years.</li> <li>* CAPI, CATI and CAWI data collection is in-house. For CATI, there are two regional CATI studios.</li> <li>* Special focus on the search cases function of the case administration component and the reuse of search results for other components.</li> <li>* Special focus in programming the BLAISE questionnaire layouts for multiple modes/devices.★</li> </ul>
<b>Poland</b>	<ul style="list-style-type: none"> <li>* Offer tablets for CAPI interviewer with in-house developed app for within-CAPI case management by the interviewer.★</li> <li>* System in production already for all social surveys.</li> </ul>
<b>Portugal</b>	<ul style="list-style-type: none"> <li>* The new system went productive already in 2006, first CAWI in 2014. Now every social survey is run with the system and mixed-mode designs are possible.</li> <li>* CATI and CAPI interviewers are same people. No central CATI-studio.</li> <li>* CATI and CAPI interviewers get Tablets by NSI. Special in-house developed apps so that within-mode case management is very user-friendly for interviewers. CAPI app can work offline.★</li> </ul>
<b>Sweden</b>	<ul style="list-style-type: none"> <li>* The concept of the new system is almost finished and development is planned to start in 2019.</li> <li>* For certain modes or surveys data collection is and will be outsourced.</li> </ul>
<b>The Netherlands</b>	<ul style="list-style-type: none"> <li>* System is already productive since 2016 and is continuously further developed. All social and business surveys are planned to be integrated by 2020.</li> <li>* All modes are collected in-house. CAPI has regional units but it is planned to also centralize this.</li> <li>* High budget was invested in the development of system. As a result it follows ideal software design principles: Loosely coupled system with standardized interfaces. Also: External and open-source components were integrated where reasonable.★★★</li> <li>* Special focus in designing templates before field start and their automated execution during field phase.★</li> <li>* Special focus on automated survey plan execution.★</li> <li>* Special focus on inbound communication via contact centers and unified messaging and new online channels.★</li> <li>* Special focus on monitoring and reporting via a central unit.★</li> </ul>

## Recommendations

In WP3 deliverable 3 it was shown how different the countries are in their survey mode traditions and their fieldwork organization. Due to these differences their data collection systems were very heterogeneous. But as WP3 deliverable 4 brought to light, mixed-mode designs challenge these “old” systems. Because of the need for more efficient questionnaire production, case to mode assignment and case communication, the architecture of the “old” systems needed to majorly change. Alongside the technical change, an organizational change was experienced in many countries. Those countries that tried to only change the technical system did not experience the hoped-for efficiency gains. We therefore recommend thinking technical change and organizational change always together. In our opinion, a systematic change management of the organization is necessary before trying to implement a new system for data collection.

There seems to be a clear trend in which way the data collection systems, both technically and organizationally change: the main ingredients of a survey become centralized!

(1) Questionnaire Production: at least Austria, Czech, France, The Netherlands and Hungary are working on a central component for questionnaire design. With such, questions and questionnaires can be programmed in a user-friendly point-and-click way. Also question banks are made possible here. This helps to support the harmonization of questions between surveys. In regard to organizational change, in some countries central units for questionnaire design and testing have evolved.

(2) Central Case Administration: all (except one) country with newly developed systems have centralized their case administration. There, all the relevant data per case come together. It seems that all countries need to administer very similar case data here. Namely, the cases’ masterdata (such as name, address, household structure etc.), case statusdata (final disposition and temporary contact codes) and event diary data. Organizationally, many countries now have a central data collection unit.

(3) Survey Plan: at least Austria, Finland, Italy, The Netherlands, Sweden and Hungary have a pre-defined survey plan built into their new system. In this plan, general fieldwork activities, such as mode and emails to be sent, are specified before field start. These activities are then executed automatically by the system during data collection. Besides the general survey plan, in every country there are within-mode case management offices implemented. Here, a certain degree of freedom for handling the case during the mode’s phase of data collection is given. We recommend implementing a survey plan for efficient mixed-mode data collection. But at the same time, careful measures must be taken to still allow for spontaneous individual or group case treatment.

(4) Outbound Communication: at least Austria, Finland, Italy, Norway, The Netherlands and Hungary make use of centralized outbound communication components. With these components written communications, such as letters, emails, sms, are pre-defined as templates. This is done by using a template designer tool, allowing for references of the central case

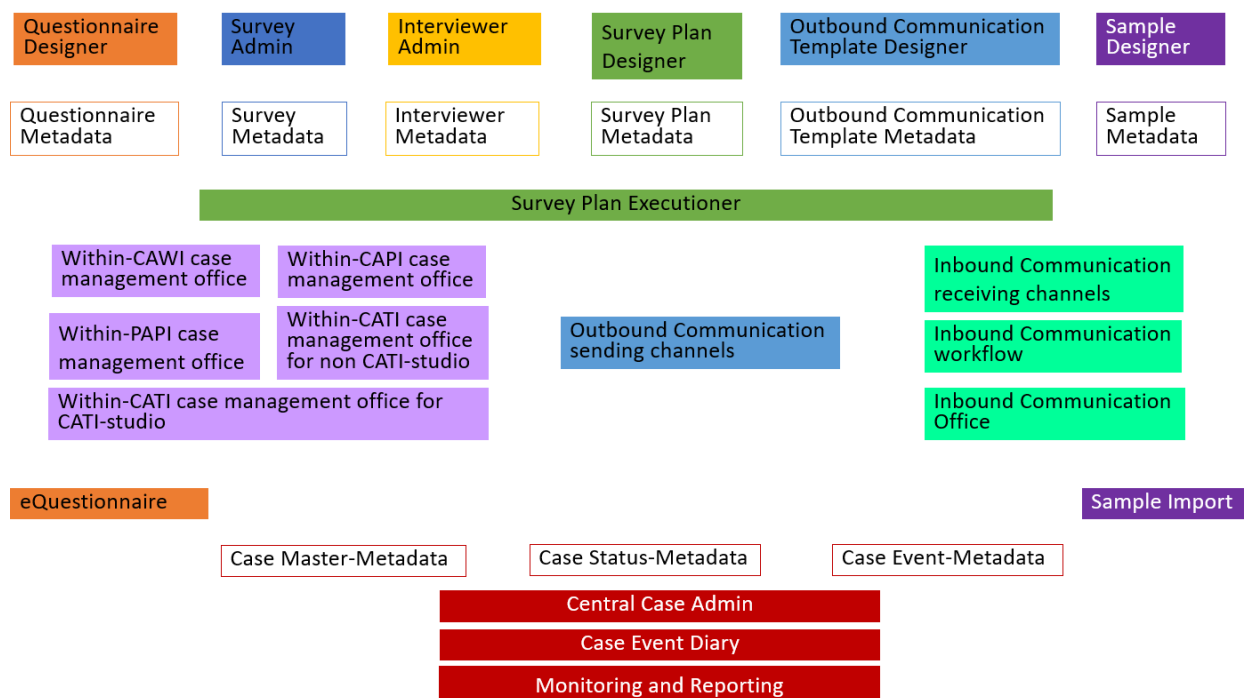
administration data within the texts. Based on the templates the actual written documents can be generated during data collection and automatically sent to a case. In regard to organization, in some countries central communication units have evolved.

(5) Inbound Communication: at least Austria, France, Italy and The Netherlands can efficiently access and change the case administration data within their inbound communication component. Organizationally in some countries so called contact centers have evolved.

(6) Monitoring and Reporting: at least in Austria, Finland, Italy, Poland, The Netherlands and Hungary more sophisticated processes for monitoring and reporting the field phase have evolved. The key aspect here is to find the balance between standardized live monitoring of key performance indicators and survey specific detailed reports. In order to harmonize this, in some countries central monitoring/ reporting units have evolved.

All in all, a modern data collection system needs to be made up of the following components in order to efficiently run even complex surveys that mix mixed-mode designs (fig.1):

Figure 1: Components and Metadata in a Modern Data Collection System



As this report presented, the landscape of newly developed systems shows that there is currently only Austria, Finland, Italy and The Netherlands to have implemented all major case management components in a highly advanced state. Doing this, especially when mostly in-house developing, amounts to a very high investment of resources. In one country the budget was reported to be 7 million Euro, in another country 42 million Euro. Even then, there are

components in these systems that still have room for improvement. At the same time, almost every country in the ESS has started or will soon start doing major changes on their data collection system. The key question on European level therefore is: How can it be possible to collaborate in this process of change?

Countries like The Netherlands, Hungary, Finland or France show the way in regard to designing the new system in a way that enables joint work, maybe even joint development. Their system's architecture follows state of the art design principles:

- (1) Design-based systems: Have the most important ingredients to the survey pre-defined before field phase and executed automatically during field phase.
- (2) Loosely coupled system: Do not think of the data collection as a monolith system. Instead, think in modules (or components). The system must be built in a way that each module (or component) can be easily interchanged.
- (3) Standardize interfaces: Link the modules together so that they can communicate objects and information. Do so by defining standardized content that has to be transferred within these interfaces. Here metadata comes into play. If we manage to define standardized sets of metadata, modules may be put into the system like plug and play.
- (4) Always look out for out-of-the-shelf or open-source tools: Before developing in-house, do thorough evaluations if there is not already a tool out there that can be used.

When following the above design principles, it could become possible to interchange components between NSIs. For example, The Netherlands have recently plugged in an additional external survey instrument in their system without needing to invest many resources for this development. NSIs might even be able to develop certain components together. France made the first steps towards this, by publishing the component questionnaire designer open-source. Hungary and France made progress in using a common metadata standard for questionnaire, namely DDI.

It is to be discussed if there could be a system of data collection that can be used by other countries as a whole. If organizations and IT structure differ that vastly, this could become a very difficult task. We therefore recommend not thinking about the whole system when trying to collaborate. Instead we should think of the main components and especially of certain metadata. First joint projects could start with working on a single component or metadata set. Countries then might be able to integrate just the components they need into their systems.

# Annex

## Annex 1: Typology of Data Collection Systems

<b>Degree of Component Integration</b>	
I1	Components of domain Survey Instrument, Interviewer Management, Case Management, Monitoring/ Reporting are integrated in one system
I2	Transition from old systems of type I5 to new system of type I1
I3	Components of domain Interviewer Management, Case Management and Monitoring/ Reporting are integrated in one system. Components for Survey Instrument partially integrated.
I4	Multiple systems in use. Each system has its own components of domain Survey Instrument, Interviewer Management, Case Management, Monitoring/ Reporting integrated.
I5	Most components of the domains Survey Instrument, Interviewer Management, Case Management, Monitoring/ Reporting are stand alone tools, not well integrated with one another.
<b>Degree of Survey integration</b>	
S1	One single data collection system for all social surveys.
S2	Systems in transition towards S1.
S3	Multiple systems running parallel: an own system for certain modes.
S4	Multiple system running in parallel: some systems for certain modes and some for certain surveys.
S5	Multiple systems running parallel: some systems for internal and some for outsourced surveys.
S6	Multiple systems running parallel: an own system for each survey.
<b>Completeness of Components</b>	
C1	System offers components for all of the domains Survey Instrument, Interviewer Management, Case Management and Monitoring/ Reporting.
C2	System misses components for one or two of the domains Survey Instrument, Interviewer Management, Case Management and Monitoring/ Reporting.
C3	System misses components for three or four of the domains Survey Instrument, Interviewer Management, Case Management and Monitoring/ Reporting.
<b>Usage of commercial/external software tools</b>	
T1	All components are fully developed in-house.
T2	Most components are developed in-house, some external tools are in use.
T3	BLAISE questionnaire supplemented by in house developed components.
T4	BLAISE questionnaire supplemented by in house programmed external products.

For a full description of the typology, see WP3 - Deliverable 1: Desktop review exercise and draft typology, pg. 12ff.