REBUILD
ICT-enabled integration facilitator and life rebuilding guidance
Project start date: 01/01/2019 | Duration: 36 months

Deliverable: Data Management Plan (DMP)

DUE DATE OF THE DELIVERABLE: 30-06-2019
ACTUAL SUBMISSION DATE: 16-07-2019

Project	REBUILD – ICT-enabled integration facilitator and life rebuilding guidance
Call ID	H2020-SC6-MIGRATION-2018-2019-2020 – DT-MIGRATION-06-2018
Work Package	*WP10 – Management*
Work Package Leader	*UNINETTUNO*
Deliverable Leader	*Università Telematica Internazionale UNINETTUNO*
Deliverable coordinator	Maria Amata Garito
Deliverable Nature	Report
Dissemination level	Public (PU)
Version	1.0
Revision	Final

DOCUMENT INFO

AUTHORS

Author name	Organization	E-Mail
Maria Amata Garito	UNINETTUNO	garito@uninettunouniversity.net
Gaetano Giordano	UNINETTUNO	gaetano.giordano@uninettunouniversity.net
Antonio Filograna	ENG	antonio.filograna@eng.it

DOCUMENT HISTORY

Version #	Author name	Date	Changes
0.1	Gaetano Giordano (UNINETTUNO)	20-05-2019	Starting version
0.2	Antonio Filograna (ENG)	21-06-2019	Review all the document
0.3	Antonio Filograna (ENG)	05-07-2019	Added data sets and data-sources
0.4	Roberto Di Bernardo (ENG)	08-07-2019	Internal Review
0.5	Silvia Urbe (UPM) Theodoris Semertzid (CERTH)	11-07-2019	Added component data source
1.0	Maria Amata Garito (UNINETTUNO)	15-07-2019	Final Version

DOCUMENT DATA

Keywords	*Data Management Plan, DMP*
Editor Address data	Name: Maria Amata Garito Partner: UNINETTUNO Address: Corso Vittorio Emanuele II, 39 – 00186 – Rome, Italy Phone: +390669207628 Mail: rebuild@uninettunouniversity.net
Delivery Date	30-06-2019
Peer Review	Roberto Di Bernardo (ENG)

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

EXECUTIVE SUMMARY

This Deliverable called "Data Management Plan" (DMP) is part of the project management tools and aims to establish the methods for managing the data collected and produced during all phases of the project.

The content of this document is public.

The initial version of this document will define the criteria on how the data generated by the project and their classification regarding the ability to be known by subjects outside the project will be stored, located and protected.
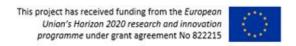
The DMP must be updated and revised periodically according to the progress of the subsequent phases of the project.

The principles contained in the FAIR Data Management Guidelines in Horizon 2020 have been followed for the choice of management methods, which generally require that the research data be "findable", "accessible", "interoperable" and "reusable".

TABLE OF CONTENTS

REBUILD – ICT-enabled integration facilitator and life rebuilding guidance
D10.2 – Data Management Plan – Version 0.1

ICT-enabled
integration facilitator
and life rebuilding guidance

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

Re_Build

1 DATA SUMMARY

1.1 DATA SOURCE

The data generated in the initial phase of the project (WP1 and WP2) will originate from the following contexts:
- the comparative examination of the tools and methods used to collect polling information within vulnerable and multicultural groups (WP1);
- examination of legal and ethical issues (right to protection of personal data, right to privacy, protection of vulnerable groups, ethics and society) which will continue to be carried out throughout the project (WP7 and WP11),
- the creation of a common methodology for data collection (WP1);
- the collection of user background information acquired through interviews and ad hoc questionnaires, administered to the target groups chosen within the categories of migrants and refugees in the three pilot countries: Italy, Greece and Spain (WP1) and to Local Service Providers selected in the same pilot countries among public or private providers of services for migrants and refugees (WP2);
- identification of priority cultural markers and analysis of their impact in the development of the future ICT-based toolbox (WP1);
- co-creation activities in the context of interdisciplinary seminars and workshops with the participation of all interested external subjects (WP2).

During the development of the toolbox and the prototype the data will originate from the information analysis activity gathered in the previous phases, based on the Deep Learning Methodology and oriented by the characteristics of the users, and by the creation of the various functions of the machine and its tools (WP3 and WP4). During the development phase of the REBUILD Pilot Platform, the data relating to the choice of requirements will originate from the information gathered during the WP1 phase and will guide the creation and validation of the related architecture (WP5). In the next phase the data will originate from the testing of the Toolbox prototype which will involve groups of beneficiaries chosen in the three pilot countries and from the related collection and analysis of the results (WP6). Finally, in the development phase of the Toolbox impact assessment methodology in the social, economic and political sphere (WP9), the data will originate from the analysis of the previous results, in particular those related to the examination of legal and ethical issues (the right to the protection of personal data, the right to privacy, protection of vulnerable groups, ethics and society).

1.1.1 Type and format of data.

The data generated will belong to the following types: written text, images, drawings, pictograms, infographics, flow charts, graphs and hypergraphs, mathematical models and algorithms.
The data generated will be documented in reports containing the information gathered, the analysis and evaluation provided by the project partners, or in questionnaires and interviews containing the respondents' answers and finally in the documentation produced according to the legal models to comply with the standards in protection of personal data and confidentiality. In the following phases they will also be documented with videos, proofs, simulations, prototypes and executable software programs.
As far as possible the project partners will use open and standardized formats or in any case formats that should be interoperable with those formats and generally used within the research community.
The use of secondary data could take place through an open source database.

1.1.2 The aims.

The aims pursued through the collection, creation or processing of the aforementioned data are as follows:
- develop a tool that can be integrated into the various sectors affected by the services provided by the Local Service Providers, which also allows the archiving of the data collected and their subsequent analysis in order to identify the needs of the Providers and service gaps;
- identify the characteristics of the population belonging to the chosen group concerning their aspirations, motivations, difficulties and abilities;
-;
- analyze the characteristics of the population belonging to the focus group and the processes of provision of the services provided by the Local Service Providers and provide data and information useful in the subsequent phases of the project for the definition of scenarios and prototypes;
- identify, analyze and resolve legal and ethical issues related to information gathering and impact with ICT-based technology.

1.1.3 The Objectives.

The aforementioned aims are linked to the following specific project objectives.
• **Objective 1**: identify the main needs related to the integration of migrants and refugees in the social context (SO1).
• **Objective 2**: Offer Local Service Providers analytical data for the definition of policies to improve and optimize services (SO2).
• **Objective 3**: create an automatic learning model that will match the skills and needs of migrants and refugees with the needs and opportunities provided by each Member State (SO3).
• **Objective 4**: create a digital Tutor that will act as a communication and information center among migrants, the local population and Service Local Providers (SO4).
• **Objective 5**: develop an ICT-based toolbox compatible with the rules on the protection of personal data and confidentiality and with the ethical values of the company (SO5).
• **Objective 6**: analyze identity development processes in the context of the intercultural context (multilingual and multimodal) to create a user-centered agenda of needs which will give rise to a list of cultural indicators that will guide partners in future activities of technological development of the toolbox also defining the system requirements (SO6)
• **Objective 7**: map the socio-political impact that the toolbox will have on the identified beneficiaries (SO7).

1.1.4 Data dimensions.

It is not possible to estimate at this stage the exact dimensions of the data collected, created or processed.
It can however be expected that the report documents, questionnaires and interviews, and documentary models in general will reach small dimensions, while what concerns the software development activity may be larger in size.

1.1.5 Data use.

In this phase of the project, the data collected, created and processed will be used exclusively by the project partners. For the creation of a common methodology for data collection, data relating to the tools and methods used to collect polling data within vulnerable and multicultural groups will be re-used for comparison purposes.
With regard to the use of personal data, both in the initial collection phase, in the technical development phase of the toolbox, and finally in the subsequent testing phase of the prototype, compliance with the GDPR and ethical principles must always be guaranteed. According to the new EU Regulation 2016/679, data subjects have a right to access and port data, to rectify, erase and restrict his or her personal data,

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

to object to processing and, if processing is based on consent, to withdraw consent. In particular, REBUILD complies with the GDPR as follows:

a) **Subject access, rectification and portability:**

- UNINETTUNO, as data controller, on request: confirms if they process an individual's personal data; provides a copy of the data (in commonly used electronic form); and provides supporting explanatory materials; data subjects can also demand that their personal data be ported to them or a new provider in machine readable format; the request has been met within one month and any intention not to comply must be explained to the individual. Access rights are intended to allow individuals to check the lawfulness of processing and the right to a copy should not adversely affect the rights of others.

- For what concerns the personal data submitted by the user in the interaction with the online services of the REBUILD platform provides users with explanations on how and which personal information has been collected during their interaction with online services. At the first usage of REBUILD platform, users have been informed that at any moment, during their interaction with online services, they can, by clicking appropriated buttons, withdraw the collection of data and export a copy of the collected data in an open format. Users have been asked to choose from two types of open format: CSV and JSON.

b) **Right to erasure ("right to be forgotten") and right to restriction of processing:**

- Individuals can require data to be "erased" when there is a problem with the underlying legality of the processing or where they withdraw consent; the individual can require the controller to "restrict" processing of the data whilst complaints (for example, about accuracy) are resolved, or if the processing is unlawful but the individual objects to erasure; UNINETTUNO, as REBUILD data controller, who has made data available to other subjects, which is then subject to a right to erasure request, is required to notify others who are processing that data with details of the request.

c) **Rights to object:**

- There are rights for individuals to object to specific types of processing, such as processing for research or statistical purposes;

- REBUILD meets the obligations to notify individuals of these rights at an early stage through the informed consent form and its information sheet;

Online services provided by the Local Service Providers involved in the project, and extended by the advanced techniques developed by rebuild, offer their own methods of objecting.

ICT-enabled
integration facilitator
and life rebuilding guidance

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

Re_Build

2 MAKING DATA FINDABLE

2.1 MAKING DATA FINDABLE.

Each category of data produced during the project phases will be organized in a uniform way, according to the criteria suggested in the Grant Agreement:

Project number
The project number has been assigned by the Commission as the unique identifier for the project. It cannot be changed.

Project acronym
The project acronym as given in the submitted proposal. It can generally not be changed.

Work Package number
Work package number: WP1, WP2, WP3, ..., WPn.

Deliverable number
Deliverable numbers: D1 – Dn.

Type
R Document, report.
DEM Demonstrator, pilot, prototype.
DEC Websites, patent fillings, videos, etc.
OTHER.
ETHICS Ethics requirement.
ORDP Open Research Data Pilot.

Dissemination level
PU Public.
CO Confidential, only for members of the consortium (including the Commission Services).
EU-RES Classified Information: RESTREINT UE (Commission Decision 2005/444/EC).
EU-CON Classified Information: CONFIDENTIEL UE (Commission Decision 2005/444/EC).
EU-SEC Classified Information: SECRET UE (Commission Decision 2005/444/EC).

Delivery date for Deliverable
Month in which the deliverables will be available, month 1 marking the start date of the project, and all delivery dates being relative to this start date.

Milestone number
Milestone number:MS1, MS2, ..., MSn.

Review number
Review number: RV1, RV2, ..., RVn.

The table for controlling the version will include the following fields:
● **Revision**: number (starting from 0.1) of the version. Always following the order.
● **Date**: date on which that version was available.
● **Author**: person who prepared that version.
● **Organization**: entity in charge of that version.
● **Description**: summary of main changes in that version.

Besides, it will be possible to identify and locate the produced data through a standard identification criterion, based on "keywords".

2.1.1 Making data openly accessible.

Access to most of the data contained in the reports foreseen by the project or of the prototypes or of the demos will be reserved only to the members of the consortium; this restriction depends on a voluntary choice of the Partners.

However, an action plan is foreseen to disseminate the results achieved in the various phases of the project.

In particular, WP8 will be dedicated to the dissemination of results also through the creation of a project website.

For more details, in section "1.3.2. WT2 List of deliverables" of the Grant Agreement, the documents required by the project are listed as confidential or public.

2.2 REBUILD DATASETS

The Data Management Project helps the project partners to deal with data and all related issues raised during the development of the project. This is the first version of the document that will be updated during the entire project lifespan, making it a living and dynamic document.

This Data Management Plan and its updated versions describe **datasets characteristics** and **define principles and rules for the distribution of data** within REBUILD.

Following the description of what kinf of dataset each REBUILD technical component - belonging to the REBUILD reference Architecture - uses, where the data will be stored, how the quality assurance will be guarantee.

2.2.1 Securing communication through audiovisual information chunks

2.2.1.1 Description

During this task, already integrated immigrants are expected to create audio-visual material as guidance for illiterate people to interact with public authorities and public or private services. This material, mainly video and images, will be created on mobile phones, transmitted to a central service, evaluated and finally posted to the people that need guidance.

2.2.1.2 Data capture

The data capturing occurs through a mobile app on an android smartphone. The phone owner is able to record a video or shoot a photo, according to a predefined scenario (task), and transmit it, providing his/her consensus, to the central task server. At the task server, the recorded media is evaluated so that it does not contain sensitive or personal information.

2.2.1.3 Data Storage

The audio-visual capturing module (mobile app) is storing the videos on the mobile phone of the user, along with any necessary information (clip metadata). The data is transmitted to the task server and stored there in two ways: a) a MongoDB instance stores the task and video metadata and b) a filesystem repository stores the actual binary data.

2.2.1.4 Dataset

This dataset will be a live dataset, created during the operation of the associated tools.

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

Dataset ID	REBUILD_AudioVisual_Guidance
Description	Audio-visual material captured by already integrated immigrants
Data manager	Pilot Leaders
Data standard	Raw
Metadata standard	JSON
Volume	ca. 10 Mb per task
Sharing level	Targeted sharing to illiterate immigrants needing guidance
Sharing medium	Over mobile phone
Preservation duration	Project duration and beyond
Preservation medium	Component owner hosting component DB of REBUILD platform.
Preservation costs	No additional cost

2.2.2 Deep learning based profile analysis

2.2.2.1 *Description*

This dataset contains profiles and information of migrants and refugees. After the exact definition of the list of data to be used, the received information will be transformed into a low dimensional vector, produced by a deep learning model. The same model will transform new data, provided by the user, during the use of REBUILD application. The new embedded vectors will be associated with already created clusters of profiles produced by the aforementioned model.

2.2.2.2 *Data capture*

The specific content and format of this dataset will be defined in compliance with the GDPR, through the data gathering phase and the scheduled workshops as defined in WP2 of the REBUILD project. For the training of the deep learning model, profile data of refugees and migrants should be provided by the aforementioned procedures and new data profiles will be received through the use of application.

2.2.2.3 *Data Storage*

For the profile analysis, the only part of the dataset that will be saved is the low dimensional vectors. The initial data profiles of refugees and migrants will be used just for the training of the deep learning model and after that procedure every information will be discarded.

2.2.2.4 *Dataset*

Dataset ID	REBUILD_ProfileAnalysis
Description	Profile data of migrants and refugees
Data manager	Pilot Leaders

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

Data standard	JSON
Metadata standard	JSON
Volume	Kbs per User
Sharing level	Private/Personal - no sharable
Sharing medium	N/A
Preservation duration	Project duration
Preservation medium	Component owner hosting component DB of REBUILD platform.
Preservation costs	No additional cost

2.2.3 Hybrid (human/machine) chatbot as digital companion

2.2.3.1 Description

During this task, the already successfully integrated immigrants, the community members and authorities should provide some FAQs that it would be useful for the chatbot service to follow in order to be able to answer new immigrants' questions effectively. Also, it might be useful to provide some commonly accepted images describing services, which would help immigrants, especially those who speak only their mother tongue, to achieve better communication with the chatbot. Furthermore, the immigrants who are going to use the chatbot service, should consent and provide any personal information which might be asked by chatbot in order to provide the best guidance. Finally, we should know the situations which the chatbot have to understand that it should forward the whole discussion with the corresponding immigrant to a social worker.

2.2.3.2 Data capture

The data capturing occurs through the discussion between each user and the chatbot. The chatbot service would be able to ask some questions to a user in compliance with the GDPR in order to obtain the required information and provide to him/her the best guidance. Also, the discussions between immigrants and social workers may be stored in order to retrieve the most frequently asked questions which the chatbot does not know how to answer. Then, we can add them in the predefined FAQs, which we are given, in order to make the chatbot more efficient.

2.2.3.3 Data Storage

The data which we are going to store and concern each user independently, would be placed into an Elasticsearch database. More specifically, we will create an index *"users"* in which we will store documents with each user unique identifier and other personal information, creating a profile for each user. Also we might create another index *"messages"* in which we will store every JSON request sent between each user and the Messenger Platform. Finally, the possible images, which the chatbot might send to a user, would be stored either locally or online.

2.2.3.4 Dataset

REBUILD – ICT-enabled integration facilitator and life rebuilding guidance
D10.2 – Data Management Plan – Version 0.1

Dataset ID	REBUILD_ChatBot_DB	
Description	FAQ and Image material created by already integrated immigrants	
Data manager	Pilot Leaders	
Data standard	Project specific (JSON based)	
Metadata standard	JSON	
Volume	10 Kb per User	
Sharing level	Private/Personal - no sharable	
Sharing medium	N/A	
Preservation duration	Project duration	
Preservation medium	Component owner hosting component DB of REBUILD platform.	
Preservation costs	No additional cost	

2.2.4 Skills and needs matching through Machine Learning

2.2.4.1 Description

This dataset will basically contain transformed information from multiple sources such as the feature-dimensional vectors representation from T3.1, general information from multiple actors such as users (migrants), service providers (NGOs) and administration. By transformed information, it is understood, mathematical representations of the main characteristics of the related entities. This dataset will be employed as input for both the skill analysis and the recommendation modules for service provision.

2.2.4.2 Data capture

This dataset will be created by the aforementioned modules. There is no direct data captured from end users or entities, but access to the Advanced Programming Interface (API) from the corresponding databases. The feature vector generated is provided to the high level modules to be processed. This dataset does not contain sensitive information, since *(a)* that the mechanisms developed by REBUILD will guarantee data encoding and *(b)* not personal or individual data is stored.

2.2.4.3 Data Storage

This dataset will be created using a Relational Database Management System (RDBMS). This data is internal of the project PRIVATE and therefore will not be published. Additionally, no data standard will be adopted due to the specificity of data created.

2.2.4.4 Dataset

REBUILD – ICT-enabled integration facilitator and life rebuilding guidance
D10.2 – Data Management Plan – Version 0.1

Re_Build

ICT-enabled
integration facilitator
and life rebuilding guidance

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

Dataset ID	REBUILD Skills and needs matching through ML
Description	Database containing feature vectors and utilities to create matches among entities. This database will contain the feature vector for every
Data manager	UPM, CERTH
Data standard	Project specific (JSON based) -- MongoDB
Metadata standard	RDF/JSON
Volume	10 Mb per User
Sharing level	Private/Personal - no sharable
Sharing medium	API developed by UPM with the support of CERTH. Private
Preservation duration	Project duration
Preservation medium	Component owner hosting component DB of REBUILD platform.
Preservation costs	No additional cost

2.2.5 Recommendation for service provision enhancement and follow-up

2.2.5.1 *Description*

This dataset is directly linked to the module of the recommendation engine. This dataset will evolve accordingly to the needs of the project. Initially a set of rules for a recommendation engine will be created. A suitable option is to create a set of rules using a dataframe structure. Afterwards, in the project timeline, this dataset could potentially be moved into a more complex structure.

2.2.5.2 *Data capture*

For this module, no data will be captured. All information will be created based on the sources such as: Dataset containing information of the entities (NGO, local administrations and services provided). Finally, the output will be directly connected to the interfaces to be provided to the users and will be stored as a historical.

2.2.5.3 *Data Storage*

This dataset will be created using a Relational Database Management System (RDBMS). This data is internal of the project PRIVATE and therefore will not be published. Additionally, no data standard will be adopted due to the specificity of data created.

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 822215

2.2.5.4 *Dataset*

Dataset ID	Recommendation Engine
Description	Database containing feature vectors and utilities to create matches among entities. Also, initial approach contains the data from rules to provide the most suitable services to immigrants in a predefined manner to create a rules engine. As an example, DROOLS or similar technology will be considered.
Data manager	UPM
Data standard	Project specific (JSON based)
Metadata standard	
Volume	10 Mb per User
Sharing level	Private/Personal - no sharable. Private: Only accessible via API created by UPM.
Sharing medium	N/A
Preservation duration	Project duration
Preservation medium	Component owner hosting component DB of REBUILD platform.
Preservation costs	No additional cost

2.2.6 Personalised Interaction and Perception of migration

2.2.6.1 *Description*

There is an initial dataset, that has a tracking of the user's interaction with the system. The main idea behind, is to allow the system to understand what is the user's behaviour to improve the manner that services are provided. This dataset will contain interaction information such as "number of clicks", "time spent in a particular screen" among others.

2.2.6.2 *Data capture*

The data collected in the interaction of users will be employed to apply algorithms to improve the manner that contents are retrieved.

2.2.6.3 *Data Storage*

This dataset will be created using a Relational Database Management System (RDBMS). This data is internal of the project PRIVATE and therefore will not be published. Additionally, no data standard will be adopted due to the specificity of data created.

![Re_Build logo] ICT-enabled integration facilitator and life rebuilding guidance

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 822215

2.2.6.4 *Dataset*

Dataset ID	Personalised Interaction and Perception of migration
Description	Database containing feature vectors and utilities to create matches among entities
Data manager	UPM
Data standard	RDBMS
Metadata standard	RDBMS (N/A).
Volume	N/A < 1Mb / profile
Sharing level	Private/Personal - no sharable
Sharing medium	Closed API created via apiary or swagger for the project purposes
Preservation duration	Component owner hosting component DB of REBUILD platform.
Preservation medium	Personalised Interaction and Perception of migration
Preservation costs	Database containing feature vectors and utilities to create matches among entities

3 MAKING DATA INTEROPERABLE

3.1 MAKING DATA INTEROPERABLE.

Data interoperability is closely connected with the aims and objectives of the project.
From the initial stages, the creation of a common methodology for collecting information from target groups is envisaged.
The information collected and the results produced during the co-creation seminars will be necessary for the subsequent toolbox design activity.
The digital tutor will then be the interface between the population of migrants and refugees and the various Local Service Providers.
As far as possible, project partners will use formats, vocabularies and more generally open standards in order to make possible the interoperability of the data produced.

3.1.1 Data re-use and licensing.

In the final phases, the development of individual exploitation plans is envisaged for each partner, besides a broad strategy focusing on public-private partnership opportunities, and on involvement in public tendering procedures.
A specific committee named "**Exploitation Advisory Committee (EAC)**", chaired by the Project Director, addressing market reach procedures and exploitation of technologies will be specifically considered for the REBUILD project. It shall be composed of high-profile business managers recruited from the consortium partners. It is expected that about three experts should come from large corporations and SMEs. The EAC shall develop concrete proposals on how new business may be generated and how exploitation should be organised from the project results. Any consortium member can propose EAC members. The PMC decides on the composition of the EAC.
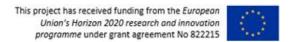In addition, an Intellectual Property Rights Audit Committee will be established, which will be composed by max. 3 experts selected among the project partners. This will have the task of monitoring the management activity of these rights.

3.1.2 Data quality assurance policy.

In order to ensure the high quality of the produced data, it is entailed that the organizational structure of the project carries out a controlling activity during the execution of each activity envisaged in the different WPs.
To implement the above, the Project Director (PD) will use a set of communication tools, including:
1. **Meetings**: Specific meetings for different purposes will take place. These include physical meetings, web meetings and audio-conferences.
2. **Distribution lists**: Several distribution lists will be set up in order to liaise with all the relevant individuals working for the project. They will be accessible from the intranet.
3. **Project Internal Web Portal**: The IP Secretariat will set up a secure Web Portal for exchange of sensitive information within the project as well as with the Commission. This will include a Wiki for the rapid publication of news items, agenda, minutes and internal reports. Progress monitoring reports and reports to the Commission will be placed here unless they should be publicly available, in which case they will be on the Public Web Portal.
4. **Project Public Web Portal**: The public portal will be a showcase for REBUILD and its achievements,

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the *European
Union's Horizon 2020 research and innovation
programme* under grant agreement No 822215

including all web-based applications that are produced. It will give access to the project's public documents. There will also be a Wiki that will allow individuals outside REBUILD to contribute ideas and suggestions.

Besides, the implementation of quality assurance tools is envisaged, based on the most appropriate project standards. The description of related procedures will be the subject of the document "Quality Plan" (D10.3).

All the deliverables realized during the project phases will pass a peer-review from the project partners.

4 DATA SECURITY

4.1 DATA SECURITY.

All data, data collected, created or processed, including personal data processed by the project partners, will be protected against the risks of unauthorized access, modification and loss.

To this goal, appropriate protection measures have been implemented for both physical spaces (rooms and archives), and IT resources (databases, networks, websites).

In particular, access to the physical spaces where the data is contained must be allowed only to persons authorized by the project partners, furthermore these places must be protected against the most common risks of natural or accidental events (water infiltration, fires, power outages).

Access to data via computer resources must be allowed only to persons authorized by the project partners through an identification procedure based on personal and confidential credentials (id-user and password).

Passwords must be chosen on the basis of highly and periodically updated security criteria.

In the case of databases containing personal data, we recommend a minimum password length of 8 alphanumeric characters that includes the simultaneous presence of capital letters, punctuation marks and numbers.

Furthermore, data must be saved on a daily basis and IT tools must be protected against threats of intrusion and malware.

For the implementation of all these security measures it is preferable to establish centralized automatic policies.

Finally, in order to reduce the risk of data loss or business continuity, the data produced during the project must be stored in dedicated repositories and possibly shared among the project partners, using cloud services. The exchange of confidential data must be implemented by sharing workbooks or files.

Moreover, personal data must be processed in such a manner that they can no longer be attributed to a specific data subject without the use of additional information. Such additional information must be kept separately and must be subjected to technical and organizational measures to ensure non-attribution to an identified or identifiable natural person (pseudonimysation).

5 ETHICAL CONSIDERATIONS

The REBUILD project will carry out research involving work with human beings and will generate data therefore ethical procedures need to be followed.

Special care needs to be taken when dealing with ethical considerations and data management in REBUILD.

This is due to the fact that the project deals with the following profiles:
• Migrants
• Refugees
• Migrant workers
• Asylum seekers

Human participants, mostly from vulnerable groups, which will participate in different tests. They will be volunteers for social or human sciences research, which does not involve physical interventions on study participants. The need to protect data following the latest EU directives, since test and its results are mainly from vulnerable groups.

REBUILD research will comply with ethical principles and applicable law, guaranteeing that the rights of research participants are ensured and that research methodologies do not result in discriminatory practices or unfair treatment. Special attention will also be paid to privacy, data protection, data management, and health and safety of participants. Every project team needs to plan in advance every action that needs to be performed in order to develop an ethically correct and integral research in all aspects of its process. An ethical approach must be adopted from a legal point of view, but also regarding quality of research and excellence.

The Legal and Ethical Manager, in the REBUILD project István Böröcz (VUB, isborocz@vub.be) will be responsible for providing legal research and advice, documentations, such as approval of relevant authorities, consent forms, data sharing agreements, data transfer protocols, research ethics procedures, safeguarding principles, etc.

VUB will attend any meeting of the consortium and interfere should it consider the activities posing risks to the ARTES framework.

5.1 RESEARCH ETHICAL FRAMEWORK.

Ethics is an integral part of research and is given a high priority in EU funded research. REBUILD will comply with existing regulations and codes of conduct. Some of the most relevant documents are the following.

5.1.1 Charter of Fundamental Rights of the European Union.

This document gathers the fundamental rights to be shared, fostered and protected by every Member State of the European Union. The first draft was created by the European Convention in 2000 and was solemnly proclaimed by the European Parliament, the Council of Ministers and the European Commission during the same year. However, it was not legally binding until the entry into force of the Treaty of Lisbon, on 1st December 2009. The Charter contains 54 articles divided in seven titles: dignity, freedoms, equality, solidarity, citizens' rights, justice and general provisions governing the interpretation and application of the Charter. This Charter must be abode by Member States when applying European Union law.

The Charter sets the starting point for any research or action conducted within the context of the European Union. Every article needs to be taken into consideration in order to develop a study within an ethical framework, such is the case of any project supported and funded by the European Union. There are certain specific articles that are of high importance when developing the methodology to conduct a research in Social Science. For example, Article 8, Title II (European Parliament, Council and Commission, 2012), on Protection of personal data, which literally states that:

1. Everyone has the right to the protection of personal data concerning him or her.
2. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data which has been collected concerning him or her, and the right to have it rectified.
3. Compliance with these rules shall be subject to control by an independent authority.

Also, in relation to REBUILD project, the Article 26, Title III on integration of persons with disabilities needs to be considered when defining the general vision of the project and its entire development (European Parliament, Council and Commission, 2012): "The Union recognises and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupational integration and participation in the life of the community."
Any action taken within REBUILD project needs to be compliant with all fundamental rights enshrined in this Charter.

5.1.2 European Code of Conduct for Research Integrity.

The Code of Conduct for Research Integrity was created by the European Federation of Academies of Sciences and Humanities and has been recently revised and republished in 2017. This document contains a set of rules to self-regulate academic research through European territories and it is designed to be used across all scientific fields, without distinction. It includes the principles to preserve research integrity, a list of good practices and some guidelines about violations of research integrity (the most serious being fabrication, falsification and plagiarism) and procedures to be followed in the event of those violations.
According to this Code of Conduct, the principles to preserve research integrity are (ALLEA, 2017):
Reliability in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources.
Honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.
Respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment.
Accountability for the research from idea to publication, for its management and organization, for training, supervision and mentoring, and for its wider impacts.
The document describes good research practices in various contexts: research environments; training, supervision and mentoring; research procedures; safeguards; data practices and managements; collaborative working; publication and dissemination, and reviewing, evaluating and editing.
Among other good practices and recommendations, the document establishes:
"Researchers handle research subjects, be they human, animal, cultural, biological, environmental or physical, with respect and care, and in accordance with legal and ethical provisions." (ALLEA, 2017: 6)
An explicit mention of ethical practices is also made under the section "Violations of Research Integrity", where the document states:
"It is of crucial importance that researchers master the knowledge, methodologies and ethical practices associated with their field. Failing to follow good research practices violates professional responsibilities. It damages the research processes, degrades relationships among researchers, undermines trust in and the credibility of research, wastes resources and may expose research subjects, users, society or the environment to unnecessary harm." (ALLEA, 2017: 8)
This document is especially important for all researchers participating in Horizon 2020 funded projects, since it has become a reference document.

5.1.3 Specific guidance on social sciences and humanities.

The interdisciplinarity inherent in Social Science and Humanities (SSH) research hinders the elaboration of clear patterns to develop an ethical framework to be followed by every researcher in this field. The methodologies vary from one discipline to another and the ethical implications also differ. This discussion has been held for many years in international fora, worldwide and within the European Union. On a document which provides specific guidance for the SSH field, it is stated that the basis to ensure an

ethical research is provided by the following tools: informed consent, data protection and privacy, and impact of the research results (European Commission, 2010).

The document acknowledges that "[w]hile in some instances, the research activity itself could produce psychological discomfort or harm, in most cases the biggest risk in SSH research relates to the disclosure of a person's identity and insufficient protection of private information which may then lead to discrimination or stigmatization" (European Commission, 2010: 9).

5.2 RESEARCH WITH HUMAN SUBJECTS FROM VULNERABLE GROUPS.

REBUILD will carry out research with human subjects, some can be considered to be part of vulnerable groups.

According to the European textbook on ethics research (European Commission, 2010: 53)67, vulnerability is a very complex concept and the following indicators could be used to define vulnerable groups:

"1. Subjects who lack competence will be unable to protect their interests by choosing to give or withhold consent (as discussed in Chapter 2).

2. If the voluntariness of the subjects' consent is compromised, this may similarly prevent them from choosing to give or withhold consent in a way that would protect their interests.

3. The physical (or psychological) condition of some subjects leaves them especially liable to harm, for example as a result of frailty through age, disability, or illness."

Part of the participants in the pilots for the REBUILD project will fall within the three groups, hence special care should be taken to guarantee their rights, which has been done in the REBUILD ethical forms and consent.

5.3 ETHICS IN H2020 PROJECTS.

Ethical compliance is seen as fundamental in research projects funded by the European Union. As explained in http://ec.europa.eu/research/swafs/index.cfm?pg=policy&lib=ethics, ethics is dealt with in the Horizon 2020 legislation at various levels. There is also a specific Ethical Appraisal Procedure in Horizon 2020 projects.

The Horizon 2020 Rules for Participation68 determine that proposals cannot contravene ethical principles and that the Commission shall systematically carry out ethics reviews for proposals (Article 14).

The Horizon 2020 Regulation of Establishment69, establishes in Article 19 (Ethical principles) that:

"1. All the research and innovation activities carried out under Horizon 2020 shall comply with ethical principles and relevant national, Union and international legislation, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocols. Particular attention shall be paid to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to no discrimination and the need to ensure high levels of human health protection."

5.4 ETHICS APPRAISAL PROCEDURE.

The Ethics Appraisal Steps in H2020 projects include:

- Ethics self-assessment
- Ethics pre-screening/screening
- Ethics assessment (for specific proposals)
- Ethics Checks/Audit

Horizon 2020 rules also establish that all proposals considered for funding also undergo an Ethics Review. It starts with an Ethics Screening and, if needed, an Ethics Assessment is performed. It may result in ethics requirements that become contractual obligations.

During the Ethics Screening/Assessment, some projects are considered to be in need of an Ethics Check during the course of the project, and it will be the role of UAB to check if the technical developments and tests and pilots fulfil the initial previsions drafted in the Ethical Consent and project Information forms. If changes are identified, all relevant forms will be changed accordingly.

Concerning ethics audits, the European Commission can check, review, investigate the proper implementation of the REBUILD project and its compliance with the Grant Agreement both during the implementation of the project and afterwards. For this, all signed forms and data will be stored up to two years after the completion of the project locked in VUB. According to the H2020 website an audit of the grant can be ordered by the European Commission up to 5 years after the final payment. This includes ethical principles and research integrity.

5.5 REBUILD ETHICAL PROCEDURES.

Ethical procedures in REBUILD have adopted a holistic approach. REBUILD will implement different methodological approaches and tools: focus groups, interviews, experiments, questionnaires, etc. However, a unified approach to ethical procedures has been favoured as a general framework for the project. To support this, UAB has drafted a list of possible research methodologies, apparatus, stimuli. The different possible users, some considered as vulnerable groups, are also taken into consideration, as well as the fact of the different languages and ways to interact with the consent form. For example, for persons with sight or low sight conditions spoken information and consent forms have been designed, and approved. When interacting with persons with sign language as their mother language, this will be the language of interaction.

In order to fulfil the request by the project officer UAB has obtained ethical clearance from UAB Ethical Commission. This ethical clearance will be adapted and updated if any of the conditions in the tests are changed to those stated.

5.5.1 Recruitment processes for experimental testing.

Participants in REBUILD tests will be volunteers who will be identified via organisations who have direct access to such groups. The use of such gatekeeper organisations will ensure that existing support mechanisms can be accessed. In REBUILD three main organisations are CIDAS for Italy, OMNES for Greece, and UAB for Spain. Participants will not be screened by any data related to genetic, biometric, or health data will be requested.

5.5.2 Informed consent procedures.

All participants involved in the background information gathering activities (see WP1), as well as all those involved in testing or using Toolbox will be given a detailed information sheet and an informed consent form. Both documents will be written in terms participants can understand. They describe the aims, methods and implications of the research, and any risks or discomfort that may happen. Participation in REBUILD tests will always be voluntary and participants will explicitly be informed that they can refuse to participate or withdraw their participation at any time without any consequences. Steps will be taken to ensure that participants are not subjected to any form of coercion and alternative communication means will be provided if necessary.

Participants will be informed that they can request additional information about the project results in case they are interested.

Consent forms will be produced and approved in English, and then translated into the other languages of the project: Spanish, Catalan, Greek and Italian.
The procedures that will be followed to obtain informed consent are:

- Participants will be welcomed
- Participants will be informed about the project and the specific test in which they are involved (information sheet), in an appropriate format according to their needs and the approved models of UAB's ethical committees
- Participants will be requested to give their consent (consent form).

The consent form and information sheet should be included on a single piece of paper (both sides, if needed).
Once the test is finished, both the information sheet and the signed consent form will be sent by recorded mail to István Böröcz (VUB, isborocz@vub.be) or taken to him at the next REBUILD project meeting.
All forms will be kept in a locked room in a secure building at VUB.

5.5.3 Samples of information sheets and informed consent forms.

The information sheets and informed consent forms have been sent to be approved by UAB's ethical committee no. 4387. Once approved they will be used for any types of user testing (focus group, experiments, interviews, etc.). They will be approved in English and will be translated also to the three other languages where the Focus Groups take place: Spanish, Catalonia, Greece and Italy. It may be necessary to also produce these forms in other languages such as Arabic.

5.6 COMMUNICATION WITH VULNERABLE PARTICIPANTS.

Information sheets and informed consents will be generally provided in writing. However, if consent cannot be given in writing, non-written consent will be formally documented.
Appropriate efforts will be made to ensure fully informed understanding of the implications of participations, providing alternative communication means if necessary.
Information sheets and consent forms have been written in a way that participants can fully understand. However, specific adaptations will need to be made to adapt to the specific user needs. More specifically,

- An oral information sheet and consent form can be administered orally if this is better suited for end user needs.
- Sign Language versions can be provided if needed.

This means that information sheets and informed consents will be generally provided in writing. **Individuals unable to give their informed consent (in oral form, written form, or sign language version) will not participate in REBUILD research activities.**

5.7 OBSERVANCE OF DATA SUBJECT RIGHTS.

Partners in REBUILD shall ensure the observance and effectiveness of the data subject's right to information and access to personal data; rectification and erasure; right to object and to automated individual decision making.

ICT-enabled
integration facilitator
and life rebuilding guidance

Re_Build

This project has received funding from the European
Union's Horizon 2020 research and innovation
programme under grant agreement No 822215

- Right of information: When the personal data is collected, the interested party shall be previously informed in an express, precise and unequivocal manner of, among others, the existence of a file, the possibility of exercising their rights and the person in charge of the treatment. In this respect REBUILD partners shall:
- Right of access: The right of access allows the citizen to know and obtain free information about their personal data subjected to treatment.
- Right of rectification: This right is characterized because it allows correcting errors, modifying the data that prove to be inaccurate or incomplete and guaranteeing the certainty of the information being treated.
- Right of cancellation: The right of cancellation allows the deletion of data that prove to be inadequate or excessive, without prejudice to the blocking duty included in their respective national legislations.
- Right of opposition: The right of opposition is the right of the affected party not to carry out the processing of their personal data or to cease it.

As explained, it must be acknowledged that migrants and refugees, having been duly informed, may not wish to participate in the pilots or decide to object at any time to the processing or their personal data. Research ethics recognizes the right of individuals to refuse to take part in research and innovation, on one hand; while it recognizes on the other hand, the potential benefits to the public interest in contraposition to the level of intrusion in private sphere of the individuals which shall attempt to be as low as possible. The REBUILD toolbox cannot be imposed on individuals without their consent.

5.8 VIDEO RECORDINGS RIGHTS.

The European Union adopted in February 2014 the Directive on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market (CRM Directive). The CRM Directive is an essential part of Europe's copyright legislation.
The CRM directive (2014/26/EU) aims at ensuring that right holders have a say in the management of their rights, and at improving the functioning and accountability of Collective Management Organisations (CMOs).
REBUILD will follow CRM directive using exclusively videos for testing produced by the project partners, mainly the two broadcasters (RBB and CCMA), as well as other open access audiovisual content.

5.9 VIDEO RECORDINGS AND PROMOTIONAL MATERIAL.

It has been established in WP6 (Dissemination) to generate at least one REBUILD short movie but REBUILD aims at creating many short movies to follow the development of the services and offer different types of content. Anyone being recorded for dissemination processes will sign a release and consent form that grants photo, video and sound recording rights to UAB. This form will be stored at UAB for the duration of the project and five years after the end of the project in a locked room in a secure building.