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

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

Deliverable: D2.1 Service provision analysis methodology kit

DUE DATE OF THE DELIVERABLE: 31-05-2019
ACTUAL SUBMISSION DATE: 31-05-2019

Project	REBUILD – ICT-enabled integration facilitator and life rebuilding guidance
Call ID	H2020-SC6-MIGRATION-2018-2019-2020 – DT-MIGRATION-06-2018
Work Package	*WP2 - Codesign processes*
Work Package Leader	UNINETTUNO
Deliverable Leader	Università Telematica Internazionale UNINETTUNO
Deliverable coordinator	Maria Amata Garito
Deliverable Nature	Report
Dissemination level	PU
Version	1.0
Revision	Final

0 Document Info

Authors

Author name	Organization	E-Mail
Maria Amata Garito	UNINETTUNO	garito@uninettunouniversity.net
Luigi Laura	UNINETTUNO	Luigi.laura@gmail.com
Elpidio Romano	UNINETTUNO	e.romano@uninettunouniversity.net
Rida Mostafa Ejlasi	UNINETTUNO	rida.ejasi@gmail.com
Alessandro Caforio	UNINETTUNO	alessandro.caforio@uninettunouniversity.net
Luca Cerniglia	UNINETTUNO	l.cerniglia@uninettunouniversity.net

Document History

Version #	Author name	Date	Changes
0.1	Maria Amata Garito		ToC - First version
0.2	Luigi Laura		Methodology
0.3	Rida Mostafa Ejlasi		Questionnaires
0.4	Luigi Laura	08/05/2019	Modified as per meeting of the 6th May
0.5	Luigi Laura	09/05/2019	Modified figure on direct graphs
0.6	Rida Mostafa Ejlasi	12/05/2019	New questionnaire structure
0.7	Rida Mostafa Ejlasi	14/05/2019	Minor corrections
0.8	Luigi Laura	20/05/2019	Implemented changes suggested by partners after Madrid's meeting
0.8.5	Giulia Foresti Pau Pamplona Pilar Orero Antonella Passani Stella Zountsa Thodoris Semertzidis Antonio S. Filograna	22-28/05/19	Comments and feedbacks on Methodology and Interviews template
0.9	Luigi Laura	25/05/2019	Changed flowcharts, added some paragraphs and the bot figure
0.9.1.	Maria Amata Garito Alessandro Caforio Luca Cerniglia Sabrina Feletig Rida Mostafa Ejlasi Giovanna Gnerre	26/05/2019	Integration of comments and feedbacks Questionnaire restructuring
0.9.2	Pau Pamplona Negre Dimitris Demertzis	28/05/2019	Questionnaire fine tuning
0.9.5	Alessandro Caforio Luigi Laura Luca Cerniglia	30/05/2019	Section 1-4 review Introduction and questionnaire administration
0.9.9	Alessandro Caforio	31/05/2019	Executive summary
1.0	Maria Amata Garito	31/05/2019	Document finalization

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

DOCUMENT DATA

Keywords	Service provision, needs and gaps analysis, migrants, refugees, asylum seekers
Editor Address data	Name: Maria Amata Garito Partner: Uninettuno Address: Corso Vittorio Emanuele II, 39 – 00186 – Rome, Italy Phone: +390669207682 Email: garito@uninettunouniversity.net
Delivery Date	31-05-2019

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

TABLE OF CONTENTS

INDEX OF TABLES

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

INDEX OF FIGURES

EXECUTIVE SUMMARY

The deliverable 2.1, named "Service provision analysis methodology kit", is a report presenting the approach and tools designed for analysing how Local Service Providers (NGOs, public administrations, volunteer organizations), providing services to migrants and refugees, manage the service provision in practice; the report includes:

- objective of the analysis that will be performed through the proposed methodology;
- dimensions taken into consideration for identifying scope, participants and elements to be investigated;
- approach that will be used in analysing the information gathered;
- and the actual kit for information gathering.

The objectives of the analysis, and therefore the purpose the methodology and the kit presented in this deliverable are designed, are:

- To map the actual service provision flow, gathering information that will be relevant for the next phases of the project, especially for the REBUILD Digital Companion / ICT toolbox design and development;
- To understand needs and gaps in the service provision as experienced by local service providers, to be further explored and validated in the next co-design phase (for example, the Co-Creation Workshops foreseen as Task 2.2 of the project);
- To gather information from Local Service Providers about needs and expectations from a digital application with the ambition of REBUILD Digital Companion, in order to include them in the development of the application, and compare the needs at local level with the ones emergin from higher (regional, national, policy making) level stakeholders that will be contacted in task 9.2.

Chapter 1 and 2 of the document specifies clearly the focus of the research:

- Services to be investigated are the ones foreseen at EU level, specifically defined in the Treaty of Lisbon and in EU Directives such as Qualifications Directive (2011/95/UE); Reception Directive (2013/33/UE), Directive on Temporary Protection (2001/55/CE), and instruments such as *European Agenda on Migration* (2015) among others; these services, listed in *Table 1* of the document, which provides also a mapping including the level of support the REBUILD Digital Companion will try to provide, are then grouped in 6 main categories in the final tool:
    - **Legal Services** *(including Information about rights and duties according to their status, Residence permits; Freedom of movement within the Members States / Travel Documents)*
    - **Access to Employment** *(including access to procedures for recognition of qualifications)*
    - **Access to Education / Training**
    - **Healthcare**
    - **Accommodation / Housing**
    - **Living Conditions** *(including Maintaining family unity, Access to integration facilities, Social Welfare)*
- The first and main *target group*, benefitting from the envisaged measures, as also defined at project level, is represented, in particular, by **refugees, people entitled to subsidiary protection, temporary protection and humanitarian protection**.
- As regards stakeholders that will be actively involved in the research, they are represented mainly by (public or private) **organizations and institutions working at local level providing direct support for accessing the abovementioned services.**

With the objective of effectively feeding the next phases of the project, and specifically the technical design and development of REBUILD Digital Companion, the document has the objective to identify a methodology for analysing the information gathered through the kit and the service provision flows, in order to represent them in a precise and non-ambiguous way. Chapter 3 and 4 present a review of the principal formal process representation models, with a specific focus on Business Process Modeling models. **For the scope of the REBULD project we decided to represent the processes using flowcharts**; our choice is based on several factors that include:

1) the flowcharts are, undoubtedly, the simplest among the proposed frameworks, and are easily readable by people without a technical training;
2) the flowcharts are the most diffused way of representing algorithms for programmers;
3) from the previous points it seems that flowcharts are suited in their role, inside the REBUILD project, of "cultural mediators": they provide a common ground in which a process can be easily represented by the partners of the REBUILD project, easily read by the interviewed people and, most important, easily understood by programmers in order to be implemented inside the Digital Companion.

Considering the national reception/integration process as a macro-process, flowchart will be used to map and represent formally each micro-process related to each service and sub-service foreseen at local level in the pilot regions, using the information gathered in the next phase of Task 2.1.

Finally, the documents present the actual Methodology Kit for the analysis that will be performed in the next phase of Task 2.1. As already foreseen in the Task 2.1 description, the main research tool will be interview, based on the Interviews Template provided in the Chapter 5. The interviews will be administered to Local Service Providers, meaning public administrations, NGOs, volunteer organizations acting at local level providing direct support to refugees/migrants, as defined above. At least 20 different institutions/organizations will be interviewed, covering all the services listed, in the 3 pilot countries, at different reception stages.

Interviews Kit design is based on both the literature reviews of Country-specific reports about the services provided to the project target group in the 3 project pilot countries; on the analysis of NGOs/Volunteer organization/Local service providers websites; and on the activity of a working team including, among others, researchers, professors and with the essential contribution of the operators, who are themselves refugees, working in the field of reception and cultural mediation (including UNINETTUNO students benefitting from the initiative "University for Refugees – Education without Boundaries").

Interview templates are structured in 3 different sections:

Section 1 is about **information about the organization/institution interviewed**, and mapping it in terms of Services Provided and Phases of Reception it actually operates; it contains only 6 items; the first three items (Type, Name, Website of the organization/institution) can be compiled directly by the interviewer before the interview; while the other 3 (Reception/Integration Phases managed by the organization/institution, services provided, presence of specific training programs for interculturalism for employees of the institutions, organizations) are information to be provided directly by the interviewed.

Section 2 provides a set of **service-specific sub-questionnaires** regarding the 6 service categories mentioned above. Interviewers will map each subservice actually provided by the interviewed organization, in order to collect information about:

1. Elements "triggering" the service provision;
2. Criteria and prerequisites for accessing the service;
3. Steps to go through for accessing the service;
4. Main obstacles encountered by users in the experience of Local Service Providers;
5. Supporting systems and procedures of LSPs to overcome these obstacles;
6. Possible synergies with other organizations or institutions linking different services or different steps in the same service provision.

Section 3 provides a small set of closing questions, aiming at analysing **needs and expectations Local Service Providers could have** from the foreseen REBUILD toolbox, and specifically:

- Which kind of information they would need about new users that actually cannot access to;
- If they can report experience of ineffective digitalization of processes/services;
- Which process/service/step they would improve through ICT technologies if they can choose;

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

- Which kind of information/reporting would be useful for them from an app such REBUILD ICT toolbox will be.

Next steps: in the second phase of Task 2.1, interviews will be administered by project partners in Greece, Italy and Spain. The information gathered will be analysed in order to produce:

- Service and sub-service specific flow-charts, formally representing the service provision as a process, including information about **actors involved, steps, input needed, output expected, possible third-parties involved in the service provision, synergies with other services;**
- A preliminary needs and gaps analysis for each service, to be further tested and explored during the Co-Creation Workshops foreseen in Task 2.2;
- An initial analysis about needs and expectations of service providers, at local level, to be used as part of the available information when contacts with higher level stakeholders (regional, national level public authorities dealing with migrants/refugees reception/integration processes; policy makers) will take place, in Task 9.2.

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

ABSTRACT

The deliverable 2.1, named as "Service Provision Analysis Methodology Kit" is a report including the description of the methodology used to gather information from NGOs, Public Administration, and in general organizations and institutions directly providing services to migrants/refugees at local level, with a focus on the pilot areas foreseen in the project.

Chapter 1 and 2 present the context of this specific Task, and provide the legal framework and the rationale for the selection of:

- Participants in the research;
- Services to be analyzed;
- Target users of the services.

The document includes also a section devoted to the data processing model in order to analyze, in an appropriate way, the service provision flows and represent them in an accurate and non-ambigous way.

Finally, the last section includes a kit for processing interviews with two different models of questionnaires to be submitted to the Local Service Providers.

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

1 INTRODUCTION

The project REBUILD aims at improving migrants and refugees' inclusion through the provision of a toolbox of ICT-based solutions aimed to enhance both the effectiveness of the services provided by local public administration and organizations, and the life quality of the migrants.

This project follows a user-centered and participated design approach, aiming at addressing properly real target users' needs, ethical and cross-cultural dimensions, and at monitoring and validating the socio-economic impact of the proposed solution. Both target groups (immigrants/refugees and local public services providers) will be part of a continuous design process; users and stakeholders' engagement is a key success factor addressed both in the Consortium composition and in its capacity to engage relevant stakeholders external to the project. Users will be engaged since the beginning of the project through interviews and focus groups; then will be part of the application design, participating in three Co-Creation Workshops organized in the three main piloting countries: Italy, Spain and Greece, chosen for their being the "access gates" to Europe for main immigration routes. Then again, in the 2nd and 3rd years of the project, users' engagement in Test and Piloting events in the three target countries, will help the Consortium fine-tuning the REBUILD ICT toolbox before the end of the project.

The key technology solutions proposed are:

- GDPR-compliant migrants' integration related background information gathering with user consent and anonymization of personal information;
- AI-based profile analysis to enable both personalized support and policy making on migration-related issues;
- AI-based needs matching tool, to match migrant needs and skills with services provided by local authorities in EU countries and labour market needs at local and regional level;
- a Digital Companion for migrants enabling personalized two-way communication using chatbots to provide them smart support for easy access to local services (training, health, employment, welfare, etc.) and assessment of the level of integration and understanding of the new society, while providing to local authorities data-driven, easy to use decision supporting tools for enhancing capacities and effectiveness in service provision.

This document is the first deliverable of the of Task 2.1, in the context of Work Package 2, focused on co-creation processes for the REBUILD tools design.

The main objective of the Deliverable is to define a methodology and the proper information gathering and analysis approach in order to map the actual service provision flow in the context of services provided to migrants/refugees by Local Service Providers (LSP), in the three pilot countries foreseen in the project (Italy, Greece, Spain).

While the "migrant/refugees" term is a wide definition of the potential target group of the REBUILD app, REBUILD project is **mainly focused on Refugees, People entitled to subsidiary protection, People entitled to temporary protection Asylum seekers**. Chapter 2 of this document provides an overview of the regulatory framework involving these definition, and a list of the services that should be provided to the abovementioned categories. Furthermore, as in the original project proposal, REBUILD ambition is to provide different levels of "smart support" through the REBUILD app to migrants/refugees. These different levels are detailed in the abovementioned Chapter 2.

In the context of this Deliverable and of Task 2.1, for "Local Service Providers" we mean both public bodies, volunteer organizations or private **organizations actually supporting migrants/refugees (as defined above) in accessing services their entitled to receive, at local level**. For the purpose of designing and developing an application able to both enabling migrants/refugees to access to public services addressing their needs, and improving the effectiveness of this service provision for service providers, the scope of the service provision mapping will be understanding and modelling:

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

- how migrants/refugees are currently supported in accessing the services provided;
- which are the main obstacles they encounter in accessing these services;
- how these Local Service Providers help them in overcoming these difficulties;
- which are needs and gaps perceived by Local Service Providers.

The analysis of the service provision will take into account the definition of the workflow, the analysis of each service, for different providers, in each pilot region involved, at different reception stages. The final result of this activity, foreseen in the next phase of Task 2.1, producing Deliverable 2.2, will consist in a report analyzing the needs and gaps, from the perspective of the Local Service Providers.
The main tools that will be utilized for this activity will be interviews, guided by questionnaire templates presented in Chapter 5 of this document.

Since the main goal of the REBUILD project is the development of a Digital Companion, in order to assess the reception process in each country, project partners participating in Task 2.1 and involved in the information gathering and in the production of D2.2, will have to create a high-level (formal) flowchart, describing the reception process, based on the laws currently in force in each single country. This flowchart represents the reception process at a macro-level, and thus in the following we refer to this flowchart as the macro-process backbone, that will be used to frame, in a consistent way, the processes employed by local service providers; to collect the info from each local authority, NGO and service provider, per each service that we will analyse we will use a specific questionnaire tailored on the service provided. Each service provided can be considered a micro-process within the macro-process, i.e. the whole national process.

By way of example, we will illustrate the case of the Italian regulations and we will represent a formal template (macro-process backbone), then providing the small questionnaires devoted to each service provided.
In the figure below, it is represented an overview of the general methodology described in this document, i.e. the methodology that each partner will have to perform to collect the data in the next stage of the Task 2.1, for the production of D2.2:

- Step 1: starting from the regulations in force in one's own country, we formally represent the process through a **flowchart** (global backbone of the reception process, i.e. the macro-process), as detailed in Section 3;
- Step 2: we interview LSPs in order to understand the service provided; during the interview it is important to understand in which part, or parts, of the macro-process each LSP can be located; we might use the flowchart, in order to select the right **questionnaire** between the ones available, as detailed in Section 5;
- Step 3: from the information collected during the interview with each service provider we build a flowchart, in order to formally represent each micro-process.

The collected data will be used:

- For producing the flowcharts that will be used in the development of the REBUILD Digital Companion (WP3, WP4, WP5 of the project), providing a formal source of knowledge related to all the services available to migrants at local/pilot scale;
- For producing a section of D2.2 analysing needs and gaps emerging from Local Service Providers, that will feed both the design and implementation of the Co-Creation Workshops (Task 2.2), and the involvement of higher level stakeholders for the impact analysis (Task 9.2)

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

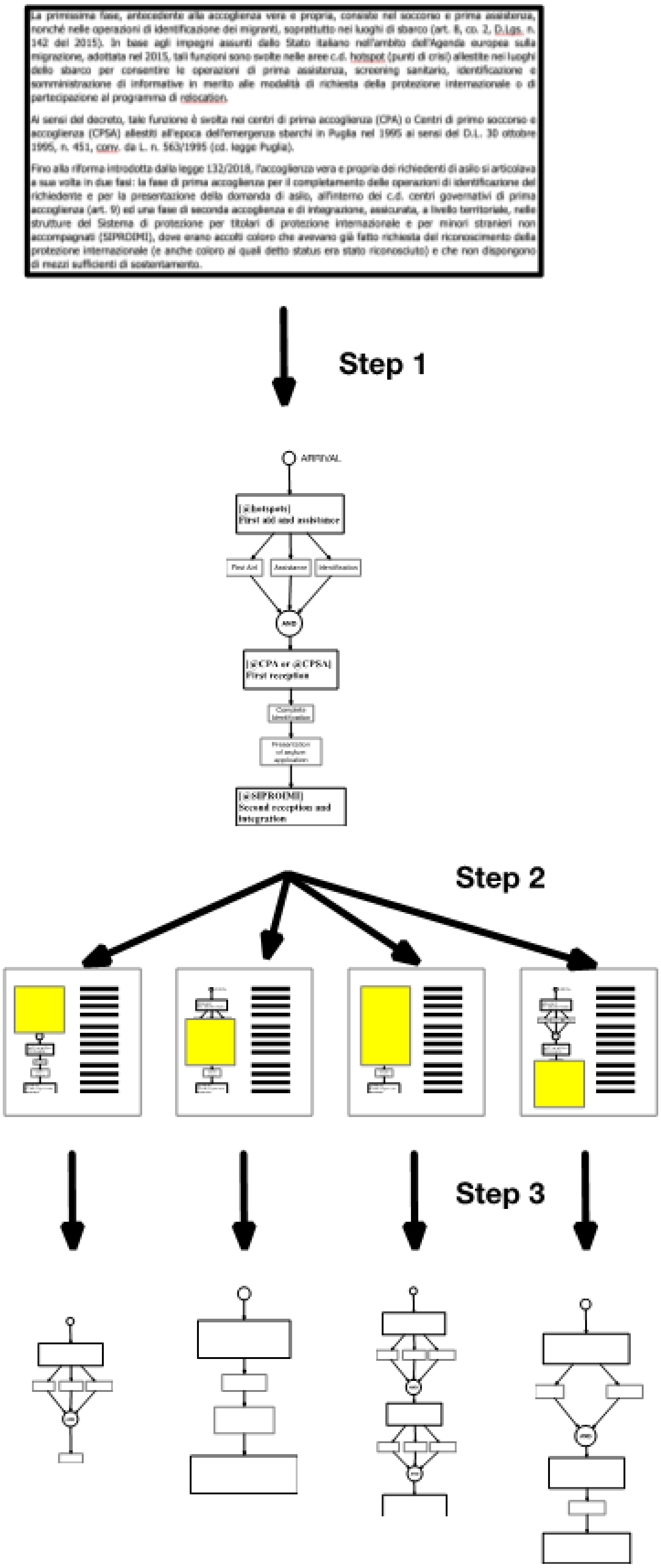

Figure 1 - General chart of the data collection for each partner

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

2 RESEARCH CONTEXT AND LEGAL OVERVIEW

The collection of data, that will be supplied through questionnaires from the local authorities and public service providers, is supported and integrated by a more in depth study of the regulatory framework and of the reception steps. In this regard, we will analyze the measures taken to promote the integration and inclusion of immigrants present in the three countries involved (Italy, Greece and Spain), with a specific focus in the pilot areas foreseen in the project (Bologna, Italy; Kilkis/Thessaloniki, Greece; Barcelona, Spain) and the service provision modes.

The reference to European regulations represents the starting point. Art. 78 of the Treating on the Functioning of the European Union TFUE, actually, refers to the construction of a common policy as regards to asylum and suggest suitable measures to that the Countries must adopt.

In this framework, the relevant sources are the Treaty of Lisbon (TFUE, primary law)[1] and the directives (secondary law); these last ones allow for identifying a common regulatory framework on which each country, also by adapting its internal law to the European Union's law, develop its own reception system. Actually, the implementation of the directives establishes an objective that all EU countries have to achieve, and it takes place through regulatory deeds that are adopted at national level.

The directives that are referred to in the project are: the Qualifications Directive (2011/95/UE) as regards, in particular, the services provided to the people entitled to international protection (refugees and people entitled to subsidiary protection), the Reception Directive (2013/33/UE) on regulations related to the reception of seekers of international protection (those who submitted a formal application for international protection and who are waiting for the assessment of their application), the Directive on Temporary Protection (2001/55/CE) as regards the people entitle to temporary protection, minimal regulations to award a temporary protection in case of massive arrival of displaced people (it applies only in the case of massive flows).

We have to consider also other tools adopted in a European framework and among these: *Action Programs*, that during the latest two decades they established a common action line for the Member States of the European Union as regards asylum (Tampere, 1999; The Hague, 2004; Stockholm, 2009) and the *European Agenda on Migration* (2015).

As regards stakeholders involved in the analysis, also for the purposes of questionnaire administration, they are represented mainly by associations, organizations and institutions working at local level as direct service providers. The first and main *target group*, benefitting from the envisaged measures, is represented, in particular, by refugees, people entitled to subsidiary protection, temporary protection and humanitarian protection.

In line with what is specified in the project, the questions included into the questionnaire refer to services that are already mentioned in the proposal and whose provision should be envisaged in all the three countries, as provided by the European directives related to the above-mentioned asylum procedures.

The list of the relative services and directives was included into the table below, also included into the project proposal (*infra*).

[1] Treaty of Lisbon, Consolidated Version of the Treaty of European Union and Consolidated Version of the Treaty on the Functioning of the European Union available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012M%2FTXT

MIGRANTS / SERVICES		Refugees[1]	People entitled to subsidiary protection[2]	People entitled to temporary protection[3]	Asylum seekers (applicants for international protection)[4]
Protection from refoulement		YES	YES	YES	YES
Information about rights and duties according to their status		YES	YES	YES	YES
Maintaining family unity		YES	YES	YES	YES
Residence permits		YES	YES	YES	N/A
Travel document		YES	YES	N/A	YES According to art 6.5
Access to employment		YES	YES	YES	YES
Access to education	School	YES	YES	YES	YES
	High. Ed.	YES	YES	YES	YES
	VET	YES	YES	YES	YES
	Language	YES	YES	YES	YES
Access to procedures for recognition of qualifications		YES	YES	N/A	N/A
Social welfare		YES	YES	YES	N/A
Healthcare	Medical services	YES	YES	YES	YES
	Psych. support	YES	YES	YES	YES
Services for Unaccompanied minors		YES	YES	YES According to art. 16	YES
Access to accommodation		YES	YES	YES	YES Different particular cases art 18.1
Freedom of movement within the Member State		YES	YES	N/A	YES
Access to integration facilities		YES	YES	N/A	N/A
Repatriation		YES	YES	YES	YES Reference to the return procedure for °reedits staying - Directive 2008/115/EC

Table 1 - REBUILD Services color scheme

The consortium of the REBUILD project will directly supply this service during a large-scale pilot cooperation with public / local service providers	(green)
The REBUILD Digital Companion will supply an intelligent support for the provision, access and interaction with these services	(blue)
The REBUILD toolbox will supply data on these services, but cannot support the real-time access and provision service	(magenta)
Outside the context of REBUILD	(grey)

[1] EU Directive 2011/95/EU, http://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32011L0095&from=IT ;
[2] Ibidem;
[3] EU Directive 2001/55/EC http://eurlex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32001L0055&from=IT ;
[4] EU Directive 2013/33/EU http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:+32013L0033&from=IT

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

In order to get a wider understanding of what arises from the filling in of the questionnaires, of how the European regulations is implemented at national level and of which are the individuals involved in the process of service provision (such as providers and beneficiaries), for each one of the three countries we will analyse the following frameworks:

- The regulations currently in force in the Country (saying how the European directives were adopted in the internal regulatory system and, in particular, the legislative acts of implementation, regulations, explanatory documents, action plans);
- The bodies of the public administration (ministries, municipalities, local boards etc.) and other stakeholders (associations, NGOs, international organizations etc.) involved in the service provision at national and local level;
- The steps of the reception procedure in favour of those who apply for international or humanitarian protection or of those who already obtained it;
- The acknowledged rights and the services that are provided during the reception procedure in connection with the various reception steps;
- In case of people entitled to humanitarian protection, the reception procedure envisaged based on each country's internal regulations (taking into account that the conditions for the acknowledgement of the humanitarian protection are regulated according to European directives, but mainly by the internal regulations of each country).

We recall that the information collected in this phase will be a key element for the development of the REBUILD digital companion (DC). The DC, as described in the REBUILD project proposal, will act as the central communication and information hub that will connect the migrants, the local population and the PAs.

Thus, we need to model the processes in a formal way, suited to be easily turned into the source code of the DC. To this end, we describe in the next section some visual tools devoted to formal representation of processes. In the Madrid's REBUILD meeting (13-14 May, 2019), among all the visual tools, the Flowchart has been selected to represent the processes.

Note that we have TWO distinct levels of process:

1. a macro-process, that refer to the process regulated by each country;
2. several micro-processes, for each phase (or even several parts of a phase) in the macro-process.

The flowchart of the macro-process can be derived directly from the national regulations; in Section 4 we will provide an example, relative to the Italian regulations. In order to perform the formalization of the micro-processes, i.e. the ones performed by the local authorities, by the NGOs and by the public service providers, we first need to collect the relevant info from each service provider. This task will be perfomed using small questionnaires, customized on the service provided and on the type of the service provider. Section 5 discusses the details about the types of the questionnaires. After the collection of the info related to each micro-process, i.e. details about the service provided, the collected data will be used, again, to derive the formal representation of the (micro-)process, using flowcharts.

All the flowcharts produced in this phase, i.e. one macro-process for each nation and several micro-process, will be the base of all the activities of WP2. Most notably, this information will be also used in WP4 to contribute to the development of the REBUILD Digital Companion (DC). In particular, the DC might use some algorithmic tools as the ones described in Section 3.3.

In Section 4 we provide a complete example of the overall methodology, that can be summarized, as already mentioned in the introduction, in the following steps (see also Figure 1):

- Step 1: starting from the regulations in force in one's own country, we formally represent the process through a **flowchart** (global backbone of the reception process, i.e. the macro-process), as detailed in Section 3;
- Step 2: we interview LSPs in order to understand the service provided; during the interview it is important to undertand in which part, or parts, of the macro-process each LSP can be located; we

might use the flowchart, in order to select the right service-specific **questionnaires** between the ones available, as detailed in Section 5;

- Step 3: from the information collected during the interview with each service provider we build a flowchart, in order to formally represent each micro-process.

3 PROCESS REPRESENTATION

In this section, we discuss the issues related to the representation of the processes of the existing service provision flow, involving both local authorities and service providers. The aim of this representation is to support first the Task 2.1 of this WP (WP2), which is devoted to the analysis of the service provision, and to support the other WPs devoted to the development of a digital companion (WP4) and the design of the REBUILD platform (WP5).

In order to analyze properly the service provision flows, we need to represent them in a precise and non-ambiguous way. Indeed, the survey items and interviews template described previously are used (also) to derive information about the service provision flows, and we need to represent this information consistently across the whole REBUILD process.

It is important to clarify that the complex models for representing the processes have usually several perspectives, in which the control-flow perspective, i.e., the modeling the ordering of activities, is often the structural backbone that serves all the other informational needs; other perspectives include:

- Resource perspective - modeling roles, organizational units, authorizations, etc.
- Data perspective - modeling decisions, data creation, forms, etc.
- Time perspective - modeling durations, deadlines, etc.
- Function perspective - describing activities and related applications.

Note that we will need not only to model the processes in the first part of the REBUILD project, but also to map them, thus implementing them, in the REBUILD platform, and thus we might need to perform tasks, in the platform, such as the evaluation of different paths and action suggestions. Also, the mapping of the processes will allow the collection of process related data, and using analytics we might spot some weaknesses in the process itself. Indeed, the process modeling is generally done in order to achieve:

1. process management
2. process evaluation
3. process reengineering

Summing up, this section is organized as follows:

- we first show an overview of graphical and expressive ways of representing processes
- then we select, among the one presented, the ones that are suited for REBUILD project
- and then we conclude by discussing some mathematical models, supported by algorithmic tools that might be helpful, in the REBUILD platform, to help the development of the component devoted to the analysis of the processes.

3.1 FORMAL REPRESENTATION OF THE PROCESSES

In this section we briefly present an overview of tools for the formal representation of a process. Even if we restrict the case to the representation of Business Process (the processes involved in the REBUILD project are, indeed, from a formal point of view, Business Processes), the list of available choice is long, see e.g. the survey of Van der Aalst[2]. Here we consider the most popular ones, and evaluate them on the basis of their potential effectiveness inside the REBUILD project. As already mentioned, there is a tradeoff between expressiveness and ease of use. Also, some of the models can be extended by adding a set of symbols, but we will not consider this option inside this project in order to focus on a simple and standard way of representing processes.

[2] Wil M. P. van der Aalst, Arthur H. M. ter Hofstede, Mathias Weske. Business Process Management: A Survey. https://link.springer.com/chapter/10.1007/3-540-44895-0_1

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

3.1.1 Business Process Modeling Notation (BPMN)

The Business Process Modeling Notation (BPMN) consists of a series of symbols or "standard objects" to represent tasks and workflows. This model can be extended by developing an own set of symbols, but as already mentioned we will not consider this option for the REBUILD project. In this document, we refer to the current release of the BPMN, the 2.0 (January 2011). Details about the BPMN can be found in its official site: http://www.bpmn.org/

The BPMN has four main categories of symbols:

1. Flow objects: Events are represented by circles, activities fit into rectangular boxes with rounded corners, and gateways or control points are represented with diamond shapes.
2. Connecting objects: Since tasks are interconnected, we join them up to show their sequence. Solid lines indicate task transfers, and dashed ones indicate messages.
3. Swim lanes: A single sub-process in your workflow could require the sharing of responsibility. Swim lanes detail how these shared responsibilities are distributed and how they interact. The sub-task is the "pool" and the "lanes" represent people or departments.
4. Artifacts: If you need to add extra information that is not a sequence flow or message flow but that helps to explain a process, you can use artifacts. Dotted lines point to the flow object the extra information expands on. Squares outlined with dots and dashes group elements in the diagram, and text annotations are added with a square bracket.

In the figure below, we can see an example of a process represented using BPMN (V2): in particular, it is the shipment process of a Hardware Retailer: the preparing steps a hardware retailer has to fulfil before the ordered goods can actually be shipped to the customer.

Reading from the diagram, we can see:

- The plain start event "goods to ship" indicates that this preparation should be done now.
- After the instantiation of the process, there are two things done in parallel, indicated by the parallel gateway:
  - the clerk has to decide whether this is a normal postal or a special shipment (we do not define the criteria how to decide this inside the process model)
  - the warehouse worker can already start packaging the goods.

The clerk's task, which is followed by the exclusive gateway "mode of delivery", is a good example for clarifying the usage of a gateway: the gateway is not responsible for the decision whether this is a special or a postal shipment. Instead, this decision is undertaken in the activity before. The gateway only works as a router, which is based on the result of the previous task, and provides alternative paths. A task represents an actual unit of work, while a gateway is only routing the sequence flow.

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

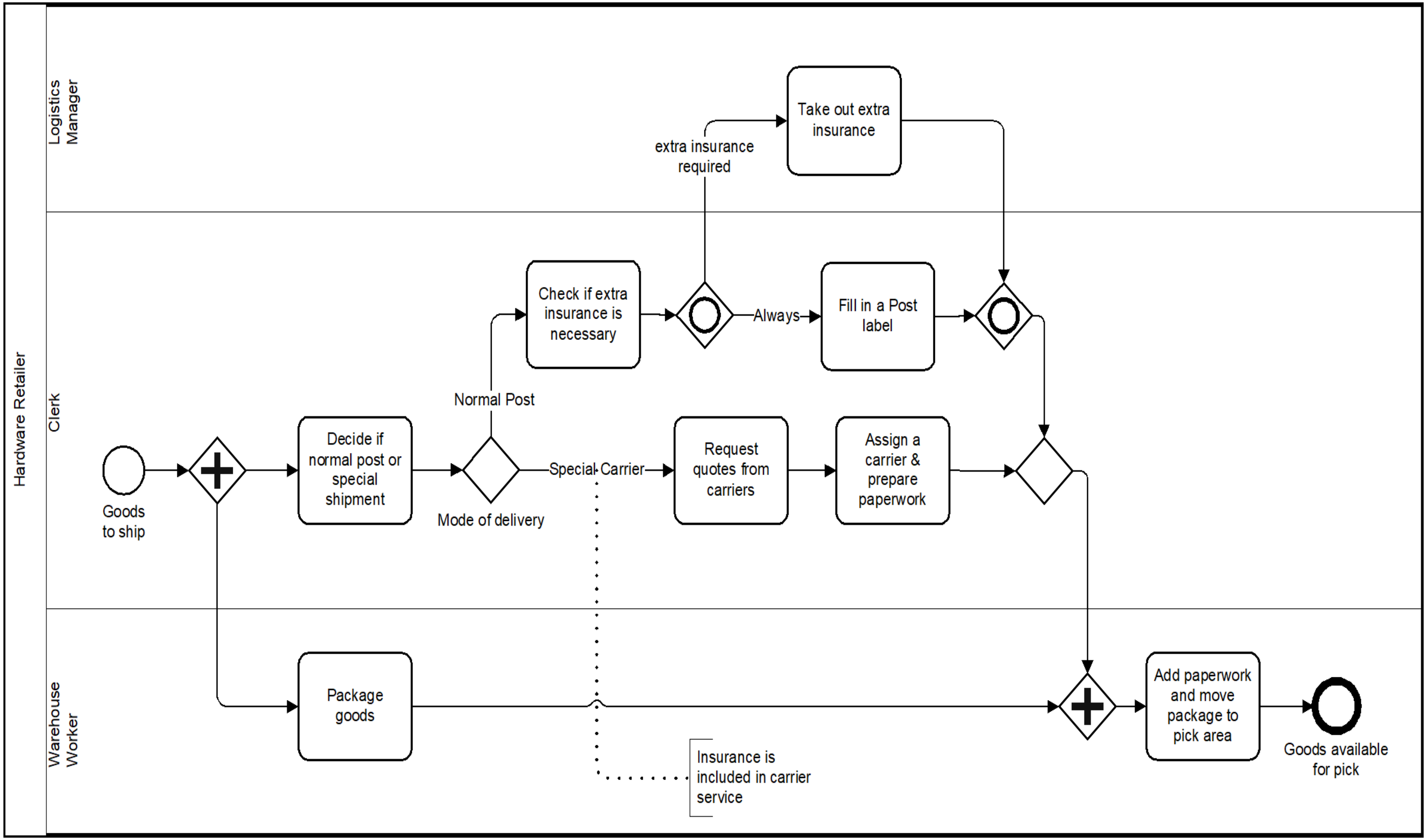

Figure 2 - Example of BPMN notation

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

The BPMN seems to be the golden standard of all the visual process models; however, it might be too complex for the scope of the REBUILD project.

3.1.2 Unified Modeling Language (UML)

The Unified Modeling Language was proposed originally as a general-purpose modeling language for software development. It has been adopted as a standard by the Object Management Group, which is a standard consortium that provides specifications (and not implementations), that also maintains the BPMN.

The UML has a family of diagrams, that includes

- The User Interaction or Use Case Model - describes the boundary and interaction between the system and users. Corresponds in some respects to a requirements model.
- The Interaction or Communication Model - describes how objects in the system will interact with each other to get work done.
- The State or Dynamic Model - State charts describe the states or conditions that classes assume over time. Activity graphs describe the workflows the system will implement.
- The Logical or Class Model - describes the classes and objects that will make up the system.
- The Physical Component Model - describes the software (and sometimes hardware components) that make up the system.
- The Physical Deployment Model - describes the physical architecture and the deployment of components on that hardware architecture.

It is clear from the list above that the UML is biased towards the software development; however, there are some diagrams that might be useful for the REBUILD project, such as the Use Case, diagram, shown in the figure below, where is reported an example for the case of airport check-in and security screening.

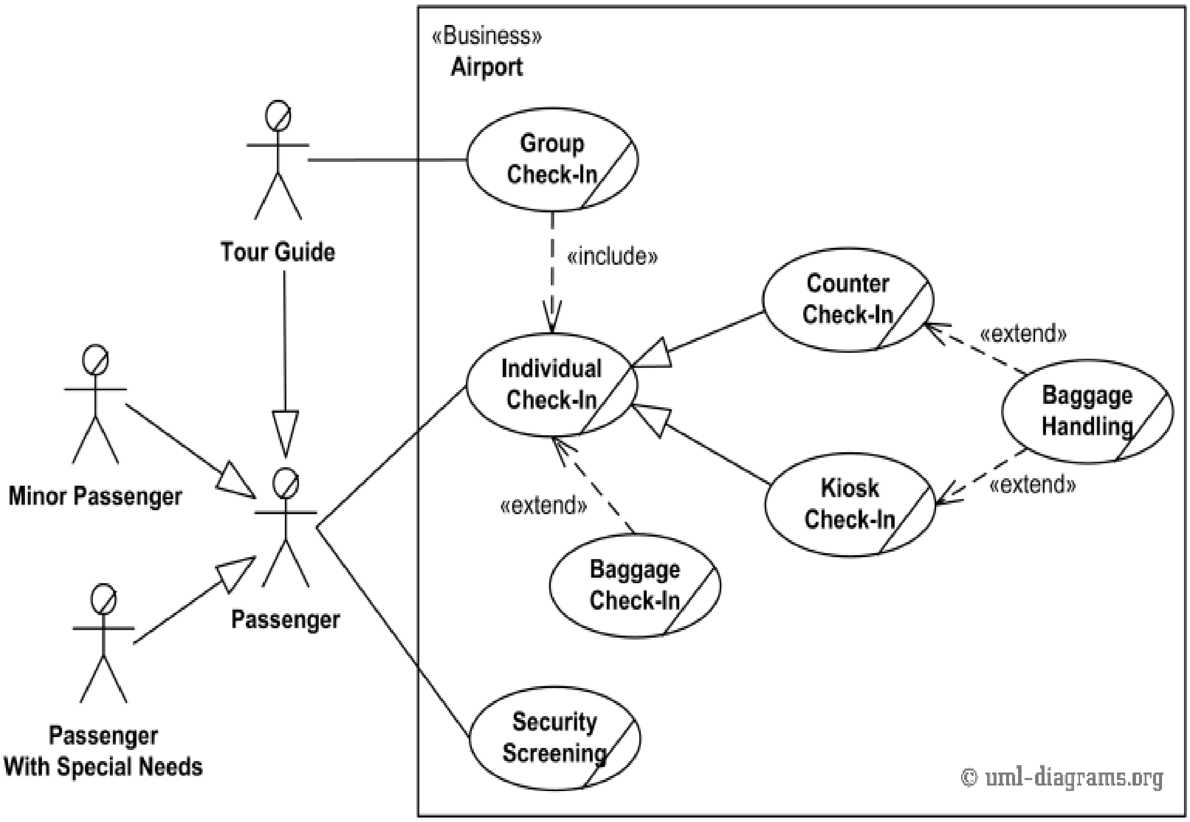

Figure 3 - UML - An example of use case diagram for airport check-in and security screening.

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

In the figure below, we can see an example of a sequence diagram, that falls in the Dynamic Model category; in particular this one depicts an online bookshop.

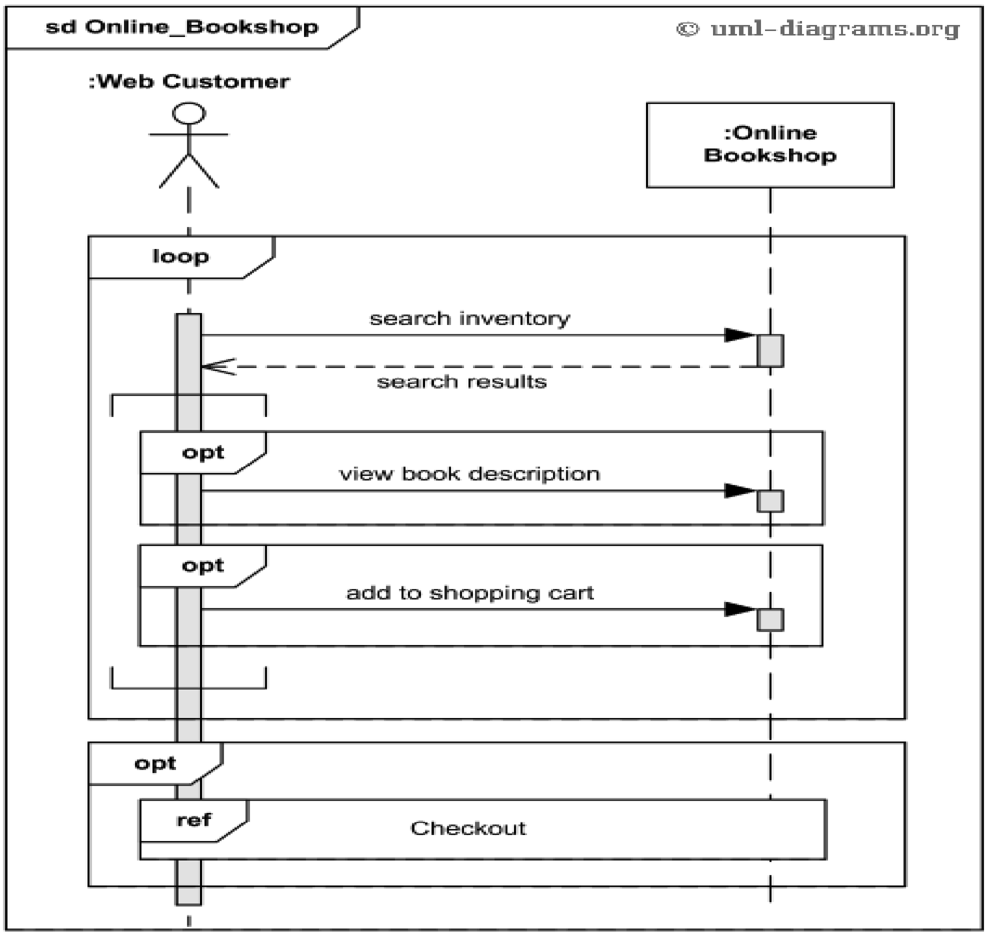

Figure 4 - UML example of an online bookshop sequence diagram

From the examples above it seems that, despite the fact that the UML is focused on software development, and thus it might turn very useful in later phases of the REBUILD project, it is probably too complex (it has several families of diagram) to be used productively inside this project.

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

3.1.3 Flowcharts

The flowcharts are probably the oldest way of visualizing a process. It tracks back to 1921, American Society of Mechanical Engineers, and it has been used also by John Von Neumann to document algorithms[3].

The flowcharts are a standard from ANSI (American National Standard Institute) since the sixties, and ISO (International Organization for Standardization) adopted it in the 1970, and the latest release, ISO 5807, is dated 1985.

The flowcharts are undoubtedly the simplest of all the visual models presented in this document. See, for example, the flowchart shown in the figure below[4].

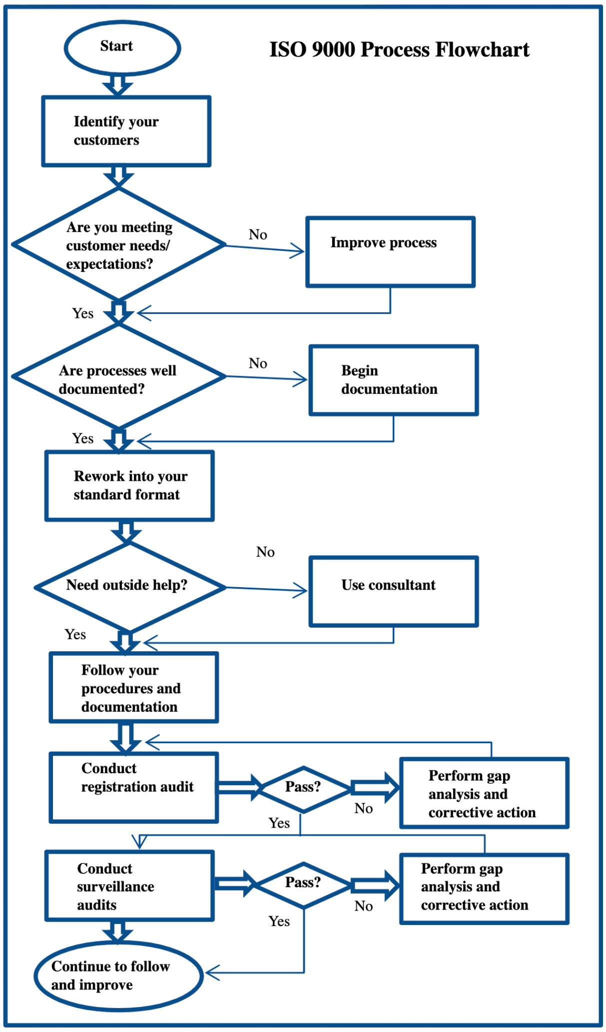

Figure 5 - An example of a flowchart: the ISO 9000 Process

The major drawback of the flowchart, as we will see later in this document, is that it does not provide a simple way of representing parallel independent tasks that need to be completed before another task can start.

[3] Source: J. B. Dixit. Fundamentals of Computer Programming and Information Technology.
[4] Source: http://quality-help.org/info/docs/training/qh-smartguide-iso9000processflowchart.pdf

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

3.1.4 Yet Another Workflow Language (YAWL)

YAWL, that is the acronym of Yet Another Workflow Language, is a relatively young model, that provides a concise way of modeling processes. In the figure below it is possible to see an example, in which we can distinguish two different items: Settle Bill, that requires only one of the two entering tasks to be performed, and Lodge Final Insurance Claim that requires both the two entering tasks to be performed.

YAWL is simpler than BPMN and has several resources - from the YAWL Foundation http://www.yawlfoundation.org/ - that are freely available. YAWL offers comprehensive support for the control-flow patterns and for capturing control-flow dependencies. The data perspective in YAWL is captured through the use of XML Schema, XPath and XQuery.

Furthermore, YAWL has a proper formal foundation, that makes its specifications unambiguous and automated verification becomes possible.

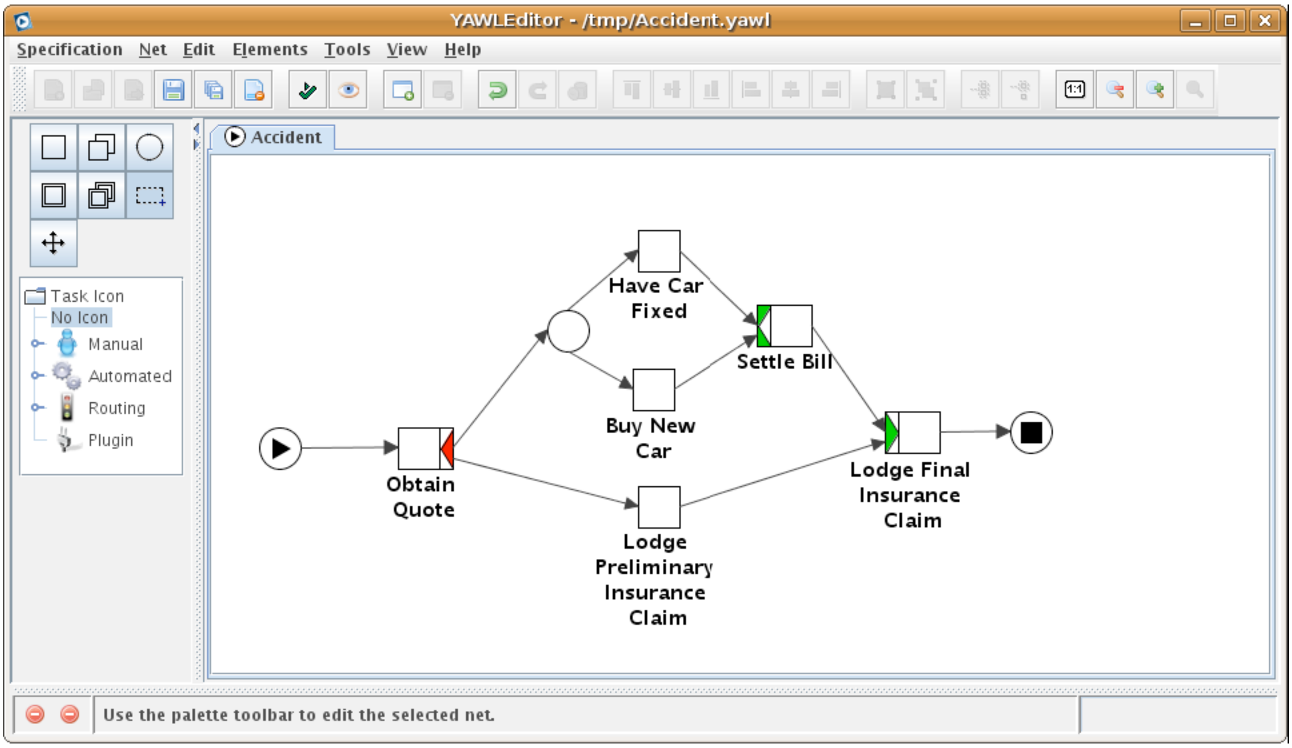

Figure 6 - An example of a YAWL diagram inside the YAWL Editor

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

3.1.5 Functional Flow Block Diagrams

The functional flow block diagrams (FFBD), also called Functional Flow Diagrams, functional block diagrams, and functional flows, is an evolution of the flowcharts in which we can "zoom" inside a box, thus the overall flowchart is, indeed, a combination of several flowcharts related to different levels of the process.

The key elements of FFBD are:

- Function block - Each function is represented by single box (solid line), and denotes a definite, finite, discrete action to be accomplished by system elements.
- Function numbering - Each level has a consistent number scheme and provide information concerning function origin.
- Functional reference - Each diagram contains references to other functional diagrams by using a functional reference (box in brackets).
- Flow connection - lines connecting functions indicates only function flow and not a lapse in time or intermediate activity.

In the figure below, we can see an example of a FFBD, in which there are three distinct levels: the second level provides details of the block 4.0 (top level), and the third level zooms in the box 4.8. Note the consistent numbering through the levels. It is interesting, for the scope of the REBUILD project, the use of round operators OR and AND to denote the type of parallelism involved between concurrent tasks.

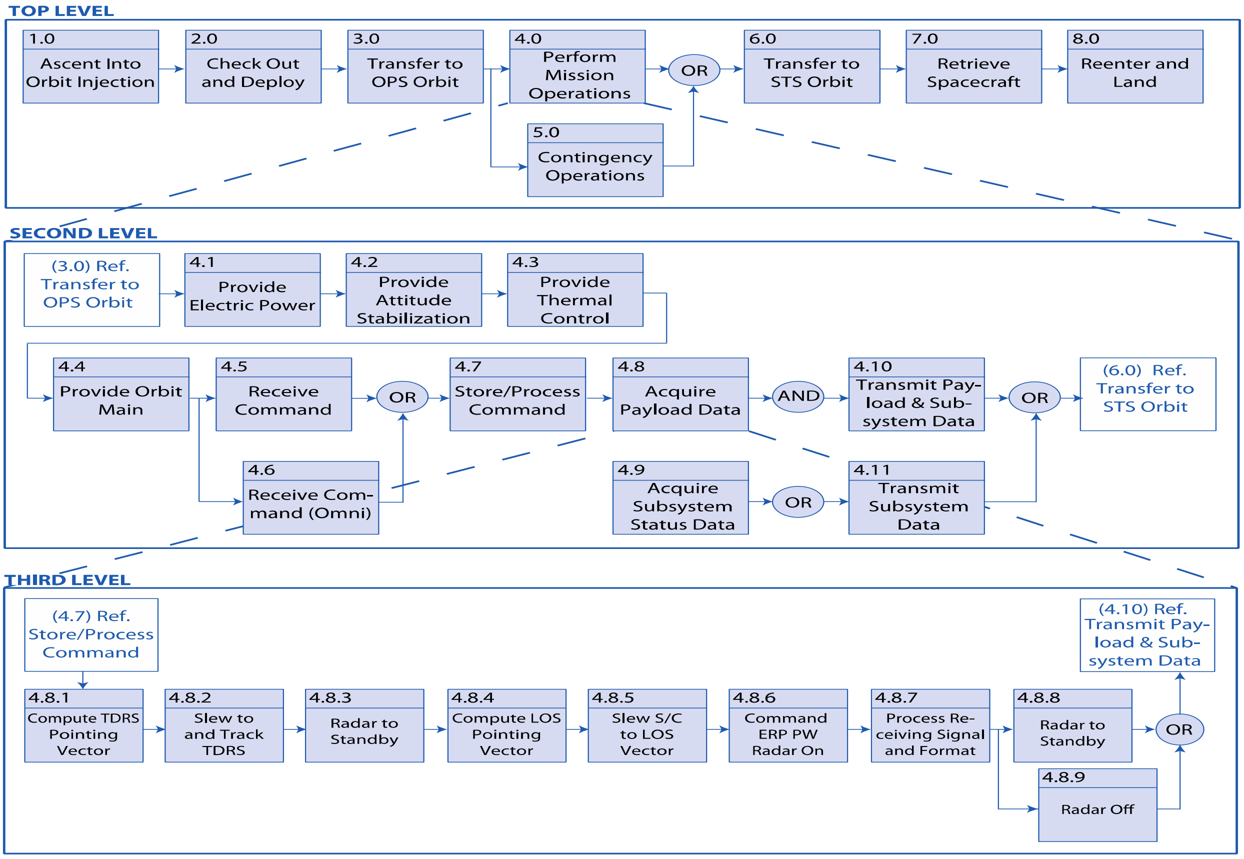

Figure 7 - An example of a FFBD, from NASA Systems Engineering Handbook

NASA uses the FFBD to document some of its processes.

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

3.2 REPPRESENTING THE PROCESSES IN THE REBUILD PROJECT

For the scope of the REBULD project we decided to represent the processes using flowcharts; our choice is based on several factors that include: 1) the flowcharts are, undoubtedly, the most simple among the proposed frameworks, and are easily readable by people without a technical training; 2) the flowcharts are the most diffused way of representing algorithms for programmers; 3) from the previous points it seems that flowcharts are suited in their role, inside the REBUILD project, of "cultural mediators": they provide a common ground in which a process can be easily represented by the partners of the REBUILD project, easily read by the interviewed people and, most important, easily understood by programmers in order to be implemented inside the Digital Companion.

So far, in the previous pages, we have presented the most common visual languages for formally describing a process. In this paragraph, we will provide a concrete example on which the questionnaires for the Italian service providers will be based.

The recent document "*Diritto di asilo e accoglienza dei migranti sul territorio*" from Camera dei Deputati describes the process of international protection in Italy. We report, in italian, the description of the process (adapted to include the recent modifications introduced by the Law 132/2018):

La primissima fase, antecedente alla accoglienza vera e propria, consiste nel soccorso e prima assistenza, nonché nelle operazioni di identificazione dei migranti, soprattutto nei luoghi di sbarco (art. 8, co. 2, D.Lgs. n. 142 del 2015). In base agli impegni assunti dallo Stato italiano nell'ambito dell'Agenda europea sulla migrazione, adottata nel 2015, tali funzioni sono svolte nelle aree c.d. hotspot (punti di crisi) allestite nei luoghi dello sbarco per consentire le operazioni di prima assistenza, screening sanitario, identificazione e somministrazione di informative in merito alle modalità di richiesta della protezione internazionale o di partecipazione al programma di relocation.

Ai sensi del decreto, tale funzione è svolta nei centri di prima accoglienza (CPA) o Centri di primo soccorso e accoglienza (CPSA) allestiti all'epoca dell'emergenza sbarchi in Puglia nel 1995 ai sensi del D.L. 30 ottobre 1995, n. 451, conv. da L. n. 563/1995 (cd. legge Puglia).

Fino alla riforma introdotta dalla legge 132/2018, l'accoglienza vera e propria dei richiedenti di asilo si articolava a sua volta in due fasi: la fase di prima accoglienza per il completamento delle operazioni di identificazione del richiedente e per la presentazione della domanda di asilo, all'interno dei c.d. centri governativi di prima accoglienza (art. 9) ed una fase di seconda accoglienza e di integrazione, assicurata, a livello territoriale, nelle strutture del Sistema di protezione per titolari di protezione internazionale e per minori stranieri non accompagnati (SIPROIMI), dove erano accolti coloro che avevano già fatto richiesta del riconoscimento della protezione internazionale (e anche coloro ai quali detto status era stato riconosciuto) e che non dispongono di mezzi sufficienti di sostentamento.

The above description can be translated, in English, into

> *The very first phase, prior to the actual reception, consists of first aid and assistance, as well as in operations to identify migrants, especially in landing sites (Article 8, paragraph 2, Legislative Decree No. 142 of 2015). Based on the commitments undertaken by the Italian State in the context of the European Agenda on Migration, adopted in 2015, these functions are carried out in the areas of the CD. hotspots (hotspots) set up at the landing sites to allow first assistance, health screening, identification and provision of information regarding the methods of requesting international protection or participation in the relocation program.*
> *According to the decree, this function is carried out in the first reception centers (CPA) or in the first centers rescue and reception (CPSA) set up at the time of the landings emergency in Puglia in 1995 pursuant to Legislative Decree October 30, 1995, n. 451, conv. from L. n. 563/1995 (so-called Apulia law).*
> *Until the reform introduced by the Law 132/2018, the actual reception of asylum seekers was in turn divided into two phases: the first reception phase for the completion of the identification operations of the applicant and for the presentation of the asylum application, within the CD government centers of first reception (art. 9) and a phase of second reception and integration, assured, at a territorial level, in*

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

the structures of the Protection system for holders of international protection and for unaccompanied foreign minors (SIPROIMI), where those who had already requested were welcomed of the recognition of international protection (and also those to whom said status was recognized) and who do not have sufficient means of support.

It is important, when documenting a process, to maintain both the original and translated description, to allow double checking of the process; the original text can be linked or annexed to improve the readability of the document.

From the above description, we can summarize the process into the following phases (in square brackets the location where each phase happens):

1. [@**HOTSPOTS**] First aid and assistance, where are performed three tasks:

   a) First aid
   b) Assistance
   c) Identification

2. [@**CPA** o @**CPSA**] First reception, where two tasks are performed:

   a) Completion of identification
   b) Presentation of asylum application

3. [@**SIPROIMI**] Second reception and integration, where are welcomed the people belonging to one of these groups:

   a. those who had already requested the recognition of international protection (transitional regime)
   b. holders of international protection and the holders of permit for special cases
   c. those to whom this status was recognized
   d. those who do not have sufficient means of support

Below we represent the above process with a simple flowchart in which we use, similarly to the FFBD, a round block to denote, respectively, all the parallel activities to be carried out (AND block) or mutually exclusive parallel activities (OR block). Note that it is not specified in the description, but it seems clear that, in the First reception phase, the completion of identification must be performed before the presentation of asylum application.

Thus, for the scope of the REBUILD project, a textual description of the process, together with a simple flowchart (enriched with the AND block if necessary) is definitely enough for the formal description of the process.

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

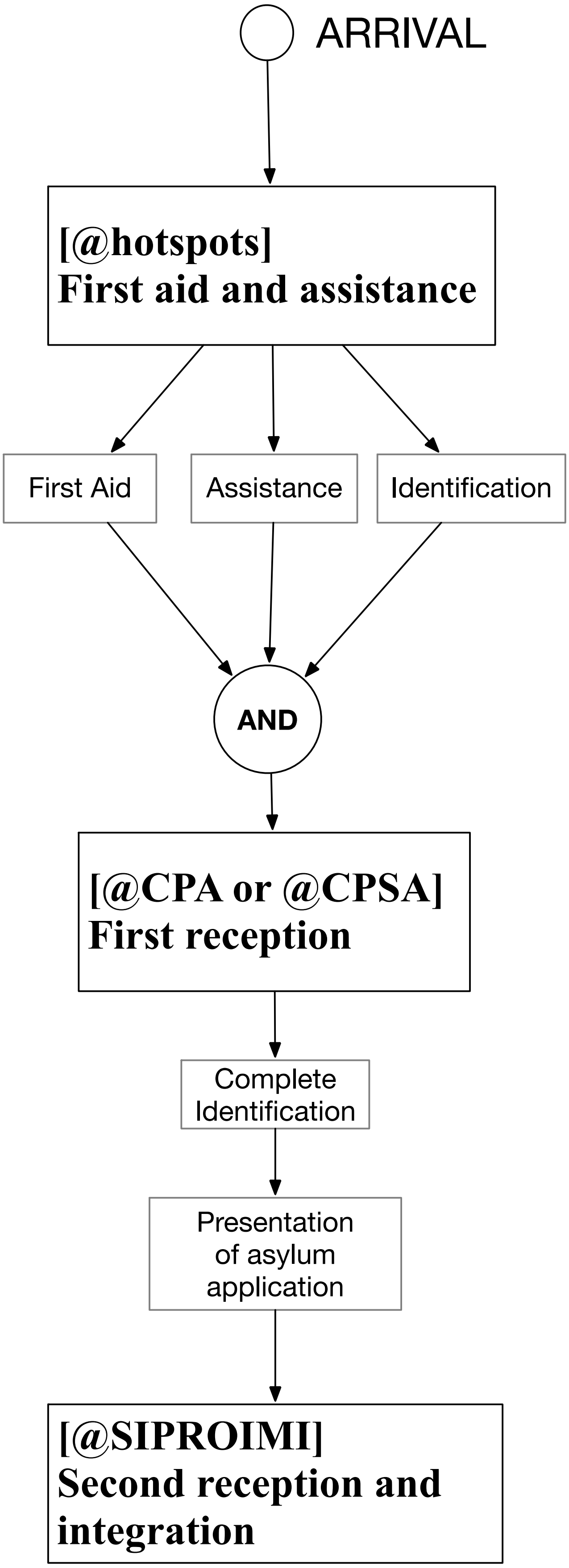

Figure 8 - A simple flowchart, enriched with the AND round block, to model the process of international protection in Italy, as reported in the document "Diritto di asilo e accoglienza dei migranti sul territorio" from Camera dei Deputati.

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

3.3 Algorithmic Tools for Modelling Processes

In this section we briefly discuss some tools that will be useful, in the development of the REBUILD Digital Companion, to reason about the processes. Indeed, the visual representations of processes described in the previous section do not provide algorithmic tools to represent a process inside a program; in order to represent a process, and to reason about its current state and what is the set of the possible future actions, we need to refer to mathematical models.

In particular, we briefly discuss graphs and hypergraphs, that are mathematical models useful in the modeling of the processes described inside the REBUILD project. It is important to emphasize that, despite the fact that we will see, in this section, some graphical representation of the models discussed, the models are to be implemented in the code inside the REBUILD platform, whilst the visual languages we have presented in the previous page are formal languages developed to represent a process. In other words, the visual models shown so far belong to a well-defined standard (BPMN V2.0 for BPMN) and, despite small graphical variations that can be due to the tool used to design them, are meant to be used consistently in process documentation.

The mathematical models that we discuss in these pages will be used in the implementation of the platform, and are visualized only to provide some examples.

3.3.1 Graphs

Graph theory is one branch of math, and it is devoted to the study of graphs, which are mathematical structures used to represent relations between objects. A graph is made by:

- Vertices, also called nodes or points
- Edges, also called links or lines

In the figure below, we can see an example of a simple graph. Note that the graph represented is not connected, indeed it has two connected components (left one, made of nodes A, B, C, and D, and the right one), where the intuitive notion of connectivity is defined as a group of nodes all mutually reachable. Some nodes, called articulation points, are the ones whose removal increases the number of connected components (for example, nodes B, G, H, and K in the graph below). The edge equivalent from the point of view of connectivity is the notion of bridge (for example, the edge between nodes G and H is a bridge).

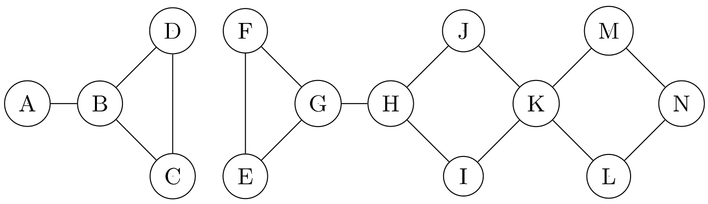

Figure 9 - An example of simple graph, divided into two connected components (the nodes A, B, C and D in the first one and all others in the second one)

If the edges have an orientation we are dealing with directed graphs, in this case the notion of connectivity is replaced by the strong connectivity, a group of nodes all able to reach to and be reached from all the others. In the figure below we can see an example of a strongly connected directed graph (left) and its components. In the case of directed graphs the notion of articulation points and bridges is more involved than undirected graphs.

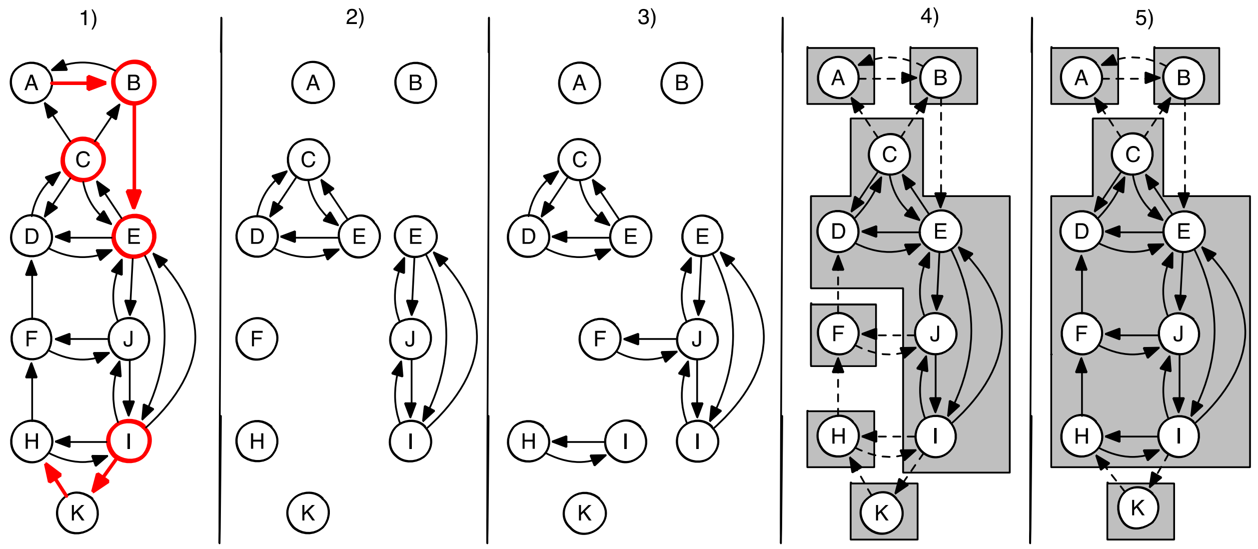

Figure 10 - 1) A strongly connected digraph G, with strong articulation points and strong bridges shown in red (better viewed in color). 2) The 2-vertex-connected components of G. 3) The 2-vertex-connected blocks of G. 4) The 2-edge-connected components of G.

A graph can be a mixed graph if includes both directed and undirected edges. For example, the graph shown below, where each edge is annotated, represents the relationships between the main characters of the novel Pride and Prejudice (and it can be seen as a simple knowledge graph).

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

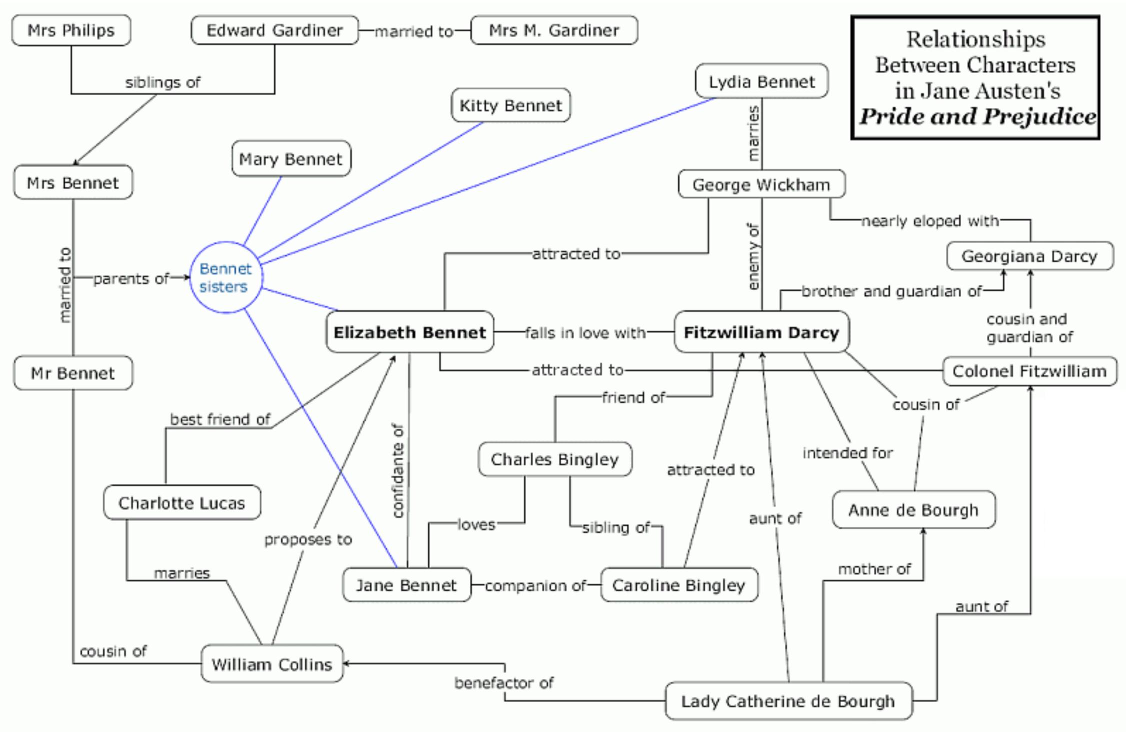

Figure 11 - A simple knowledge graph (Source: https://avikmaityindia.wordpress.com/2015/05/25/5/)

3.3.2 Hypergraphs

The graphs described in the previous section have a problem in the modelling of processes: it is not possible to represent two parallel activities that need to be completed both before starting a third one.

Since we are interested in modelling a process, we consider only Directed Hypergraphs (DH), that are a natural generalization of digraphs. A DH consists of a set of vertices V and a set of hyperarcs H, where a hyperarc is a pair < S, v >, S non empty subset of V and v ∊ V. In other word, an hyperarc is an arc that goes from a subset of the vertices to a vertex (there are several variants of DF, but for our scope this is general enough). DHs have a variety of applications: they have been used to represent functional dependency in databases, Horn formulae in propositional logic, and-or graphs, context free grammars etc.

In the figure below we can see a simple Directed Hypergraph.

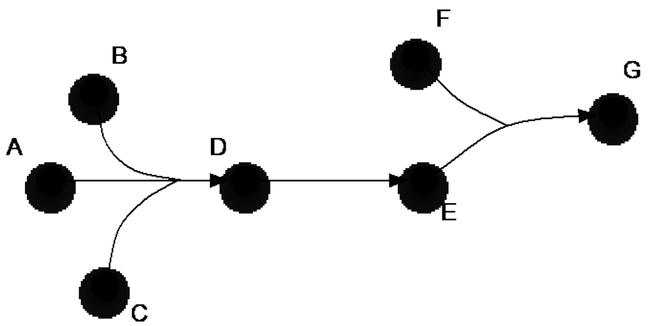

Figure 12 - A simple Directed Hypergraph. If the nodes represent the task to be performed; for example, you have to performed the task D before the task E and the tasks E and F before the G one.

Note that, using this representation, it is clear that (assuming that each node represents a task) tasks A, B and C must all be completed before doing task D. In turn, task D must be completed before E, that together with task F must be completed before the last task G. As already mentioned, directed

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

hypergraphs are a mathematical model, for which efficient algorithms have been proposed in the literature; see for example the paper of Ausiello and Laura (2005) for a survey.

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

4 DATA COLLECTION

As previously mentioned, the objective of this document (Deliverable 2.1) is the definition of a common methodology for analysing the existing service provision flow, involving local service providers (as defined in the Introduction) in Italy, Greece and Spain and specifically in the project pilot areas. In the previous section, in order to describe the services in a uniform way, we offered an overview of the graphical and expressive modes of representation of the processes.

In order to get a uniform representation of the provision of the services in the identified contexts (cfr. Table 1) is essential to have: 1) complete information overview of the workflow and 2) for each service, for each provider, for each country / region involved, get all the information related to the service provision chain.

The first item, i.e. a complete information overview of each national workflow, is the process that we aim to be represented, in a formal way, using the Flowchart. We will refer to this process as the macro-process, and represent it with a Flowchart.

Since there is no common procedure in Europe for migrants reception, in order to gather information in the most consistent way both among the various countries involved in the project (Italy, Greece and Spain) and, for future developments, among all the European countries, we decided to prepare, for each "general" phase of the service provision, a small questionnaire, customized to the phase.

We remind that among the results of this activity (Task 2.1) it is envisaged a report on the needs and deficiencies analysis at the level of the local authorities, of the NGOs and of the public service providers; in order to supply a consistent analysis of the various countries, those currently involved in the project as well as of all the Member Countries, it is essential that the data are collected in a homogeneous way. For these reason, questionnaire templates has been prepared. Questionnaires are structured in three Sections:

1. Section 1 is about information about the organization/institution interviewed, and mapping it in terms of Services Provided and Phases of Reception it actually operates;
2. Section 2 provides a set of service-specific questionnaires; interviewers will use the ones relevant for the interviewed institution/organization, according to the services actually provided;
3. Section 3 provides a small set of closing questions, aiming at analysing needs and expectations Local Service Providers could have from the foreseen REBUILD toolbox.

The answers to each questionnaire, given by local service providers, represent the description of the specific sub-processes, whereas the main process is the one that is regulated by each country. For example, in the case of Italy, the overall process is the one that is described in the document "*Diritto di asilo e accoglienza dei migranti sul territorio*" of the Camera dei Deputati and modelled in *Figure 7* through a simple flowchart.

Now, assume we are interviewing a service provider that operates in the last phase, i.e. integration. From the questionnaire, we find out that, for a very basic example, in order to enroll his son to a school a migrant must provide both a birth certificate and a certificate about a mandatory vaccine. This information is gathered in a textual form in the interview, and later turned into a flowchart, shown below (micro-process).

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

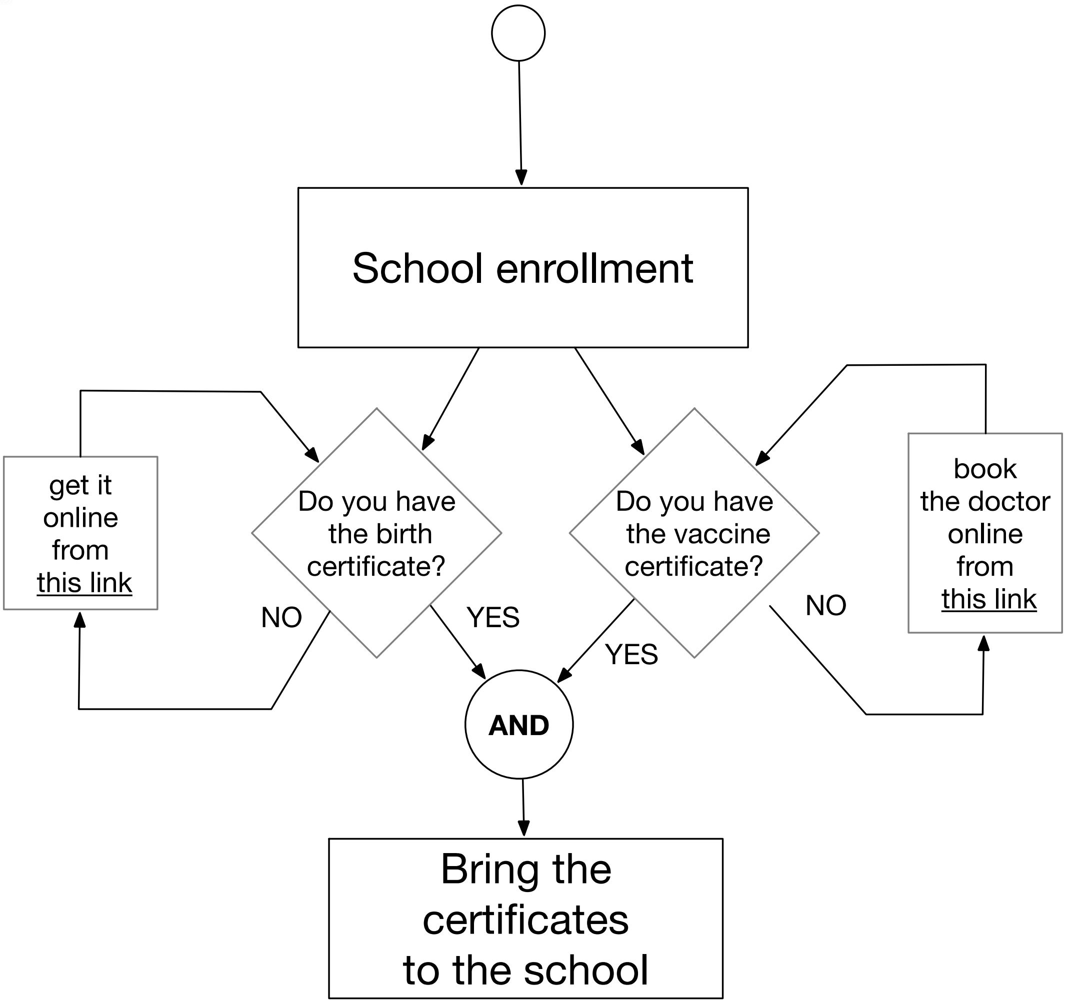

Figure 13 - Flowchart of a simple micro-process

The above collected information will be used, in WP4, to develop the REBUILD Digital Companion. Below we show an example of a dialogue between the REBUILD bot and a user that wants to enroll his son to the school.

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

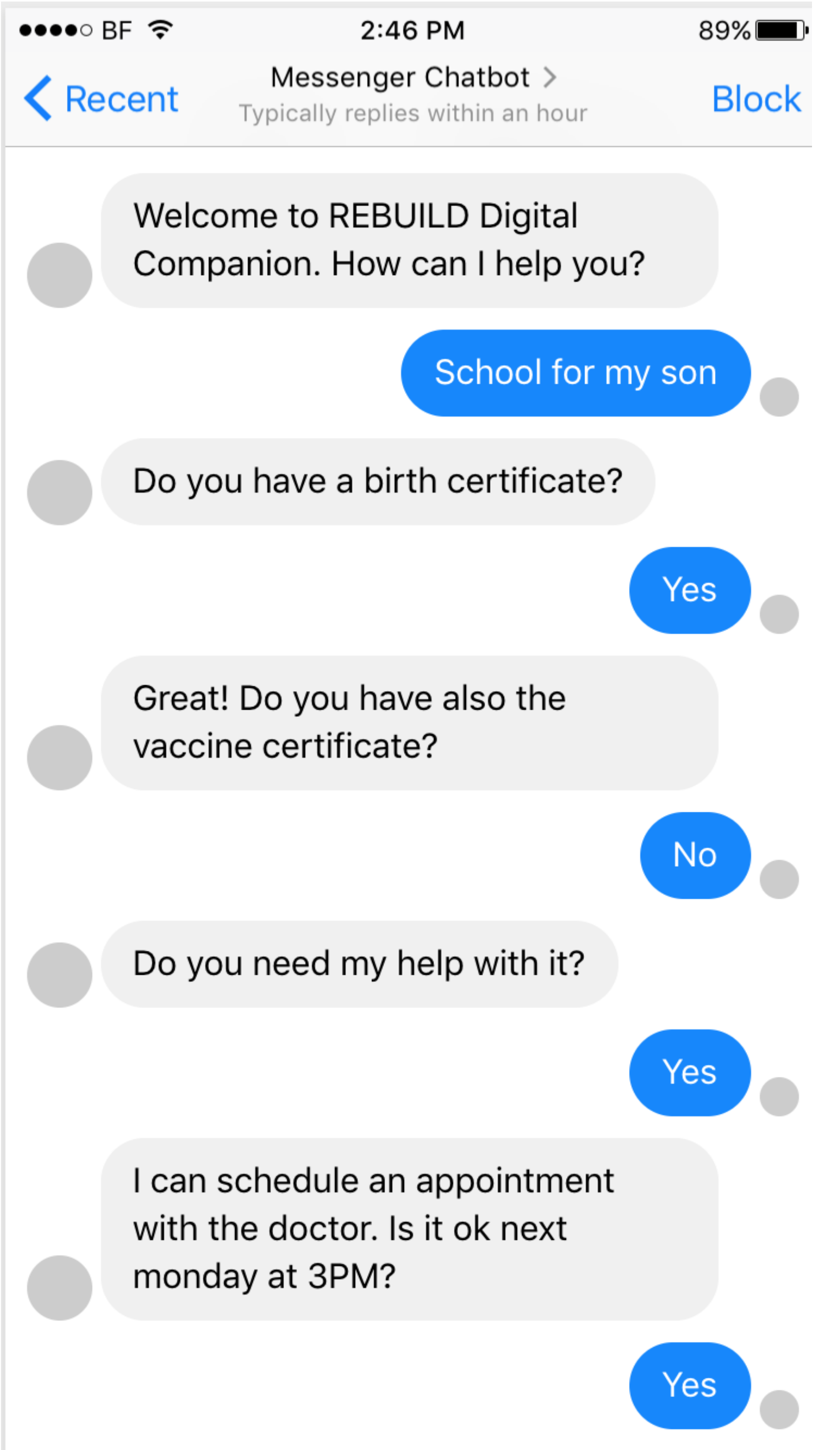

Figure 14 - An example of a dialogue between the REBUILD Digital Companion bot and a user.

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

5 KIT FOR THE INTERVIEWS

5.1 OBJECTIVES

As anticipated in the previous sections, the main objective of this kit is to lead the interviews that will be conducted in the next phase of Task 2.1 for producing proper results in Deliverable D2.2, and specifically:

1. To map the sub-processes composing the different services provided. Specifically, Task 2.1 aims to obtain information about the service provision flow for each service mapped, including actors, steps, needed inputs and expected outputs for each step foreseen in the service provision;
2. To achieve a comprehensive outlook from the service providers about the effectiveness of the processes, and an opinion from them about the possible obstacles encountered by refugees/migrants in using these services;
3. To gather information from local service providers about needs and gaps in the service provision, for each service analysed; and their expectations about possible support that the foreseen REBUILD ICT toolbox will be able to provide to local service providers.

In addition, the objectives of this tool are also to collect information, which will be processed in D2.2 and that will serve to:

- gather information and a representation of the provision flow, useful to prepare the materials that will be shared and tested during the Co-Creation Workshops (Task 2.2), and provide inputs for the design and development of the App (WP3, WP4, WP5).
- present the situation perceived at local level (by direct service providers) to higher level stakeholders, relying on these latter for further information on needs and gaps. This particular aim will be pursued in the project phases in which they will be involved (specifically, Task 9.2).

5.2 PARTICIPANTS

As already mentioned, the interviews will be administered to Local Service Providers, meaning public administrations, NGOs, volunteer organizations acting at local level providing direct support to refugees/migrants, as defined in Chapter 1 – Introduction, for accessing the services analysed in this task.

At least 20 different institutions/organizations will be interviewed, covering all the services listed, in the 3 pilot countries, at different reception stages.

5.3 KIT RATIONALE AND STRUCTURE

The Kit for the Interviews is composed by a set of questionnaires structured in 3 sections as described below. The core section, Section 2, aims at mapping the service provision flow for each service provided at local level. We produced one interview kit administrable in both the 3 pilot regions in order to gather comparable information; to analyse possible common implementation for REBUILD ICT toolbox; and to define which pilot-specific features should be implemented in the design and development of the ICT toolbox.

Service categories and specific questions are the results of a literature research focusing on:

- EU-level regulations and directives on service provision to refugees, asylum seekers and other migrant categories as specified in Table 1, Chapter 2 of this document;

- International reports about country specific provision of services for refugees/asylum seekers (as AIDA – ECRE Country reports for Greece[5], Italy[6], and Spain[7]);
- Desk research on websites of NGOs / Volunteering organization providing services to migrants/refugees in the 3 pilot areas and countries.

The proposed template, furthermore, is the result of the activity of working team including, among others, researchers, professors and with the essential contribution of the operators, who are themselves refugees, working in the field of reception and cultural mediation (including UNINETTUNO students benefitting from the initaitive "University for Refugees – Education without Boundaries"). This working team was, thus, able to take into account both purely legal and regulatory aspects as well as the practical experience of first and second reception, thus applying co-creation approaches since the identification of the survey tool.

Interview templates are structured in 3 different sections:

Section 1 is about **information about the organization/institution interviewed**, and mapping it in terms of Services Provided and Phases of Reception it actually operates; it contains only 5 items; the first three items (Type, Name, Website of the organization/institution) can be compiled directly by the interviewer before the interview; while the other 3 (Reception/Integration Phases managed by the organization/institution, services provided, presence of specific training programs for interculturalism for employees of the institutions, organizations) are information to be provided directly by the interviewed.

Section 2 provides a set of **service-specific sub-questionnaires**; interviewers will use the ones relevant for the interviewed institution/organization, according to the services actually provided.
Each service is matched with the list of services the beneficiary population as described in the Chapter 1 – Introduction of this document is entitled to receive according to EU Directives (see Table 1 in Chapter 2).
Each service is on its own a group of subservices; for example, "Education and Training" services can be provided by Local Service Providers to migrants through

- direct provision of vocational training course,
- support in accessing National Education System,
- provision of scholarships
- afterschool homework support

Interviewers will map each subservice actually provided by the interviewed organization, in order to collect information about:

7. Elements "triggering" the service provision;
8. Criteria and prerequisites for accessing the service;
9. Steps to go through for accessing the service;
10. Main obstacles encountered by users in the experience of Local Service Providers;
11. Supporting systems and procedures of LSPs to overcome these obstacles;
12. Possible synergies with other organizations or institutions linking different services or different steps in the same service provision.

Section 3 provides a small set of closing questions, aiming at analysing **needs and expectations Local Service Providers could have** from the foreseen REBUILD toolbox, and specifically:

- Which kind of information they would need about new users that actually cannot access to;
- If they can report experience of ineffective digitalization of processes/services;
- Which process/service/step they would improve through ICT technologies if they can choose;

[5] Konstantinou, A., Georgopoulou, A. (2019) Country Report: Greece. ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_gr_2018update.pdf
[6] Bove, C. (2019) Country Report: Italy. ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_it_2018update.pdf
[7] Queipo de Llano, M., Zuppiroli, J. (2019) Country Report: Spain. ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_es_2018update.pdf

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

- Which kind of information/reporting would be useful for them from an app such REBUILD ICT toolbox will be.

5.4 Interviews administration

Researchers commonly rely on face-to-face interviewing when administering semi-structured and in-depth questionnaires. Telephone interviewing is typically seen as applicable to short questionnaires or in very specific situations (Harvey, 1988; Rubin & Rubin, 1995). However, it is important to note that respondents interviewed about sensitive topics may choose telephone versus face-to-face contact with the researcher (Sturges & Hanrahan, 2004). One positive aspect of telephone interviewing is that it is less time consuming, guarantee a higher level of privacy, and it is less intellectually and emotionally demanding. Moreover, telephone interviewing may offer an opportunity to acquire data from potential participants who are indisposed to take part in face-to-face interviews. Most, importantly, several studies have demonstrated no significant differences in responses obtained in face-to-face vs. telephone administration (Cresswell, 1998) since essentially the same amount and quality of data were gathered regardless of the method employed.

For these reasons, the questionnaire will be administered either in face-to-face or in telephone modality, depending on the actual preference of the respondent and on the conditions the interviewer will face (excessive geographical distance; paucity of time, maximization of resources, etc.).

Specific indications for the interviewers within the Interviews templates are provided in italic text in angle brackets, in the format <*indications for interviewers*>.

5.5 Guidelines for the interviewers

Interviewers should introduce the questionnaire by briefly explaining the purpose of the survey, the importance of the respondents' participation, and clearly stating confidentiality and anonymity. They should do all in their possibilities to set the interview in a comfortable room, limiting interruptions and distractions.

Moreover, interviewers should give the respondent their full attention and avoid skipping questions or altering the order of the questions (Bowling, 2005).

They also should to allow clarification of ambiguities if the respondent needs explanations about the questions or about the questionnaire in general and maintain motivation of the respondent. The interviewer should thy and minimize any excess of positive responses due to an acquiescence bias, also monitoring the tendency to check the response choices nearest to the question. In such cases, the interviewer could ask whether the respondent needs clarifications or needs more time to respond. Moreover, interviewers should to appear and sound neutral, showing no opinion or prejudice on the interviewed person nor on the subject of the questionnaire. No personal opinions are allowed, expressed verbally and non-verbally. The respondent should have a reasonable amount of time to complete the survey and, preferably, the interviewer should clearly declare how much time is expected to end the questionnaire (based on previous experience and pilots).The interviewer should know the questionnaire very well and should be able to give information and clarifications without having to read the survey. Besides, he/she should not take notes unless it is explicitly required by the methodology and in any case note-writing should always be declared to the respondent, who should be informed about the finality of the note-taking.

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

SECTION 1 - ORGANIZATION/INSTITUTION IDENTIFICATION

<First three items can be filled in by the interviewer before the interview>

Organization / Institution type:

- ☐ Local Public Body/Entity
- ☐ NGO
- ☐ Private organization

Full Name of the Institution

____

Website

____

Reception Phase the Organization/Institution is involved in (if applicable)**:**

- ☐ First assistance
- ☐ First Reception
- ☐ Second Reception (if applicable)
- ☐ Integration

Please mark the services for migrant/refugees/asylum seekers provided or managed by the organization/institution:

- ☐ [1] Legal Services (Information about rights and duties according to their status, Residence permits; Freedom of movement within the Members States / Travel Documents)
- ☐ [2] Access to Employment (including access to procedures for recognition of qualifications)
- ☐ [3] Access to Education / Training
- ☐ [4] Healthcare
- ☐ [5] Accommodation / Housing
- ☐ [6] Living Conditions (Maintaining family unity, Access to integration facilities, Social Welfare)

Does your staff/volunteers/teachers etc. attend training programs related to interculturalism and cultural sensitivity?

____

____

____

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

SECTION 2 – SERVICE-SPECIFIC QUESTIONNAIRES

[Q1] Information about rights and duties and Legal Services

[Q1.1] Please mark the service actually provided by your organization

- ☐ Residence permit (issue and renewal)
- ☐ Supporting access to the Reception Centre for Asylum Seekers
- ☐ Information about services available locally
- ☐ Supporting the issue of travel documents
- ☐ Family reunification
- ☐ Support to Applicants (for international protection status)
- ☐ Other (please specify) ____

[Q1.2] Are these services offered "by default" and proactively to all the people assisted by your organization (and entitled to receive that specific service)? Or, does the organization react to a specific request of the user?

____

____

____

[Q1.3] Are there specific prerequisites for users to access these services?

____

____

____

[Q1.4] For the services your organization provides, which level of support/service provision is offered?

- ☐ Information
- ☐ Support during the process
- ☐ Full service provision

<If the organization provides more than one service, please map each of them according to the 3 options above>

[Q1.5] Are there variables not directly depending upon the service provision that affect the capacity to provide the service? Such as: number of requests, paucity of resources, availability of professionals, etc.

____

____

____

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

[Q1.6] Can you please describe the steps that a person entitled to be assisted will go through when supported by your organization?

____

____

____

[Q1.7] In your experience, what are the most complicated steps to face for users attempting to use this service? Where users typically "drop out" from the process?

____

____

____

[Q1.8] How does your organization/institution usually help users to overcome these difficulties?

____

____

____

[Q1.9] *<checking the existence of follow up processes>* Does your organization continue to monitor users after they received your assistance?

____

____

____

[Q1.10] How does your organization manage cultural and linguistic issues in the provision of these services? (documents and forms available in multiple languages; language/cultural mediators supporting users during the process; digital / web based information in multiple languages; etc.)

____

____

____

[Q1.11] Taking in consideration your experience on the field, what are the major needs expressed by migrants (independently of a particular category)?

____

____

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

[Q2] Access to Employment

[**Q2.1**] Which kind of service is your organization providing for supporting the access of migrants/refugees to the labor market?

- ☐ Job search support
- ☐ CV writing / Job profiling
- ☐ Professional training courses search
- ☐ Internships search
- ☐ Request for the unemployment certificate/registration at Employment Centres
- ☐ Administrative support for employment
- ☐ Business start-up; access to financing and microcredit
- ☐ Recognition of study titles
- ☐ Professional qualifications/certifications recognition
- ☐ Empowerment / Career path building
- ☐ Other (please specify) ____

[Q2.2] What are the prerequisites to access your services?

____

____

____

[**Q2.3**] Can you please describe the steps that a person interested in accessing this service will follow if supported by your organization?

____

____

____

[**Q2.3**] In your experience, what are the most complicated steps to face for users attempting to use this service? Where users typically "drop out" from the process?

____

____

____

[**Q2.4**] How does your organization/institution usually help users to overcome these difficulties?

____

____

____

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

[**Q2.5**] Does your organization foresee follow-up processes?

- ☐ Yes
- ☐ No

<If yes>

[**Q2.5.a**] What type of follow-up?

____

____

[Q2.6] For how many times a migrant/refugee is entitled to receive support in finding employment?

____

[**Q2.8**] Has your organisation established partnerships with the national Employment Services or private job-search agencies?

- ☐ Yes
- ☐ No

<If yes>

[**Q2.8.a**] With which organizations?

____

____

____

[**Q2.9**] Does your organization connects directly refugees/migrints with local job offers?

If yes, how many job seekers got an inteview?

How many of them managed to get a job?

How do you receive job placement information? Peers, internet, job announcement platform?

How do you distribute information about job opportunities?

____

____

[**Q2.9.a**] What type of services?

[Q2.10] Do you use standard / international frameworks for qualification, recognition, job profiling, job matching? (EQF, EuroPass, ESCO)

<only for organization providing professional qualification recognition>

[Q2.11] In your experience, what are the most complicated steps to face for users attempting to have their qualifications recognised?

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

[Q3] Education And Training

[**Q3.1**] Does your organization provide support in accessing the national education system?

- ☐ Primary school [Yes] [No]
- ☐ 1st Grade/Lower Secondary school [Yes] [No]
- ☐ 2nd Grade/Higher Secondary school [Yes] [No]
- ☐ Higher Education [Yes] [No]

<If the Organization/Institution is supporting parents or young/adults in accessing the National Education System>

[**Q3.1.a**] Which kind of support service is your organization providing?

- ☐ Administrative support (documents, procedures)
- ☐ Translations of existing documents
- ☐ Preparatory courses for admission
- ☐ Support in recognition of study titles
- ☐ Other (please specify) ____

[**Q3.1.b**] Can you please describe the steps that a person interested in accessing this service will follow if supported by your organization?

____

____

____

[**Q3.1.c**] In your experience, what are the most complicated steps to face for users attempting to use this service? Where users typically "drop out" the process? Apart from the possible problems you recalled, do you consider an alternative approach for people that drop out due to the fact that they are not able to read and write even in their mother tongue?

____

____

____

[**Q3.1.d**] How does your organization/institution usually help users to overcome these difficulties?

____

____

____

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

[**Q3.2**] Does your organization directly provide migrants and refugees training or educational programs? Please specify:

- ☐ Language training
- ☐ Preparation for driver license exams
- ☐ Afterschool homework support for students
- ☐ Vocational/Professional Training
- ☐ Civic education
- ☐ Specific competence-centered projects
- ☐ Creative expression programs for social and emotional skills
- ☐ Other (please specify) ____

<If yes, the interviews should focus on describing the process through the next questions>

[Q3.2.a] How are participants usually selected/recruited/admitted to these training programs/initatives? *(i.e.: all persons we follow participate in some of these programs; the participant should request to be admitted; some of them are selected for pilot programs, based on which criteria; etc.)*

____

____

____

[Q3.2.b] Are training programs and scheduling available on your website? How are refugees/migrants usually informed and updated about your training offer and provision?

<REBUILD app could integrate an information/notification system for refugee students enrolled in those programs>

____

____

____

[Q3.2.c] Do training courses/programs you offer lead to a certification/qualification? Which of them?

____

Is final exams/assessment performed within your organization, or by an external organization?

____

Are there prerequisites to be admitted to the exam?

____

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

[**Q3.3**] Are there established synergies among Education/Training services you offer, and other supportive services provided by your organization? Such as social support-building activities (excursions, sport …), Psychological assessment/support, etc.

<If yes, interviewer should focus on possible links among these activities and training/education programs >

____

____

____

[Q3.4] Are other Educational Institutions (of any grade) interacting with services provided by your organization for supporting migrants/refugees study path?

<If yes, how this "links" among different service providers is actually working should be investigated >

____

____

____

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

[Q4] Healthcare

[Q4.1] Please mark the health service actually provided by your organization

- ☐ Direct medical assistance
- ☐ Cultural mediator support for medical services (interaction with doctors)
- ☐ Information and orientation for accessing National H. System
- ☐ Medication supply
- ☐ Psychological assessment/support
- ☐ Referral to external entities
- ☐ Gender-specific services
- ☐ Other (please specify)____

[Q4.2] Does your organization rely on *standardized* procedure for the assessment of healthcare needs (questionnaires, interviews, observations, etc.)? if yes, which standardized procedures are employed? Are they validated for the target populations?

____

____

____

[Q4.3] Is your organization able to provide intervention for acute problematic situations (medical emergencies, psychiatric emergencies)?

____

____

____

[Q4.4] Does your organization provide The Technical Instructions for Medical Examination of Aliens (TIs)

____

____

____

[Q4.5] Does your organization foresee follow-up processes?

____

____

____

[Q4.6] Can you please describe the steps that a person needing healthcare will go through when supported by your organization?

____

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

[Q4.7] In your experience, what are the most complicated steps to face for users attempting to access to medical care /healthcare services?

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

[Q5] Accommodation / Housing

[**Q5.1**] What type of accommodation service do you provide?

- ☐ Direct accommodation provision
- ☐ Support for accessing to accommodation

[**Q5.2**] Which kind of accommodation are you able to provide to refugees and migrants entitled? (shared accommodation; individual accommodation with shared facilities; etc.)

____

____

____

[Q5.3] How is your accommodation program funded?

____

____

____

[**Q5.4**] What are the criteria that are taken into consideration in providing accommodation? (i.e.: square meters per number of family members; family with children; health conditions; cultural differences; protection of most vulnerable individuals; etc.)

____

____

____

[**Q5.5**] Can you please describe the steps that an individual/group/family will go through for accessing an accommodation when supported by your organization?

____

____

____

[**Q5.6**] Once the accommodation is assigned, can individual/group/family report issues or needs? (facilities/appliances malfunction, specific needs related to new events/healthcare conditions, etc.) And how?

____

____

____

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

[**Q5.7**] If the individual/group/family is going to be moved to another accommodation, does your organization provide support during this process? If yes, what kind of support?

____

____

____

[**Q5.8**] In your experience, what are the issues emerging more frequently in the accommodation provision process (for instance during the moving from the place of first reception to the place of second reception)?

____

____

____

[**Q5.9**] How does your organization help overcoming these issues?

____

____

____

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

[Q6] Living Conditions

[Q6.1] Please mark the service actually provided by your organization

- ☐ Support to maintaining or obtain family unity
- ☐ Support to integration facilities
- ☐ Support to social welfare
- ☐ Economic support / daily allowance / vouchers for super markets / transportation tickets
- ☐ Help community members develop relationships across racial, ethnic and linguistic lines
- ☐ Social support-building activities (sport, excursions, civic participation, volunteering)
- ☐ Other (please specify) ____

[Q6.2] Are these services offered "by default" and proactively to all the people assisted by your organization (and entitled to receive that specific service)? Or, does the organization react to a specific request of the user?

____

____

____

[Q6.3] For the services your organization provides, which level of support/service provision is offered?

- ☐ Information
- ☐ Support during the process
- ☐ Full service provision

[Q6.4] Can you please describe the steps that a person interested in accessing this service will follow if supported by your organization?

____

____

____

[Q6.5] Why do refugees/migrants drop out from these activities, if they do? Are there specific factors influencing the effectiveness of the activities?

____

____

____

[Q6.6] How does your organization/institution usually help users to overcome these difficulties?

____

____

____

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

[Q6.7] Does your organization foresee monitoring and continuous improvement plans for the proposed activities?

____

____

____

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

SECTION 3 – CLOSING QUESTIONS

(for all service providers)

[CQ1] Which kind of (currently unavailable) information about individuals accessing to your services could be useful to improve the effectiveness of the service provision?

____

____

____

[CQ2] Are there existing ICT-supported processes in your organization? Did the digitalization impact positively on service effectiveness?

____

____

____

[CQ3] In your opinion, which are the services or processes in your organization that can be improved through digital technologies?

____

____

____

[CQ4] REBUILD has the ambition to develop an application able both to provide support for accessing to service for migrants/refugees, and to gather and elaborate data and information, providing knowledge in form of charts, statistics, infographics for public administration and service providers.
In your opinion, which information coming from REBUILD could be the most relevant for your organization?

____

____

____

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

6 REFERENCES

Ausiello, G., Laura, L. (2005) *Algorithmic research for the 21st century* Shangai Forum Antology, pages 31–50, Shangai, CH: Fudan University press

Bove, C. (2019) *Country Report: Italy*. ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_it_2018update.pdf

Bowling, A. (2005) *Mode of questionnaire administration can have serious effects on data quality.* Journal of public health, 27(3), 281-291.

Creswell, J.W. (1998) *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks, CA: Sage.

Dixit, J.B. (2005) *Fundamentals of Computer Programming and Information Technology.* New Dehli, IN: Laxmi Publications

Harvey, C.D. (1988) '*Telephone Survey Techniques*', Canadian Home Economics Journal 38(1): 30–5.

Konstantinou, A., Georgopoulou, A. (2019) *Country Report: Greece*. ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_gr_2018update.pdf

Queipo de Llano, M., Zuppiroli, J. (2019) *Country Report: Spain.* ECRE - European Council on Refugees and Exiles (Eds.) Brussels, BE: Asylum Information Database. Retrieved from: https://www.asylumineurope.org/sites/default/files/report-download/aida_es_2018update.pdf

Rubin, H.J. and Rubin, I.S. (1995) *Qualitative Interviewing: The Art of Hearing Data*. Thousand Oaks, CA: Sage.

Sturges, J. E., & Hanrahan, K. J. (2004). *Comparing telephone and face-to-face qualitative interviewing: a research note. Qualitative research*, *4*(1), 107-118.

LEGAL REFERENCES

Consolidated Version of the Treaty on European Union, in O.J. C 326, 26.10.2012, at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2012:326:FULL&from=EN

Consolidated Version of the Treaty on the Functioning of the European Union, in O.J. C 326, 26/10/2012, at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2012:326:FULL&from=EN

Directive 2001/55/EC of the Council *on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof* in OJ L 212/12, 7.8.2001, at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0055

Directive 2011/95/EU of the European Parliament and of the Council *on standards for the qualification of third-country nationals or stateless persons as beneficiaries of international protection, for a uniform status for refugees or for persons eligible for subsidiary protection, and for the content of the protection granted* in

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

OJ L 337/9, 20.12.2011, at https://eur-lex.europa.eu/legal content/EN/TXT/PDF/?uri=CELEX:32011L0095&from=EN

Directive 2013/33/EU of the European Parliament and of the Council *laying down standards for the reception of applicants for international protection* in OJ L 180/96, 29.6.2013, at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013L0033&from=EN

European Commission, *A European Agenda on Migration*, COM(2015) 240 final, 2015, at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0240&from=EN

European Council, *The Hague Programme* (2004) in OJ C 53/1, 3.3.2005, at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2005:053:0001:0014:EN:PDF

European Council, *The Stockholm Programme* (2009) in OJ C 115/1, 4.5.2010, at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:115:0001:0038:EN:PDF

European Council, *Tampere Council Conclusions*, 1999, at https://ec.europa.eu/anti-trafficking/eu-policy/tampere-council-conclusions-1999_en