Deliverable 2.1

Research and Concepting Plan

Documented plan and interview agenda

Lead Partner	Proges
Authors	Lorenzo Lasagna (Proges)
Contributors:	Kelly Verheyen (Licalab)
Date:	22.02.2017
Revision:	1.0
Dissemination Level	Public

Project Acronym:	NOAH
Project full title:	NOAH Not Alone At Home
AAL Project Number:	AAL-2015-2-115
With Support of:	

European Commission

AAL PROGRAMME

Noah Project

Tel. +39 0521905828
info@noahproject.eu

University of Parma www.noahproject.eu
Parco Area Delle Scienze
181/a 40124 Parma, ITALY

Introduction

This deliverable describes the very first move towards the co-creation sessions of Noah services and applications, and the actions have to be taken for an effective insight of the target's needs.

Before involving any stakeholder into the co-creation process, each pilot national group will take 5 steps:

1. Modelling the national markets features (to map all the stakeholders that will likely play a relevant role in the spread of the service)
2. Identifying the target(s)
3. Mapping the needs
4. Fixing the Persona scenarios (target definition)
5. Setting an interview agenda

1. National markets insight

Any action plan about implementation, development and commercialisation of technological devices has to be aligned to the different national frames and markets. The first step of the potential user's needs insight will be the recognition of the national frameworks with particular regard to:

- Widespread of eHealth practices, devices and applications.
- Existing offer in eHealth services (competitors' tracking).
- Elderly's cultural approach to technology.
- Status of public spending in the Health and Social care systems.
- Status of out-of-pocket spending.
- National regulatory frameworks in eHealth sector.
- Privacy and ethical-related constraints.

The recognition will represent the starting point for the implementation of the co-creation groups (at least one group for each national pilot site), and the basis for the business model definition.

2. Target identification

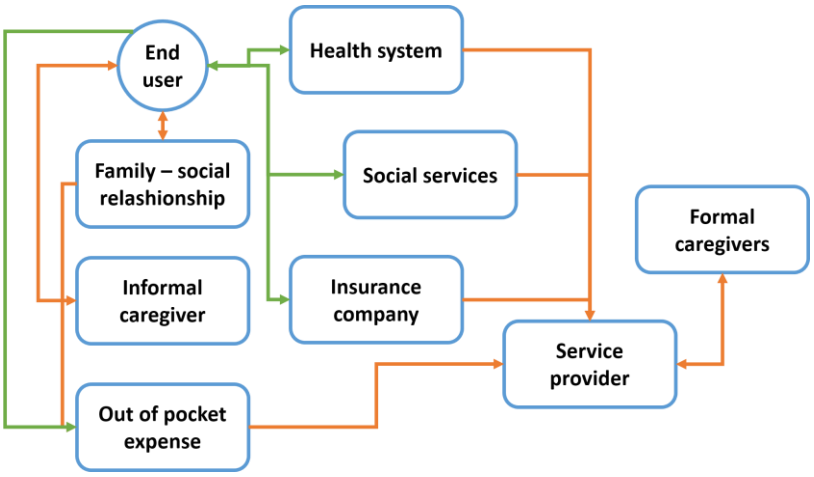
The second step require the focusing of the main target of the project. According to the project proposal, Noah's general audience can be preliminary identified in almost-fit elderly people, not suffering from major medical conditions or severe disabilities, dealing with (or being at risk of) age-related issues, including frailty, mild mental health ailments and cognitive decline. The proposal mostly focuses on elderly living alone, who represent a growing fraction of the elderly population and are likely to get the most benefit from the proposed technique (from the final proposal).

Of course, this general target could be divided into many others, with huge difference about skills, behaviours, quality of needs and expectations, and with significant consequences on the use-case scenarios. So, before defining the use case scenarios and starting the co-creation sessions, it will be necessary to narrow or to segment the target into specific groups.

In any case, segments of target have to be: Measurable (profiles can be measured), Accessible (can be effectively reached), Substantial (relevant, large enough), Differential (well-shaped in their characterizations), Actionable (served by effective programs).

Furthermore, it's clear that the end user is not the only audience to be considered. A wide number of different stakeholders play a relevant role in the caregiving setting, and their involvement will be a key factor in use-case definition.

The spectrum of situations potentially included in the original end-user categorization, covers a large numbers of cases, from the 'fit elderly' (people in good health with solid and significant social relationships) to the 'impaired ones', that normally lie into a public or private (or mixed) caregiving network. Such caregiving networks, in addition to "traditional" institution (i.e. health system and social services), may include private figures like insurance companies and many others. Of course, the scenarios may slightly vary depending on the national health and social care system, but they share most of the context. Such ideas, emerged from a dedicated meeting, are sketched below.



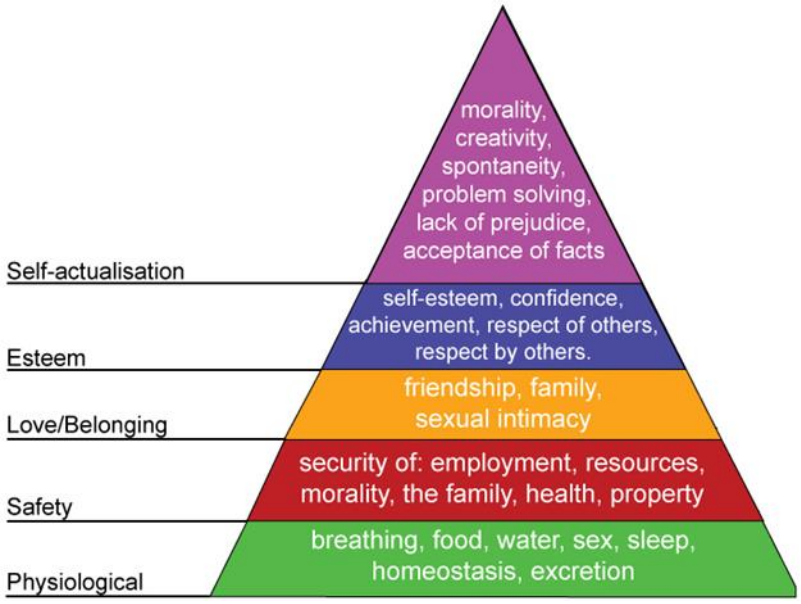
On the basis of the previous scheme, the target definition will include: 1) a well-focused final user; 2) the buyer of Noah service/tools; 3) other relevant stakeholders to engage in order to improve: 3.a) the service outcomes; 3.b) the purchasing decision.

From the co-creation perspective, any different stakeholder should be involved to take part to the design process.

3. The map of needs

Target's needs represent the first evidence that must be defined and measured in order to design an effective service proposal.

Maslow's Hierarchy of Needs has often been represented in a hierarchical pyramid with five levels. The four levels (lower-order needs) are considered physiological needs, while the top level of the pyramid is considered growth needs. The lower level needs must be satisfied before higher-order needs can influence behaviour. The levels are as follows (see pyramid in Figure 1 below). Self-actualization – includes morality, creativity, problem solving, etc. Esteem – includes confidence, self-esteem, achievement, respect, etc. Belongingness – includes love, friendship, intimacy, family, etc. Safety – includes security of environment, employment, resources, health, property, etc. Physiological – includes air, food, water, sex, sleep, other factors towards homeostasis, etc.



If correctly designed, the NOAH service could represent an answer to all the needs level. For instance, it can help monitoring physiological functions (level 1); it can improve domestic security (level 2); it can provide social and familiar connections (level 3); it can improve

confidence and strengthen new skills (level 4); and finally it can help creativity and problem solving (level 5). The value proposition of the whole project should take into account this large spectrum of applications, giving the consortium the opportunity to align the value-propositions and the services to a proper audience (end-user and buyer).

An early discussion by the partners of the consortium, conducted during a general meeting in the form of a pin card brainstorming, led to a preliminary need-list.

During the workshop, 4 questions were asked to the participants:

1. Who is NOAH end user?
2. What are the real needs of the NOAH end user?
3. Who is the buyer of the NOAH tools/services?
4. What are the real needs of the buyer?

The pincard method was used to gather all the participants' answers. The final picture provides some intersting information about the need insight.

Results of the pincard session.

Given scenario. The goal of the NOAH-project is concluded as: help a single elderly person to live longer in his/her own environment. Below the ideas on the post-its can be found.

Q1. Who is our end user?

- Elderly person
- Minimal knowledge of using smartphone, fan of technology and wants to test the system
- Minor problems: memory, health
- Moderate care need
- Diagnosed with dementia
- Elderly who live alone
- Elderly who feel insecure about their health. Appearance of a few problems that make them unsafe

- Want to automatically announce someone if I fall or lose consciousness
- Great adaptability, to become efficient
- It could be used in medicine: with Parkinson disease, to study the movement of the persons; with rheumatism patients, due to bad sleep
- Informal caregiver (son/ daughter/ nephew/…), family member
- Relative of an elder that's worried about the health
- Professional caregiver
- System Administrators

Q.2. What are the needs of the end user?

- More health related information
- Safety, feeling safer
- Physical reasons
- Human contact
- Friendly interface
- To be cheap
- To be exact
- The elderly needs to stay in their own environment with their own medicine to have an appropriate normal life
- Link to support system, alarm
- Emergency call
- Home safety
- Fall detection
- Being (or feeling) in control

- Something to increase their confidence and wellness
- Having the feeling that he is safe and his life could be improved
- He needs to feel love from family and friends; be loved means cared for
- Am I doing enough to stay healthy?
- What can I do to be healthy for longer time?
- I want to be able to show other people stats (to brag about the system I use to monitor my health)
- Am I getting older?
- Reduce sense of isolation and increase sense of security from being monitored

Q.3. Who is the buyer?

- Government, department of health
- Care giver
- End user
- Social caregiver
- Institution that wants to help their clients to have a autonomous life
- Relative who wants to monitor a family member
- Health assurance company to assess the state of health of some clients
- It could be bought by companies in medical systems
- To adapt products for the buyers need?

Q.4. What are the needs of the buyer?

- Trends
- Link to support system
- Warnings

- Safety
- Data analysis
- Friendly interfaces
- Feedback from devices
- Need to control!
- Needs could be inspired by medical evidence
- Better health care for end user and organisation
- Wants to get alerts if something bad happens
- Have an as precise as possible view of the monitored person to react in time if needed
- To see relevant statistics
- Monitoring if something is going wrong
- to get a reliable indicator about the general health of a user

This information is the background reference for the co-creation sessions, for the life-tests and the business model's construction.

The list of this end user-buyer/needs allows to focus a first target modelling, that has to be transposed into Personas frame.

4. The Personas

Personas are generalizations over users, consumer and customers who are expressed by concrete examples. For instance, a segment of middle aged, middle class male digital camera enthusiasts could be represented by a prototypical persona called Jim. There are many reasons for doing so, presuming that it is possible, with the right methodology (i.e. utilization of rich data and systematic process), to actually create representative personas and use them efficiently in the design process. One reason is that other ways of reporting and using consumer research are often quite useless. Raw data and big reports are difficult to interpret and often designers, rather than reading through hundreds of pages, will go with a few,

possibly random, so-called key insights. In other words, personas facilitate user-centred design by actually making user-insights useful.

Obviously personas help focusing the product development by limiting design choices to be guided by all possible users to a better defined target. Furthermore, they have the advantage of forcing user researchers and products developers to be explicit about their assumptions, while engendering interest and empathy.

The analysis of Personas is expected to give pivotal information to build a first (tentative) use-case list.

A second general discussion between the project partners, led to the Persona identification. This process is fully described at D 2.2.

5. Co-design sessions

Furthermore, once the target model is set, it will be possible to start the end-user insight, using three different tools: Surveys, Individual interviews and Design groups.

At the beginning of the co-creation sessions, each national pilot site will decide how to approach the design process, using this three tools. Each national pilot site should issue at least one Co-design group.

Surveys (recommended). Investigations should be realized by anonymous online and/or hardcopy multiple-choice surveys, in order to gather information about the different aspects of elderly life, such as:

- Age Range;
- Qualifications;
- Living situation;
- Health status;
- Occupation status;
- Family relationships;

- Technological skills;
- Technological habits;
- Social relationships;
- Mobility conditions;
- Needs and expectations.

The results of surveys compiling, gathered from the three national pilot sites (Belgium, Italy and Romania), will help to profile the audience of the project.

Semi-structured individual interviews (recommended). A qualitative exploration of the target needs, beyond the raw numbers, will be conducted even in form of individual interviews. Qualitative Research is generally used to gain an understanding of underlying reasons, opinions, and motivations, providing insights or helping to develop ideas or hypotheses. The interviews will be conducted on elderly belonging to the general target of the project.

Co-design groups (mandatory). Design groups are normally issued for a specific task, and moderated by a group leader. They are specifically used to collect proposals and to define structures and concepts on a particular project, so long as they follow few general principles: the number of participants per group (6-10 homogeneous strangers), standardization of questions (structured protocol or discussion pattern), stable number of focus groups issued, clear level of moderator involvement.

The co-design group will follow a free methodology, provide that they reach the following general aims: 1) to devise a clear service-vision, 2) to focus use-case scenarios; 3) to provide suggestions and feedbacks about the technological interface.

The groups composition should represent and involve all the stakeholders, exploring the different points of views on the service.

At least one design-group should be issued in each one of the three national pilot-sites (Belgium, Italy and Romania), involving: a) End users; b) Caregiving Professionals; c) Relatives/Informal caregivers; d) a mix of different stakeholders. As occurred for the survey's results, even the outcomes of the focus-groups discussion will be finally analysed and used to fix a consistent co-creation methodology.