

# REGIONAL REPORT TO

# SUMMARIZE THE RESULTS OF

Czech Republic, Prague

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Final Version





## 1. Introduction, Context

Regional Analysis of the Results of the Co-creation Based Needs Assessment Process is an outcome of the first phase of the Quadruple helix cooperation within the second thematic work package of the I-Care-Smart project. A part of the data used for the research and especially the research methodology drew on the results and outcomes of previous project activities - The toolbox for senior engagement and The toolbox of business engagement and the knowledge and skills provided by the Task4s training on senior and business engagement as well as the inputs and expertise of the regional Task4s members.

The research was conducted in two main directions that respected two different aims of the needs assessment process. First, senior needs were assessed to provide inputs for the Silver star challenge call for action. The needs discovered in the research process were structured into the form of customer profiles, that represent coherent sets of needs of the elderly. Second, the regional needs assessment was to assess the needs of the businesses in the field of elderly care. The needs and problems revealed were then structured into the form of the value proposition of the business model of the regional I-Care-Smart service which is a service to be developed by each region to support the research, design and development of smart solutions for the elderly in a co-creation setting. This service will be validated and tested during the implementation of the I-Care Smart project. The service should create value for all involved stakeholders and cover the costs of itself.

The purpose of the co-creation process is to create value for two main target groups - the elderly, who shall gain the possibility of improving the quality of their lives by the smart solutions developed and have their own influence in the process of developing the solutions, and the businesses who shall gain the possibility to directly involve potential end users in the development and testing of their products and thus make their ventures more easily marketable. The QH cooperation within the T4s during the needs assessment process and future pilot actions shall serve as a model of a functioning regional innovation ecosystem creating value for and reducing risks of all the involved actors.



## 2.1. Methodology

For the purposes of RA of the opportunities for senior engagement a quantitative as well as qualitative research was performed providing us with the information about the structure of the target group and identifying the basic areas of the elderly's needs. The evaluation of our previous work together with the Toolbox and the T4s training enabled us to prepare the following steps of the research process:

- Observation Phase - This phase was executed by the experts in elderly care, the experts collected the data related to their field of work- consulting services, senior clubs and activation centers, home-care services, residential care services and assisted housing schemes, day-care centers. The data were presented in the form of description of situations from the daily life of the target group. Each of the situations described concrete situation encountered by the experts and at the same time represent the criterion of universality and depict problems commonly faced. Each description covered three main aspects of the situation - context/situational characteristics - actions/behaviour of the actors - identification of the needs and problems.

- Individual in-depth interviews

The assessment of the observation phase resulted in the creation of draft patterns of the elderly's needs and draft versions of the customer personas which were then tested and validated by the direct involvement of the target group members in individual in-depth interviews. The interviewees were chosen with help of the experts in the field and represented potential customer personas drafted. Besides the questions concerning their problems, needs and daily lives, the respondees' willingness to participate in the co-creation process and their relationship to potential technological solutions and awareness of their possibilities was tested.

8 individual interviews were implemented.

- Further validation of the ideas at a co-creation workshop.

## 2.2. Outcomes - Customer Personas

In the research process 5 main areas of the needs were defined:

- Safety and security in one's own household
- Need to preserve active live
- Social isolation and loneliness
- Lack of purpose, lack of meaningful motivation
- Problems concerning physical impairments and their effect on the ability to control one's surroundings including technological devices
- Cognitive impairment and its consequences on people's safety, living standard, social life



The draft customer profiles were prepared to cover all these important clusters and their combinations respecting the criterion of coherence - within these drafts predefined customer jobs, pains and gains were created. Individual persons were chosen to represent these needs clusters and draft personas. After validation through individual interviews and the co-creation seminar the final versions of the customer profiles were prepared.

These final customer profiles are fictitious abstractions of concrete real life cases and combinations of the data revealed in the research process, they are enriched by the inputs from the direct participation of potential customers in the interviews. By the common agreement of the Task4s members it was decided that though the profiles will be centered around one central issue, they will at the same time try to depict a certain degree of complexity to represent the reality of the needs and lives of the elderly. The research done revealed that the elderly have very complex needs and that solutions aiming at too specific needs may not be able answer the call of the target group.

### 2.2.1. Customer profile 1 - a Mr. Mirek

#### Context, general characteristics:

Mr. Jiří is 83 years old inhabitant of an assisted housing scheme. He is confined to a wheelchair and in need of daily care of the hired care providing staff. He rarely leaves the premises, because of his health condition it is demanding and exhausting. Mr. Miroslav has very good relationships with his relatives and former friends. All his life he has been interested in music and literature and devoted himself to them at least as an amateur, regularly attending concerts of classical music and opera. Also, he is interested in cultural, political and economic situation, he follows all the news from the country and the world to keep in touch with what is going on around him. In the past, he loved to travel around the Czech Republic and abroad - especially sightseeing tours and hiking, now, when he can't travel, he reads about interesting places and countries, surfs the internet, watches travel documents on TV and likes to get back to his travel experiences. Though it is not one of his main interests, he has a positive attitude towards technology, he likes to use modern gadgets and has followed news from the world of information technology all his life; he has learned very well with a computer in his profession, he watches concert recordings on the Internet, he travels virtually on Google street view or talks to his family and former friends via Skype and Whatsapp on the tablet, also he liked to participate in the online discussions on his favourite web pages. He likes to learn new things but due to his health issues loses motivation. New technology is not only a means of keeping in touch with the world, the ability to master modern technology itself is an expression of being in touch. Operating new technologies compensates for the perceived loss of status and shame connected to physical deficiencies.

Mr. Miroslav is confined to a wheelchair due to a nervous system disorder, the disability is constantly expanding, it has already affected the lower limbs, which are insensitive and uncontrollable, it progresses to the upper limbs and Mr. Miroslav is beginning to lose feeling in his fingertips; the disease also has a degenerative effect on sound receptors and Mr. Miroslav begins to lose the ability to distinguish individual words in speech, sounds merge, although his hearing is good. Numbness of fingers affects fine motor skills, the touch screen and working with a mouse or keyboard is an obstacle for him more and more. Worsening health condition and decreasing ability to meaningfully spend lots of free time leads to frustration and resignation. His illness has negative prospects of development - lack of feeling and sound perception issues will get worse. The probability that he will continue to lose ability to operate tech solutions is very high.



-Wants to stay in touch with the world and with what is going on in the society and culture despite his disabilities

- Wants to be able to do so on a long-term basis without having to take into account the negative perspective of the deterioration of his skills.
- Wants to know that future deterioration of his issues wouldn't mean an end to the leisure time activities he is used to perform.
- Wants to spend his time meaningfully with respect to his avocations and likes.
- Wants to stay in the picture.
- Wants to be able to stay in touch with his relatives and associates.
- Wants to be able to get back to the good experiences of his life.
- Wants to learn new things.
- Wants to see the places he visited again.
- Wants to see new places.
- Wants to master modern technology for leisure, education, remembrance and entertainment
- Wants to be able to discuss current issues.
- Wants to control something.
- Wants to be able to participate in the discussion about the modern world.
- Wants to express the abilities he still has.
- Wants to be able to do all this despite his disabilities.
- Wants to be perceived as a full-blown member of the present day society.
- Wants to be perceived as an informed counterpart in the debate with the modern world.
- Wants to compensate the loss of social status and role perceived (he is in need of constant care, dependent on others) by being up-to-date in his mind, able to master the innovations.
- Wants to be perceived as able to deal with the modern world.
- Wants not to fear future degradation.
- Doesn't want to be overwhelmed with grief that his health is deteriorating and that he is losing the opportunity to fulfill his free time.
- Wants to feel proud of his skills and abilities.

**Customer pains:**

- negative prospects of his health issues development
- gradual loss of motor skills
- gradual loss of ability to perceive sounds



- perspective of further worsening of the motor skills condition
- perspective of not being able to operate gadgets in the future at all
- gradual loss of ability to control technological equipment
- inability to travel in reality
- inability to retain current level of orientation in the world, the society and culture by means of physical participation in it
- lots and lots of free time
- loss of motivation

#### Customer gains:

The solution shall -enable him to overcome his physical confinement, his distance from the world outside the walls of the apartment.

- Provide access to his interests
- Provide access to social and cultural discussion
- Fullfill his free time
- Be operated by the skills not affected by his health issues.
- Be a challenge to a certain extent, but at the same time respect his abilities.
- Prove that he “CAN” master it
- Provide access to assistance in case of malfunction or problems.

#### 2.2.2. **Customer profile 2- a Ms. Marie**

##### Context, General Characteristics:

Ms. Marie is a widow a bit over eighty and lives in her own household. To a large extent she is self-sufficient, though her children regularly help her with complicated household issues and arrange her visits at the doctors including transportation. Her children regularly contact her via telephone to make sure she is OK. As for her physical condition she is relatively satisfied with her health which she considers to be adequate to her age. She is able to go for walks and she loves to do so, she often travels by public transport to the neighborhood where she spent her childhood and early years of marriage and where she still has two good friends she loves to visit. She is able to do her shopping and likes to visit the shops around her apartment just to look what is on offer. Though she is relatively satisfied with her health, she suffers from quite severe diabetes and has to take insulin regularly, also she suffers from not very severe heart condition. Her health issues are treated by regular medication and a regular diet, without regular treatment by medication her health status is prone to sudden changes, that have already lead to hospitalization.

What is of most important concern to her and her family are the signs of a-coming cognitive impairment. Though not very often she tends to neglect her daily needs and on some occasions to forget taking her



pills, which has already lead to serious health problems. She herself feels that she forgets more and more things, especially when it comes to short-term memory and has problems to concentrate. Sometimes she has difficulties finding the right words and express herself verbally. The possibility of the worsening of her mental state is the most serious issue she faces in her opinion. She is aware of her family members worries and fears concerning her safety and health status and feels sorry for the troubles they have with her. On the other hand she values her independence and relative self-sufficiency and silently disapproves of the regular telephone controls.

She used to be a very sociable person and though there are only few of her friends left, she loves to visit them and be in contact with them. She considers herself to be a cultural person - she loved music and dancing and together with her husband and friends participated at dancing parties. She used to work as a pre-school teacher and as an instructor of the free time activities for children and really loved her job.

Although she liked to read fiction books very much now she finds it complicated to concentrate on a longer text and prefers shorter formats like social magazines.

She never was interested in the field of technology and has no experience with smart solutions, she only has a button cell-phone.

### Customer Jobs

Most of all, she wants to stay independent on other people and self-sufficient as long as possible, she wants to perform the tasks of her daily routine without external help and without the need to be reminded of them and controlled by other people - to observe the dietary rules and to take her medication to reduce the risk of sudden changes in her health state. She wants to be able to visit her friends, go for walks and travel around the city to the places she likes and feel safe and secure. She wants her family members not to discourage her from these because of their fears. She wants her family members to feel secure about her safety. She wants to stay in physical touch with the outside world despite her issues.

She wants her cognitive functions not to worsen further or at least to reduce the speed of the worsening so that she remains self-sufficient as long as possible. She wants to be able express herself in such a manner that doesn't make her look incompetent.

She wants to be able to do her shopping as long as possible and to arrange for what needs to be done in her household by her own efforts so that her family can be sure she is able to make it.

She wants to be perceived as self-sufficient and independent by her family members.

She wants to be perceived as competent to live on her own.

She doesn't want to look „stupid“ because of the a-coming cognitive issues.

She wants to convince herself and others especially that she can make it.

She wants to regain confidence in her abilities.

She wants to feel more secure about her future, wants to reduce her fear of future.

She strives to reduce the fear of being confined within the walls of her flat, controlled by others and dependent on their help.



She hates to feel ashamed in front of others.

She wants not to fear further deterioration of her mental state.

She doesn't want to feel as a burden for her family members.

She wants to feel safe and secure while retaining her current level of mobility.

### Customer Pains

- a-coming cognitive impairment issues
- concentration problems and forgetting - sometimes she got to an undesired destination when travelling around the city and such experiences trigger fear of the future
- lack of stimuli to stimulate her mental state in a safe environment (trying to do new things in the outside world means a risk, so she sticks to routine ways, travels to known places)
- tendency to forget treating her health issues
- risk of varying health status - diabetes, heart condition- because of forgetting to treat her health regularly
- the fear of her family members about her safety and health
- family pressure to solve the situation by persuading her about the necessity of seeking the services of residential care institution
- fear to use technological gadgets, fear of their fragility, malfunction and damage
- no experience with smart technological solutions
- no interest in technology

### Customer Gains

The solution shall:

- help her to be able to stick to her habits and routines
- help her to move in the outside world safely and according to her routines and habits
- help her to try new things when she is in a safe environment of her household
- help her to treat her health regularly and in time and prevent sudden changes in her health state
- help her to perform all the tasks of her daily routine
- prevent or reduce the speed of the worsening of her cognitive impairment
- find stimuli to stimulate her mental state - stimuli related to her personal history, hobbies and avocations





- reduce the time her family members have to pay to monitor and treat her needs and health issues
- be able to work by itself or be very easy to operate
- be robust enough so that she doesn't have to fear its damage

### 2.2.3. Customer profile 3 - a Ms. Jana

#### General Characteristics, Context

Ms. Jana is a 79 years old former post office clerk, she is a widow and lives in her own flat alone. Living alone is a great challenge for her and her two sons as well. The prospects of her being able to stay in her own household are considered to be close to impossible by the family. Ms Jana has already went through long stays in a hospital several times, because her health state deteriorated so much, that it was impossible to be adequately treated at home. She fears the hospital stays a lot and often underestimates her physical problems to avoid the possibility of going to a hospital again. She prefers not to talk about them.

Every morning a caregiver comes and helps her prepare for the day, at lunchtime lunch is delivered and prepared for her by a care providing organization. Everyday in the evening one of her sons comes to help with everything she might need and to make sure she is OK. Taking into account they both still work, it is time-consuming and burdening. Ms. Jana strongly resents that she complicates the lives of her family members, but on the other hand she has strong personal ties to the flat where she has spent most of her life and feels comfortable there. She values her privacy and would greatly disapprove of living in company of others in an unknown environment. She feels ashamed for the need of care.

Ms. Jana suffers from quite serious mobility issues. Though she is only able to walk with the help of a walker, it does not prevent her from being able to take care of herself during the day when nobody is present, she is also able to prepare simple meals and drinks for herself. Nevertheless, these efforts to retain certain level of self-sufficiency present a considerable risk - besides the mobility issues she often suffers from vertigo and sudden changes in blood pressure. She has already experienced several falls - though most of them without consequences, one of them has led to a serious fracture and long hospitalization. The tendencies of her health state to undergo sudden changes are another important aspect that bothers her and the family. They can never be sure what is going on with her. When such troubles appear she tends to leave them unattended and prefers not to communicate them to the family because of her fears of causing troubles to her sons and being sent to a hospital.

#### Customer Jobs

First of all, Ms. Jana wants to be able to live in her own flat as long as possible and spend the rest of her life in the privacy and familiar environment of her own household. She wants to reduce the necessity to deal with her health issues in the hospital. She strives to retain her current level of mobility and relative self-sufficiency - to be able to take care of her everyday hygiene, to prepare herself a cup of tea or a simple meal. She wants to reduce the risk she undertakes by performing these everyday tasks and moreover, she wants to reduce the fears her family members have. She wants to reduce the number of visits her family members have to pay her or she wants to use the time she spends with them for other purposes then constant talking about her problems and her uncertain future. She wants them to know that she is OK. She herself wants to know what is the state of her health condition and what is going on with



her body. She wants to be able to deal with it by her own effort if possible or by the help of external advice. She wants to prevent possible negative consequences of the vertigo and changing blood pressure. She wants to be the one who decides what measures are to be taken concerning her health. She wants to feel safe in her household, but to sacrifice as little as possible of the activities she is used to perform. She wants to stick to her daily routine and not to be forced to undergo changes in life and everyday activities. She wants to be able to obtain advice concerning her health issues without unnecessary visits at her doctors and without burdening her family.

She wants to be perceived as competent of mastering her everyday life within her household.

She wants to be perceived as a grandmother and not as a baby the others have to look after.

She wants to be perceived as an independent being despite her health condition.

She wants to be independent on other people's choices.

She wants to feel more secure concerning her future.

She wants to feel safe concerning her everyday life.

She wants to feel relaxed in her environment.

### Customer pains

- Health issues endangering her feeling of security- vertigo, blood pressure.
- Very limited mobility.
- Sudden changes in health state - there are days when she is relatively OK and there are days when getting out of her bed is a challenge.
- Her family members fears and worries.
- Lack of medical assistance and advice at hand when she doesn't feel OK.
- Necessity to travel to her doctors quite long distances with the help of the family when something goes wrong or for regular check-ups.
- Necessity to accept the help of others and their intrusion into her environment.

### Customer Gains

The solutions shall:

- enable her to stay at home.
- enable her to reduce the risks when doing her everyday jobs
- make her family members to be more secure about her health
- monitor her state or at least its most important aspects to prevent worsening and changes.
- not share her issues when not necessary
- be able to call for help when it is really necessary.



- not to be an intrusion into her environment - be more or less invisible, respect her environment
- operate by itself or be operated by very low effort
- respect her disabilities

#### 2.2.4. Customer Profile 4- a Ms. Božena

##### Context, General characteristics

80 years old woman living on her own in her own household

able to satisfy the needs of her daily life on her own without help of relatives or care services so far X slowly worsening physical condition (especially heart condition and worsening mobility), possible problems in future self-sufficiency become more apparent

after the death of her husband to whom she provided daily care lives alone, lacks purpose of life and structure of her time, the lack of meaningful purpose results in resignation and worsening physical and mental condition - prone to depression and self-negligence

children living abroad or far away - infrequent contact, infrequent visits, most of the communication by means of telephone, no other close relatives or friends

in the past most of her time and effort was focused on her children and later on her husband

used to assist her former friends in a worse physical condition and when assistance became impossible, at least phoned them regularly

likes to recall the time she and her family spent at their summer house in the countryside - the summer house and the adjoining garden - gardening and improving the house fulfilled most of her free time, she is very proud on the house she and her husband built up and regrets a lot that it no longer belongs to the family

The family always had a dog, but after the death of the last one, she doesn't feel able to take care of a new one

Now she spends most of her free time with her TV

##### Customer Jobs

to find meaningful motivation/purpose in her life

to find „work“ to be done that somebody else can profit from

to find a recipient of her need to focus on others

wants her time to have structure

wants her days to have programme (other than only satisfying her basic daily needs like food, hygiene, shopping, cleaning)

wants to be a part of a social network and have a function in it



wants to be in a regular contact with her social contacts

not to have to talk to the TV only

to be able to stay in her own household on a long-term basis

to be able deal with her worsening physical condition in her own household

not to be forced (by her physical status) to seek help in a residential care facility

to be perceived as usefull

to be perceived as a functional part of the social network

to be perceived as self-sufficient and not as a burden

to feel usefull

to feel motivated in life

not to fear the future and loss of self-sufficiency

### Customer pains

no work to be done except for herself only

nobody she can take care of, nobody she can be usefull to

unsatisfactory motivation - no opportunities to „give“

worsening physical condition that limits her ability to „work“

risk of further worsening of physical and mental condition due to inactivity and resignation

lack of social contacts at hand

her social contacts are far away and the contact unfrequent

lack of means of regularly maintaining existing social contacts

risk of loss of the existing social contacts

lack of visual contact with other people

### Customer gains

-a task to be performed

-a job to be done

-a „companion“ to focus on

-A time schedule to follow (a long-term time schedule better than a daily schedule only)

-solve the resignation issue

-prevention of mental state deterioration



-prevention of being forced to leave one's own household

### 3. **Bussiness needs assessment**

#### 3.1. **Methodology**

#### 3.2. **I-Care-Smart service Bussiness Model**

##### 3.2.1. **Customer segments -**

The I-Care-Smart service will be a multi-sided platform based on sharing expertise and knowledge among all the involved stakeholders. Being most of all a living-lab type service its Value Proposition will mainly be targeted on bussinesses in the field of smart solutions for elderly care.

There will be no limits as for the type of the bussinesses addressed, though the assumption is that SMEs will be the most perspective customer group - the presupposition being that they will interested in using the service continuously and long-term partnerships can be established with them. SMEs in the field of elderly care already have established financial stability and stable project teams, which enables them to invest money and HR capacity to cooperate effectively with other actors of the elderly care scheme.

On the other hand, the service will target at start-up ventures of various types. The assumption is that these ventures will be more interested in using the service on a short-term basis to test and validate their Value proposition at one usage at a time. These customer group will include start-ups and spin-offs, ventures directly connected to technological universities or independent on them. From this point of view it will important to establish relationships with ventures aiming at supporting start-up activities - bussiness incubators, accelerators, tech centers, via these organizations I-Care-Smart service will be enabled to offer the knowledge of the specific features of the field of elderly care, which bussiness subjects have no access to.

The I-Care-Smart service has to take into consideration another important group, that is not a customer segment per se but represents a sector the knowledge and expertise of which will be used by the service and to which it shall create value in exchange for sharing their expertise. These are important partnerships the value of which shall not be underestimated. The assumption is that in the field of silver economy there are some undeviable links connected to the end users that have to be taken into account - the situation is that the elderly themselves not always are the customers, they are linked to their family members or to the institutions their services they are using. The I-Care-Smart service Value proposition will target on these actors as well.



### **Businesses in the field of smart elderly care**

The business needs assessment research revealed the following most important needs and problems the businesses have in the existing innovation ecosystem that are important for the future I-Care-Smart service:

- 1) lack of coordination and effective cooperation on the axis research -development-commercial realization-user- public authority
- 2) smart technological solutions are not incorporated into the long-term plans of social services development
- 3) lack of confrontation with the users, lack of user ergonomics of the existing solutions
- 4) lack of awareness and education of the potential users and public authorities in the field of smart solutions
- 5) Need of long-term and continual preparation of the social services and elderly care environment for the implementation of marketable smart solutions,
- 6) uncertainty about the public policies concerning elderly care, slow changes in legislation,
- 7) lack of long-term cooperative confrontation among the actors
- 8) lack of awareness of existing unbreakable links (user-careprovider, user-family, care provider - municipality/public authority),
- 9) lack of possibilities to test pilot solutions (public authorities require existing pilot projects) X why to start to develop complex solutions when we are not sure about the prospects of their implementation in the future in a wider context of social policies.

In response to these needs the I-Care-Smart service shall be able to provide the following services

- 1) Educational and raising awareness activities - The educational activities will be targeted at general public, public authorities and municipalities, organizations providing services for the elderly, the elderly themselves and their relatives. They will be delivered in the form of seminars, workshops or showroom presentations that will increase awareness of the potential customer segments about the possibilities of smart technological solutions in elderly care. The aim of these educational activities is to substitute for the lack of market preparation concerning the smart solutions in elderly care and to generate feedback to the topic.

The educational activities have already started in the form of Seminars promoting senior engagement and it has been decided by the Task4s members to prepare a series of such seminars and to continuously enlarge the base of I-Care-Smart service partnerships and at the same work on the awareness of the market segments in question about the smart solutions . The intention of the Task4s is to incorporate the “peer” principle into these educational activities - the target groups will be addressed via their peers who already have had experience either with smart solutions or with the co-creation process.

These activities will not be a paid service that will generate income for the I-Care-Smart service but it is important to be mentioned here because it creates value for business customer segment and at the same it brings resources to service itself, partnerships being the most important resource the



service shall have at its disposal. These activities focus on a broader social context of the innovation of the system of elderly care.

- 2) User confrontation services - As a living lab type service the I-Care-Smart service shall mediate and coordinate the contact and relationship between the businesses and the users. For this purpose the service will create a database of the individuals representing the target group of the elderly who are willing to cooperate with the living-lab in the co-creation process and in the process of testing the products and services. Also the I-Care-Smart service will be able to provide the living-lab environment of a care providing organization for the co-creation of more complex solutions. Besides these the service shall be a part of network of other organizations focused on the elderly (interest organizations, consulting and training services, senior clubs, other care-providers, activation centers) willing to provide their knowledge, expertise and consultancy throughout the co-creation process and pilot projects. The service will be responsible for maintaining the relationship with the users and the organizations to be able to provide its customers with a continuous feedback. In exchange for their services the I-Care-Smart service shall be able to create value for these as well - it will provide them with possibilities of networking with other QH actors, it will provide them with educational activities like seminars and workshops, it will provide them with a trendsetter status.
- 3) Project coordination and consulting services - The I-Care-Smart service will serve as a project coordinating subject - a subject with practical and theoretical expertise in the field backed with knowledge and expertise of the partnerships maintained by the service. In case of need the project coordinator will be assisted by a team of external experts representing all the important actors needed for the purpose of the concrete project (academia with technological expertise, public authority, municipality, business representative, care-providers). As one of the most important problem the businesses face is the underestimation of the very specific features of the area of elderly care, the I-Care-Smart service as a network of partnerships in the field will be able to provide consulting that will reduce the risks that may arise from this underestimation.
- 4) The “I-Care-Smart mark of quality”- In the future after successfully establishing the network of partnerships, network of cooperating experts and the user database to be used, the service can be able to guarantee the quality of a technological product and provide its customers with a certification service. The clients of this service will obtain the services of an expert commission representing all the important areas needed to verify the quality of the product. Via the I-Care-Smart service not only the technological aspects of the product will be certified but also its user appropriateness and usability. Such a certification will mean that the product/service will be able to access the users more easily and significantly enlarge its chances to be successfully marketed. As the I-Care-Smart will be an open platform choosing the commissioners from a wide range of cooperators, it could guarantee the objectivity of the certification process.

These services shall lead to risk reduction and cost reduction concerning trying to market inappropriately tested solutions without continuous end users’ feedback.

### 3.2.3. Channels

The I-Care-smart service shall have its own channels to raise awareness about its services - undoubtedly it shall have its own web page promoting its services and advertising its partnerships.



For the purposes of raising awareness about the service targeted promotion activities will be needed like seminars and workshops presenting the possibilities that the co-creation process can have for the customers. These activities will be an absolute necessity for collecting feedback to our value proposition.

It will also be important to promote the service individually to individual customers or via the organizations uniting them or having access to them - tech-centers, start-up centers, universities of technological as well as economic orientation, interest organizations etc.

Individual approach and communication will be the basis of the process of purchasing our services.

The channels the service will use communicate with the customers shall be able to work on a long term basis and copy the long-term relationships we intend to have with our customers.

As the I-Care-Smart service is a venture based on partnerships it will inevitably use partner channels to promote itself and raise awareness about its activities.

#### 3.2.4. **Customer Relationships**

Individual relationships- The nature of the service requires individual and customized relationships with each customer based on personal contact. The services for each customer will be planned and assessed according to a concrete task/project.

Long-term relationships - The aim of the I-Care-Smart service is to maintain long-term relationships with its customers as well as with its other partners. The goal is to make its customers become members of the I-Care-Smart community. The community based relationship will enable the service to be in contact with the customers' feedback and to be able to react more flexibly to customers' needs in general. The businesses will bring their knowledge and expertise to the community as well as the other partners. The long-term partnership will enable the service to co-create value with the customers for the end users. The community relationship will be based on cooperation and mutual exchange. The business customers can cooperate with the service on its educational activities and thus they themselves can assist in the market preparation. In exchange for the services and knowledge offered to the I-Care-Smart service they can obtain preferential treatment of their needs.

#### 3.2.5. **Revenue Streams**

In the time of the I-Care-Smart project existence the regional I-Care-Smart service will operate as a side activity of the Task4s members involved and the parameters of its effective functioning will be tested throughout the pilot actions phase of the project.

In the future the aim is to establish the I-Care-Smart service as a non-governmental non-profit organization addressing the broader area of the innovation of social services for the elderly via technology. As such the service will use the combined financing -financing by grants and self-financing by its own commercial activities. The service shall apply for state support in the form grants. As for now, application for the Éta call issued by the Technology Agency of the Czech Republic, an organizational unit of the state founded to support innovation, research and experimental development, is being considered. The ETA programme supports innovation of applied social sciences and humanities and its support is targeted on the projects promoting the incorporation of social sciences and humanities into projects of applied research, experimental development and innovation, which are beneficial for maintaining and improving the quality of human life in response to dynamic social, economic, globalization, cultural and technological





transformations. The programme supports projects that focus on utilizing the benefits of multidisciplinary approaches, linking technical and non-technical areas for innovation. As the I-Care-Smart service will be a multidisciplinary venture promoting application of technological research in the field of elderly care and combining expertise of technical and non-technical orientation to guarantee the quality of technological solutions targeted on elderly care and as well promoting the innovation of the elderly care system it fullfills the criteria of application.

State support of the venture shall guarantee stability in the early stages of the independent operation of the service. In this stage of its development the service will be a full-blown venture, that will be in the process of building up different revenue streams. The self-financing from its own commercial activities shall enlarge the funds at its disposal and guarantee the future stability and independence of the service. It will gain profit from the three main types of revenue streams:

- 1) Payments for long-term cooperation - the businesses interested will pay for the long-term cooperation with the service in the form of a subscription fee, these payments will provide them with access to the continuous cooperation with the service in the form of project coordination services, living-lab environment provision for co-creation and testing, organization of the co-creation process, collecting continuous feedback.
- 2) Payments for a short-term cooperation at a concrete task - the businesses will pay for the usage of the service for a limited span of time and for a concrete task, for example testing a particular MVP, coordination of a concrete project. Though the service will have an indicative rate for the different types of services provided, the final payment will be negotiated according to the volume and specifics of the task.
- 3) Payments for the certification services - the businesses will pay for the certificate of quality- the "I-Care-Smart mark of quality".

Besides these, there is a possibility of using additional revenue streams like one-time payments for educational activities - owing to its expert background the service will be able to provide training courses for the organizations willing to implement smart solutions.

### 3.2.6. Key Resources

As for physical resources, the I-Care-Smart service will not be particularly demanding - physical spaces will be needed for the showroom and for performing the co-creation activities like workshops, focus groups and discussions and for the educational activities.

Intellectual and human resources will be of much more importance. As for intellectual resources the quality of the service will depend heavily on the partnerships it will be able to establish. As functioning and mutually beneficial partnerships are the most important part of the offer of the service, it will be necessary to establish a network of co-operators - individuals as well as organizations. The service will create a database of individual users willing to co-create smart elderly care solutions. The network of institutions willing to cooperate shall include care providers, interest organizations, senior clubs, activation centers, organizations focused on assisting the informal caregivers, technological research institutions, public authority/municipality and its potential customers- the businesses- as well.



As for human resources, the service shall be able to provide the services of experienced project coordinators, PR and promotion specialist and an administrator. If a different expertise will be needed for the purposes of a concrete task, for example technological expertise, business consulting, elderly care professional, the expertise of the established partnerships can be outsourced for the concrete task.

### 3.2.7. Key Activities

The key activities the service shall concentrate on derive from its nature of a service providing institution based on a network of co-operators and partners. The key activities will include establishment and management of the established relationships, establishment and management of the network. This will need extensive promotion and raising awareness activities and continuous individual communication with particular stakeholders.

For the purpose of being able to coordinate the projects and certify the products and services an expert base shall be established consisting of experts representing all the QH actors.

The provision of the services described above will need a customized approach to each task/project/customer and the activities may differ from task to task. Nevertheless, in general they will comprise of matchmaking, mediation of contact and communication, provision of the living-lab environment, mediation of expert consulting etc.

### 3.2.8. Key Partnerships

The partnerships important for the I-Care-Smart service and the resources and activities they will provide to the service have already been described in the preceding sections of the document.

### 3.2.9. Cost Structure

The I-Care-Smart-Service will be value-driven project in general, it aims at providing customized services to its customers and in addition to this it is not a simple business venture it aims at improving the quality of life of the elderly providing them with access to customized products as well as enabling them to participate in the process of their creation and thus in the process of a broader social discussion.

The cost structure of the service shall take into account some fixed costs as the salaries of its employees (coordinator, PR specialist, administration specialist). The services of the experts needed for more complex project coordination services and consulting services and certification services will be outsourced for the concrete task/project.

Though for the pilot actions phase of the I-Care-Smart project the premises for the co-creation activities will be provided by the Task4s members, the possibility of having to rent the premises shall be taken into account.

Some of the costs of the service, especially those for the organization of the educational activities may be reduced by the common sharing of expertise within the I-Care network. The service will enable the companies and academia to promote their field of expertise and in exchange these will participate in I-Care activities promoting the innovation of elderly care in general.



3.3.

3.4.

3.5.

