Additional Document

OUTLINE OF

BUSINESS AND EXPLOITATION STRATEGY ACTIVITIES

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HELICOPTER

AAL
AMBIENT ASSISTED LIVING

Project Acronym:	HELICOPTER
Project full title:	HEalthy LIfe support through COmPrehensive Tracking of individual and Environmental Behaviors
AAL project number:	AAL-2012-5-150

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1. Intent of document

This document outlines the current exploitation and business aspects of the AAL HELICOPTER project. It utilises current knowledge of the AAL market in order to guide the activities performed related to exploitation and business activities within the HELICOPTER project. This work is conducted outside the scope of any of the work packages (WP), however it is strongly connected to some of the tasks in Work Package (WP) 5 such as drawing from the results of the validation of user satisfaction and socio-economic in task 5.3 as well as contributing to framing of the service/product in task 5.4.

The intent of the document is not to detail a finished business plan. Rather to outline a roadmap for the construction of an exploitation model that is in line with the resources available within the project in order to build a first version of a project specific business model while considering all involved stakeholders. The document as such does not consider IPR issues since this was considered at a proposal stage for the project.

2. List of definitions

A number of concepts are used throughout the document. In order to avoid misinterpretations they are defined in alphabetical order here.

Business model - a firm focal system level concept centered on activities, focusing on value in a network of partners (Zott et al., 2011).

Service beneficiary - The beneficiary of a service/product, the one who benefits from its value creation (Vargo and Lusch, 2008).

Service broker - Stakeholder brokering the service consumption between beneficiary and provider. In this case often a governmental institution mandated to govern certain aspects of the service/product quality.

Service ecosystem - The ecosystem of stakeholders collaborating in order to secure and facilitate safe service consumption (Vargo and Lusch, 2010).

Stakeholder - Any group that vitally affects the survival and success of the corporation or whose interests the corporation vitally affects (Pearlson and Saunders, 2009).

Value-in-use - A view that value is not inherent in service/products and hence value cannot lie in exchange. Value instead lies in use of the service/product and the ultimate value is always decided upon by the service beneficiary (Vargo and Lusch, 2008).

Value proposition - The intended value-in-use proposed by service providers to the service beneficiaries. A key part of any business model (Frow et al., 2014).

3. Defining the context for the delivery of services

This section is based on the Ambient Assisted Living Association (AALA) commissioned report 'A study concerning a Market Observatory in the Ambient Assisted Living field' (Ambient Assisted Living Association, 2014).

The AAL market observatory is a proposed ambient assisted living association observatory established to monitor the AAL market in Europe and provide guidance for relevant stakeholders. It is the intention of the HELICOPTER project to utilise the knowledge provided by the observatory in order to continuously update its exploitation endeavours. It is not the focus of the HELICOPTER project to be an influential contributor to the understanding of the AAL market, but to draw from available knowledge, both internal and external, to improve its exploitation strategies.

In the report commissioned by AALA regarding establishing a market observatory it is stated that a common definition of the AAL market could not be agreed upon by the partaking stakeholders due to the rapid evolution of its different components. Within the AAL Helicopter project this report will act as the basis for the understanding of the AAL market and its stakeholders since it is the intent of the AALA report itself.

Although a common definition could not be established it could be confirmed that the AAL market is growing into an umbrella market encompassing several different components mainly in three different end-user environments. Namely the workplace, the home and in the general society/community. All of whom differ immensely in terms of technology usage and demand dynamics in relation to the user. The home environment was also identified to encompass all of the three main stages of the Well Being Value chain; Prevention, Cure and Care & Health conditions management.

In addition, the report presents a technology framework that integrate and highlight the contribution of cloud, mobility, social business , big data, analytics as well as the Internet-of-Things paradigm in the AAL market. The three bottom layers of the framework include technologies that are not specific for the AAL market per se but that might still be utilized and become important in the AAL market. Second from the top, the analytics and social technologies refers to general purpose solutions that can be adapted to suit the AAL market. The final layer residing on top includes vertical solutions and apps specifically developed for the AAL market. It is however also mentioned that on all levels individual components may be developed that only considers the AAL market.

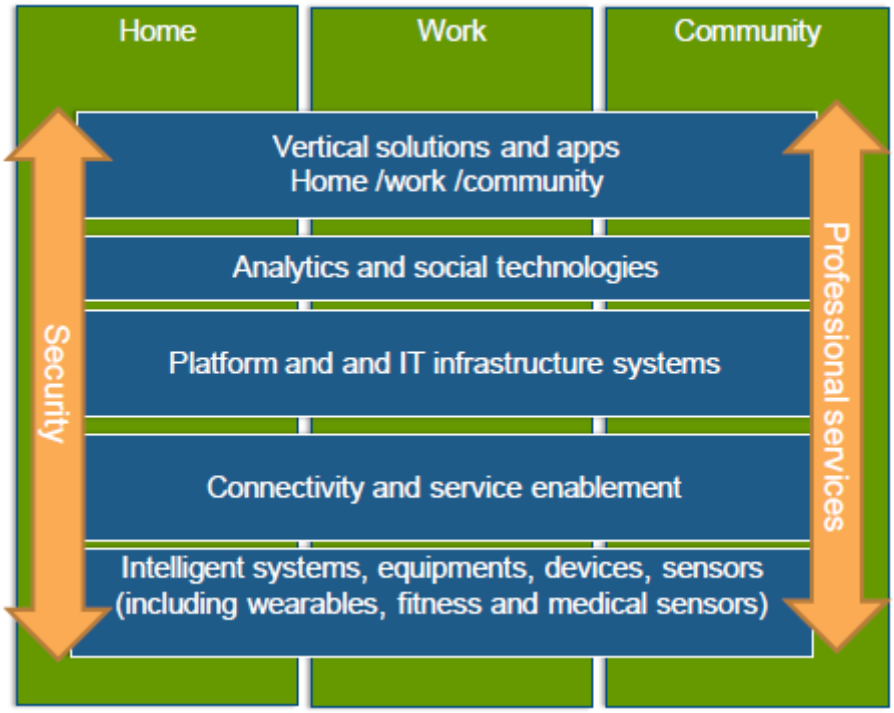

Figure 1: The AAL technology framework as presented in the report about the AAL market observatory.

It should also be stated that the intent of the AAL market observatory is to monitor the progress of the AAL market, it is the intention of the AAL HELICOPTER project to monitor the progress of the observatory in order to guide the future work.

3.1. Stakeholders on the AAL market

The AAL market observatory in their report identified and grouped stakeholders involved into two main main stakeholder sides. The demand side and the supply side. Among the stakeholders pertaining to the demand side the following were identified:

Primary end-users. A single individual actually using the AAL product or service.
Secondary end-users. Persons or organisations directly in contact with primary end-users, such as formal and informal care persons, family members, friends, neighbours, care organisations and their representatives.
Tertiary end-users. Institutions and private/public organisations that are not directly in contact with the AAL solution, but that somehow contribute in organising, paying or enabling them.
Among the stakeholders pertaining to the supply side the following were identified.
Business actors. Large enterprises and SMEs.
Research and Development actors. Universities, clinical research, private and public research institutions, foundation and standardisation bodies.
Investors. Venture capitalists, accelerators, incubators, technology clusters or scientific parts.

3.2. Potential barriers for dissemination of AAL services

The AAL Project AALIANCE identified three main themes of barriers for growth when it comes to using ICT for the purpose of helping ageing (Barry et al., 2013). The first theme concerns the scepticism for using ICT in the caring for elderly, and if so to what extent. The AALIANCE project clustered four barriers into this theme, they are; Uncertainty about the case for ICT-based solutions, Value case, Business case and Ethical Issues. For the value and business cases it is concluded that it is broadly agreed upon amongst the

promoters of ICT in the care for elderly is that cost savings can be achieved, quality of care can increase and this can lead to better quality of life for users.

The second theme concerns the direct impact on the development of the market and its growth. It includes barriers such as Unconductive reimbursement and incentives systems, Fragmentation of systems and services and Unreceptive or underdeveloped regulatory regimes. The fundamental underpinnings of the barriers is the history of how the healthcare and social care systems in Europe have operated and with time have become separate silos with limited overlapping responsibilities and administrative capabilities.

The final theme identified, pertaining one barrier is the resistance to change and lack of capacity to innovate. Although it is stated that some progress has been made in relation to this barrier there is still much work to be done. One task that often helps to turn around the resistance to change is the task of bringing all stakeholders together to address their concerns, issues and desired outcomes.

The above identified barriers will all become important for the AAL HELICOPTER project to consider.

4. Applying previous knowledge to the HELICOPTER project

The HELICOPTER project adopts a user centred approach in the development of an ambient automatic triage system.

The project context considered is the home environment since this is the environment of interest for the project partners. In addition, emphasis will be of the prevention part of the value chain since the HELICOPTER solution in essence is an automatic triage system administered in the home.

All of the barriers identified in the AALIANCE project will most likely come to be important for the AAL HELICOPTER project as well. However, the project as such will not actively work to resolve these barriers but take an implicit approach throughout the project due to the high level of impact that some of the barriers would need in order to enforce change in certain instances. In essence, they will be considered and they will be, when opportunity is given, addressed to the extent capable of the project.

Considering the technology framework the HELICOPTER project sees itself as drawing from a plethora of available technologies in order to, in the end, have developed an innovative AAL solution. Starting at the bottom the specific sensors developed and utilised in the project can be found. Thereafter the back-end structures and databases utilised in the project can be found. In the middle the platform of connectivity between the devices can be found and on top of that the ontology which is the core of the project that allows for the automatic triage. And on the top lies the service/product concept.

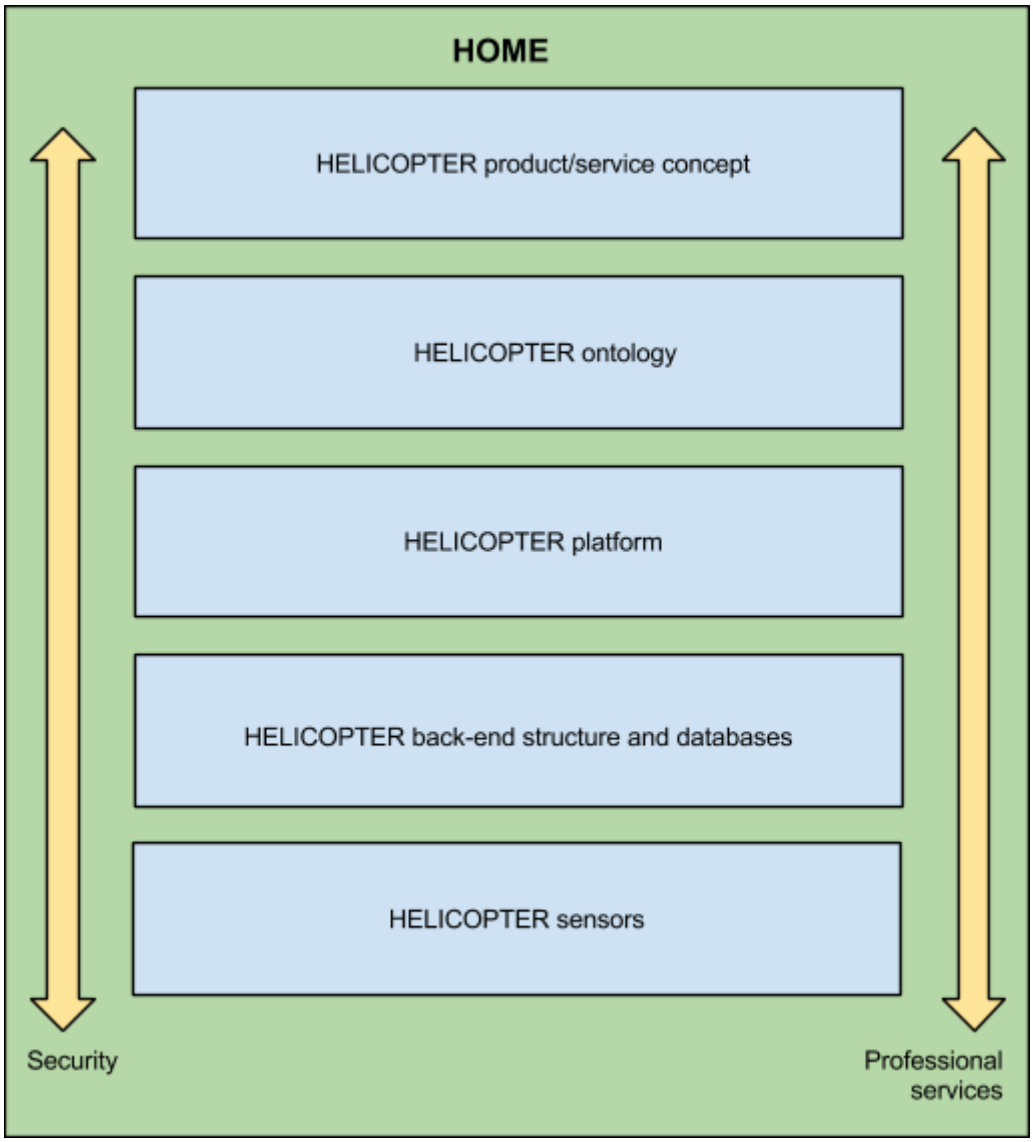

Figure 2: An adapted version of the technology framework presented by the AAL market observatory for the HELICOPTER project.

5. Aimed Business Models and Success Parameters for the Project

Before project start a number of success parameters were defined in order to determine the success of the project. They are presented in the following section together with proposed measures for determining success, i.e. the key performance indicators. The parameters together with components of the intended business model can be found in the project proposal approved by the AAL-JP pp. 4-6.

The success parameters presented in the proposal are as follows:

- Identification of user needs
- Identification of the pilot sites
- User profiles
- Physical installation plan
- Criteria for selection of test sites available
- Tools and models described and defined
- Tools and infrastructure - elements and integration
- Pilot implementation

- Evaluation - Results available for analysis
- Specification of the commercial products completed

5.1. Success indicators

Success indicators are actionable tasks that can be performed by the project in order to fulfil the success parameters. They are to be considered as additional resources in addition to the tasks given in the proposal.

5.2. Evaluation phase

The work package (WP) in which the success parameter is to be carried out in accordance with the project proposal.

5.3. An overview

In the table below the Success Parameters, Success Indicators and Evaluation Phases are presented for the project. The success parameters are proposed to be assessed in the following way. Note that some are simply assessed in a binary way while others include multiple steps.

Success Parameter	**Success indicators**	**Evaluation Phase**
Identification of user needs	User visits are conducted in both pilot countries.	WP2
Identification of the pilot sites	Pilot sites matching the intent of the project proposal are identified and mapped.	WP2
User profiles	User profiles based on the synthesised view of the data gathered in the user research phase are developed.	WP2
Physical installation plan	Installation plan exists	WP5
Criteria for selection of test sites available	Criteria for participating in the study is determined amongst project partners. Based on previously developed user profiles.	WP5
Tools and models described and defined	Descriptions are available. Initial verification and validation of the methods and tools are conducted before release.	WP3,4
Tools and infrastructure - elements and integration	Appropriate tools and infrastructure for the system is developed and tested.	WP3,4

Pilot implementation	Pilots are implemented	WP5
Evaluation - Results available for analysis	Tools and data collection instruments are developed. Data collection procedures are established and disseminated amongst project partners. Results are analysed.	WP5
Specification of the commercial products completed	All key stakeholders are identified. Value propositions for all key stakeholders are developed. An initial business model is proposed. An exploitation plan is developed.	WP5

Table 1: Table depicting the relationships between Success Parameters, Success Indicators and the Evaluation Phase in which they are to be carried out.

In addition to the success parameters the project proposal also stipulates what the aimed business models should encompass at project end. It is stated in the project proposal that the final offering of the project should be a bundle of physical and virtual interconnected components presented either as a product or as a service for the procurer and that appropriate partners for service distribution should also be included in the business model.

6. Activities for the diffusion of the HELICOPTER solution

In this section the activities pertaining to the development of an exploitation plan are presented as a road-map, some of the activities have already been performed while others are to be performed. Note that these activities only consider the development of a final exploitation plan but do however rely on other activities to be performed in the project, especially activities related to the success parameters presented above. In addition, this work although represented as a linear process is iterative and as knowledge is acquired throughout the project the different steps will be updated accordingly.

An overview of the activities are presented below followed by detailed sections for each step. As a starting point stakeholders are mapped followed by a mapping of the intent of participating in the project by key consortium partners. User Research with primary end-users are then conducted by project partner CIID. Followed by the completion of the three first steps value propositions can be developed for each key stakeholder and as the service/product concepts are developed they can be framed from a business perspective as well. Thereafter an initial business modelling can be conducted together with stakeholders and a synthesised offering can be developed. Finally a pricing activity as well as a mapping of the potential impact that the HELICOPTER solution can have will be conducted in order to prepare the final prototype for the market as much as possible.

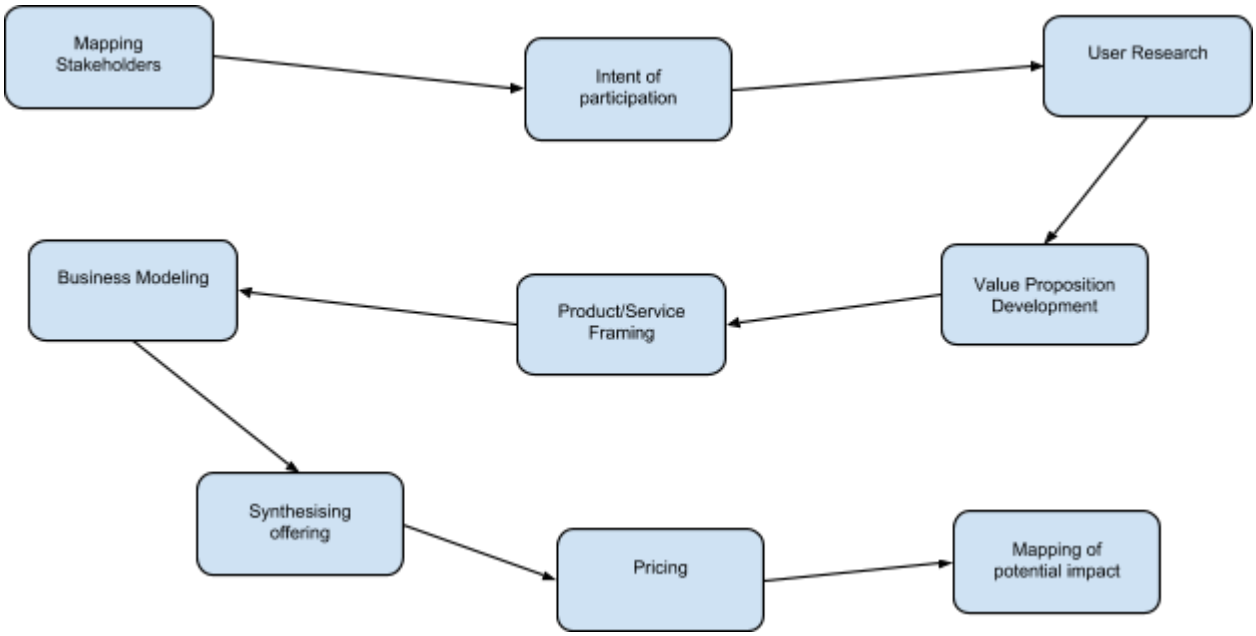

Figure 3: A graphical representation of the activities pertaining to the exploitation work of the project.

Next, detailed explanations of each activity is presented.

6.1. Mapping the Stakeholders for the HELICOPTER project

Part of the process for developing exploitation strategies and in turn being able to propose a project specific business model involves identifying involved stakeholders. At the present moment the final service/product concept has yet to be defined and hence a final stakeholder list cannot be presented at this moment in time. However, by using data provided on general stakeholders as well as using the material available to the project at this point in time a tentative list and categorisation of stakeholders can be presented. The categorisation and presentation of stakeholders adopts the framework for stakeholders as presented in the report on the AAL market observatory. It should also be noted that one stakeholder can at different stages of service delivery hold different stakeholder roles.

Project consortium members span across both the supply and demand side of the stakeholder spectrum. On the demand side no primary end-users are part of the consortium however secondary or tertiary end-users are represented in form of Skövde Municipality in Sweden and Slimmer Leven 2020 in the Eindhoven Region in the Netherlands. Their role can be categorised at this stage as either or, depending on the current activity that they are performing during service consumption. Pertaining to the supply side business actors are represented in form of METEDA, Italy, LABIDEE, Italy and Vision Systems, Romania. Research and development actors within the project consortium can be found in terms of Jönköping International Business School (JIBS), Jönköping, Sweden; Copenhagen Institute of Interaction Design (CIID), Copenhagen, Denmark; University of Parma (UniPR), Parma, Italy and the University of Skövde (HIS), Skövde, Sweden.

The project consortium hence encompass 3(4) out of 6 stakeholder categories commonly involved in delivering an AAL product or service. Hence, from the demand side primary and secondary end-users should, and are, involved in the development and deployment of the future service/product. Activities which are finalised in certain aspects and on-going in other aspects. From the supply side the project also needs to address the investor cluster of stakeholders, currently funding is given by the AAL-JP and national partners to the consortium partners however for future endeavours new funding opportunities must be addressed.

Even though the final service/product concept is yet to be embodied amongst project partners available data already indicates a number of important stakeholders to consider. Stakeholders have been identified mainly through the conducted user-research, by identifying potential external suppliers for the service/product and by means of brainstorming amongst project partners. In addition, available data from other projects regarding general stakeholders have also been considered. Yet again the categorisation provided from the AAL market observatory is used to structure and categorise the up until now identified stakeholders. First, however the stakeholders are presented and explained in regards to their roles.

6.1.1. Demand

In addition to the division of demand and supply an categorisation can be made in terms of who stands for the demand in relation to who is willing to pay for the provision of service. If it is a single or a group of individuals or if it is an organisation.

Individuals

- Elderly - the primary end-user, the person actually using the service. Note that the project makes a distinction between primary end-user and providee, especially so when referring to the domain model and the use of information. However, due to the stakeholder structure provided by the market observatory the term primary end-user will be used throughout this document. The reader should be aware of the distinction but also note that for service consumption purposes it has no effect on the continued work.
- Family members - Members of the primary end-users family, informal caregiver
- Friends - Friends of the primary end-user, informal caregiver
- Neighbours - Neighbours of the primary end-user, informal caregiver
- Doctors and care professionals - Formal care providers
- Nutritionists - Professional either offering or that is tasked to track and suggest healthier meals to the primary end-user

Organisations

- Municipalities - Government institution tasked with providing home care
- Regional Development Offices - Government institutions tasked with providing home care
- External service providers - Organisations and Companies mandated to provide care at home to the elderly from either the municipalities or regional offices.
- Care organisations - Organisations offering care at home services for the elderly
- NGOs - Non-Governmental Organisations with an interest in AAL services. An example would be the Swedish National Pensioners' Organisation (PRO) which is Sweden's largest organisation for retired people. An organisation that looks after the interests of its members.
- Hospitals - Hospitals offering institutionalised care
- Care centres - Care centres providing primary care

Supply

As is the case for the demand side an additional categorisation can be made on the supply side where entrepreneurs and companies can be on the supply side or (public) organisations.

Entrepreneurs/companies

- Service/product provider - The liable service/product provider

- External suppliers of Hardware - Suppliers of service parts that are needed for service consumption such as for instance sensors.
- External suppliers of Software - Suppliers of service parts that are needed for service consumption such as for instance new personal health records.
- Application (App) developers - Agencies that on contract basis create apps

Organisations

- Universities - Researchers interested in the field.
- Municipalities - Government institution tasked to see to it that the demand for home care is met, today and in the future.
- Regional Development Offices - Government institution tasked to see to it that the demand for home care is met, today and in the future.
- NGOs - Non-Governmental Organisations with an interest in the development and progress of the field.

6.2. Categorisation of Project Specific Stakeholders

The above presented stakeholders are categorised according to the structure presented in the report concerning the AAL market observatory.

	Demand Side		**Supply Side**	
	Individual	**Organisation**		
Primary end-user	Elderly			
Secondary end-user	Family members, Friends, Neighbours, Nutritionists, Doctors and care professionals,	Municipalities, Regional development offices, External service providers, Care organisations, NGOs		
Tertiary end-user		Hospitals, Care centres		
			Entrepreneurs/ companies	**Organisations**
Business actors			Service/product provider, External suppliers of hardware, External suppliers of software, App developers	

Research and Development actors				Universities
Investors				Municipalities, NGOs

Table 2: Table categorising the different project specific stakeholders

It is important to note that the analysis above does not include potential stakeholders such as insurance companies and drug companies. Companies and organisations like these are at current project stages not believed to be of importance for the success of the HELICOPTER project. In the future the possibility and the need for including them in an stakeholder analysis might prove important for certain EU countries.

6.3. Intent of participation

As a step in the identification and development of value propositions for key consortium stakeholders interviews were performed with tertiary stakeholders represented by Skövde Municipality and Slimmer Leven 2020. Written interviews were also conducted with business partners METEDA and Vision Systems. Both activities focused on identifying the incentive for participating in the project. When the incentive for each stakeholder is identified these can be translated into specific needs for each stakeholder and specific value propositions for each key consortium stakeholder can be defined. By focusing on the stakeholders one by one issues of salience could also be highlighted at an early stage of the process. Allowing for discrepancies to be handled more leniently.

6.4. User Research

This section is to a large extent based on the work carried out by project partner CIID. A key stakeholder within the project is of course the primary end-user. The design concept as well as the whole project is guided on the basis of the feedback provided by the primary end-users during the user research phase of the project. This phase is conducted by project partner CIID. Due to the focus on using the user research as a guidance in all the stages of the project so does the exploitation strategies.

The results of the user research is used in order to develop an initial value proposition that focuses solely on the primary end-users. The importance of this lies in the underlying reality that if the HELICOPTER service/product is not used by the primary end-users all other value propositions become obsolete. CIID categorised their findings into insights from which opportunity areas for design solutions were developed. The insights and opportunity areas are the basis for the development of the primary end-user value proposition. A shorter presentation of the main points from the user research that will help guide the work on the business and exploitation parts of the project will be presented below. For the purposes of this document the insights have been categorised into contexts where the believed value proposition in each insight lie. The three identified contexts are control, the individual and the community. Control refers to the context of monitoring someone from a distance, including checking up on oneself through an interface as well as having the ability to decide for oneself who can see what about oneself. That the control of the information is still controlled by the individual. The individual refers to the individual space in which the solution might reside and how it could affect someone on a personal basis. The community refers to the space where the secondary end-users and to some degree perhaps also tertiary end-users resides.

6.4.1. Insights

Control

- Relatives living far from each other are used to exchange summary updates about health status regularly in the day (in the morning or evening).
- Members of the same family can have different opinions about sensors and feel equally comfortable in being monitored at home, thus creating domestic tensions and "aut-aut" situation about the sensors use.
- Sensors monitoring is associated with lifesaving alarms to be activated few times in a lifetime, not as a predictive measure.
- Active and independent seniors do not see any need for being monitored 24h until they experience themselves some life threatening event or go through an ageing watershed. Moreover independent and active seniors want to be in control of the sensors system.
- The hiding nature of sensors does not manifest to the elderly their proper functioning and reliability, while elderly wants to be ensured exactly about that.

Individual

- Self-tracking has an emotional layer lying in the expectations and reactions to the data of the person being tracked.
- Making sensors feedback visible helps engaging the elderly.
- Routines and capabilities of the present becomes the goals of your future "older" self.

Community

- Remote communication can be more personal and reflective than face-to-face and through it relatives and independent elderly can enact a mutual exchange of care on a distance.
- People living in the same community can act as human sensors for monitoring people they know.
- Mutual support among neighbours can help the less independent ones to carry on their ordinary life without needing external and formal assistance.

6.4.2. Opportunity areas

From this a number of opportunity areas have been derived by CIID, areas that encompass a larger space in which new design solutions can be thought of. The identified opportunity areas within the project are:

- Sensors monitoring as a remote and intimate way of looking mutually our for distant relatives.
- Involving the neighbours in the identification of elderly routines that would be meaningful to monitor via sensors for the elderly health and wellbeing.
- Creating teachable moments from negative results of the tracking.
- Sensors sensitivity as negotiation between the self and the people you care for.
- Sensors sensitivity as dynamic attunement to the self-perception of risk while ageing.
- Sensors and its functioning as a domestic presence and trustful behaviour.
- Sensors to track the achievement of personal goals of the near future.

The insights and opportunity areas act as guidance in the development of the value proposition. The value proposition for the primary end-users will be one key aspects in the exploitation of a future service/product since this will have a direct effect on whether it will be seen as valuable for the primary end-user or not, i.e. if it will be procured and used. In addition to this value propositions for other stakeholders need to be

developed as well but in terms of salience, the primary end-user is in the context of the project seen as the stakeholder upon which most determinant success factors depend.

6.5. Value Proposition Development

Once the stakeholders and their needs, viewpoints and wishes have been documented in the previous three activities value propositions for each of the key stakeholders can be developed. The key stakeholders considered at this stage of the process are all the stakeholders pertaining to the demand side of the spectrum as well as the two main business partners within the project, i.e. METEDA and Vision Systems. However, it should be stated that new stakeholder might become key at later stages within the ecosystem.

Firstly, the value proposition for the primary end-users were developed, partly due to its importance and partly due to other activities within the project. Once the insights and opportunity areas were identified by CIID a discussion amongst project partners were held. The discussion were based on the understanding of each partners view on the material in regards to the potential value proposition believed to be achievable within the time-constraints of the project. Thereafter an initial value proposition, later to be confirmed by the primary end-users themselves, were formulated. To date it is formulated as; When needed, help will be provided and guidance will be offered.

The above stated value proposition will, once pilot participants have been recruited, be verified with the participants during interviews both before pilot start-up as well as in the closing stages of the pilot.

The development of the value proposition for the secondary and tertiary key stakeholders involve not only the material collected from the interviews above but also workshop activities once the final design concept for the project has been defined.

6.6. Service/Product Framing

Once the first versions of the value propositions for each stakeholder has been developed as well as the final design concept has been agreed upon it is possible to start framing the bundle of which the final service/product should encompass and what value-in-use it should strive to provide for its stakeholders.

This activity is planned to occur in the later stages of 2015 during a workshop activity preferably with as many consortium stakeholders as possible present in order to get a diversified view as possible. If possible and suitable the project should also strive to involve primary end-users during the workshop in order to maintain the user centre focus that the project have adopted during previous activities.

6.7. Business modelling

When the stakeholders and their respective value proposition has been mapped and developed and when the bundle of the final offering has been agreed upon it is possible to abstract the knowledge gained and start to compose a business model. The framework adopted within the project is that of the STOF business model as presented by Bouwman et al. (2008). The STOF model is comprised of four components. The service component is characterized by a description of the intended value, delivered value, expected value, and perceived value. It also includes the market segment for which the service is targeted. The technology component focuses on the technical infrastructure, service platforms and different devices and applications. The third component, organization, focuses on the actors and their roles, activities and strategies. The finance component describes how revenue is generated, including investments, costs, and pricing.

Apart from including the different components, Bouwman et al. (2008) stresses the importance of having a dynamic business model that adapts to the changing environment. Something which is suitable for the HELICOPTER project due to the suggestions made by the market observatory on the growing AAL market. It

is stated by Bouwman et al. (2008) that changes in trends, technological development and political and legal changes may affect the business model and lead to changes in one business model component, which further affect other components. Consequently, the model includes the influences of external forces and takes into account market drivers (influence of suppliers/customers/competitors), technology drivers (changes and innovations) and regulation drivers (privacy, intellectual property, regulations). There is also a need to adapt the business model as the service develops and changes, something that can be characterized by different phases: technology/R&D, implementation/roll-out and market. It is important to note that this is described as a linear process but that loops may occur as the service and business model develops over time.

The main benefit of adopting the STOF model within the HELICOPTER project is that it allows for changes as the project progresses as well as for continuation after project completion. Hence, the developed business model at this stage is not bound by time or contextual boundaries.

The construction of the initial business model is to be performed during a workshop no later than at the end of 2015. Participants from as many stakeholder groups as possible should be present during the workshop.

6.8. Synthesising offering

This step is meant as an intermediary step for stakeholders to provide feedback on the work so far and conduct changes to the material developed so far. It allows for an extra round of contemplation as well as updating the current material to match to, at that time, market specific knowledge. To be conducted at the start of 2016.

6.9. Pricing

Once the service/product offering bundle has been defined and an initial business model has been proposed and refined in the previous steps a pricing exploration can be performed. If proven successful it would be possible to acquire feedback from different stakeholder groups whether procurement of the final HELICOPTER project solution would be of interest. This activity involves a workshop with the business stakeholders of the project as well as other interested partners in order to develop a pricing strategy. It also involves interviews with demand side stakeholders in order to refine the pricing strategies.

The model to be used for the development of a pricing strategy will be adopted from Iveroth et al. (2013). The SBIFT model utilises five dimensions in order to develop a pricing strategy for an offering; Scope, Base, Influence, Formula and Temporal rights. Scope refers to the granularity of the offering, if the entire bundle of services/products are priced or the individual components. Base refers to how the price is set, whether it is based on development costs, on competitive pricing or based on the value as perceived by the customer. Influence refers to how much influence buyer and seller have on the final price, who exerts power on the other party. Formula focus on the relationship between the price and the volume produced, where the scale goes from fixed price regardless of consumption to payment per unit/hour consumed. The fifth and final dimension is that of temporal rights and it stipulates for how long the customer has the right to use the procured service/product. Here the scale goes from infinite use (at least in theory) to pay per use. Below the model is presented as it is presented in Iveroth et al. (2013).

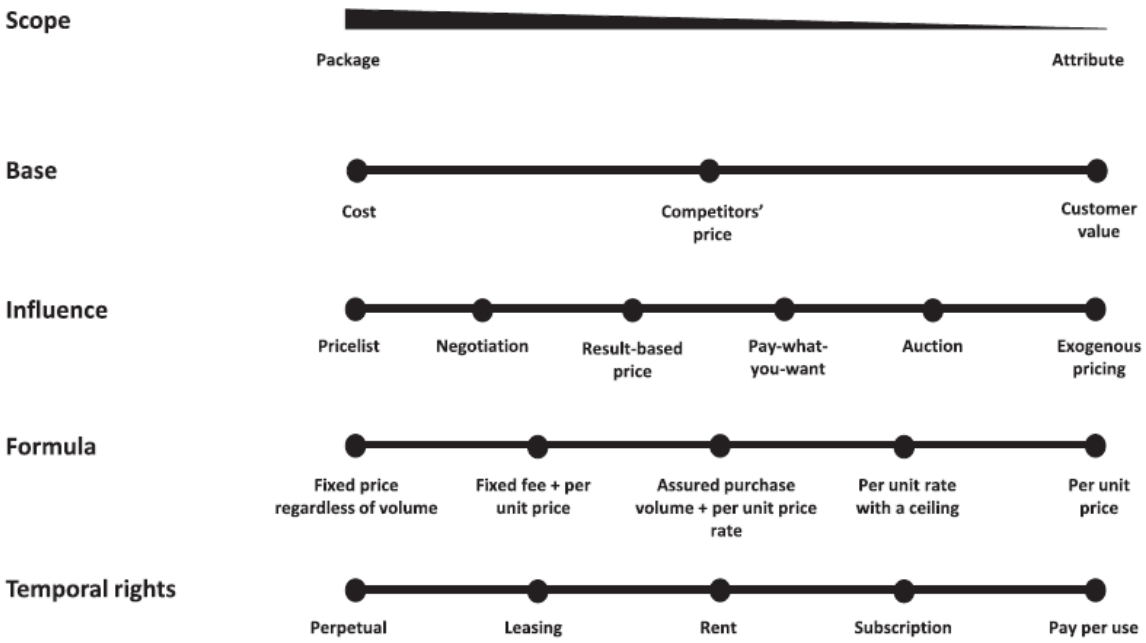

Figure 4: The SBIFT model as presented in Iveroth et al. (2013 pp. 113)

6.10. Mapping of the potential impact

The final activity to be performed is that of mapping the potential impact of the HELICOPTER solution by considering the primary end-users satisfaction and socio-economics as stipulated in task 5.3 in the project proposal.

Although this activity resides last in the activity list it is one activity that needs to be considered before pilot start-up and to be maintained during the entire pilot. Much of the data needed for this activity are embedded in the other activities, especially in the framing of the product/service but also formulated in the success parameters in the project proposal. It is the intent of the project to conduct a three layer analysis based on how the HELICOPTER solution could affect, if at all, the individual, the organisations and the society should a successful large scale implementation be conducted. This task involve identifying indicators of success and appropriate measurements for the identified indicators. This work can start when the first design concept has been agreed upon by the project consortium since the indicators will be solution specific. It will then run for the remainder of the project.

7. Conclusion

This document has outlined the activities pertaining to the business and exploitation activities of the HELICOPTER project as they can be explained and understood at present moment. By using knowledge gained by the AAL market observatory and transferring said knowledge into the HELICOPTER project a roadmap of activities have been presented in order to guide past and future work. Note however that the work builds on a dynamic approach and hence changes may occur depending on feedback given by key stakeholders in upcoming activities.

8. References

AMBIENT ASSISTED LIVING ASSOCIATION 2014. A study concerning a Market Observatory in the Ambient Assisted Living field. Brussels, Belgium.

BARRY, J., VAN GLABBEEK, G., LUHERNE, M., AQUILANO, M., OBACH, M. & RÖLKER-DENKER, L. 2013. Summary Market Review for AAL, The AALIANCE project.

BOUWMAN, H., FABER, E., HAAKER, T., KIJL, B. & DE REUVER, M. 2008. Conceptualizing the STOF model. *Mobile service innovation and business models.* Springer.

FROW, P., MCCOLL-KENNEDY, J. R., HILTON, T., DAVIDSON, A., PAYNE, A. & BROZOVIC, D. 2014. Value propositions: A service ecosystems perspective. *Marketing Theory*.

IVEROTH, E., WESTELIUS, A., PETRI, C.-J., OLVE, N.-G., CÖSTER, M. & NILSSON, F. 2013. How to differentiate by price: Proposal for a five-dimensional model. *European Management Journal,* 31**,** 109-123.

PEARLSON, K. E. & SAUNDERS, C. S. 2009. Strategic management of information systems.

VARGO, S. & LUSCH, R. 2008. Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science,* 36**,** 1-10.

VARGO, S. L. & LUSCH, R. F. 2010. From repeat patronage to value co-creation in service ecosystems: A transcending conceptualization of relationship. *Journal of Business Market Management,* 4**,** 169-179.

ZOTT, C., AMIT, R. & MASSA, L. 2011. The business model: recent developments and future research. *Journal of management,* 37**,** 1019-1042.