

# Project FoSIBLE Fostering Social Interactions for a Better Life of the Elderly



#### Deliverable

D8.5: Overall and Individual Partner's exploitation plans

#### Responsible

All Partners

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# Abstract

FoSIBLE partners aim to ensure the impact and outreach of the project's knowledge, services and products in academia, the industry, targeted end user organisations and the general public. This document reports on the overall and partners' individual exploitation plans.

The exploitable products and services reach from iTV Awareness Service, Social iTV Games, Frameworks for designing assistive technologies for elderly at home, Frameworks for evaluating assistive technologies for elderly at home, Lab evaluation of freehand gesture interaction approach to Gesture-based interaction research and Sensor-based assisted living environment.

Describing the partners' individual exploitation plans, we first present the partners' backgrounds and give a brief market overview for the specific sectors. Subsequently, the knowledge, products or services for exploitation as well as the business aims and the exploitation strategy are described.

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# **1. Individual Partners' Exploitation Plans**

The following Table provides an overview over the individual partners' exploitation plans in the FoSIBLE project.

Exploitable Knowledge (description)	Exploitable products or measures	Sectors of application	Timetable for commercial use	Patents or other IPR protection	Owner & Other Partners involved
iTV Awareness Services	iTV Widget component; Social Media Platform Services;	End-users; Integrators	0-6 month after the end of the project	None	UDE
Social iTV Games	iTV Widget component; Social Media Platform Services	End-users	12 month after the end of the project	None	UDE
Framework for designing assistive technologies for elderly at home		End-users; Technology providers	0-6 month after the end of the project	None	UTT, USI
Framework for evaluating assistive technologies for elderly at home		End-users; Technology providers; Service providers; Insurance companies	0-6 month after the end of the project	None	UTT, USI
Sensor-based assisted living environment	Mauser-Runtime, HBBTV Widget for sensor assisted living in the home environment	Integrators	6-12 month after the end of the project	None	Mauser, IMS
Gesture-based interaction research	Scientific publication	End-users; Technology providers; Researchers	0-6 month after the end of the project	None	CURE
Lab evaluation of freehand gesture	Scientific publication	End-users; Technology	0-6 month after the end of the	None	CURE

Exploitable Knowledge (description)	Exploitable products or measures	Sectors of application	Timetable for commercial use	Patents or other IPR protection	Owner & Other Partners involved
interaction approach		providers; Researchers	project		
Device design	Tablet Software	End-users 50+; Middleware providers	6 month after the end of the project	None	AIT
Dynamic vision sensor technology	Dynamic vision sensor technology	End-users 50+; Smart environment providers	1-2 years after the end of the project	Yes	AIT
iTV interaction Services	App / Software	End-users 50+	6-12 month after the end of the project	None	Kaasa

# **1.1 University of Duisburg-Essen (UDE)**

# 1.1.1 UDE Background

The University of Duisburg-Essen is an academic research and education institute. The Interactive Systems Research Group is specialised in human-computer interaction with a particular focus on information visualization and interfaces for semantic data, intelligent interactive systems, playful and social interaction as well as user interface engineering and user experience research.

The mission of University of Duisburg-Essen is to transfer knowledge in education (Bachelor, Master and Doctoral thesis'), to transfer knowledge to economy through spin-offs and to disseminate knowledge through publications and congress contributions.

The University of Duisburg-Essen will act as a non-profit organisation that is committed to scientific research and the highest international academic standards. Due to the non-profit nature of University of Duisburg-Essen, our potential exploitation activities mainly fall into the spheres of education, research and knowledge transfer.

#### **1.1.2 UDE's Market overview**

As a research and education institute, the Interactive Systems Group at the University of Duisburg-Essen follows an interdisciplinary approach in close cooperation with academic and industrial partners. The research addresses a wide range of application domains, including electronic business, social media, serious games, smart environments and automotive applications. The Interactive Systems Group is also strongly involved in the university's educational programs in Applied Computer Science and Applied Cognitive and Media Science, offering courses in introductory and advanced HCI, adaptive user interfaces, electronic business as well as general computer science subjects.

## 1.1.3 UDE's knowledge, products & services for exploitation

The products & services we plan to deliver are:

- Services
  - o iTV Awareness Services
  - Social iTV Games
- Research Foundation
  - Knowledge and design implications on different forms of visualisation and their connection to awareness creation in an intergenerational context
  - o Knowledge about privacy issues connected to different awareness mechanisms
  - Knowledge and design implications on sociability and social family interaction evoked by Social TV combined with Social Gaming
  - Knowledge about shared entertainment experience within the family evoked by Social TV combined with Social Gaming

- Knowledge about usability issues in Social TV combined with Social Gaming for an intergenerational target group
- o Knowledge about AAL-specific demand

Exploitable result	iTV Awareness Services
Functionality	Enables users to become aware through FoSIBLE iTV Widget of activities of peers and family members
Purpose	To provide an overview on others activities and to enable and foster interaction with family members and peers
Innovation	Empirically validated concepts for awareness support in Social TV environments with focus on factors (like TV genre) influencing the desire to watch TV (virtually) together
Partner(s) involved	UDE
Role and activities	Concept & Prototype validation
How the result will be exploited	This functionality is integral part of the FoSIBLE platform and will be exploited during the platform and service exploitation. The overall empirical knowledge of this domain was and will be exploited in publications.
Additional research and development work	On-going
IPR protection measures	None
Commercial contacts	ТВС

Exploitable result	Social iTV Games
Functionality	Enables users to interact and play with co-located peers and family members while watching TV
Purpose	To provide a reason for and the possibility of playful interaction with family members and peers during TV reception
Innovation	Empirically validated concepts for support of social presence through playful interaction in Social TV environments
Partner(s) involved	UDE
Role and activities	Concept & Prototype validation
How the result will be exploited	This functionality can be integrated in the FoSIBLE platform or be exploited as a stand-alone solution
Additional research and development work	On-going
IPR protection measures	None

Commercial contacts TBC

#### **1.1.4 Business Aims & Objectives**

- Services
  - o Exploitation of iTV Awareness Services as integral part of the FoSIBLE platform
  - Spin-off for exploiting Social iTV Games
- Research Foundation
  - o Knowledge transfer, e.g. publications, workshops, lectures
  - Expertise for further AAL projects
  - $\circ\,$  Basis for Bachelor, Master and Doctoral theses and student projects

#### **1.1.5 Exploitation Strategy**

#### Target groups & markets

- Services
  - End-Users, especially families living apart
  - Entertainment market
- Research Foundation
  - Researchers
  - Students
  - $\circ \text{ Industry}$

#### **Exploitation Mix**

- Planned and possible Publications, Conferences and Workshops
  - o AAL Kongress, AAL Forum, Mensch & Computer, CHI
- Web and Social Media
  - FoSIBLE homepage
  - FoSIBLE newsletter
  - Homepage of Interactive Systems research group
- Project application for further AAL projects
- Internal dissemination at the University towards students
- Video presenting the Social iTV Game

# **1.2 University of Technology of Troyes (UTT)**

# 1.2.1 UTT Background

The Technology University of Troyes is a state university, belonging to a network of three universities of technology. Since January 2008, all the UTT research teams have joined forces under the auspices of the Charles Delaunay Institute and have been in association with the CNRS (National Scientific Research Centre) since 2006. UTT has outstanding experience in the analysis and modelling of cooperative activities created by ICT-mediated tasks. One strategic research programs launched by UTT was dedicated to the definition of an online platform dedicated to social support. Another one of these strategic programs is focusing on frailty management of elder people. UTT is strongly implicated in the local associative and industrial fabric, which is a clear advantage to recruit end-users target groups, and to find industrial partners and find relays to promote our products.

By its privileged relationship with the end-user organization (Les Arcades), UTT is the leader in the requirements analysis and the practical evaluation phases. During the requirements analysis step, UTT has organized participatory design workshops, conducted semistandardized interviews and participant observation sessions with members of the estimated user group, and has conducted a market research on competitors' technologies already in the market. Considering practical evaluation, UTT will conduct interviews with the end users, observe the participants, collect cultural probes and conduct usability testing.

UTT is committed to scientific research following the highest international academic standards. Due to its nature, the potential exploitation activities mainly fall into the spheres of education and research.

## 1.2.2 UTT's Market overview

UTT is a public university involved in education, research and transfer. In this university, the work conducted by the Tech-CICO research team concerns the analysis and modelling of cooperative activities mediated by ICT. The research carried out is mostly in the context of Computer Supported Cooperative Work, a pluridisciplinary research trend calling upon disciplines as varied as (for Tech-CICO) sociology, psycho-sociology, linguistics, cognitive ergonomics, management, information systems, knowledge management and engineering, or software design.Tech-CICO has a strong connexion with industrial partners (large companies and high-tech SME) and is involved in several funded projects, at a regional, national or European level. Healthcare is one of the dedicated business area addressed.

## 1.2.3 UTT's knowledge, products & services for exploitation

We plan to deliver methodological findings related to design and evaluation of assistive technologies for elderly at home.

These findings could be delivered in the frame of the LivingLab ActiveAgeing which is actually under construction in UTT.

Exploitable result	Framework for designing assistive technologies for elderly at home
Purpose	Guiding technology providers in the participatory design of assistive technology
Innovation	Such framework does not exist for the moment, at least for this domain.
Partner(s) involved	UTT, USI
Role and activities	Framework definition
How the result will be exploited	This framework will be available as a service offered by the LivingLab ActiveAgeing in UTT.
Additional research and development work	On-going
IPR protection measures	Scientific Publication
Commercial contacts	To be defined

Exploitable result	Framework for evaluating assistive technologies for elderly at home
Purpose	Guiding technology providers in the evaluation of their assistive technology.
	Guiding service providers and/or insurance companies to evaluate technologies they would like to offer to their clients.
Innovation	Such multi-factorial framework does not exist for the moment, at least for this domain.
Partner(s) involved	UTT, USI
Role and activities	Framework definition
How the result will be exploited	This framework will be available as a service offered by the LivingLab ActiveAgeing in UTT.
Additional research and development work	On-going
IPR protection measures	Research publication
Commercial contacts	To be defined

# **1.2.4 Business Aims & Objectives**

- Services
  - Sustainable design/evaluation service will be offered to technology providers, service providers and insurance companies

- Research Foundation
  - $\circ$   $\;$  Strengthen the position of UTT in the Living Lab sector  $\;$
  - Cooperation with technology/service providers, insurance companies, e.g., to build a relevant network for the Living Lab results
  - o Gaining more expertise in this research field for acquiring new projects
  - o Knowledge transfer, e.g. publications, workshops, lectures
  - Basis for Bachelor, Master and Doctoral Theses

#### **1.2.5 Exploitation Strategy**

#### Target groups & markets

- Research Foundation
  - The design and evaluation frameworks will be offered to technology providers, service providers and insurance companies

#### **Exploitation Mix**

- Fairs
  - Foire de Châlons en Champagne
  - Salon de la mutualité française
- Web and Social Media
  - ActiveAgeing website (www.inclusive-aging.de)
  - FoSIBLE homepage
  - FoSIBLE newsletter
- Cross Selling
  - With MADoPA association (dedicated to the evaluation of technologies for frail people)

# 1.3 University of Siegen (USI)

# 1.3.1 USI Background

University of Siegen (USI) and Information Systems and New Media Group investigates development and appropriation processes of cooperation and new media systems. The research focuses on user-centred, practice-oriented IT media design, participatory action research, and ubiquitous technologies. In terms of complementarities of expertise, USI brings in broad experience and knowledge of designing community-centred interactive TV formats and practice- and user-centred research methodologies as the living lab approach. USI has been a key partner in a number of projects, e.g. FP7 and numerous national (German) research projects (BMBF, BMWi).

#### 1.3.2 USI's Market overview

USI will act as a (non-profit) organisation that is committed to scientific research and the highest international academic standards. Due to the non-profit nature of USI, our potential exploitation activities mainly fall into the spheres of education and research. As such in particular and relevant to FoSIBLE, Information Systems and New Media Group organizes a HCI Master course with international partners from the USA and Europe. At the moment, the evaluation framework/service is being defined at USI which will be offered to German industry and insurance companies dealing with assistive technologies for elderly. The evaluation service will use Living Labs that USI has been formed in past projects, including the FoSIBLE.

## 1.3.3 USI's knowledge, products & services for exploitation

Exploitable result	Framework for designing assistive technologies for elderly at home
Purpose	Guiding technology providers in the participatory design of assistive technology
Innovation	Such framework does not exist for the moment, at least for this domain.
Partner(s) involved	UTT, USI
Role and activities	Framework definition
How the result will be exploited	This framework will be available as a service offered by the USI.
Additional research and development work	On-going
IPR protection measures	Scientific Publication

Commercial contacts | To be defined

#### **1.3.4 Business Aims & Objectives**

- Services
  - Sustainable design/evaluation service will be offered to technology providers, service providers and insurance companies
- Objectives
  - Gaining initial market reach with evaluation service/ framework in state of NRW and across Germany
  - Acquisition of new projects for further activation of the evaluation framework/ service

#### **1.3.5 Exploitation Strategy**

#### Target groups & markets

• The design and evaluation frameworks will be offered to technology providers, service providers and insurance companies dealing with assistive technologies for elderly users.

#### **Exploitation Mix**

- Publications and Conferences
  - o CHI 2013
  - o EuroITV 2013
  - o Petra 2013
  - o C&T 2013
  - o AAL Kongress
- Web and Social Media
  - ActiveAgeing website (www.inclusive-aging.de)
  - FoSIBLE homepage
  - FoSIBLE newsletter

# **1.4 Fraunhofer Institute for Microelectronic Circuits and Systems** (IMS)

# 1.4.1 IMS Background

The Fraunhofer Institute of microelectronic circuits and systems (IMS) has got more than 150 engineers. One of the missions of the department TSA, formerly IRG, of the Fraunhofer IMS is research, development and applicability evaluation of electronic components and systems for smart environment networks. The competences are the embedding of intelligent and distributed electronic components into technical appliances, equipment and machines, and the integration of ambient intelligence into complete application environments in the form of embedded electronic networks.

The Fraunhofer IMS also has a business area "Ambient Intelligence Systems". From novel assistance systems for more efficiency in the nursing and hospital area, in the area of energy facility management up to solutions for the next generation office – in the business unit Ambient Intelligence Systems the Fraunhofer IMS offers electronic Ambient Intelligence solutions for the gain of producers, operators and end users.

Since 1998 the Fraunhofer IMS has achieved a high know-how potential in this area by building up and managing the Fraunhofer inHaus center for intelligent room and building systems with its numerous possibilities and its reputation in the research and development market in Germany and Europe. Thereby, we understand innovation as the process "from the good idea to the good business". The product range is precisely directed to the customers' all-dominant thinking and actions. In doing so, many innovations could be successfully transferred into the commercialization e.g. service gateways of all kinds, simplest operation concepts, energy efficiency solutions (e.g. smart metering, remote heating pump systems) or even assistance solutions for the enormously increasing market of senior citizen living and nursing.

The Fraunhofer IMS will act as a non-profit organisation that is committed to scientific research. Due to the non-profit nature of the Fraunhofer IMS, the potential exploitation activities mainly fall into the spheres of research.

## 1.4.2 IMS's Market overview

The Fraunhofer IMS acts as a development service provider in the market for ambiance assistance systems in the home environment and in care facilities. The focus is on users in the elderly age, who often live alone and are often supported by a service, such as assisted living. In the development of solutions, Fraunhofer IMS has several partners. These are usually either companies with products in the living environment (such as home automation companies, furniture manufacturers and consumer electronics manufacturers) or operators of home care services and patient care facilities.

The requirements coming from the market are made by different groups. End users want as long as possible an independent live in their own home environment and are interested in service offerings that make life easier and increase comfort. They also want to increase the social contact with others. Care providers are interested in serving the above requirements to be attractive to their customers. In addition, there are also business requirements, such as the optimization of the care process, reducing the cost of care and the relief of the nurses.

In the market various actors operate, but often they put their focus only on one of the two requirements. For example, on the market there are solutions that are designed to increase the comfort of the users, as well as solutions for care providers to support the care accounting and care planning. Sometimes, these actors are willing to extend their activities into an overall solution. In this context, the Fraunhofer IMS is not being seen as a competitor, because it does not distribute an own solution but as a helper for this overall approach.

#### 1.4.3 IMS's knowledge, products & services for exploitation

The products & services we plan to deliver are:

- Technical components:
  - Furniture with integrated intelligence (Mauser-Runtime)
  - Parts of the FoSIBLE widgets to control the environment
  - Tablet App for environmental control
- Services:
  - o Development services in the field of AAL systems
- Research Foundation:
  - Experience in Usability Engineering in applications for seniors
  - o Situation-related assistance in the residential environment
  - User acceptance experiences of sensor-based systems

Exploitable result	Sensor-based assisted living environment
Functionality	Sensor-based living environment with definable assistances functions to increase comfort of the user.
Purpose	Comfortable control of the environment and intuitive access to information.
Innovation	Empirically validated concepts for awareness support in Social TV environments
Partner(s) involved	Mauser, Fraunhofer IMS
Role and activities	Concept & Prototype validation
How the result will be	The solution can be exploited in the overall FoSIBLE solution as well

exploited	as alone. But it must be further developed into a product.
Additional research and development work	On-going
IPR protection measures	None
Commercial contacts	ТВС

#### **1.4.4 Business Aims & Objectives**

- Technical components
  - o Further development of the current state to a product
  - o Development of an initial start-up concept
- Services
  - New development projects in the field of ambient systems
- Research Foundation
  - Further evaluations in the laboratory and in the field with new interaction elements.

#### **1.4.5 Exploitation Strategy**

#### Target groups & markets

- Manufacturer of "smart home" systems which are interested to develop new concepts in the home environment
- Care facilities which are interested in new solutions of social interaction between the residents and their relatives
- Individual users via an intermediary

#### **Exploitation Mix**

- Publications, Trait Fairs and Conferences
  - o Trait Fair: RehaCare
  - Trait Fair: Altenpflege
  - o Bachelor, Master and Diploma Thesis
- Web and Social Media
  - Website Fraunhofer-inHaus-Center (<u>http://www.inHaus.fraunhofer.de/</u>)
- Guided InHaus tours where the products are on display

# **1.5** Austrian Institute of Technology (AIT)

# 1.5.1 AIT Background

The AIT Austrian Institute of Technology, Austria's largest non-university research institute belongs to the European research institutes as a specialist in the key infrastructure issues of the future. As an Ingenious Partner to industry and public institutions, AIT is already researching and developing the technologies, methods and tools of tomorrow - paving the way for the innovations of the day after tomorrow. AIT combines with success the research world and the economic one through its shareholders which are on one side the Republic of Austria represented by the Federal Ministry for Transport, Innovation and Technology with a share of 50.46% and by the Federation of Austrian Industries which owns 49.54% of the AIT Austrian Institute of Technology. Thanks the involvement of a public private partnership, AIT acts as a national and international network node at the interface of science and industry. AIT enables innovation through its scientific-technological expertise, market experience, tight customer relationships and high quality research infrastructure. In Austria, there are over 1.100 employees working in the fields of health & environment, energy, mobility and safety & security. In regard to the European innovation system AIT fulfills this role by its new orientation, providing a research environment to address mid- to long-term challenges of Austrian and European key industries. The innovation model of AIT can be summarized as follows:



Figure 1: key players and their contributions in the Austrian innovation system

## 1.5.2 AIT's Market overview

AIT is strategically positioned as a key player in the Austrian and European innovation system by performing applied research for and enabling the market exploitation of innovative infrastructure related solutions. This functionality of "bridging the gap between research and technology commercialization" is seen as a fundamental role for commercialization of new technologies and strengthening economic development. Compared to universities which are focusing on basic research and COMET competence centers addressing more the short term exploitation of research results by joint research efforts of universities, research organizations and industry, AIT covers the entire spectrum from taking up emerging technologies, first proof of concepts, applied research to transferring these emerging technologies into specific applications up to demonstrators and prototyping. This allows us to bridge basic research and industrial pick up of new technologies for commercialization.



## 1.5.3 AIT's knowledge, products & services for exploitation

The availability of new information and communication technologies (ICT) enables new approaches to a modern health care system and assistance systems for the elderly. Therefore AIT focus within the business unit **Assistive Healthcare Information Technology** on the main health challenges in our society and closely cooperate with leading national healthcare institutions (medical universities, hospitals and insurance companies) to develop next generation technologies for crucial application areas like the treatment of diabetes, heart failure and physical impairment and assess alternative human-computer interfaces technology for a pioneer position within the European and the world market in AAL applications such as in the FOSIBLE project. Together with care givers, health care providers, and ICT companies, they are envisioning systems which support a tight linkage between the

elderly people, their relatives, and care givers. The goal is to enable the elderly to live an independent life as long as possible, but to quickly provide support in case of emergency.

Exploitable result	Tablet Software
Functionality	Device design
Purpose	Distribution to an industry partner such as Deutsche Telekom for device design, certification and mass production or implementation to end-users
Innovation	Sensor based system including sensors for status information with the smart eye UCOS, sensors as control devices with 3D vision sensors using the dynamic vision sensor (DVS). Software development for registration, control system status and derive control commands.
Partner(s) involved	AIT
Role and activities	Sensor design and integration into the middleware for the life support of 50+ years old.
How the result will be exploited	identification of the right industry partner(s) and end-user channels with a licensing strategy
Additional research and development work	Software development for registration, control system status and derive control commands.
IPR protection measures	Patent and licensing
Commercial contacts	Deutsche Telekom, home care service providers, health insurance companies

Exploitable result	Dynamic vision sensor technology
Functionality	Contribute to integrate a complete smart environment solution including
	furniture, extensible sensor environment
Purpose	AAL functions and a social platform for 50+ years
Innovation	The gesture recognition system distinguishes itself from existing solutions by allowing a "stand alone" operation independent from PC hardware. Allows to interface to a number of devices/smart TV sets without additional technical knowledge and devices/cables
Partner(s) involved	AIT
Role and activities	Design the necessary sensors and make them available for the AAL environment of 50 + years

How the result will be exploited	Integration of the middleware with a social platform. Combinability of different elements to defines the assistance, integration of the social platform and the modular sensor system into the home environment.
Additional research and development work	Contribute to the implementation of cross-system solution allowing various applications such as the smart eye UCOS and 3D sensors.
IPR protection measures	Licensing strategy
Commercial contacts	Deutsche Telekom, home care service providers, health insurance companies

#### 1.5.4 Business Aims & Objectives

The key objectives are: (1) Providing the FoSIBLE project with market information both regarding technical and commercial developments (2) Developing a strategy for exploiting project results identifying the appropriate distribution channels.

## **1.5.5 Exploitation Strategy**

#### Target groups & markets

- Tablet:
  - Plan to licence the software to industrial partners for either integrating it into their products or distribute as stand-alone application
- Gesture Recognition:
  - AIT would licence the device design to an industrial partner that takes care of a production optimised design, certification and mass production
  - The revenues of this industrial partner from selling the device to end users would flow back to AIT in form of licence fees

#### **Exploitation Mix**

Exploitation, marketing and communication are achieved through these means:

- Academic
  - Bachelor, Master, Diploma and Doctoral Thesis (e.g. on gesture recognition)

The pillars of FoSIBLE exploitation strategy are: tracking important technical and commercial developments in both information retrieval and reasoning; analyzing the market sector(s) where the results can be sold or licensed; analyzing relevant market segments within the previously identified wider market sectors; identifying the results of FoSIBLE that are exploitable: particularly the framework, the modeling processes and some of the plug-ins and the innovative applications developed within the use cases; and identifying the

appropriate distribution channels to exploit the different results of the project. This includes a detailed analysis of benefit and impact for the FosIBLE consortium as a whole as well as for the results of individual participants.

# 1.6 Centre for Usability Research and Engineering (CURE)

# 1.6.1 CURE Background

CURE is one of Europe's leading organizations specialized in the area of utilization and development of user experience engineering and user centred design methods, the study of user experience factors in diverse contextual settings and the methodological transfer into design improvements for human-computer interaction, user interface design research. CURE strives for simplicity in use, innovative and highly usable interaction. These can be achieved in (technological) systems, information and services. Optimized and creative user experiences have to be developed through the exploitation of multidisciplinary know-how and innovative synergetic approaches. By enhancing the user experience and consideration of context of use we can achieve optimized interaction for improving and simplifying people's lives. User-centred perspectives empower the development of innovative and successful services, products and information environments and will foster innovation in general.

CURE will act as a non-profit organisation that is committed to scientific research and the highest international academic standards. Due to the non-profit nature of CURE, our potential exploitation activities mainly consist in the transfer of the acquired knowledge drawn from project activities. CURE's main contribution to the development of the project will be to conduct lab evaluations to ensure the validity of the project.

## 1.6.2 CURE's Market overview

CURE's emphasis is on a user-centred approach trying to deepen its knowledge in user requirements analysis and user evaluation, especially in the realm of assistive technology research. As a non-profit research organization, CURE aims to develop services and related tools and concepts that can be utilized in industrial research and consulting. The results from research projects with respect to knowledge about the user requirements analysis and evaluation methods are utilized in order to develop strategies for the support of companies in various markets. For example, methods for analysing user acceptance in early prototyping phases are being evaluated for further industry usage. With industry interests growing in this domain, it is of crucial importance to be at the forefront of knowledge in this respect in order to provide adequately targeted support.

## 1.6.3 CURE's knowledge, products & services for exploitation

The products & services we plan to deliver are:

- **Technical components:** CURE is developing an interaction concept for varying needs in the context of social TV interaction of older adults. The interfaces developed during the course of the project, i.e. the free hand gesture-based interaction with the TV provide knowledge in terms of gesture-based interaction design challenges that have been solved. The development of a TV interface for the simulation of the TV menu control tasks as well as the development of elderly interaction approaches is of central interest.
- Services: CURE expects to gain new knowledge and develop integrated solutions through the applied research process by working with industry and SME partners in

state-of-the-art research. As an independent research entity mainly working in cooperation projects, this a valuable benefit for future activities. We see exploitation opportunities in the advancement of the gestural interaction paradigm that is reusable in different formats in various applications and solutions not only for the elderly.

• **Research Foundation:** On the methodological level we strive for the integration of innovation methods in user centered design, the development of qualitative as well as quantitative approaches to study user experience, the further development of lab methods and technologies as well as the advancement of qualitative assessment techniques and tools which take into account the needs and capacities of the special user group. The integration of the user group has been proved very fruitful in the past and needs to be extended. Scientific results from efforts and evaluation studies are disseminated (i.e. HCI related conference, book chapter) and findings are made available to the HCI research community.

Exploitable result	Gesture-based interaction research
Functionality	Collection of scientific knowledge and State-of-the-Art in gesture-based interaction
Purpose	To provide a viable knowledge base on new opportunities for older adults to interact with new technologies at home
Innovation	Freehand gestural interaction approach, with focus on older adults as target users
Partner(s) involved	CURE
Role and activities	State-of-the-Art analysis and beyond state-of-the-Art problem statement
How the result will be exploited	The knowledge is available to researchers in form of a scientific publication
Additional research and development work	-
IPR protection measures	Scientific publication
Commercial contacts	-

Exploitable result	Lab evaluation of freehand gesture interaction approach
Functionality	Identification of users' preferences and barriers regarding TV menu control freehand gestural interaction
Purpose	To provide viable indicators for performance and acceptance of gestural interaction by older and young adults
Innovation	Freehand gestural interaction approach, with focus on older adults as target users, performance evaluation of different TV input methods
Partner(s) involved	CURE

Role and activities	Study conception, implementation of low fi prototypes for gestural TV menu control and evaluation using Wizard of Oz components
How the result will be exploited	The knowledge is available to researchers, service developers and providers in form of a scientific publication
Additional research and development work	On-going
IPR protection measures	Scientific publication
Commercial contacts	-

#### **1.6.4 Business Aims & Objectives**

- Research Foundation
  - Gaining extended expertise in research fields of natural interfaces research, respectively gesture-based interaction
  - Enhancing the understanding of the user group of older adults performing new interaction techniques (including gestures, touch, interactive TV)
  - Strengthening the cooperation with AAL service and product providers and developers in order to set up new projects

#### **1.6.5 Exploitation Strategy**

#### Target groups & markets

- Research Foundation
  - Acquired knowledge will be shared with researchers, service and technology providers:
    - Methodological: e.g. conducting innovation games in idea generation workshops with older adults
    - Interaction: implementing and evaluating freehand gesture interaction prototypes for older adults

#### **Exploitation Mix**

- Publications and Workshops
  - European Interactive TV Conference EuroITV 2013: full paper
  - Special Issue: Journal of Technology Behavior
- Web and Social Media
  - CURE website (<u>http://www.cure.at/)</u>

## 1.7 Mauser Care

## 1.7.1 Mauser Care Background

Mauser Care is an international industrial company specialising in providing interiors for caretaking for the elderly environments. At this point these products aim at the institutional market but it is planned to extend the offer to the private sector. Mauser Care also offers a wide range of products and services from consultancy, layout and interior planning to designing, manufacturing and installing interior components and furniture.

#### 1.7.2 Mauser Care's Market overview

Mauser Care is one of the leading companies for the furnishing of caretaking institutions in Germany and its neighboring countries. In the future it is planned to extend these services to the private sector.

As part of the Vauth-Sagel group of companies, Mauser Care has access to a most comprehensive range of manufacturing technologies upon which product development can be based. Mauser has been manufacturing products for the medical and caretaking sector for more than 40 years and is continuously expanding its scope of services beyond the mere delivery of interior components. With this holistic approach Mauser Care is partner to the customers from the very first stage of planning of their institution.

## 1.7.3 Mauser Care's knowledge, products & services for exploitation

Exploitable result	Sensor-based assisted living environment
Functionality	Sensor-based living environment with definable assistances functions to
	increase comfort of the user.
Purpose	Comfortable control of the environment and intuitive access to
	information.
Innovation	Empirically validated concepts for awareness support in Social TV
	environments
Partner(s) involved	Mauser, Fraunhofer IMS
Role and activities	Concept & Prototype validation
How the result will	The solution can be exploited in the overall FoSIBLE solution as well as
be exploited	alone. But it must be further developed into a product.
Additional research	
and development	On-going
work	

The products & services we plan to deliver are:

IPR protection	None
measures	
Commercial contacts	TBC

Exploitable result	Smart Furniture
Functionality	Furniture as a component of a sensor-based assisted living environment
	for a non-technical access to digital media through a furniture surface
Purpose	Facilitation of access to digital social networks for the elderly
Innovation	New control concept for the use of technical elements with ambient technology
Partner(s) involved	Mauser, Fraunhofer IMS
Role and activities	Concept & Prototype validation
How the result will	The solution can be exploited in the overall FoSIBLE solution as well as
be exploited	alone. But it must be further developed into a product.
Additional research and development work	On-going
IPR protection	None
measures	
Commercial contacts	ТВС

## **1.7.4 Business Aims & Objectives**

- Objective
  - Expansion of field of business to the private sector.
- Product
  - Range of furniture and related products for private users with physical limitations caused by age or other factors
- Service
  - Assistive functions including motive support, control of home facilities, safety features and access to social platform designed specifically for this type of user

## **1.7.5 Exploitation Strategy**

#### Target groups & markets

- Middle-aged private customers wishing to stay in their private homes as long as possible.
- Product concept
  - System of services and products to adapt the living environment to varying degrees of physical limitations. Comfort and safety functions such as home facility control will make the system attractive to a wider range of users even before they suffer actual limitations.

#### **Exploitation Mix**

- The product will be offered through a network of partners who will introduce potential users to the system. Here Mauser Care will have to establish cooperations with distribution and service partners.
- Web and Social Media
  - Website (http://www.mauser-office.de/de/care/index.php)
- Trade Fairs
  - Altenpflege 2013
  - o RehaCare 2013
  - Selected regional trade fairs and exhibitions

## 1.8 Kaasa

## 1.8.1 Kaasa Background

Kaasa solution has been on the market software development for the last 12 years of which the last six years Kaasa has distributed several games and applications through digital distribution channels. In addition to that they have done business development in new fields whenever new developments in digital distribution have come up. A good example for this is the rise of the now widely known "App Stores" of several smartphone manufacturers around the world.

#### 1.8.2 Kaasa's Market overview

The software developed for smart TVs within the Fosible project is programmed to be available through digital distribution. The market of smart TV applications is currently evolving throughout Europe. The biggest market share of installed devices is currently taken by Samsung with its several device models. Based on the available market data throughout the project the app development has been concentrating on Samsung systems due to their big market penetration and the available software development kits.

#### 1.8.3 Kaasa's knowledge, products & services for exploitation

Exploitable result	App / Software
Functionality	Social TV app on smart TV in combination with tablet
	integration
Purpose	To give elderly people an easier way to communicate among
	their peer groups with smart TV technology
Innovation	Context specific Smart TV app in combination with tablet App
	from AIT
Partner(s) involved	Kaasa. Possible key partners: AIT, Mauser, IMS
Role and activities	Business development, digital distribution of the app
How the result will be exploited	Digital distribution of the existing smart TV and tablet systems
Additional research	
and development work	
IPR protection	None
measures	

The products & services we plan to deliver are:

Commercial contacts

The existing Kaasa network

## **1.8.4 Business Aims & Objectives**

- Objective
  - Establish the programmed apps for smart TV and tablet within the according markets
- Product
  - Create possible packages or bundles maybe establishing it on a pre-installed basis within relevant distribution channels
- Service
  - Social app for smart TV and tablet in several languages

#### **1.8.5 Exploitation Strategy**

#### Target groups & markets

The main exploitation strategy is to create partnerships with device manufacturers to create bundles or packages with smart TVs and tablets in combination to the relevant elderly people. Other interesting partners are set top box manufacturers that put their systems into elderlies' homes as well as home care systems. A pre-installed solution for these hardware devices would be the preferable way to go.

The second option for exploitation is the easy distribution through the existing app stores for tablets as well as smart TVs. In parallel to this to find possible PR contacts that are interested to write or create a story around the use of these new technologies for this relevant target audience.

#### **Exploitation Mix**

- The product will be offered through a network of partners who will introduce potential users to the system.
- Web and Social Media
  - o Website
  - $\circ$  Facebook
  - o Twitter feeds
  - PR idea with consortium partners

## 1.9 Les Arcades

## 1.9.1 Les Arcades Background

Les Arcades are held periodically expertise or implementation of projects funded by departmental, regional or national. Thus, over time, arcades built a network of partners involving various structures and institutions. Les Arcades has already participated extensively in previous collaborative research programmes such as PréDICA and Suvimax 2.

#### 1.9.2 Les Arcades' Market overview

Established in April 1980 on the initiative of Médéric, the centre of social information and gerontological activities "Les Arcades" is financed by the Malakoff Médéric Group (MMG), which is one of the biggest players in complementary medical insurance in France.

#### 1.9.3 Les Arcades' knowledge, products & services for exploitation

The products and services we plan to deliver are the FoSIBLE platform, widget and tablet interaction with its Social Services for elderly people. They will be delivered to its members as senior end-users for the evaluation of the system.

#### **1.9.4 Business Aims & Objectives**

Les Arcades has set a goal of promoting the transition from work to retirement and fight against the isolation of the elderly. Les Arcades has set a goal of promoting the transition from work to retirement and fight against the isolation of the elderly. It is now organized into 4 poles:

- Prevention pole based on the AGIRC ARRCO model of prevention centres which national coordinator is the director of Les Arcades.
- Sensory pole including a memory consultation and day accommodation of Alzheimer patients in collaboration with the Alzheimer Médéric Foundation. The pole is also involved in the care of hearing problems, postural instability or low vision.
- Training pole for personnel working in the field of gerontology.
- Pole « survey research »

## **1.9.5 Exploitation Strategy**

The FoSIBLE project mirrors the interests of both the "Prevention Centre Les Arcades" and the "Association Michel Voix" via:

- Its aims to reduce the isolation of elderly people.
- Its strategy of proposing innovative solutions to promote "successful ageing".

The orientations for the Federations of AGIRC-ARRCO 2011-2013 affirmed their support for solutions using new technologies in order to help the elderly to remain autonomous in their own homes, and to contribute to its deployment including research and development phases.

The "Centre Les Arcades" is currently involved in deliberations on the possible future practical uses of this product by its members.