# Join-In

**Senior Citizens Overcoming Barriers by Joining Fun Activities**

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## Exploitation Plan

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# Table of Contents

# 1 About Join-In

**Join-In: preventing loneliness in the elderly through social networking**

Loneliness and social isolation in the elderly are major problems in elderly care. Activities offered by social services do, however, often not reach those most in need. Reasons for this are: social deprivation, low self-esteem or physical inability. Studies have shown the correlation between social isolation and poor health.

The Join-In project aims at counteracting loneliness in the elderly by providing a methodology and technologies for elderly persons to participate in social activities. Join-In is setting up a social network for the elderly, which allows communication by TV or PC. Via the platform, multiplayer serious games and exergames specifically developed to meet the needs of the elderly can be accessed. Active participation is vital if the individual is to profit from the Join-In developments, yet motivation in the elderly is a challenge. We are developing a methodology for elderly persons to participate in social activities.

Join-In tackles a problem that clearly affects a large amount of the population. Social networks during the last decade have shown themselves as a powerful tool for connecting people and providing emotional support from/to family and friends. This will help the elderly and motivate them to stay fit; it will also reduce treatment by supporting prevention. Additionally, our solution will be low-cost, thus seniors of different economic backgrounds can afford these.

Users were involved from the start of the project. Research questions, like:
2. What activities and games are the "favorites" of the elderly?
3. Which anxieties might hamper the acceptance of the social platform and user acceptability towards the technologies to be used?
4. Which are the day-to-day activities of the users and what are their attitudes towards exercising?

helped to develop products that are integrating the needs of the target groups as much as possible.

To obtain answers we created different sets of target users in Germany, Hungary, Ireland and Norway. Lifestyle, attitude to life, health and the social network of the target groups are being put in relation to the questions and be fed back into the methodology which is being developed.

When working with users, ethical questions are very important. We, therefore, always emphasize the willfulness of participation in user sessions. From the results of our research with the tests groups, we saw learned data protection and privacy are major issues with the elderly. For the envisaged pilots the respective data protection and ethical officers have been involved.

The Join-In project is a web-browser platform. It can be access form any computing device that supports a web-browser, allowing the users a broad offer of devices. The social

network is based on the standardized Open Social API. The games and exergames are programmed in the web standard HTML5. A new API was implemented to connect the different Join-In application to other social networks.

# 2 Exploitation goals

## 2.1 Main objectives

The main objectives of the exploitation plan is to establish a suitable strategy for effective actions to inform partners, scientific audience, health care professional, public and users of the outcomes and knowledge gained during the Join-In project. Taking into account each partner's country specific factors and their business goals and combining them into a working exploitation plan, that provides the tools to spread the information and to advertise the project outcomes within a coherent style and manner.

**Exploitation goals for each partner**

### HappyWise Oy
The exploitation goal for HappyWise is to be acknowledged by the Finnish instances that we have been part of the project and gained knowledge during that time. Hopefully we can use and develop the information gained during the project further with new projects.

### Helmholt Zentrum München
As we are dealing with heatlh and patient records our interest is to use the results for telematic health applications supporting patients. Of course, our special interest are the elderly where we see a large potential and need. In oder to commercialise Join-In some more field testing and a little more development will be needed.

### Hungarian Johanniter Charity Service
To maintain the social portal with gaming for our local services for better caretaking service for those we take care of. To provide a communication tool for our local organizations where we can reach all our members and elder people with our news, activities and offers. To reach more people on the same amount of human recourse

### Northern Research Institute Tromsø (Norut)
To use results from Join-In in further projects. To be able to publish results and thus contribute to the research knowledge in this field.

### NST / University Hospital of North Norway
Planned scientific publication goals:
- "Design, functionality and implementation of the exerbiking system", NST, Norut
- "User involvement in design exerbiking system", NST, Norut, together with the
- relevant project partners
- "Results from piloting exerbiking with users", NST, Norut together with the
- relevant project partners

Innovation goals.

- Bring the exerbiking concept further towards commercialisation

**PASIFE GmbH**
Pasife plans to set-up Join-In services together with the Diakonie München-Moosach. Pasife provides devices together with controllers optimally suited for the join4fun portal and supports the users in establishing a DSL or mobile connection to the internet. HMGU will support Pasife in maintaning the server platform in the first phase. In northern Bavaria Pasife will use the actisen.de Website for the presentation of services and devices.

Currently amazon is used a shop platform but it will be substituted through an independent shop. Pasife has supported rural district offices in taking part on a call for funding of the BMBF about the installation of counselling centers for Age and Technology in Germany. These are planned to start begin of 2014 and are an ideal platform for the promotion of Join-In services.

**Bull Hungary**
To be added later

**Carlow Institute of Technology**
To be added later

**Diakonie München-Moosach e.V.**
To be added later

**Valentia Technologies**
To be added later

## 2.2 Product/Service definition

**Scientific outcome of the Join-In project**
Within the project the partners have researched the elders attitude towards gaming and exergaming, motivation, user experiences with user groups (in Germany, Norway, Ireland, and Hungary), They have searched for the best technical solutions to build the portal and games and also developed a product/ service for the elders to match their needs.

The partners have gained lots of knowledge via the studies and just by following the newest studies made by others in the field. Partners are eager to exploit the information gained in the project to scientists, healthcare professionals and others, who might find it interesting.

**Join-In Portal with games and exercises**
Commercial-wise the final outcome and the end product will be an interactive Join-In Portal for the elderly consisting of:

- *A  Basic Modul* including Social Network, communication module,  local information such as a calendar, Brain-Training and gymnastics

- *Extended Version 1* : on top: exergames: Walking and Antique Hunt with body recognition
- *Extended Version 2* : on top: Exergame: Biking from your home with other friends together
- *Extended Version 3* : on top: Exclusive Controller, you can operate all computer-functions from your sofa

The Interactive Join-In Portal makes exercising fun and connects its users to their families and friends.
Join-In is a web-based socializing engine offering elderly an environment to be socially-, physically- and mentally active via games and exercises.

The user interface of the portal and the content were developed in co-operation with elderly users. Join-In service can be accessed with the users PCs, SmartTVs and tablets through internet.

The portal consists of

- Exchanging messages and video chatting with friends
- Calendar to set up training sessions
- Memory training (memory game)
- Exercise training videos
- Photoalbum
- Extended version 1: exergames: Walking and Antique Hunt
- Extended version 2: Biking game


## 2.3 Target audience

**Elders, senior centres and institutions working with elders**
The main target group of the Join-In service/product are the 70-85 years old people. They are the seniors who have retired from work and are curious to learn and use the internet portal to socialize and exercise. Seniors who know the importance of regular exercises have interest in maintaining their well-being and preventing illnesses. The primary user group is the home-bound or socially  isolated elderly persons, with the lack of social contact and activities. They have to meet a minimum criterion in health conditions so that they are able to use the platform. This means average visual, mental and a minimum senso-motoric ability.

*Maija is a 76-years old Finnish senior living with her husband in their own house. She is very active and social but her health is giving up on her. She is over-weight and her legs are hurting if she walks a lot. She has also had some heart problems. Her husband is very silent, and now that Maija cannot move as much as she wants, she feels lonely. Her friends are also suffering from different diseases and are not able to visit her as often as she'd like to.*
*She watches tv, listens radio and reads magazines and the daily newspaper.*

AAL AMBIENT ASSISTED LIVING

Partners: HappyWise    Pasife...    BuLL    INSTITUTE of TECHNOLOGY CARLOW At the Heart of South Leinster    Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen Deutsches Forschungszentrum für Gesundheit und Umwelt    Diakonie München-Moosach    norut NORTHERN RESEARCH INSTITUTE TROMSØ    Valentia Technologies

In Join-in the target group is narrowed to the seniors who can be reached via senior centres and institutions working with elders. We have further narrowed the segment in the partner countries (Germany, Ireland, Norway, Hungary and Finland). Senior centers are instances working with the elders. They provide daycare, daily activities, care services as well as retirement home services for seniors. The users reached via senior centres and institutions are those, who use their services and actitivies.

The senior centres and other institutions enable Join-In an easy, centralized access the target group, but the cooperation is beneficial in both ways. The senior centres are provided with a new activity to their seniors complementing their service package and adding value to their customers.

There are plenty of institutions, associations and volunteers working with the elders. For example church institutions, patient and senior associations, ambulatory care and rehab centres as well as social clubs. In-marketing wise those institutions are easier to reach than individual elders. In co-operation they can help Join-In to build a trustworthy brand for the portal as well as inform the elders about the portal.

*Sara is a volunteer teaching elders to use computer. She organises weekly lessons. She has realized that teaching the elders is different than teaching younger generations. She needs to design the exercises to match their interests to keep them motivated.That is why Sara has started reading senior magazines and she also watches all the tv-documentaries related to the elders. Lately she also found a couple of blogs and Facebook pages targeted to the seniors and started following them.*

### Health care professionals and ecosystems

Join-in project's outcomes will also be targeted for health care professionals. For example nurses and doctors working with elders and who are interested in new studies.

*Anna is a phyciotherapist specialized in elders. She is enthusiastic with her work and she likes to follow the latest trends to keep up with the industry. To do that she attends in seminars and reads magazines. She also likes to network with other physiotherapists.*

There are also companies working within the healthcare sector who are interested in seniors as a target market and who would be interested in the information gained during the project.

*Matti is CEO in a start-up company designing software products solving everyday life. He is especially interested in well-being sector. He uses several solutions to keep track with the industry. First he uses Bloglovin application to follow blogs about well-being and gamification (which he is also interested in). There are lots of different projects, whose newsletters he has ordered in his e-mail. In addition to the newsletters he also follows those projects on Facebook, where they tend to update different kind of information compared to the newsletter.*

### The scientific audience

Research centres, universities and scientists who are interested in the researh results related to gaming, elders and well-being are alos a valid target group for the Join-In.

> *Anita is a project coordinator in a COPD-disease study for a medical company. Her everyday routine includes keeping track on the latest news within the field. One of her main tools is Twitter-account, where she follows magazines, bloggers and individual health care professionals. She also reads magazines and publications both online and in paper versions.*

## 2.4 Key actors through which the target group will be reached

### Scientific outcomes of the Join-In project
Publications are an easy way to reach our scientific target audience and health care professionals. They are used to following the newest studies. Of course each publication needs its own promotion to be found in the vast sea of research studies. The advantage in Join-In is that the partners conducting the research are experienced and know the common promoting practices in their field.

### Interactive Join-In Portal
In order to reach our portal's target audience -the end users, we are seeking for addressing our primary exploitation activities to senior centres and institutions who work with seniors. The senior centres benefit from the Join-In portal in several ways:

       a) They want to provide interesting activities to their customers

       b) They want their customers to be happy and encourage them to exercise regularly and socialize with their friends and families.

       c) Join-In can also be used as monitoring system to keeping contact to the elders at homes.

       d) Join-in can provide the senior centres a competitive advantage and provide their customers added value.

# 3 Market description

In this chapter we will concentrate mainly in exploiting the interactive Join-In portal and describing the market factors related to our main target group - 70-85 years old people as well as senior centres and other institutions working with the elders. We will also take a look of the environment and trends within the market and the health care sector.

## 3.1 Demographics of the ageing population

**Population and the amount of elders**
The European Union is facing an ageing population with low birth rates. This means that the percentage of old people in the overall population is increasing. In 2050 the proportion of people over 60 will be 37 percent.

| Population of the elderly generations | | | | | |
|---|---|---|---|---|---|
| | **Germany** | **Finland** | **Hungary** | **Ireland** | **Norway** |
| 60-64 years old | 4307594 | 396886 | 584482 | 211784 | 291182 |
| 65-69 years old | 4880509 | 258319 | 520321 | 160466 | 212061 |
| 70-74 years old | 4739924 | 225043 | 409179 | 125081 | 157734 |
| 75 + years old | 7281309 | 427079 | 733983 | 220333 | 352878 |
| Total | 81802257 | 5351427 | 10014324 | 4467854 | 4858199 |

Source: [1]

Our ageing society has become the social and economic challenge of the 21st century: 80 million seniors (people aged 65 and over) in the EU (16% of the overall population). This share is predicted to continue increasing to 30% at least until 2030. In the same time, the share of people aged 80 years and over will be the fastest growing part and is projected to almost triple until 2060.

This new generation of seniors differs from previous ones and thus the senior market has changed dramatically over the last decades. This raises social and economic challenges. Increased life expectancy will lead to more mental and physical disorders, and the need for care providers. Changes in household compositions calls for support to enable the elderly to remain safely and comfortably in their own homes. A decreasing work-force calls for innovative solutions – also for the elderly that need to be supported.

Many segmentations have been designed for the elderly market, such as
- age: the young olds, the olds and the oldest old
- behaviour: active, family centred, rest and peaceful, withdraw and misfortune
- buying/consuming habits: the stay-at-home (lot of TV, no innovation, near-by-shopping), the home-sweet-home (more active and open to the world, they consume a lot for the garden and DIY, really wise consumer, innovative and high-tech products…) and the "Vive-la-vie" (the target of the travel agencies

and magazines, wise and fair consumer, care about the planet and the environment, …)
- health care needs: sickness, mobility rate

but no classification grasps the whole complexity and heterogeneity of the market.

## 3.2 Health and living conditions of the ageing population

**Health**
According to the World Health Organisation the most common cause of death among people over 60 in Join-In partner countries is cardiovascular diseases. The second common cause of death among the elders were cancers.

Elders want to stay home as long as possible but the most remarkable hindrances in partner countries seem to be social isolation and health issues that vary between the partner countries. For example in Finland the typical accident among the elders are falls. Every third of the over 65 year old elders who lives at home falls at least once a year. Among the elders over 85 year old the studies show that every second person falls at least once a year. This (hip fracture caused by falliing) is one of the most common causes in addition to dementia and stroke- that leads to hospitalization.

**Living conditions of the elderly**
Less than 4% of people over the age of 65 live in nursing homes in Europe, but the need for long-term care increases with age. Moreover, there is an increasing desire of the elderly population to continue to live in their own home, independently and autonomously. 6 out of 10 Europeans seniors live in a house (and not a flat).

Independency does not mean being able to cope completely autonomous, but being able to find the support that enables you to continue living at home with a good standard. Independency depends to a large degree on "feeling safe" and on the self-confidence of the elderly. Supporting elderly people to remain self-sufficient in their own homes as long as possible will answer to the shortage of elderly institutions, help saving costs on the social systems but also for the families.

The positive effects of exercising are well-proven. Exercising improves blood pressure, coordination, strenght, range of motion and balance. It reduces the risk of diabetes, heart diseases, and the risk of falling. Therefore, regular exercising can prevent cardiovascular diseases, hip fractures and even dementia. Different exercising solutions like Join-In are important in providing different means of doing the exercises also for homebound elders.

|  | Germany | Finland | Hungary | Ireland | Norway |
|---|---|---|---|---|---|
| **The most common cause of death** | Cardio-vascular diseases | Cardio-vascular diseases | Cardio-vascular diseases | Cardio-vascular diseases | Cardio-vascular diseases |

| | | | | | |
|---|---|---|---|---|---|
| **life expectancy** | 81 | 81 | 75 | 81 | 81 |
| **Per capita total expenditure on health (PPP int. $), 2011** | 4371.4 | 3332.2 | 1669.3 | 3893.5 | 5673.8 |
| **General government expenditure on health as a percentage of total government expenditure 2011** | 18.5 | 12.1 | 10.2 | 13.5 | 17.7 |
| **Number of nursing and midwifery personnel[i] 2009** | 918000 | 126869 | 63980 | - | 150334 |
| **Number of physicians 2009** | 297835 | 15384 | 30276 | 14029 | 19579 |

Source: [2]

## Loneliness & feeling of insecurity

Most of the elders live in their own homes. Sometimes their relatives and families live in other cities or countries. Studies show that loneliness and social isolation are common among the elderly people in Europe. Similar results were noticed from the Join-In pilot testing. Loneliness may cause mental illnesses but also increase other health problems.

In Ireland, most elderly people who live at home alone have a feeling of vulnerability in two main respects. In the first instance, in the case of those who have limited mobility, a fear of falling and not being able to call for assistance is apparent. Secondly, there is a fear of isolation and the possibility of becoming victims of crime (e.g. burglary).

## 3.3 Needs of the ageing population

A common need for seniors are sharing professional and life experiene and maintaining social networks over the generations. They are interested in learning and have time for it. The ageing population has an urge to be in contact with younger generations. They can also act in dual roles being able to guide others – fellow seniors or younger people.

In the Join-In pilot tests the need for user friendly technology was clearly demonstrated. *Active for Life report The Future of well-being Services* refers to the same fact:

> "Technology should be user friendly and on the background. Areas of interest in general, and not the technology itself should form the basis for learning."
>
> [3]

Nobody wants to be old. Therefore, products and services designed for the ageing population should not make them feel old or indicate their dependency to others, especially if they are designed to be used in public. Good example of this is walking aids. Even elders who would need them do not want to use them because of the "status" the device alludes to. *[4]*

However, the elders need help to begin physical exercises, lifestyle changes or to develop balanced and healthy habits. They have also a desire to acces sport and exercise activities better adapted to their needs and lifestyle. *[3]*

Seniors have fear of beeing not able to leave home due to constrained mobility. Therefore they have the need for convenient tools supporting them to keep in contact with others.

On the other hand, in European connected health Alliance Leadership Summit 2013 the speakers brought up a trend that elder homes and senior centres do use more technical appliances than for example hospitals. They are more open to new technology and find it useful. *[4]*

**The ageing population and technology**
Although the ageing population is very heterogenic, there are certain trends visible. In Germany, Hungary and Finland elders have more consumption power available than in previous years. The computer, internet and social media usage are increasing among the seniors through-out the Europe. The scientists, healthcare professionals and industry representatives are speculating whether tablets will be the new trend among the seniors or not.

**Computer use**
(percentage of individuals)                                                      2010

|                         | Germany | Ireland | Hungary | Finland | Norway |
|-------------------------|---------|---------|---------|---------|--------|
| Individuals 55-64       | 74      | 47      | 47      | 83      | 90     |
| Individuals 65-74       | 62      | 39      | 33      | 70      | 81     |
| Individuals 75 and over | 23      | -       | -       | -       | 44     |

**Use of Internet**
(percentage of individuals)                                                      2010

|   | Germany | Ireland | Hungary | Finland | Norway |
|---|---------|---------|---------|---------|--------|

| | | | | | |
|---|---|---|---|---|---|
| Individuals 55-64 | 54 | 34 | 35 | 64 | 76 |
| Individuals 65-74 | 60 | 15 | 7 | 30 | 57 |
| Individuals 75 and over | 71 | 60 | 27 | 79 | 88 |
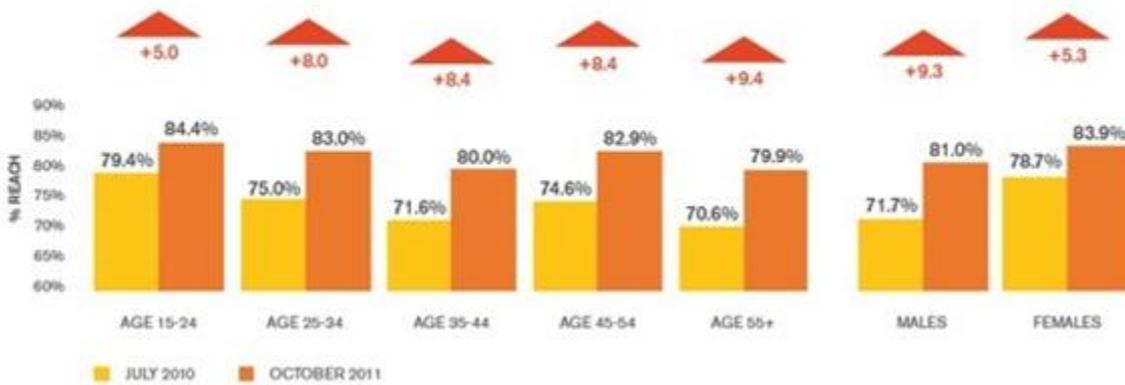


Source: [6]

Elders want to live in their homes as long as possible and they are willing to contribute their efforts and money in exercising and well-being if the benefits are clear, the products good and the providers trustworthy.

### Case Maija

Maija is a 76-years old Finnish senior living with her husband in their own house. She is very active and social but her health is giving up on her. She is over-weight and her legs are hurting if she walks a lot. She has also had some heart problems. Her husband is very silent, and now that Maija cannot move as much as she wants, she feels lonely. Her friends are also suffering from different diseases and are not able to visit her as often as she'd like to.

Maija and her husband are invited once a month to the local senior centre's socializing event, where there are different acitvities available from gym to dance and from singing together to barber services. These events are very welcome stimulations in their lives. This time the physiotherapist introduces to them a new Join-In portal encouraging the seniors try that.

Maija uses computer frequently in correspondence, for storing her stories and for internet banking but she is not very good with it. Maija tries the interactive portal with the other seniors in the event. The portal includes games, exercises and the facilities to communicate with other seniors in another elder home where they are having a similar kind of event. They have lots of fun.

After using the portal several times in the senior centre she and her friends start talking about purchasing the system at home. They get the information about the portal

provider from the senior centre and it turns out that since they all have computers and internet connections already the portal itself is affordable.

Maija uses the Join-In portal a couple of times per week for workout together with her friends – each staying in their own homes. She also likes playing the memory game and doing the exercise videos by herself in the mornings.

Not only is Maija happier now but she has gotten compliments from her physiotherapist about her improved balance and stamina. She feels herself more energetic and active now.

In fact, she has taken the role of an evangelist telling others about the portal and encouraging them to try and buy it as well.

## 3.4 Social and environmental factors

**The ageing population in European Union**
The health care sector in Europe is undergoing big changes. One of the reasons for the structural changes is the ageing population and the increases in health care expenditures. The health care personnel, institutes and even government are trying to find cost effective ways to care for the patients.

It is the European Union policy to promote healthy and dignified ageing. Part of this is creating a positive image of ageing, keeping them active and able and preparing society for healthy ageing. One of the challenges is to find ways for elderly to live longer in their homes.

> *"Ageing is one of the greatest social and economic challenges of the 21st century for European societies. It will affect all EU countries and most policy areas. By **2025** more than **20% of Europeans will be 65 or over**, with a particularly rapid increase in numbers of over-80s. Because older people have different healthcare requirements, health systems will need to adapt so they can provide adequate care and remain financially sustainable."* [5]

**Digitalization and mobile apps**
The health care sector is also under digitalization. Mobile, digital and technical means are being innovated to find ways to cut costs, treat patients better and provide more efficient ways of patient care. Also health care systems are thinking of the digitalizing the patient data. Finland, for example, is one of the pioneers in digitalization of prescriptions and patient data.

A new trend is finding ways to change the message and information flow from health care professionals to the public – Not just order people to take care of their health, exercise and stay healthy but encourage and motivate them in the task by making it fun and addicting. Also the increasing activity, wealth and health of retiring population is making a shift towards lifestyle-related needs. Therefore, more and more mobile apps and self-

measurement systems are launched also to the ageing population to motivate them in taking care of themselves or in staying active.

Games and gamification are at the moment rarely used in the solutions targeted for the seniors. The challenge in this trend are the elders' technical skills and attitude towards technology. However, the applications, games and other solutions rarely meet the elders special needs in usability.  The ageing population prefers personalized and easily accessible goods and services from "one-stop-shop".

The health care and well-being sector are growing. New innovations will be made and new products will be launched in coming years. More and more seniors are learning to use computers and mobile devices. Thus, at the moment, young seniors (age 55+) are using technology at work and are interested in improving their well-being.

**Join-in outcomes help the industry**
Join-in project and its scientific and product outcomes are beneficial for the industry in many ways by providing  valuable information for the scientists, healthcare professionals and the industry with the publications, deliverables and pilot tests. We are studying and piloting a trend that is still quite new. There are behavioural and motivational studies going on also in other age-groups which tells about the interest in the topic. The population ageing forces the industry to think "out of the box", to find the best practices and adapt them for elders.

Studies have proved the benefits of gaming in making exercising fun and also in recovering or finding ways to get used to certain illnesses. Unfortunately the games available at the moment are not quality products, yet.

Games are usually made for children and male adults: game developers are not familiar with the restrictions of elders such as impairments in coordination, vision and of course their preferences for music, visual appearance or activities. Healthcare professionals on the other hand, know more about the elders and the special needs. However, they don't have the knowledge on developing games.

Join-In interactive portal is also useful for communities to establish connetions with the local edlerly people. Churches and councils can use as a tool to offer activities for elderly people and incorporate them in their community life.

In the ageing societies of the EU it is crucial to disencumber the caretaking and healthcare system form the pressure, and find the new ways to establish low-cost and low human rescource demanded networks, such as Join-In, for isolated elderly members of the society.

# 4 Market access analysis

In this chapter we will concentrate mainly in exploiting the interactive Join-In portal and describing the market factors related to our main target group - 70-85 years old people and senior centres.

## 4.1 Market factors and constraints

**Usability barriers**

The commonly accepted limitations that often arise during a normal ageing process are:

- Vision decline: difficulty to focus on a screen, perceive colours and contrast, capture light and adjust to changing light levels, and to see items in peripheral areas
- Hearing loss: 55% of people over 60 have declined hearing
- Motor skill diminishment and mobility loss: more than 15% of the 75+ and more than 50% of the 85+ show some mobility impairments, difficulty in controlling a computer mouse (focusing the screen and simultaneously klicking without movement).
- Cognition effect: memory problems as well as other cognitive diminishments.

All these limitations are mostly age-related and have to be taken into account when addressing this specific target group. However, the limitations are different depending on the age and health conditions of the user.

**Technological barriers / Computer literacy**

Besides the physical and mental barriers that might hinder the elderly to use the Join-In portal, we are facing high user expectations towards the technologies themselves and towards the abilities of the technologies, but also fear of the technology and cyber illiteracy. These are issues that have to be taken care of. When thinking about marketing we specifically have to consider:

- The digital gap: only 21% of the Europeans seniors (between 55 and 74 years of age) use internet regularly. And for the ones who use new technologies the purpose are practical and not entertainment. (Communication, bank, administration, …)
- On the other hand the use of the internet by the elderly is increasing. A survey conducted on US internet users [7] shows that 76% of 57-65 age group use the internet and out of the 76% we have 28% playing on-line games. 58% of the 66-74 age bracket use the internet and out of those 25% play online games. Results for over 75 show 30% use the internet and 18 % of those play games. These statistics are promising.
- ICT interface designers tend not to be familiar with the general user requirements of the elderly. Indeed, elderly differ from the typical ICT target group through physical, sensory and cognitive limitations but also through less familiarity and confidence in digital technologies (no confidence in their capabilities)
- Usability issues are the first cause of rejection of technology by the target group. Nevertheless, even though usability is not a motivating factor in itself, the design, content and user benefits are really important. Therefore, interface designer have to look beyond the user requirements, and create an easily understandable, pleasurable and beneficial interface
- Marketing of technologies do not address the elderly. They want to know the advantages of the products to their life, but also the product provider to e reliable.

The level of technology skills among the senior centres' staff members and how interested they are in learning and using a new digital application has to be also considered. As mentioned earlier elderly homes are more open minded with new technology than

hospitals, but the resources are scarce and it might be too much work for the nurses and physicians to take new solutions in use.

The target groups' high user requirements and needs of education/training have to be taken into account when marketing the Join-In portal.

**Heterogeneousity**
The demographics of the target group is very wide. Where some 60 year olds are active travellers others might be hospitalized because of their hip fractures, several other illnesses and poor condition. The elders' interest, needs and desires vary a lot within Europe, between different countries and even regions.

Also the healthcare systems and senior care is different in each partner country. Seniors are provided with different services and support structures in each country. Even the similar services may be provided by different parties/institutes depending on the country.


## 4.2 Legal & contractual aspects


**IPR within the project partners**
Join in partners agreed that each partner has all rights to the material produced (game design, platforms, avatars...) during the project. This allows partners to use, modify and further develop the material and solutions. In a first step utility patents and design patents are considered from the commercial partners. Cost savings and simplification of patent procedure through the unity patent for all European member states will be an essential factor for the project partners.

Here are a list of detailed outcomes from the partners and how the outcomes may be used:

> **Carlow Institute of Technology**
> The expectations of the status at the end of the project?
> Advanced working prototype for the memory game and basic working prototype for the walking game.
>
> The partners will be able to use the portal if it is available.
>
> **HappyWise Oy**
> The expectations of the status at the end of the project?
> 3D animated models of the three avatars (a woman, a man and a lion). The partners may use the models after the project if needed.
>
> **Helmholt Zentrum München**
> The expectations of the status at the end of the project?
> The portal will be usable, it can be easily transferred to another server (open source). The exercises are ready to use, anyone who needs the videos, can have the data.
> The partners will be able to use the portal and exercises afterwards as well.

### Northern Research Institute Tromsø (Norut)
The expectations of the status at the end of the project?
A very short version will be usable for lab test, but not ready for home use. It will not be ready for regular use before the project ends.

### NST / University Hospital of North Norway & NORUT
The exerbiking service will provide a number of biking routes for Join-In users. They will be able to continue biking a given amount of routes.

### PASIFE GmbH
The expectations of the status at the end of the project?
Final hardware for the controller prototype with small Browser game TV APP will be ready by the end of the project and the technical knowledge will be gained in a 3D print design and manufacturing process of the controller and Web APP programming with Websockets for Ubuntu and Windows with motion data processing.

The partners may use after the project the browser game, remote prototypes and later final products.

### Valentia Technologies
The expectations of the status at the end of the project: The API will be ready and functional.
The Code is uploaded on codeplex. Any partner can download and modify it.

### Legal matters outside the project
The partners have investigated the procedures and demands of the new legislation concerning the CE-marking and came to the conclusion that an internet portal does not require it.

# 5 Dissemination plan

## 5.1 Dissemination toolkit

**ALREADY EXISTING MATERIAL**

### 5.1.1 Join-in project website - http://www.join-in-for-all.eu

The website is the hub of the Join-In project's dissemination. It provides information about the project including the basics as well as user involvement, technologies, partners and funding organizations. There were also publications produced during the project, events the project partners attended as well as downloadable presentations and flyers.



Landing page of http://www.join-in-for-all.eu

The  http://www.join-in-for-all.eu – website is targeted to all of our target audiences from the users (including user groups during the project) to scientists and healthcare professionals as well as the partners themselves.

When the project will be finished, there will be information about the results and outcomes of the project summarized in one page, which provides summarized data from each workpackage. Each publication, will be linked on the website with a small abstract helping the search engine and our target audiences to find the information.

## Project database

The project database can be accessed from the  http://www.join-in-for-all.eu by klicking the members-only link, which requires login. The database is intended for the partners containing documents such as templates, ready deliverables, minuites from the meetings and teleconferences, midterm reviews, contracts, and background information as well.

**Members only**

» WP1 Management

  » Contracts

  » Midterm Review

  » Report

  » Meetings

  » Partners

  » Templates

» WP2 Social Networking

» WP3 Game Design

» WP4 System Platform

» WP5 Physical Exercises

» WP6 Piloting and Evaluation

» WP7 Dissemination

» Deliverables

» Midterm Review
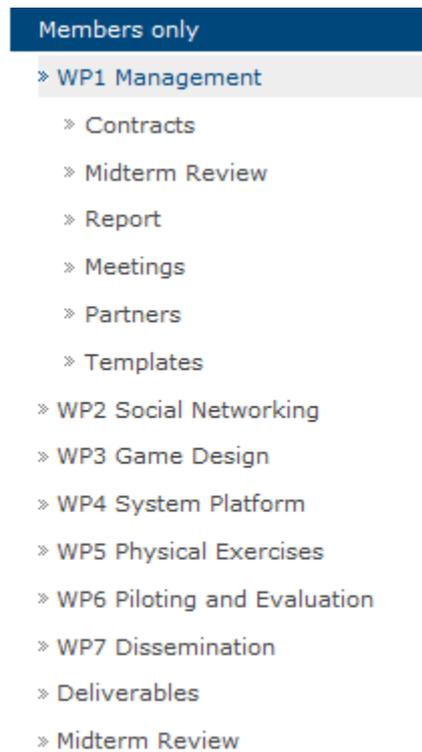
**WP7 Dissemination and Exploitation**

→ **Presentations**

→ **Flyers/Handouts**

→ **Graphics**

→ **Logos**

→ **Templates**

→ **Photos**

→ **References WP7**

Members only area menu and workpackage 7 Dissemination and exploitation
http://www.join-in-for-all.eu

The database is organized by workpackages and it is administered by Helmholtz Zentrum Műnchen.

## 5.1.2 Graphic standard manual and templates

Graphical quidelines were designed in the project to have a unite visual style throughout the project communication from internal reporting to marketing. The Graphic standard manual includes templates for Word, Power Point, Brochure and poster materials as well as quidelines for the colors, logos and correct usage of the templates. The layout was designed by HappyWise and correlates to the design of the interactive Join-In Portal for senior citizens.

Partners: HappyWise   Pasife...   BULL   INSTITUTE of TECHNOLOGY CARLOW At the Heart of South Leinster   Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen Deutsches Forschungszentrum für Gesundheit und Umwelt   Diakonie München-Moosach   norut NORTHERN RESEARCH INSTITUTE TROMSØ   Valentia Technologies

### 5.1.3 Brochures and flyers

During the project one common brochure has been printed. The brochure is in English and the purpose of it is to give the basic information of the project and direct target audience to look for further information from http://www.join-in-for-all.eu -website.

The brochure is and will be used in tradefairs and events as well as in one on one networking situations. It  is a good reminder of the project to those, who are interested in it and want to know more. The aim of the brochure is to increase awareness of the project.

Another brochure was designed for and in close cooperation with the German users to attract users to participate in the piloting. It is in German  and to underlines the engagement and responsibility of the German user organistion, the Diakonie München-Moosach.


**MATERIAL NEEDED**

### 5.1.4 Scientific outcomes of the project - information kit
In order to exploit the project's study results as effectively as possible it is recommendable to package them in an appealing way. Here are some examples of the new ways for the exploitation:

> **Serial of infographs**
> Serial of inforgraphs from the deliverables tells briefly about the key factors in each workpackage. Visuals, images and inforgraphs are the trend in social media and attracts lots of attention also in other medias. This makes infographs appealing. However making a good, informative but clear inforgraph is not easy.
>
> The benefits of the infographs are that they are easily shared by users on internet, if there is a possibility to share it ( on Facebook, Twitter, Pinterest, Tumblr, Instagram...) given. Online infographs can be linked to the Join-In project page or directly to the publications page, where more information may be found.
>
> Other benefit in inforgraphs is that if designed correctly they can be printed. Thus they would form an appealing base for tradefair stand in poster size, or they could be all gathered in one very visual and colourful brochure telling about the project.
>
> The style of infographs suits this project – its fun, playful message (digital platform for fun and social exercising, isn't infographs representing all of this?)
>
> They link to Join-In project page or the publications page. They could also be in printable versions such as booklet gathering them all and describing them. They could also be printed on poster size for example to use in trade fairs.
>
> The serial could include infographs such as:
> - Special user-requirements of elderly gamers

- What to take into account when desingnin a game for elderly users?
- What to take into account when desingnin  exergames for elderly users?
- Technical platforms for well-being games
- Low cost solutions for developing home based platforms
- Social elements in elderly gaming environment

### A Blog-series

A Blog-series describing the project process, studies conducted and results. A blog is also a very attractive way of telling the results of the project. Blogging is very trendy at the moment, at best they are easy to read through, share to friends and provide useful information. Blog posts are easier found by search engines than pdf-attached publications, but they give the possibility to link the publications as well as other sources or related information into the post. Readers can also add there comments and questions to create interaction as well as share the information easily with their colleagues via Facebook, Twitter or e-mail.

Blogging platforms such as Blogger or Wordpress are easy to start and use. They also provide good search engine optimization.

For Join-in blogging would be an ideal solution. The text is almost ready in the publications, it just need to be modified into Join-In blog format (which could also be the final report format). A quideline is needed for the text formatting, lenght, style and images to make the posts written by different persons look unified, but it also eases the writing itself.

In Join-In case the amount and content of the blogs could be easily decided even before starting. It would not be an ongoing blog, just a series of 15 posts or so, to inform about the project process and results. The information can stay online after the project is finished.

### A Book or an Ebook

A book designed for example in a tutorial format. The content itself comes mainly from the deliverables, but some content editing is needed, not to mention about the illustrations and Indesigning. The book is a handy way of collecting all the material in one place. The book could be printed for the stakeholders, but for others it might be downloadable on Kindle, Amazon or on the project website.

A book is appealing for users, it is a concrete thing one can hold to. It is also nowadays easily distributed via digital channels. If desired there is a possibility to set a price for the Ebook. This is a way to cover its publishing costs.

In Join-in project's case the book's topic could be "How to design a well-being game for elders" Or "Desgining a digital well-being product for the ageing population".

The outline would look something like this:

Partners: HappyWise  Pasife...  BuL  INSTITUTE of TECHNOLOGY CARLOW  Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen
Deutsches Forschungszentrum für Gesundheit und Umwelt  Diakonie München-Moosach  norut  Valentia Technologies

- Forewords
- User requirements for senior gamers
- Game design
- Exergame design
- Techinal platform
- Low cost solutions for developing home based platforms
- Adding social elements
- Piloting and evaluating
- Business model / marketing
- Conclusion

### Seminars
In some cases the projects culminate into a workshop or seminar, where the project results will be published. Sometimes the speakers include the project partners, each telling about their own expertize, in other occasions other speakers are invited to present project theme related material. There might also be panel discussions. Events if well marketed attract attention. However the risk is huge.

In Join-In project a series of workshops/seminars might be more potential way than organizing one big event. This is mainly because of the distances between the partners. Well concepted event series might work, but still it would need additional material as mentioned above to support the message.

The seminars could follow the same outline as the book, or they could concentrate only in one theme from the list. This depends on to whom it is targeted, what is the budget and schedule.

### 5.1.5 Information kit about the interactive portal and the game concepts
The portal and games are important results of the project, even though they are just on the piloting state of the development. The game concepts and experiences related to the development process are valuable information to other game developers, industry representatives, scientists and  healthcare professionals. Therefore it is crucial that an information package is gathered within the project to exploit the information further. It could be added on the website or designed a separate brochure for example. The format will be decided later, but here are listed samples of what kind of information it should at least include:

### Description of the portal
The Join-in portal makes exercising fun and connects its users to their families and friends.

Join-In is a web-based socializing engine offering elderly an environment to be socially-, physically- and mentally active via games and exercises.

The appealing user interface of the portal and the content are developed in co-operation with elderly users and health care professionals. Join-In service can be accessed  with the users PCs, SmartTVs and tablets through internet.

The portal consists of
- Sending messages and videochatting with friends
- Calendar to set up training sessions
- Memory training (memory game)
- Exercise training videos
- Biking game
- Antique hunt
- Walking game
- Photoalbum

(At least one paragraph description of each game/feature)

### *Benefits for the users*
- It is fun, entertaining and useful way of spending time.
- Motivates to exercise
- Offers training videos designed for elders
- One can play and exercise with friends and family while chatting online
- Regular exercising prevents several illnesses such as heart diseases, dementia, diabetes, hip fractures...
- Keeping in touch with others eases loneliness and prevents mental illnesses.
- Preventative exercising and actions cuts costs of the health care system.
- Can help social isolation and health problems
- Can be the gateway for elders to learn to use computers by providing them fun and motivatonal activities.

### Testimonials
Users' comments from test groups, pilot sessions here to indicate how they liked the portal and games in it.

### Images
With images about seniors playing the exergames the information kit gets really appealing look.

In an ideal world the Join-In project would start with a blog-series and infographs, which would then be collected into a book, which would be sold or distributed in Join-In seminars along with the brochures about the project itself and the Join-In portal. The tools support each other, but it is possible to pick only one or two options to use them separately as well. Ebooks, blog posts and infographs can attract audience beyond our main target groups, for example game developers might be interested in the knowledge.

## 5.2 List of dissemination activities

Partners: HappyWise    Pasife...    BuLL    INSTITUTE of TECHNOLOGY CARLOW    Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen    Diakonie München-Moosach    norut    Valentia Technologies

### 5.2.1 The dissemination of the scientific outcomes of the project

The http://www.join-in-for-all.eu -website will be the main source of information. All the dissemination activities and supporting materials such as press releases, flyers, posters and social media content should direct audience to the Join-In project website and the blog-posts (also accessible from the website). Of course each partner can promote their own websites, as long as http://www.join-in-for-all.eu is mentioned.

**Final report in the form of a blog**
The final report will be published in the form of a series of blog-posts. It will be titled as a tutorial *"Desgining a digital well-being product for the ageing population".*

The tutorial will be written in a way that same texts can be used in the final report (if it is still required to have separate one). The tutorial will include the outcomes from the deliverables summarized but also references to Join-In portal or the games inside, used as an case example. For example, what where found in user reguirement studies and how they were taken into account when designing the portal.

The outline would look something like this:
- About the Join-In project and its goals
- User requirements for senior gamers
- Game design
- Exergame design
- Techinal platform
- Low cost solutions for developing home based platforms
- Adding social elements
- Piloting and evaluating
- Business model / marketing
- Conclusion

Each blog-post will link to the deliverable in question. There might be several articles within each workpackage. After all, a blog post usually answer to only one or two questions. Each blog article should have at least one image or illustration. Images used for visualization could be screen captures from the portal or seniors playing games. There might also be a slot for the YouTube-videos made by the partners, if they fit to the topic.

The consortium can decide later on whether they would like to publish the blog into an e-book.

**Search Engine Optimization for the website and blog-posts**
To improve the visibility of the project website and publications the information published should be search engine optimized. The new information put on the website should use keywords and titles relevant to the content.

Same applies to the publications on the website. We should have publications titled for each category / topic and in addition to that a short description or abstract before each publication link.

We should also see if we could increase cross-linking. Ask fellow colleagues and projects to refer to Join-In website link on their project page, see if we could link our project publications, website and blog-posts to scientific databases or for example on Wikipedia.

### Publications, papers and journals
Publishing and presenting the results in conferences and journals is very important for the project and the partners. Since the deliverables are from different fields, each partner should assess how they want to disseminate the information, where among the scientific audience it should be targeted and should they address national or international conferences and journals.

### Participation in conferences and events
The Join-In partners should make a list of conferences and events available and whether they are participating in them. In case two partners are attending to same conferences or events, they could collaborate, especially in case that both partners are intending to present the Join-In results in their own stands.

### Press releases
Since each partner has different intentions and goals for the exploitation no common press release template is necessary, especially that each partner is using their own language to write the press releases.

However it is recommended to write and send press releases to the national newspapers, magazines and journals, but also to inform other related projects, industry news/magazines and associations.

### Social media
In Join-In project's case it is best that each partner utilizes their own social media strategy and channels (Facebook, Twitter, Blog, Tumblr, Instagram, LinkedIn...) in exploiting the information rather than creating a new account and follower bases to the project. Social media content can vary in each country, but it will be a good channel to promote the publications, final report (blog-posts) as well as the project itself.


## 5.2.2 The dissemination activities for the Join-In Portal

At the moment there are no information about the interactive portal on the internet or even in brochure. The http://www.join-in-for-all.eu -website refers to the portal only on the first page, not going to the details what the portal is about.

There needs to be more information available about the Join-In portal both online and in brochure. The best way is to add it where the portal is, for example, on the landing/log-in page. The potential users would find information about the portal from the landing page or

there would be a distinctive link with a text "*More information*" taking the user to a new page called product information page.

It is also very crucial that the page is search engine optimized. There should be a link from the Join-In project page to the portal and vice versa.

The question is, should the content be in each partner's native language or would it be enough if it were in English? This is something that each partner interested in exploiting the interactive portal, should concider. There are also some localisation to be made in the information as some partners have different features available as the others as shown in the table below.



The product information page will be used as the main source of information for the Join-In Portal. All other material such as brochures and YouTube-videos are linked to that page.

### The product Information page online

The Join-in portal makes exercising fun and connects its users to their families and friends with an interactive portal accessed via internet from computer or SmartTVs.

Join-In is a web-based socializing engine offering elderly an environment to be socially-, physically- and mentally active via games and exercises. The appealing user interface of the portal and the content are developed in co-operation with elderly users.

- **A  Basic Modul** including Social Network, communication module,  local information such as a calendar, Brain-Training and gymnastics

Brain-Training (memory game)
Play the fun card game online alone or together with your friends. The game helps you to train your cognitive skills.

Exercise training videos / gymnastics
Exercise training videos designed especially for elders. These exercises helps you to improve your muscles and balance. Regular exercising prevents osteoborosis and hip fractures.

Social network
Communicate with your friends, families and care providers through Join-In portal either by messaging or videochatting from your home.

The basic module can be accessed via computer or SmartTV with internet connection.

- **Extended Version 1** : on top: exergames: Walking and AntiqueHunt with body recognition

Walking game
Fancy a walk but the weather is not appealing? No problem! Walking game uses body recognition and enables you to have a walk in your living room. What's best, you can walk together with your friends.

Regular exercising prevents osteoborosis and hip fractures. It may also prevent diabetes and heart diseases.

The extended version 1 requires Xbox360 Kinect in addition to the computer or SmartTV.

- **Extended Version 2** : on top: Exergame: Biking from your home with other friends together

Exerbiking
Do you have a stationary bike in your home? Do you use it? With Join-In portal you can bicycle with your friends online discover different routes and sceneries, for example in Norway and Germany. The Exerbiking makes the stationary biking fun!

Regular exercising prevents osteoborosis and hip fractures. It may also prevent diabetes and heart diseases.

Partners:  HappyWise   Pasife...   BuL   INSTITUTE of TECHNOLOGY CARLOW   Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen   Diakonie München-Moosach   norut   Valentia Technologies

The extended version 2 requires tablet computer in addition to the computer or SmartTV.

- **Extended Version 3** : on top: Exclusive Controller, you can operate all computer-functions from your sofa

Controller
The controller is designed to meet the special needs of the elders. It is easy to use and it operates all computer-functions from your sofa.

**Benefits for the users**
- It is fun, entertaining and useful way of spending time.
- Motivates to exercise
- Offers training videos designed for elders
- One can play and exercise with friends and family while chatting online
- Regular exercising prevents several illnesses such as heart diseases, dementia, diabetes, hip fractures...
- Keeping in touch with others eases loneliness and prevents mental illnesses.
- Preventative exercising and actions cuts costs of the health care system.
- Can help social isolation and health problems
- Can be the gateway for elders to learn to use computers by providing them fun and motivatonal activities.

**The value to the senior centres and other institutions working with elders, who uses the Join-In portal:**
- They want to provide interesting activities to their customers
- They want their customers to be happy and encourage them to exercise regularly and socialize with their friends and families.
- Join-In can also be used as monitoring system to keeping contact to the elders at homes.
- Join-in can provide the senior centres a competitive advantage and provide their customers added value.

**Testimonials**
In Norway a group of 4 users have tested group exerbiking at home, during a four week field trial. The results indicate that group exerbiking was well accepted by the participants, and the technology was easy to use. Exerbiking was erceived as fun and enjoyable, and motivated to exerbike more.  All expressed that they would like to participate again.

**Images**
With images about seniors playing the exergames and screen shots from the games and the portal.

**Contact information, pricing...**
Depending on the goals of the partners there should be a field to modify.
Some are laready selling the portal, while others are still looking for partners

and funding. This field would be customized by each partner to accomodate their needs and desires.

### The Join-In portal brochure

The brochure will have about the same information than the website. The purpose of the brochure is to be distributed during the conferences and demonstration events. If needed, there might be two several versions of it, one designed for the users, other for health care professionals and institutions working with the elders.

### Social media

There already are YouTube-videos and other material ready. Why not share also images and interesting facts related to gaming, seniors and well-being. Social media should also be used to inform the audience about the conferences and demonstrations where they can test the portal and the game concepts.

### Conferences, tradefairs, demonstrations

Demonstration works the best for this kind of product. People who test the portal and games and finds the fun in it are those, who want to tell about it to their friends or recommend it to be purchased for their institutions. Therefore it is important that in demonstration events there are information available to take with them and that provides more information and contacts.

## 5.2.3 Other dissemination activities

Exerbiking game will be disseminated in Norway separately from the portal. Basicly, same dissemination rules apply to a single game than to the whole portal. Online and offline dissemination walks hand in hand. There needs to be a hub for the information and other information should lead there. There should be calls for action in the material asking the users to order, donate, contact, share...

For the Exerbiking it would be good to have the information hub online and support and poromote it via social media, newsletters, press releases, brochures etc.

# 6 Exploitation Plan

## 6.1 Exploitable components to reach the goals

### 6.1.1 Scientific outcomes of the project

The most important exploitable components scientific wise are the information about the project and its outcomings.

The partners have indicated their exploitation goals in chapter 2.
Scientific exploitation goals were:
- To inform the industry about the participation in the project
- to disseminate the information gained from the deliverables such as user testing methods, exergame design and lab testing methods.
- To exploit the information in future projects

To reach the goals the final report in the format of blog-posts and the individual publications are the key information to disseminate.

**To inform the industry about the participation in the project**
Partners want to promote that they have participated in the Join-in project and gained knowledge, even expertise from the fields that they are familiar with but also from other fields related to the project. After all the project studies different areas from usablility to game platforms and from motivation to the well-being of the elders. Each partner has gained new knowledge, which might give them advantage in their operations in future.

The blog-posts written in tutorial format is a way to attract press and industry representatives attention easier than just publishing the final report. The blog and website can be promoted by press releases, short quotations and links in social media or by sharing the blog address via e-mail. Tutorials and publications strenghtens partners' positioning inside the industry.

**Disseminating the individual deliverables**
Each partner desires to disseminate the information related to the expertize area they studied and out of which they have done their publications. This could be a Wii play and Labtests, studies with exergaming, improved controllers and tv/settop-box application knowledge extension about web appliations et cetera. This information can be disseminated via publications, papers and journals as well as in conferences.

Blog-post tutorial covers also the same information in a summarized version. The blog posts can be disseminated through social media, printed into a brochure or even in an online journal as weekly tutorial. Publications and blog-posts might gather different types of audience, but together they support each other.

D 1.1 Project Definition plan
D1.2 Intermediate Report
D1.3 Final Report
D2.1  Report on User Requirement Analysis
D2.2 Social Networking Methodology of Homebound Elderly Persons
D 3.1: Comprehensive report on Computer Based Games for Adaptation/Development
D 3.2: Technical design document
D 3.3: Prototype
D 3.4: Working Game and Test Plan
D 3.5 Final Work Report
D 4.1: Report on low-cost solutions for developing home-based platforms adapted to the elderly
D 4.2:   Prototype platform designed and implemented
D.5.1 Report on requirements and state of the art in exergames for the elderly, low-cost motion tracking and respective HCI for elderly
D.5.2  Exergame ß-Version
D 6.1 Evaluation plan and guidelines
D 6.2 Results from the trials on the impact in the users socialisation and improved physical activity
D.6.3 Results from the trials concerning the technical validation of the products
D 7.1 Project Portal
D 7.2 Business Model
D 7.3 Project Exploitation Plan

### Exploitation of the information in future projects

Both the blog-post tutorial and publications if well promoted attract attention within the field of scientist, health care professionals and industry representatives. It is a good way to disseminate the project information among them. You never know to whom the information might be valuable and might open new opportunities to you.

### 6.1.2 Exploitation of the interactive portal and game conepts

The partners have indicated their exploitation goals in chapter 2. For the portal, the exploitation goals were the following:

- to increase the awareness of the portal and building a trustworthy brand
- to find partners for development, marketing, distribution
- to find funding for further development
- to recruit more users (either for field tests or as regular customers)

### Increasing the awareness

By letting others know about the Join-In portal is the primary goal for the partners desiring to exploit the portal or the individual games. This should be targeted to the healthcare professionals, industry as well as people working

with the elders. The material used should be the blog, the project website as well as the product website. That information can be distributed and promoted with other tools such as press releases, social media or tradefairs.

It is important to remember consistency and not give up easily. According to the marketing studies one person needs to hear about the product seven times before remembering it or getting convinced.

Campaingning towards increasing the awareness might already attract partners. Also funding is easier to get, if the product concept is well thought, moneytized and there are need for the product in the market.

### Finding partners and funding

It is recommended to narrow the target audience and contact only a few potential partners or funding providers. A thorough research should be done in advance to find the reasons how they would benefit for partnering with you / provide funding, what you have to offer for them and vice versa.

Both scientific and portal information can be exploited to convince the partners and funding institutions. Once again if the target audience have heard about the product and company in advance, it might benefit you.

### Recruiting users

The first action to recruit users is building awareness, letting the users know that there is a service / game available. Recruiting can go through the senior centres and institutions, but it might also be useful to recruit users already experienced with the portal to tell about their experiences. They know the language of the target audience, for them it might be more convincing to hear the information from their peers than from the company representatives. This might also work when finding new institutions.

Elders, healthcare professionals and senior centre workers use social media, visit tradefairs and follow the news. They just need to be addressed in their own way, finding why they would be interested in the product, where they can be reached and what value would the Join-In portal provide for them. User stories are an easy way of finding examples of the target audience and designing the messages directly to them.

This goal is very easily measured, which enables trying different marketing strategies and measuring whether they work or not. Especially in social media it is easy to try different tactics.

## 6.2 Levels of exploitation

### 6.2.1 Scientific outcomes

**Primary**

**Healthcare professionals and ecosystems including industry**

The primary target audience for Join-In project will be the healthcare professionals and ecosystems. Join-In partners come from different backgrounds. Others are purely research organisations, others companies within the industry. Still the main goal is to inform the industry about the project and its results.

There are several other research projects going on, which might benefit from the information and even ask for Join-In partners in co-operation for further research projects.

## Secondary

### The scientific audience
The secondary audience group for Join-In is the scientific audience. Among the Join-In partners there are several research institutes, so it is important that the studies published are available for other scientists. There are several other related project studies going on and it might be beneficial for Join-In partners to interact with them or at least inform them about the project outcomes.

This might lead to better awareness of Join-In and even further projects for our partners.

## Thirdiary

### People and institutions working with the elders
Through the senior centres, institutions and associations who are working with elders Join-In may inform their employees and volunteers about the new studies. Join-In partners are looking for informing them about the results but also partners might be interested in cooperation with them, which would be beneficial in both ways.

## 6.2.2 Exploitation of the Interactive portal and game concepts

### Primary

### People and institutions working with the elders
Through the senior centres, institutions and associations who are working with elders Join-In may reach the elders in a trustworthy way as well as inform the associations about the new studies. Patient associations, senior associations, church institutions are constantly looking for new and useful information to accommodate their "clients" and to develop their activities to recruit more participants and provide better services.

The key partners for the Join-In platform is the organizational secondary end-users, such as charity organizations, elderly- care organization, family members, relatives and friends, carers and care institutions. They are not the real end-users of the platform, but they benefit from the service. The Join-In enables for them:
- lowering caretaking infrastucture pendings
- daily connection with the patients/members/family members

- more attractive service for elderly
- preventing social isolation for the actual seior users

For the perspective of non- profit and professional caretaking providers, Join-In gives a tool for lowering the  caretaker-patient meetings number so an instituoin can  better use it's professional  human recource.

**Secondary**

### Healthcare professionals and ecosystems including industry

Health care professional can be reached through tradefairs, conferences and journals. They are the secondary end-users for the interactive portal but they can benefit from the service like our primary target group.

Informing the industry and health care professionals about Join-In portal might solve several goals and challenges the partners are facing. There are also industry representatives, who might be interested either in funding or partnering with Join-In partners to develop the portal or individual games or the marketing plan or business-model furthermore.

**Thirdiary**

### Public and family members

Our thirdiary target group is the public. This is the most difficult and resource consuming target group, since they are the most difficult to reach. On the other hand, with good dissemination plan we can get help with that from the healtcare professionals and the institutes working with elders. They have already established dissemination channels such as magazines where they inform about topics related to their operations to their target audience.

Also conferences and tradefairs related to elders, well-being and healthcare are good places to reach the public. Demonstrations of the Join-In portal and single games such as the exerbiking might attract lots of attention in tradefairs. After all, most of the tradefair visitors are interested in booths with action.

## 6.3 Exploitation actions for each partner

### 6.3.1 Bull Hungary
Exploitation information will be added later

### 6.3.2 Carlow Institute of Technology
Information will be added later

### 6.3.3 Diakonie München-Moosach e.V.
Information will be added later

### 6.3.4 HappyWise Oy
Actions during the project?

- Participated in seminars to network and tell about the project by attending their match-making events and mingling in the seminars.
- Have had meetings with industry experts, scientists and health care professionals, informed them about the project and its outcomes.
- Meetings with local business developers and healthcare sector experts, informed them about the project and the portal.
- A newsletter to our customers telling that we are participating in Join-In project.

To whom are you communicating to about the Join-In project?
- Healthcare industry industry representatives and the ecosystem

What will be done in the future?
- Our goal is to get at least two articles in the local/national newspapers about the Join-In project.
- We are going to inform Finnish well-being and elder projects about the project and its results asking for them to distribute the information on their newsletters, Facebook pages and blog-posts.
- We hope to participate in the elder and well-being tradefairs and seminars in Oulu region to tell about the information.

### 6.3.5 Helmholt Zentrum München
Actions during the project?
We made leaflets, demonstrations and presentations such as the AAL-Congress and the Sozialreferat München presentation.

To whom are you communicating to about the Join-In project?
To Fraunhofer Gesellschaft and to the Universität der Bundeswehr München, to Salzburg Research and to other departments at the Helmholtz Zentrum München to discuss follow-up projects. Additionally we are in contact wih some SMEs which deal with health applications also discussion common applications to upcoming calls.

What will be done in the future?
As we are dealing with heatlh and patient records our interest is to use the results for telematic health applications supporting patients. Of course , our special interest are the elderly where we see a large potential and need. In oder to commercialise Join-In some more field testing and a little more development will be needed.

### 6.3.6 Hungarian Johanniter Charity Service
Actions during the project?
Johanniter has held several presentaions in Hungary and Italy about the project and its parts such as exergaming and the interactive portal. Flyers and leaflets were made on the user Involvement sites and also there has been appearance in the Hungarian Johanniter Order Newsletter.

To whom are you communicating to about the Join-In project?
- Within the organization for our local activists and volunteers
- Local community leaders whom we are in contact with (Chuches, Elderly Centers)

- Our elder members and allowances

What will be done in future research wise / commercial wise?
Bull can provide the technical background and support for the Join-In portal and all to it's features (gaming, video-conferencing, etc.). However for expoltation channels are limited for the enterprise. In the focus of Bull Hungary the engineering and hareware sales is the main foucus. This activity going to be preformed via the consortium partner Hungarian Johanniter Charity Service.

Hungarian Johanniter Charity Service organization is deeply involved in the elderly caretaking. In Hungary the Charity service running 8 local organizations and 4 other in the neighbouring countries. Aldo the Hungarian Charity Service is the member of the Johanniter International which joints the major European Johanniter non-profit organizations.

This widespread network enables the exploitation for great number of potential end-users. Johanniter is going to use the personal direct marketing for those who needs caretaking. The Johanniter Order and it's Charity Servicies also has the brand code to exploit it's information for its members and communities. A monthly newspaper is issued for free and the local organizations also provide news for them communities.

dissemination levels, and tools:
- Organizational: presentations on Johanniter local organizations co operational meetings, Hungarian Johanniter Order website (www.johannitak.hu)
- Local: newspapers, flyers, on the local WebPages
- Online: Facebook pages, YouTube Channel
- For volunteers: Guide book, Installation Guide, feedback webpage
- Public: Tele medical care conferences, professional meeting with Bull Hungary

### 6.3.7 Northern Research Institute Tromsø (Norut)

Actions during the project?
- A scientific publication: http://www.helmholtz-muenchen.de/fileadmin/JOIN/PDF/PID1790829-Exergames.pdf
- Article on forskning.no (research.no) that resulted in TV (main news
- channel) and newspaper coverages as well as several web coverages
- Paper and presentation at the AAL forum 2012
- Presentation at a big conference for the care sector in Oslo
- Yearly presentations at the research marathon at NST (National centre for
- telemedicine)
- Presentation at Heracleum senior centre for the users

To whom are you communicating to about the Join-In project?
- To the scientific audience, healthcare sector, general public, users

What will be done in the future?

Partners: HappyWise  Pasife...  BULL  INSTITUTE of TECHNOLOGY CARLOW  Norwegian Centre for Integrated Care and Telemedicine NST

HelmholtzZentrum münchen  Diakonie München-Moosach  norut  Valentia Technologies

- Publish about results from the project - wii play and lab tests - together with the relevant project partners.
- Hopefully continue research in new projects where we build on what we have learned

### 6.3.8 NST / University Hospital of North Norway

Actions during the project?
- Video presentations, A book chapter, Paper and presentation
- YouTube video, exerbiking leaflet, conference presentations, tv-report and articles in several magazines.

To whom are you communicating to about the Join-In project?
- NST and Norut target several communities; research, senior centres, patient
- associations, health rehabilitation centres, and other potential end-users and
- *customers.*

What will be done in the future?
- NST and Norut will continue to develop the exerbiking concept for larger number of participants and groups and integrate it with other online social networks. We will also use the exerbiking application and its social constructs in our further research.
- NST and Norut are planning to bring the exerbiking concept further towards commercialisation in cooperation with the LHL patient organization.

### 6.3.9 PASIFE GmbH

Actions during the project?
- Poster about controller development for the German AAL congress 2013 Participation in publications with the HMGU Meeting in Nurenberg with Genesis (world-of-genesis.org) about serious games
- Participation in workshops about serious gaming at German AAL congresses
- Demonstration of Pasife's expertise at the BayFOR booth on the German AAL congress 2013 (see attached pdfs) Knowledge exchange at the Anga Cable 2011 in Cologne about settop-boxes and about controllers at the IBC in Amsterdam with international companies
- Meeting at FutureShape (future-shape.com) in Munich 2012 about sensor mats
- Cooperation with the university of applied science in Coburg about controller design
- Knowledge exchange at the AAL forum in Lecce and Eindhoven
- Meetings with care organizations and rural district offices. Cooperation evaluation with medical supply stores, distributors, shops and crafts.

To whom are you communicating to about the Join-In project?
- Carers, social clubs, church institutions and associations, industrial companies, rural district offices, seniors and family members

What will be done in the future?

Research

- Improvement of controllers and TV / settop-box applications knowledge extension about web applications

Commercial

- Extension of the end user base, cooperation with industrial partners for funding of market introduction.

### 6.3.10 Valentia Technologies

Exploitation information will be added later.

# 7 Conclusion

This deliverable represents the startegy and plan for disseminating and exploiting the results of the Join-In project. In chapter 2 we identified the goals for the exploitation in common and for each partner. There were two dimensions in the dissemination and exploitation:

1) Scientific aspect – How to disseminate and exploit the study results gained during the project.
2) Product aspect – How to disseminate and exploit the Join-In portal and the individual game concepts resulted from the project

Chapters 3 Market description and 4 Market access analysis provide an overview to the target market, their needs and the industry trends forming the frames for the dissemination plan and indicating that there is a demand for elder exercising products as well as for products that enables care providers to take better care of their patients (seniors) with less resources.

The chapter 5 Dissemination plan lists the tools already available and materials needed. It also provides an action plan to carry out before the project is finished to make sure that the results may be disseminated in a coherent way by each partner.

Chapter 6 covers how the exploitation goals can be reached with the dissemination materials. However, the plan is very general and each partner needs to define it further to set the strategy for their exact goals and country specifics and how to measure the results. The deliverable provides them a selection of tools to do that.

# 8 References

[1] Population in Europe. Eurostat 2010

[2] World health organisation http://apps.who.int/gho/data/node.main

[3] The Future of well-being Services. Active for Life. 2012.

[4] European Connected Health Alliance Leadership Summit 2013, 11-12 June 2013, Oulu. http://www.b2match.eu/echalliance-summit2013

[5] Ageing policy. European Comission, Public Health http://ec.europa.eu/health/ageing/policy/index_en.htm

[6] 100 Social media statistics for 2012. The Social Skinny: http://thesocialskinny.com/100-social-media-statistics-for-2012/socialnetworkpenetration/

[7] http://pewinternet.org/Reports/2010/Generations-2010.aspx

AAL — Ambient Assisted Living

Partners: HappyWise  Pasife...  BuLL  Institute of TECHNOLOGY CARLOW — At the Heart of South Leinster  Norwegian Centre for Integrated Care and Telemedicine — NST

HelmholtzZentrum münchen — Deutsches Forschungszentrum für Gesundheit und Umwelt  Diakonie München-Moosach  norut — NORTHERN RESEARCH INSTITUTE TROMSØ  Valentia Technologies

# 9 Attachments

1. Impact and awareness activities NORUT and NST

2. Impact and awareness activities HMGU, DMM, ITC

3. Brochures used by partners

## Attachment 1: Impact and awareness activities NORUT and NST

| IMPACT AND AWARENESS ACTIVITIES | | | | |
|---|---|---|---|---|
| **Project participant responsible (indicate country)** | **Activity** | **Date** | **Medium and reference (press, event, newsletter, webpage, etc.)** | **Indicative coverage** |
| | | | | |
| NST, Norut, Norway | Workshop: Tromsø Telemedicine Laboratory (TTL) Project Marathon, Norway | 04/2013 | 2 oral & video presentations | TTL research community |
| NST, NORUT, Norway | Exerbiking leaflet for potential customers and end users (in Norwegian) | 2013 | Information leaflet | |
| NST, Norut, Norway | Norwegian conference: Velkon 2013: Nettbasert spinning – motiverende og sosial sykkeltrening hjemme. Trondheim | 23-24/10/13 | Conference abstract and oral presentation | |
| | | | | |
| Norut, Norway | Heracleum Communication | 01/2012 | Presentation | |
| Norut, NST Norway | News acticle on seniors and exercising. Forskning.no – national webportal with research news | 02/2012 | Web pres., English and Norwegian | |
| Norut, Norway | TV report | 01/02/2011 | TV spot, NRK | Norway |
| Norut, Norway | Trim med TV-spill | 14/02/2012 | Newspaper article | |
| Norut, Norway | News article on seniors and exercising. Sciencenordic.com | 16/02/2012 | Web article | |
| Norut, Norway | News article on seniors and exercising. Trønderavisa | 18/02/2012 | Newspaper article | Region Norway |
| NST, Norut, Norway | Presentation for Evjeklinikken, who visit Tromsø | 03/2012 | Oral presentation | < 10 |
| NST, Norut, Norway | Presentation for LHL Tromsø, Skibotn Rehabilitation Centre, | 03/2012 | Oral presentations | Local leaders LHL and participants |

| Norut, NST, Norway | Note in the weekly magazine "Familien" | 04/2012 | Woman's magazine | Norway |
|---|---|---|---|---|
| Norut, Norway | You tube: Join-In Exergame Kinect demo | 05/2012 | You tube video | YouTube |
| Norut, Norway | Interview on JoinInGameBlog | 05/2012 | Blog interview | Norwegian |
| NST, Norut, Norway | Workshop: Tromsø Telemedicine Laboratory (TTL) Project Marathon, Norway | 06/2012 | Oral presentations | TTL research community |
| NST, Norut, Norway | Conference: Games and the Social Group as Motivator. The 26th Conference of the Nordic Sociological Association:, Trust and Social Change, Reykjavik | 08/2012 | Conference: Abstract and presentation | 325 |
| Norut, Norway | Article on Seniornett.no | 19/02/2012 | Web presentation | |
| HMGU, Germany Norut, Norway | Suitability analysis of commercial open-source driven motion sensor devices applied to exergames for the elderly. Join-In: preventing loneliness in the elderly through social networking . AAL Conference , Eindhoven 2012 | 09/2012 | 2 Presentations | 400 250 |
| NST, Norut, Norway | Den sosiale gruppa som motivasjon til fysisk trening. I: Helsesosiologi. Analyser av helse, sykdom og behandling. Oslo: Gyldendal Akademisk | 09/2012 | Book Chapter | Scandinavia (in Norwegian) |
| Norut, Norway | Aktiv omsorg i praksis, ? Oslo | 23/10/12 | Oral presentation | |
| Norut, Norway | Demonstrator of AntiqueHunt Game – Scenes | 10/2012 | Demonstrator | |
| NST, Norut, Norway | Exerbiking prototype | 12/2012 | Prototype | |
| Norut, Norway | UbiTeraGames: International | 2011 | Paper and | 20 |

| | Workshop on Therapeutic Serious Games and Pervasive Computing; Dublin 2011 | | Presentation | |
|---|---|---|---|---|
| Norut, Norway | Demonstrator Cycling Game | | Demonstrator | |
| Norut, Norway | Demonstrator game for exercises | | Demonstrator | |

## COMMENTS

## 4. IMPACT AND AWARENESS ACTIVITIES

**PLEASE INDICATE IF THE PROJECT WILL PRODUCE/ACHIEVE OR HAS PRODUCED/ACHIEVED ANYTHING OF SPECIAL INTEREST FOR THE AAL JP (E.G. A PROJECT EVENT, PRESS RELEASES, PUBLICATIONS, PATENTS, DEMONSTRATORS, ETC.).**

| Project participant responsible (indicate country) | Activity | Date | Medium and reference (press, event, newsletter, webpage, etc.) | Indicative coverage |
|---|---|---|---|---|
| HMGU, Germany | GMDS Annual Meeting Mainz, 2011 | 20/09/2011 | Poster | 300 |
| DMM, HMGU, Germany | AAL Conference , Lecce 2011 | DD/09/2011 | Poster<br>Podium Discussion | 400<br>250 |
| Norut, Norway | UbiTeraGames: International Workshop on Therapeutic Serious Games and Pervasive Computing; Dublin 2011 | DD/MM/2011 | Paper and Presentation | 20 |
| HMGU, Germany | Project Portal | 31/01/2011 | Webpage | 500 |
| HMGU, Germany | Project Brochure | 30/08/2011 | Project Brochure | 200 |

| DMM, Germany | Project Brochure for German users | 01/02/2011 | Project Brochure | 100 |
| --- | --- | --- | --- | --- |
| ITC, Ireland | press releases to the local papers | 10/2011 | | 5.000/10.000 |
| DMM, Germany | Active Aging in Munich | 2012 | 4 Events | 200 |
| PAS, Germany | Controller | | Model | |
| HMGU, Germany | Join-In Social Networking Platform | 12/2012 | Prototype | |
| ITC, Ireland | Demonstrator Walking Game | 6/2012 | Demonstrator | |
| Norut, Norway | Demonstrator Cycling Game | | Demonstrator | |
| ITC, Ireland | Computer Game | | Prototype | |
| Norut, Norway | Demonstrator game for exercises | | Demonstrator | |
| ITC, Ireland | MSc thesis | 4/2013 | Report | |
| ITC, Ireland | Press releases to the local papers | 10/2011 | | 5.000/ 10.000 |
| ITC, Ireland | Papers/posters | Oct/Nov 2012 | Paper/ Poster | |