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D5.3 V1 Exploitation Plan



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The SENSE-GARDEN project is funded under the AAL Programme 2016 Call "Living well with dementia"

Dissemination Level		
PU	Public	X
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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Deliverable Summary

A complete Exploitation Plan is to be produced before project end. Such document is important to define each partner's interest in using the project's results. This deliverable sets the framework for such Exploitation Plan and presents initial strategies already defined within the Consortium. Finally, it addresses the profit generation and expected revenue after project end.

The exploitation routes analysed in the Consortium took in consideration their main intention regarding project results, willingness to commercialise, organizational constraints and inherent competencies. Three aspects are considered and must be covered in the exploitation strategy: care service perspective, provided technology and user's needs.

In the discussions the geographical location of the partners and its impact on the market sectors was taken in consideration.

1 Introduction

A Commercialization Agreement is to be generated among the partners in the first 6 months of 2019 and reported in the final version of this deliverable (D5.3 V2) in month 35 of the project. This document will define the rules for the willing parties of the project consortium that will take part in the commercialization of the SENSE-GARDEN solution. The agreement will establish party participation in the exploitation of SENSE-GARDEN and measures relating thereto, finances and IP rights, as well as matters regarding the nature and composition of the entity to be defined, hereafter designated as the Business Entity.

The General Assembly (GA) as the steering and strategic decision-making body will be responsible for the decisions regarding the Business Entity before project end. The GA will formulate proposals and take decisions in accordance with the Business Entity Agreement. The GA will establish regular meetings: in person and via video conference.

The decision mechanisms regarding the Commercialization Consortium will be kept as simple and as direct as possible and always in the scope of GA meetings. Normally, decisions of GA are expected to be by consensus. If such a consensus cannot be reached, decisions will be taken by a majority vote, with chair having casting vote.

Later on, based on the eventual success in participating to several investors' events, the Business Entity shall consider the possibility of a Start-up based on the gathered funds and involved angel or capital investors. A distribution of roles, responsibilities and shares will be again reconsidered based on the negotiation done with the potentially interested investors.

2 Creation of a business entity based on market needs for technology-based therapies for dementia

Early competitor analysis shows of the care homes market shows needs at three levels

- 1) Personalized spaces dedicated to persons with dementia. The closest facility are the so-called "Snoezelen" rooms, offered in some institutions in Belgium and Norway, but almost inexistent in Romania and Portugal. Also, these are too generic as they cannot be personalized.
- 2) Effective non-pharmacological therapies for dementia. Reminiscence therapy is the most common, but its effectiveness is moderate as results do not show important benefits. Moreover, disparity on the interventions and poorly described protocols do not permit clear assessment of such benefits (Cochrane Systematic Review on "Reminiscence therapy for dementia", Cochrane Database Syst Rev. 2018).
- 3) Virtually adaptable spaces for persons with dementia. Dementia villages are being built in the Netherlands (The Hogeweyk) and projected in Norway, but these do not connect with the unique past memory of a person.

The solution presented by the SENSE-GARDEN project addresses these three needs (see deliverable D2.2 Service design and user needs). SENSE-GARDEN has at its core three aspects that constitute the product: a **technological platform**, including hardware, software (structure, processes, user interaction, media storage and management) and intelligence (learning with user experience); a **social service** provided to the residents (persons with dementia) and their informal caregivers (family/friends),

consisting of a space for communication and connection, and a **therapy** based on adaptable and adaptive reminiscence supported by digital media (and therefore non-pharmacological).

A **societas Europaea** (SE; Latin pronunciation: [so'ki.e.ta:s ew.ro:'pae.a]); Latin for European society or company. is a public company registered in accordance with the corporate law of the European Union (EU). [Wikipedia]

This seems to be an appropriate model for the future of the SENSE-GARDEN business entity. The following text is based on the Wikipedia page on *Societas Europaea (SE)*.

SE was introduced in 2004 with the Council Regulation on the Statute for a European Company. Such a company may more easily transfer to or merge with companies in other member states.

As of April 2018, more than 3,000 registrations have been reported, including the following nine components (18%) of the Euro Stoxx 50 stock market index of leading Euro Area companies (excluding the SE designation): Airbus, Allianz, BASF, E.ON, Fresenius, LVMH Moët Hennessy Louis Vuitton, SAP, Schneider Electric and Unibail-Rodamco.

National law continues to supplement the basic rules in the Regulation on formation and mergers. The European Company Regulation is complemented by an Employee Involvement Directive that sets rules for participation by employees on the company's board of directors.

The Statute provides four ways of **forming a European limited company**:

1. By merger of national companies from different member states.
2. By the creation of a joint venture between companies (or other entities) in different member states.
3. By the creation of an SE subsidiary of a national company.
4. By the conversion of a national company into an SE.

Situation number 2 seem to be appropriate for SENSE-GARDEN as the interested partners are already formed as companies and a university.

Formation by merger is available only to public limited companies from different member states. Formation of an SE holding company is available to public and private limited companies with their registered offices in different member states or having subsidiaries or branches in member states other than that of their registered office. Formation of a joint subsidiary is available under the same circumstances to any legal entities governed by public or private law.

The SE must have a **minimum subscribed capital of €120,000** as per article 4(2) of the directive, subject to the provision that where a member state requires a larger capital for companies exercising certain types of activities, the same requirement will also apply to an SE with its registered office in that member state (article 4(3)).

The registration and completion of the liquidation of an SE must be disclosed for information purposes in the Official Journal of the European Communities. **Every SE must be registered in the State where it has its registered office**, in a register designated by the law of that State. The registered office of the SE designated in the statutes must be the place where it has its central administration, that is to say its true centre of operations.

The Statutes of the SE must provide as governing bodies the general meeting of shareholders and either a **management board and a supervisory board** (two-tier system) or an **administrative board** (single-tier system). Under the two-tier system the SE is managed by a management board.

3 The partnership

Four actors will be a part of the Business Entity

E-point – Belgium SME partner from the SENSE-GARDEN Consortium

Compexin – Romanian SME partner from the SENSE-GARDEN Consortium

NTNU – Norwegian University and research partner from the SENSE-GARDEN Consortium

Investor - For the investor component there are 3 scenarios: 1) an external funding entity; 2) funding distributed by the other three actors; 3) a mixed model of 1) and 2)

In addition, there are open positions for companies to join the partnership. Desired competencies are at the moment architecture&design and construction. Revenue projection and profit analysis

This projection is based on a set of premises that took in consideration market and competitor analysis done under the Business Planning. Due to the innovative and disruptive nature of the proposed solution, the definition of plausible market figures is complex. However, the numbers used in the projection are considered as being conservative.

Two marketing strategies are proposed for the acquisition of the SENSE-GARDEN: onetime payment with monthly service fee, or a leasing contract.

The analysis is based on a fixed cost of 44 KEUR per SENSE-GARDEN. Such cost is based on today's technology and includes all the solution components: the construction of the physical space, all necessary hardware and software.

For the service fees the following components are considered (table 1): training of professionals on the therapy and use of the facilities, media content support and customer helpdesk and system maintenance (considered together for simplicity).

Training of professionals on the therapy and use of the facilities	Media content support	Customer helpdesk and system maintenance
145	145	500
Total monthly cost		790

Table 1. Monthly service fee components

The leasing contract, when based on a 5 years depreciation, amounts to just over 600 EUR per month (see table 2)

Leasing	5 years
Base calculation	44 000
Residual value (structure and equipment)	9 000
Binding time (=depreciation to residual value)	60
Risk margin and inflation	7%
Monthly cost	624

Table 2. Monthly cost of leasing contract (first 5 years)

For the leasing option, the monthly cost amounts to 1414 EUR (service fee plus leasing cost) during the first 5 years and only the service fee subsequently.



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3.2 Year two of deployment

	#S-G	Price per S-G		Cost per S-G		Commercial efforts	Further development	Profit from sale				
	15	44 000		22 000		3 000	4 000	15 000				
Year 2												
	Sales	Real cost	Training	Helpdesk and maintenance	Media content support	Commercial efforts	Further development	Gross income	Profit from sale	Profit from service	Total profit on year	Commulative profit
Total	660 000	330 000	26 100	90 000	26 100	45 000	60 000	802 200	225 000	237 000	462 000	606 800
E-point					26 100	20 250	9 000	134 100	78 750	35 550	114 300	146 020
Compexin				90 000		11 250	33 000	168 000	33 750	82 950	116 700	157 380
NTNU			26 100			13 500	18 000	125 100	67 500	71 100	138 600	182 040
Investor									45 000	47 400	92 400	121 360
SENSE-GARDENs built												25



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3.3 Year three of deployment

	#S-G	Price per S-G		Cost per S-G		Commercial efforts	Further development	Profit from sale				
	20	44 000		22 000		3 000	4 000	15 000				
Year 3												
	Sales	Real cost	Training	Helpdesk and maintenance	Media content support	Commercial efforts	Further development	Gross income	Profit from sale	Profit from service	Total profit on year	Commulative profit
Total	880 000	440 000	34 800	120 000	34 800	60 000	80 000	1 069 600	300 000	426 600	726 600	1 333 400
E-point					34 800	27 000	12 000	178 800	105 000	63 990	168 990	315 010
Compexin				120 000		15 000	44 000	224 000	45 000	149 310	194 310	351 690
NTNU			34 800			18 000	24 000	166 800	90 000	127 980	217 980	400 020
Investor									60 000	85 320	145 320	266 680
SENSE-GARDENs built												45



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3.4 Year four of deployment

	#S-G	Price per S-G		Cost per S-G		Commercial efforts	Further development	Profit from sale				
	25	49 000		21 000		1 500	2 000	24 500				
Year 4												
	Sales	Real cost	Training	Helpdesk and maintenance	Media content support	Commercial efforts	Further development	Gross income	Profit from sale	Profit from service	Total profit on year	Commulative profit
Total	1 225 000	525 000	43 500	150 000	43 500	37 500	50 000	1 462 000	612 500	663 600	1 276 100	2 609 500
E-point					43 500	16 875	7 500	282 250	214 375	99 540	313 915	628 925
Compexin				150 000		9 375	27 500	278 750	91 875	232 260	324 135	675 825
NTNU			43 500			11 250	15 000	253 500	183 750	199 080	382 830	782 850
Investor									122 500	132 720	255 220	521 900
SENSE-GARDENs built												70



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3.5 Year five of deployment

	#S-G	Price per S-G	Cost per S-G	Commercial efforts	Further development	Profit from sale					
	25	49 000	21 000	1 500	2 000	24 500					
	Year 4					Year 5					
	Sales	Real cost	Training	Helpdesk and maintenance	Media content support	Commercial efforts	Further development	Gross income	Profit from sale	Profit from service	Total profit on year
Total	1 225 000	525 000	43 500	150 000	43 500	37 500	50 000	1 462 000	612 500	900 600	1 513 100
E-point					43 500	16 875	7 500	282 250	214 375	135 090	349 465
Compexin				150 000		9 375	27 500	278 750	91 875	315 210	407 085
NTNU			43 500			11 250	15 000	253 500	183 750	270 180	453 930
Investor									122 500	180 120	302 620
SENSE-GARDENS built											95

3.6 Revenue and profit after 5 years deployment

	Revenue (gross income) after 5 years	Profit from sales after 5 years	Profit from service after 5 years	Total profit after 5 years
Total	5 330 600	1 800 000	2 322 600	4 122 600
E-point	948 300	630 000	348 390	978 390
Compexin	1 079 000	270 000	812 910	1 082 910
NTNU	873 300	540 000	696 780	1 236 780
Investor		360 000	464 520	824 520
SENSE-GARDENS built		Total number of S-G sold		95