OVERALL REGIONAL SITUATION IN SLOVENIA IN HOME CARE RESEARCH & INNOVATION AND QUADRUPLE-HELIX COOPERATION IN R&I

REGIONAL STUDY OF THE HOCARE PROJECT IN SLOVENIA

POVZETEK (SI)

Operativni program za izvajanje Evropske kohezijske politike v obdobju 2014 -2020 je strategija, ki doprinaša k Strategiji za pametno, trajnostno in vključujočo rast. Instrument politike (Operativni program) mora biti redno posodobljen in izboljšan. Obstaja več ukrepov, katerih cilj je usmerjen v utrjevanje raziskav, tehnološki razvoj, inovacije in povezovanje deležnikov iz vseh štirih področij: mala in srednje velika podjetja, institucije znanja, javni sektor in civilna družba (quadruple-helix cooperation). Ob tem pa je premalo poudarka na podpori in sodelovanju med malimi in srednjimi podjetji ter področjem teleoskrbe (telecare in telehealth). Potrebni so boljši mehanizmi za koordinacijo aktivnosti in teleoskrbo znotraj ter med vladnimi institucijami, raziskovalnimi organizacijami/institucijami znanja, zdravstvenim sektorjem in malimi ter srednjimi podjetji.

Relevantna tematska in prioritetna os, ki se dotika tudi oskrbe na domu je »Prioritetna os 9: Socialna vključenost in zmanjševanje tveganja revščine«. Ta prioritetna os je povezana z enim izmed splošnih ciljev Operativnega programa za izvajanje Evropske kohezijske politike v obdobju 2014 -2020, to je zmanjšanje števila socialno izključenih oseb in tistih na robu revščine, ob povečanju dostopnosti ter kakovosti storitev, ki temeljijo na skupnosti in spodbujanju socialnega podjetništva«.

Prioritetna os 9 ima naslednje specifične cilje:

- Vzpostavitev celostnega modela socialne aktivacije: zagotoviti razvit in vzpostavljen model ter orodja, ki zagotavljajo celostno in kakovostno obravnavo oseb iz ciljnih skupin ter ustrezno povezovanje vseh relevantnih institucij in obstoječih sistemov.
- Opolnomočenje ciljnih skupin za približevanje trgu dela: povečanje deleža ranljivih skupin, ki so ob zaključku programov vključene v iskanje zaposlitve, izobraževanje/usposabljanje, pridobivanje kvalifikacij ali v zaposlitev, z razvojem in izvajanjem programov socialnega vključevanja in socialne aktivacije, s čimer bo dosežen rezultat, da bo čim večje število vključenih oseb pridobilo kompetence, ki jih bodo približale vstopu na trg dela.
- Preprečevanje zdrsa v revščino oziroma socialno izključenost in zmanjševanje neenakosti v zdravju: razviti in nadgrajeni učinkoviti preventivni pristopi in programi za preprečevanje zdrsa v revščino in socialno izključenost ter zmanjšanje neenakosti v zdravju.

Odgovorni organ za upravljanje operativnega programa je Urad Vlade Republike Slovenije za razvoj in evropske kohezijske politike, vmesni organ za omenjeno relevantno prioritetno os pa Ministrstvo za delo, družino, socialne zadeve in enake možnosti Republike Slovenije.

Nove podporne storitve se nenehno razvijajo in kljub vse več dokazom o pozitivnih učinkih le-teh, je Slovenija še vedno na začetku poti sprejemanja pametnih rešitev za oskrbo na domu. Najizrazitejše ovire za izvajanje storitev, ki temeljijo na informacijsko-komunikacijski tehnologiji (IKT), so povezane s pomanjkanjem sodelovanja med ključnimi deležniki, identifikacijo okvirov financiranja ter poslovnih modelov, kot tudi težave z integracijo storitev, pomanjkanje načrtov implementacije za dostavne službe, pomanjkljivo razumevanje potreb uporabnikov in pomanjkanje zasnov prijaznih starostnikom.

V Sloveniji je prisotna premajhna izkoriščenost povezovanja deležnikov iz vseh, zgoraj omenjenih, štirih področij (quadruple helix model) glede oskrbe na domu. Politični odločevalci so v preteklosti oblikovali nekaj začetnih iniciativ povezovanja in koordiniranja različnih deležnikov na tem področju, vendar te niso bile v celoti izkoriščene. Ministrstvo za delo, družino, socialne zadeve in enake možnosti Republike Slovenije je leta 2016 ustanovilo delovno skupino za e-oskrbo, s katero se je začela iniciativa nacionalnega ekosistema na področju e-oskrbe. Vendar poleg vključevanja in so-organizacije Slovenskega ECHAlliance ekosistema (http://www.healthday.si/echalliance-launch-1/) večje aktivnosti na tem področju niso bile dosežene .

Ministrstvo za delo, družino, socialne zadeve in enake možnosti Republike Slovenije je v preteklosti organiziralo delavnice na temo formalne oskrbe v Slovenije (ki največkrat tudi nudi oskrbo na domu), vendar pa to niso redni, letni dogodki in se običajno ne osredotočajo na povezovanje različnih deležnikov.

Mreža Healthday.si (http://www.healthday.si/) organizira dogodke o (digitalnem) zdravju, program pa se včasih dotakne tudi IKT podpore oskrbe na domu. Healthday.si je skupnost zdravstveno-tehnoloških podjetij in organizacij, s sedežem v Sloveniji. Od ustanovitve leta 2014 so organizirali 7 dogodkov ter prav tako širili svojo dejavnost s povezovanjem mednarodnih partnerjev (Health 2.0, Grants4Apps and ECHAlliance). Skupnost prav tako upravlja s slovenskimi zdravstveno-tehnološkimi-start-upi in zainteresiranimi strokovnjaki – združeni v Green Book (Zelena knjiga). Healthday.si na svojih dogodkih gosti start-upe, zdravnike, strokovnjake informacijskih tehnologij, investitorje, študente, raziskovalce, akademike, mentorje ter številne druge.

ABSTRACT (EN)

Operational Programme for the Implementation of the EU Cohesion Policy in the Period 2014-2020 is a strategy for the contribution of the operational programme to the EU Strategy for smart, sustainable and inclusive growth. The policy instrument (Operational programme) needs to be regularly updated and improved. There are several actions aimed towards strenghtening research, technological development, innovation and quadruple-helix cooperation, but not much emphasis is given to the links between SME's support and the area of health care (telecare, telehealth). There should be a better mechanism for co-ordinating activities in telecare and telehealth within and between government directorates, research organisations, the (health)care services and SME's.

The relevant thematic priority axis covering also home care is "Priority axis 9: Social inclusion and poverty reduction". This priority axis is related to one of the general objectives of Operational Programme for the Implementation of the EU Cohesion Policy in the Period 2014-2020, i.e. "reducing the number of socially excluded persons and persons at the risk of poverty while increasing the access and quality of community-based services and promoting social entrepreneurship".

Priority axis 9 is has the following specific objectives:

- Establish an integrated model of social activation: A well-developed and established comprehensive model of social activation and tools which ensure a comprehensive and high-quality approach to addressing individuals from the target groups and bringing together the relevant institutions.
- Empower target groups to bring them closer to the labour market: Increased share of vulnerable target group engaged in job search, in education or training, in gaining of a qualification or in employment upon leaving, that will be, among others, achieved through development and implementation social activation programs.
- Prevent slipping into poverty or social exclusion and reduce health inequalities: Development and upgrade of efficient approaches and programs for preventing slipping into poverty and social exclusion, and for reducing health inequalities.

While managing authority (responsible body) for the Operational Programme is Republic of Slovenia Government Office for Development and European Cohesion Policy, the intermediate body for the relevant thematic priority axis is Republic of Slovenia Ministry of Labour, Family, Social Affairs and Equal Opportunities.

New assistive services are continuously evolving but despite the growing body of evidence about their positive effects, Slovenia is in its infancy regarding the adoption of smart solutions for home care. The most important barriers to the implementation of ICT-based assistive services seem to be related to the lack of cooperation among key stakeholders and identification of funding frameworks and business models, as well as to difficulties with service integration, lack of implementation plans for service delivery, poor understanding of users' needs and lack of age-friendly design.

Quadruple helix model is not well utilized in Slovenia in the field of home care. While there have been some initial attempts by the policy-makers to mobilize and coordinate different stakeholders, these have not been fully utilized. The Ministry of Labour, Family, Social Affairs and Equal Opportunities established in 2016 a working group for e-care, the task of which is also a launch of a national ecosystem in the field of e-care. Apart from involvement and co-organisation of the launch of a Slovenian ECHAlliance ecosystem (http://www.healthday.si/echalliance-launch-1/) no activities have been conducted since the establishment of the mentioned working group.

The Ministry of Labour, Family, Social Affairs and Equal Opportunities sometimes organises workshops for formal carers in Slovenia (who typically offer also care at home), but these are not regular (e.g. yearly events) and they are typically not focused on bringing different types of stakeholders together.

A network called Healthday.si (http://www.healthday.si/) is organising events on (digital) health, the programme of which sometimes relates also to ICT-supported home care. HealthDay.si is a community of health-tech companies and organisations from their supportive environment, based in Slovenia. Since they were formed in 2014 they have organised 7 events and also spread their activity by connecting with international partners, such as Health 2.0, Grants4Apps and ECHAlliance. The community also manages the directory of all Slovenian health-tech start-ups and interested experts, called the Green Book. The events of HealthDay.si host start-ups, physicians, information technology experts, investors, students, researchers, academics, mentors and others.

Contents

1. Structural funds' – Operational Programme

Name of the Structural funds' - Operational Programme (OP) - supporting Research & Innovation in your region (+ in local language in brackets)	Operational Programme for the Implementation of the EU Cohesion Policy in the Period 2014-2020 (Operativni program za izvajanje Evropske kohezijske politike v obdobju 2014-2020)
Geographical coverage of this OP (whole country, specific counties, international, etc.)	Whole country
Managing Authority (Responsible body) for this OP	Republic of Slovenia Government Office for Development and European Cohesion Policy
Intermediate body(ies) for this OP (if relevant)	Republic of Slovenia Ministry of Labour, Family, Social Affairs and Equal Opportunities
General objectives of the OP	• Increasing the international competitiveness of enterprises. • Improving the infrastructure for research and innovation. • Developing a high-quality broadband infrastructure and enhancing access to broadband services. • Increasing energy efficiency and the use of renewable energy sources. • Implementing sustainable mobility measures in urban areas. • Supporting climate change adaptation measures. • Developing environmental infrastructure in the water sector and ensuring the efficient and sustainable use of natural resources. • Upgrading the railway infrastructure and constructing the missing motorway sections. • Increasing the share of employment. • **Reducing the number of socially excluded persons and persons at the risk of poverty while increasing the access and quality of community-based services and promoting social entrepreneurship.** • Improving the responsiveness of the education and training systems to the needs of the labour market and ensuring equal access to education, trainings and lifelong learning. • Increasing the institutional capacities and the efficiency of the public administration and services.
Name of the relevant thematic priority axis supporting R&I activities (+ in local language in brackets)	Priority axis 9: Social inclusion and poverty reduction (Socialna vključenost in zmanjševanje tveganja revščine)
Specific objectives of the given priority axis described above	**SO 1: Establish an integrated model of social activation** Objective: a well-developed and established comprehensive model of social activation and tools which ensure a comprehensive and high-quality approach to addressing individuals from the target groups and bringing together the relevant institutions. **SO 2: Empower target groups to bring them closer to the labour market** Objective: increased share of vulnerable target group engaged in job search, in education or training, in gaining of a qualification or in employment upon leaving, that will be, among others, achieved through development and implementation social activation programs.

	SO 3: Prevent slipping into poverty or social exclusion and reduce health inequalities Objective: development and upgrade of efficient approaches and programs for preventing slipping into poverty and social exclusion, and for reducing health inequalities.)

Available support programmes / intervention areas in 2014-2020 relevant to Home Care R&I and quadruple-helix cooperation in R&I

Which **relevant support programmes / intervention areas** in the priority axis described above are **available in OP 2014-2020** (amount of funds, objectives of support programme / intervention areas, eligible recipients, time plans for calls). Please provide information for each relevant support programme / intervention area.	
SUPPORT PROGRAMME / INTERVENTION AREA 1	
Name of the support programme / intervention area 1 (+ in local language in brackets)	As of right now, no support programme, relevant for the Home Care segment or the quadruple-helix approach, has yet been approved, but the OP allows and supports co-financing of such projects. [Please note that already approved programmes are e.g. Healthy lifestyle, Traininig in the work environment, management of innovative learning environments etc.] In the 2014–2020 financial perspective, the Managing Authority issued a decision to support a public call for co-financing of projects of multigenerational centres (the selection process has not yet been completed) which to some extent can be example of a relevant project.
Relevancy of this support programme / intervention area	Relevant both to Home Care R&I + quadruple-helix cooperation in R&I
Describe **reasons of its relevance for Home Care R&I** (if relevant)	The public call is carried out as part of the priority axis 9, area of support 9.1 and specific objective 3, which target prevention of poverty and social exclusion and lowering the health inequality. The subject of the call is co-financing of projects of multigenerational centres that would offer various preventive programmes (both content and activities). Amongst target groups of these multigenerational centres are also elderly, especially those from environments with a high degree of social risk.
Describe **reasons of its relevance for quadruple-helix cooperation in R&I** (if relevant)	The call encourages applicants to cooperate with other organizations and also the wider community, which is taken account when assessing applications. One of the specific goals of the call is also strengthening of cooperation of public institutions, non-governmental organizations, social enterprises, municipalities in individual geographical units etc.
Amount of funds in this support programme / intervention area in EUR	The entire public call has, for the 2017–2021 period, available grants in the amount of 8.625.000 €. The maximum amount of funding per individual project is limited to 575.000 €.
Objective of the support programme / intervention area	The objectives are to support accessible, diverse and quality programmes that will provide for integration of vulnerable target groups and prevent social exclusion as well as empower vulnerable groups, create an information centre, strengthen cooperation of public institutions, non-governmental organizations, social enterprises, municipalities in individual geographical unites etc.
Eligible support programme / intervention area **recipients**	The call is open for legal subjects of private law that have registered at least one of the necessary activities, can pre-finance the project and can also provide technical capabilities to execute the project of a multigenerational centre. The primary target groups of multigenerational centres are families and individuals with low working intensity, families in which insufficient parental competencies have been detected, children and youth that are threatened by social exclusion, children and youth with special needs, single parent families, the elderly, disabled, migrants and refugees, and Roma families.
Time plan for calls in this	As already mentioned, it is not a programme but an individual public call,

Evaluation of applications

Is the **evaluation process for applications set up the same way for all** given relevant **support programmes / intervention areas + calls?** (procedures of the evaluation set up and specific criterias selection)	No, it is different for various support programmes / calls
If the same, who evaluates all applications?	
Where are the evaluators from?	Click here and select
If the same, which evaluation criteria are used with what weight?	
If different, who evaluates applications of each of the support programme / intervention area call? Please specify for each different relevant support programme / intervention area described above.	In Slovenia, the operations or projects (support programmes) are selected in two ways. The first one is the direct approval of operation where the instrument of direct approval is used to select projects or groups of projects and the programme, executed by the beneficiary. In this case, the applications are evaluated by the Managing Authority. In the case of public calls, the Managing Authority approves and allocates financial resources to the call itself, but an intermediary body with its own selection commission is in charge of selection of concrete projects.
If different, which evaluation criteria are used with what weight in each of the support programme / intervention area call? Please specify for each different relevant support programme described above.	In the case of direct approval: when evaluating, common criteria of operations selection are taken into account (e.g. correspondence with the OP and the chosen topic, cost justification of cost estimation and timeline estimates and risk assessment of a project non-completion). In the case of larger project, the European Commission also gives its consent. In the case of a public call: the Managing Authority has to examine the text of the call and its criteria and can demand a completion. Conditions for application for a call are clearly defined for each call individually. Criteria and grading are also defined (and known) in advance. Criteria for selection of beneficiaries are several. In the case of the abovementioned public call for co-financing of projects of multigenerational centres there exist general criteria that cover the correspondence with the OP as well as several special criteria (project adequacy and its feasibility, applicant's ability for project's execution, durability of results and more specific criteria). Amongst specific criteria there is also cooperation with other organizations (project partners).

Governance of the relevant thematic priority axis of the Operational Programme

Main management bodies that influence the	When preparing the partnership agreement and the OP, Slovenia honoured the rule of partnership and SVRK as the Managing Authority cooperated with

OP including logic of constitutions, process of forming and list of members. Please specify all above stated components.	ministries in charge as well as with the representatives of wider public. Based on a list of representative groups of organizations from different fields, the MA cooperated with, for example, representatives of non-governmental organizations, regions and wider public. Partners were included and have actively participated in all phases of programming.
Are there any **possibilities** for non-members of commitees **to influence the OP** (consultations, feedback, events, etc.)?	yes
If yes, please provide more details on **how**	Even when preparing the partnership agreement that defines thematic areas and is the basis for preparation of the Operative Programme, the discussions included experts and relevant partners that are not part of the Managing Authorities or of any formal group, responsible for the preparation of the OP. Comments and recommendations were taken into account and some also implemented.

2. SMART specialization strategy – RIS3

The "SMART specialization strategy – RIS3" section provides more detailed information on defined RIS3 in the region and the main supported R&I areas contributing to Home Care R&I.

Is **SMART specialization strategy** defined in your region **on the same level as above described Structural Fund?** (e.g. national-national, regional-regional)	yes
If not, specify level of RIS3 defined in your region	
Which **RIS3 R&I specialization segments** contribute to Home Care R&I support?	Specialization segments in RIS3 that contribute to Home Care R&I support are issues addressed within Pillar II: Value Chains and Networks.

The priority area **"Health"** consists of two sets that complement each other, namely: a) vertical related to medicine in the narrower sense, and b) horizontal related to the quality of life and health in a broader sense, which represents one of the key comparative advantages of Slovenia but which needs to be developed and be actively marketed to generate new value.

Products, services and systems priority area of application relating to Medicine are developed on the cross-section of technologies from the following domains: biomedicine and translational medicine, which is not relevant in our context; and **smart healthcare**, including the services provided at a distance and emergency call, aiming to set up modern and safe environment for residents and visitors.

In the second set, the potentials of the pharmacy and medicine are complemented by the domains related to the **quality of life** in the broader sense |

aiming at Slovenia to become an attractive place for healthy living, innovative creation, rest and relaxation as well as for prevention and reconvalescence. One of the specific domains within this priority area of application is development of innovative products and services and integrated solutions based on efficient integration (networking) of providers and producers (smart networks and value chains) based on local products and services including the promotion (particularly ecological, spa and cultural) tourism and strengthening of social capital for the activation of Slovenia.

The priority area **"Smart buildings and homes"** mentions products and services that are developed on crosssection of technologies from the different domains, including home of the future, meaning solutions for individual target groups for active and healthy life style and comfortable and top quality living.

3. Other policy instruments relevant for Home Care R&I

The "other policy instruments relevant for Home Care R&I" section provides more detailed information on other policy instruments supporting R&I in Home Care, following the same description as for the Operational Programme described above.

Other policy instruments relevant for Home Care R&I support in your country?	No, there is no other policy instrument supporting Home Care R&I.
	There are no other policy instruments relevant for Home Care in Slovenia. Strategy and legislation are under preparation.
OTHER POLICY INSTRUMENT 1	
If yes, **what is the name of the other policy instrument 1** (+ in local language in brackets)	
If yes, what is the **geographical coverage** of the policy instrument?	Click here and select
If yes, who is the **Managing Authority** (Responsible body) of the Policy instrument?	
If yes, who is the **Intermediate body** of the Policy instrument?	
If yes, what are the **general objectives of the policy instrument**	
If yes, what are the **names of priority axes supporting Home Care R&I –** if relevant (+ in local language in brackets)	
If yes, what are the **specific objectives of the given priority axis** described above	
Which **support**	

programmes / intervention areas relevant for Home Care R&I in the priority axis(es) described above are **available in this policy instrument?** For each one, please state: relevancy, amount of funds, objectives of support programme / intervention area, eligible recipients, time plans for calls).	

4. Regional innovation ecosystem in Home Care R&I

The "regional innovation ecosystem in Home Care R&I" section provides more detailed view on regional innovation ecosystem in Home Care R&I including a general description overview of the ecosystem followed by a list and a description of the most important supporting platforms, networks, events, major projects carried out already and most significant actors in all 4 helixes of quadruple-helix cooperation approach – formal and informal providers of health care, businesses, research and public institutions – who might work together to drive new innovations in Home Care.

Summary description of regional innovation ecosystem in Home Care R&I

Provide **summary description of regional innovation ecosystem in Home Care R&I** in your region including the most significant main actors, infrastructure, resources, available public / private supporting services, networks, platforms and events)

Slovenian policy makers, industry, researchers and civil society organisations are facing pressure to develop new or adapt existing ICT-based assistive services in healthcare and social care (home care), due to:
- demographic changes coupled with increasing prevalence of chronic diseases,
- the need of older people to live (independently) at home for as long as possible,
- increasing costs of long-term care,
- burdened informal carers.

New assistive services are continuously evolving but despite the growing body of evidence about their positive effects, Slovenia is in its infancy regarding the adoption of smart solutions for home care. The most important barriers to the implementation of ICT-based assistive services seem to be related to the lack of cooperation among key stakeholders and identification of funding frameworks and business models, as well as to difficulties with service integration, lack of implementation plans for service delivery, poor understanding of users' needs and lack of age-friendly design.

Leveraging of ICT for home care is in Slovenia seen as both a social necessity and an economic opportunity, with a triple-win characteristic: high quality of life for older people, stable costs for care and support and new market opportunities for providers of assistive services.

While among the key planned activities within the OP "development of ICT support for implementing the services, development and upgrading of community-based services and support for informal types of services" is mentioned, the action plan for achieving this should be developed. One of the starting points of the action plan should focus on building Slovenian multi-stakeholder ecosystem for the implementation and scaling of smart solutions for home care.

Stakeholders in Slovenian ecosystem have different roles:

MAs and policy responsible institutions

Coordination of policies at the national level; development, implementation and improvement of the policy related to home care; building ecosystems; stimulating the interest of local communities in social development

and investments therein; implementation and scaling of smart ICT solutions for home care.

Academia and R&D centres
Expertise in working with different stakeholders, participation in home care projects and planning new ones; knowledge in the field of researching and testing solutions for home care; implementing co-design and co-creation in R&D processes; involvement in the policy making; potential for exploitation of the lessons learnt from the project.

Industry and SMEs
Research and development of smart solutions for home care, participation in national activities; participation in projects on national and EU level; building and implementing living labs for smaller scale real life testing and connecting the Slovenian living labs to the wider European network of living labs (e.g. via Coral, ECHAlliance or ENoLL)

Service providers, civil society and local stakeholders
Recognition of the potential and knowledge of older people for the faster development of the society; health promotion and advocacy for their needs; support for intergenerational collaboration; representing the interests of providers of institutional and community-based care for the elderly and special groups of adults.

Existing platforms, networks and events supporting Home Care R&I

Names and description of **all existing platforms / networks** supporting Home Care R&I in your region	The Ministry of Labour, Family, Social Affairs and Equal Opportunities established in 2016 a working group for e-care, the task of which is also a launch of a national ecosystem in the field of e-care. Apart from involvement and co-organisation of the launch of a Slovenian ECHAlliance ecosystem (http://www.healthday.si/echalliance-launch-1/) no activities have been conducted since the establishment of the mentioned working group.
Name and description of **all existing regular events** (both formal and informal) supporting Home Care R&I in your region	There are no regular events organized in the field of home care in Slovenia. The Ministry of Labour, Family, Social Affairs and Equal Opportunities sometimes organises workshops for formal carers in Slovenia (who typically offer also care at home), but these are not regular (e.g. yearly events). A network called Healthday.si (http://www.healthday.si/) is organising events on (digital) health, the programme of which sometimes relates also to ICT-supported home care. HealthDay.si is a community of health-tech companies and organisations from their supportive environment, based in Slovenia. Since they were formed in 2014 they have organised 7 events and also spread their activity by connecting with international partners, such as Health 2.0, Grants4Apps and ECHAlliance. The community also manages the directory of all Slovenian health-tech start-ups and interested experts, called the Green Book. The events of HealthDay.si host start-ups, physicians, information technology experts, investors, students, researchers, academics, mentors and others.

Main actors in Home Care R&I in all 4 helixes of quadruple-helix model – formal and informal providers of health care, businesses & business supporting actors, research and public institutions

1. Citizens / users helix

Who are the **main formal + informal providers of healthcare, elderly care recipients / associations** in Home Care R&I? Please list and describe at least 6.	
Name (+ in local language in brackets) + website	Description of activities focused on in that field
Association of the pensioner organizations (Zveza društev	Is a non-governmental umbrella organization bringing together 503 local pensioner organizations and clubs. With more than 233.000 members, it is the largest membership organization in Slovenia.

upokojencev Slovenije), http://www.zdus-zveza.si/index.php?id=3&lang=en	Main objectives: Active, productive, creative and independent life for older people as long as possible. Activities: Health promotion in older population in Slovenia; Sport, recreational, cultural and social events in local communities; Advocacy for older people's needs on local, national and international level. Support for intergenerational collaboration and understanding; Active ageing and lifelong learning projects.
Simbioza, http://www.simbioza.eu/sl/2016/	In 2011 the Simbioza project brought together more than 2500 young volunteers who introduced 5700 elders the basic computer skills. The project was a success and therefore repeated in following years, achieving outstanding results once again. It raise awareness of the importance of volunteering among the younger generations, improve the e-literacy of the specified target groups, and in this regard to make an important step towards bridging the intergenerational gap within a wider international society. Simbioza is convinced that its model can be applied in different social, cultural, economic and political context, heading towards a global reach.
Zavod Pristan, http://www.pristan.si/	It is a privately held institution delivering institutional and home care services in Slovenia. It was established in 2002. Now it is operating already in 10 municipalities and since 2010 they are running very modern elderly house where they host more than 100 elderly persons. They also try to deliver state of the art services, therefore they have been involved into some end user testing projects in EU funded projects and nationally founded project.
Golden net (Zlata mreža), http://zlata-mreza.si/	NGO is running several project focused for elderly. They are making people easier to move, help them in day-to-day problems and try to bring a lot of joy and happiness into their day. They are operating national and have attracted biggest Slovenian companies to be their sponsors.
Home care association Ljubljana (Zavod za oskrbo na domu Ljubljana), http://www.zod-lj.si/	It is the largest public institution delivering home care services in Slovenia. They are offering services in the capital city - Ljubljana. In order to enhance elderly satisfaction they are introducing new services on Physiotherapy, Occupational Therapy, Speech Pathology, nutritional counseling, recreation services and kinesiological services. They are involved into ICT based innovative projects in order to improve the quality of life of elderly living at home.
Comett, http://www.comett-zavod.si/	It is privetly held institution delivering home care services in four municipalities in rural areas. They also have two elderly houses where they are delivering institutional care.

2. Business helix

Who are the **main businesses and business supporting actors** in Home Care R&I? Please list and describe at least 6.		
Name (+ in local language in brackets) + website	Business or business supporting actor	Description of highly innovative solutions provided in that field
Telecom Slovenia (Telekom Slovenije), www.telekom.si	Business	Is telco incumbent who started to provide "red" button services 20 years ago. They are announcing new offering of telecare and telehealth in 2017. They will start with complete telehealth services.
Marand, http://www.marand.com/	Business	Slovenian SME who constantly challenges existing state of IT solutions in healthcare, invests time and energy into acquiring new knowledge and experience, promotes innovation and teamwork with a single goal - to develop innovative and easy to use healthcare IT products that help care teams save patients' lives.
Smart Com,	Business	SME dedicated to develop new technologies and

http://www.smart-com.si/		solutions. They have developed and integrated sensor technology with alarm-messaging system to provide medical-nursing staff monitoring patient/resident activities, such as restlessness, fall out of bed, vital signs, and unexpectedly leaving the bed (longer than the prescribed time).
Eurotronik, http://www.eurotronik.si/	Business	SME has a long tradition of providing professional telecommunications solutions for nursing homes, hospitals, and other care facilities, as well as for individuals who feel the need for more efficient communication and want to simplify their work with this kind of system.
Clinic doctor 24 (Klinika doktor 24), http://www.doktor24.si/	Business	Is a provider of alarm button service in Slovenia, using Telekom Slovenije telecomunication solution. They have their own call center.
Zavod Oreli	Business supporting actor	It is Institute for social support, counseling, research and education for the elderly, persons with disabilities, young people and other population groups. It was established in 2010. They are promoting the development and professionalization of volunteer groups and self-help groups. At the Institute, they ensure that the voluntary is spread among all generations, which is already visible in the development of innovative intergenerational volunteering and ICT based systems to assist the elderly in one of the Slovenian municipalities.

3. Research helix

Who are the **main research actors** in Home Care R&I? Please list and describe at least 6.	
Name (+ in local language in brackets) + website	Description of excellent research activities done in that field (e.g. patents in this field)
University of Ljubljana, Faculty of Social Sciences (Univerza v Ljubljani, Fakulteta za družbene vede), http://www.fdv.uni-lj.si/en/home	The Centre for Social Informatics (CSI) was established in 2011 at the Faculty of Social Sciences and currently includes 22 researchers as required by the complexity of Internet society research. CSI activities refer to the area of social informatics, a discipline dealing with the role of information and communication technology (ICT) in contemporary society. The research projects at CSI are related to web survey methodology and the use of digital technology in social science data collection in general, safe use of the Internet, social media, digital inequality, web and mobile usability etc. They have been involved into several projects tackling elderly issues.
Anton Trstenjak Institute of gerontology and intergenerational relations (Inštitut Antona Trstenjaka), http://www.inst-antonatrstenjaka.si/old/eng/	It is the Slovenian national scientific and expert institution within gerontology and good intergenerational relations field in Slovenia. The institute was founded by few experts as private individuals, Slovenian Academy of Sciences and Art in 1992 and in 2004 by the Government of the Republic of Slovenia. They have developed original programmes for informing the communities on the possibilities for quality ageing, preparation on the old age and better intergenerational communication, local self-organisation of the intergenerational network for quality ageing and good intergenerational relations.
Social protection institute of the Republic of Slovenia (Inštitut Republike Slovenije za socialno varstvo), http://www.irssv.si/institute/about-us	It was founded in 1996 by the Republic of Slovenia. In accordance with its annual plan the Institute creates and maintains a variety of databases for social assistance and social services including development and experimental programmes. The Institute monitors the implementation of a number of government programmes by establishing specialised systems of indicators and provides informational support for them by collecting and analysing data. For the purposes of effective decision-making it provides expert opinions on a number of government measures and advises the MLFSA.

Institute Jožef Stefan (Inštitut Jožef Stefan), https://www.ijs.si/ijsw/IJS	The Institute was founded in 1949 and is the biggest institute in Slovenia. The basic goals of the Institute are to provide expert scientific and applied output in the form of processes, products and consultancy, and to produce well-trained young scientists. Inteligent systems department is deeply involved into research of assistive tehnologies for elderly. They have been involved in several research and applied project in this field.
Institute Emonicum (Inštitut Emonicum), http://www.emonicum.si/	Institute is a non-governmental, non-profit research organization. The purpose of the Institute is to raise social and health culture in Slovenia and abroad by promoting active and healthy lifestyle and by promoting an agenda of social responsibility . The institute promotes activities and develops programmes in the frame of »popular prevention« with simple, non complicated, preventive advices, understandable to everyone regardless of their education background .
University of Ljubljana, Faculty of Electrical Engineering (Univerza v Ljubljani, Fakulteta za elektrotehniko), http://www.fe.uni-lj.si/en/	The faculty department (LTFE) works as an incubator for people, knowledge and ideas in the field of telecommunications and related sciences such as multimedia, informatics, computer science and electrical engineering. They cover several interdiscplinary fields touching home care challenges, such as: ICT for improving health care and empowering people with disabilities, Interactive multimedia systems on different devices ; User experience and user interface design.

4. Public institutions / government helix

Who are the **main public actors** (policy decision makers including Managing Authority of OP, health insurance companies, health and social care regulators) in Home Care R&I? Please list and describe at least 6.	
Name (+ in local language in brackets) + website	Description of activities relevant for Home Care R&I
Ministry of labour, family, social affairs and equal opportunities (Ministrstvo za delo, družino, socialne zadeve in enake možnosti), http://www.mddsz.gov.si/en/	The work of it encompasses the following areas linked to home care: pension and disability insurance, social assistance to individuals, families and groups at threat and care for people that cannot do so themselves. They are setting the framework for the social system; however, there is still not clear guideline, who should set up act on long-term care. Responsibility for home care is split with Ministry of Health.
Ministry of Health (Ministrstvo za zdravje), http://www.mz.gov.si/en/	It is endeavoring to strengthen the public health-care system to provide the citizens with quick and high-quality health-care services. They are responsible for set up e-health system and evolve patronage service system.
Health insurance institute of Slovenia (Zavod za zdravstveno zavarovanje Slovenije), http://www.zzzs.si/indexeng.html	It conducts its business as a public institute, bound by statute to provide compulsory health insurance. Its principal task is to provide effective collection and distribution of public funds, in order to ensure the insured persons quality rights arising from the said funds. The benefits basket arising from compulsory health insurance, comprise the rights to health care services and rights to several financial benefits.
National institute for public health (Nacionalni inštitut za javno zdravje), http://www.nijz.si/en	It is a government agency accountable and responsible for public health promotion at the national level. It is interested in Food Policy, Health Impact Assessment, Health Systems, Mental Health, Nutrition, Physical Activity and Tobacco. One of the main activities is research and promotion through EU and national cofounding projects.
Ministry of economic development and technology (Ministrstvo z gospodarski razvoj in tehnologijo), http://www.mgrt.gov.si/si/	It is responsible for the Operational Program. Directly is not involved into home care activities in Slovenia. However, it is running several general schemes to enable growth potential of the SME.
Ministry of public administration (Ministrstvo	It is responsible for the ICT in the government and public institutions. They are also managing authority for the AAL programs.

Most significant research projects / research cooperation initiatives in Home Care R&I (both pure local in the given region and international with local implemented activities)

Which **significant R&I projects / research cooperation initiatives in Home Care** were realized in your region during 2007-2016? Please list at least 3.			
Project name + description	Participating members / organizations	Results of the activities	Website link for more information
Digital inclusion and active ageing: Developing a user-centered methodological approach to investigate the use of mobile phones among older people	- University of Ljubljana, Faculty of Social Sciences, Centre for Social Informatics - Slovenian Research Agency - Simobil, second largest telecommunication operator in Slovenia	The project develops an integrated theory-driven and evidence-based approach in order to stimulate the uptake of technological solutions for active and healthy ageing and specifically home care for a "triple-win" outcome: 1) improved wellbeing of older adults and their informal carers; 2) financial gains for the health and social care sectors; 3) new market opportunities for providers of mobile services.	http://m-aging.si/language/en/
Active and Healthy Ageing in Slovenia The project focused on three subject areas: 1. Prolonged employment and delayed retirement; 2. Active and Healthy Ageing for active and healthy elderliness; 3. Long-term care - integration of social and health services at a local level.	- National Institute of Public Health - ZDUS (Pensioners' Slovenian Association) - Emonicum (Institute for Health and Active life) - Institute for Economic Research - Skupnost socialnih zavodov Slovenije - Social Protection Institute of the Republic of Slovenia - EuroHealthNet	These were the key findings related to long-term care in Slovenia : Long-term care • Systemic level - a uniform law on long-term care, greater coordination and coherence of all operators of homes for the elderly and a flexible system that will promptly respond to problems. • Institutional level - strengthening the role of nursing homes and implementation of their services. • Informal care - providing adequate support, education and social security for informal carers. • Financing – the area of funding mostly unknown, existing regulation is	http://www.staranje.si/

		inappropriate, long-term care insurance public, compulsory and universal based on the principles of solidarity, equality and non-profit.	
Active and Quality Ageing in Home Environment (The Norwegian Financial Mechanism 2009–2014 Programme)	- Institute for home care Ljubljana - University of Primorska, Science and research centre, Institute for Kinesiology research - University of Ljubljana, Faculty of Health Sciences - City federation of pensioners Ljubljana - Faculty of design, an independent higher education institute, associate member of University of Primorska - Municipality of Ljubljana - Oslo and Akershus University College of Applied Sciences	The following free services were offered within the scope of the project: - Occupational therapy, - Physical therapy, - Speech therapy, - Measurements of psycho-physical abilities, - Adapting the living environment to the needs of the elderly, - Exercise programmes, - Dietary consulting, - Health care.	http://www.a-qu-a.si/en/

5. References to regional market analyses done for Home Care products and services offered

This section provides references to additional market analyses done in the region regarding Home Care products or services offered.

Market analysis name (+ in local language in brackets)	Short description of the aim of the market analysis	Website link for more information / download
ICT Ageing: Users, Markets and Technologies	The main goal of the ICT+Ageing study is to identify and understand the market barriers which currently hinder uptake of ICT for independent living and active	http://www.empirica.biz/projects/ecare-ageing/details/?projectid=53

	ageing in Europe. The study seeks to contribute towards policy action which will effectively tackle existing barriers, thereby helping to unleash ICT's potential to contribute to Europe's capacity for dealing with the demographic challenge. The study focuses on three application areas of ICT for active ageing: Independent living (ageing well at home), Employment (Active ageing at work) and Social Participation (Ageing well in the community). A horizontal topic of core interest are the ethical issues arising from the use of ICT for purposes related to active ageing. The study looks into the situation in 14 EU Member States plus USA and Japan with regard to market structures, recent and emerging developments, and policy response. It will identify and analyse good practice and show how Europe can learn from the experience in individual countries. On the basis of the analysis, recommendations for action are to be developed in order to remove barriers for uptake and to foster market development. The results of the study will also guide the way towards further research needs in this area. Slovenia was involved in this market analysis, data showed that Slovenia is lagging far behind the EU average in terms of up-take of ICT-supported solutions for long-term care, including home care.	

6. Quadruple-helix cooperation in R&I

The "quadruple-helix cooperation in R&I" section provides more detailed review of existing quadruple-helix model research projects / cooperation initiatives in general health care (with a potential to transfer to a Home Care segment) as well as Home Care segments including the list and description of the most significant ones. The projects / cooperation initiatives cited for general health sector aim to provide comparison of quadruple-helix model based research and innovations usage in general health sector compared to sector of Home Care R&I usage only. The last part of this section reveals attitudes of the main actors in R&I from all 4 helixes (formal and informal health care providers, business & business supporting actors, research and public institutions) towards using quadruple-helix model based cooperation in R&I.

Quadruple-helix model based research projects / cooperation initiatives in general health R&I (excluding Home Care R&I but with a potential for transfer into Home Care segment, both pure regional or international with regional implementation)

Were there any **quadruple-helix research projects / cooperation initiatives already carried out** in your region regarding R&I **in health sector generally** (excluding Home care but with a potential for transfer into Home Care segment)?	yes
If yes, please **name (+ in local language in brackets) and describe** them, including possible website link for more information	ARTEMIDA (Advanced Regional Translation of Excellence into Medical Innovation for Delayed Aging) VISION The vision of the ARTEMIDA (Advanced Regional Translation of Excellence into Medical Innovation for Delayed Aging) project is to develop by 2020 a Central and South-East European (C&SE) Centre of Excellence for Translational Medicine (CETM), coordinated by the Faculty of Medicine, University of Ljubljana, that will harness, develop, exploit and market the significant potential for research and innovation of the region. In the following years the vision of CETM is to form a hub for the ARTEMIDA network, with CETM collaborators from about 100 biomedical and health-related research and innovation institutions from 17 states in C&SE Europe, 8 additional European states and collaborators from the USA and Japan. PARTNERS This long-term science and innovation strategy will be achieved by establishing a partnership between the leading scientific institutions of Karolinska Institutet (KI), Sweden and ELIXIR - Europe's research infrastructure for life science data - and Slovenian institutions University of Ljubljana (Faculty of Medicine as the coordinator, Faculty of Pharmacy, Biotechnical Faculty and Faculty of Arts), National Institute of Biology, National Institute of Chemistry, University Medical Centre Ljubljana, and five SMEs from Slovenia with collaborators from the other regions of C&SE Europe on the other hand. The C&SE European CETM will upgrade, integrate, exploit and market the regions' research and innovation potential in the field of aging with special reference to neurodegenerative diseases, diabetes and cancer. Collaborators from Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Kosovo, Macedonia, Moldova, Montenegro, North-East Italy, Romania, Serbia, Slovak Republic and Turkey will participate in the CETM endeavours within the ARTEMIDA network enhancing capacities of a combined population of over 100 million. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No [664536]

Quadruple-helix model based research projects / cooperation initiatives in Home Care R&I

Were there **any quadruple-helix research projects / cooperation initiatives already carried**	no

out in your region regarding R&I **in Home Care** specifically?	
If yes, please **name (+in local language in brackets) and describe** them, including possible website link for more information	

Attitude of main R&I actors from all 4 helixes towards using quadruple-helix model based R&I cooperation

What is the **attitude of actors from the citizens / users helix** (formal + informal health care providers, elderly care recipients) **towards using quadruple-helix R&I cooperation?** Please describe common and different views and experience.	The potential users (i.e. civil society and formal health care providers) seem to be increasingly aware of the possibilities and benefits of the implementation of ICT-supported home care services. There are approximately 10 Slovenian organisations that formally offer home care that are very interested in being involved in pilot projects and are proactively contributing to the discussions (via national and regional conferences and workshops) on the topics of introducing assistive technologies in home care. Their role is crucial since they provide the necessary users (older people in need of care and their family members) who are crucial for needs assessment and validation of implementing such new services.
What is the **attitude of actors from the business helix** (businesses + business supporting actors) **towards using quadruple-helix R&I cooperation?** Please describe common and different views and experience.	Industry players, particularly SMEs are expressing more and more interest in exploiting synergies not only among the business sector but also with other three key types of stakeholders. A great example of a learning network that was initiated and has been driven by the private sector is Healthday.si (http://www.healthday.si/). This network is organising events on (digital) health, the programme of which sometimes relates also to ICT-supported home care. HealthDay.si is a community of health-tech companies and organisations from their supportive environment, based in Slovenia. Since they were formed in 2014 they have organised 7 events and also spread their activity by connecting with international partners, such as Health 2.0, Grants4Apps and ECHAlliance. The community also manages the directory of all Slovenian health-tech start-ups and interested experts, called the Green Book. The events of HealthDay.si host start-ups, physicians, information technology experts, investors, students, researchers, academics, mentors and others.
What is the **attitude of actors from the research helix towards using quadruple-helix R&I cooperation?** Please describe common and different views and experience.	Researchers and scholars from the field of e-care are actively involved in efforts to establish the national and/or regional ecosystems of four types of stakeholders in this field. They are oftentimes in the central role of bringing all the other stakeholders together, particularly for the purposes of specific applied projects. Even though the National Research Agency has been funding some of the initiatives in the field of eHealth, these are organised more as a research centres of excellence. Here, cooperation with industry is stimulated, but the main focus of such research projects is not on providing a regional or national coverage of a specific telecare or telehealth system, but on the research and development of innovative products and applications. Similar clusters with end-user organisations and government involved would be beneficial for the up-take of e-care solutions.
What is the **attitude of actors from the public institutions helix (excluding SF owner** – health insurance companies, health care and social care regulator,	The key challenge for ICT-supported home care services in Slovenia is to move from the current pilot phase into a mainstream service; this will need to be supported by (more) effective planning from the health care and social care regulators. Maybe we are too closed-minded because we are busy with putting away the fires all the time and don't have enough time to pay attention to the innovative solutions that might really make the difference in terms of enabling a more fiscally

etc.) **towards using quadruple-helix R&I cooperation?** Please describe common and different views and experience.	sustainable healthcare and social care systems, not to mention better quality of life of older people. Systemic large-scale, nation-wide deployment of at least the basic social alarm should be set as a target by the social care regulator; provision of healthcare and social care services needs to be pushed forward. It seems that authorities are currently searching for effective measures for upscaling innovative solutions for active and healthy ageing.
What is the **attitude of the Operational Programme owner towards using quadruple-helix R&I cooperation?**	The Strategic partnership for development and innovation mechanism (slo. SRIP) is a comprehensive practice of the quadruple-helix approach in a form of a government mechanism that uses a diverse set of tools and resources to promote and encourage cooperation between different partners in order to develop and diversify the Slovenian economy. The formal foundation for this mechanism was laid in the Slovenia's Smart Specialization Strategy. The SRIP has so far focused on achieving its goals and performing its functions mostly in three concrete ways. Firstly, by encouraging and enabling an active dialogue with potential partners. Secondly, by managing an application process that will result in concrete action plans for individual partnerships. And thirdly, by monitoring the implementation of action plans. It is planned that SRIP will be a breakthrough in the use of the quadruple-helix cooperation and will as such provide the government and other partners with invaluable experience at mutually-beneficial collaboration as well as a successful example of such approach that could make such future practices easier to develop and implement.

7. Potential improvements of the Operational Programme and other possible improvements in regional innovation ecosystem

The "Potential improvements of the Operational Programme and other possible improvements in regional innovation ecosystem" section provides suggestions on possible improvements for support of R&I in Home Care via quadruple-helix cooperation in 2 levels: via the Operational Programme management, strategic focus and operations, and via any other possible improvements in the regional Innovation ecosystem.

List and describe **possible improvements in the Operational Programme regarding its support for quadruple-helix based R&I in Home Care?** (e.g. awareness, structure of support programmes / intervention areas, time frame of calls, management of the OP, evaluation of applications, amount of calls, public consultations, administration, better influence and feedback options, any other)	One of the investment priorities under Thematic objective 9 (Promoting social inclusion, combating poverty and any discrimination of the OP) is named as follows: "Enhancing access to affordable, sustainable and high-quality services, including health care and social services of general interest". Specific objective of this investment priority is pilot testing of approaches for improved integration of long-term care services. According to OP, future objective is "to upgrade, redesign or integrate some of these services, and to develop new ones as necessary". While referring to possible future measures for the investment priority OP among others prioritises projects that will include « development of ICT-supported services » and projects that will « involve key stakeholders » and « contribute to the exchange of experiences, results and good practice at the regional, national and transnational level », these topics could be much more emphasised. Policy instrument should focus on development of ecosystems and on interdisciplinary integration; there should be a better mechanism for coordinating activities between government directorates, research organisations, service providers and the industry.
List and describe **other possible improvements in the regional innovation ecosystem regarding support for quadruple-**	There is a lack of central policy framework and comprehensive strategic planning, the aim of which would be to support local healthcare and social care services. Agency with coordinating, advisory, consultative role should be established, the aim of which would be: - involvement of regional and local stakeholders in decision-making

helix based R&I in Home Care? (other policy instruments, networks, main actors, events, etc.)	process; - Providing a better mechanism for interdisciplinary and inter-departmental cooperation and integration. This agency should stimulate cooperation and interaction among government directorates, developers, scholars, social & health care providers, technology & housing providers, users and formal carers.

8. Other information

In this section, any other relevant information for future regional analysis might be added.

Please describe **any other relevant information for regional analysis** (if relevant)	

9. Information gathered by …

The information within this template has been gathered for the purpose of regional analysis within the HoCare project (Interreg Europe Programme) by the following organization:

Region	Slovenia
Organization name(s) in local language	University of Ljubljana, Faculty of Social Sciences, Centre for Social Informatics (Univerza v Ljubljani, Fakulteta za družbene vede, Center za družboslovno informatiko) Government Office for Development and European Cohesion Policy (Služba Vlade Republike Slovenije za razvoj in evropsko kohezijsko politiko) CONOS, Igor Košir s.p.
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