



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

REGIONAL STUDY OF THE HOCARE PROJECT IN BULGARIA



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ABSTRACT (EN)

This “Overall regional situation in Home Care R&I and quadruple-helix cooperation in R&I” aims to gather important information from each region necessary for regional analysis within the HoCare project, including mainly:

1. Regional situation in Home Care R&I
2. Regional situation in quadruple-helix cooperation in R&I

The gathered information from the region on the above identified 2 aspects regionally and also from all 8 countries of the project, together with filled in transferable GP projects and gathered GPs in management and strategic focus of Operational Programmes, will enable the HoCare project to start intensive regional and interregional learning proces. The following steps with the gathered information on the overal regional situation will be done during the 1st internal reporting meeting and the 1st regional multistakeholder group meeting to get additional inputs and feedback from regional Innovation ecosystem actors. Based on that, a final Regional Analysis by each partner per country, together with identified and further developed GPs, will form a basis for subsequent Action plan formulation.

The Regional Analysis can, in addition, stand as alone source of information that might be valuable especially for the Managing Authority of each region.

This Overall regional situation in Home Care R&I and quadruple-helix cooperation in R&I was compiled with information on the situation in Bulgaria that is relevant for the activities of the project HoCare (Interreg Europe, PGI01388, <http://www.interregeurope.eu/hocare/>) and its two target groups – Ministry of Economy of Bulgaria (as Managing Authority of the Operational Programme Innovation and Competitiveness 2014-2020) and actors of home care innovation ecosystem from all helixes of quadruple-helix model (as potential applicants and participants of new innovative projects submitted to be financed within OPIC or other national policy instruments). The information within this report has been gathered through desk research of the author and through interviews and discussions with representatives form both target groups for whom the situation is also produced and published.

Objective of HoCare project is to boost delivery of home care innovative solutions in regional innovation chains by strengthening of cooperation of actors in regional innovation system using Quadruple-helix approach. Quadruple-helix is an innovation cooperation model or innovation environment in which users, businesses, research actors and public authorities cooperate in order to produce innovations. HoCare aims to (1) improve OPIC at strategical level (by management or strategic focus improvements of OPIC) as well as to (2) improve its practical

level (by support of submitting more and high quality projects to OPIC for innovation financing from innovation actors).

Bulgaria is the other „modest innovator“ in EU from this category of only two countries, ranking second to the last in the annual comparative analysis of innovations in EU for 2016. According to the report's authors the strength of Bulgaria lies in the relatively high share of highly educated young people. Weaknesses are mainly related to the lack of sustainable funding, as well as the weak pace of development of entrepreneurship related to innovations.

Bulgarian innovative projects are mainly in the field of marketing and organisational development and there are almost none in home care. Another problem is the lack of a structured dialogue and cooperation between the formal and informal providers and innovative businesses and research actors – a problem that finds a working solution in the implementation of HOCARE project.

There is a discrepancy between different kind of strategies and politics that are driving the home care as a whole and especially the Hospital-to-Inpatient Rehabilitation. The same discrepancy concerns also the socially significant disease that require home care. To ensure the implementation of innovations in home care Bulgaria needs to improve the health care delivery politics related to home care.

The Ministry of Economy implements many instruments to receive feedback from all sides involved in the quadruple-helix regional innovation chains, there are numerous open public discussions, related to the specific conditions for financing innovations, regular meetings at regional level for updating RIS3 or other important strategic documents. From our point of view the first need is to intensify the dialogue between those who know the needs and those who could offer the solutions in the field of home care and to keep exchanging ideas and solutions between them as the operational funds offer different instruments to make the change happen. In fact we are interested in any kind of good practices that could improve the competitiveness of Bulgarian companies in line with answering the needs of different groups of Bulgarian citizens – like the elderly people in need for home care.

The Ministry of Labour and Social policy applies the same instruments for receiving feedback. There have been many opportunities for financing innovations in social care, mainly in terms of “mild measures” and service, not product innovations, but the interest shown was weak. The service providers are not very active in searching for support in developing innovations – especially in the procedures set under the ESF in the previous programming period.

In Bulgaria there are currently available several policy instruments that could be exploited to finance home care innovations. First and foremost, Operational Programme Innovation and Competitiveness 2014-2020 (OPIC) with its Priority axis 1 (Technological development and Innovation). Within OPIC, several intervention

programmes fit both home care and quadruple-helix initiatives, i.e. support home care innovations' financing through partnerships of more types of organizations working together - either through direct beneficiaries' involvement or via involvement as external service providers. Other intervention programmes do not support quadruple-helix cooperation but can support home care innovations in general through a cooperation of less types and number of actors.

Most of the calls within all intervention programmes are opened currently or will be opened again during 2017. At the beginning of 2018, there will be a mid-term evaluation of programmes and calls and possible changes for the rest of the period until 2020 might be considered and implemented.

Home care is not supported directly in any of these programmes. However, many of the aspects of the activities within the home care sector lay within the scope of the 3 (out of 4) RIS3 thematic areas - Informatics and ICT, Mechatronics and Clean Technologies, Health life and Bio-technology industries and this gives the opportunity to finance also specific home care solutions fitting into the right category.

There are already several networks and events available in the innovation ecosystem in Bulgaria that could all be used to network and cooperate in the homecare segment ecosystem. There is a rather small network of several strong innovation actors who are already linked in different kind of cooperation forms and have implemented several past common initiatives, especially among research actors and business supporting organizations. Several businesses have already reached international success with their home care products and services. Yet, the number of innovation initiatives financed through OPIC each year is very small compared to other industries. While further research organizations, businesses and formal and informal care providers want to step in and get engaged into innovation projects in this area, the interest and possibilities of involvement from the side of public actors is very low and rather limited.

Looking at successful started projects in home care, there are just a few related to home care – a support programme for transnational and interregional cooperation “Without borders” (Operational programme Human resources development, 2007-2013) within which there were few projects supported for transferring good practices in the field of innovative home care and few projects, amongst which the project “Development, testing and promotion of innovative model of remote service at home for people with disabilities” for telecare services at home (2007-2013), the applied research project for ensuring innovative science infrastructure for applied research in the field of health and related indirectly to home care “ATHealth center - Development of sustainable capacity of the center for applied technology related to health” (also 2007-2013 within the programme Innovation and Competiveness), the project “Pia Mater Complex Home Patronage” – introducing the Teletask Info service - an innovation that meets the need for evidence-based services at the user's home. The project M-CARE deployed a complex innovation in the preparation of caregivers - a dedicated PCG (personal care giver) curriculum and relevant free training material for different disabilities, and

an innovative ICT-based Web 2.0 mobile/online learning platforms. Within the project GAMMA M-DOCTOR a mobile application has been designed, deployed and implemented by a private company together with the University hospital, the researchers from the universities and including a telecom company. The project Check Point Cardio ensured to GPs in Bulgaria an access to technology for remote real-time monitoring of patients with cardiovascular diseases. 24-hour monitoring of people with an increased risk of heart problems was possible thanks to an innovative device developed by Check Point Cardio, which it offers in partnership with one of the telecoms.

Even as quadruple-helix cooperation during innovation generation and deployment is seen by all involved representatives of all actors as much needed and without any doubt – highly fruitful, the cooperation is not structured, nor the regional innovation ecosystem in home care is a well set-up organism. It is largely admitted in Bulgaria that the regional innovation ecosystems in every field are the core building blocks for innovation-creation activities from a national innovation policy point of view. It is also admitted that they focus on accumulating academic knowledge and combining it with public and private sector. But the approach is rather based on the current triple-helix paradigm inside of OPIC, without involving the end users and the informal care-givers.

The OPIC itself, as one of the funding instruments relevant to the further improvement of home care and the more intensive penetration of innovation in home care, is closely linked with and is dependable on the RIS3 thematic areas, their pre-formulated priority directions and a list of economic sectors and activities, pre-selected in the "National Strategy for the Promotion of Small and Medium Enterprises" of Bulgaria. The possible focus of PA1 of OPIC towards more effective support for home care sector R&I is achievable mainly through amendment and supplementation of the priority directions in the RIS3 thematic areas.

For details, please read through the below report, that was compiled from the available information so far and being presented in the format of a structured filled in questionnaire (not a full text). This report is being shared with both target groups in Bulgaria – the Ministry of Economy and innovation ecosystem actors in home care. Information within this report (together with good practice cases from projects and management & strategic focus of OP) will be used as one of the inputs to Joint thematic studies and Policy Transfer Reports being created on international level leading to Action Plan development (for OP improvement in favour of home care innovations being financed) in each country, including Bulgaria. Information details provided within this report are not exhaustive, were compiled based on available information and do not have to represent views of the author.

- Desk research
- Managing Authority of OPIC
- Regional innovation ecosystem actors
- Attendance at specific events
- Information from innovation platforms or home care platforms

ABSTRACT (BG)

Тази "Представяне на общата ситуация в областта на изследванията и иновациите в сектора за домашни грижи и сътрудничеството по модела на "четворната спирала" има за цел да събере важна информация от всеки регион, необходима за анализ в рамките на проекта HoCare, включително най-вече:

1. Регионална ситуация в областта на изследванията и иновациите за домашни грижи
2. Регионална ситуация на сътрудничеството в областта на изследванията и иновациите по модела на "четворната спирала".

Събраната информация от района в горепосочените два регионални аспекта, както и от всички 8 страни по проекта, заедно с подробно описани и подлежащи на трансфер добри практики на проекти в областта на управлението и стратегическия фокус на оперативните програми, ще даде възможност на проекта HoCare да започне интензивен регионален и междурегионален процес на обучение. Следващите стъпки със събраната информация за общата ситуация в региона ще се извършват по време на първата вътрешна среща за отчитане и на първата регионална среща на групата на няколко заинтересовани страни, за да се получи допълнителна входяща информация и обратна връзка от участниците в регионалната иновационна екосистема. Въз основа на това окончателният регионален анализ от всеки партньор за дадена страна, заедно с идентифицирани и доразвити добри практики, ще служат за база за последващо формулиране на План за действие.

Освен това, регионалният анализ може да бъде самостоятелен източник на информация, която да бъде ценна, особено за Управляващия орган на всеки регион.

Тази "Обща регионална ситуация в областта на изследванията и иновациите в сектора за домашни грижи и сътрудничеството по модела на "четворната спирала" беше съставена на база наличната информация за ситуацията в България, която съответства на дейностите на проекта HoCare (Interreg Европа, PGI01388, <http://www.interregeurope.eu/hocare/>) и неговите две целеви групи - Министерство на икономиката на Република България (Управляващ орган на Оперативна програма Иновации и конкурентоспособност 2014-2020 г.) и участници в иновационната екосистема за домашни грижи от всички спирали на четворния спирален модел (като потенциални кандидати и участници в нови иновативни проекти, подадени за финансиране в рамките на ОПИК или други инструменти на националната политика). Информацията в този доклад е събрана чрез настолни изследвания на автора и чрез интервюта

и дискусии с представители от двете целеви групи, за които ситуацията също се разглежда и публикува.

Цел на проекта HoCare е да се повиши предоставянето на иновативни решения за домашни грижи в регионалните иновационни вериги чрез укрепване на сътрудничеството на участниците в регионалната иновационна система при използване на подхода за "четворната спирала". Четворната спирала е модел на иновационно сътрудничество или иновационна среда, в която потребителите, бизнеса, изследователите и държавните органи си сътрудничат, за да произведат иновации. HoCare има за цел: (1) подобряване на ОПИК на стратегическо ниво (от ръководството или стратегически подобрения на ОПИК), както и: (2) подобряване на практическото ниво (чрез подкрепа на подаване на повече и по-висококачествени проекти към ОПИК за финансиране на иновации от иновационни актьори).

България е от ранга на "скромните иноватори" в ЕС от тази категория, като се нарежда на предпоследно място в годишния сравнителен анализ на иновациите в ЕС за 2016 г. Според авторите на доклада, силната страна на България е сравнително високият дял на високообразовани млади хора. Слабостите са свързани главно с липсата на устойчиво финансиране, както и със слабото темпо на развитие на предприемачеството, свързано с иновации.

Българските иновационни проекти са основно в областта на маркетинга и организационното развитие и няма почти никакви в областта на домашните грижи. Друг проблем е липсата на конструктивен диалог и сътрудничество между формалните и неформални доставчици на услуги за домашни грижи, иновативни фирми и участниците в научните изследвания - проблем, който намери работно решение в изпълнението на проекта HOCARE.

Налице е несъответствие между различните видове стратегии и политики, които развиват домашните грижи като цяло и по-специално следболничната рехабилитация. Същото несъответствие се отнася и за социално значими заболявания, които изискват домашни грижи. За да се гарантира прилагане на иновации при домашните грижи, България трябва да подобри политиката за доставка на здравни услуги, свързани с грижа по домовете.

Министерството на икономиката използва много инструменти за получаване на обратна връзка от всички страни, участващи в регионалните иновационни вериги по модела на "четворната спирала" като множество открити обществени дискусии, свързани с конкретните условия за финансиране на иновации, редовни срещи на регионално ниво за актуализиране на Иновационната стратегия за интелигентно развитие (ИСИС или RIS3) или други важни стратегически документи. От наша гледна точка първата необходимост е да се засили диалогът между тези, които познават нуждите, и тези, които биха могли да предложат решения в сферата на домашните грижи и да се поддържа обмен на идеи и решения между тях, тъй като оперативните фондове предлагат различни инструменти за осъществяване на промяната. В действителност ние се интересуваме от всякакъв вид добри практики, които

могат да подобрят конкурентоспособността на българските фирми в съответствие с отговорите на нуждите на различни групи от български граждани, като например потребността от домашни грижи за възрастни хора.

Министерството на труда и социалната политика прилага същите инструменти за получаване на обратна връзка. Има много възможности за финансиране на иновации в областта на социални грижи, най-вече от гледна точка на "меки мерки" и услуги, а не продуктови иновации, но интересът е слаб. Доставчиците на услуги не са много активни в търсене на подкрепа при разработването на иновации - особено в процедурите, определени в рамките на ЕСФ в предишния програмен период.

В България в момента има налични няколко инструменти за политики, които биха могли да бъдат използвани за финансиране на иновации за домашни грижи. На първо място, Оперативна програма и Иновации и Конкурентоспособност 2014-2020 (ОПИК) със своята програма за подкрепа на Приоритетна ос 1 "Технологично развитие и иновации". В рамките на ОПИК няколко програми за интервенция са подходящи както за инициативи за домашни грижи, така и за прилагане на инициативи за партньорство по модела "четворна спирала", т.е. подкрепа на финансиране за иновации в сферата на домашни грижи чрез партньорства с повече видове организации, работещи заедно - или чрез пряко участие на бенефициентите, или чрез участие като външни доставчици на услуги. Други програми за интервенция не подкрепят сътрудничество по модела на четворната спирала, но могат да подкрепят иновациите за домашни грижи като цяло чрез участие на по-малко видове и брой участници.

Повечето от поканите в рамките на всички интервенционни програми са отворени в момента или ще бъде отворени отново през 2017 г. В началото на 2018 г. ще има междинна оценка на програмите и поканите и възможните промени за останалата част от периода до 2020 г. може да бъдат разгледани и приложени.

Домашните грижи не се подкрепят директно в тези програми. Въпреки това, много от аспектите на дейностите в сектора на домашни грижи попадат в обхвата на 3 (от 4) ИСИС (RIS3) тематични области - Информатика и ИКТ, Мехатроника и чисти технологии, Здравословен живот и био-технологични отрасли и това дава на възможност за финансиране и на конкретни решения за домашни грижи, попадащи в правилната категория.

Вече съществуват няколко мрежи и събития в иновационната екосистема в България, които могат да се използват за работа в мрежа и сътрудничество в сегмента за домашни грижи на екосистемата. Налице е по-скоро малка мрежа от няколко силни иновационни актьори, които вече са свързани по различни форми за сътрудничество и са внедрили няколко общи инициативи, особено сред изследователските участници и организации, подпомагащи бизнеса. Няколко вида бизнеси вече са постигнали международен успех със своите продукти и услуги за домашни грижи. Все още обаче, броят на иновационни

инициативи, финансирани чрез ОПИК всяка година, е много малък в сравнение с други отрасли. Докато все повече изследователски организации, бизнеси и формални и неформални доставчици на здравни услуги искат да се намесят и да се включат в проекти за иновации в тази област, интересът и възможностите на участие от страна на публичните органи е много нисък и ограничен.

Разглеждайки успешно започнатите проекти, има само няколко свързани с домашните грижи - програма за подкрепа на транснационалното и междурегионалното сътрудничество "Без граници" (Оперативна програма "Развитие на човешките ресурси", 2007-2013), в рамките на която имаше малко на брой подкрепени проекти за трансфер на добри практики в областта на иновативните домашни грижи и няколко проекта, сред които проектът "Разработване, тестване и популяризиране на иновативен модел на отдалечено обслужване у дома за хора с увреждания" за телегрижа у дома (2007-2013 г.), приложен изследователски проект за осигуряване на иновативна научна инфраструктура за приложни изследвания в областта на здравеопазването и индиректно свързан с домашните грижи "ATHealth center – "Развитие на устойчив капацитет на центъра за приложни технологии, свързани със здравето" (също 2007-2013 в рамките на програмата "Иновации и конкурентоспособност"), проект на Фондация Пиа матер за комплексен домашен патронаж и въвеждане на услугата Teletask Info - иновация, която удовлетворява потребността от услуги, базирани на доказателства в дома на потребителя. Проектът M-CARE разработи комплексна иновация в подготовката на лични асистенти - специализиран учебен план за PCG (личен асистент) и подходящ безплатен учебен материал за различни увреждания, както и новаторски платформи за учене чрез мобилни / онлайн уеб 2.0 базирани на ИКТ. В рамките на проекта GAMMA M-DOCTOR е изготвено мобилно приложение, разработено и изпълнено от частна компания заедно с университетската болница, изследователите от университетите и включващо телекомуникационна компания. Проектът Check Point Cardio осигури на лекарите в България достъп до технологии за отдалечено наблюдение в реално време на пациенти със сърдечно-съдови заболявания. 24-часовото наблюдение на хора с повишен риск от сърдечни проблеми е възможно благодарение на иновативното устройство, разработено от Check Point Cardio, което се предлага в партньорство с един от телекомите.

Въпреки че сътрудничеството в рамките на модела на четворна спирала по време на създаването и разгръщането на иновациите се приема от всички заинтересовани представители на всички участници като много необходимо и без съмнение много плодотворно, това сътрудничество не е структурирано, а регионалната иновационна екосистема за домашни грижи не е добре изградена. До голяма степен в България се признава, че регионалните иновационни екосистеми във всяка област са основните елементи за създаването на иновационни дейности от гледна точка на националната

иновационна политика. Също така се признава, че те се съсредоточават върху натрупването на академични знания и комбинирането им с публичния и частния сектор. Но подходът се основава по-скоро на текущата парадигма на тройната спирала вътре в ОПИК, без да се включват крайните потребители и неформалните доставчици на домашни грижи.

Самата ОПИК, като основен инструмент на политиката, свързан с по-нататъшното подобряване на грижите за дома и по-интензивното проникване на иновациите в домашните грижи, е тясно свързана с и зависима от тематичните области в ИСИС (RIS3), техните предварително формулирани приоритетни насоки, и с дейностите, предварително избрани в "Националната стратегия за насърчаване на малките и средните предприятия" на България. Възможните промени, подобряването или изменението на ОПИК за по-ефективно фокусиране на програмите за подпомагане на сектора на домашните грижи са постижими основно чрез изменение и допълване на приоритетните направления в тематичните области на RIS3.

За подробности, прочетете доклада по-долу, който е съставен от наличната досега информация и е представен под формата на структуриран попълнен въпросник (не е пълен текст). Този доклад е споделен и с двете целеви групи в България - Министерството на икономиката и участници в екосистемите за иновации при домашните грижи. Информацията в рамките на този доклад (заедно с добри практики от проекти и управление и стратегически фокус на ОП) ще бъде използвана като един от приносите за съвместни тематични проучвания и доклади за трансфер на политики, създадени на международно ниво, водещи до разработване на План за действие (за подобрене на ОП в полза на финансирането на иновации за домашни грижи) във всяка страна, включително и в България. Информационните данни, предоставени в този отчет, не са изчерпателни, а са съставени въз основа на наличната информация и не е необходимо да представляват мнения на автора, като са ползвани като източници:

- Представители на заинтересованите страни
- Представители на Управляващ орган на ОП
- Участници в регионалните иновационни екосистеми
- Участници в събития
- Информация от иновационни платформи или платформи за домашни грижи

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1. Structural funds programme

Structural funds' – Operational Programmes - basic information

Name of the Structural funds' - Operational Programme (OP) - supporting Research & Innovation	Operational programme Innovation and competitiveness 2014-2020 (Оперативна програма “Иновации и конкурентоспособност” 2014-2020)
Geographical coverage of this OP	National – whole country
Managing Authority (Responsible body) for this OP	<p>Directorate General „European funds for competitiveness“ at the Ministry of Economy</p> <p>“European Funds for Competitiveness” DG is established on May 1st, 2012 pursuant to the DCM № 80 of April 23, 2012, for amendment and supplement of the Structural Regulation of the Ministry of Economy, Energy and Tourism. The Directorate General is a Managing Authority under Operational Programme “Innovation and Competitiveness” 2014-2020 and belongs to the specialized administration of the Ministry of Economy.</p> <p>Main objectives:</p> <ol style="list-style-type: none"> 1. Organizes and coordinates the implementation of the commitments of the Ministry Economy, set out in the Strategy for Bulgaria's participation in the Structural Funds; 2. Performs the functions of Managing Authority of Operational Programme "Innovation and Competitiveness" 2014-2020, according to the principle of segregation of duties in a manner, which does not allow an official to have both the responsibility for approval, execution, accounting and control; 3. Performs the functions of Executive Agency and Project Implementation Unit under PHARE Programme and Managing Authority of Operational Programme "Development of the Competitiveness of the Bulgarian Economy" 2007-2013 ; 4. Participates in the development of the forecasts and budget estimates of the Ministry of Economy, as well as in the implementation of the programs of the program budget of the Ministry in view of its functional competence; 5. Participates in the preparation of operational programmes and other documents for the programming period 2014 – 2020. <p>Structure of the Directorate General</p> <p>Directorate General “European Funds for Competitiveness” is managed by a Director General. In exercising its powers the Director General is assisted by 2 Deputy Directors.</p> <p>Directorate General “European Funds for Competitiveness” is structured in six departments, at one of which there are 7 regional units / sectors in district cities of the country.</p>

Intermediate body(ies) for this OP	NO
General objectives of the OP	<p>The Program's main objective is the achievement of dynamic and competitive economy through the development of innovations, entrepreneurship, growth capacity of small and medium-sized enterprises (SME), energy and resource efficiency of enterprises.</p> <p>OPIC is focused at addressing the needs, overcoming the challenges and seizing the opportunities for development of the Bulgarian economy. The measures included in the program aim to contribute complexly for the establishment of sustainable, long-term competitive advantages of Bulgarian enterprises and accelerate the transition to a knowledge-based economy. The support is focused on innovation, entrepreneurship, capacity growth of small and medium enterprises (SMEs), energy and resource efficiency of the businesses.</p> <p>The total budget of OPIC 2014-2020 is EUR 1.27 billion. The funding from the European Regional Development Fund (ERDF) is EUR 1,079 billion and the national co-financing amounts to EUR 191 mln. (15% of the budget).</p> <p>The programme resource is divided into five priority axes:</p> <p>Priority Axis 1 "Technological development and innovation"</p> <p>Priority Axis 2 "Entrepreneurship and capacity for growth of SMEs"</p> <p>Priority Axis 3 "Energy and resource efficiency of the enterprises"</p> <p>Priority Axis 4 "Removing the bottlenecks in the security of gas supply"</p> <p>Priority 5 "Technical Assistance"</p> <p>Expected results from the implementation of OPIC:</p> <ul style="list-style-type: none"> • supporting more than 7,000 enterprises; • mobilizing more than EUR 1 bln. private investments; • increasing the share of innovative enterprises; • increasing the productivity of SMEs; • contribution to reducing the energy intensity of the economy.
Name of the relevant thematic priority axis supporting R&I activities	<p>Priority Axis 1: Technological development and Innovation (Приоритетна ос 1 "Технологично развитие и иновации" (ТЦ1) And Priority Axis 2: Entrepreneurship and Capacity for growth of SMEs (Приоритетна ос 2 "Предприемачество и капацитет за растеж на</p>

<p>Specific objectives of the given priority axis</p>	<p>MCП (ТЦ3)</p> <p>SO1.1 Increased innovation activity of enterprises The Investment priority 1.1 aims at directly contributing to promotion of innovation activity of enterprises in the thematic areas identified in RIS3: a) fostering partnership between innovative enterprises and academia; b) introducing specific measures for support of innovation activities in enterprises; c) further development of existing or introducing new financial instruments for funding innovation activities; d) support for research and innovation infrastructure for business needs; e) internationalisation of innovation process; f) popularisation of good practises of innovation activities.</p> <p>SO2.1 Improving the survival rate of SMEs including through stimulating entrepreneurship</p> <p>Compliance with the national strategic policies is required in order to achieve maximum focus and enhanced effect of investments :</p> <ul style="list-style-type: none"> • Priority axis 1: "Technological Development and Innovation" (TO1), is in line with the Innovation Strategy for Smart Specialisation (RIS3); • Priority axis 2: "Entrepreneurship and Capacity for Growth of SMEs — (TO3), is in line with the National Strategy for Promotion of SMEs.
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Available support programmes / intervention areas in 2014-2020 relevant to Home Care R&I and quadruple-helix cooperation in R&I

The following intervention programmes are not a full list of all OPIC available intervention programmes. The list below describes the procedures which scopes, eligible candidates and partners are relevant to home care innovation support and are encompassing activities that require the involvement of quadruple-helix cooperation. There are also other relevant support programmes that are at a stage of development and are subject to enlargement and improvement so the HOCARE project might contribute to the further binding of the support schemes and specific objectives related to home care. The list is elaborated based on desk research and multiple interviews with the Ministry of Economy of Bulgaria and with representatives of the Ministry of Labour and Social policy (as MA for the Operational programme Development of Human resources 2014-2020).

1. Support for innovation in enterprises, Priority Axis 1: Technological development and Innovation	
Name of the support programme	“Support for innovation in enterprises” (“Подкрепа за иновации в предприятията”)
Supported activities	Acquisition of fixed assets, acquisition of intangible assets, consultancy and support services in support of innovation
Relevancy	Relevant to Home Care R&I
Reasons of its relevance for Home Care R&I	The support scheme promotes innovation activities in enterprises in the thematic areas of RIS3. The support scheme is linked with the thematic areas of the RIS3 within which the services and products related to ensuring high quality and innovative home care. RIS3 priority areas allow the development of innovations in appropriate services (mobile inclusive) services at home under the National Strategy for Long Term Care ("services must go to the client (in the neighborhood, home, hospital, etc.)" that inform, assist and support the inclusion of persons belonging to vulnerable groups. The prioritization of the thematic areas (including a bonus scheme for selecting an area that is marked as of high priority of the area during the selection process) helps orientate the candidates towards selecting products and services in the areas that are relevant to home care – 3 out of 4 areas (Informatics and ICT, Mechatronics and Clean Technologies, Health life and Bio-technology industries).
Amount of funds	50 000 000 EUR
Objective	Support for innovations in enterprises
Eligible recipients	Eligible under this procedure for selection of projects are only candidates who are traders under the Commercial Act or the Cooperatives Act or equivalent person under the law of a Member

	State of the European Economic Area
Eligible costs	Investment costs, services costs
Time plan for calls	This is not a regular call. First call was launched at September 2015
2. Support for the development of innovations by start-up companies, Priority Axis 1: Technological development and Innovation	
Name of the support programme	Support for the development of innovations by start-up companies (“Подкрепа за разработване на иновации от стартиращи предприятия”)
Supported activities	Activities on developing the innovation in the thematic areas of RIS3: applied research in enterprises; survey acquisition and application of research results, technologies, know-how, unpatented inventions, intellectual property rights; development and testing of prototypes and pilot lines test, test measurements.
Relevancy	Relevant to Home Care R&I
Reasons of its relevance for Home Care R&I	The support scheme promotes innovation activities in enterprises in the thematic areas of RIS3. The support scheme is linked with the thematic areas of the RIS3 within which the services and products related to ensuring high quality and innovative home care. RIS3 priority areas allow the development of innovations in appropriate services (mobile inclusive) services at home under the National Strategy for Long Term Care ("services must go to the client (in the neighborhood, home, hospital, etc.)" that inform, assist and support the inclusion of persons belonging to vulnerable groups. The prioritization of the thematic areas (including a bonus scheme for selecting an area that is marked as of high priority of the area during the selection process) helps orientate the candidates towards selecting products and services in the areas that are relevant to home care – 3 out of 4 areas (Informatics and ICT, Mechatronics and Clean Technologies, Health life and Bio-technology industries).
Reasons of its relevance for quadruple-helix cooperation in R&I	The scheme does not provide any kind of direct support for quadruple-helix cooperation in R&I, but the existing networks of quadruple-helix cooperation in R&I may influence the performance of the support scheme as they promote and propagate the need for cooperation with the start-ups. The support scheme might be supported by thematic events for intensifying the Entrepreneurial Discovery process focusing on the needs of the underdeveloped (in terms of innovations) home care sector, activating the links between science and business by identifying the specific challenges and the ways to overcome them in this sector.
Amount of funds	10 000 000 EUR
Objective	Increase of the share of start-ups developing innovation in the thematic areas of RIS3
Eligible recipients	Micro, small, medium and large enterprises that traders in

	the Commercial Law or the Law on Cooperatives
Eligible costs	Investment costs (acquisition of fixed assets, acquisition of intangible assets), services costs, operational costs
Time plan for calls	This is not a regular call. First call was launched at February 2016.
3. Development of clusters in Bulgaria, Priority axis 2: "Entrepreneurship and Capacity for Growth of SMEs	
Name of the support programme / intervention area 3	"Development of clusters in Bulgaria" (“Развитие на кълъстери в България”)
Supported activities	Activities to provide organizational and administrative strengthening; Activities of cooperation and collaboration creation along the entire value chain; Internationalisation of activities and participating in European and international forms of cooperation; Activities for the development of innovative shared infrastructure and know-how
Relevancy	Relevant both to Home Care R&I + quadruple-helix cooperation in R&I
Reasons of its relevance for Home Care R&I	The support scheme requires the candidates to operate within the RIS3 4 thematic areas, 3 of which allow the deployment of innovations directly related to home care.
Reasons of its relevance for quadruple-helix cooperation in R&I	The support scheme is directly oriented towards the strengthening of the quadruple-helix cooperation in R&I. It ensures support for networks – clusters – that efectuate the promotion of partnerships on both the demand side and the supply side.
Amount of funds	20 000 000 EUR
Objective	Support for the creation and development of clusters in Bulgaria as a factor for increasing the competitiveness of Bulgarian enterprises
Eligible recipients	Newly developing and developed clusters, which are groupings of legal persons or associations which are not legal entities
Eligible costs	Investment costs (acquisition of fixed assets, acquisition of intangible assets), services costs, operational costs
Time plan for calls	This is not a regular call. First call was launched at December 2016, a new call oriented towards innovation clusters is planned at 2018.
4. Developing management capacity and growth of SME's, Priority axis 2: "Entrepreneurship and Capacity for Growth of SMEs	
Name of the support programme / intervention area 4	Developing management capacity and growth of SME's (“Развитие на управленския капацитет и растеж на МСП”)

Supported activities	Development, implementation and certification of quality management; Development, transfer, deployment and certification of good manufacturing practices; Services in reengineering business processes; Development and implementation of ICT-based systems and applications for business management.
Relevancy	Relevant to Home Care R&I
Reasons of its relevance for Home Care R&I	The improvement of the management capacity of SME's from the whole value chain of home care (including the supporting services) will ensure an expanded access to social services, delivered at home, improving their quality and promoting the interaction between health, social and educational services deliverers. The stakeholders from academy and research may influence this process by promoting innovations in the field that is directly linked with home care. Thus the delivery of home care services will be improved.
Amount of funds	30 000 000 EUR
Objective	Support for specialized services to enhance the management capacity of SMEs in Bulgaria and promote the use of information and communication technologies and services
Eligible recipients	Eligible under this procedure for selection of projects are only candidates who are traders under the Commercial Act or the Cooperatives Act or equivalent person under the law of a Member State of the European Economic Area.
Eligible costs	Investment costs, service costs
Time plan for calls	This is not a regular call. First call was launched at June 2016, a second call to be launched later on.

5. "Development of product and process innovations", Priority Axis 1: Technological development and Innovation

Name of the support programme / intervention area 5	<p>"Development of product and process innovations"</p> <p>Priority Axis 1: Technological development and Innovation</p> <p>Investment Priority 1.1. Technological development and innovation In accordance with Thematic Objective 1 "Strengthening research and development, technological development and innovation", Investment priority 1b/, Regulation 1301/2013, "encouraging business investment in R&D, development of relations and cooperation between enterprises, R&D centers and the university sector, in particular the promotion of investment in the development of products and services, technology transfer ..." and according to the needs identified at national level within OPIC 2014-2020, this priority axis includes support for technological development and</p>
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	innovation in order to increase innovation activities of enterprises. („Разработване на продуктови и производствени иновации“ по Приоритетна ос 1 „Технологично развитие и иновации“ на Оперативна програма Иновации и конкурентоспособност)
Supported activities	Activities related with developing the innovation (product and process) in the thematic areas of ISIS : applied research in enterprises, test, test measurements, research, acquisition and application of research results, technologies, know - how, unpatented inventions, intellectual property rights; development and testing of prototypes and pilot lines;
Relevancy	Relevant both to Home Care R&I + quadruple-helix cooperation in R&I
Reasons of its relevance for Home Care R&I	The support programme is oriented towards innovations (product and process) within the 3 (out of 4) thematic areas that are closely related to the whole value chain of the home care and related products/services, nearly in all enlisted (but not exhaustive) priority directions/ranges of the main thematic areas.
Reasons of its relevance for quadruple-helix cooperation in R&I	The programme support presupposes the involvement of the quadruple-helix cooperation in R&I as the existing networks may influence the performance of the support scheme as they promote and propagate the need for specific products or improvement of specific processes in the home care value chain.. The support scheme might be supported by thematic events for intensifying the public-driven innovation process focusing on the needs of the underdeveloped (in terms of innovations) home care sector, activating the links between science and business by identifying the specific challenges and the ways to overcome them in this sector.
Amount of funds	35 000 000 EUR
Objective	Increasing the share of companies that develop and distribute product and manufacturing innovation, and the innovation capacity of enterprises
Eligible recipients	<p>Candidates :</p> <p>1) Eligible under this procedure for selection of projects are only candidates who are traders under the Commercial Act or the Cooperatives Act or equivalent person under the law of a Member State of the European Economic Area. Branches of legal entities registered in Bulgaria, can not participate in the selection process for projects due to lack of separate legal personality.</p> <p>2) Eligible under this procedure for selection of projects are only candidates who have at least three fiscal years concluded (2014, 2015 and 2016).</p> <p>Partners :</p> <p>1) Eligible under this procedure are only partners are:</p>

	<p>a) Bulgarian accredited higher education or</p> <p>b) Department at Bulgarian universities, according to Art. 26 of the Higher Education Act or applicable to the faculties service units (as defined in Art. 25, para. 3 of the Higher Education Act), or</p> <p>c) academic institutes or specialized units of the Bulgarian Academy of Sciences, or</p> <p>d) Experimental laboratories and research institutes within the meaning of Art. 60 of the Administration Act, or</p> <p>e) Association for research and development to "Sofia Tech Park" AD.</p> <p>2) Eligible under this procedure are only partners who meet the definition of "entreprise" referred to in § 1 of the Supplementary Provisions of the SMEs</p>
Eligible costs	Investment costs (fixed assets and intangible assets), Cost of services, Operating expenses
Time plan for calls	<p>The first call is planned to be open in the end of June 2017. Next calls will be planned after the OPIC mid-term evaluation in 2018.</p> <p>The call is not a regular one. It is related to an amount to be absorbed as fixed in the approved version of OPIC 2014-2020.</p>
6. "Creation and development of thematically focused laboratories", Priority Axis 1: Technological development and Innovation	
Name of the support programme / intervention area 6	<p>Priority Axis 1: Technological development and Innovation</p> <p>"Creation and development of thematically focused laboratories"</p> <p>Създаване и развитие на тематични фокусирани лаборатории</p>
Supported activities	Investment support activities to build new, expand and modernize existing thematically focused laboratories
Relevancy	Relevant to Home Care R&I
Reasons of its relevance for Home Care R&I	<p>The support scheme plans activities for investment support for construction of new, expansion and modernization of existing thematically focused laboratories which may serve the needs of specific elements of the home care value chain – for example related to telemedicine, telecare, wearables, specific products piloting etc.</p> <p>The programme ensures the development of adequate and secure environment for the creation and dissemination of innovations and thus may be of use for the deployment of specific home care pilot projects. Products, services.</p>
Reasons of its relevance for quadruple-helix	The supported laboratories will represent thematically focused laboratories and advanced testing and technology verification giving access to technological capabilities and tools, training

cooperation in R&I	and training and mentoring for prototyping and digital manufacturing innovative ideas and products. This will reduce the risk of launch new products and ideas to market before it is shown to be returnable. This means that the cooperatin between business and academia is crucial for the market feasibility and the testing itself of the products. On the other hand, the cooperation with th ened users will be important because they will feedback the testing processes.
Amount of funds	5 000 000 EUR
Objective	Creation of new and improvement of existing innovative infrastructure to support the commercialization process of new products
Eligible recipients	Existing medium and large enterprises that traders under the Commercial Act or the Cooperatives Act or equivalent person under the law of the country - a member of the European Economic Area
Eligible costs	Investment costs (fixed assets and intangible assets), Cost of services, Operating expenses, Costs for construction works
Time plan for calls	The first call is planned to be open in the end of June 2017. Next calls will be planned after the OPIC mid-term evaluation in 2018. The call is not a regular one. It is related to an amount to be absorbed as fixed in the approved version of OPIC 2014-2020.
7. Promoting entrepreneurship in areas linked to European and regional challenges and sectors NSNMSP ("National Strategy for the Promotion of Small and Medium Enterprises" 2014 -2020), Priority axis 2: "Entrepreneurship and Capacity for Growth of SMEs	
Name of the support programme / intervention area 7	Promoting entrepreneurship in areas linked to European and regional challenges and sectors NSNMSP ("National Strategy for the Promotion of Small and Medium Enterprises" 2014 -2020). "Насърчаване на предприемачеството в области, свързани с европейски и регионални предизвикателства и секторите на НСНМСП "
Supported activities	Activities for realizing entrepreneurial ideas; Activities to develop new products and services in areas linked to European and regional challenges.
Relevancy	Relevant both to Home Care R&I + quadruple-helix cooperation in R&I
Reasons of its relevance for Home Care R&I	The support prrogramme gives an opportunity to realize entrepreneurial ideas and to develop new products and services in areas linked to European and regional challenges, which directly opens the road to all kind of activities related to the home care delivery value chain and all basic and supporting services. The identified priority directions/ranges in which the new businesses and social enterprises will be supported are in line with the filed in

	whivh lay most of the innovations in the home care field.
Reasons of its relevance for quadruple-helix cooperation in R&I	The programme presupposes the quadruple-helix cooperation because the existing networks of quadruple-helix stakeholders may influence the performance of the support scheme as they may promote and propagate ideas suitable for starting new enterprises in the field of the innovative home care products and services. The support scheme might be supported by thematic events for intensifying the Entrepreneurial Discovery process focusing on the needs of the underdeveloped (in terms of innovations) home care sector, activating the links between science and business by identifying the specific challenges and the ways to overcome them in this sector through initiating new businesses in this field.
Amount of funds	34 373 012 EUR, until 2020
Objective	Creation and development of new businesses in specific areas related to the overcoming of European and regional challenges and sectors of NSNMSP ("National Strategy for the Promotion of Small and Medium Enterprises" 2014 -2020)
Eligible recipients	Micro, small and medium enterprises that traders under the Commercial Act or the Cooperatives Act with - less than three financial years
Eligible costs	Investment costs (fixed assets and intangible assets), Cost of services, Operating expenses
Time plan for calls	The first call is planned to be open in the end of September 2017. Next calls will be planned after the OPIC mid-term evaluation in 2018. The call is not a regular one. It is related to an amount to be absorbed as fixed in the approved version of OPIC 2014-2020.

Evaluation of applications

Is the evaluation process for applications set up the same way for all given relevant support programmes / intervention areas + calls?	Yes, it is the same for all support programmes / calls
If the same, who evaluates all applications?	An independent evaluation commission is formed with a decision of the Head of the MA, in which take part previously selected experts with proved relevant expertise in the field of the support programme
Where are the evaluators from?	From the partner country

<p>If the same, which evaluation criteria are used with what weight?</p>	<p>Every support programme has a different weight of the evaluation criteria. The scheme is the same in broad framework:</p> <ol style="list-style-type: none"> 1. Formal yes/no (binary) – for administrative evaluation of eligibility 2. Capacity of the beneficiary (resources, competences, personal) 3. Quality of the application - defined by each set up call detailed conditions 4. Cost effectiveness 5. Correspondence with the priority areas set out in the Innovation Strategy for Smart Specialization thematic areas and regional impact <p>Points 1-3 are set up by each call. For the moment only one support scheme has published the criteria (“Development of product and manufacturing innovations”). The criteria are as follows:</p> <ol style="list-style-type: none"> 1. Innovative character, Market applicability and viability of the innovation – 37/100 2. Innovative capacity and financial capacity before the application – 37/100 3. Type of innovation and correspondence with the priority areas set out in the Innovation Strategy for Smart Specialization thematic areas – 12/100 (of which -upgrade of results under EU Framework Programmes (incl. ECSEL Joint Undertaking) and/or awarded seal of excellence – 4/12) 3. Effectiveness of costs – 4/100 <p>In all support scheme there is a prioritization of the thematic areas (including a bonus scheme for selecting an area that is marked as of high priority of the area during the selection process) that guides and orientate the candidates towards selecting products and services in the thematic areas, ranged as most suitable for their regions of operations. Most of them are relevant to home care – 3 out of 4 areas (Informatics and ICT, Mechatronics and Clean Technologies, Health life and Bio-technology industries). There is also a bonus if the activities are planned in the most lagging behind region of Bulgaria – the North-West area.</p>
<p>Who evaluates applications of each of the intervention programme call?</p>	<p>An independent evaluation commission is formed with a decision of the Manager of the MA, in which take part previously selected experts with proved relevant expertise in the field of the support programme</p>

Governance of the relevant thematic priority axis of the Operational Programme

<p>Main management</p>	<p>The managing authority of the Operational programme Innovation and competitiveness is the Directorate General „European funds for</p>
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bodies	<p>competitiveness“. The Directorate "European Funds for Competitiveness" is structured into six departments, to one of which has a distinct regional offices / sectors in regional cities.</p> <p>The Monitoring Committee is a collective body, based on the principle of partnership, whose main task is to monitor the effectiveness and quality of the OPIK.</p> <p>The composition of the Monitoring Committee includes representatives of ministries, state agencies, regional and municipal administrations and socio-economic partners, the European Commission, the Certifying Authority, the Audit Authority and others. Its composition shall be determined by the Minister of Economy.</p> <p>Every call is preceded by a public consultation round during which every stakeholder could express an opinion, suggestion, feedback. All written suggestions are answered in due time and the process leads to a change or improvement of the support programme in full compliance with the relevant regulations at national and EU levels.</p>
Possibilities for non-members of committees to influence the OP	yes
How ?	<p>There is a procedure for applying to become member of the Monitoring committee based on self-request to or being invited to join the Monitoring committee of OPIK.</p> <p>Another way of influencing the OP is through presence and activity in the so called socio-economic partners like the Chamber of commerce (Българска стопанска камара), Bulgarian chamber of commerce and industry (Българска търговско-промишлена палата), Confederation of employers and industrialists in Bulgaria (Конфедерацията на работодателите и индустриалците в България); Association of industrial capital in Bulgaria (Асоциация на индустриалния капитал на България), other representatives of organisations and NGOs' operating in different spheres of economic, social and other activities.</p>

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	yes
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Fund?	
<p>Which RIS3 R&I specialization segments contribute to Home Care R&I support?</p>	<p>Innovation Strategy for Smart Specialisation of the Republic of Bulgaria (RIS3), which has the nature of an ex-ante continuation for OPIC 2014-2020 and aims at ensuring an effective and coordinated management of innovation processes; strengthening the innovation system by building a modern innovation and scientific infrastructure, enhancing human capacity in response to the needs of science and industry and introduction of specific financial instruments of support; support for the digital growth and e-government. The strategy deals with the approach of determining thematic objectives (based on the so-called process of entrepreneurial discovery) with the potential to become —generators of growth" for achieving significant economic impact at regional and national level.</p> <p>Excellence in delivery of highly innovative Home Care solutions is a crosscutting issue, involving ICT and Health. Both are addressed at national level in 3 of 4 thematic areas</p> <ul style="list-style-type: none"> - Mechatronics and clean technologies - Informatics and ICT - Health life and Bio-technology industries <p>Every thematic area has pre-defined priority areas many of which coincide with the opportunities for innovations in the home care sector – in the whole value chain.</p> <p>The RIS3 could be subject to an actualization and the project HOCARE might contribute to the enlargement of the formulation of the specialization segments in the 3 selected areas with specific Home care services/products/processes.</p>

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.

Operational programme Development of Human resources 2014-2020	
Name of the other policy instrument 1	Operational programme Development of Human resources 2014-2020 Оперативна програма развитие на човешките ресурси 2014-2020
Geographical coverage	national
Managing Authority	European Funds International Programmes and Projects Directorate General (EFIPP DG), within the Ministry of Labour and Social Policy of Bulgaria – Managing Authority of Operational Programme “ Human Resources Development” 2014-2020

	(Bulgaria)
Intermediate body	n/a
General objectives of the policy instrument	Operational Program "Human Resources Development" (2014 - 2020) is aimed at achieving higher and better quality employment, reduce poverty and promote social inclusion, and modernize public policies. These are the main pillars that are set in the five priority axes of the OP HRD.
Priority axes supporting Home Care R&I	PRIORITY AXIS 2 "REDUCING POVERTY AND ENCOURAGING SOCIAL INCLUSION" ("Намаляване на бедността и насърчаване на социалното включване")
Specific objectives	Thematic objective 11: Enhancing the institutional capacity of public authorities and stakeholders and contributing to effective public administration (health services inclusive)
Support programmes relevant for Home Care R&I in the priority axis described above available in this policy instrument	Иновативни заедно PRIORITY AXIS 2 "REDUCING POVERTY AND ENCOURAGING SOCIAL INCLUSION"

"Innovative together" – Priority axis 2 "Reducing poverty and encouraging social inclusion"	
Name of the support programme / intervention area 3	"Innovative together" ("Иновативни заедно")
Supported activities	Preparation of specific analyzes and studies of the experience of other Member States; Staff exchanges, program and project managers, trainers, stakeholder representatives as well as representatives of the target groups; Organization of public events, seminars, workshops and trainings to encourage the exchange of experience, information, good practices and innovative approaches between partners and other stakeholders; Enhancing the capacity of partners and stakeholders to develop, implement, monitor and evaluate good practices and innovative approaches; Building and / or partnering in twinning networks, twinning (twinning); Mutual or coordinated social experiments by adapting and / or validating innovative models,
Relevancy	Relevant to Home Care R&I

Reasons of its relevance for Home Care R&I	The support programme gives an opportunity for representatives of the quadruple-helix to take part actively in public events, seminars, workshops and trainings to encourage the exchange of experience, information, good practices and innovative approaches and to develop new products and services in areas linked to European and regional challenges, which directly opens the road to all kind of activities related to the home care delivery value chain and all basic and supporting services. Even if the home care is not a specific focus of the scheme as the Priority axe is “Reducing poverty and encouraging social inclusion” the final beneficiaries are amongst the target groups that require home care services and thus the searched social innovations and the exchange of experience and practices might also be in the field of home care.
Amount of funds	10 000 000 EUR
Objective	The operation is targeted at the institutions of the Ministry of Labor and Social Policy and aims to contribute to the transfer and introduction of social innovation, good practices, partnership approaches to finding solutions to common problems, building specific partnership skills, etc., In the fields of the labor market, social inclusion, equal opportunities and non-discrimination, working conditions and the building of administrative capacity in them.
Eligible recipients	This a ‘direct award’ procedure – the contract is directly awarded to pre-selected beneficiaries – the Ministry of Labor and Social Policy
Eligible costs	Staff expenses; Expenses for tangible assets; Service charges; Publicity costs; Indirect costs.
Time plan for calls	The call is planned to be open in the end of July 2017. The call is not a regular one. It is related to an amount to be absorbed as fixed in the approved version of OPHRD 2014-2020.

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. Information within this section is based on extensive desk research, interviews and discussions with innovation actors in home care including the Ministry of Economy and the Ministry of Labour and Social Policy in Bulgaria.

The challenge in comprehensive innovation ecosystem planning and management is in combining the parallel interests of the various innovation processes, whether driven by a company or forum, the public sector, or a public–private partnership. National innovation policy framework, strictly described in the RIS3 put some regulatory limitations on the alternative available paths to be adopted in the development of innovation in the home care sector.

Bulgaria has a regional innovation ecosystem in the home care sector that lacks a commonly driven planning and management to interpret and match the multi-domain interests under one unified management structure. The nationally responsible entities are deploying and implementing strategies and programmes focused on health services and on social inclusion but not specifically focused on home care. During the Hocare project activities – meetings, discussions or other seminars during which the project objectives and methods have been presented, It is often discussed and largely admitted that someone must specialize in aligning the collaborative processes, network relationships, and gradually developing common practices for effective innovation creation, accumulating the required experience, know-how, and connections into one core entity for efficient ecosystem-level coordination. Consequently, a well-orchestrated ecosystem development calls for the establishment of a dedicated knowledge hub organization that first of all, should be entrusted by the stakeholders, and secondly, could take the responsibility for defining a shared vision for the future of the national home care ecosystem, a clear set of objectives for the continuous maintenance of network relationships, and guidelines for effective project coordination and resource allocations throughout the home care ecosystem. This innovation hub organization can focus its efforts on the ecosystem-level target setting, relationship management, and resource allocations in the field of home care.

A home care knowledge hub can serve as the home care ecosystem management office supporting the innovation actors in their joint activities: draft the master plan for the entire ecosystem according and after the supervision of the main stakeholders at national level, build up and complement local networks for provision of innovation in the home care services, and ensure support for intra-ecosystem networking, information exchange, and cross-domain communication. The home care hub may orchestrate new joint initiatives and development programs in the home care sector, search and attract resources to the specific home care sector and advance them to the local innovation actors.

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

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

Home care as segment can be strategically supported in Bulgaria through RIS3 strategy via three of the thematic areas :

- Mechatronics and clean technologies
- Informatics and ICT
- Health life and Bio-technology industries

Every thematic area has pre-defined priority areas many of which coincide with the opportunities for innovations in the home care sector – in the whole value chain.

The RIS3 is at a stage of an actualization and the project HOCARE might contribute to the enlargement of the formulation of the specialization segments in the 3 selected areas

with specific Home care services/products/processes.

There is no specific definition used in the nationally representative strategic documents related to the home care in fact.

The most commonly used description is “Providing complex comprehensive social services and health care in the home environment of chronically ill elderly and those with permanent disabilities”. This description is taken from various sources but is not fixed in any important document.

"Long-term care" is the broader definition used in Bulgarian strategic documents, even that "At present, there is no separate definition of long-term care and long-term care services in the Bulgarian legislation, nor is there an official classification of the persons entitled to them." according the most important strategic document that guides the delivery of all social services in Bulgaria - "The national strategy for long-term care in Bulgaria" 2016-2020.

The long-term care within the document is defined according the definition used in EU documents: "Long-term care combines a wide range of medical and social services for people in need of basic day-to-day activities due to chronic physical or mental disabilities. These cares are often carried out at least in part by non-professionals, such as relatives or friends. Long-term care is on the border between medical and social care and is usually provided to people with physical or mental illness, the elderly and certain groups of people who need help in carrying out their day-to-day activities. "

For our needs during the project we used the OECD definition - Home care covers personal care services (assistance with ADL (**activities of daily living**) restrictions) and home help and care assistance (help with instrumental ADL restrictions, including housekeeping and meals on wheels) (see OECD, 2008, p. 8). Both personal care and home help can be supplied in a formal or informal setting.

To adjust the structure of the regional innovation ecosystem, we also use the OECD definition for formal and informal care as follows:

Formal care - formal LTC services are supplied in some kind of contractual relationship (e.g. by the employees of an organization or of the care recipient) in either the public or private sector, including care provided in institutions like nursing homes, as well as to persons living at home by either professionally trained assistants, such as nurses, or untrained assistants.

Informal care is that provided by informal caregivers (= informal carers), such as spouses/partners, other members of the household and other relatives, friends, neighbours and others, usually but not necessarily associated with an already existing social relationship with the care recipient. Informal care tends to be provided in the home and is typically unpaid.

In Bulgaria the accent in long term care, part of which is the home care sector, is put mainly on the integrated care. The home care is not strictly specified in none of the strategic documents and programmes. But Bulgaria is about to turn into a hyperaging country. People over 64 are 20.7% of the population by the end of 2016 and those in working age are reduced by 45 thousand, according to National Statistic Institute data from 2016. A society is considered to be hyper-old when the proportion of people out of work age is over 21%. At the end of 2016, Bulgaria is on the verge of crossing this threshold - 20.7% of people over 65, according to data from the National Statistical Institute. By comparison, in 2010 the ratio was 17.7%. According to the Institute's estimates, by 2030 the proportion will rise to more than 30%. On the other hand, the average life expectancy is rising, and at the same time, the population of Bulgaria is diminishing due to factors such as aging, emigration, low birth rates. The conclusion is that the number of people in need for home care is rising together with the need for care givers while the workforce for care givers is less and less. These factors

accentuate the crucial need for innovations in the sector in home care in Bulgaria – a trend that is underestimated by the running programmes and is not supported by the national strategic documents.

With rising life expectancy, more people now reach an age where declining physical and mental health make them dependent on help from others. Most of this social care is currently provided by relatives, spouses and children in particular, mostly women. The availability of informal social care by family members can be expected to decline, however, as people are having fewer children, who may also live further away from their elderly parents and be unable to provide intensive care. Only a few EU countries provide comprehensive social protection to cover the need for care in old age.

Public institutions' interest and possibilities of involvement in EU programmes are low and limited. At the moment in Bulgaria there is a rather small network of actors that are very active in this area who often work together in past joint activities and initiatives – especially several NGOs', few research organizations and some business supporting organizations. Others research actors active in healthcare research or homecare service provision, healthcare providers of formal or informal care are becoming more and more active in the last years and are ready to get involved more actively.

Currently, actors from the home care innovation ecosystem can use mainly one national public funding programme (aside of private funds or EU programmes) to support their innovative ideas: OPIC. However, due mainly to the restricted list to the concentration of activity in this regards into only few actors of the ecosystem, due to some potential programme obstacles in terms of segment category (home care) fitting to the programme and eligible types of main beneficiaries), and not strong joint lobbying voice for changes inside the programme, the annual amount of submitted applications in home care for funding is very low each year.

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

Existing platforms / networks supporting Home Care R&I in Bulgaria

1. National Alliance for Social Responsibility (Национален алианс за социална отговорност) <http://www.naso.bg/> They seek to unite, motivate and support the opportunities and efforts of business and non-profit legal entities, municipalities, municipal and regional structures and organizations by providing national and international partnership and participation in the creation and implementation of socially responsible behavior, policies and activities in support Of various social communities for a better quality of life and accelerated social development of Bulgaria.
2. Association of Social Service Providers(Сдружение "Асоциация на доставчиците на социални услуги") <http://www.adsu-bg.org/> They strive to create conditions for the qualitative provision of social services in the community aimed at people with disabilities and lonely elderly people, as well as ensuring equal participation of the non-governmental sector in this process, stimulating and supporting NGOs for the professional provision of social services and increasing the Their capacity as suppliers.
3. The National Network for Older People Support is an informal network of organizations that aims to provide quality social services for older people and people with disabilities by reforming the long-

	<p>term care sector. Organizations that are part of the network share a common one Concept of reforming the long-term care sector.</p> <p>4. The Bulgarian Association of Social Workers (http://www.basw-bg.com/) was founded in 1995. Its mission is to build a developing community of social workers to improve social policies and practices in Bulgaria.</p> <p>The Association is a member of the International Federation of Social Workers (IFSW).</p>
<p>Regular events (both formal and informal) supporting Home Care R&I in Bulgaria</p>	<p>There are no specific regular events supporting Home Care R&I in Bulgaria. Home care is not the focus of any of the existing regular regional or national events. There are regular gatherings of the deliverers of social services. Most of the social services are delivered at the home of the end users. In such case we may cite the regular regional and national events organized for the deliverers of social services by the National Alliance for Social Responsibility within which home care is also vastly discussed.</p>

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

Main formal + informal providers of healthcare, elderly care recipients / associations in Home Care R&I	
Name and website	Description of activities focused on in that field
<p>National Alliance for Social Responsibility (Национален алианс за социална отговорност) http://www.naso.bg/</p>	<p>As a nationally representative union of providers of social services NASO ensures conditions for support and development of service providers and employers of people with disabilities and other social groups and increases their contribution to improving social inclusion and the quality of life of the population.</p> <p>NASO is the leading national organization in several areas:</p> <ul style="list-style-type: none"> • in the field of social services and policies, bringing together social service providers, municipalities, social service teams and others from all over the country and working as a member of the National Council for Social Inclusion; • in the field of support of people with disabilities by bringing together organizations, social services, employers and other structures working for people with disabilities, and actively working as a member of the National Council for Integration of People with Disabilities; <p>It has 1988 members, amongst them 1438 are providers of social services, mostly in the community – which means related to home care.</p>

Name website	Description of activities focused on in that field
Association of Social Service Providers (Сдружение "Асоциация на доставчиците на социални услуги") http://www.adsu-bg.org/	It gathers providers of social services in the community and aims at: the Priority development of social services in the community for disadvantaged people. Supporting the transition from institutional care to social services in the community by involving all stakeholders. Assistance to promote NGOs as equal providers of social services. Promoting social services in the community and increasing the sensitivity of society to the problems and opportunities of disadvantaged people.
Union of bulgarian black sea local authorities (UBBSLA) (Асоциация на българските черноморски общини (АБЧО)) http://www.ubbsla.org/	It is an independent non-governmental, voluntary, self-governing and non-profit organization established as a juridical person in 1992. At the moment, the Union of the Bulgarian Black Sea Local Authorities unites 21 municipalities bordering the Bulgarian Black Sea Coast. UBBSLA is important for home care sector as the municipalities are operating with the state funds available for delivery of social services at the community.
National Association of Municipalities in the Republic of Bulgaria (NAMRB) Национално сдружение на общините в Република България (НСОРБ) http://www.namrb.org/	NAMRB's activity is focused on three main areas: Representation of municipalities in front of the central government: research, analysis, evaluation and development of proposals for change and improvement of policy on local government; lobbying; Support to municipalities in executing their powers: studying of municipal opinions and developing consensus positions and strategies; providing a wide range of consulting services and training programs; issuing thematic and advisory guides; providing its own training centre for municipalities; Participation in Bulgarian and international forums; and organizational strengthening of NAMRB. NAMRB is important for home care sector as the municipalities are operating with the state funds available for delivery of social services at the community.
The Bulgarian Red Cross (Български Червен кръст – БЧК) http://www.redcross.bg/	The Bulgarian Red Cross is a voluntary organization that is part of the International Red Cross Movement. Through its network of volunteers across the country BRC supports vulnerable people in disaster and crisis situations. Through training programs and community-based activities, it contributes to alleviating and preventing suffering in all its forms, protecting health and life and ensuring respect for the human person. With the establishment of the first Home Care Center in Sofia with the support of the PHARE ACCESS program in 2003, the Bulgarian Red Cross introduced an integrated model for the provision of health care and social services to the home of adults, chronically ill and people with permanent disabilities. This model is based on the experience of

	the Swiss Spitex Association and has been adapted to the conditions in Bulgaria. As a result, a sophisticated system for assessing patients' needs, staff training, service delivery and quality monitoring was established with 12 centres for home care services at the moment.
Pia mater (Пиа матер) http://www.piamater.org/	The foundation develops innovative social services. Its main aims are: Provision of social services in the community Carrying out research and analysis Organization of trainings and seminars Preparation of brochures and information materials Advocacy and lobbying Conducting information campaigns
Agency for social development "Vision"(Агенция за социално развитие "Вижън") http://www.vision-bg.com/	The agency provides home care services in Varna in different directions, is the biggest provider in terms of serviced beneficiaries (delegated by the state activities) and is founder of the National Alliance for Social Responsibility. The Agency is implementing also many projects for innovative social services in home care.
Фондация "АСИСТ – ПОМАГАЩИ ТЕХНОЛОГИИ" Assistance Foundation – ASSISTIVE TECHNOLOGIES http://assistfoundation.eu/	ASIST - HELP TECHNOLOGIES Foundation is focused on information and technological assistance to people with serious motor impairments, which are related to diseases such as muscular dystrophy, child cerebral palsy, amyotrophic lateral sclerosis, stroke and others. They offer services that amplify the services related to home care with innovative assisting technologies.

2. Business helix

Main businesses and business supporting actors in Home Care R&I?		
Name + website	Business or business supporting actor	Description of highly innovative solutions provided in that field
Checkpoint cardio (Чекпойнт Кардио), http://www.checkpointcardio.com/	Business	The telemedicine monitoring service becomes a telecom service - a mobile online holter, using a GSM module and a SIM card, sends the ECG indicators every 3 minutes to the Card Point Card "Card Point Cardio". There the specialists carry out permanent 24-hour telemonitoring of the patient's cardiac parameters. Data allow early and accurate diagnosis of heart disease. During the observation - the team from the Medical Center: - reacted to the doctor who directed the patient

		<p>- if the treating physician is unable to respond, the duty officer at the medical center shall contact the patient, his / her relative or Emergency Relief to provide adequate assistance in a timely manner and as soon as possible.</p> <p>The Holter is equipped with a GPS module that recognizes the patient's location and provides a quick response from the medical team that monitors it. This guarantees the localization of the patient, wherever and in what condition it is.</p>
<p>Sirma Solutions (Сирма Солюшънс) http://sirmasolutions.com/</p>	<p>Business</p>	<p>Develop and implement electronic medical records (EMR) solutions, compatible with HL7, ICD-9, ICD-10 and CDR standards. We also offer systems for process and workflow management in hospitals, and patient mobile applications.</p> <p>Build and integrate the entire IT infrastructure and systems (software and hardware) in modern hospitals.</p> <p>R & D division carries out researches in Telemedicine, innovative communication solutions for medical staff and patients, computer vision area, etc.</p>
<p>Telegroup (Телегруп) http://www.telegroup.bg/</p>	<p>Business</p>	<p>The company has developed “mhealth”- a mobile health monitoring system that allows easy, simple and accurate monitoring and reporting of different health parameters regardless of the patient's location and activities. This solution, based on a flexible platform that takes advantage of wireless and mobile information transmissions, is ideal for clinics who would like to offer their patients advanced technological solutions and thus improve the level of service they offer.</p>
<p>Aossia (Аосиа) http://www.aossia.com/</p>	<p>Business</p>	<p>Aossia offers solutions in the field of Telemedicine that provide an innovative approach in the remote delivery of healthcare services over long distances, including diagnostics, preventive medicine and nutrition. Innovative technologies enable the possibility to offer precise new generation diagnostics.</p> <p>For example - Mobile set with basic equipment, suitable for emergency medical vehicles, as well as for every family. It</p>

		<p>ncludes:</p> <p>¥ Bracelet tracking and basic indicators: The brace counts the main indicators of the holder. In the event of an unacceptable change in metrics (e.g., blood pressure increase), the satellite link sends the metrics to a selected physician. The doctor receives the information via SMS and / or e-mail, regardless of its location.</p> <p>¥ Mobile set with basic medical equipment: it is a mobile briefcase with basic medical equipment necessary for basic manipulation. The briefcase also includes a screen for teleconferencing. Through this set, it is first aid on the road, in places without medical coverage and in all other cases where immediate medical intervention is not possible and / or immediate medical assistance is required.</p> <p>The company offers also a Remote Video Diagnostic System</p> <p>Innovative method of providing remote healthcare including diagnostic and preventive medicine. The system includes a complex technical solution and ongoing videoconferencing services through remote video diagnostics. Concepts of presence, real-time data exchange, Video, voice, and screen sharing.</p> <p>System for conducting a medical examination from a remote location</p> <p>The system includes specialized new-generation medical equipment integrated with a remote video diagnostics system.</p> <p>The services are supported by an integrated information system.</p>
<p>Bulgarian Chamber of Commerce http://www.bcci.bg/</p>	<p>Business supporting actor</p>	<p>The Chamber is the Bulgarian Business representative organization. It has representatives in all Monitoring Committees of the Operational programmes and through this role influences directly on the improvement of the opportunities open to enhance innovations in home care</p>
<p>ICT cluster (ИКТ клъстер България) http://www.ictcluster.bg/</p>	<p>Business supporting actor</p>	<p>Foundation "Cluster Information and Communication Technologies" was created in 2005 by representatives of the Bulgarian ICT business. Acting as an umbrella organization of Bulgaria ICT Industry , ICT Cluster has 10 members (ICT associations</p>

		and ICT clusters) , which includes more than 280 ICT SME from different segments of the ICT Industry and 6 Bulgarian technical universities.
ICT cluster Varna (ИКТ клъстер Варна) http://ictclustervarna.com/	Business supporting actor	The association gathers companies from the regional triple-helix of the ICT sector.

3. Research helix

Main research actors in Home Care R&I	
Name and website	Description of excellent research activities done in that field (e.g. patents in this field)
Technical University of Sofia http://www.tu-sofia.bg/	<p>The innovative solutions in the Technical University of Sofia cover a broad spectrum of expertise of its researchers. The innovations are in several directions, most of them offering opportunities for the home sector services improvements and innovations deployment. Application and adaptation of existing technologies in new fields and branches and specific engineering solutions,</p> <p>Generation, research and testing of new materials, technologies and design solutions in almost all fields of technologies,</p> <p>Optimization of technological processes and reduction of production costs</p> <p>Implementation of existing international high tech productions and developments in Bulgarian industry</p> <p>Improvement of quality and ecological parameters of production by implementation of modern technologies for evaluation of their functioning, ecology and adequate market survey</p> <p>Implementation of new methods for education, as well as company national and international internship of students to provide contemporary knowledge and skills</p>

<p>Sofia University St. Kliment Ohridski http://www.uni-sofia.bg/</p>	<p>Sofia University St. Kliment Ohridski is the first Bulgarian high academic school establishment. Its history is an embodiment and a continuation of the centurylong cultural and educational tradition of the Bulgarian nation.</p> <p>Sofia University St. Kliment Ohridski is an educational institution that has stepped on the road of the development of research. The principle that the top level is a <i>conditio sine qua non</i> is mandatory in the implementation of the effective interaction between the educational process and the technological development, science and innovative politics. Sofia University has the best Bulgarian scholars in all fields of scientific research. The scientific activities of the faculty at Sofia University St. Kliment Ohridski has become an obligatory part and parcel of the teaching process.</p> <p>The University is the leader in the terms of research projects initiated by universities in Bulgaria.</p>
<p>Varna Medical University « Prof. Dr. Paraskev Stoyanov » http://www.mu-varna.bg/</p>	<p>Some of the priority scientific areas of the Medical University – Varna for 2015-2020, which are related to the home care sector:</p> <ul style="list-style-type: none"> - Diseases of the central nervous system <p>In this direction the highlights are:</p> <ul style="list-style-type: none"> • Markers, predictors, genetic and immune aspects of the SC diseases; • Therapy and psychosocial rehabilitation of the patients with diseases of the National Assembly. <p>Expected results – development of a model for diagnostics, diagnosis of disease and outcome and neurodegeneration and its use as a therapy of the last choice.</p> <ul style="list-style-type: none"> - Oncology and rare diseases <p>In this direction the highlights are:</p> <ul style="list-style-type: none"> • Therapeutic options for the treatment of oncological diseases; • Genetic analysis of oncological diseases and rare diseases; • Social rehabilitation of cancer patients. <ul style="list-style-type: none"> - Disease Management • eHealth; • Prevention programs. <p>Expected results – development and model of electronic dossiers and models for the storage and transfer of medical information</p>
<p>Varna Technical University http://www.tu-varna.bg/</p>	<p>The interdisciplinary Center for Applied Technologies related to Health, which is built at the Faculty of Electronics, Technical University – Varna, is an intellectual center in northeastern Bulgaria for young people with a keen interest in modern technologies. The center integrates innovative healthcare, telemedicine and</p>

	information and computer technology technologies. Of interest are teachers and trainees from various specialties such as Communication Technology and Technologies, Medical Equipment, Computer Systems and Technologies, Software Engineering.
Varna Free University „Chernorizets Hrabar“ http://www.vfu.bg/en/	It is the biggest and most acknowledged private university in Bulgaria. Varna Free University “Chernorizets Hrabar” is the first and only university in Bulgaria certified with the signs <u>DS Label</u> , <u>ECTS Label</u> and <u>HR Excellence in Research logo</u> by the European Executive Agency for Education and Culture at the European Commission of the European Union.
New Bulgarian University http://www.nbu.bg/	New Bulgarian University is to be an autonomous liberal education institution dedicated to the advancement of university education by offering accessible and affordable opportunities for interdisciplinary and specialized education and research of high quality. Bringing its academic potential to the service of society, the University prepares its graduates for the challenges of modern democratic life cultivating critical and creative thinking, sensitivity to cultural difference, and problem-solving. It contains excellent laboratories where cutting edge laboratory research is constantly on the way.
Security Solutions Institute Ltd. http://www.cio.bg/	The institute is part of the structure of Professional Information Management Prima JSC, which corporation is the sole shareholder of the company. The activities of SSI are focused on developing a range of new, useful, high value-added, environment-friendly products in field of Telemedicine.
Medical university Pleven http://www.mu-pleven.bg/	The University has a telecommunication endoscopic study center with an experimental operating theater that is unique and unique in the Balkan Peninsula and Eastern Europe. It provides training on highly specialized activities in medicine and robotic surgery. For this purpose, virtual enduro training is used - a real-time training system for endoscopic surgery. Through the audiovisual conference network in the auditoriums of the center, a connection is made between the operator during the surgical intervention, the conference and experimental operating rooms as well as the centers for diagnostics and therapy in the country and abroad.

<p>Research and Development and Innovation Consortium in Sofia tech-park http://www.sofiatech.bg/en/about/tin/rdi-consortium/</p>	<p>Research and Development and Innovation Consortium is a legal non-profit entity operating in the public interest incorporated under the Law for Non -profit. It is initiated to manage the laboratory complex and the event facility in Sofia Tech Park: Technology + Innovation Network. Members of the consortium are:</p> <ul style="list-style-type: none"> - Ministry of Economy; - Bulgarian small and medium enterprises promotion agency; - Sofia University "St Kliment Ohridski"; - Technical University - Sofia; - Medical University - Sofia; <p>- Sofia Tech Park" JSCThe main goal of the Consortium is conducting independent research and to disseminate widely the results of these activities through teaching, publications and knowledge transfer. Specific objectives of the consortium are:</p> <ol style="list-style-type: none"> 1. Development and validation of technologies; 2. Promoting a culture of innovation and competitiveness of knowledge-based enterprises and organizations; 3. Support for creating an effective environment for research and innovation; 4. Development of strategies to support the development of research; 5. Participation in initiatives that provide disseminating the results of research and experiments.
<p>Comac medical (Комак Медикал) http://comac-medical.com/</p>	<p>The largest Bulgarian research company, which operates in 21 countries in Europe. It manages and controls projects in the field of clinical medicine in partnership with the best health institutions. The company owns a medical center where clinical trials are carried out in early stages. The main objective of the Innovative Project in Phase 1 of the Horizon 2020 SME Facility was to assess, through a preliminary study, the idea of biomass validation of the fractional exhaled air temperature by means of a new method and appliance. The proposed innovation from Comac Medical is in response:</p> <p>On the one hand, global and European challenges related to pulmonary diseases causing high mortality rates - about 1 million a</p>

	<p>year in Europe, two thirds of which are in the European Union, with costs amounting to 380 billion euros. As a result of its Horizon 2020 SME Toolkit, COMAC submitted a final report showing commercial potential and significant innovation of the proposed idea. Comac Medical received a positive response from the Intellectual Property Analysis and is in the process of phased acquisition of a patent in the UK, the EU and world-wide.</p>
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4. Public institutions / government helix

Main public actors in Home Care R&I	
Name	Description of activities relevant for Home Care R&I
<p>European Funds for Competitiveness Directorate General, Managing Authority of Operational Programme "Innovations and Competitiveness" 2014-2020 https://www.mi.government.bg/en/departments/general-directorate-european-funds-for-competitiveness-5-1.html</p>	<p>Organizes and coordinates the implementation of the commitments of the Ministry Economy, set out in the Strategy for Bulgaria's participation in the Structural Funds; Performs the functions of Managing Authority of Operational Programme "Innovation and Competitiveness" 2014-2020, according to the principle of segregation of duties in a manner, which does not allow an official to have both the responsibility for approval, execution, accounting and control; Participates in the preparation of operational programmes and other documents for the programming period 2014 – 2020. Structure of the Directorate General. Implements the RIS3 in Bulgaria which offers opportunities for financing innovations in home care sector.</p>
<p>Ministry of Labour & Social Policy/Directorate "European Funds, International Programmes & Projects" http://ef.mlsp.government.bg/</p>	<p>Coordinates and implements the most relevant national strategies, related to the home care sector - National long-term care strategy, National Strategy to Reduce Poverty and Promote Social Inclusion 2020, National Concept for Promoting Active Aging (2012-2030) and other strategic documents. Within the Ministry of Labour and Social Policy of Bulgaria – operates the Managing Authority of Operational Programme “Human Resources Development” 2014-2020 (Bulgaria)European Funds International Programmes and Projects Directorate General (EFIPP DG)</p>
<p>Ministry of health https://www.mh.government.bg/</p>	<p>Supports R&I in health, coordinates the implementation of relevant strategic documents as the National Health Strategy 2020. The Ministry implements the plan for implementation of the e-health strategy as well, which is related to the telemedicine and telecare services.</p>
<p>Agency for Social Assistance at Ministry of Labor and Social</p>	<p>Amongst other activities this agency is related to the home care sector because it coordinates and controls the activities of planning and development of social services and provide methodological</p>

<p>Policy http://www.asp.government.bg/</p>	<p>support in their provision, authorizes the opening, closure, change of type, location and capacity of social services when state-delegated activities; registers the entities performing social services under the conditions and by the order determined by the regulation for the implementation of the respective law; prepares aggregate annual reports and analyzes of the activity in the field of social benefits and social services, which it submits to the Minister of Labor and Social Policy, participates in the drafting of legislative acts in the field of social assistance and social services;</p>
<p>Large municipalities, for example Municipality of Varna (as a representative of a large city that offers 53 social services, part of which as home care services) http://www.varna.bg/</p>	<p>The mayor of the municipality manages the social services on the territory of the respective municipality, which are delegated by the state activities and local activities, and is an employer of the managers of these services. The statutory provision in the field of social services allows the mayor of the municipality to entrust the management of the social services which are delegated by the State to activities and local activities to private suppliers (natural persons carrying on business activities and legal entities which have arisen under the legislation of another Member State, Member State of the European Union or another state of the European Economic Area to carry out social services in Bulgaria) through a competition or negotiated with a single candidate, All over them. In large cities like Varna more than half (in Varna 30 of 53) of the services offered are state-financed, the other are financed by the municipality budget.</p>
<p>Small municipalities , For example Municipality Dobrichka, a (as a typical municipality with restricted social services in the community – only financed by projects) http://www.dobrichka.bg/</p>	<p>Most of the municipalities are dependent on project financing for home care.</p>
<p>Dolen Chiflik (as a typical small municipality with restricted social services in the community – only financed by projects) http://dolnichiflik.acstre.com/</p>	<p>Most of the municipalities are dependent on project financing for home care.</p>

Most significant research projects / research cooperation initiatives in Home Care R&I

This section is based on available information from desk research and interviews with mainly innovation actors and does not constitute a full exhaustive list.

Significant R&I projects / research cooperation initiatives in Home Care			
Project name + description	Participating members / organizations	Results of the activities	Website link for more information
<p>ATHealth center Development of sustainable capacity of the center for applied technology related to health.</p> <p>This project responds to the need for developing the capacity of faculty interdisciplinary center for applied research and innovative technologies related to health. As a result of project activities the previously missing environment for the deployment of virtual infrastructures, remote sensing and mobile applications was ensured in an university in cooperation with local business. The center became the basis for building a network of virtual laboratories for remote monitoring at national level. The use of mobile devices allows access to the information and equipment at the principle of availability 24/7, which is crucial for the effectiveness of continuous monitoring.</p>	Varna technical university	As a result of project activities the center provides opportunities for the realization of cloud services. Thanks to their base and applying virtual infrastructures it became the basis for building a network of virtual laboratories for remote monitoring. The use of mobile devices is allowing access to information and equipment to implement the principle 24/7, which is crucial for the effectiveness of continuous monitoring in home care. The project created capacity for continuing education nationally in the field of providing distance monitoring of health in home care.	http://ahc.tu-varna.bg/

<p>Gamma mDoctor A mobile application has been designed, deployed and implemented by a private company together with the University hospital, the researchers from the universities and including a telecom company. It enables the remote access to patient information not only within the hospital but also from any location. By Gamma mDoctor physicians can remotely monitor and manage the treatment of patients and to take the necessary decisions about their treatment in a timely manner - a change in the therapeutic plan, appointment of additional tests, tracking the status of the patients. The application also enables to record a voice message to the electronic record of the patient, and the possibility to listen to the recorded messages in the hospital information system. Gamma mDoctor mobile application is installed on tablets. Through its medical staff of the hospital accesses information from the hospital information system through a secure 3G connection provided by VIVACOM, which ensures data security.</p>	<p>First Obstetrics and Gynecology Hospital "St. Sofia", Gamma Consult Ltd., VIVACOM AG</p>	<p>The end users receive a better service, realized with less financing from the public funds thanks to the improvement of the effectiveness of the service provided by the hospital. Doctors in turn have an uninterrupted access to the results of daily monitoring of the patient vital indicators, etc., and have the opportunity to make diagnostic appointments to appoint and / or modify drug therapy, adding temperature sheet to the available data, etc. . Thanks to the mobile application, doctors can attend the patients with tablets without carrying folders with all medical records for each patient.</p> <p>The innovative solution also facilitates the administrative and financial management of the municipal hospital. It provides transparency and control in real time on the revenue and expenditure of the restaurant by both the doctors and the management and the Sofia Municipality.</p> <p>Thanks to the implementation of the application the hospital also reported the availability of data on expenditure and expected revenue for the course of treatment, the ability to perform breakdown by spending units and the availability of detailed information on the costs of activities.</p>	<p><a href="https://www.gam
maconsult.com/">https://w ww.gam maconsul t.com/</p>
<p>CHECK-POINT CARDIO GPs in Bulgaria</p>		<p>This is a project that has been started directly by a public institution (a public hospital) involving other organizations</p>	<p><a href="http://ww
w.checkp
ointcardio">http://ww w.checkp ointcardio</p>

<p>now have access to technology for remote real-time monitoring of patients with cardiovascular diseases. 24-hour monitoring of people with an increased risk of heart problems was possible thanks to an innovative device developed by Check Point Cardio, which it offers in partnership with one of the telecoms - VIVACOM. The solution supports reliable online connection with a specialized cardio center. The project is a private initiative started by a partnership between a hospital, a SME and researchers.</p> <p>Data is transmitted via GSM network VIVACOM to specialized telemedicine center where professionals, cardiologists monitor the patient's condition in real time. Based on the monitoring shall be made electronically record medical data that is sent to the GP.</p> <p>The system has one main and three supporting medical centers. 15 doctors and 40 nurses work with over 35,500 patient files. The analysis of data is performed automatically in the capacity to simultaneously monitor up to 3000 patients.</p>		<p>(private hospitals, researchers, private SMEs, telecoms) into a cooperation project to deliver a new innovative product – a mobile application, therefore public institution being the main driving force at start. The hospital, starting this project with Check Point Cardio, contributes to the timely diagnosis and treatment of one of the most common and life-threatening conditions. Uptake of innovation in contemporary health and our lives is part of the natural development of the 'Internet of things".</p> <p>The system for online monitoring of the heart provides early diagnosis and adequate prevention nationwide. Using the innovative service Check Point Cardio, patients and their physician can rely on timely and accurate data to prevent the emergence of emergencies and subsequent complications.</p> <p>The device provides information to the physician ECG, pulse, respiration, blood pressure and location of patients, while at the same time is easy to use, compact and does not affect normal life.</p> <p>Thanks to the bundled services with VIVACOM the pack includes 5 remotes review within one month for the price of 65 lev and optimal cover 10 review of 120 lev .With unlimited package, patients can rely on reviews every day of the month, the price of an overview costs 10 lev. (1 lev = 0, 50 EUR)</p>	<p><u>.com/</u></p>
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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	Short description of the aim of the market analysis	Website link for more information / download
Innovation strategy for smart specialization of the Republic of Bulgaria 2014-2020 (IS3)	RIS3 vision is “By 2020 Bulgaria must make a qualitative leap in its innovation performance at EU level to tackle public challenges in the field of demography (reverse brain drain and youth entrepreneurship), sustainable development, intellectual capital and the nation's health. Strategic goal: By 2020, Bulgaria will move from the group of “modest innovators” into the group of “moderate innovators” ³ . RIS3 in Bulgaria puts the framework within OPIC distributes the funds for financing. Home care is not mentioned directly in the RIS3.. However, many of the aspects of the activities within the home care sector lay within the scope of the 3 (out of 4) RIS3 thematic areas - Informatics and ICT, Mechatronics and Clean Technologies, Health life and Bio-technology industries and this gives the opportunity to finance also specific home care solutions fitting into the right category.	http://www.mi.government.bg/en/themes/inovacionna-strategiya-za-inteligentna-specializaciya-na-republika-balgariya-2014-2020-g-i-proces-na-i-1470-287.html
National long-term care strategy	The development of long-term care is a key objective of this Strategy. It provides measures for the improvement of access to social services in the community and family environment and healthcare services through the extension of the network of these services in the country, their diversity, scope and scope, improvement of their quality as well as improvement of their	http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=882

	<p>quality in the next 20 years. It aims at encouraging interaction between them. Achieving the priorities and measures set out in this document requires pooling the efforts of all stakeholders in developing and implementing policies to support vulnerable groups in society, especially the elderly and people with disabilities. The Strategy I directly related to the home care services.</p>	
<p>National Strategy to Reduce Poverty and Promote Social Inclusion 2020</p>	<p>The National Strategy for Poverty Reduction and Promotion of Social Inclusion 2020 is oriented towards the establishment and implementation of a unified, consistent and sustainable policy in the field of social inclusion, based on the integrated approach and cross-sectoral cooperation at national, regional, district and municipal level. It identifies the vision, priorities and activities for the development of the policy on poverty and social exclusion in Bulgaria by 2020. As most of the elderly people and the disabled that require home care fall into the categories of poor and socially excluded the measures for improvement of home care are also in direct correlation with this Strategy,</p>	<p>http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=790</p>
<p>National Concept for Promoting Active Aging (2012-2030)</p>	<p>The National Concept for Promoting Active Aging in Bulgaria (2012-2020) is an expression of understanding and consensual recognition of the need to address the aging pressure of the functioning of social systems and of society as a whole. It is related to domestic care mainly because it provides for measures to adapt the system of social services to the aging population and the need to improve the quality of life of the elderly</p>	<p>http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=764</p>
<p>National Health Strategy 2020</p>	<p>The National Health Strategy is a strategic policy framework for health</p>	<p>http://www.strategy.bg/StrategicDocuments/View</p>

	<p>care. It is in line with Bulgaria's commitments at European and international level, but it also embodies the state's aspirations to choose a national path for the development of the healthcare system. E-health, telemedicine and telecare that are directly related to the home care are affected in this strategy.</p>	<p>.aspx?lang=bg-BG&id=989</p>
<p>“Analysis of opportunities for developing long-term integrated and coordinated care for the needy” “Анализ на възможности за развитие на дългосрочната интегрирана и координирана грижа за нуждаещите се”</p>	<p>Two major systems in Bulgaria ensure the well - being and security of citizens in the social sphere - the social system and the health system. With the development of modern Bulgarian legislation, the services provided by the two systems were separated. The creation of dividing lines between the two systems led to an increase of the mistrust of citizens to both and to the constant pressure to develop forms of services aimed only at social benefits or only in clinical medicine. What is needed is a holistic and integrated approach directed at the individual. The analysis explains what is integrated and coordinated long-term care, who is targeted and how this system works in Bulgaria.</p>	<p>https://www.researchgate.net/profile/Petko_Salchev/publication/278404220_Analysis_of_the_development_of_long_term_integrated_and_coordinated_care_giving_in_Bulgaria_ANALIZ_NA_VZMOZNOSTI_ZA_RAZVITIE_NA_DLGOSROCNATA_INTEGRIRANA_I_KOORDINIRANA_GRIZATA</p>
<p>“Municipal Home Care - A Successful Model for Integrated community-based health and social services” “Общински базираните домашни грижи – успешен модел за интегрирани здравно-социални услуги в общността”</p>	<p>The short document provides useful information about the trends in the home care services in Bulgaria and a brief presentation of a successful project piloting a municipal model for integrated community-based health and social services</p>	<p>http://pubdocs.worldbank.org/en/438421466771762343/Home-Care-Project-WB-Aging-Event-22June.pdf</p>
<p>Social services for the elderly “Социални услуги за хората от третата възраст”</p>	<p>The document gives an overview over the structure, legislative framework and the most common practices related to social services to elderly people in Bulgaria</p>	<p>http://www.omda.bg/public/biblioteka/vyara_gancheva/vyara_emi/vyara_emilia_07.htm</p>

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.

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

<p>Attitude of actors from the citizens / users helix (formal + informal health care providers, elderly care recipients) towards using quadruple-helix R&I cooperation</p>	<ul style="list-style-type: none"> - the users are not very active in Bulgaria in suggesting innovations or in triggering the innovation processes in home care - the users are mainly focusing on facilitating and deepening the integration between the different services offered in the field of home care rather than on innovations in the sector - as a whole, they are mostly distrustful towards innovative solutions, mainly in the less developed areas, where the needs for innovations are stronger as they lack qualified workforce and on the other hand, all the country benefits a very good, fast and of good quality internet penetration (even in the most distanced areas) - to implement innovations in home care the carers need to be largely informed about them because the end users of home care do not require improvement in the field of innovations as they are not aware of them - as citizens / user helix, they want to be more actively involved at the preparation stage of innovative solutions to fully answer their concrete and changing needs - they are interested in participating in innovative initiatives and projects in home care sector and testing ideas and innovative solutions help people from informal/formal care sector - there is a doubt amongst users that if public and user organizations are not engaged there is a risk that an unwanted and unneeded innovation could be deployed, or a solution that is only based on needs of one specific organization that is not or is hardly transferable to other users - many organizations in informal care are operating at national
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	<p>level, they are active and initiate and develop many projects, however not for innovative solutions though, mostly related to the delivery of integrated care, specific education and further support</p> <ul style="list-style-type: none"> - formal providers are not pro-innovation oriented, but are ready to take part in implementing innovative solutions in integrated care - carers largely neglect the opportunities for improvement of their operations the innovations could provide, while the government and the municipalities as contractors of social services to the formal/informal carers do not stimulate the introduction of innovations in home care - carers are focused on their operations, they are not eligible as main beneficiary, they do not participate in long-term networks with other organizations, they are sceptical on implementation of innovations if not based on user needs and piloted before massive implementation - involvement of end users as co-beneficiaries is needed - they can become part of clusters or technological platforms, they can set up or become members of associations, supported activities of some intervention programmes can be edited in favour of their inclusion - on regional basis there is a different level of innovative activity related to the user's helix – innovations are initiated mainly in the large cities and the regions that are lagging behind and need the most innovations are not interested in innovations - activities oriented towards the field of possible innovations in home care by the different ministries that deal with home care – Ministry of Labour and Social policy, Ministry of Health, Ministry of Economy (only as MA of OPIC) are not synchronized and linked and innovation in home care is not a priority for none of them, and also is not a priority for the municipalities (as the intermediary between the state and the end users in terms of spending the funds for social services)
<p>Attitude of actors from the business helix (businesses + business supporting actors) towards using quadruple-helix R&I cooperation</p>	<ul style="list-style-type: none"> - where innovations in home care exist at all they are driven by business, and the innovations are related mainly with health issues that are linked with home care, not on home care - the unmet needs in home care are formulated more clearly by the pro-innovative business participants in the helix, and not by the end users/carers as they are not aware of the numerous opportunities the innovations offer for the home

- care improvement while the business is aware and even produces innovations for international companies or as an outsourcing services
- the ICT business in Bulgaria is aware of the innovations in home care but to start develop new tools they need the carers to accept the ideas and pilot them in practice in larger cities first
 - the main focus is put on telemedicine and telecare, emergency care, sensor monitoring of vital signs, beds and equipment, while innovations related to the services given by the care givers are weak
 - the business is requiring more intensive networking of the quadruple helixes, creation of innovations hubs and home care hubs
 - the business is interesting in cooperating with end users and those who know the needs and the opportunities, especially with applied research,
 - the business is complaining about the weak dialogue and cooperation with the public institutions that are related to home care financing and delivery and the related bureaucracy
 - the business does not believe in the PPI opportunities related to home care improvement
 - quadruple-helix cooperation model is probably not the best approach for the whole spectrum of long-term care but for homecare it is very useful
 - the business suggests to create innovation hubs with information/developers that ANTICIPATE the needs of the users in home care CROSS-SUPPORTED by ESF OP procedures for education and support
 - home care is not in the scope of specific economic activities concerned by the financing programmes (because of RIS3 priority directions in the thematic areas) and this stops the business to
 - there is no specific procedure for integrated care financing
 - carers neglect the opportunities for improvement of their operations the innovations provide, the government and the municipalities as contractors of social services do not stimulate the introduction of innovations in home care
 - the social care providers are not initiating any kind of dialogue with innovative businesses to start discussing possible innovations in home care. There are few initiatives between business and academia mainly in the field of applied technology of health and with hospitals but not with

	<p>formal carers oriented towards home care. Even if any initiatives exist it is very rare to hear about them rather to promote them.</p> <ul style="list-style-type: none"> - there are many Bulgarian companies that are developing innovative products, services, applications, even platforms for home care services but only for out-of-Bulgaria market or contractors. There are no offers, even inquiries for designing or developing innovative solutions in home care delivery. - many Bulgarian companies possess the assets to design and develop innovative solutions for home care and they work mainly for outsourcing. They are not nor aware of the sector needs neither of possible partners from academia. There is a need for a specific platform, a hub for innovation where service providers and the related stakeholders might put their needs and possible contractors might answer with ideas and offers. 	
<p>Attitude of actors from the research helix towards using quadruple-helix R&I cooperation</p>	<ul style="list-style-type: none"> - the home care delivery institutions – the municipalities and the governmental institutions that are responsible for financing the home care, and the social care providers also – they are not active in communicating with the research entities and the universities. - some NGOs are cooperating with academia but mainly at the concept or design level, not at the implementation level, as they are not deliverers of home care. - academia is cooperating within the academia, ensuring cross-disciplinary outputs with medical universities and designing solutions to be offered to the formal home care providers and there is where the link is cut. - on the other hand we are facing a growing interest from the side of ICT companies for cooperating with academia in the filed of applied research and common projects implementation - universities have settled up many initiatives related to start-ups in innovations and they attract and support numerous young entrepreneurs part of which might be interested to be involved in innovative projects related to home care but the formal/informal carers should initiate possible partnership as only they could formulate the relevant needs for innovations. - at the moment there is a gap between the possible innovations’ developers and the carers, and academia may serve as a bridge between them. - the developers of innovations might be invited in a kind of regional innovations centres together with home care stakeholders to stimulate the dialogue and exchange of information, based in universities. - the pro-innovative business should regularly inform the carers about the new opportunities and help them test new 	

	<p>services and products that could be developed as prototypes in universities.</p> <ul style="list-style-type: none"> - there is always the problem with the financing - quadruple-helix is the most appropriate approach for research entities to deploy really important and needed innovations in the home sector field 	
<p>Attitude of actors from the public institutions helix (excluding SF owner – health insurance companies, health care and social care regulator, etc.) towards using quadruple-helix R&I cooperation</p>	<ul style="list-style-type: none"> - innovations is not driven by public institutions in Bulgaria - public driven innovations are valued as important but very rarely implemented and for the public institution the quadruple-helix cooperation is the solution for intensifying the innovation process in home care - business and research that cooperate with public institutions are focused mainly on health issues, not on home care - there is a discrepancy between different policies and applicable strategies that is on the way to be changed and it is the time to include the quadruple-helix cooperation model within them - most public institutions are not aware of the numerous opportunities the innovations offer for the home care improvement and quadruple helix cooperation is much needed - to implement innovations in home care the public institutions need to be largely informed about them - public institutions are not aware enough on the opportunities the networking of quadruple-helix, the innovations hubs and the home care hubs could provide for the improvement of the services in this field - most of the people working in the public institutions need to be further convinced to agree on the benefits such a cooperation brings - municipalities and regions do not know so much how to discuss and support innovations with private sector yet 	
<p>Attitude of the Operational Programme owner towards using quadruple-helix R&I cooperation</p>	<ul style="list-style-type: none"> - majority of intervention programmes in OP IC do not base on any kind of triple or quadruple-helix models – there are only 2 programmes oriented towards the clusters that require cooperation and 2 programmes supporting/requiring partnership between business and academia - quadruple-helix is currently involved in OPIC mainly in the form of specific clusters – only clusters that are into the scope of the priority directions of the RIS3 thematic areas are eligible for financing under SO1, under S)2 other might be supported - mainly only the public actors (municipalities, universities) are owners and operators of Innovation Infrastructure programme (science-technological parks, tech-parks and 	

	<p>business incubators)</p> <ul style="list-style-type: none"> - some associations are involved in projects of collective research and partly in Infrastructure services too only as members of the clusters - the hospitals or public institutions cannot get direct money 	
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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.

<p>Possible improvements in the Operational Programme regarding its support for quadruple-helix based R&I in Home Care</p>	<ul style="list-style-type: none"> - the strategic focus of PA1 and PA2 of OPIC is determined by the priorities set within the relevant strategies – Bulgarian Smart Specialization Strategy (for PA1) and National Strategy for Promotion of SMEs (for PA2) - Enlargement/amplification/extension of the details used as references for financed thematic areas – based on Enlargement/amplification/extension included in the priority directions of the RIS3 thematic areas - a further specific elaboration of the list of the priority directions in the concerned 3 thematic areas of RIS3 might change the situation now in which home care is not in the scope of specific economic activities concerned by the programme - regarding the evaluation of applications there is room for improving the specific evaluation criteria (incl. bonus points) as part of technical evaluation process in grant schemes supporting both directly and indirectly home care projects – non economic impact types that include specific definitions. - the specific support programmes might be enlarged with adding exemplary activities (also different additional types of eligible costs) to be supported related to the home care topic. - the types of the supported candidates also might be improved – new examples of partnerships between enterprises and scientific organizations could be described and inserted in the programmes– set up of partnership, 	
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	<p>rights and obligations, state aid rules, co-financing of the projects etc.</p> <ul style="list-style-type: none"> - the OP might open up more towards enhancing the cooperation between the business with universities and NGOs, and end-users - the situation in which there is practically no involvement of social services' providers in OPIC – and this obstruction is related to some basic and major requirement of the OPIC – to be supported the social services providers must answer a list of mandatory prerequisites, related to both documents, regulating OPIC – the NSPSME and RIS3 - home care is not in the scope of specific economic activities concerned by the programme – again in relation to both policy instruments cited above <p>Here are some ideas for improvements initiated by the stakeholders:</p> <ul style="list-style-type: none"> - as there is no specific procedure for integrated care financing a specific scheme might be elaborated - Innovations might be financed AS A RESULT of defining unmet needs by carers/researchers/NGOs/regional government/quadruple-helix - involvement of co-beneficiaries, carers can become part of requirement for financing clusters or technological platforms - supported activities of some intervention programmes can be edited in favour of the inclusion of more partners from more specific helixes of the home care field - a procedure for financing the creation of Innovation hubs might be included - preparation of specific new calls aiming at supporting ICT innovations in home care or focusing at home care services delivery improvement through innovations, market research activities support, where associations, knowledge hubs, digital start-ups and clusters for example could join in - further enlargement of the structure of the Monitoring committees with representatives of the quadruple-helixes in home care - some intervention programmes could be further elaborated with involvement of quadruple-helix approach requirement or with the inclusion of social and health impact - list of potential beneficiaries could be enlarged with an accent on quadruple-helix approach 	
<p>Other possible improvements in the regional innovation</p>	<ul style="list-style-type: none"> - a home care knowledge and innovation hub can serve as the home care ecosystem management office supporting the 	

**ecosystem regarding
support for
quadruple-helix
based R&I in Home
Care**

- innovation actors in their joint activities:
- a master plan for the entire ecosystem might be drafted according and after the supervision of the main stakeholders at national level,
 - local networks for provision of innovation in the home care services could be build up to complement and ensure support for intra-ecosystem networking, information exchange, and cross-domain communication.
 - a home care hub may orchestrate new joint initiatives and development programs in the home care sector, search and attract resources to the specific home care sector and advance them to the local innovation actors.
 - a home care applied research network between universities might serve as a base for the home care knowledge and innovation hub
 - the access of more representatives of the quadruple helixes in the Monitoring Committee will ensure a further focus on the sector taking into consideration the importance of home care sector in Bulgaria as one of the European hyperaging countries
 - it should be searched for a change in the compensation system for disabled while the innovative ICT devices and wearables acquisition may be financed as support tools
 - innovations are understood mainly as introduction of technical devices, there is no focus on social innovations
 - the goals of the smart specialisation strategies are expressed in economic terms, namely transforming an economic fabric towards activities with higher knowledge content enhancing international competitiveness. There is room for a social dimension in the strategy. Since social innovation is a new, unexplored area, the question is not as to whether social innovation and economic innovation are *complementary* and should be integrated as parallel streams, but how they can be *integrated and bundled* into activities where the frontier between economic and social dimensions is blurred – and it is exactly the situation with the home care sector.
 - Social innovation – especially in home care - can become one of the sub-lists of activities in the **specialisation domains** in which the region aims to excel and differentiate itself from other regions ;
 - Tools and funding mechanisms to support social innovation can be part of a RIS3 policy mix
 - A common event or series of events with stakeholders from the quadruple helixes may draft and define an an action plan with a coherent policy mix towards improvement the social innovations in the sector of home care : actions plans may include two types of measures: 1) support to experiments and 2) support to scaling-up experiments into actions with a

	<p>bigger critical mass;</p> <ul style="list-style-type: none"> - The regional innovation ecosystem may be strengthened fostering user centered open innovation by giving regional SMEs opportunities for tests, experimentations and fields for «proof of concept» with communities of users in a local territory. The municipalities as part of the quadruple helix may support experimental projects better identification of needs and real life testing of new solutions are achieved, in field of home care
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8. Other information

Other relevant information for regional analysis	<p>There is no specific focus on home care in Bulgaria, it is treated as part of the long-term care and no special attention is paid on it. Having in mind the trends described above the home sector is of crucial importance for the long-term well-being of people in Bulgaria as a hyper-aging country and specific measures have to be planed at strategic level.</p>
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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	Bulgaria
Organization name(s) in local language	Сдружение Бизнес Агенция
Name of the contact person(s)	Silvia Stumpf
Contact email(s)	vba@vba.bg

AUTHOR – PARTNER OF THE HOCARE PROJECT

Business Agency Association – www.vba.bg

