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Action Plan

TITTAN
Interreg Europe

Translation, Innovation and Technology Transfer in Ageing Network

Partner:

HEALTHY SAXONY

HEALTHY SAXONY

24th September, 2018

Part I – General information

Project: TITTAN

Partner organisation: HEALTHY SAXONY

Other partner organisations involved (if relevant):_____

Country: Germany

NUTS2 region: Saxony

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Part II – Policy context

The Action Plan aims to impact:	x	Investment for Growth and Jobs programme
	□	European Territorial Cooperation programme
	x	Other regional development policy instrument

Name of the policy instrument addressed: ERDF operational programme of Saxony 2014-2020.

As PP4 is not owner of policy instruments as initially stated in the project proposal, all actions towards policy instruments will have to be indirect in nature. However, PP4 is very well connected to the Saxon government, in particular the required ministries of social affairs as well as economics and labour which, as owners, directly influence the respective OP.

1) The described actions in the PP4 action plan will influence the policy instrument indirectly through showing that the conveyed project findings are practically feasible, even though no policy instrument fundings will be employed. The final call for the ERDF OP 2014-2020 will take place end of March 2019. PP4 aims at indirectly influencing this call by conveying important findings from the TITTAN project, its good practices and insights into the handling of innovation in the TITTAN regions. This procedure has already begun, meetings with both ministries (social affairs as well as economics and labour) have taken place. Action 1 will, on the one hand, provide a suitable environment for testing specific solutions, smart health devices and processes for elderly people and provide deeper insight into their degree of innovation – both will be useful during projects funded within the current OP's second arm, ambient assisted living projects. On the other hand, it allows for co-design approaches towards new project proposals, especially for the AAL arm of the current OP, where potential end users provide meaningful feedback and solutions towards given challenges.

2) PP4 would like to influence another policy instrument, the ERDF operational programme

(OP) of Saxony 2021-2027, indirectly via influencing the Saxon strategy for innovation which is going to be a mandatory foundation for the coming OP. This strategy is being formulated at the moment, with the active participation of all Saxon ministries. PP4 addresses in particular the ministries of social affairs as well as economy and labor and conveys all findings of the TITTAN project, the good practices as well as general political findings from all project partner regions, with the major aim to implement structural change to the PI by defining specific focus points in the area of health and social care. Even though PP4 is not owner of this policy instrument, through PP4's extensive expertise (members comprise all major healthcare actors of Saxony) the chance of successfully influencing the strategy and thus the upcoming OP are substantial.

Part III – Details of the actions envisaged

ACTION 1: LIVING LAB (inspired by ALiSS and GezondheidsFabriek)

1. **The background** (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

The ageing society of Saxony, which is the oldest in Germany, as well as further demographic developments create a growing need for new solutions like mobile health, telemedicine or assistance systems that safeguard the standards of healthcare provision despite the shortage of physicians. The suitability and improvement of these technologies as well as the creation of innovations that were previously unimaginable require the cooperation of testees from the general population, for example in interactive tests. In this regard a living lab would provide the optimal trial area and test room.

The idea of creating a living lab in Saxony as one of the actions that result from the TITTAN project was inspired by two good practices that were presented during the course of the project and one study visit. One of the good practices belongs to the thematic area 2 "GezondheidFabriek" from Almere while the other was introduced within thematic area 3: "WG13 Digital Project" from Scotland. The study visit was paid to the Don Gnocchi Foundation during the second workshop in Milan, that is thematic area 2, and the project we refer to is the "DAT Service".

The first phase of the project allowed us not only to learn what these good practices are about, but also to know the benefits as well as the risks and barriers that were encountered in their creation and development. In the following lines we will describe what we learned from each of the good practices mentioned above.

Starting with the good practice from the second thematic area, GezondheidFabriek, there are many positive aspects that could be part of our project. To begin with, GezondheidFabriek has two major assets: firstly, its network is based on the quadruple helix concept, which means that stakeholders from different branches work together for a common purpose. One of the main players is the government, which not only is part of the helix as well as an important collaborator, but also the main financing body (58 % of public investment for the initial funding). The second major asset is the heterogeneity of services and facilities that can be found under the umbrella of GezondheidFabriek. Living labs are only one part of the complex; R & D Labs, Big Data Value Center, Experience Room, Skill labs and Senior Live… all make up the full picture of the health factory. This is extremely interesting from many points of view, but above all this variety of different experts working under the same roof contributes to an easy networking, ideas exchange and even cross-sectoral innovation projects. On the other hand, there are also some threats that need to be taken into consideration: the

collaboration of too many stakeholders work not always smoothly and can lead to fragmentation. It is therefore vital to keep their interests, maintain a common goal and prevent scepticism. Furthermore, a business case must be thoroughly planned not only for the initial years, but also for the future. This is one of the weaknesses of GezondheidFabriek, since it depends too much on project funding for growth.

In order to continue within thematic area 2, we will now describe why we found the study visit to DAT particularly interesting. DAT stands for Domotica, Ausili, Terapia occupazionale, which in English means "Smart Home, Assistive Technology and Occupational Therapy". The Don Gnocchi Foundation has created a smart environment in one of its centres in Milan (the IRCSS S. Maria Nascente). The major asset of this service is that it can be used for three purposes: it can work as a training place for people with disabilities for improving their independence at home; it is an educational lab where interested people can learn about home automation and tele-care products; and it also serves as a research lab where clinical protocols and innovative solutions can be developed. Its threefold use is its main advantage.

Last but not least the good practice we learned most about was WG13 Digital Project. Immediately during its presentation within thematic area 3 we realized the potential of this initiative. For this reason, we decided to pay an in situ visit to Scotland and learn in depth about it, which was an enlightening experience. WG13 is a very good example of how collaboration between the local government and different organisations, charities among them, can contribute to job creation and a better informed, trained and healthy community, while giving enterprises and product developers the opportunity of testing and selling their devices. The way the house itself is used is already remarkable, but we will stick to the Digital Room. Within this, three main services are offered: Peer Support, Trial Area and Home Environment. The first is a kind of educational lab with IT training programmes. Particularly interesting for us are the latter two. Although it is part of a public service, clients do not feel like patients, but rather like in a shop where they can test the products they are interested in or in need of. Products are tailored to the customer's needs and an expert offers advice on site. Another important point is that the majority of the employees at the Digital Room are volunteers. In this way young people and those willing to help others can gain work experience and be helpful at the same time. Although bringing together so many different stakeholders could be a barrier it is undoubtedly also an advantage in terms of benefits. The implementation of this good practice has many gains for all players: population (patients as well as professionals) learn how to use new technologies, feel more empowered and are better prepared to manage health problems, volunteers can gain work experience, technology suppliers increase their sales and have the opportunity to get their products tested by patients and professionals and in general the whole healthcare system benefits from a more healthy and better trained population.

In short, when creating our living lab we need to keep in mind the major assets of these good practices such us: involving stakeholders from different fields and setting a common goal for all; making the most of the space available in order to improve profitability, networking and using it for multifaceted purposes, so that as many people as possible benefit from it.

2. **Action** (please list and describe the actions to be implemented)

The actions we plan to implement are the following:

- We would co-create an institution or structure representing a living lab environment tailored to the needs of the elderly,
- … including the development and testing of new technological solutions to improve their daily live and
- Considering aspects of Ambient assisted living (AAL), especially assistance systems for independent living of senior citizens in their homes

3. **Players involved** (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

We are aware of the importance of bringing together stakeholders from different fields, at the very best shaping a quadruple helix network. The players that would be involved during the development and implementation processes of our living lab are:

- Carus Consilium Sachsen GmbH: will manage and coordinate sustainable concepts to ensure and develop healthcare provision. The Healthcare Region Carus Consilium Sachsen would be the implementation area.
- Dresden and Leipzig University Hospitals: as pioneers in developing healthcare technologies they could provide expertise about product design, patients and even a physical place for building up the dwelling.
- Apart from university hospitals, universities in general, mainly the ones in Leipzig, Dresden and Chemnitz could also take part in the project: medicine, nurse, physiotherapy or geriatrics students could get trained in this home environment and gain work experience with real patients. On the other hand, engineering and informatics students could bring ideas to homecare and telecare product development. Architecture and design students could also contribute to the creation of a sustainable and ergonomic furnished home.
- City of Dresden: the municipality plays a crucial role in terms of sustainability.
- Housing associations: they could provide expertise about construction techniques, situation of the real estate market in relation to homes for the elderly, nursing homes, etc.
- European partners providing deeper insight into AAL and/or living labs, especially from Lower Silesia, Lombardy, Almere)

4. **Timeframe**

- Oct18-Mar19 formulation of project strategy, proposal draft, partner structure, key deliverables and key objectives as well as required external expertise and associated partners
- Apr-Jun19 application for local funding
- Sep19-Apr20 setup of facility hosting the envisaged care services, providing space for testing devices and providing a meeting area where elderly and project participants can commune
- May20-Sep20 initial pilot phase with workshops and co-design groups targeting specific aspects of active and healthy ageing
- Sep20 evaluation and report

5. **Costs** (if relevant)

- Initial equipment of meeting room etc. 5000 EUR
- Rent of location 24000 EUR
- Personnel expenses 60000 EUR

6. **Funding sources** (if relevant):

- Application for innovation scheme of municipality of Dresden in June 2019
- Inclusion of local and regional companies to cross-fund the approach through test product placement
- Business case development, providing display space etc. for companies

ACTION 2: Innovation Model - Strategic Plan for creating an "Ecosystem for Clinical Innovation" - Supporting innovation across Healthcare Region Carus Consilium Saxony (inspired by SHIL)

1. **The background** (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

The health industry is one of the most innovative and employment-intensive sectors in Germany and one of the growth drivers of our economy. Also in the Free State of Saxony the healthcare industry is an important economic and labor market factor, which is steadily growing due to constant development and increasing demand.

However, there are a lot of unused potential and very long development times for products or therapies. In

addition, the topic of eHealth and digitalization in the healthcare sector still has a strong unused potential, too.

There are multiple reasons for that. On the one hand, the healthcare market is not comparable to other markets where there is usually one product and one consumer. The supply of healthcare products for citizens is much more differentiated and is subject to different areas in the healthcare market. Financing strategies or funding opportunities adapted and suitable to all possible actors are often missing. Clinical trials for the development of medical devices or approvals of therapies are very complex and expensive and often not affordable for small companies. On the other hand, there is a lack of common stakeholder strategies, simple solutions and financing.

The idea of creating an Innovation Model in Saxony as another of the actions that result from the TITTAN project was inspired by the good practice “SHIL- Scottish Health Innovations Limited” from Scotland that was presented during the course of the project in Milan and one study visit in Edinburgh and Glasgow. The good practice belongs to the thematic area two “INSIDE-OUT Innovation”.

SHIL was set up to support innovation in the NHS. SHIL works in partnership with NHS Scotland to support and develop innovative solutions which address clearly identified healthcare needs; with the proposed innovations being generated by NHS healthcare professionals. By developing these ideas, SHIL creates new products and technologies that aim to improve patient care and generate income for NHS Scotland. SHIL aims to act as a technology transfer and commercialisation body for NHS Scotland. And this professional concept seems to be a potential driver for Saxony`s innovation landscape in the next years. We would use such a concept to support inventors with joint collaboration (e.g. “InnoTeam” support) of regional clusters with the aim of searching ideas and to organize these ideas with the final goal of simplifying and improving the market access.

2. **Action** (please list and describe the actions to be implemented)

In order to counter current and increasing difficulties (as mentioned above) but also to achieve new market segments through innovative ideas and solutions and rapid technology transfer, all major players of the health sector must be involved in processes and developments (business, politics, research, medicine). There is a need to increase cross-cluster collaboration and information transfer in Saxony in order to increase the speed of innovation transfer. The following measures are necessary to improve technology transfer through a clinical ecosystem:

- "Picking up" the ideas from clinicians and researchers (equivalent to SHIL)
- Establishing “Strategy Teams” for the Free State of Saxony (Leipzig – Dresden – Chemnitz)
- Strengthening cross-cluster collaboration with the help of transfer organizations and increase recognition
- Establishing a general coordinating level (“Clinical Innovation Assistant”)
- Linking to major regional players like health care region Carus Consilium Saxony
- Increasing the visibility and active profiling of projects, clinical trials and eHealth strategies

3. **Players involved** (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

Strategy teams in Chemnitz, Leipzig and Dresden, among others:

- Klinikum Chemnitz gGmbH
- TechnologieZentrumDresden GmbH
- Fraunhofer-Institut für Zelltherapie und Immunologie
- Universität Leipzig / Medizinische Fakultät, Innovation Center Computer Assisted Surgery (ICCAS)
- Medizinische Fakultät Carl Gustav Carus an der Technische Universität Dresden
- Technische Universität Dresden, Dresden exists
- Biotype Diagnostic GmbH
- TU Chemnitz

- Life Science Inkubator Sachsen GmbH& Co. KG
- GWT-TUD GmbH
- Fraunhofer ENAS
- Hochschule Mittweida - University of Applied Sciences
- CWE Chemnitzer Wirtschaftsförderungs- und Entwicklungsgesellschaft mbH
- Biosaxony GmbH

4. **Timeframe**
   - Early talks involving key players have already begun and taken place on 19.10.2017 (Dresden), 3.5.2018 (Dresden), 13.6.2018 (Chemnitz).
   - More specific consultations occurred on 29.8.2018 (Chemnitz), 16.1.2018 (Chemnitz), with the aim to consolidate and (if necessary) extend the partnership, define more specific steps towards implementing an ecosystem and discussing mutual funding.
   - First milestone: Completion of a general consensus/letter of intent of all major players regarding strategy, scope and structure of the cross-cluster collaboration. Such letter has been formulated and was first discussed during the meeting on 16.1.2018 (Chemnitz).
   - Beginning in march 2019, the following steps and phases are planned:
   - Mar 19-Aug 19: mutual definition of specific focus points for the ecosystem
   - Apr 19: open house conference (Chemnitz), presentation of actual clinical challenges to industry and startup representatives in order to facilitate cross-cluster collaboration and innovation transfer into healthcare
   - Sep 19-Feb 20: definition of providers for specific services required for an efficient innovation transfer, resulting in a services map and a mutual agreement of neutrality to ensure IP protection
   - Oct or Nov 19: high level political event, creating visibility and acceptance of the clinical ecosystem, presenting findings and next strategic steps to key political representatives, health and social care actors as well as academia of Saxony
   - Mar 20-Aug 20: preparation of report on the implementation and report for the high level political event
   - Sep 20: final closing meeting with presentation of the reports

5. **Costs** (if relevant)
   - So far, all participating partners invested travel expenses and personal staff time.
   - For the implementation, the following cost are estimated:
   - Travel expenses: 1.600 EUR
   - Personnel expenses: 19.200 EUR

6. **Funding sources** (if relevant):
   - The setup cost of the ecosystem (travel and personnel expenses) are agreed to be carried by each of the individual partners themselves
   - The high level political event (Oct or Nov 19) is co-funded by Interreg Europe with 6000 EUR

ACTION 3: Implementation of co-creation/co-design methods in project idea management (inspired by Innovation Model - IHO EECruces)

1. **The background** (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

It was during the in situ visit paid to the Basque Country within thematic area 1 that we came across a good practice with the potential to be implemented in our region: the innovation model of Cruces University Hospital in Vizcaya.

The BioCruces Institute for Health Research is part of the Cruces University Hospital and has become a reference in the Basque Country for its experience in teaching and research. They comply with UNE 166002:2014 standards for the management system of research, development and innovation, according to which the system must incorporate guidelines for human resources management that foster creativity, learning and knowledge exchange. For them creativity is a key tool for promoting innovation spaces; a tool for dealing with changes, enriching results with different points of view, connecting people and teams and encouraging the creation of an entrepreneurship culture within the institution or company. It is also the way to make people think "outside the box" when searching for solutions.

To boost creativity they have a team of professionals who have been trained in Edward de Bono's lateral and parallel thinking techniques as well as in co-creation methods. Furthermore, there is a special room for hosting creativity workshops at the hospital. Under the point 3.2., we will further explain the creativity techniques that will be implemented in our company and hospital.

The innovation process is based on an innovation strategy and planning, which encourage an innovation culture, creativity and needs detection. It all begins with an effective technology watch. Then ideas are channelled, evaluated and assessed, developed and finally transferred to the market.

Biocruces has developed an "Application Form of Innovative Proposals" in intranet for the gathering of ideas coming from many different sources (creativity workshops –proactive generation of ideas–, external agents and partners, citizen participation, detection of opportunities in patients and professionals' complaints and demands –receptive way of channelling ideas–). All the ideas are monthly evaluated by the Ideas Team and they decide whether to send them to the Innovation Committee or to dismiss them. For this purpose, they use a tool: the idea prioritization matrix. Once the ideas have been screened, the Innovation Committee is responsible for the final evaluation and selection of those which will be part of the innovation project portfolio.

As part of the Action Plan some of these co-creation and co-design methods will be tested and implemented in Carus Consilium Sachsen GmbH and at the University Hospital Dresden.

2. **Action** (please list and describe the actions to be implemented)

As mentioned in point 3.1., the innovation model of Cruces University Hospital owes much to Bono's parallel thinking techniques. In 1985 Bono presented the "Six Thinking Hats" method, which has become famous worldwide for being an effective tool for group discussion and individual thinking. This tool is actually a parallel thinking process that helps people to be more productive. In order not to forget or exclude any perspective or point of view during a discussion or idea management, there are 6 thinking hats that can be worn. Each of them has a different colour representing multiple ways of thinking: white (objective), yellow (optimist), black (negative), red (emotional), green (creative) and blue (chairman). This methodology has been proved to be most useful in maximizing the team's thinking capacity, troubleshooting and taking group decisions.

Carus Consilium Sachsen GmbH will implement this methodology to evaluate new project ideas.

3. **Players involved** (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)
   - Carus Consilium Sachsen GmbH
   - University Hospital Dresden, Nursing innovation management department
   - University Hospital Dresden School of Nursing

4. **Timeframe**
   - Pilot testing, first round of thinking hats, completed (Carus Consilium Sachsen) on 8.8.2018
   - Aug 18-Jan 19 preparation of an adapted version of the methodology
   - Jan 19 second round of thinking hats in Carus Consilium Sachsen with participation from University Hospital Dresden, Nursing innovation management department

- Feb 19 third round of thinking hats in Carus Consilium Sachsen with participation from University Hospital Dresden, Nursing innovation management department
- Feb 19-Dez 19: regular monthly rounds of thinking hats in Carus Consilium Sachsen
- Jan 20-Apr 20: evaluation of findings and necessary changes, improvement of methodology
- May 20-Aug 20: implementation of improved version 3 of the methodology in Carus Consilium Sachsen, preparation of policy for usage and regularity, participants and their necessary qualifications
- Sep 20: presentation of policy

- Feb 19-Jun 19: preparation of implementation in University Hospital Dresden, Nursing innovation management department.
- Jul 19-Apr 20: implementation of version 2 of the methodology to University Hospital Dresden, Nursing innovation management and School of Nursing, 2 rounds of thinking hats
- May 20-Aug 20: implementation of version 3 of the methodology, 1 round of thinking hats, evaluation
- Sep 20: presentation of evaluation findings

5. **Costs** (if relevant)
   - Carus Consilium Sachsen GmbH:
   - Preparation 11.915 EUR personnel expenses
   - Implementation phase 69.800 EUR personnel expenses

   - University Hospital Dresden:
   - Implementation phase: 92.000 EUR personnel expenses

6. **Funding sources** (if relevant):
   - Carus Consilium Sachsen GmbH: internal funding
   - University Hospital Dresden: internal funding

Date: 04.2019

Signature: _____

HEALTHY SAXONY – Verein zur
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Stamp of the organisation (if available): _____

Letter of support from the relevant organisation responsible for policy

For Structural Funds programmes (i.e. Investment for Growth and Jobs and European Territorial Cooperation programmes), the relevant organisation responsible for policy may differ from country to country. Detailed references are provided on the 'In my country' pages on the programme website www.interregeurope.eu

Project acronym	*TITTAN*
Project title	*Network for Technology, Innovation and Translation in Ageing*
Name of the organisation (original) including department (if relevant)	*Sächsisches Staatsministerium für Wirtschaft, Arbeit und Verkehr*
Name of the organisation (English) including department (if relevant)	*Saxon State Ministry for Economic Affairs, Labour and Transport*
Name of the policy instrument addressed (original)	*EFRE operationelles Programm des Freistaates Sachsen 2014-2020, bestätigt durch die Europ. Kommission am 17.11.2014*
Name of the policy instrument addressed (English)	*ERDF operational programme of Saxony 2014-2020, approved by European commission on 17.11.2014*
Name of partner(s) concerned in the application form (English)	*HEALTHY SAXONY e.V.*

We hereby confirm:

- that we were informed about the first phase of the project, the Action Plan that results from it and its objectives for the second phase,
- that we will make efforts to support the above-mentioned partner in the implementation of the actions laid down in the Action Plan through our policy instrument,
- that the Action Plan of the partner is in line with our organisation's policy and therefore we support its purposes,
- that we acknowledge the benefits for the health sector in our region that will arise from the implementation of the Action Plan,
- that we will welcome opportunities for exchanging experiences with other institutions in Europe during the second phase of the project.
- that we are informed about the details of the actions envisaged consisting of:
    - ACTION 1: LIVING LAB (inspired by ALiSS and GezondheidsFabriek)

- ACTION 2: Innovation Model - Strategic Plan for creating an "Ecosystem for Clinical Innovation" - Supporting innovation across Healthcare Region Carus Consilium Saxony (inspired by SHIL)
- ACTION 3: Implementation of co-creation/co-design methods in project idea management (inspired by Innovation Model - IHO EECruces)

- that we will consider possibilities for supporting the implementation of the Action Plan

Name of signatory	Barbara Meyer
Position of signatory	Ministerialdirigentin
Date	24.5.2018
Signature and institution stamp (if exists)	Sächsisches Staatsministe für Wirtschaft, Arbeit und Ver Wilhelm-Buck-Str. 2 • 01097 Dre PF 10 03 29 • 01073 Dresden