Annex 1 – Action plan

Part I – General information

Project: ACSELL

Partner organisation: Central European Initiative – Executive Secretariat

Country: Italy

NUTS2 region: Friuli Venezia Giulia

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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
☐   Other regional development policy instrument

Name of the policy instrument addressed:

- ROP ERDF 2014 – 2020 of the Friuli Venezia Giulia Region

Part III – Details of the actions envisaged

The present Action Plan is composed by two Actions, one related to the coordination and internationalization of innovation regional eco-systems (Action 1) and one related to the evaluation models for innovation for health and care with a living lab approach (Action 2).

A common background on the ACSELL project will be presented here below and then a specific background for each Action will be defined following in the related sections.

The general background

Policy learning within the ACSELL project aims to have an impact at all levels: micro (individuals), meso- (organizations) and macro-level (system). For this reason, in the beginning of the project, a close collaboration between the CEI and the FVG Directorate for Research was established to better identify the Key Regional Stakeholders to ensure the success of this all-encompassing approach. Key stakeholders have been selected in accordance with the quadruple-helix approach— representing organizations belonging to all four areas of interest (Government, Academia, Industry and Civil Society). This diverse participation allowed for a comprehensive definition of the Region's endeavors for promoting demand-driven innovation and inform about future areas of improvement.

The Key Regional Stakeholders of the FVG Region:

- FVG Region, Directorate for Research (FVG DR) - Government
- FVG Region, Directorate for Health (FVG DH) - Government
- FVG Region, International Relations Office – Government
- AREA Science Park - Research Center
- Digital Innovation Hub IP4FVG Management - Research Center
- Friuli Innovazione - Research Center
- Technological Pole Alto Adriatico - Research Center
- Local Heath Authority Giuliano Isontina ASUGI 1 - End User
- Public Institution for Social Services ITIS 2 - End User
- University of Trieste (UNITS) - University
- University University of Udine (UNIUD) - University
- Digital Innovation Hub IP4FVG - Enterprise
- QUOLITY srl - Enterprise
- H&S srl - Enterprise

To accomplish ACSELL goal of expanding competences for demand driven and open innovation, during ACSELL Phase One, the following kind of activities promoting self-assessment, mutual learning and policy improvement were organized:
   - Maturity assessment of demand driven innovation
   - Key Regional Stakeholders Meetings
   - Regional Stakeholders Workshops
   - Twinning exchanges
   - Exchange of good practices and policies
   - Partners Workshops
   - Peer assessment

Starting from the results of the ACSELL Online Self-Assessment Tool (OSAT) based on the SCIROCCO maturity model, the consensus workshop of the FVG Region defined the priority areas for fostering open innovation in the Region. Key stakeholders agreed that coordination and governance of innovation are two priorities for the FVG Region— and this is a sector where it is worth to invest and to develop international collaboration and synergies. Moreover, end-user's involvement is considered one of the priority areas of intervention— with one key aspect addressed being the regional difficulties in fostering innovation that fully meets the needs of its target population. In addition, removal of inhibitors is one major element to be addressed in the regional system— with the need to raise awareness about inhibitors to open-innovation being linked to cultural barriers and a general lack of flexibility. Together these weaknesses of the regional system are also impacting the quality of outcomes from SMEs— making it difficult to produce integrated and lasting results.

Additional contributions of the FVG stakeholders in the subsequent project's activities and workshops allowed to further define barrier and priorities for open innovation in the Region. In this regard, capacity building and process coordination both need to be strengthened. More specifically, starting from a stronger capability approach to effectively foster innovative solutions that are open to multiple objectives, the creation and expansion of competences and capacities could be the first

prerequisite to ensure the region's self-sustainable development and growth in the medium and long-term.

ACTION 1

Title: Digital Innovation Hubs network for scaling-up the ARGO System

1. **Backgroundof Action 1**

ACSELL activities promoting mutual learning and peer assessment greatly contributed in the preparation to effectively address the uncovered core priorities for innovation of the regional system. One of the specific issues that was shared among the ACSELL partners was the governance and coordination of innovation systems and processes. In this regard, one of the GPs presented by CEI concerning FVG Region was the ARGO System initiative, that is a coordination framework of the regional innovation system with a multi-level strategy of scaling-up (regional, national, international). The initiative is in its national scaling-up phase and this Action will contribute to the international scaling-up stage.

ARGO was shared initially into the ACSELL twinning activities, where different aspects of innovation strategies and practices were explored—e.g., good policies and practices, support to SMEs, methods and experiences of coordination systems and living labs. The CEI together with twinning partner Technology Park Ljubljana involved relevant regional and national stakeholders to explore opportunities for mutual development and growth between Friuli Venezia Giulia and Slovenia. More specifically, the workshop held on March 18, 2021, illustrated some selected main policies and strategies in the field of health, innovation and living lab— with additional inputs on related best practices. In addition, the workshop on April 19th, 2021 focused on business support services in the field of open innovation— highlighting the importance of collaboration and networking to foster open innovation across Europe; while also addressing strategies for end-users' involvement and the implementation of better and more flexible funding schemes. The workshop on April 26th, 2021 focused on policy maker engagement— with the solutions applied in Slovenia providing information on effective private-public cooperation.

The twinning activities have been particularly valuable to understand different innovative approaches and solutions to foster demand driven innovation across Europe— providing concrete examples of effective stakeholders' involvement and multistakeholder approach, as well as strategies to match different kinds of organization, such as SMEs with academic institutions, to expand their reach and foster their grow, potentially leading to more effective and extended innovation networks.

Following on this objective, the review of TPLJ's good practice, healthday.si, provided additional valuable learning and inspiration inputs— especially due to its step-by-step development connecting stakeholders, across clusters and sectors thanks to a bottom-up approach for systemic change. In addition, healthday.si addressed strategies to identify specific needs for competencies development and internationalization— that could be transferred to the FVG Region to foster the growth and coordination of demand driven innovation in the future.

In addition, during the project implementation, HEALTH Innovative Business Network— one good practice from the Flanders Innovation & Entrepreneurship— have been of great inspiration for the Region concerning aspects for facilitating and fostering collaboration and synergies. In addition, the Region focused on how to effectively connect business community, academia, and healthcare organizations— with a focus on end-users' engagement— strengthening the replication value of activities overall.

2. Description of Action 1

The ROP ERDF 2014 – 2020 of the Friuli Venezia Giulia Region "Investments for growth and jobs" includes initiatives aiming to boost employment; to foster collaborations between enterprises and research centers; and to encourage investments by the production system.

Within this framework, Action 1 priority should focus on promoting business investments in R&D by developing links and synergies between companies, research and development centers and the higher education sector to support open and demand driven innovation.

Improvements to the policy will therefore aim at strengthening the capacity of SMEs to address demand-driven innovation, at scaling-up their innovative services and products and at exploiting better R&D outcomes in their business development, through the definition of supporting environments and service support systems.

Within this initial framework, this Action supports interregional cooperation activities by improving the policy instrument's strategy thanks to the internationalization of Digital Innovation Hubs within the health sector— potentially leading to better investments, stronger international collaborations and synergies, and better capacity building overall.

For this reason, Action 1 aims to formally establish a network of Digital Innovation Hubs at European level to strengthen the Region's strategy through transnational networking. The development of a network would therefore allow the Region to develop more concrete actions to scale-up the reach of the Region's digital innovation hubs— while also activating collaborations with regional, national, and international organizations.

In this regard, the development of the network would directly influence the Region's Smart Specialization Strategy (S3)— comprised in the policy instrument to support funds' allocation for research and innovation. To be more specific, the S3 objective is to delineate priority themes for all ROP ERDF's calls related to research and innovation. As part of the Region's objective to improve the policy instrument, the addition of Sustainability as a major component of the Strategy is considered a priority— moving from S3 to S4 to expand the scope and purpose of innovative solutions within the Region. The main contribution of establishing a network of Digital Innovation Hubs would therefore be the increase of inputs to inform governance models— in particular to strengthen the Sustainability component of the Strategy.

As learned during the ACSELL phase 1 activities, the development of a network allows for the implementation of a novel approach to innovation— tackling the uncovered weakness of the region regarding process coordination and stakeholders' involvement, especially end-users' engagement. In addition, the involvement of qualified public and private operators would foster strategic innovation partnerships at regional, national, and international levels— providing valuable expertise and feedback. Moreover, as highlighted by the living lab approach— during project activities and especially during the ACSELL pilot action— the development of a strong network would allow regional organizations to gain increased access to end-users' feedback fostering real demand-driven innovation. With this kind of activities, the network would therefore have a direct impact on the Region's coordination efforts by directly informing the new S3 to alter the themes addressed by the policy instrument toward more flexible and inclusive initiatives— aiming for added sustainability in the mid- and long- term.

To be more specific, as introduced in the background section of the Action, the abovementioned ACSELL twinning activities and workshops have created the basis for the revision of the policy instrument toward a more user-centered and flexible approach. In this regard, the development of a network at European level should allow the region to increase its effectiveness at involving stakeholders— with the target aim of implementing an operational multistakeholder approach, as well as actualizing the learned strategies for matching different organizations— while promoting a bottom-up approach whose effectiveness was learned from ACSELL good practices.

Considering its overall objectives, Action 1 will impact change in the management of the policy instrument— leading to improved governance. The Action could have a direct impact on the region's self-sustainable development and growth in the medium and long-term. For this reason, Action 1 aims for a Type 2 policy change, as the Regions' expanded reach would have a direct impact on how the policy instrument is implemented. Indeed, the ACSELL project has highlighted how the current implementation strategies of the policy instrument might greatly favor from a wider range of contributions for its activities— especially at management level. The introduction of the network is therefore expected to support the policy instrument leading to more efficient coordination in scaling-up strategies— as well as potential updates in the implementation's rules and regulation for all activities financed by the policy instrument.

To further expand on the improvements on the policy instrument's governance models, the activities of the network are expected to refine themes and areas of intervention of the calls financed through the ROP ERDF— and defined through the Smart Specialization Strategy towards a more Sustainable implementation approach. For example, the promotion of active and healthy aging in rural areas is one thematic focus of the Region's Digital Innovation Hubs. By having multiple Digital Innovation Hubs uncovering innovative technological solutions and approaches thanks to the additional coordination offered by the network, valuable and practical inputs fostering smart health will foster the Region's efforts for social innovation in rural and marginal areas— in this case potentially increasing the long-term sustainability of the regional initiatives for Smart Mountains. Given the ROP ERDF 2014 – 2020 objectives, the development of a network will strengthen the Region's international experience and capacities for intersecting institutions— leading to the promotion of SME's capacities to adopt demand driven innovation. At the same time, by strengthening network modelling for enterprises, synergies between Digital Innovation Hubs should increase, leading to

better outcomes overall. For this reason, the Action primarily aims to shift the policy instrument strategy from a top-down approach focused on attracting initiatives to a more bottom-up approach with increased flexibility in fostering collaborations.

Therefore, the main components of Action 1— structuring the Action in its main different activities and target objective— will be the followings:

Activity 1 - Creation of a network of Digital Innovation Hubs in the health sector at European level
- Planning development actions and activating collaborations with regional, national and international organizations to scale-up the reach of the Region's digital innovation hubs.
- Involving public and private operators that could foster economic development at regional, national and international levels.

Activity 2 - creating direct synergies between the Region and network's members
- Inviting selected network members to AREA Science Park to showcase the Region's resources and devise concrete strategies to more effectively implement best practices, policies and solutions fostering open demand driven innovation— with a specific focus on increasing sustainability and coordination for actions tied to the policy instrument.

Activity 3 – sustainability of the DIHs transnational network
- definition of a long-term work plan of a European network of Digital Innovation Hubs and possible funding sources.

3. **Players involved**

CEI – ES: management of the Action and coordination of the international network

Friuli Venezia Giulia Region, Directorate for Research: participation in the meetings and supervision of the strategies and impact achievements

Area Science Park: coordination of the ARGO System

Digital Innovation Hub on Smart Health of Amaro (province of Udine, FVG Region): direct participation in the DIHs international network

4. **Timeframe**

From August 2022 to July 2023:

August 2022 – February 2023: Activity 1

January – May 2023: Activity 2

March – July 2023: Activity 3

5. **Costs**

CEI-ES staff and administration costs:

Staff - 45 person/days – 11.250 €

Office and administration - lump sum from CEI's internal budget – 2.500 €

AREA Science Park – dedicated budget for external guests – 1000€

Total: 14.750 €

6. **Funding sources**

The Action Plan will be implemented through own funds of the Central European Initiative – Executive Secretariat

ACTION 2

Title: Evaluation model of innovation for healthcare with a living lab approach

7. Background of Action 2

From the results of the ACSELL Online Self-Assessment Tool (OSAT),the Consensus Workshop strongly addressed process coordination— as the existing processes lack structured coordination and a truly systemic approach. In this regard, it should be necessary to create new collaborative methodologies and initiatives. Moreover, even if evaluation tools have been used, especially within projects, they are not part of a systemic approach— as the evaluation methods that are in place tend to be situation/project specific— with ACSELL pointing out the concrete need to make evaluation methods more consistent and coherent across the regional landscape. In addition, the region is aiming to improve its capability for end users' involvement and empowerment— especially within the healthcare sector. For this reason, the granting to patients and citizens of a more active role in the delivery of innovation needs to be recognized as a priority goal for regional policy and decision makers.

ACSELL activities allowed the region to gather various information to improve on these aspects— with the organization of the ACSELL Pilot Action being a primary learning source for this Action. Thanks to the activities organized with LiCalab and the University of Tübingen, the CEI gathered valuable experience on the living-lab experience and methodology. Indeed, starting from the SME's selection process and the definition of ad-hoc selection criteria, the CEI gained insight on how to assess innovative solutions and services— while also increasing the understanding of the value of demand driven innovation and the benefits of living labs services overall. More specifically, the meeting on October 08, 2021— involving LiCalab and FVG key regional stakeholders— illustrated the theoretical framework of the methodology while addressing the necessary practical steps for its effective implementation. Moreover, the meeting on December 15, 2021— involving the FVG Central Directorate for Research and Technopole of Pordenone— further defined long-term synergies for the development of a regional living-lab and the long-term benefits of the Pilot Action's outcomes for the FVG region. The developed methodology was carried out throughout the month of March 2022— with the human factor study allowing CEI to have direct experience in testing an innovative solution for rehabilitation in a real-life environment. The outcomes of the testing to be presented to the FVG Region. Moreover, the co-creation sessions with end-users and professionals ware carried out on March 22 and 25, 2022, respectively— directly involving the Local Health Authority for recruiting the necessary participant (both end-users and healthcare professionals) and with stakeholders representing the FVG Region being present to directly witness the workshops.

The SCIROCCO maturity model, developed by Scotland, represents a great example on assessing the regional system with a multi-dimensional approach. Going forward with the implementation of the envisaged workshops, the CEI gained access on precious methodological tools to better account for the specific needs of SMEs— introducing the developed methodology to key regional stakeholders. Moreover, the acquired methodology for real life testing and assessment of innovative solutions represents a concrete step toward the Region's goal to develop a living lab for active and healthy aging in FVG. In this regard, the Edinburgh meeting held on September 2019 allowed the CEI to have a concrete understanding of the different components of this assessment tool— also clarifying the specific characteristic of criteria and dimensions for the evaluation— as well as its objectives and methods for implementation. Moreover, following the maturity assessment for demand-driven innovation in Friuli Venezia Giulia, feedback from ACSELL partners, allowed for a discussion on the perceived strength and weaknesses of the OSAT— with the CEI sharing the perspective of its key regional stakeholders.

In addition, multilateral, and bilateral activities with project partners from the North Denmark Region provided additional insight on how to help SMEs testing innovative technologies and research— while increasing access to users' feedback and real-life settings to ultimately ease the implementation of new tasks and technologies. In this regard, in the hybrid meeting in Aalborg, Denmark, on November 25, 2021, policy improvement was discussed among the ACSELL consortium— leading to the identification of three concrete challenges to tackle barriers to innovation. The challenges were discussed during the January 27, 2022 online event— with the CEI moderating the first session with North Denmark— acquiring further knowledge on how to integrate innovation management in innovation strategies.

8.   Description of Action 2

The results of the OSAT self-assessment tool indicated that all ACSELL regions scored low with respect to evaluation and impact measurement. The OSAT itself, which is based on the SCIROCCO maturity model, was regarded by all ACSELL partners as valuable in structuring the multi-stakeholder discussion on demand-driven innovation and open innovation ecosystems. Not only did the OSAT help to better understand the current circumstances, but also provided direction on potential next steps on how to improve framework conditions for demand-driven innovation. Thus, this tool helps to better coordinate and manage effective and demand-driven innovation.

For this reason, the ACSELL consortium decided to jointly take part in a Common Action whose joint efforts will be coordinate by the CEI. counting also for the short time frame required to implement the Action, the Consortium decided to define an operational evaluation process, improving on a previously developed governance assessment model.

The starting point of the Joint Action is therefore a transparent and evidence-based assessment model of active and healthy aging governance and innovation developed by the FVG Region— together with AREA Science Park. The model was developed with the target objective of supporting institutions and organizations in self-monitoring and self-evaluation processes by identifying challenges and rooms for improvement of analyzed active and healthy aging policies and initiatives—

providing policy makers with a transversal and flexible operational tool adaptable to the needs of each context.

That said, the aforementioned theoretical methodology has not yet been operationalized by the FVG Region as the developed model still lacks the required features to be effectively implemented by regional stakeholders in their self-monitoring and evaluation efforts.

The Action, therefore, aims to adapt and complement the previously developed methodology to be used by the Region for the co-creation of innovative products and services within the health sector— and their evaluation at different stages of implementation. The planned activity would therefore imply an agreement between the CEI and AREA to operationalize this theoretical evaluation instrument into a more practical tool to be used by the Region.

As introduced in the Background section of the Action, two core activities of the ACSELL project have created an optimal framework to effectively operationalize the model— strengthening coordination to build a true systemic approach in the Region.

First, the OSAT provided concrete tools to ground self-assessment efforts within well-defined comprehensive dimensions. In this regard, Phase 1 activities allowed for a practical evaluation of the OSAT tool— with feedback from all key regional stakeholders having been collected to further adapt the methodology to the local context. Furthermore, as mentioned in the Action's background, the ACSELL consortium has discussed potential improvements to the OSAT during all pre-twinning meetings— with a specific focus on how to best evaluate maturity within the twelve Dimensions.

Second, the ACSELL Pilot Action provided a concrete example of how co-creation can be used to support the evaluation of outcomes and impact of innovative solutions. In this regard, the methodologies developed by LiCalab clearly showed the value of using ad-hoc selection criteria, end-users' involvement, and reiterated testing in producing practical evaluation strategies that can provide valuable feedback to further foster demand-driven innovation.

Therefore, Action 2 final objective can therefore be summarized in defining an operational evaluation process for the living lab, improving the governance assessment model already developed. This approach would focus on the demand for open innovation within the healthcare system— rather than on the supply— to better account for the different regional contexts and foster process coordination and continuity of results at regional level.

To do so, Action 2— starting from the OSAT— will operationalize the already developed theoretical model— intersecting it within the descriptive elements of the regional healthcare system in its operative daily settings— with the living-lab methodology further informing evaluation's outcomes and impact. Therefore, Action 2 aims at developing an evaluation model at macro (regional development policy), meso (regional living lab activities/open innovation ecosystems), and micro (evaluation toolbox for projects) level.

With this clear objective in mind, in preparation for best defining Action 2, the CEI has started an agreement with AREA to carry out a feasibility study for the development of a system for the monitoring and evaluation of activities fostering active and healthy aging. In this regard, AREA will provide an analysis of the state of the art for both demand and supply of innovative solutions for active and healthy aging in the Region.

These analyses will be crucial to effectively operationalize the model—to be further refined thanks to all the methodological information acquired from the OSAT and the ACSELL pilot action. The feasibility study will therefore feed future inputs for the writing of the Action Plan— especially in consideration of the concrete information required for effectively planning the operationalization of the evaluation model in the Region while accounting for the short time-frame of the Action— with all scheduled preparation activities ending by the end of ACSELL Phase 1

This approach— even if more time consuming— has been considered crucial for the development of a concrete and effective evaluation instrument to be integrated within the Region's institutional and regulative framework. In this regard, the development of a practical evaluation tool should have a direct impact on the Region's ability to foster innovative solutions within the healthcare system— with the evaluation tool having the potential to be used by the Region for evaluating innovations and self-assessment purposes. In addition, the instrument could be used as a mandatory assessment tool to be included in all relevant calls organized or financed by the Region— strengthening process coordination and potentially the overall results of these activities.

Considering the overall objectives, this Action relate to changing the management of the policy instrument— by providing a concrete and usable tool that, if effective, would allow the Region to employ a more direct form of support to demand driven innovation—complementing the Type 2 change of the policy instrument expected with Action 1. To be more specific, the possibility to assess activities at different stages of implementation would allow the Region to have a more active role in the promotion of innovative solution for health. Furthermore, by having a tool also capable of assessing project's results and impact, the Region could potentially develop a better system to evaluate its initiatives systemically and coherently— further supporting open innovation in the long term.

Therefore, the policy could extend over to the National Recovery and Resilience Plan— integrating the ROP ERDF annual plan with the Plan. In this regard, the Action could have direct impact on the reform of the healthcare system— developing synergies to support integrated healthcare services and related ICT instruments. For this reason, Action 2 aims to generate a structural change— with the evaluation model possibly being used as an evaluation toolbox also to be included by the Region as a prerequisite for future projects— providing a concrete solution to the addressed regional weaknesses and answering its need for a more systemic approach.

By the end of Action 2, the Region is expected to have developed an operational evaluation model to be used first for self-assessment purposes— with the evaluation of regional policies allowing to showcase clearly and coherently all related initiatives. In addition, by having a common mandatory tool to be included in the calls for all activities financed by the policy instrument, overall process coordination and sustainability of the ROP ERDF activities should be enhanced. In short, the evaluation model will strengthen the effectiveness of the policy instrument by providing a tool that could guide decisions towards a more synergetic approach— with the assessment of different initiatives via common criteria and indicators allowing the Region to devise more precise and consistent comparisons and associations.

Activity 1 - Integrating different evaluation models and defining an evaluation process
- Analysis of different criteria and tools used in evaluation models
- Regional stakeholders' workshops to define a regional evaluation system in innovation for health and care
- Transnational workshop to define a multi-level evaluation process

Activity 2 –Presentation of results
- Meetings with relevant stakeholders in ACSELL managing authorities to present results.
- Presentation of results at the high-level dissemination event

9. **Players involved**

CEI – ES, management and coordination of the Activity

FVG Region Directorate for Research, participation in the definition of the evaluation model and supervision for the policy instrument impact achievements

FVG Region, Directorate for Health and Social Policies, participation in the definition of the evaluation model and responsible for the indicators and criteria for health and care

AREA Science Park, participation in the definition of the evaluation model and responsible for the indicators and criteria for innovation

ASUGI Local Health Authority of Trieste and Gorizia, participation in the definition of the evaluation model and referent for the operationalization of the evaluation system.

10. **Timeframe**

From August 2022 to July 2023
    August 2022 – March 2023: Activity 1
    April 2023 – July 2023: Activity 2

11. **Costs**

CEI-ES staff and administration costs:

Staff - 25 person/days – 6.250 €
Office and administration - lump sum from CEI's internal budget – 2.500 €

Total: 11.750 €

12. **Funding sources**
The Action Plan will be implemented through own funds of the Central European Initiative – Executive Secretariat

Anna Marconato
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