



Demand-Driven Innovation in Health and Social Care Self-Assessment on the basis of the SCIROCCO Maturity Model





Glossary of terms

Demand driven innovation – is a deliberate innovation process which uses information about user features, requirements, and creative ideas in the course of shaping research, development, design and successful marketing/diffusion of an innovative service, process or product.

Health- and care-system – The health- and care-system comprises all persons, organisations, institutions, regulations and processes whose task it is to promote and maintain health, cure and to secure it by preventing and treating diseases and injuries.

Living Labs - user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings;

Open innovation – open innovation describes the opening of the innovation process of organisations and thus the active strategic use of the outside world to increase the innovation potential.





Background to the project

ACSELL is an Interreg Europe project that aims to point decision-makers, innovation intermediaries and SMEs towards the benefits of demand-driven product and service development and accelerate SME innovative capacities through the living lab approach. ACSELL has a special focus on innovation in the area of health and care. For SMEs, Living Labs can play a key role in demand-driven innovation processes since they integrate a variety of (potential) users into the innovation process right from the beginning. This will allow (1) a better understanding of the actual needs and demands, (2) for a better match of demand and supply and (3) to increase the efficiency and effectiveness of the process. Living labs have a proven track record (KPI, quality assurance) and constitute a combination of methodologies, way of working and (lab) infrastructure. Living labs can exist in many different structures, governances, with different stakeholders to reach out to, e.g. citizens (local governments) in a ,community living lab', care professionals in hospital labs, nursing home labs, patients and elderly. A combination of a variety of (motivated) stakeholders are also possible.

For more information about the project <u>https://www.interregeurope.eu/acsell/</u>

Maturity assessment for demand-driven innovation

Based on the SCIROCCO Maturity Model, this is an adapted version of the online participatory selfassessment tool that helps stakeholders to understand:

- the local context and conditions for delivering demand-driven innovation in health and social care, including its strengths and weaknesses;
- **the readiness level** of a regional ecosystem to adopt and scale-up social and technological innovation;
- **the actions** that more progressive regions have taken to be successful and enable information sharing, twinning and coaching to overcome barriers and accelerate results in demand-driven innovation.

Instructions

The objective of the assessment process is to **capture stakeholders' perceptions and experience** in designing and delivering demand-drive innovation. It is not an objective or evaluation measure.

When choosing the assessment scale, please consider the SCIROCCO dimensions from a local context's perspective.





1. Readiness to Change

Objectives:

The existing systems of care (the term "care" refers to both health and social care) need to be redesigned to provide a more innovative and user-driven set of services. This will require change across many levels, the creation of new roles, capabilities, methodologies and working practices. It will also require new systems and infrastructure (e.g. living-labs infrastructure) to support information sharing, networking and collaboration across innovation intermediaries involved. This might be disruptive and may be viewed negatively, so we need clear cases, including a justification, a strategic plan, and a vision for demand-driven open innovation. Examples of the level of maturity include:

- Accepting the reality that care systems are unsustainable and need to embed innovation.
- Creating a compelling vision, with a real sense of urgency to ensure sustained focus and building a "guiding coalition (ecosystem)" for change.
- Enlisting stakeholders' support including political leadership, management, care professionals, research institutions, SMEs, public and press.
- Publishing a clear description of the issues, the choices that need to be made, and the desired future state of the open innovation care systems.

Assessment scale:

- 0 No acknowledgement of compelling need to change
- 1 Compelling need is recognised, but no clear vision or strategic plan
- 2 Dialogue and consensus-building underway; plan being developed
- 3 Vision or plan embedded in policy; leaders and champions emerging
- 4 Leadership, vision and plan clear to the general public; pressure for change
- 5 Political consensus; public support; visible stakeholder engagement.

2. Structure & Governance

Objectives:

The broad set of changes needed to deliver demand-driven open innovation presents a significant challenge. It needs multi-year programmes with efficient change management, funding and communications, and the power to influence and (sometimes) mandate new working practices. This means alignment of purpose across diverse innovation intermediaries, motivate people, building new capacities and the willingness to collaborate and put the interest of the overall care system above individual incentives. Examples of the level of maturity include:

- Enabling distributed and collaborative leadership with excellent communication of goals, progress and successes.
- Managing successful demand-driven innovation within a properly funded, multi-year transformation programmes, including change management.





- Establishing competence centres and other intermediaries to support the roll-out of demanddriven innovation.
- Establishing clear open innovation structure with the mandate to select, develop and deliver demand-driven innovative services and approaches (e.g. living lab approach).

Assessment scale:

- 0 Fragmented structure and governance in place
- 1 Recognition of the need for structural and governance change
- 2 Formation of task forces, alliances, ecosystems and other informal ways of collaborating
- 3 Governance established at a regional or national level
- 4 Roadmap for a change programme defined and accepted by stakeholders involved
- 5 Full, open innovation ecosystem established, with funding and a clear mandate.

3. Innovation Infrastructure

Objectives:

Demand-driven innovation requires involvement of diverse innovation intermediaries to enable continuous collaboration, and the systematic measurement and management of outcomes. It is therefore necessary to build on existing infrastructure in new ways to support co-creation and augmenting them with new capabilities and resources. The task can be made easier if the mechanisms for the early involvement of beneficiaries are in place and, can be simplified. Examples of the level of maturity include:

- Having essential components (e.g., Living Labs, demonstration facilities, test beds) to enable early involvement of users and other innovation intermediaries.
- Providing mechanisms to support user co-creation approach (e.g. design-thinking workshops), integrating research and innovation processes in real life communities and settings.
- Existence of mechanisms and processes to support data collection and data analytics across the innovation intermediaries (e.g. panel data, structured international collaboration following certain standards and methodologies).

Assessment scale:

- 0. There is no innovation infrastructure in place
- 1. Some innovation facilities (i.e. demonstration houses) are in place, but their focus is more on show and tell, and not so much on interaction of the innovation intermediaries
- 2. Some SMEs are sporadically using research and other private organisations for the interaction with the innovation intermediaries, including the end-users
- 3. Publicly funded innovation infrastructure (i.e. test-beds, LivingLabs) is already in place but not used by many SMEs





- 4. Most of the SMEs use the existing innovation infrastructure for the interaction with innovation intermediaries, including the end-users
- 5. Publicly funded innovation infrastructure is able to provide longitudinal and transregional empirical data.

4. Process coordination

Objectives:

Demand-driven innovation in health and social care delivery is a complex series of processes that are linked and interact to achieve specified outcomes. Coordination of these processes demand new approaches and methodologies to include all relevant actors and to improve the quality and efficiency of demand-driven innovation. Structured and detailed planning is used to ensure the involvement of all relevant actors while also keeping flexibility for change. This is equally supported by existence of key authority/public body initiating and fostering new processes of engagement and collaboration.

Examples of the level of maturity include:

- Developing new processes and methodologies that are open, replicable, funded and/or reimbursed, and agreed by pertinent stakeholders.
- Negotiating with a broad range of experts and authorities the introduction and deployment of measurable outcomes to demonstrate the benefits of living lab approach and demand-driven, open innovation.
- Safeguarding sustainability of new processes and approaches.

Assessment scale

0 – No formal authority exists to initiate new processes and approaches, and there is no collaboration and coordination between relevant actors

1 – The stakeholders produce some approaches and structures and recognise the need for the coordination, but there are no formal plans and coordination to develop it

2 – Some coordinated innovation processes are underway; new collaborative methodologies are developed, some initiatives are formally described and tested, but no systematic approach is planned

3 – New approaches and methodologies for collaboration are formally agreed by all stakeholders involved. A systematic approach to the uptake of demand-drive innovation is planned, including the new structure for coordination but not deployed yet

4 – Most open-driven innovation services, are subject to a systematic coordinated approach, and deployed throughout the whole region/country.

5 – A systematic approach, including the governance, to foster coordinated innovation processes is in place across the region/country. The processes are scaled up, maintained and redesigned according to agreed outcomes.

5. Funding

Objectives:





Changing systems of care to offer better integration of users and more efficient uptake of innovation requires initial investment and funding; a degree of operational funding during transition to the new models of innovation; and on-going financial support until the new demand-driven services are fully operational and the older ones are de-commissioned. Ensuring that initial and on-going costs can be financed is an essential activity that uses the full range of mechanisms: regional/national budgets, 'stimulus' funds, European Union Investment Funds, public-private partnerships (PPP) and risk-sharing mechanisms.

Examples of the level of maturity include:

- Existing (regional) budgets that allow for demand-driven innovation (i.e. investments in technology, budget for training, provide incentives to end-users, reimbursement schemes for health professionals etc.).
- Funding is focussing on both, invention (i.e. basic research) and diffusion (i.e. applied science, demonstration, test-beds)
- Developing new funding schemes (i.e. Social investment, public-private-partnerships, social impact or outcome funds etc.)

Assessment scale:

0 - No additional funding and no public support structures to allocate European funding sources are available to finance the move towards demand-driven open innovation

1 - Funding is available but mainly for pilot projects and testing

2 - Consolidated innovation funding is available through competitions/grants for individual innovation intermediaries and small-scale implementation

3 - Regional/national (or European) funding or PPP as well as government support (i.e. consulting, innovation agencies) for scaling-up is available

4 - Regional/national funding and/or reimbursement schemes for on-going operations is available

5 - Secure multi-year budget and/or reimbursement schemes, accessible to all stakeholders, to enable further uptake and scaling-up of demand-driven open innovation.

6. Removal of Inhibitors

Objectives:

Even with political support, funded programmes and good infrastructure, many factors can still make open innovation difficult to deliver. Often there exist a variety of barriers and inhibitors. These include legal and regulatory issues, reimbursement rules, resistance to change from individuals or professional bodies, cultural barriers and lack of skills and competencies. These factors need to be recognised early, and a plan developed to deal with them, so as to minimise their impact. Examples of the level of maturity include:

• Changes to the law concerning e.g., business models, information governance, data sharing - factors which may hold up innovation.





- Creation of new organisations or collaborations to encourage cross-boundary working ('open innovation ecosystem').
- Changes to reimbursement to support behavioural change and process change.
- Education and training to increase understanding of innovations in order to speed up solution delivery.

Assessment scale:

- 0 No awareness of the effects of inhibitors on open innovation
- 1 Awareness of inhibitors but no systematic approach to their management is in place
- 2 Plan for removing inhibitors agreed at a high level
- 3 Implementation Plan and process for removing inhibitors have started being implemented locally
- 4 Solutions for removal of inhibitors developed and commonly used
- 5 High completion rate of projects & programmes; inhibitors no longer an issue for open innovation.

7. Demand-driven approach

Objectives:

Open innovation can benefit especially those SMEs that do not have access to innovation infrastructure, which include research and development expertise and facilities as well as end-users' involvement following proven methods, in order to avoid ineffective, risky and costly product and service development. This is a practical response to meeting today's demands. The living lab approach goes beyond this and uses methods to understand where future challenges (and thus, demand) will come from. It starts an innovation process with the question for specific needs and possible demands. It offers ways to act ahead of time, to predict and anticipate, so that SMEs can enhance their innovative capacities in open innovation ecosystems. Examples of the level of maturity include:

- Understanding and anticipating demand; meeting needs better;
- Improving the innovative capacities of SMEs to predict and anticipate demands;
- Taking steps to divert citizens into more appropriate and convenient care pathways based on user preferences.
- Predicting future demand and taking steps to reduce health risks through open innovation interventions.

Assessment scale:

0 - Demand-driven approach is not applied to the provision of health and social care services

1 – Demand-driven approach to the provision of health and social care services is considered but not implemented

2 – Demand-driven approach is used in certain projects on an experimental basis

3 – Demand-driven approach is used for specific groups i.e. those who are at risk of becoming frequent service users





4 - Demand-driven approach is applied to the provision of health and social care services but not yet systematically or to the full population

5 - Demand-driven approach is deployed at scale and fully implemented.

8. User empowerment

Objectives:

Health and social care systems are under increasing pressure to respond to various user-demands (i.e. patients, medical staff, informal care givers). Often, demands could be handled better according to the actual needs and by citizens and carers. There is evidence that many individuals would be willing to participate more in their own care if they were involved in the design of solutions. As a result, services and tools that are developed would offer better choice and comfort, encourage self-management and early engagement in a service design that is tailored to the users' needs. This begins with active user-involvement in the innovation process.

Examples of the level of maturity include:

- citizens are considered as drivers of innovation that make valuable contributions to society with their knowledge and experience
- potential (end) users are regarded as partners and co-producers in the innovation process in the course of which needs, desires and motives of users emerge in their everyday context in an active and iterative manner.
- regularly updated databases of potential and interested users, or panels, are available to stakeholders for innovation processes to avoid resource-consuming recruitment of relevant user profiles.

Assessment scale:

0 - User involvement is not considered as part of open innovation.

1 - User involvement is recognised as important part of open innovation but effective programmes to support citizen involvement are still in development

2 - User involvement is recognised as important part of open innovation and effective policies to support users' involvement are in place

3 - Users are consulted on open innovation but not in a systematic way

4 - Incentives and tools exist to motivate and support users to co-create innovation processes and participate in decision-making

5 - Citizens are fully engaged and systematically involved in decision-making and co-creation of innovation processes.

9. Evaluation Methods

Objectives:

As new demand-driven services are introduced to support open innovation, there is a clear need to ensure that the changes in approach are having the desired effect on quality of care, cost of care,





access and users experience. This supports the concept of evidence-based investment, where the impact of each change is evaluated, e.g. by policy analysists, health economists working in universities or in special agencies or existing evaluation tools. Examples of the level of maturity include:

- Establishing baselines (on cost, quality, access etc.) in advance of new service introduction.
- Systematically measuring the impact of new services and pathways using appropriate methods (e.g., observational studies, incremental improvement, clinical trials, long-term impact studies).
- Generating evidence that leads to faster adoption of innovation.

Assessment scale:

0 - No evaluation of open innovation is in place or in development

1 - Evaluation of open innovation is planned to take place and be established as part of a systematic approach

2 - Evaluation of open innovation exists, but not as a part of a systematic approach

3 - Some open innovation initiatives and services are evaluated as part of a systematic approach

4 - Most open innovation initiatives are subject to a systematic approach to evaluation; published results

5 - A systematic approach to evaluation, responsiveness to the evaluation outcomes, and evaluation of the desired impact on service redesign (i.e., a closed loop process) exists.

10. Breadth of Ambition

Objectives:

Open innovation includes many levels of integration and collaboration across many stakeholders and innovation intermediaries. It may be developed simply for healthcare needs or it may include social workers, the voluntary sector, and informal care. The broader the ambition, the more numerous and diverse the stakeholders who have to be engaged. Similarly, open innovation and the integration of various stakeholders may include all levels of the system or may be limited to one particular aspect. The long-term goal should be fully demand-driven open innovation and early integration of users, with expanded SMEs competences, leading to better care and improved outcomes. Examples of the level of maturity include:

- Open innovation supported at all levels within the healthcare system at the macro (policy, structure), meso (organisational, professional) and micro (clinical, private homes) levels.
- Open innovation between the healthcare system and other care services (including social, voluntary, informal, family services).
- Seamless transition for the patient between and within care services.

Assessment scale:

0 - Innovation activities arise but not as a result of planning or the implementation of a strategy





1- No structure in place yet – End users act as integrators of innovation rather by accident and in an unpredictable way

- 2 Open innovation within the same level of care (e.g., primary care) is introduced
- 3 Open innovation between care levels (e.g., between primary and secondary care) is introduced
- 4 Open innovation between the healthcare system and other care services is introduced
- 5 Fully demand-driven open innovation is in place and functional.

11. Innovation Management

Objectives:

Many of the best ideas are likely to come from clinicians, nurses, (informal) care givers and social workers who understand where improvements can be made to existing processes. These innovations need to be recognised, assessed and, where possible, scaled up to provide benefit across the system. At the same time, universities and private sector companies are increasingly willing to engage in open innovation, and innovative procurement, in order to develop new technologies, test process improvements and deliver new services that meet the needs of citizens. There is also value in looking outside the system to other regions and countries that are dealing with the same set of challenges, to learn from their experiences. Overall, this means managing the innovation process to get the best results for the systems of care and ensuring that good ideas are encouraged and rewarded. Examples of the level of maturity include:

- Adopting proven ideas faster.
- Enabling an atmosphere of innovation from top to bottom, with collection and diffusion of best practice.
- Learning from inside the system, as well as from other regions, to expand thinking and speed up change.
- Involving regional health and social care authorities, universities and private sector companies and other sectors in the innovation process (i.e., 'open innovation').
- Using innovative procurement approaches (Pre-Commercial Procurement, Public Procurement of Innovation, Public Private Partnerships, Shared Risk, Outcome-Based Payment)
- Using European projects and partnerships (e.g., Horizon 2020, European Regional Development Funds, European Social Investment Funds and other).

Assessment scale:

- 1. No innovation management in place
- 2. Innovation is encouraged but there is no overall plan
- 3. Innovations are captured and there are some mechanisms in place to encourage knowledge transfer (i.e. by European projects and partnerships)
- 4. Formalised innovation management process is planned and partially implemented





- 5. Formalised innovation management process is in place and widely implemented
- 6. Extensive open innovation combined with supporting procurement and the diffusion of good practice is in place.

12. Capacity Building

Objectives:

Capacity building is the process by which individual and organisations obtain, improve and retain the skills and knowledge needed to do their jobs competently. As the systems of care are transformed, many new roles will need to be created and new skills developed. These will range from technological expertise and project management, to successful change management. This means also to motivate people for the involvement in open innovation processes. Open innovation systems need to become 'learning systems' that are constantly striving to improve quality, cost and access. They must build their capacity so as to become more adaptable and resilient. As demands continue to change, skills, talent and experience must be retained. This means ensuring that people get involved and motivated, knowledge is captured and used to improve the next set of projects, leading to greater productivity and increasing success. Examples of the level of maturity include:

- Increasing skills and motivation; continuous improvement.
- Building a skill base that can bridge the gap and ensure that the capacity needs are understood and addressed by innovative solutions where appropriate
- Providing tools, processes and platforms to allow organisations to assess themselves and build their own capacity to deliver successful change.
- Creating an environment where service improvements are continuously evaluated and delivered for the benefit of the entire care system.

Assessment scale:

0 - Open innovation skills are not considered for capacity building

- 1 Some approaches to capacity building for open innovation are in place
- 2 Cooperation on capacity building for open innovation is growing across the region
- 3 Learning about open innovation and change management is in place but not widely implemented

4 - Systematic learning about open innovation and change management is widely implemented; knowledge is shared, skills retained and there is a lower turnover of experienced staff

5 - A 'person-centred learning innovation system' involving reflection and continuous improvement is in place.