D6.1 Guidance process for the maturity assessment of healthcare systems for integrated care

WP 6 Self-Assessment

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Executive Summary

The overall aim of this Deliverable is to provide a guide for the assessment of maturity of healthcare systems for the implementation of integrated care. It is based on the real-life testing of the SCIROCCO Tool in the assessment of the readiness of regions to implement integrated care. This reflects the overarching objective of the SCIROCCO project which is to facilitate scaling-up and knowledge transfer in integrated care between European regions and countries.

To this end, this report describes the:

- SCIROCCO methodology for the self-assessment process
- Self-assessment process in five SCIROCCO regions
- Experience of SCIROCCO regions using the self-assessment process.

The potential of regions and organisations to adopt integrated care solutions depends on the local conditions in particular health and social care systems. The self-assessment process facilitates the gathering of knowledge and raising awareness about these conditions and informs stakeholders about the maturity gaps of a particular health and care system in implementing integrated care. This, in turn, informs the areas for future actions and improvement, that can be often achieved through knowledge transfer and exchange of good practices within, and between, regions.

The self-assessment process was conducted in five SCIROCCO regions; the Basque Country in Spain; Norrbotten Region in Sweden; Olomouc Region in the Czech Republic; Puglia Region in Italy; and Scotland in the United Kingdom. This was facilitated by the SCIROCCO online self-assessment tool and self-assessment methodology. The outcomes of the process were analysed and the experience of the regions were captured during focus groups, the findings of which informed the further development and improvement of the SCIROCCO self-assessment tool and process.

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List of Abbreviations

EIPonAHA	European Innovation Partnerships on Active and Healthy Ageing
ICOs	Integrated Care Organisations
SCIROCCO	Scaling Integrated Care in Context
WP	Work Package

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1. Introduction

1.1 Purpose of this report

The purpose of this document is to analyse the maturity gaps of five SCIROCCO regions in implementing integrated care. The maturity of health care systems needs to be recognised in order to facilitate scaling-up and exchange of good practices in integrated care which is the SCIROCCO project's overarching objective.

To this end, the following tasks have been performed:

- Definition of integrated care and scope of assessment in each of the five regions
- Identification of self-assessment group in each of the five regions
- Assessment of healthcare systems using the SCIROCCO online tool
- Organisation of a consensus-building and negotiation workshop in each of the five regions
- Organisation of focus group meetings in each of the five regions
- Improvement and enhancement of the SCIROCCO tool and self-assessment process
- Inform future knowledge transfer activities in the SCIROCCO project.

The self-assessment process was conducted between March and November 2018, using v0.2 of SCIROCCO Maturity Model (**Annex 1**).

Figure 1: SCIROCCO Maturity Model

2. Objectives

The SCIROCCO project aims to facilitate the implementation and scaling-up of integrated care at local, regional or country level. As such, the maturity of healthcare systems for integrated care needs to be recognised in order to better understand the local conditions facilitating the adoption of integrated care solutions. This, in turn, informs areas for future actions and improvement that can be often achieved through knowledge transfer and exchange of good practices.

Within the framework of the SCIROCCO project, Work Package (WP) 6 set out to:

- Assess five European regions in terms of their maturity for the adoption of a particular good practice in integrated care provision.
- Identify the strengths and weaknesses of five European regions in the adoption of integrated care interventions (good practices).
- Test the SCIROCCO tool as a tool that enables multi-dimensional comparison between regions.

The outputs from these activities were intended to contribute to the existing knowledge base about integrated care models and their implementation, including the exchange of lessons learned and success factors enabling the adoption and scaling-up of integrated care.

3. Methodology

3.1 Objectives of the SCIROCCO self- assessment process

The objectives of the self-assessment process are to:

- Capture the perceptions of stakeholders about the maturity and readiness of their healthcare systems for the adoption of integrated care;
- Identify the strengths and weaknesses of regions and organisations in their adoption of integrated care;
- Facilitate multi-disciplinary discussions and dialogues between stakeholders, including reaching consensus on their current progress towards integrated care and future actions to address the perceived gaps;
- Provide the basis for further improvement of a particular domain of integrated care through knowledge transfer and twinning and coaching activities to facilitate the exchange and adoption of good practices in integrated care.

3.2 Scope of the self-assessment process

The structure of healthcare systems varies considerably across Europe as well as the understanding and ambitions of countries and organisations in relation to integrated care. As a result, the assessment process for scoping the system needs to remain flexible and be tailored to individual local needs and circumstances. The following factors should be taken into consideration when defining the scope of the self-assessment process:

- Objective of the assessment process – "What do you want to achieve with the self-assessment outcomes?"
- Organisation of the healthcare system – "What level of assessment fits the best your objectives?" e.g. national versus regional perspective.
- Understanding of integrated care – "What is your ambition in integrated care?"
- Stakeholders involved – "Who is delivering on your ambition in integrated care?

3.3 Self-assessment process

The methodology design required to conduct the self-assessment process consists of:

Step 1: Identification of local stakeholders

Step 2: Completion of individual self-assessment surveys

Step 3: Sharing of self-assessment outcomes

Step 4: Consensus-building workshop

The following figure illustrates the SCIROCCO step-based maturity assessment methodology:

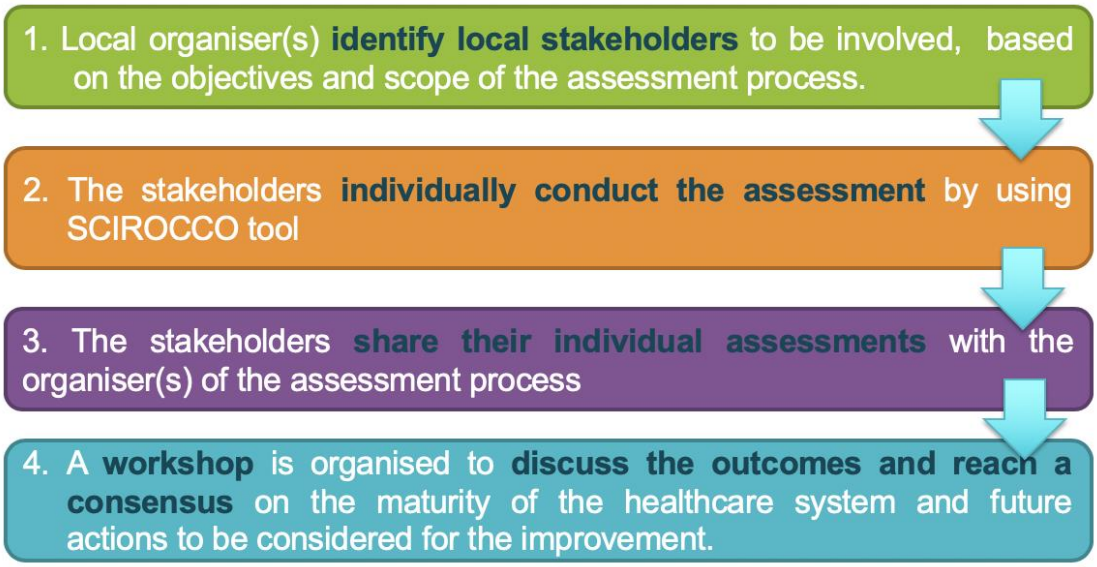

Figure 2: SCIROCCO WP6 Methodology

3.4 Self-assessment team

Integrated care is designed and deployed by multidisciplinary teams. As such, it is important to capture the diversity of perspectives during the assessment process. The following considerations should be applied during this process:

- Different disciplines – to reflect the diversity of stakeholders involved in the design, commissioning and deployment of integrated care, e.g. decision-maker, healthcare professional, IT specialist, regulator, payer, user group, innovation agencies, etc.
- Sectors – to reflect the level and ambitions of integration e.g. this identifies if the stakeholders are mostly from the healthcare sector or that there is also a need to include representatives from other sectors such as social care, voluntary ogranisations, housing providers, etc.
- Position in organisation – to reflect the perspectives of stakeholders with different seniority.

3.5 Individual assessment

Each member of the self-assessment multi-disciplinary team will receive an invitation to register and use the SCIROCCO tool, using the following link http://scirocco-project-msa.inf.ed.ac.uk/login/. In addition, a number of educational materials and illustrative videos on how to use SCIROCCO online tool to perform the maturity assessment of their

healthcare system is distributed. The objective of this individual assessment is to capture the perceptions of each individual member of the self-assessment team independently at this stage. The outcomes of this individual assessment then help to inform the perspectives of particular disciplines, sectors or positions in organisation and the information gathered also serves as the basis for negotiation and consensus-building at a later stage.

Each member of the multi-disciplinary team is asked to provide a rating between 0 and 5 to reflect their perception of the maturity of a particular dimension of integrated care. They are also invited to provide justifications for their rating by describing why they think this is the right level of maturity. The outcomes of the self-assessment process are visually captured in the form of spider diagrams. The diagrams enable quick detection of the strengths and weaknesses of a particular healthcare system for the adoption of integrated care from individual perspectives. In principal, the involvement of the multi-disciplinary team in the assessment process provides the different perceptions reflected in different spider diagrams for each stakeholder. The diagrams can then provide the basis for the discussion and negotiation with other stakeholders in order to reach consensus on the current state of play (Figure 2).

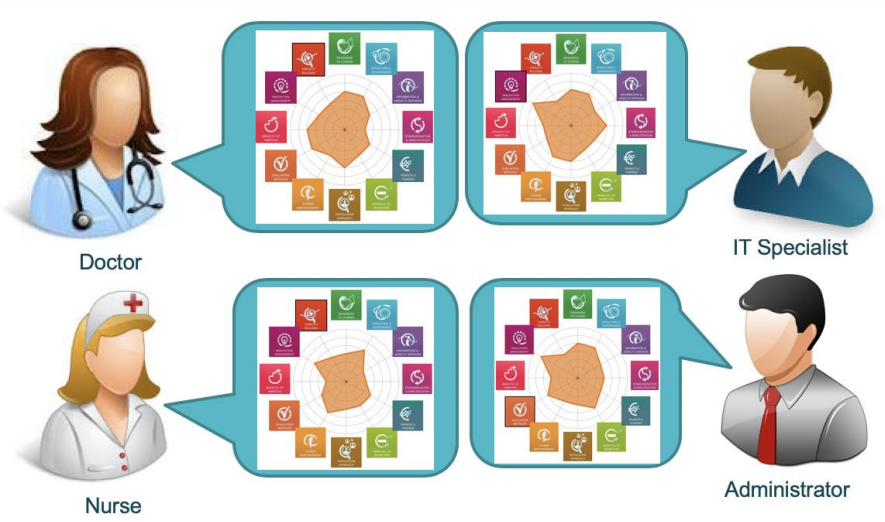

Figure 3: Performing individual self-assessment

3.6 Data collection and data analysis

Once an individual assessment has been completed and saved, it is then possible to share the final outcomes with other members of the team and / or the coordinator of the assessment process in order to collect and analyse the outcomes of the self-assessment process. The co-ordinator of the assessment process will then:

- Review the individual responses and produce a composite spider diagram combining all stakeholders' responses, thus showing areas of agreement as well as differences in maturity scoring (Figure 3).
- Identify the areas where consensus has been already reached (if any).
- Identify the areas where consensus has not been reached and further consensus-building process needs to be planned.

- Prepare a face-to-face consensus-building workshop to review the outcomes of the individual assessments with the aim of reaching agreement on the maturity of a particular healthcare system, and gather suggestions for future improvement actions.

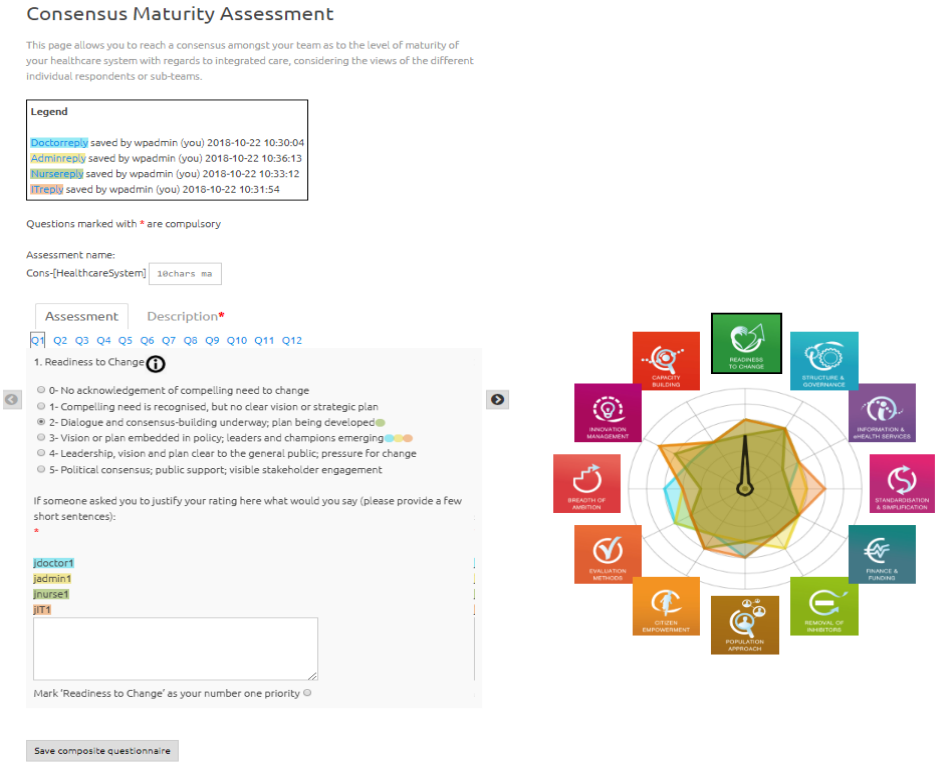

Figure 4: Composite spider diagram

3.7 Negotiation and consensus-building

The follow up workshop is organised with the participants of the self-assessment process in order to discuss the preliminary findings of the self-assessment process (Figure 4). The discussion is mainly focused around the dimensions with the greatest diversity in scoring.

Figure 5: Negotiation and consensus-building

The anticipated outcomes of the workshop are:

- A commonly agreed spider diagram reflecting the strengths and weakness of a particular healthcare system for the adoption of integrated care (Figure 5);

- Agreement on the priority areas for future actions to take forward in order to address the maturity gaps identified.

Figure 6: Negotiation and consensus-building

The outcomes of the self-assessment process can also serve as the basis to help to identify other regions and organisations with complementary strengths that can help to address the particular needs and gaps identified in the self-assessment process. This, in turn, can facilitate more tailored and appropriate knowledge transfer activities and exchange of good practices in integrated care.

4. Self-assessment process in the Basque Country, Spain

4.1 Introduction to the region

The Basque Country is an autonomous region in Northern Spain with a population of 2.19 million, configured by three constituent provinces: Áraba, Biscay and Gipuzkoa. The autonomous government is based on the Statute of Autonomy of the Basque Country (1979). As such, the Basque Ministry for Health oversees policy-planning, financing and contracting of health services; the Ministry for Employment and Social Affairs defines the social policies, whilst the contracting of social services is done by the Provincial Councils and municipalities. The process of commissioning and funding of the Ministry for Health defines the type and volume of activity and the founders of the care providers. This relationship is expressed in Law 8/1997, 26 June on Health Regulation in the Basque Country and is articulated through the Framework Contract with the public provider, Osakidetza. A minor part of the activity (elective surgery mainly) is outsourced to private providers.

4.2 Introduction to the regional healthcare system

The Basque health system is a Beveridge system working to improve the health status of the population and it is funded by taxes. The health system governs and funds the public healthcare provider, "Osakidetza - Servicio Vasco de Salud"; organisations in charge of biomedical research and innovation (BIOEF); and health services research in chronicity (KRONIKGUNE). According to Eustat[1] (Basque Institute of Statistics), the total public health budget in 2016 was €3.4 mil. which constitutes more than 30% of the Basque government's total budget. It has a structural workforce of 26,000 people and 7,000 people on temporary contracts. Healthcare professionals are public employees.

The Basque health system is composed of 13 Integrated Care Organisations (ICOs). These include 324 primary care centres, 11 acute hospitals (4,100 beds), 4 sub-acute hospitals (500 beds), 4 psychiatric hospitals (777 beds) and 2 contracted long-term mental health hospitals. The ICOs have been established to integrate primary and specialised care into one single organisation, trying to create synergies between the different levels of care.

4.3 Definition of integrated care

A clear strategic vision[2] has been developed by the Basque Government in relation to the challenges of ageing, chronicity and dependency and this has provided explicit support, leadership and capacities to transform the health and social care system and integrated care in the Basque Country. Osakidetza has reinforced and extended this integrated approach. As a result, a number of processes and tools have been developed and implemented to support the integration of health and social care system. These include:

- Person-centred approach to health and care delivery
- An integrated response to ageing, chronicity and dependence
- Culture of prevention and health promotion

[1] http://www.eustat.eus/indice.html
[2] http://www.euskadi.eus/web01-s2osa/es/contenidos/plan_gubernamental/xleg_plangub_13/es_plang_13/index.shtml

- Ensure the sustainability of the system
- Promote the empowerment of the citizens
- Prominence and involvement of professionals
- Strengthening of research and innovation.

A plan to achieve integrated care has been launched and the concept of ICOs has been introduced to address the consequences of fragmentation and lack of coordination between different levels of care. The objective has been to achieve less fragmented, more coordinated, efficient and higher quality care delivery.

Given the unique government arrangements of the Basque Country, the social, health and community ecosystem is highly complex and requires extensive coordination efforts to ensure the best care. The Basque Strategy on Ageing 2015-2020[3] has established an inter-departmental government body to guarantee mainstreaming among health and social providers in order to foster integrated and coordinated care delivery.

Integrated care in the Basque Country is mainly based on three pillars:

- Integrated governance that establishes the agents that participate in the organisation and provision of integrated care services, including the way services and departments are organised to manage the care process.
- Population approach, which implies coordination with social and public health agents. At present, efforts are being made to extend the integrated electronic health record "Osabide" in all nursing homes; develop primary health and social care teams in all the ICOs; and implement initiatives such as "InterRAI CA"[4] that seek to ensure the interoperability of health and social information systems.
- Culture and values that imply a change from the culture of fragmentation to a culture of integration.

4.4 Identification process of the local stakeholders

The Basque Country's local stakeholders were identified with the support of the Integration and Chronicity Service of Osakidetza. A multi-disciplinary and multi-level group of experts in healthcare integration was selected to assess the maturity of the region for the adoption of integrated care.

The profiles of the local stakeholders are provided in the Table below:

Table 1: Stakeholders in the Basque Country

Title	Organisation
Insurance & Procurement unit's technical	Basque Health Department
Health & social care Coordinator	Basque Health Department
Economic Director of an ICO	Osakidetza
Director of Integration of an ICO	Osakidetza

[3] http://www.ogasun.ejgv.euskadi.eus/r51-catpub/es/k75aWebPublicacionesWar/k75aObtenerPublicacionDigitalServlet?R01HNoPortal=true&N_LIBR=051715&N_EDIC=0001&C_IDIOM=es&FORMATO=.pdf

[4] http://www.euskadi.eus/gobierno-vasco/-/noticia/2017/innovando-en-el-modelo-de-atencion-sociosanitaria-en-euskadi-interrai-ca-como-embrion-de-la-h-sociosanitaria-vasca/

Deputy Director of Quality and Information Services of the General Directorate	Osakidetza
Integration and chronicity service's technical of the General Directorate	Osakidetza
Internal medicine service manager	Osakidetza
Primary care unit manager	Osakidetza
Primary care nurse	Osakidetza
Hospital nurse	Osakidetza

After inviting the local stakeholders to participate in the self-assessment process, an introductory meeting was carried out by Kronikgune to provide the experts with further information about the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA); the SCIROCCO project; the self-assessment tool and the self-assessment process; and the scope of the integrated care to be assessed in the Basque Country. The meeting took place on 13 June 2017 in Kronikgune's headquarters.

4.5 Self-assessment survey

In order to capture experts´ individual perceptions and opinions on the maturity level of the Basque health system to adopt integrated care, all selected participants were invited to:

- Register on the SCIROCCO Tool's web page which was translated into Spanish
- Perform the individual self-assessment
- Share their self-assessment outcomes with Kronikgune

All stakeholders responded the online survey in the period of one week between16 – 21 June 2017.

4.6 Outcomes of the self-assessment survey

All stakeholders responded to the survey; however, they did not all provide written justifications of their ratings. Nevertheless, the experts were asked to bring their justifications to the consensus-building workshop and discuss their perceptions with the rest of the group.

The following spider diagrams reflect the diversity of the stakeholders' perceptions on the maturity of the Basque health system for integrated care.

1. Insurance & Procurement Unit, Basque Health Department

2. Health & Social care Coordinator, Basque Health department

3. Economic Director of an ICO, Osakidetza

4. Director of Integration of an ICO, Osakidetza

5. Deputy Director of Quality and Information services, General Directorate of Osakidetza

6. Integration and chronicity service's technician, General Directorate of Osakidetza

7. Internal medicine service manager, Osakidetza

8. Primary care unit manager, Osakidetza

9. Primary care nurse, Osakidetza

10. Hospital nurse, Osakidetza

Figure 7: Stakeholders' individual questionnaires in the Basque Country

After the stakeholders filled in their individual questionnaires, the mean and dispersion have been analysed for each one of the dimensions of the maturity model.

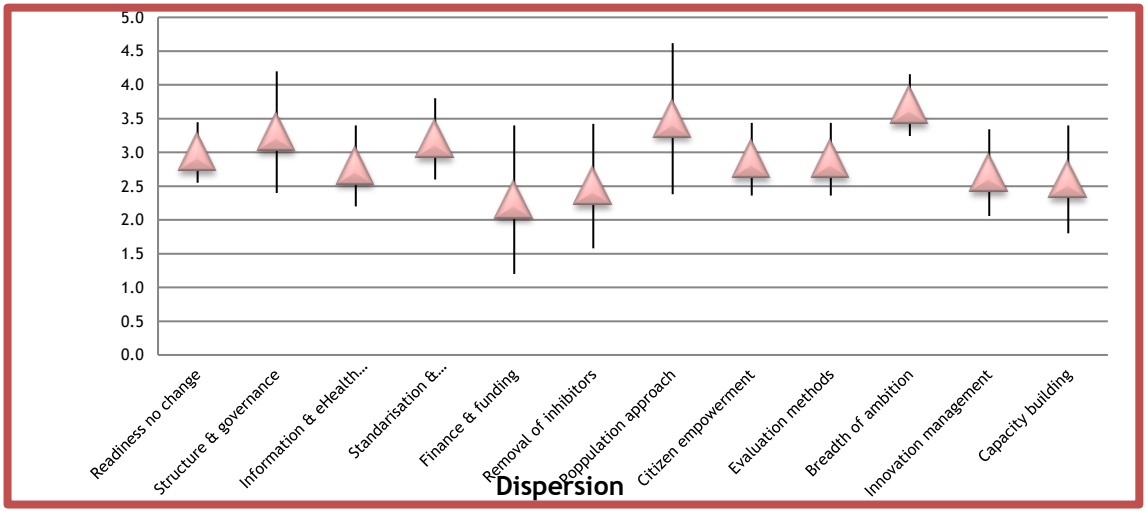

Figure 8: Mean and dispersion of the individual questionnaires' scores by each dimension

The highest mean values were given to the dimensions of Breadth of Ambition and Population Approach. The lowest mean values were given to the domains of Finance and Funding and Removal of Inhibitors. The dispersion for each dimension was analysed by calculating the standard deviation. The dimensions with the greatest variability were Finance & Funding (sd = 1.1), Population approach (sd = 1.1), Structure & Governance (sd = 0.9), and Removal of Inhibitors (sd = 0.9). In contrast, the dimensions with smallest variability were Readiness to Change (sd = 0.4), Citizen Empowerment (sd = 0.5), Evaluation Methods (sd = 0.5) and Breadth of Ambition (sd = 0.5).

The dimensions that presented the greater variability reflected the disparity of opinions among the stakeholders. This may have been due to:
a) the complexity of the dimensions;
b) the interpretation of what is described in the dimension is different among the stakeholders, although their opinion does not differ so much;
c) the differences in stakeholders' perspectives.

4.7 Stakeholder workshop

A follow up workshop was organised by Osakidetza and facilitated by Kronikgune on 22June 2017. The objective of the workshop was to discuss the preliminary findings of the self-assessment survey in the region and seek a multi-stakeholder understanding of the maturity of the healthcare system for integrated care in the Basque Country. The outcomes of the self-assessment survey served as the basis for the multi-stakeholder discussion, negotiation and consensus-building. The workshop was held in Spanish and the local SCIROCCO project managers translated the outcomes of the workshop into English afterwards. Nine of the ten stakeholders who completed the online self-assessment participated in the workshop.

Table 2: Agenda for the self-assessment workshop

Time	Session Title
09.30	**Welcome, Meeting Objectives & Methodology** • Presentation of the first individual spider diagram results. • Split stakeholders into two working groups, and selection of a representative for each one.
09.45	**Negotiation & Consensus Building in the two working groups** • Facilitated discussion on the outcomes of the self-assessment process for the region in the two groups, and reach an agreement resulting in a group-diagram.
11.15	**Coffee break**
11.30	**Negotiation & Consensus Building. Final diagram for the Basque country** • Presentation of the agreed group-diagrams to the whole group by the representatives of each group. • Agreement on the final diagram of the Basque Country. Consensus on the final scoring per each dimension, including the rationale for scoring.
13.00	**Reflection of the stakeholders on the self-assessment process** • Moderated discussion on the experience of local stakeholders with the self-assessment process.
13.25	**Conclusion and next steps**

Figure 9: Participants in the stakeholders' workshop in the Basque Country

4.8 Negotiation and consensus-building

After a short introduction to the workshop, the local stakeholders were grouped into two teams to ensure discussions and sharing of opinions among all participants. The objective was to reach a consensus across all 12 dimensions of the SCIROCCO tool and to create a final spider diagram in each of the two groups. A method to avoid disagreement was proposed to facilitate the discussions; if there was no agreement on the final score of a dimension, the scoring with the majority of the votes was chosen.

During the small group negotiations and consensus building, each stakeholder presented their spider diagram to their peers and shared their scores and justifications for each dimension. Both groups reached consensus in about one hour and half. Negotiation was straightforward, amiable and fast.

Group 1 Consensus diagram	Group 2 Consensus diagram
	

Figure 10: Both groups' consensus diagrams

After a coffee break, both groups came together to reach a final consensus and provide justifications for the final scoring. A spokesperson for each group presented the agreed small group diagrams and the differences in scoring were discussed by all participants. The dimensions of Structure and Governance, Funding, Breadth of Ambition and Population Approach were mostly discussed. After an hour, a consensus was reached and final spider diagram addressing the maturity of the Basque Country to adopt integrated care was uploaded in to the online SCIROCCO Tool.

4.9 Final consensus

The final spider diagram below shows the maturity of the Basque healthcare system for integrated care, including the areas identified for improvement. The local stakeholders reached consensus across a number of dimensions such as Readiness to Change, Structure and Governance, eHealth Services, Population Approach and Breadth of Ambition. In contrast, the domains of Innovation Management, Funding, Capacity Building and Standardisation proved to be more challenging to reach the consensus (see Figure 6).

Figure 11: Basque Country's final consensus diagram

Table 3: Scores, justifications and reflections assigned to each of the dimensions

Dimension	Assessment scale	Description	Features of the Basque Country's healthcare system
Readiness to Change	3	Vision or plan embedded in policy; leaders and champions emerging	Integration policies in the Basque Country are clearly defined, but change management is poorly implemented. There is Integrated Care Management Plan in place and incorporated into the policies and structures but partially implemented.
Structure & Governance	3	Governance established at a regional or national level	There is a clear roadmap to change to an integrated system. The healthcare system is driving the change but the progress is hampered, as the health and social departments are managed independently.
Information & eHealth Services	3	ICT and eHealth services to support integrated care are planned and deployed widely at large scale but use of these services is not mandated	There is a wide development of eHealth services for the healthcare professionals but not so much for citizens; Currently, the eHealth structure consists of Integrated Health Record, Health folder, eHealth Call Centre and Betion[5].

[5] http://www.euskadi.eus/sociosanitario/-/equipamiento/teleasistencia-beti-on/

Dimension	Assessment scale	Description	Features of the Basque Country's healthcare system
			Some work has been done to include social data in the eHealth structure.
Standardisation & Simplification	3	A recommended set of agreed information standards at regional/national level; some shared procurements of new systems at regional/national level; some large-scale consolidations of ICT underway	Broad development of corporate platforms e.g. databases, platforms for clinical history, public procurement of Innovative solutions; ICT standardisation is still in process, lack of sufficient solutions and initiatives to integrate social and health sectors.
Funding	3	Regional/national (or European) funding or PPP for scaling-up is available	Insufficient funding for integration agenda; Osakidetza's Framework Programme devotes only 5% of the budget to integrated care.
Removal of inhibitors	3	Implementation Plan and process for removing inhibitors have started being implemented locally	From a legal and structural point of view, implementation plan and process for removing inhibitors is in place but from cultural point of view the implementation is still lacking.
Population Approach	4	Population-wide risk stratification started but not fully acted on	The whole population has been stratified based on their morbidity risk. The socio-health stratification is not implemented. Frailty is not considered in the current risk stratification, but there is a deprivation index in place.
Citizen Empowerment	3	Citizens are consulted on integrated care services and have access to health information and health data	It is important to recognise the dichotomy between patient and citizen. Patients with high burden disease(s) are highly empowered which is not necessarily truth for the citizens. The citizens do not participate to the co-creation of care delivery.
Evaluation Methods	3	Some integrated care initiatives and services are evaluated as part of a systematic approach	The "Framework Programme" is the evaluation tool for integrated care, using the questionnaires such as D'amour[6] and IEMAC[7]. Some other initiatives have been considered but they are not in place. The Framework Programme includes social and health indicators, but there are no indicators related to the third sector.
Breadth of Ambition	4	Integration includes both social care service and health care service needs	Health and social services are the responsibility of different governance levels. Once a complete structural integration is accomplished, a functional integration, including health and social coordination is expected.
Innovation Management	2	Innovations are captured and there are some mechanisms in place to encourage knowledge transfer	There is a research and innovation strategy in place; bottom-up approach to promote innovation, in some of ICOs innovation units have been created. Innovation is supported directly by the Health Department, BIOEF and Kronikgune. However, the innovation management is not fully systematised.
Capacity Building	3	Systematic learning about integrated care and change management is in place but not widely implemented	Integrasarea[8] and the Framework Programme promote the change management and the learning on integration, but there is a need of a systematic method to standardise the capacity building within Osakidetza ICO.

4.10 Analysis of the outcomes

The consensus building method resulted in some changes to the individual scores of the local stakeholders. Comparing the means of the values of the individual assessments with the final scores, obtained after the negotiation and consensus process, we found changes bigger than 0.5 points in four out of the twelve dimensions. In three of them (Finance & Funding,

[6] Nuño-Solinís R, Berraondo Zabalegui I, Sauto Arce R, San Martín Rodríguez L, Toro Polanco N (2013), "Development of a questionnaire to assess interprofessional collaboration between two different care levels", Int J Integr Care. 2013 Apr 12
[7] http://www.iemac.es/
[8] http://www.integrasarea.eus/index.php

Removal of Inhibitors and Population Approach), the final score is higher. The Readiness to Change is the only dimension where the mean and final score remained the same. We could conclude that although, initially, the stakeholders had very different opinions (probably due to the differences between their expertise and experiences) after listening to others in the workshop, some realised that they had been excessively critical. This suggested that although stakeholders work in the same healthcare system, they are not always aware of the perspectives of professionals from different departments.

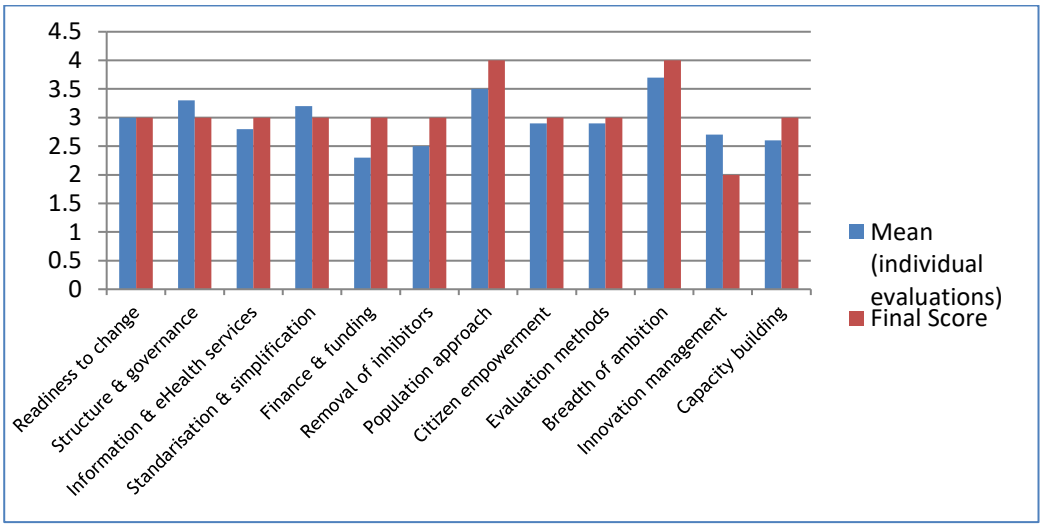

Figure 12: Means of individual questionnaires and final scores for each dimension

The outcomes of the assessment process for the Basque Country can be summarised as follows:

1. The spider diagram for the Basque Country is quite homogeneous with no big discrepancies in stakeholders' perceptions across most of the dimensions of SCIROCCO tool. It means that all of the stakeholders were broadly in agreement. The dimensions with the highest rates of consensus were Population Approach and Breadth of Ambition.
2. The outcomes of the self-assessment process suggested a very harmonised approach to integrated care in the region. The outcomes showed that there is progress towards integrated care across all of the dimensions of the SCIROCCO tool. Areas for improvement were identified that require further promotion: e.g. participation and empowerment of citizens and innovation management. Stakeholders also agreed that it was necessary to create the right environment between the different agents involved to improve their collaboration.
3. There are some specific factors in the region that need to be considered to better understand the strengths and weaknesses identified in the self-assessment process.

   Since 2010 Osakidetza, aiming for an integrated care system, has moved towards a new organisational and management model with the unification of healthcare structures, population stratification, and integrated information systems, among other elements. This facilitates the process across all dimensions of the SCIROCCO tool and, specifically, the domain of Structure and Governance.

   In addition, the adoption of tools for the assessment of continuity of care (e.g. IEXPAC, IEMAC, D`AMOUR, Framework contract) has facilitated a cultural change for

Osakidetza's professionals. The professionals have had to adopt new roles and face new challenges across the domains of eHealth Services and the Standardisation and Simplification.

Currently, the involvement of patients and citizens in the development of healthcare policies and services will become the main axis of the new model of care in the Basque Country.

4. The relationship and coordinated work between the health and social care sectors is crucial to guarantee continuity of care and it is very much dependent upon culture, social and organisational aspects of a particular healthcare system.

4.11 Key messages

The experts that participated valued the self-assessment process as a very positive experience. They appreciated its usefulness for enhancing negotiation and consensus building. It was agreed among the experts that the outcomes of the process realistically reflected the current state of the healthcare system in the Basque Country.

Some feedback statements from participants included:

"The self-assessment process is a reflection exercise."

"When consensus is reached, extreme scores disappear and a more balanced score is reached".

"The SCIROCCO self-assessment process has allowed us to contrast opinions with a group of multi-disciplinary and multi-level colleagues, and to dig deeper into the current situation of the region in relation to integrated care, making us aware of where we are."

4.12 Conclusions and next steps

The SCIROCCO tool can be a very useful tool to assess the evolution and / or the level of integration that is taking place in healthcare systems. It can also help to facilitate the knowledge transfer process, by providing evidence in the form of the perceptions of the different stakeholders involved in the implementation of integrated care.

To conclude, the SCIROCCO tool can be useful as:

- A framework to transfer integrated care initiatives between different regions in Europe.
- A tool to facilitate sharing of good practices between organisations within a particular healthcare system.
- A monitoring tool to assess progress against the specific dimensions of integrated care.
- An awareness raising tool to capture the perceptions of different groups of professionals / stakeholders within the same organisation.

Having analysed the results obtained during the SCIROCCO self-assessment process, Osakidetza, specifically the Healthcare Directorate of Osakidetza, will aim to reflect on the usefulness of the tool for the Basque Country's healthcare system. In particular, it is considering performing a test to analyse the usefulness of the SCIROCCO tool in the transfer of good practices among organisations within the region.

5. Self-assessment process in Norrbotten Region, Sweden

5.1 Introduction to the region

Region Norrbotten is the northernmost region of Sweden and the estimated population is around 250,000 citizens. Region Norrbotten is run by the county's inhabitants, through political elections. The Region's activities are funded by taxes.

5.2 Introduction to the regional healthcare system

There are three levels to consider in the health care system in Sweden:

- The national level is responsible for overall health and health care.
- The regional level, county councils/regions are responsible for financing and delivering health services to citizens.
- The local level, municipalities are responsible for care of the elderly and the disabled.

The healthcare sector in Region Norrbotten is the county's biggest employer with approximately 7400 employees. The Region Norrbotten provides healthcare and dental care and supports research and education. The hospitals provide the next level of care when district healthcare centres lack the necessary expertise or technical resources. Norrbotten has five hospitals. The Sunderby Hospital, between Boden and Luleå, is the Region's largest hospital. In case of the need for a highly specialised medical care, the Region collaborates with other hospitals throughout Sweden. In addition, the Region has 35 primary health centres, four of which operate as private entities. Healthcare for frail and older people living at home or in special accommodations for older and disabled people is provided by licensed healthcare professionals, employed by the municipalities, or by personnel with delegation. Healthcare delivery at home includes interventions, rehabilitation and nursing. The municipalities in the Region also have responsibly for the citizens' social welfare and care. The Region has been working with eHealth and telemedicine for many years and Region Norrbotten, can be considered as quite advanced in this field. Prevention and public health are also central in the Region and are the responsibility of the organisations such as athletics associations, academic organisations, schools and local authorities.

5.3 Definition of integrated care

The Region Norrbotten, with a large geographic spread and an increasingly ageing population, has worked towards integrated care during the last decades, especially for older people and people with multiple chronic conditions. Sweden has a model for integrated care that aims to link primary, hospital and community care based on the local agreements between healthcare providers. In addition, an ICT system which allows exchange of healthcare information and supports integration has been implemented. A typical chain of care includes a screening element in a primary care centre, treatment plans developed in specialist centres and rehabilitation provided by healthcare providers employed by the municipalities. Contractual agreements and alignment of incentives that enable efficient use of resources are distinctive features of the Swedish model.

5.4 Identification process of local stakeholders

The local stakeholders in Norrbotten were identified with the support of the local Steering Group for the SCIROCCO project. All selected stakeholders were very knowledgeable about Norrbotten's healthcare system and the implementation of integrated care in the Region.

The profile of stakeholders is provided in the table below:

Table 4: Stakeholders in Region Norrbotten

Title	Organisation
Assistant professor/Knowledge management strategic officer	Region Norrbotten
Economic controller and business developer	Region Norrbotten
Assistant Director Community Health care	Region Norrbotten
Project director	Region Norrbotten
Researcher, Improvement strategic officer	Region Norrbotten
Business developer	Region Norrbotten
Healthcare centre manager and registered advanced clinical nurse	Region Norrbotten
Registered Nurse/PhD/Project manager	Region Norrbotten
IT-strategic officer, development strategic officer (e-health and innovation)	Region Norrbotten

5.5 Self-assessment survey

The self-assessment process in Region Norrbotten consisted of three steps:

1. All participants were invited to register on the SCIROCCO tool and conduct the individual self-assessments. The objective of this first step was to capture individual perceptions of local stakeholders on the maturity of Norrbotten Region for integrated care.

2. Consolidation of the individual assessments, resulting in two composite spider diagrams illustrating different perceptions of stakeholders' perspectives on integrated care in Region Norrbotten.

3. Final assessment where consensus on the final spider diagrams illustrating the progress of Region Norrbotten towards integrated care was reached.

All stakeholders responded within one week.

5.6 Outcomes of the self-assessment survey

All invited stakeholders responded to the survey. The stakeholders were asked to consider their scorings and justifications at the face-to-face meeting scheduled the week after the completion of the survey.

The following spider diagrams reflect the diversity of the stakeholders' perceptions on the maturity of healthcare system for integrated care in Norrbotten Region (Figure 12).

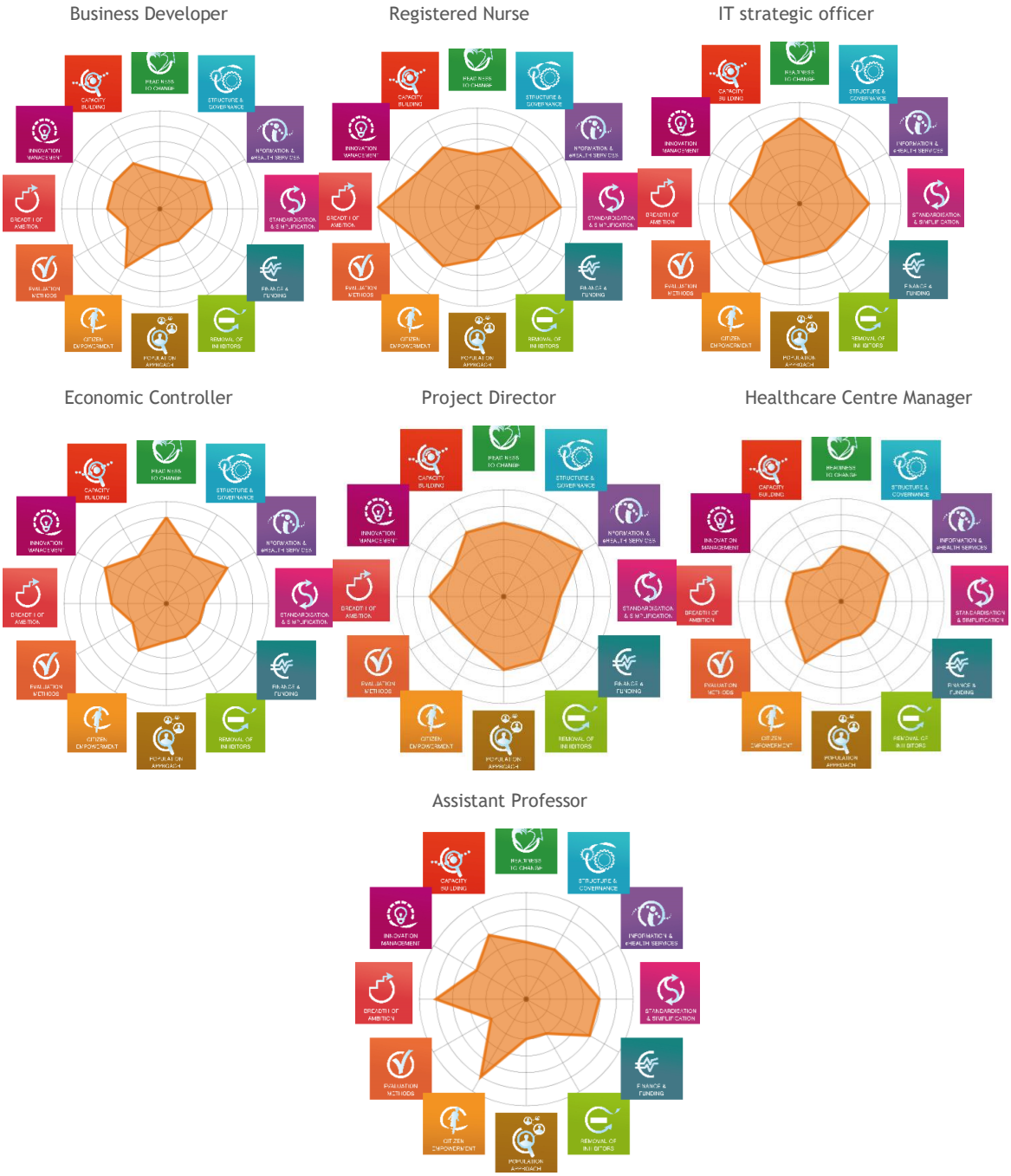

Figure 13: Stakeholders' individual questionnaires in the Norrbotten Region

The three domains with the biggest differences in scorings included Standardisation and Simplification, Finance and Funding and Removal of Inhibitors. The reason for these differences may be that the stakeholders had different experiences based on their knowledge, function and position in the Region. Three domains that the stakeholders reached common assessment scorings included: Structure and Governance, Evaluation Methods and Innovation Management. The potential reason may be that these were the

dimensions that most of the stakeholders came into contact with on a daily basis and it was, therefore, easier for them to reach consensus in these areas.

5.7 Stakeholder workshop

The follow-up workshop was organised on 14 June 2017 in Norrbotten. The objective of the workshop was to discuss the preliminary findings of the self-assessment surveys and gain a multi-stakeholder understanding of the maturity of healthcare system for integrated care in Region Norrbotten. All respondents accepted to participate in the meeting. The outcomes of the self-assessment surveys served as the basis to facilitate the multi-stakeholder discussions, negotiations and consensus-building. The workshop was held in Swedish and the local SCIROCCO project managers translated the outcomes of the workshop into English thereafter.

Table 5: Agenda for the self-assessment workshop

Agenda for the workshop:
The self-assessment process consists of 2 phases:
Phase 1
• Presentation of the outcomes of the self-assessment process • Feedback and reflections from the local project group
• Negotiation and Consensus Building
• Facilitated discussion, the outcomes of the self-assessment process for Region Norrbotten. Facilitator of the session introduced the outcomes per each dimension and seek the consensus from the partners on the final scoring per particular dimension, including the rationale for scoring.
Phase 2
• Final diagram for Region Norrbotten, the facilitator of the session presented the final diagram for the Region to the local stakeholders and seek the feedback from the partners on the final version of the spider diagram, the whole group.
• Reflection of the stakeholders on the self-assessment process and moderated discussion on experiences from the local stakeholders about the self-assessment process.
• Conclusion and planning for next step in the project (focus group interviews)

5.8 Negotiation and consensus-building

Unique knowledge was collected regarding the maturity of healthcare system for integrated care in Norrbotten across all 12 dimensions of the SCIROCCO tool. During the day, a number of dimensions with the biggest differences in stakeholders' perceptions were discussed in order to reach a common understanding of the maturity of Norrbotten's healthcare system for integrated care. These differences are captured in the spider diagrams below (Figure 13). The spider diagrams served as the basis to facilitate the consensus building and negotiations among the stakeholders. As the group had conducted seven individual assessments, the stakeholders were split into two groups resulting into two preliminary consensus diagrams. As a result, the stakeholders were asked to reach the consensus twice which made the discussions much more fruitful and indepth. In addition, the validity of the assessment can be expected to be higher, since the assignment was conducted several times and all steps in the process were discussed and validated carefully by the whole group. Moreover, the different experience and expertise of local stakeholders was taken into consideration during the workshop which contributed to a more robust self-assessment process and its outcomes.

Group 1 Interim consensus diagram

Group 2 Interim consensus diagram

Figure 14: Interim consensus diagram for Norrbotten Region

5.9 Final consensus

The final spider diagram below shows the maturity of Norrbotten's healthcare system for integrated care, including the areas identified for improvement. The local stakeholders reached consensus across the number of dimensions such as Breath of Ambition and Readiness to Change. In contrast, the domain of Citizen Empowerment proved to be more challenging to reach consensus (see Figure 14).

Figure 15: Final consensus diagram for Norrbotten Region

The details of the stakeholders' assessment including the justifications for the scoring are provided in the following table.

Table 6: Scores, justifications and reflections assigned to each of the dimensions

Dimension	Assessment scale	Description	Justifications & reflections
Readiness to Change	3	Vision or plan embedded in policy; leaders and champions emerging.	Many small projects concerning integrated care are running but there is a lack of collaboration and learning between the projects which often result in the different levels of existing knowledge and performance of integrated care in the Region. Models for managing change are established. There is a clear recognition of need for change. From a political point of view there is an acknowledgement of the unsustainability of current healthcare system and visions and policies to address the need to change have been adopted to some extent. Also, on an operational level several initiatives have been implemented and are running.
Structure & Governance	3	Governance established at a regional or national level.	A national strategy for eHealth has been developed and implemented; the Region has progressed well concerning eHealth solutions but there is a need for the municipalities to reach the same level of progress to be able to reach the good results of integrated care and overcome organisational boundaries. There is a structure for collaboration between the Region and the municipalities. Further development of eHealth is defined in our regional programmes such as the Regional Development Strategy, and the Regional Innovation Strategy. However, the Strategies still exist only at a strategic level and implementation is lacking. A clear roadmap and specific mandates are needed to ensure their implementation.
ICT & eHealth Services	3	ICT and eHealth services to support integrated care are planned and deployed widely at large scale but use of these services is not mandated.	National ICT solutions to increase the patients´ access to their medical records are implemented. National ICT solutions to support the patients´ participation in their own care are developed but not fully implemented yet. Regional ICT solutions to share patient related information between different care providers have been implemented in Norrbotten. We have 1177.se where patients can read their own healthcare data. The Region has also progressed well with building on existing platforms and infrastructure and creating new services to empower patients and ensure their ability to participate in the decision-making on their care and supporting self-care. However, scalability of these solutions remains the issue.
Standardisation & Simplification	3	A recommended set of agreed information standards at regional/national level; some shared procurements of new systems at regional/national level; some large-scale consolidations of ICT.	There is a lack of common standards between the healthcare providers at local and regional level and often even among the providers at the same level.
Funding	2	Consolidated innovation funding available through competitions/grants for individual care	External funding is most often limited to pilot projects rather than up-scaling. Internally, within the organisation, the budget is set for a year. Due to the financial crisis of the healthcare system in Norrbotten, the primary focus is on savings rather

Dimension	Assessment scale	Description	Justifications & reflections
		providers and small-scale implementation.	than spending. However, sometimes there is an opportunity to apply for funding for the projects. We can receive funding for early phases of the projects externally and internally but mostly for testing and piloting of the services.
Removal of inhibitors	1	Awareness of inhibitors but no systematic approach to their management is in place.	There is no specific model or existing project in Norrbotten with a clear mandate to remove inhibitors; there are different models used with different results. The collaboration between the municipalities and the Region is in place that facilitates the removal of inhibitors.
Population Approach	2	Risk stratification is used systematically for certain parts of the population (e.g. high-use categories).	Models to identify patients at risks are applied in Norrbotten and standardised care plans are implemented for some categories of patients. Both the population (or public) health unit as well as care divisions in the Region continuously perform certain risk analysis, followed by statistics and particular types of actions.
Citizen Empowerment	4	Incentives and tools exist to motivate and support citizens to co-create healthcare services and to participate in decision-making process about their own health.	Citizens do have access to health information and health data through "Health care in numbers and open comparisons', but this solution is not used systematically for decision-making. Not all data is made available yet.
Evaluation Methods	1	Evaluation of integrated care services exists, but not as a part of a systematic approach.	No common evaluation model is used in Region Norrbotten. There are some evaluations methods applied, but not as a part of a systematic approach.
Breadth of Ambition	4	Integration includes both social care service and health care service needs.	There is fully integrated health and social care services with collaboration established on all three levels of care, but the services can still be improved.
Innovation Management	2	Innovations are captured and there are some mechanisms in place to encourage knowledge Transfer.	There is no very much formalised innovation management process. There is no organisation with the functions which can work in all parts of the innovation process. Procurement is very much removed from the process today.
Capacity Building	2	Cooperation on capacity building for integrated care is growing across the Region.	There is still at the point where we need better support for create a learning organization and supporting "change managers" continuously.

5.10 Analysis of the outcomes

The final self-assessment outcomes show where the Region Norrbotten has the potential to improve in the area of integrated care - for example, in the dimension related to Evaluation Methods and Removal of Inhibitors. At the same time, the outcomes also provide a picture of areas where the ~Region's maturity was assessed as being high, for example, in the areas of Citizen Empowerment and Breath of Ambitions.

The outcomes for the Norrbotten Region can be summarised as follows:

1. Looking at the overall consensus diagram for Norrbotten, it shows a certain degree of diversity in the maturity of integrated care in the Region.

2. Some results of the self-assessment seem to be surprising - for example, relatively low scoring of the dimensions of eHealth, Evaluation Methods, Removal of Inhibitors and Population Approach. The stakeholder group discussed these outcomes and concluded that if they did not have the assessment scales and indicators provided by the SCIROCCO tool, the scoring would have been much higher.

3. The self-assessment outcomes captured in the form of the spider diagram provides the Norbotten Region with a visual picture of internal strengths and weaknesses in integrated care. However, even in the dimensions of a "high" score, they recognised that there is potential for improvement and that it is important to continue improving in these areas as well because healthcare is constantly changing and requires rapid changes of methods and procedures of delivering health and care.

In general, the spider diagram reflects the current situation in the Region, however there are some outcomes which stand out. The figure shows that the Region has a high degree of maturity with respect to Citizens Empowerment and in the dimension Breadth of Ambition.

4. The self-assessment outcomes are influenced by a number of internal and external factors, particularly the organisation of the healthcare system in Norrbotten which is a large system that requires a lot of time to change existing methodology and processes in care delivery. The Region also has a large geographical spread of citizens and dispersed population, in combination with an ageing population. In addition to the demographic challenges, the Region encounters challenges in terms of increased obesity and overall health status among the younger population which is often influenced by cultural habits. Finally, changes in terms of routines and methods within healthcare often depend on other factors such as patient safety and national guidelines.

5.11 Key messages

The SCIROCCO tool has facilitated the visualisation of the strengths and weaknesses of Region Norrbotten in integrated care. The self-assessment has contributed to the improved awareness of local stakeholders about the aspects of integrated care that still need to be developed and improved upon.

The stakeholder group suggested that the results from the self-assessment process could be used in the development of integrated healthcare services in the Region Norrbotten. Additionally, the validated tool could be useful in initiating and evaluating small and large internal and external projects in the area of integrated care.

5.12 Conclusions and next steps

The results from the workshop have been validated twice by the local project team. The local Steering Group in Norrbotten has been informed about the preliminary results from the self-assessment process. In the next step, the results from the self-assessment process from Region Norrbotten will be clustered in terms of its strengths and weaknesses.

6. Self-assessment process in Olomouc Region, Czech Republic

6.1 Introduction to the region

Olomouc Region is one of 14 regions in the Czech Republic. This agriculture-industrial Region is located in the north-east of the country and has approximately 640 000 inhabitants. Similarly, as in other regions of the country and beyond, the ratio of older people in the whole population has been growing in recent years.

6.2 Introduction to the regional healthcare system

The healthcare system in the Czech Republic is based on the Bismarck model, with mandatory healthcare insurance. There are seven healthcare insurances that effectively control almost all financial flow in the sector. Healthcare policy is planned and implemented by the Ministry of Health and healthcare insurances. In addition, these authorities manage the introduction of novel innovative procedures and devices. Regions, on the other hand, have the responsibility for some healthcare services, e.g. ambulance services and long-term care services provided by hospitals. Home care is reimbursed through the system but is not widely deployed.

There are some eHealth initiatives emerging as a result of an eHealth strategy that has been in place since 2016. The strategy has been gradually implemented by the Ministry of Health and the current focus is mainly on e-prescription and the establishment of a national eHealth Centre with its headquarters in the University Hospital Olomouc. It is the largest hospital in the Region and is responsible for the provision of complex care in the Region. The hospital is also a driver of innovation in the Region. A number of eHealth and telemedicine initiatives are currently being piloted and implemented in the Region, however the lack of reimbursement remains a challenge to a wider deployment of these services.

Social care is managed and financed separately in both the Region and the Czech Republic. Responsibility for the provision of social care remains largely with the regional authorities. The services are partly financed by the state and partly by regional and local municipalities. Social care allowances are distributed by the state to citizens directly.

6.3 Definition of integrated care

There is no exact definition of integrated care in the Czech Republic or any official legislation in place in this area. However, there are some examples of care being provided in an integrated and coordinated way between healthcare providers. The University Hospital Olomouc, for example, has designed an integrated care programme for chronically ill patients.

Clinical integration is achieved through the implementation of national complex programmes for chronic patients based on commonly agreed pathways. This is very often supported by the strong role of medical societies in the country.

There are also some voluntary integrated care initiatives in the community settings – this “system of integrated supporting services” operate on the basis of clear health and social

care integration. However, the uptake of these initiatives is affected by a lack of targeted financing.

6.4 Identification process of the local stakeholders

The local stakeholders were identified according to the SCIROCCO self-assessment methodology and included health and care policy makers, administrators, health and social care providers from the Olomouc Region and the wider Czech Republic. The rationale for involving some of the national stakeholders was defined by the nature of the healthcare system in the country.

Over 20 stakeholders were contacted for the purpose of the self-assessment however, as the knowledge and progress of integrated care is very moderate in the Region, only five stakeholders agreed to participate in the process. These were namely:

- Representative of the Balneology Research Institute, Olomouc
- Representative of the social care department of Olomouc municipality council
- Representative of the Faculty of Health Sciences, Palacky University Olomouc
- Representative of the Faculty of Health Sciences, Palacky University Olomouc
- Representative of the General Health Insurance.

6.5 Self-assessment survey

The self-assessment process in the Olomouc Region consisted of three steps:

1. All participants were invited to register on the SCIROCCO tool and conduct the individual self-assessments. The objective of this first step was to capture individual perceptions of local stakeholders on the maturity of Olomouc Region for integrated care.

2. Consolidation of the individual assessments, resulting in a composite spider diagram illustrating different perceptions of stakeholders' perspectives on integrated care in the Olomouc Region.

3. Final assessment where consensus on the final spider diagram illustrating the progress of the Olomouc Region towards integrated care was reached.

All stakeholders responded within two weeks.

6.6 Outcomes of the self-assessment survey

Ten invited participants used the SCIROCCO online tool to assess the maturity of healthcare systems in the Olomouc Region and five stakeholders completed the process. This was mainly due to the lack of time or no urgency of integrated care agenda in the Region. The language was also perceived as a barrier despite that fact that the Tool was translated into the Czech language. The wider adaptation of the language and concept of integrated care is required to reach greater engagement and mobilisation of local stakeholders. The diversity of stakeholders' perceptions is reflected in the spider diagram below:

Figure 16: Stakeholders' perceptions in Olomouc Region

6.7 Stakeholder workshop

The stakeholder self-assessment workshop was organised on 23 November 2017 at the University Hospital Olomouc in the Olomouc Region. Five stakeholders attended the meeting in person as outlined in the section 6.4 above. The workshop was held in Czech.

Table 7: Agenda for the self-assessment workshop

Čas	Session Title
10.00	**Přivítání, představení a shrnutí cílů workshopu**
10.10	**Představení projektu Scirocco**
10.20	**Proces sebehodnocení v Olomouckém Regionu** • Krátké představení procesu hodnocení v Olomouckém kraji/ ČR • Prezentace výsledků hodnocení Olomouckého kraje • Diskuze a zpětná vazba k problematice integrované péče (IP) v CR
11:00	**Coffee Break**
11.15	**Diskuze k jednotlivým hodnocením s cílem konsenzu** • Společná diskuze s účastníky workshop na téma výsledky hodnocení IP v Olomouckém kraji/ČR. V rámci diskuze budou prezentovány výsledky hodnocení k jednotlivým dimenzím hodnotícího modelu a na základě konsenzu bude probíhat společné hodnocení.
12.15	**Přestávka**
12.30	**Vytvoření finálního diagram pro stav IP v Olomouckém kraji** • Prezentace finálního diagram včetně zpětné vazby diskutujících.
13.00	**Společná diskuze nad nástrojem pro hodnocení připravenosti IP** • Moderovaná diskuze shrnující silné a slabé stránky hodnotícího modelu
13.30	**Závěr workshopu**

Figure 17: Stakeholders' self-assessment workshop in the Olomouc Region

6.8 Negotiation and consensus-building

The negotiation process was well facilitated and consensus was relatively easy to reach. All dimensions were discussed in depth and joint statements and rationale for the final rankings were provided by stakeholders. Some of the domains (e.g. Breadth of Ambition and Standardisation) required further explanation in terms of the language used and because of a lack of understanding of the concept of integrated care in the Olomouc Region. In addition, it was not clear for some stakeholders if the assessment should be focusing on the current state of play or future progress.

6.9 Final consensus

The final spider diagram shows the maturity of Olomouc's healthcare system for integrated care, including the areas identified for improvement. The local stakeholders reached consensus across all dimensions of SCIROCCO Maturity model (see Figure 17).

Figure 18: Final consensus diagram for Olomouc Region

The details of the stakeholders' assessment including the justifications for the scoring are provided in the following table:

Table 8: Scores, justifications and reflections assigned to each of the dimensions

Dimension	Assessment Scale	Description	Justifications & reflections
Readiness to Change	1	Compelling need is recognised, but no clear vision or strategic plan.	There is a leadership in place, however, the concept of integrated care is not reflected in legislation, hence the vision of policy makers is lacking as well.
Structure & Governance	0	Fragmented structure and governance in place.	Roadmap for change programme is missing hence it is difficult to create a shared vision and organisational structure for integrated care; the structure is fragmented. Some rare integrated care initiatives are active at the level of municipalities but there is no national/regional structure in place.
eHealth Services	0	ICT systems are not designed to support integrated care.	There is a national eHealth strategy (approved in November 2016) and gradually being implemented, however electronic health records are not available. As such, electronic sharing of health information across the care providers is a challenge and not really happening between health providers of diverse ownerships be they general practitioners, hospitals, clinics or other providers.
Standardisation & Simplification	1	Discussion of the necessity of ICT to support integrated care and of any standards associated with that ICT.	There has been some initial work around the standards; the need for standards is recognised.
Funding	1	Funding is available but mainly for the pilot projects and testing.	Lack of funding is the biggest barrier to implement any changes in the care models; sustainability remains an issue. Regardless of the funding some innovation is still happening at small scale.
Removal of inhibitors	1	Awareness of inhibitors but no systematic approach to their management is in place.	Culture plays a major role here; it is very difficult to change the day-to-day routine of healthcare professionals. In addition, sharing of information among the professionals is rather challenging.
Population Approach	1	A population risk approach is applied to integrated care services but not yet systematically or to the full population.	There are very limited risk stratification initiatives in place.
Citizen Empowerment	0	Citizen empowerment is not considered as part of integrated care provision.	Citizen empowerment is recognised in national strategy Health 2020 but its implementation remains a challenge. Healthcare by law still focuses on care and not on support of citizens in improving their health. There is a lack of capacity to support citizen empowerment initiatives.
Evaluation Methods	0	No evaluation of integrated care services is in place or in development.	There is no systematic evaluation in place; the health insurances pay usually for the cheapest or otherwise justified services. Olomouc already uses MAST (a model derived from HTA) for internal purposes of UHO – usually projects.

Dimension	Assessment Scale	Description	Justifications & reflections
Breadth of Ambition	1	The citizen or their family may need to act as the integrator of service in an unpredictable way.	There is some level of interaction /coordination of care at the level of hospitals.
Innovation Management	1	Innovation is encouraged but there is no overall plan.	The municipality in the Olomouc Region has widely recognised the need and benefits of innovation. However, the implementation of concrete actions is very difficult.
Capacity Building	1	Some systematic approaches to capacity building for integrated care services are in place.	Training of healthcare professionals is ongoing; the training on integrated care is already included in the curricula at the Universities, particularly Palacky University Olomouc.

6.10 Analysis of the outcomes

The final self-assessment outcomes show where the Olomouc Region has the potential to improve in the area of integrated care. The summary of the outcomes is provided below:

1. Looking at the overall consensus diagram, the stakeholders concluded that there were two critical dimensions that are significant to move the concept of integrated care in the Olomouc Region forward. These are: the dimensions of Capacity Building and eHealth Services as the introduction of ICT to enable sharing of health data, supported by the skills of healthcare professionals would significantly contribute to better integration between various levels of healthcare.
2. The outcomes of the self-assessment process were not necessarily surprising for the stakeholders. Very low scoring reflects the current picture of integrated care in the Czech Republic.
3. The spider diagram provided stakeholders with a very comprehensive picture of the current state of play and highlighted a number of areas which require future actions and improvement. The concept of home care and coordination of these services with other healthcare providers in the Region was one of the areas identified and discussed.
4. One of the common factors of relatively low maturity of Olomouc's healthcare system is very strong reluctance and resistance to change. This has a significant impact on the maturity rating in a number of dimensions of the SCIROCCO Maturity Model and is one of the key inhibitors to introduce a change in the Region.

6.11 Key messages

One of the main messages of stakeholders participating in the self-assessment process was that the SCIROCCO tool and its Maturity Model are not complex tools and can be relatively easily used. There are, however, some dimensions which require further refinement and testing by users to improve their understanding.

In general, the use of the SCIROCCO tool and organisation of the self-assessment process was a good educational exercise for the Region where the concept of integrated care is not that widely used or implemented. The Maturity Model is a very comprehensive conceptual model which provides an overview of all the actions considered when promoting the concept of integrated care in the Olomouc Region and the Czech Republic.

6.12 Conclusions and next steps

The SCIROCCO Maturity Model and its on-line self-assessment tool will be further used and explored as part of the discussions and awareness raising activities about the need for the concept of integrated care in the Czech Republic. In addition, a self-assessment process is also planned to be conducted in the Mid-Bohemian Region which is currently working on the development of a new plan for regional health and social care services.

7. Self-assessment process in Puglia Region, Italy

7.1 Introduction to the region

The Puglia Region is situated in the South of Italy. It comprises 19,345 km2, and its population is approximately 4.1 million. The capital of the Region is Bari, situated on the coast.

Puglia's healthcare system guarantees the delivery of healthcare to the entire population, according to universalistic principles. This means that all citizens have the right to receive healthcare treatments according to an equal level of quality, and safe procedures and care. Acute care is always free. Services can include a co-participation fee depending on income or/and specific pathologies.

7.2 Introduction to the regional healthcare system

In Puglia the healthcare system is mainly public. There are also private structures that contribute to the delivery of care and which cooperate formally with the public system so that citizens can access services by the same rules applied for public services. Over the last two years, the system has undergone a complete reorganisation. At the moment, the healthcare service delivery is organised as follows:

- 49 districts gathered in 6 Local Health Authorities which include 31 Integrated Health Community Centres;
- 5 second level hospitals (average 825 beds), 16 first level hospitals (average 299 beds) and 12 basic hospitals (average 127 beds). Hospitals include 2 Hospital Trusts and 2 Research Hospitals.

7.3 Definition of integrated care

In 2004 Puglia started introducing the Integrated Care Model to improve the disease and care management of chronic patients. The Model is now in its 3.0 revision and is based on vertical integration between professionals and different care settings (hospital and territory). It involves the definition of specific healthcare pathways for pathology; promotion of patient empowerment; co-creation of digital systems to support the delivery of care to citizens and facilitate communications between professionals for more effective disease and care management of chronic patients; better control of resources; and more appropriate settings for care delivery.

7.4 Identification process of the local stakeholders

The selected stakeholders represented the macro, meso and micro dimensions of the regional healthcare system. The profile of the local stakeholders is provided in the table below:

Table 9: Stakeholders in Puglia Region

Designation	Organisation
Macro level	
Regional Director of Innovation	Department of Economic Development
Regional Manager of ICT	Department of healthcare and social affair and sports for all
Welfare Regional Manager	Department of healthcare and social affair and sports for all
Meso level	
Clinician	Director of Health District
Health Director Local Health Authority	Health Director Local Health Authority
Manager of ICT regional cluster	Industry
Micro level	
Clinician	Specialist
Clinician	General Practitioner
Active Citizen association	Citizen's rights representative
CEO of APP INNOVAAL	Research Centre
CEO of AReSS	CEO

7.5 Self-assessment survey

In June 2017, the local coordinator of the SCIROCCO project shared the methodology for self-assessment with the Scientific Representative (SR) and the Chief Executive Officer (CEO) at Agenzia Strategica Regionale per la Salute e il Sociale (AReSS).

The AReSS local team sent an invitation email to all identified stakeholders including:

- An invitation letter in Italian, signed by the CEO and the SR, enclosed with the invitation letter in English agreed by the partners in the project
- The conceptual Maturity Model (MM)
- Methodology for self-assessment
- The Agenda for the consensus building workshop
- The link for online training on how to use SCIROCCO online tool
- The link to access the SCIROCCO self-assessment tool.

The stakeholders had one week to complete the questionnaire.

7.6 Outcomes of the self-assessment survey

All invited stakeholders completed the questionnaire and they did not require additional information on how to complete the questionnaire.

The following spider diagrams (Figure 18) illustrate the perceptions of stakeholders on the progress towards integrated care in the Puglia Region:

Figure 19: Stakeholders' individual questionnaires in the Puglia Region

7.7 Stakeholder workshop

The consensus workshop was held on 2nd October 2017 at the regional headquarters of AReSS Puglia in Bari, Italy and the focus group meeting was organised on the same day. Eleven local stakeholders who completed the self-assessment survey attended the meeting. The workshop was held in Italian and the local SCIROCCO project managers translated the outcomes of the workshop into English afterwards.

Table 10: Agenda for the self-assessment workshop

Time	Session Title
09.30	**Welcome, Introductions & Meeting Objectives** Francesca Avolio
09.40	**Introduction to SCIROCCO project** Francesca Avolio, Irene Pisicchio
10.00	**Self-assessment process in Puglia Region** • Brief introduction to the organisation of the self-assessment process in Puglia Region • Presentation of the assessment outcomes for Puglia Region • Feedback and reflections from the local participants. Raffaele Lagravinese
10.30	**Negotiation & Consensus Building** • Facilitated discussion on the outcomes of the self-assessment process for Puglia Region. Facilitator of the session will introduce the outcomes per each dimension and seek the consensus from the partners on the final scoring per particular dimension, including the rationale for scoring. Francesca Avolio – Raffele Lagravinese – Elisabetta Graps
11.30	**Coffee Break**
11.45	**Final diagram for Puglia Region** • The facilitator of the session will present the final diagram for the Region to the local stakeholders and seek the feedback from the partners on the final version of the spider diagram.
11.50	**End of the Workshop**

Figure 20: Regional manager during the consensus-building workshop in Puglia Region

7.8 Negotiation and consensus-building

At the beginning of workshop, each stakeholder was provided with a folder with the outcomes of his own self-assessment survey. Each member of the local self-assessment team was assigned a number. In order to reach the final consensus, the SCIROCCO team presented the analysis of outcomes per each dimension, illustrating different responses using a bar graphic representation as per the Figure 20 below. It is important to underline that the stakeholders were not aware of the assigned numbers in order not to influence the discussion and possible reconsiderations of the scoring.

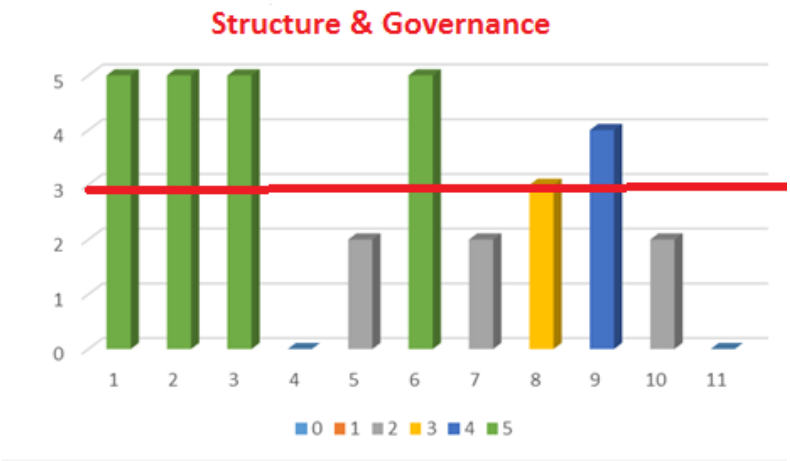

Figure 21: Dimension Structure & Governance: Analysis of single responses during the workshop

After the discussion on the different perspectives of stakeholders on progress towards integrated care in Puglia Region, the SCIROCCO team asked the participants to undertake a second vote to confirm the final position and scoring on each dimension of the SCIROCCO tool. In particular, this was the case for the dimensions with the most diverse assessment. The SCIROCCO team intended to reach a consensus as a conscious view of all stakeholders rather than taking into consideration any favourable views. The objective was to capture these differences in perceptions in order to agree on the future direction of travel, improve the services and inform the relevant future policies. The figure 21 shows the composite diagram with different views (green: macro; blue: meso; yellow: micro).

Figure 22: Composite diagram in Puglia Region

7.9 Final consensus

The final spider diagram shows the maturity of Puglia Region's healthcare system for integrated care, including the areas for improvement. The local stakeholders reached consensus across the number of dimensions such as Structure and Governance, Innovation Management. In contrast, the domains of Evaluation Methods and Population Approach proved to be more challenging to reach the consensus (see Figure 22).

Figure 23: Final spider diagram in Puglia Region

Table 11: Scores, justifications and reflections assigned to each of the dimensions

Dimension	Assessment scale	Description	Justifications & Reflections
Readiness to Change	2	Vision or plan embedded in policy; leaders and champions emerging	The regional system is ready for change, but there are still some critical issues: training, technological gap, generational and cultural gap.
Structure & Governance	3	Evidence of effective planning and management of change, including stakeholder involvement; collective decision-making;	Governance is mature for the integrated chronicity system.
eHealth Services	2	Unique citizen ID; linked health records; regional/national longitudinal electronic health record; at scale teleservices; ability to combine health and social care information; care collaboration platforms.	There are problems with the infrastructure.
Standardisation & Simplifications	2	Use of international standards and profiles reduction in total number of different applications; regional procurements to replace diverse applications with more integrated systems (e.g. a regional electronic patient record); policy mandates requiring information to be made available in agreed formats.	There is still not full integration between hospital and territory. Nevertheless, the situation is not homogeneous in the entire Region. Some areas are more developed than other.

Dimension	Assessment scale	Description	Justifications & Reflections
Funding	3	Use of regional/national stimulus funds; innovative procurement approaches (e.g., PPP, risk-sharing, multi-year contracts for IT service provision).	In the recent years, there has been considerable investments at regional level in this subject.
Removal of inhibitors	2	Laws to enable data-sharing; financial incentives aligned to teamwork and outcomes (value rather than volume); training programmes to fill skills gaps; formation of new organisational structures or contracts between organisations to deliver integrated care.	It is necessary to increase information technology and organise training courses for the staff about removal inhibitors.
Population Approach	2	Use of risk stratification models; a range of care pathways available for different groups of citizens; strong public health and prevention programmes; feedback available about effectiveness of new pathways and interventions.	There is a stratification of the population, but it is necessary to spread the service uniformly across the entire regional territory.
Citizen Empowerment	1	At-scale use of teleservices; multi-channel ways to access care services; citizen portals offering booking & prescriptions refills; online access to health records; recommended apps and health management services, which are also integrated with medical records.	This is a point of weakness. We need to invest more in communication so that all patients are informed about the eHealth services. At the moment there is little awareness about this.
Evaluation Methods	2	Academic institutes and agencies with experts in health economics and HTA; published health impact measurements; measurable care cost/quality improvements.	The Region has an active monitoring and evaluation service.
Breath of Ambition	2	Evidence of successful integration as viewed by the citizen; both vertical and horizontal integration; strong connections between organisations based on protocols, service level agreements, contracts and (if required) mergers.	Services are not yet fully integrated into the territory. There is a need for greater linkage between hospital and territorial care.
Innovation Management	2	Innovation management methods; outreach to regions; creative involvement of academic & industry relations; innovative procurement methods.	The Region is mature about innovation, now it needs to spread more information on the territory and train the staff involved.
Capacity Building	3	Capturing knowledge from every project; nurturing deployment skills; creating new roles that bridge the gap between clinician and technologist; self-assessment tools to identify readiness, expose gaps, and acquire expertise.	The regional programming capacity for chronicity is adequate, future public policies should be geared towards greater involvement of the population and greater spread of eHealth in the Region.

7.10 Analysis of the outcomes

The outcomes for Puglia Region can be summarised as follows:

1. Looking at the overall consensus diagram, the level of maturity of the health care system in Puglia is medium to high. Major strengths include Capacity Building, Structure and Governance and Finance and Funding, whereas Citizen Empowerment seems to be a weakness.
2. These self-assessment results are not surprising and are in line with other conducted evaluations in the Region. The assessment of Puglia's local context for integrated care is coherent with the peer evaluation of Reference Sites in the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) where Puglia was awarded the 2 stars level of maturity. This can be explained by having a strong governance infrastructure in place, with clear defined priorities and dedicated funding. Puglia is half way towards a full-scale deployment of integrated care; however, the deployment has not been systematic in the territory.
3. It is also interesting to observe some connections between the SCIROCCO dimensions for integrated care. We found that regional managers have similar responses in the dimensions of Structure and Governance and Readiness to Change. The Region has invested heavily in governance and financial terms. Patients and ICT managers responded similarly on Population Approach and eHealth Services.
4. There are some specific factors in the Puglia Region that need to be considered in order to understand its strengths and weaknesses in integrated care. These are namely cultural and infrastructure gaps. Puglia Region has invested considerable resources in the care of chronicity in recent years, however the use of new technologies often clashes with these gaps. This is particularly seen in the case of telemedicine services which have not been provided uniformly across the Region.

7.11 Key messages

The local stakeholders highlighted the application of the tool in the Region as follows:

- The SCIROCCO tool helps us to understand the level maturity of integrated care in the Region.
- The SCIROCCO tool is useful as it provides information on the different views of regional stakeholders and particularly for the providers who are able to better understand patient needs.
- The SCIROCCO tool facilitates multidisciplinary discussion; it has the potential to tackle issues from different angles giving broader views of the dimension and scope of the problem in relation to integrated care.
- The SCIROCCO tool could be used to assess other regional policies not only integrated care.

7.12 Conclusions and next steps

The next steps for AReSS Puglia will include:

- At regional level: to try to implement the SCIROCCO self-assessment tool in other regional areas of interest (e.g. education, transport etc.).
- At national level: to try to test the Maturity Model and SCIROCCO tool in other Italian regions.

8. Self-assessment process in Scotland, UK

8.1 Introduction to the region

Scotland is a country that is part of the United Kingdom, with a population of 5,4 mil inhabitants. It constitutes a distinct jurisdiction in both public and private law. In 1997, a Scottish Parliament was re-established, in the form of a devolved unicameral legislature, having authority over many areas of domestic policy, including healthcare policy. Scotland's healthcare policy is currently administered through the Health and Social Care Directorates of the Scottish Government.

8.2 Introduction to the regional healthcare system

Health and social care are devolved issues in the United Kingdom. Healthcare in Scotland is mainly provided by Scotland's public health service, NHS Scotland. It provides healthcare to all permanent residents free at the point of care and paid from general taxation. Private care is usually paid for through private healthcare insurance schemes or by individuals.

NHS Scotland is managed by the Scottish Government which sets national objectives and priorities for the NHS. Of approximately £34.7 billion controlled by the Scottish Government, around £11.9 billion is spent on health. The provision of healthcare has been the responsibility of 14 geographically based local NHS Boards and 7 National Special Health Boards[9] which employ approximately 160,000 staff.

In April 2014, Scotland's health and care systems became formally integrated under the management of NHS Boards. Local authority nominees, responsible for the provision of social care, were added to Board membership to improve coordination of health and social care. As a result, there are 31 Health and Social Care Partnerships that are jointly responsible for the commissioning and delivery of social care, community health, primary care and some hospital services. For more information about the integration of health and social care services please see section 8.3.

8.3 Definition of integrated care

In Scotland, there is a recognition of the need to move towards a more integrated, person-centred approach that is designed for citizens in a way that co-ordinates services around their needs and puts them in control, thus enabling them to participate in, and make informed decisions about, their care. The mainstreamed adoption of technological solutions within service redesign is perceived as a major facilitator of such a change.

This ambition is reflected in a number of policies and strategies in Scotland; for example:

- Public Bodies (Joint Working) Scotland Act 2014[10] which introduced the formal integration of health and social care

[9] These include: NHS Health Scotland, Healthcare Improvement Scotland, Scottish Ambulance Service, the Golden Jubilee National Hospital, the State Hospital, NHS24, NHS Education for Scotland and NHS National Services Scotland.
[10] http://www.legislation.gov.uk/asp/2014/9/contents/enacted

- Digital Health and Care Strategy: enabling, connecting and empowering (2018)[11] which focuses on the use of technology to reshape and improve services, support person-centred care and improved outcomes.

The Public Bodies (Joint Working) (Scotland) Act 2014 is the legislative framework for the integration of health and social care services which requires the integration of the governance, planning and resourcing of adult social care services, adult primary care and community health services and some hospital services. Other areas such as children's health and social care services, and criminal justice social work can also be integrated. As a result, the Act creates a number of new public organisations, known as Integration Authorities (31 Integration Authorities) and aims to break down the barriers to joint working between NHS Boards and Local Authorities. Under this model an Integration Joint Board (IJB) is set up and the NHS Boards and Local Authorities delegate the responsibility for planning and resourcing service provision for delegated adult health and social care services to the IJBs.

The IJB must include representatives of the Local Authority, NHS Board, a carer representative, a GP representative, a nurse representative, a secondary medical care practitioner, a service user representative, a staff-side representative, a third sector representative, an officer who is responsible for financial administration, the Chief Officer and the Chief Social Worker. As such, a third sector organisation is directly involved in the strategic planning and locality planning of the integrated care provision, however, the representatives of third sector do not have voting rights.. This reflects Scotland's wider ambition of full integration of health, social and voluntary sector services.

8.4 Identification process of the local stakeholders

Reflecting Scotland's ambitions in integrated care, a diverse profile of stakeholders was invited to participate in the self-assessment process, from healthcare, social care, voluntary and housing sectors at national and local level:

Table 12: Stakeholders in Scotland

Title	Organisation
Director	Scottish Government
Director	Scottish Government
Policy Lead	Scottish Government
Programme Manager	Scottish Council for Voluntary Organisations
CEO	Digital Health and Social Care Institute
Service Development Manager	Scottish Centre for Telehealth and Telecare
Implementation Lead	Health and Social Care Partnership
Implementation Lead	Health and Social Care Partnership
Programme Manager	Convention of Scottish Local Authorities
Strategic Lead	Healthcare Improvement Scotland
Programme Manager	ALLIANCE
Strategic Lead	Scottish Government Housing

[11] Digital Health and Care Strategy https://beta.gov.scot/publications/scotlands-digital-health-care-strategy-enabling-connecting-empowering/

8.5 Self-assessment survey

All stakeholders were invited to complete the online self-assessment survey to provide their individual perceptions on the progress of integrated care in Scotland. The invited stakeholders also received the information about the objectives of the assessment process and instructions on how to use SCIROCCO tool. A briefing telecom was also organised for the stakeholders to explain the added value of SCIROCCO tool and how it strategically contributes to the existing tools and approaches in Scotland as such an assessment is usually perceived as "politically sensitive"

Nine invited stakeholders completed the individual assessments within the two weeks.

8.6 Outcomes of the self-assessment survey

The outcomes of these individual surveys were captured in the form of spider diagrams, highlighting Scotland' strengths and weaknesses in integrated care. As the spider diagrams below illustrate (Figure 23) the involvement of the multi-disciplinary team in the assessment process implies the different views of stakeholders on the maturity of healthcare system for integrated care. Particularly striking is the difference between the perspective of policy makers and local Health and Social Care Partnerships in Scotland.

Perspective of policy-makers

Perspective of Scottish Centre for Telehealth and Telecare

Perspective of Digital Health and Care Institute

Perspective of Health and Social Care Partnerships

Perspective of Healthcare Improvement Scotland

Perspective of Scottish Council for Voluntary Sectors

Figure 24: Stakeholders' individual questionnaires in Scotland

8.7 Stakeholder workshop

The consensus workshop was held on 26 October 2017 at the Informatics Forum of the University of Edinburgh in Scotland. The objective of the workshop was to agree on the maturity gaps of Scotland's healthcare system for integrated care and facilitate the learning and exchange of experience in designing and implementing integrated care solutions with local stakeholders.

The focus group meeting was organised on the same day to inform the further improvement and enhancement of SCIROCCO tool. Five local stakeholders who completed the self-assessment survey attended the meeting.

Table 13: Agenda for the self-assessment workshop

Time	Session Title
09.30	**Welcome, Introductions & Meeting Objectives** Donna Henderson, Head of European Engagement, NHS 24
09.40	**Introduction to the SCIROCCO project & SCIROCCO tool** Donna Henderson, Head of European Engagement, NHS 24 Stuart Anderson, Professor of Dependable Systems, University of Edinburgh
10.00	**Self-assessment process in Scotland** • Brief introduction to the organisation of the self-assessment process in Scotland and assessment outcomes. • Feedback and reflections from the local participants. Donna Henderson, Head of European Engagement, NHS 24
10.30	**Negotiation & Consensus Building** • Facilitator of the session will introduce the outcomes per each dimension of SCIROCCO tool and seek the consensus from the partners on the final scoring per particular dimension, including the rationale for scoring. Donna Henderson, Head of European Engagement, NHS 24 Stuart Anderson, Professor of Dependable Systems, University of Edinburgh
12.00	**Lunch**
12.30	**Final diagram for Scotland** • The facilitator of the session will present the final diagram for the Region and seek the final consensus. Donna Henderson, Head of European Engagement, NHS 24
13.00	**Reflection of the stakeholders on the self-assessment process** • Moderated discussion on the experience of local stakeholders with the self-assessment process and SCIROCCO tool. Diane Whitehouse, ETHEL
14.15	**Conclusion and next steps** Donna Henderson, Head of European Engagement, NHS 24

Figure 25: Consensus-building workshop in Scotland

8.8 Negotiation and consensus-building

The outcomes of the self-assessment surveys provided the basis for the discussion of stakeholders with an objective to reach the consensus on the current state of art in integrated care in Scotland. The spider diagrams reflect the diversity of perceptions of local stakeholder (Figure 25).

Figure 26: Composite spider diagram in Scotland

The dimensions with greatest differences included Readiness to Change, Structure and Governance, Population Approach, Citizen Empowerment and Capacity Building. This was mainly due to different perceptions about progress with the implementation of integrated care legislation and existing support for this major transformation at local level. In the case of Citizen Empowerment, it was due to diverse knowledge of stakeholders on the existing services and incentives, however it was agreed that the major barrier to citizen empowerment remains the access to health information and health data. In contrast, the consensus was much easier to reach in the dimensions of eHealth Services, Standardisation and Evaluation as the majority of stakeholders agreed that these areas remain as weaknesses and, in order to progress the integration agenda in Scotland, they need to be addressed as a priority.

8.9 Final consensus

The final spider diagram shows the maturity of Scotland's healthcare system for integrated care, including the areas identified for improvement. The domains with the highest scoring included Readiness to Change, Breadth of Ambition and Innovation Management. This is demonstrated by the clear strategic direction in Scotland, legal framework for integration and extensive innovation landscape that is considering better ways of procurement and adoption of innovative solutions. In contrast, the areas of eHealth Services, Funding and Population Approach remain a challenge in Scotland. Although eHealth Services are being used in some localities, there is no overarching infrastructure for integrated care and there is a lack of funding to support integration. Population Health is a policy priority, but it is not clear yet whether this will take an integration-focused point of view.

Figure 27: Final spider diagram in Scotland

Table 14: Scores, justifications and reflections assigned to each of the dimensions

Dimension	Assessment Scale	Description	Justifications & Reflections
Readiness to Change	3	Vision or plan embedded in policy; leaders and champions emerging.	There is a legislation in place to support integration of health and social care. However, pace of change is a bit slower and the policy is not really fully implemented yet. There is a lot of dialogue and partnership building going on between the third sector and statutory care providers, there is also growing awareness and recognition of the need for integrated care, however the challenge remains how to make the real shift from the continued focus on health.
Structure & Governance	4	Governance established at a regional or national level.	Roadmap for a change programme defined and accepted by stakeholders involved. There is a structure and governance in place but implementation is not perfect. Governance is fully resourced at national level, but the messages does not go down and there is much inequality at lower levels.
eHealth Services	2	There is mandate and plan(s) to deploy regional/national eHealth services across the healthcare system but not widely implemented.	There is a mandate and plan to deploy regional/national eHealth services across the healthcare system but not yet implemented. There are local solutions but there is no governance to upscale. The main barrier is the culture around the data sharing. Services are not deployed elsewhere, and the pilots are of localised solutions in transition. However, there is continuing funding for initial pilots.
Standardisation & Simplification	1	A recommended set of agreed information standards at regional/national level; some shared procurements of new systems at regional/national level; some large-scale consolidations of ICT underway.	Discussion of the necessity of ICT to support integrated care and of any standards associated with that ICT is initiated. There is a lot of recognition of the need of ICT to support integrated care, and of the need for standards. Nothing is in place for social care. Discussion is underway.
Funding	2	Consolidated innovation funding available through competitions/grants for individual care providers and small-scale implementation.	Consolidated innovation funding available through competitions/grants for individual care providers and small-scale implementation. There is a national Integrated Care Fund which replaced the Change Fund. There is also some EU funding supporting integration

Dimension	Assessment Scale	Description	Justifications & Reflections
			(focus on the transition in the system rather than scaling-up); TEC funding.
Removal of Inhibitors	3	Awareness of inhibitors but no systematic approach to their management is in place.	Implementation Plan and process for removing inhibitors have started being implemented locally. There is also some vision in the integration legislation as to what to do to remove the barriers. In addition, lot of investments in local agencies to support services to reduce the barriers. Innovation centres were created as part of the plan. Lot of training for different professions to change towards integration.
Population Approach	2	Population-wide risk stratification started but not fully acted on.	Risk stratification approach is used in certain projects on experimental basis. SPARRA looks at responses through health and social care integration for patients who are at risk of re-admission, so it is related to integrated care. However, the tool only looks at these at-risk patients. The Integrated Resource Framework deals with health and social care, with a focus on frequent service users; they use integrated health and social care data.
Citizen Empowerment	2	Citizen empowerment is recognised as important part of integrated care provision, effective policies to support citizen empowerment are in place but citizens do not have access to health information and health data.	Citizen empowerment is recognised as an important part of integrated care provision, effective policies to support citizen empowerment are in place but citizens do not have access to health information and health data. Patients are not widely able to see their data. There is an option for online GP appointment, but it is not being widely marketed and used. There are only very small examples of where patients have access to their data e.g. for diabetes, younger cancer patients.
Evaluation Methods	4	Most integrated care initiatives are subject to a systematic approach to evaluation; published results.	Evaluation of integrated care services exists, but not as part of a systematic approach. Third sector delivery is evaluated according to a common model through a coordinated approach. There are more requirements for the evaluation for third sector organisations than for the statutory organisations. Unless there is a need to motivate continuous investments (as for the voluntary sector), a very systematic evaluation is not performed.
Breadth of Ambition	4	Integration includes both social care service and health care service needs.	Improved coordination of social care services and healthcare needs is introduced. The ambition is about the full integration of health and social care. There is an integrated budget and integrated governance. However, some social care services are not clearly in or out of the integrated health and social care according to the legislation.
Innovation Management	3	Innovations are captured and there are some mechanisms in place to encourage knowledge transfer.	Formalised innovation management process is planned and partially implemented. There has been a degree of focus on investment in technology innovation. In third sector, there are a lot of ideas but no clear plan.
Capacity Building	3	Systematic learning about integrated care and change management is in place but not widely implemented.	Learning about integrated care and change management is in place but not widely implemented. The National Quality Strategy is focused on health only. However, a lot of money was invested in training management on integrated care over its 5—7 years.

8.10 Analysis of the outcomes

The outcomes for Scotland can be summarised as follows:

- Looking at the overall consensus diagram, the stakeholders concluded that two critical domains of SCIROCCO Maturity Model that should be addressed as a priority for progressing with integration in Scotland are eHealth Services and Standardisation. The ICT infrastructure to facilitate the exchange of health and social care data, access of citizens to their personal healthcare records and availability of the right

data at the right time are critical success factors of improving maturity of healthcare system for integrated care.

- The self-assessment outcomes were not particularly surprising. The outcomes reflected the current state of play in the country and provided very comprehensive pictures for the stakeholders. The only dimension where the scoring was expected to be higher, especially from the policy-makers' perspective, was Structure and Governance. This can be explained by the ongoing challenge with the implementation of integrated care locally, despite having policies and legislation in place at a national level.
- Some grouping of the dimensions can be observed from the self-assessment outcomes. For example, if one reviews the domains with the highest scoring - Readiness to Change, Structure and Governance and Capacity Building - there is a clear link between the need to recognise the need for change, supported by clear vision, dialogue and leadership at national and local level. In addition, no major transformation in the healthcare system can be achieved with the right skills sets, empowerment and capacity of stakeholders involved.
- In terms of some specific factors which affect the strengths and weaknesses of Scotland's healthcare system for integrated care, these primarily depend on the cultural and organisational aspects. In Scotland, there is a strong recognition of a "once for Scotland approach" which is very well reflected in the legislative framework for integration of health and social care services and its implementation. This has significantly contributed to the major reorganisation of the health and care system and services and relatively high maturity in terms of readiness to change, change management plans, roadmaps and investments in the local support and skills development. On the other hand, there is an existing legacy particularly around the ICT infrastructure and data sharing which affects the wider deployment of eHealth services and better, more efficient use of existing data.

8.11 Key messages

The invited stakeholders in Scotland found the SCIROCCO self-assessment tool and the assessment process highly informative and comprehensive, covering all aspects of integrated care concept. It was perceived as a real sense check of current progress and gaps which should be addressed to speed up the adoption of integrated care in Scotland. The consensus-building session and the need to reflect on the outcomes of the assessment was very much welcomed as most of the standard assessment questionnaires do not require any further actions or reflections on the outcomes. However, it was recommended not to see the SCIROCCO Tool as an end itself in the process. It is about developing more dynamic, learning systems and understanding where the integrated care agenda "sits" in the wider health and social care context.

8.12 Conclusions and next steps

A number of conclusions were drawn by the Scotland's self-assessment team:

- The self-assessment process was very informative and real-sense check of how the policy and legislation translates into practice and experience on the ground. A lot has been done in Scotland in setting up the structure and legal framework for the integration of health and social care services. There is also a political will, high level commitments and mechanisms to facilitate this major change but the implementation still remains a challenge. As such, it would be very useful to repeat the assessment process over time to capture the progress and better understand the existing inhibitors.
- The stakeholders advocated looking at the engagement of other Health and Social Care Partnerships, in order to compare and contrast them with their own results. In addition, for self-assessment results to be gathered from those respondents/associations, e.g., care homes, housing, the independent sector, emergency services, which had not yet answered the questionnaire.
- Several of the attendees also agreed to complete a usability survey to be put together by the University of Edinburgh. Its findings will be used to enhance the SCIROCCO tool further.

9. Experience of SCIROCCO regions of the self-assessment process

Focus group meetings were designed in order to capture the stakeholders' experience of the assessment process. To this end, five focus groups were organised (one in each SCIROCCO region) with the regional stakeholders involved in the self-assessment. Key issues covered in the focus groups, included questions related to the:

- Experience of the maturity assessment of local context for integrated care using the SCIROCCO tool.
- Outcomes and impacts of the maturity assessment.
- Suggestions for enhancement of the SCIROCCO tool.
- Comparison of the Tool with other tools.

9.1 SCIROCCO focus group in the Basque Country

> *"The self-assessment process is a process of reflection."*

A SCIROCCO focus group was held on 3rd October 2017 in the headquarters of Kronikgune (Torre del BEC, Barakaldo). A group of 9 people participated in this focus group session with the objective of capturing the local experience of using SCIROCCO tool. The session was facilitated by SCIROCCO team members.

This session followed the local self-assessment organised in June 2017. As part of this process, local stakeholders completed a regional self-assessment using the SCIROCCO online self-assessment tool. The aim was to reflect on the progress of the Basque Country towards integrated care.

9.1.1 Observations made by focus group attendees

Experiences of using the SCIROCCO tool

This section of the report highlights how the tool was used in terms of organisation and process for the self-assessment:

Training in the tool: Prior to the self-assessment process, a training session was organised by Kronikgune to introduce SCIROCCO project, the SCIROCCO tool, and how to use the tool.

Language of the Tool: The self-assessment process was conducted in the Spanish language.

Self-assessment process: In the Basque Country, the self-assessment was conducted for the whole health system, including the coordination of health and social care, rather than for specific integrated care services.

Several members pointed out that the SCIROCCO tool initially seemed to be quite complex, but once they started to work with the tool it became easier.

An interesting observation was made by several participants who stated that the hierarchical level within the organisations (e.g. Osakidetza vs. Health Ministry) might be a variable that may influence the rating of the dimensions of the SCIROCCO tool. In this regard, some

attendees stated that the SCIROCCO tool dimensions had a subjective character, and thus the answers given may vary depending on how they are interpreted by a particular respondent. To avoid the issue of the subjectivity, some participants in the focus group pointed out that, in order to conduct the self-assessment of the healthcare system in a holistic way, they tried to put themselves in the place of other professionals at different levels of the same or other organisations.

> *"When consensus is reached, extreme scores disappeared and balance is reached."*
>
> *"The tool shapes the reality, even if it is not measuring 12 or 25."*

In general, the experts who conducted the self-assessment process agreed that the value of the tool was in the consensus building process which they all assessed as a positive experience. It was agreed among the local stakeholders that the resulting consensus-based outcomes reflected very well the current state of the healthcare system in the Basque Country. The local stakeholders also emphasised the importance of the previous experience of respondents and track-record within the system in order to conduct the self-assessment process properly. If the self-assessment process is carried out by professionals with limited experience of the organisation, they might not be able to provide the maturity rating. However, it was also pointed out that a self-assessment team composed of professionals with extensive experience could also bias the results of the self-evaluation process.

Figure 28: Focus group at Kronikgune

Potential impact of the SCIROCCO tool

This section includes suggestions made on the potential impact of the results of the self-assessment process using the SCIROCCO tool on the Basque Country healthcare system.

Most of the participants in the focus groups agreed that the results extracted from the self-assessment were useful to inform about the current healthcare system. Some local stakeholders pointed out that these results may not produce a short-term impact in the system but, as professionals working in the system, the results helped them to reflect on the healthcare system in the Basque Country and how it has evolved over the last years. As a

result of using SCIROCCO tool the professionals involved in the self-assessment process felt to be more aware of the evolution of their own healthcare system.

Several participants also stated that the SCIROCCO tool itself is not going to change the system or lead to actions. However, the tool does help to draw conclusions on the maturity of the healthcare system and provide more information to generate knowledge and awareness of the readiness of the healthcare system for integrated care. In this regard, it was stated that the SCIROCCO tool is very useful for establishing comparisons between different healthcare systems and analysing the transferability of good practices.

> *"The SCIROCCO tool is a continuous learning process."*
>
> *"The tool does not change the systems or the policies, it contributes as one more element."*

How the tool can be enhanced

This section includes suggestions made on how the SCIROCCO tool could be improved, largely from a technical perspective.

> *"Some dimensions require more effort than others."*

Most of the participants agreed that the SCIROCCO tool covered all the relevant dimensions in terms of integrated care. However, several attendees pointed out that not all the dimensions in the SCIROCCO tool were equally easy to score.

Regarding the improvement of the tool, the focus group participants proposed the following:

- Include an analysis of the differences at all three micro/meso/macro levels in terms of self-assessment, since these different visions at different levels may bias the assessment of the system.
- Involvement of the patient/user's perspective in the self-assessment process using SCIROCCO tool.
- Inclusion of a more quantitative measurement.
- Keep the definition of dimensions simple as some experts found the questions complex and not easy to understand.

Comparison of the tool with other tools

Focus group attendees stated that the SCIROCCO tool was similar to other quality tools[12] that are used within the healthcare system in the Basque Country. However, many pointed out that the SCIROCCO tool offered a more global assessment of the healthcare system compared to other tools for the assessment of integrated care. Likewise, participants agreed that the SCIROCCO tool was simpler to use than other tools, since less time was invested in the self-assessment process. Moreover, most of the attendees wanted to emphasise that the SCIROCCO tool did not measure the same aspects as other tools used to assess the healthcare system in the Basque Country, but that these were complementary measures.

[12] For example: D'Amour survey or IEMAC

9.1.2 Outcomes from the focus group, including next steps

Overall, the following conclusions can be drawn from the focus group:

- The self-assessment process using the SCIROCCO tool fosters individual or group reflections on particular aspects of the healthcare system that people involved usually do not reflect upon.
- The real value of the SCIROCCO tool is in its potential to generate consensus among the stakeholders and negotiation of the individual assessment outcomes.
- The use of the SCIROCCO tool is simple and concrete, and it requires less time than the use of other tools.
- The SCIROCCO tool complements other quality tools that exist in the Basque Country healthcare system.
- The SCIROCCO tool can be very useful in terms of policy decision-making or change management, but always together with other tools.
- The application of the SCIROCCO tool and outcomes of the self-assessment process provide a global overview of the healthcare system in the Basque Country which allows conclusions to be drawn, and prioritisation in terms of decision making on a particular dimension or aspect of integrated care.

9.2 SCIROCCO focus group in Norrbotten

A small SCIROCCO focus group was held on 23rd August 2017 in the regional headquarters of the Norrbotten Region in Luleå, Sweden.

Figure 29: Focus group in Norrbotten

9.2.1 Observations made by focus group attendees

The benefits and the outcomes of using the tool are summed up in this quote:

> *"The SCIROCCO tool explained to me why - when we have different projects in eHealth - we experience certain problems. It explained for me why there are certain challenges. Also how we can develop the dimensions listed in the tool. ... We are going to have to use more technology to develop eHealth and care. So, the tool can help us to reveal on what dimensions we have to develop further in the Region. It was obvious!"*

Experiences of using the SCIROCCO tool

This section of the report highlights how the Tool was used in the self-assessment meeting on 15th June 2017 by the Norrbotten focus group attendees, in terms of organisation, process, and training:

- Organisation of the local self-assessment team: In Norrbotten, there is a local (internal) steering group for the SCIROCCO project that acted as the SCIROCCO self-assessment group.
- Composition of the local self-assessment team: The team members felt it was good that they knew each other already, and that they work together systematically on the integrated care of their Region. The diversity of the composition of the team was a very positive element as well.
- Training in use of the tool: About one month ahead of the self-assessment meeting, the team members received a brief training on how to use the SCIROCCO tool.

How the tool can be enhanced

Practical enhancements to the SCIROCCO tool

The practical enhancements proposed to the current version of the tool included:

- Automated justifications: The SCIROCCO tool enables justifications to be made in terms of respondents' answers and rationale about particular dimensions. The Norrbotten team members stated that it had been beneficial and great opportunity to consider why they were making particular choices in terms of the maturity. Being able to see text about the opinions of **all** the team members had also been helpful for building the consensus-building process.

For example:

> *"One thing you could do [was to] write down your justification, i.e., some sentences, if you wanted. The instructions say you don't have to do it! But it was useful to fill [the justification] in, it was easy to print it out, and it was quite good for me and for the discussion."*

- Email search mechanism: Attention needs to be paid to the fact that – in the Norrbotten case – there had been a change in email addresses during the course of using the tool. A search function, which has now been implemented by the SCIROCCO tool design team, was seen as a positive move by the team members.
- Availability in the local language: It was felt that the SCIROCCO tool definitely needs to be available in the local language e.g., in Swedish.

Wider implications of use of the tool

Using the tool more regularly

The SCIROCCO tool seemed to be sufficiently easy to use and it did not need external intervention. The Tool brings many issues to the surface: it can be used to present new and upcoming trends to management and explain why they are taking place.

Several potential possibilities for more regular use of the tool were cited:

- From an integrated care perspective, it could be useful to undertake the exercise once a year, with a focus on certain topics e.g., rehabilitation or innovation management.
- The tool can be helpful in indicating which dimensions are currently decreasing in terms of their scoring as well as those that are improving. Here, aspects related to innovation and joining various research projects were mentioned. In Norrbotten's case, activities were mentioned in which it was felt that the Region had, in the past, been at the forefront of innovation whereas it is perhaps less so today.

Using the tool for other purposes

The following are some possible wider uses or purposes that could be made of the tool:

- Before new projects start: If available in the Swedish language, the SCIROCCO tool could be used before e.g., local people join a new project or initiative, so that they can identify what elements of activity they need to improve.
- Provision of useful arguments to managers: Prior to applying for large investment projects, the results emerging from use of the SCIROCCO tool could be used to approach higher management and introduce to them arguments about what the Region is trying to do, e.g., with eHealth.

For example:

> *"I'm thinking that – if we have really big projects, e.g., before applying – you could go to the director for the region and say, 'If we want to have this initiative, we should analyse the situation first, with the SCIROCCO tool' ... or maybe the politicians ... because this is what they are trying to do with eHealth."*

- Use on many different organisational levels: The SCIROCCO tool is seen as having many application levels, i.e., it could be used both at the highest management levels and also at other levels lower down the organisation. Steering groups and collaborative groups could use the SCIROCCO tool as a basic tool to underpin their work.

Presenting the tool/using the tool with policy-makers

The following are some individual reflections on approaches that may be needed when using the SCIROCCO tool with policy-makers:

- Presentation: The results of the use of the SCIROCCO tool requires explanations, descriptions, and a presentation. However, this presentation could consist of just the image of the spider diagram, accompanied by some short notes and an explanation of the overall justification for the thinking behind the results.
- Consideration of different organisational/regional levels: In Sweden, one would need to consider especially the different levels of policy-making e.g., municipal; local; regional; national.
- Availability in the local language: Having the tool results available in the Swedish language would be particularly important.

Comparison of the tool with other tools

The attendees were generally positive about the benefits that the SCIROCCO tool could bring. An attempt was made to explore whether SCIROCCO is in any way similar to other tools that are commonly used in the Norrbotten Region. While the attendees said that they could not identify a directly comparable tool, other useful tools which they or their colleagues (in different divisions) have worked with included:

- Individual integrated care planning between the municipality and the Region using "normalisation process theory"[13] e.g., analysis of why a particular plan for implementation did (or did not) occur.
- MAST used in the context of the Renewing Health project (Denmark).[14]
- Use of agile approaches, e.g., agile software development.
- Lean theory and methods,[15] with a focus on patient-centredness.
- Value-based approaches.[16]
- Primary care: Leadership workshops; flowchart processes.[17]
- Clinical groups: The improvement work method;[18] PDSA.[19]

9.2.2 Outcomes from the focus group, including next steps

Overall, the meeting:

- Provided useful feedback on lessons learned from the self-assessment process in the Norrbotten Region and offered ideas about ways to move forward with the SCIROCCO tool, both in terms of technical improvements and future possible exploration of dimensions.
- Offered a positive view of the process and experience of using the SCIROCCO tool. The guidelines and training received before using the tool were constructive. The tool is particularly helpful for enabling local stakeholders to reflect on the current situation and future direction.
- Indicated that the tool can be very useful in terms of policy decision-making.
- Indicated that the tool seems constructive in comparison to some other tools with which the team was familiar.

Next steps on the part of the Norrbotten Region will include the analysis and presentation of the self-assessment outcomes to its internal steering group, including the recommendations for change measures to be taken in the Region leading, ultimately, to the development of the regional Action Plan.

[13] http://www.normalizationprocess.org Accessed 17th September 2017.
[14] http://cimt.dk/en/research/mast/ - .Wb5GMq2ZPNA Accessed 17th September 2017.
[15] https://www.ncbi.nlm.nih.gov/books/NBK338851/ Accessed 17th September 2017.
[16] Purely as an example: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5383371/ Accessed 17th September 2017.
[17] Purely as an example: http://asq.org/learn-about-quality/process-analysis-tools/overview/flowchart.html Accessed 17th September 2017
[18] Purely as an example: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Improving-quality-Kings-Fund-February-2016.pdf Accessed 17th September 2017.
[19] http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx Accessed 17th September 2017.

9.3 SCIROCCO focus group in Olomouc Region, Czech Republic

The SCIROCCO focus group was organised as a follow-up of the consensus-building workshop held on 23rd November 2017. All participants at the SCIROCCO self-assessment group consensus meeting participated in the focus group meeting. Two later one-to-one telephone interviews were organised with the Olomouc Region on 1st and 3rd December 2017. The objective of these two interviews was to obtain a clearer understanding and interpretation of the focus group outcomes.

9.3.1 Observations made by the focus group attendees

Experience of using the SCIROCCO tool

In general, most of stakeholders participating in the SCIROCCO self-assessment process concluded that the session was educational and useful for further work on conceptual and practical levels.

The local stakeholders were involved in "inter-working" or "coordination" actions in health and social care in Olomouc Region. However, "integrated care" as a regional programme is not yet implemented in the Olomouc Region. This presented a challenge when using the SCIROCCO tool.

As such, the Olomouc Region faced some challenges when inviting people to participate in the assessment process. About 20 invited representatives did not respond to the questionnaire for various reasons. The main reasons were:

- The concept of integrated care is very novel in the Czech Republic (CR), hence assessing the readiness of regions for integrated care proved to be a very complex task for local stakeholders.
- Some stakeholders may not have felt comfortable answering conceptual questions on integrated care since some issues in care are still sensitive.
- There is no regional authority in the Olomouc Region that would be authorised to manage the concept of healthcare integration. If a stakeholder is involved in just one aspect of healthcare system (e.g. an emergency service), the SCIROCCO tool — with its holistic perspective on health and social care — opens too many questions that regional stakeholders do not find easy to answer.
- It takes a lot of time for local stakeholders to understand the SCIROCCO tool and its language, which impacted on the degree of engagement in the Olomouc Region.
- There are still some sections in the SCIROCCO tool that have not been translated into Czech language, and this may have discouraged those stakeholders who did not feel confident in English from answering.
- User skills in using the online tool: At least initial skills are needed to work with the online tool.
- The Tool does not clearly address/reference key attributes of the current healthcare system in the Olomouc Region and the Czech Republic: These attributes include the issue of reimbursement, and the role of insurance(s) schemes or medical societies. Furthermore, despite the holistic perspective on care integration in SCIROCCO, the tool focuses predominantly on system level integration. However, there are also

other types of integration e.g., organisational integration, integration on a professional level or clinical level that are perhaps not so obvious in the current structure of the tool. Adjustment to the national health and social care system in the Region would reduce uncertainty of rating the progress of integrate care in the Olomouc Region.

Potential impact of the SCIROCCO tool

The SCIROCCO tool can act as a common communication tool that stakeholders can use in any joint activities in preparation for the integration of care.

Collaboration among the local stakeholders in health and social care was strengthened in the Olomouc Region as a result of applying the SCIROCCO tool to facilitate discussions.

In addition, the application of the Tool has improved the knowledge of local stakeholders about the conditions for the integration of care.

Conceptual and technical enhancements to the SCIROCCO tool

Numerous suggestions for improvements of the tool were proposed by stakeholders in the Olomouc Region and addressed during the second refinement of the Maturity Model. These suggestions could enhance the application of the Tool in the regions with a similar health and social care environment as the Olomouc Region.

One option for how to make the Tool more compatible with the national healthcare system and integration efforts is to develop a slightly modified version of the Tool. The dimensions in this modified Tool would use terminology compatible with the given environment and would enable a focus on types and stages of integration that are feasible to implement. This modified model would have a greater local value.

This proposal was influenced by the local healthcare system in the Olomouc Region, where the improvement and innovations were discussed from a perspective of particular diseases rather than a more holistic approach. As a result, medical societies play a key and active role in designing the coordination between various levels of care. The environment is obviously even more complex when it comes to the integration of health care with social care on a national level in the Czech Republic.

Dimensions

The attendees made several observations about the dimensions of the SCIROCCO tool. Feedback was limited to four dimensions of the Tool: Standardisation and Simplification, Breadth of Ambition, Removal of Inhibitors, and Capacity Building:

- The current wording of Dimension 4 - Standardisation and Simplification: The wording of this dimension addresses mainly technical standardisation. However, other aspects of standardisation equally need to be addressed e.g., standardisation of processes, care pathways, safety measures, and other issues. This challenge could be resolved by the expansion of the scope of the standardisation domain.

- The Bismarckian system is not well covered in the dimensions of SCIROCCO tool: The role of health insurance does not seem to be fully reflected in the SCIROCCO tool. Health insurance schemes in Bismarckian systems control a significant part of the money flow in the system; hence, the availability and actual performance of reimbursement for activities in care integration plays a key role in such systems.

Comparison of the tool with other tools

In the Olomouc Region there has been a limited experience and knowledge of other tools for integrated care. To the knowledge of the local project coordinator, the Region has not been involved in integrated care assessment before. However, there is a spectrum of other tools available that are used by the Fakultni Nemocnice Olomouc; e.g. the Model for Assessment of Telemedicine (MAST),[20] Momentum[21], and Health Technology Assessment (HTA).

9.3.2 Direct outcomes emerging from the focus group, including next steps

The integrated health and social care initiatives will be further elaborated by the University Hospital Olomouc and by stakeholders in other regions in the Czech Republic.

In Olomouc Region, the integration approach will specifically focus on clinical care and patients with a number of selected diseases. Once the integration of care is accepted as part of health and care policies in the Olomouc Region, it will enable a focus on more complex integration programmes.

In general, there have not been immediate direct effects/changes seen in the Olomouc Region as a result of using the SCIROCCO tool. The SCIROCCO tool helped the Region to consider a broader spectrum of aspects associated with the integration of care.

9.4 SCIROCCO focus group in Puglia Region, Italy

A SCIROCCO focus group was held on 2nd October 2017 as part of the local self-assessment process in the regional headquarters of the AReSS Puglia in Bari, Italy. The focus group was attended by nine representatives of the original self-assessment group of eleven, alongside four members of the SCIROCCO team. The selected stakeholders represented the macro, meso and micro dimensions of the regional healthcare system.

[20] E.g., http://www.renewinghealth.eu/documents/28946/405409/MAST+-+Model+for+assessment+of+telemedicine+by+Kristian+Kildhom.pdf Last accessed on 9th December 2017.
[21] http://www.telemedicine-momentum.eu/project/ Last accessed on 9th December 2017.

Figure 30: Focus group in Puglia Region, Italy

9.4.1 Observations made by the focus group attendees

The benefits and the outcomes of using the SCIROCCO tool in the self-assessment process of Puglia's regional healthcare system are summed up in this quote:

> "The SCIROCCO tool helps us to understand the level of maturity of digital health in our Region. The tool is also useful to provide information from different points of view on how the healthcare delivery system works in the Region and to help providers to better understand patient needs."
>
> "Effective tool to analyse the state of the art of the context for integrated care: easy/quick detection of areas of improvement, gaps, strengths."
>
> "Facilitates multidisciplinary consultations: it has the potential to tackle issues from different angles giving broader views of the dimension of the problem."
>
> "Flexibility of the tool make it easy to use and easy to be accepted also at a policy-making level of discussion."

Experiences of using the SCIROCCO tool

This section of the report highlights how the tool was used in the self-assessment process in Puglia:

- Organisation of the local team: In Puglia, there is a local group for the SCIROCCO project, with different backgrounds and responsibilities. The team members felt it was good that they knew each other already, and that they worked together systematically on the integrated care of their Region.
- Training in the use of the Tool: the local SCIROCCO coordinator provided local stakeholders with a DEMO video on how to use SCIROCCO tool in the self-assessment process. All stakeholders were able to respond without any additional training.

How the tool can be enhanced

Practical enhancements to the SCIROCCO tool

All stakeholders considered the SCIROCCO tool very simple and transparent. Some minor aspects for the improvement have been identified:

- Availability of the tool in the local language: Very often the translation doesn't articulate the real purpose of the assessment that well. It is a problem of language and adaptation to the local understanding of integrated care.
- Insert numbers in the spider diagram: In the graphical representation it would be useful to insert the numbers (from 0 to 5) into the spider diagram to highlight the scoring.

Wider implications of use of the tool

Using the tool more regularly

During the discussion, some of the benefits of the SCIROCCO tool emerged. All stakeholders considered the SCIROCCO tool easy to use and highlighted the fact that the use of the tool did not need external intervention. The tool brings many issues to the surface; it can be used to present new and upcoming trends to the management and explain the rationale behind.

A more regular use of the tool was also suggested:

- From an integrated care perspective, it could be useful to undertake the exercise periodically, with a focus on specific topics or diseases e.g. new technology, kidney disease patients, innovation management, etc.

- The tool can be helpful to indicate which dimensions of integrated care are improving, or potentially worsening, in terms of their scoring.

Using the tool for other purposes

The stakeholders suggested that the SCIROCCO tool can also be adopted beyond the assessment of maturity of healthcare systems. This includes:

- Application of the SCIROCCO tool before new projects start: citizens or managers could use this tool at the beginning of any policy implemented by the government in order to assess the "state of play" for a specific subject.

For example:

Social Welfare Regional Manager: "The SCIROCCO tool could also be used in the validation of other regional policies, not just those related to chronicity."

Comparison of the tool with other tools

Some local stakeholders pointed out that other tools such the EuneHTA core model for production of HTA reports on Technologies, Medical and Surgical Interventions, etc. (utilising different assessment elements organised in nine domains) are available and used in Puglia to assess the impact of technologies on the regional health service. Nevertheless, these tools are more complex and need specific skills to be performed in different domains (epidemiology, clinical engineering, health economy, etc.) All stakeholders agreed that the SCIROCCO Maturity Model is defined in a very flexible and easy to use concept that can be applied in different contexts. In addition, the graphic representation of the outcomes in the form of spider diagram is a novelty compared to other available tools.

The easy understanding of the tool is also very helpful in making decisions and can be a viable method for facilitation of the meetings with the stakeholders with different perspectives.

Healthcare Regional Manager: "The SCIROCCO tool is useful to drive discussions during brainstorming: sometimes in meetings it is easy to lose the focus. It also provided a clear vision of the strengths and weaknesses of the regional context. If used properly, it is an extraordinary participatory policy tool."

9.4.2 Outcomes from the focus group, including next steps

Overall, the local stakeholders concluded:

- The SCIROCCO tool helps us to understand the level maturity of integrated care in the Region.
- The tool seems to be easy to use in comparison with some other tools that the stakeholders were familiar with.
- The SCIROCCO tool could also be used in the validation of other regional policies, not only of integrated care.

Next steps for the Puglia Region will include:

- Analysis of the self-assessment outcomes and presentation of the outcomes to the internal steering group.
- Recommendations for future policy.
- Validation of the SCIROCCO tool in other Italian regions.

9.5 SCIROCCO focus group in Scotland

A small SCIROCCO focus group was held on Thursday 26th October 2017 in the Informatics Forum of the University of Edinburgh in Edinburgh, Scotland, following immediately a collective self-assessment meeting.

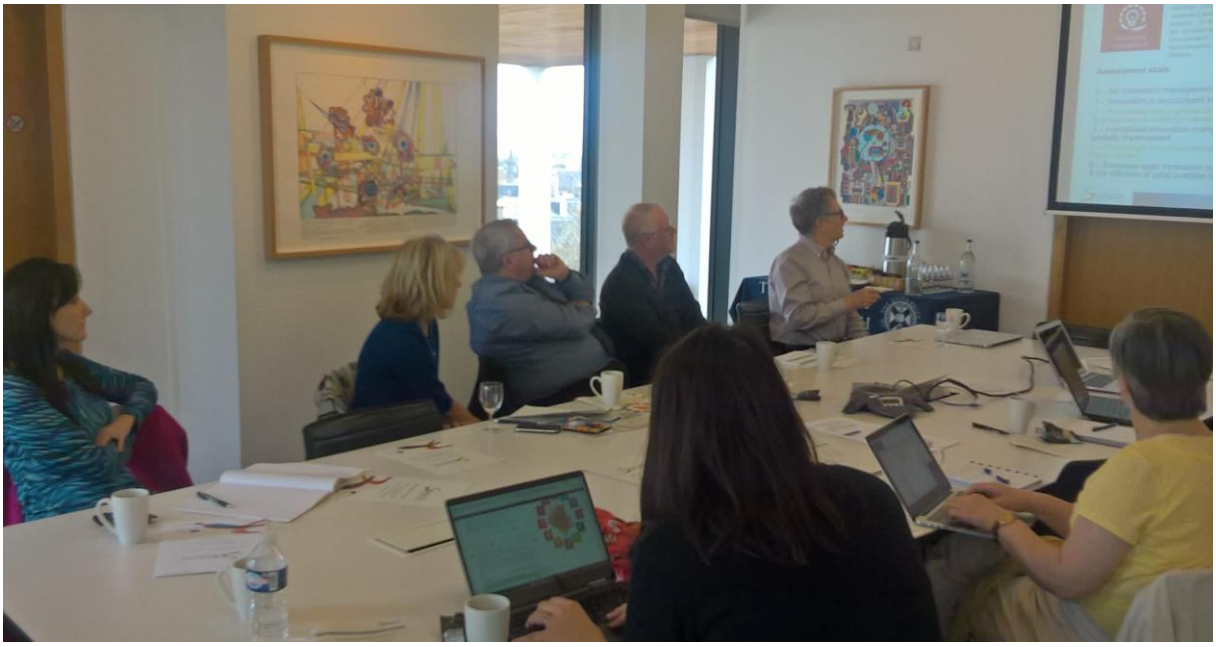

Figure 31: Focus group in Scotland

9.5.1 Observations made by the focus group attendees

Here are a few insights into attendees' opinions of the SCIROCCO tool:

"*The SCIROCCO tool helps with what is the reality across the piece.* The tool*'s not an end in itself. It's about* developing *a more dynamic, learning system. You can go with naturally occurring teams, of whatever size and composition and levels and disciplines. It's about how does* integrated care *sit within a bigger context. It's about involving others whether at an oversight level or a granular level.*"

"*It's a comfort to review* the situation *as ourselves. We got to know that our policy lead is pretty much of the same view* as us."

"*It's good to identify some* dimensions *where there is some feeling that they are not as mature. It's about sense-checking for the health and care partnerships – which was quite a stretch. This for me is the real value! We've got the legislation* in Scotland, *but how is it that we're actually working?*"

Experiences of using the tool

The video detailing how to complete the SCIROCCO tool had been found useful.

With regard to the SCIROCCO tool itself, the tool was experienced as:

- Easy-to-use.
- Facilitative.
- Good at helping consensus-building.
- Helpful for enabling discussion and dialogue.

Using the tool as a team rather than as individuals

Filling in the SCIROCCO tool was perceived as highly beneficial in terms of enabling respondents to give some individual thought about the different domains of the Scottish health and care system.

> "The SCIROCCO tool *helps you to do your own 'internal audit'. It enables you to think about any gaps that exist in the system. … It's not like* some other *standard questionnaire that you fill in, and don't then give it another thought day-to-day."*

In Scotland, however, some concern was voiced on the part of individuals about being able to express 'my opinion' on certain subjects, especially in areas of integrated where there is quite a bit more collective work left to do. Respondents had had to have been reassured, through telephone conversations, that their individual views would not be published.

Using the SCIROCCO tool had encouraged a number of respondents to discuss the health and care system collectively with colleagues, prior to completing their individual survey questions /attending the consensus building meeting. Several of the attendees had used the tool to check, validate, or consolidate their own individual views about the Scottish health and care system with other colleagues or contacts.

- Completing the tool as a group exercise: One respondent had completed the tool partially as a group exercise, with a group of which he is a member. The group's members are all interested in health and well-being, but their knowledge of the field varies. Hence, the SCIROCCO tool acted "almost as an internal learning tool". Several versions of the tool have since been completed by the members of this organisation as a means of exploring their opinions on the status of the Scottish health and care system. It was therefore suggested that the tool could be used in a formal, semi-formal, or informal way with 'sister organisations' in order to compare and contrast individual opinions.
- Checking the collective self-assessment outcome with other stakeholders: Several of the respondents referred, when speaking, to individuals working in other jobs and at other levels in Scotland who focus particularly on e.g., "local partnerships", with whom they felt it would be very good to cross-check the validity of the consensus group outcomes.
- Having a confidence scale available: One of the respondents thought it was very positive that respondents are asked how positive/confident they are about their responses, since part of the process "took some guessing". The fact that respondents can nominate another person or other people to further validate the content of their responses was viewed as being very constructive.

Enhancement of the tool

Both wording and technical ways of enhancing the SCIROCCO tool were mentioned during the focus group part of the meeting.

Technical improvements

The following technical improvements were suggested:

- Adding a sliding scale: It was said that a 'slider' or 'sliding scale' might be a useful technical option. Sliding scales are apparently technical options used in some other

(unspecified) software tools. (In the collective self-assessment part of the meeting, some of the respondents had stated that they might have wanted to give scores a 'half-point' especially at the very beginning of the discussion i.e., on the Readiness to Change dimension.)

- Adding two other scoring options: One respondent suggested that a 'don't know' option, and possibly a 'less than zero' score, should be considered.
- Considering the colouring of spider diagrams: Another attendee mentioned that perhaps the colouring of the consolidated visual of the five respondents' spider diagrams might be more distinctive.

Comparison of the SCIROCCO tool with other tools

Some alternative options to the use of the SCIROCCO tool were explored, particularly with regard to current tools available on the market. Some of these may be Scotland-specific:

- Diversity of organisations: In the Scottish situation, there could be options for using the tool in diverse organisations, such as Health Improvement Scotland,[22] and possibly working on commissioning and procurement challenges.
- Outcome chains: One respondent talked about the use of SCIROCCO in combination with 'outcome chains'[23] of different time durations.
- Working in specific regions/areas: One respondent thought that academic staff working in the Strathclyde area of Scotland on digital readiness might find the tool useful with systems and organisations that are ready for change.

"Scotland will never just look at digital health in isolation. It is about an outcome chain, with short-term, medium-term and long-term outcomes – when you look at the scores from the 0s through to the 5s. It is where our priority for investment lies, in Scotland, and what we're trying to achieve."

Using the tool bottom-up versus top-down

One respondent commented that, in the SCIROCCO tool, there seems to be a lot of assumptions made that strategy will occur top-down. In the Scottish context, however, a lot of activities in integrated care are taking place bottom-up.

Another respondent thought it might be possible to work bottom-up with the tool and use it in local areas to reach a consensus locally and then move steadily towards national-level consensus. In this case, the need for facilitated workshops was raised, including the gathering of "in-out and out-in views".

Direct comparison with three other tools

Some general opinions were offered on two tools that are being used either internationally, with acute hospitals, or in NHS England.

The information offered was purely informative; no direct conclusion was reached.

[22] http://www.healthcareimprovementscotland.org, accessed 31st October 2017.
[23] 'Outcome chains' are relatively recent sales and marketing developments linked with the notion of selling 'business roadmaps' that enable 'customers' to reach their desired 'business outcomes'. See e.g., https://go.forrester.com/blogs/10-04-26-how_would_you_define_customer_outcome/ and https://www.tsia.com/resources/press-releases/2016-press-releases/tsia-announces-partnership-with-outcome-chains-inc.html, accessed 31st October 2017.

Comparison with HIMSS Electronic Medical Records Adoption Model (EMRAM)

A brief discussion occurred on the HIMSS EMRAM scoring.[24] Originally piloted in the United States (US) with a US-centric orientation – now modified – EMRAM is increasingly being used to benchmark (acute) hospitals in a European context. It is based on online self-assessment followed up by facilitated workshops with three types of stakeholders (business executives, clinical staff, citizens); a report follows the facilitated workshops that are organised.

Comparison with digital maturity assessment (NHS England)

It was commented that the digital maturity assessment measure conducted by NHS England on secondary care[25] involved a wider question set of questions (179 in total), including on digital leadership and digital governance. Responses are scored using a Likert scale. It was noted that "a blend of the two approaches, i.e., digital maturity assessment and SCIROCCO would be quite helpful."

9.5.2 Outcomes from the focus group, including next steps

Two direct outcomes were agreed:

Firstly, the focus group members advocated looking at the results of the Scottish local partnerships, in particular as a next step, in order to compare and contrast them with their own results. In addition, for self-assessment results to be gathered from those respondents/associations, e.g., care homes, housing, the independent sector, emergency services, which had not yet answered the questionnaire.

Secondly, an important step will be to decide how to put together 'transmitters' and 'receivers' in relation to twinning and coaching. This implies making decisions about which country/region wants to 'transmit' information about a particular good integrated care practice, and which one wants to 'receive' it. This will mean identifying which regions/countries in other parts of Europe are doing things on integrated care (health and social care) that Scotland would find useful to visit or to be twinned with or coached by. One option for identifying these options may lie in the work of the EIP on AHA B3 Action Group on Integrated Care.[26] One of the focus group attendees considered that some gaps may lie especially in the field of standardisation.

[24] http://www.himss.eu/healthcare-providers/emram, accessed 31st October 2017.
[25] https://www.england.nhs.uk/digitaltechnology/info-revolution/maturity-index/, accessed 31st October 2017.
[26] https://ec.europa.eu/eip/ageing/home_en, accessed 31st October 2017.

10. Discussion

The maturity of health care systems needs to be recognised in order to facilitate scaling-up and exchange of good practices in integrated care. The maturity of a healthcare system is shaped by the local conditions enabling adoption of integrated care solutions. A flexible and easy-to-apply approach to assess the readiness of local environment enabling integrated care was therefore applied in SCIROCCO regions.

One self-assessment process was conducted in each of the five SCIROCCO regions, Basque Country, Norrbotten Region, Olomouc Region, Puglia Region and Scotland. All five regions applied the SCIROCCO self-assessment methodology and tested the SCIROCCO tool in real-life settings. The use of commonly agreed methodology ensured the consistency of the assessment process however some local adaptations were required. These were mainly due to linguistic and cultural differences in approaches to engage with local stakeholders. As a result, some of the documentation prepared for inviting stakeholders in the assessment process required translation and changes in the structure or the content of the invitation letter.

Major adaptation was required in the SCIROCCO Maturity Model and its self-assessment tool. The regional coordinators in the Basque Country, Olomouc Region and Puglia Region advised about the need to translate the tool in order to successfully engage with local stakeholders. The SCIROCCO tool was thus translated into three languages - Czech, Italian and Spanish - before the start of the assessment process. However, the testing of the translated SCIROCCO tool clearly demonstrated that translation alone is not enough and that local adaptation, reflecting both the local language and concept of integrated care, is required.

The scope of the assessment process was defined by each individual region reflecting the structure of their healthcare systems and the concept of integrated care. This has also informed the structure and the size of self-assessment teams locally. Engagement in the regions varied, in terms of use of different communication channels and also in length of the process. Particularly interesting was the situation in the Olomouc Region in the Czech Republic. The concept of integrated care is not very well recognised and there is a limited knowledge of stakeholders about this approach. As a result, the engagement of local stakeholders was a very difficult and long procedure. In other regions, more time was needed to communicate the clear added-value and benefits of the assessment process to persuade stakeholders to take part.

The self-assessment process was facilitated by the SCIROCCO online self-assessment tool. The outcomes of the assessment process were visualised in the form of spider diagrams. Most of the assessments were conducted within two weeks, followed by the consensus building sessions with local stakeholders. The assessment process consisted of three stages:

- Individual assessments of all stakeholders involved in order to capture their individual perceptions on the progress in integrated care;

- Consensus-building workshop with all stakeholders involved in order to discuss the findings of their assessment, highlight the main differences in the maturity scoring and aim to reach consensus on the final scoring;
- Focus group meetings with all stakeholders involved in order to capture their experience of using SCIROCCO tool in the self-assessment process and to inform its future functionality and improvement.

In general, the self-assessment process was perceived as a very comprehensive and useful way of capturing current progress in integrated care and inform the gaps and areas for future improvement. The stakeholders mostly agreed that the assessment outcomes reflected the real picture of adoption of integrated care in their organisations and regions and there were no major surprises when reviewing the assessment outcomes. The assessment outcomes clearly demonstrated that the regions are still on the journey towards integrated care and there is still a number of dimensions of integrated care which require further improvement and actions. In some regions, low maturity scoring can be observed around the readiness and governance required to introduce integrated care and, in others, low scores related to missing ICT infrastructure to enable better integration and coordination of care. The majority of regions also appeared to struggle with the evaluation of integrated care services and building the capacity of stakeholders for this change.

The experience of local stakeholders and outcomes of the assessment process emphasised that the main added value of this process was the multi-disciplinary dialogue and discussions during the consensus-building workshops rather than the quantitative maturity measures. Using the SCIROCCO tool, it provided the basis for the structured and focused discussion of very diverse stakeholders which is particularly useful for defining the actions and measures required to improve the identified weaknesses and gaps in the systems.

The assessment outcomes of the five SCIROCCO regions showed that there are different levels of maturity and readiness of healthcare systems for the adoption of integrated care in Europe. This provides a strong basis for mutual learning and the exchange of good practices on how to create and improve local conditions for the adoption and scaling-up of integrated care. Understanding the complementarity of regions and/or organisations' strengths and weaknesses is therefore crucial for a much more tailored and effective knowledge transfer and improvement planning.

The testing of SCIROCCO tool in the self-assessment process showed its potential to assess the capacity and readiness of regions and/or organisations for integrated care, provide comprehensive understanding of the current state of play, identify the gaps and facilitate collaborations and consensus-building for successful adoption and scaling-up of integrated care.

11. Maturity assessment guide

The outcomes of the WP6 activities can be summarised in a number of recommendations to help regions in the process of maturity assessment of their healthcare system for integrated care:

1. The maturity of healthcare systems needs to be recognised in order to facilitate scaling-up and exchange of good practices in integrated care.

2. The maturity of a healthcare system is shaped by the local conditions enabling adoption of integrated care solutions. A flexible and easy-to-apply approach to assess the readiness of the local environment enabling integrated care should be applied.

3. The understanding of local conditions enabling integrated care and maturity gaps in particular should become much more available to potential adopters in order to speed up the scaling-up and exchange of good practices in integrated care.

4. The SCIROCCO tool can help potential adopters to assess their capacity and readiness for integrated care by providing them with a comprehensive understanding of the current state of play in integrated care, and by facilitating collaboration and consensus-building.

5. To conduct the assessment process in a particular healthcare system and/or organisation requires a minimum knowledge of the integrated care concept and some early stages of implementation.

6. The assessment process needs to be easy to perform, and it needs to demonstrate the outcomes in order to show benefits and added-value of this process to local stakeholders.

7. To assess the maturity of a particular healthcare system and/or organisation, understanding the objectives of the assessment is critical. The objectives of the assessment process define the scope of the assessment and local assessment team.

8. The assessment process should be conducted in the local language of a particular healthcare system and/or organisation. However, the translation of the Tool is not sufficient and adaptation of the language to the local understanding of integrated care concept is necessary.

9. The assessment outcomes should be visualised in order to stimulate discussions and attention of local stakeholders to engage in the process and reflect on its outcomes.

10. The assessment process should be supported by clear guidance on how to apply the SCIROCCO tool, including illustrative videos and other educational materials.

Appendix I SCIROCCO Maturity Model (v0.2)

The second version of SCIROCCO Maturity Model and its online self-assessment tool was used to conduct the maturity assessment of healthcare system. This version of Maturity Model followed the refinement and improvement informed by testing of SCIROCCO tool for the purpose of assessing the maturity requirements of good practices (SCIROCCO WP4 Maturity Requirements of Good Practices). The structure and the assessment scale of the second version of Maturity Model is provided below.

1. Readiness to Change

Objectives:

If the existing systems of care need to be re-designed to provide a more integrated set of services, this will require change across many levels, the creation of new roles, processes and working practices, and new systems to support information sharing and collaboration across care teams. This will be disruptive and may be viewed negatively by workers, press and public, so a clear case needs to be made for those changes, including a justification, a strategic plan, and a vision of better care.

- Creating a compelling vision, with a real sense of urgency, and enlisting stakeholder support including political leadership, management, care professionals, public and press.
- Accepting the reality that care systems are unsustainable and need to change.
- Publishing a clear description of the issues, the choices that need to be made, and the desired future state of the care systems, stating what will be the future experience of care.
- Creating a sense of urgency to ensure sustained focus and building a 'guiding coalition' for change.

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 integrated care at a regional or national level presents a significant challenge. It needs multi-year programmes with excellent change management, funding and communications, and the power to influence and (sometimes) mandate new working practices. This means alignment of purpose across diverse organisations and professions, and the willingness to collaborate and put the interest of the overall care system above individual incentives. It also means managing the introduction of eHealth services to enable integrated care in a way that makes them easy to use, reliable, secure, and acceptable to care professionals and citizens alike.

- Enabling properly funded programmes, including a strong programme, project management and change management; establishing ICT or eHealth competence centres to support roll-out; distributed leadership, to reduce dependency on a single heroic leader; excellent communication of goals, progress and successes.
- Managing successful eHealth innovation within a properly funded, multi-year transformation programme.
- Establishing organisations with the mandate to select, develop and deliver eHealth services.

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 and other informal ways of collaborating

3 – Governance established at a regional or national level

4 – Roadmap for a change programme defined and broadly accepted

5 – Full, integrated programme established, with funding and a clear mandate.

3. eHealth Services

Objectives:
Integrated care requires, as a foundational capability, sharing of health information and care plans across diverse care teams that lead progressively to systems for enabling continuous collaboration, measuring and managing outcomes, and enabling citizens to take a more active role in their care. This means building on existing eHealth services, connecting them in new ways to support integration, and augmenting them with new capabilities, such as enhanced security and mobility.

- Essential components to enable information-sharing, based on secure and trusted services.
- 'Digital first' policy (where possible, move phone and face-to-face services to digital services to reduce dependence on staff and promote self-service).
- Availability of fundamental building blocks to enable eHealth and eServices ('infostructure').
- Confidentiality and security designed into patient records, registries, online services etc.
- Enabling of new channels for healthcare delivery to replace face-to-face and telephone contact.

Assessment scale:
0 – ICT systems are not designed to support integrated care

1 – eHealth services to support integrated care are being piloted

2 – eHealth services to support integrated care are deployed but there is not yet region wide coverage

3 – eHealth services to support integrated care are planned and deployed widely at large scale but use of these services is not mandated

4 – Mandated or funded use of regional/national eHealth infrastructure across the healthcare system

5 – Universal, at-scale regional/national eHealth services used by all integrated care stakeholders.

4. Standardisation & Simplification

Objectives:
When considering eHealth services and how they can support the information sharing and collaboration needs of integrated care, the task can be made easier if the number of different systems in use, and the formats in which they store data, can be simplified. Practically, this means trying to consolidate data centres, standardising on fewer systems, and agreeing on what informatics standards will be used across a region or country.

- Simplification of infrastructure; fewer integration points to manage; easier interoperability.
- Consolidation of applications and data centres into fewer sites.
- Regional standardisation on fewer (or single) solutions.
- Ability to view and exchange medical data from different systems across diverse care settings.

Assessment scale
0 – No standards in place or planned that support integrated care services

1 – Discussion of the necessity of ICT to support integrated care and of any standards associated with that ICT

2 – An ICT infrastructure to support integrated care has been agreed together with a recommended set of information standards – there may still be local variations

3 – A recommended set of agreed information standards at regional/national level; some shared procurements of new systems at regional/national level; some large-scale consolidations of ICT underway

4 – A unified set of agreed standards to be used for system implementations specified in procurement documents; many shared procurements of new systems; consolidated data centres and shared services widely deployed

5 – A unified and mandated set of agreed standards to be used for system implementations fully incorporated into procurement processes; clear strategy for regional/national procurement of new systems; consolidated datacentres and shared services (including the cloud) is normal practice.

5. Funding

Objectives:
Changing systems of care so that they can offer better integration requires initial investment and funding; a degree of operational funding during transition to the new models of care; and on-going financial support until the new 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 from regional/national budgets to 'stimulus' funds, European Union investment funds, public-private partnerships (PPP) and risk-sharing mechanisms).

Assessment scale:
0 – No additional funding is available to support the move towards integrated care

1 – Funding is available but mainly for the pilot projects and testing

2 – Consolidated innovation funding available through competitions/grants for individual care providers and small-scale implementation

3 – Regional/national (or European) funding or PPP for scaling-up is available

4 – Regional/national funding for on-going operations is available

5 – Secure multi-year budget, accessible to all stakeholders, to enable further service development.

6. Removal of Inhibitors

Objectives:
Even with political support, funded programmes and good eHealth infrastructure, many factors can still make integrated care difficult to deliver, by delaying change or limiting how far change can go. These include legal issues with data governance, resistance to change from individuals or professional bodies, cultural barriers to the use of technology, perverse financial incentives, and lack of skills. These factors need to be recognised early, and a plan developed to deal with them, so as to minimise their impact.

- Actions to remove barriers: legal, organisational, financial, skills.
- Changes to the law concerning e.g., medical acts, information governance, data sharing –factors which may hold up innovation.
- Creation of new organisations or collaborations to encourage cross-boundary working ('normative integration').
- Changes to reimbursement to support behavioural change and process change.
- Education and training to increase understanding of ICT and speed up solution delivery.

Assessment scale:
0 – No awareness of the effects of inhibitors on integrated care

1 – Awareness of inhibitors but no systematic approach to their management is in place

2 – Strategy 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 service development.

7. Population Approach

Objectives:
Integrated care can be developed to benefit those citizens who are not thriving under existing systems of care, in order to help them manage their health and care needs in a better way, and to avoid emergency calls and hospital admissions and reduce hospital stays. This is a practical response to meeting today's demands. Population health goes beyond this and uses methods to understand where future health risk (and so, demand) will come from. It offers ways to act ahead of time, to predict and anticipate, so that citizens can maintain their health for longer and be less dependent on care services as they age.

- Understanding and anticipating demand; meeting needs better.
- Improving the resilience of care systems by using existing data on public health, health risks, and service utilisation.
- 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 though technology-enabled public health interventions.

Assessment scale:
0 – Population health approach is not applied to the provision of integrated care services

1 – A population risk approach is applied to integrated care services but not yet systematically or to the full population

2 – Risk stratification is used systematically for certain parts of the population (e.g. high-use categories)

3 – Group risk stratification for those who are at risk of becoming frequent service users – seems similar

4 –Population-wide risk stratification started but not fully acted on

5 – Whole population stratification deployed and fully implemented.

8. Citizen Empowerment

Objectives:
Health and social care systems are under increasing pressure to respond to demands that could otherwise be handled by citizens and carers themselves. The evidence suggests that many individuals would be willing to do more to participate in their own care if easy-to-use services, such as appointment booking, self-monitoring of health status, and alternatives to medical appointments, were available to them. This means providing services and tools that enable convenience, offer choice, and encourage self-service and engagement in health management.

Assessment scale:
0 – Citizen empowerment is not considered as part of integrated care provision

1 – Citizen empowerment is recognised as important part of integrated care provision but effective policies to support citizen empowerment are still in development

2 - Citizen empowerment is recognised as important part of integrated care provision, effective policies to support citizen empowerment are in place but citizens do not have access to health information and health data

3 - Citizens are consulted on integrated care services and have access to health information and health data

4 – Incentives and tools exist to motivate and support citizens to co-create healthcare services and use these services to participate in decision-making process about their own health

5 – Citizens are fully engaged in decision-making processes about their health, and are included in decision-making on service delivery and policy-making.

9. Evaluation Methods

Objectives:
As new care pathways and services are introduced to support integrated care, there is a clear need to ensure that the changes are having the desired effect on quality of care, cost of care, access and citizen experience. This supports the concept of evidence-based investment, where the impact of each change is evaluated, ideally by health economists working in universities or in special agencies. Health technology assessment (HTA) is an important method here and can be used to justify the cost of scaling up good practices to regional or national level.

- 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).
- Generating evidence that leads to faster adoption of good practice.

Assessment scale:
0 – No evaluation of integrated care services is in place or in development

1 – Evaluation of integrated care services exists, but not as a part of a systematic approach

2 – Evaluation of integrated care services is planned to take place and be established as part of a systematic approach

3 – Some integrated care initiatives and services are evaluated as part of a systematic approach

4 – Most integrated care 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).

10. Breadth of Ambition

Objectives:
Integrated care includes many levels of integration, such as integration between primary and secondary care, of all stakeholders involved in the care process, or across many organisations. It may be developed simply for healthcare needs (i.e., vertical integration) or it may include social workers, the voluntary sector, and informal care (i.e., horizontal integration). The broader the ambition, the more numerous and diverse the stakeholders who have to be engaged. Similarly, integration may include all levels of the system or may be limited to clinical information sharing. The long-term goal should be fully integrated care services which provide a complete set of seamless interactions for the citizen, leading to better care and improved outcomes.

- Integration supported at all levels within the healthcare system – at the macro (policy, structure), meso (organisational, professional) and micro (clinical) levels.
- Integration 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 – Integrated services arise but not as a result of planning or the implementation of a strategy

1 – The citizen or their family may need to act as the integrator of service in an unpredictable way

2 – Integration within the same level of care (e.g., primary care)

3 – Integration between care levels (e.g., between primary and secondary care)

4 – Integration includes both social care service and health care service needs

5 – Fully integrated health & social care services.

11. Innovation Management

Objectives:
Many of the best ideas are likely to come from clinicians, nurses 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.

- 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 universities and private sector companies in the innovation process (i.e., 'open innovation').
- Using innovative procurement approaches (Pre-Commercial Procurement, IPP, PPP, Shared Risk, Outcome-Based Payment)
- Using European projects (e.g., Horizon 2020, EIP, CEF).

Assessment scale:
0 – No innovation management in place

1 – Innovation is encouraged but there is no overall plan

2 – Innovations are captured and there are some mechanisms in place to encourage knowledge transfer

3 – Formalised innovation management process is planned and partially implemented

4 – Formalised innovation management process is in place and widely implemented

5 – Extensive open innovation combined with supporting procurement & 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. The systems of care 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 knowledge is captured and used to improve the next set of projects, leading to greater productivity and increasing success.

- Increasing skills; continuous improvement.
- Building a skill base that can bridge the gap and ensure that the capacity needs are understood and addressed by ICT 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 – Integrated care services are not considered for capacity building

1 – Some systematic approaches to capacity building for integrated care services are in place

2 – Cooperation on capacity building for integrated care is growing across the region

3 – Systematic learning about integrated care and change management is in place but not widely implemented

4 – Systematic learning about integrated care 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 healthcare system' involving reflection and continuous improvement.