

European Observatory for Clusters and Industrial Change



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Selection as one of 10 regions in industrial transition

The customised advice on modern cluster policy in support of industrial modernisation provided to the 10 regions in industrial transition is funded by the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), as part of the European Observatory for Clusters and Industrial Change (EOCIC). The regions were selected as a result of an open call for expression of interest, published and assessed by the Commission services. The Commission launched a first call for expression of interest on 29 September 2017 and, as a result of demand from regions, a second call was launched on 14 December 2017.¹

The following regions were selected²:

- **Cantabria (Spain)**
- Centre Val de Loire (France)
- East & North Finland
- Hauts-de-France (France)
- Lithuania
- North-Middle Sweden
- Piemonte (Italy)
- Saxony (Germany)
- Slovenia
- Wallonia (Belgium)



The aim of the work being provided by the EOCIC to 10 regions in industrial transition is to define a set of actions in the form of a comprehensive strategy to foster regional economic transformation, identify collaboration and funding opportunities and connect with other regions in regional and cluster partnerships.

This pilot will help test new approaches to industrial transition and provide the European Commission with evidence to strengthen post-2020 policies and programmes.

The output of the first phase of the EOCIC advisory services was an assessment report, which summarises the key challenges of industrial modernisation for the region and the potential policy directions. The second phase of the EOCIC advisory services will build on this report to develop concrete policy proposals for each industrial transition region. DG GROW and the EOCIC are working closely with the Directorate-General for Regional and Urban Policy (DG REGIO) and the OECD to provide advice services for the pilot regions.

More information on the activities carried out by the EOCIC is available at the end of this report.

¹ Details on the selection procedure are available at:

https://ec.europa.eu/regional_policy/en/policy/themes/industrial-transition/

² 12 regions were initially selected for the overall process of the project on pilot regions in industrial transition, of which 10 then engaged with the project through to the final stages of the work carried out by the EOCIC.

1. Introduction

1.1. Aims and objectives of the exercise

The aim of this exercise is to **present a strategy and a set of recommendations to support Cantabrian authorities and stakeholders in the regional industrial transition process.**

To that end, this document includes the main challenges for the region through a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis and a PEST (Political, Economic, Socio-cultural and Technological) analysis. Both are described in Chapter 2. Based on these challenges, Chapter 3 provides a customised strategy designed to address the needs and challenges identified. Chapter 4 presents two specific recommendations for policy intervention. Their respective action plans are in Chapter 5.

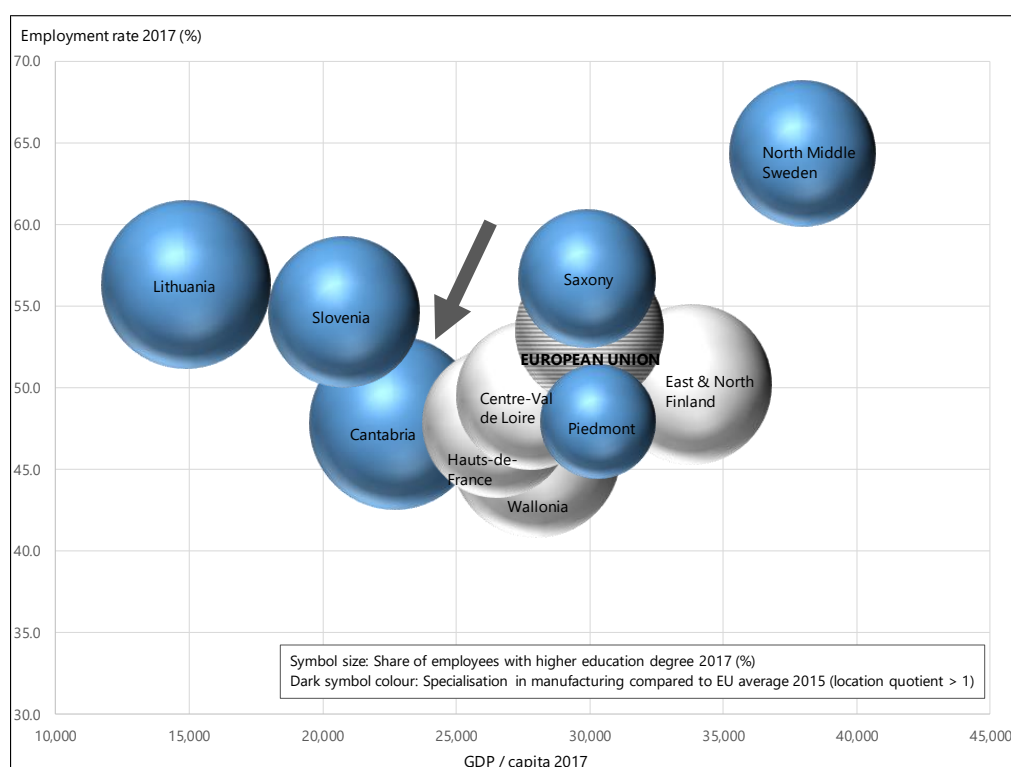
This document was developed based on the inputs collected during a study visit to Santander (21-22 June 2018), a policy review meeting (7 February 2019) and the assessment report developed by the EOCIC team. In addition, during this process the different stakeholders of Cantabria's regional innovation ecosystem of consulted through interviews and a questionnaire. An estimated 50 stakeholders participated in this process.

1.2. Key economic and innovation indicators for the pilot region

In 2017, Cantabria had a gross domestic product (GDP) of EUR 22 700 per capita, which is below the EU level of EUR 30 000 and the national figure (EUR 25 100). Of the 10 pilot regions, the Spanish pilot region ranks eighth.

Figure 1 combines selected economic indicators for the 10 pilot regions. It clearly shows Cantabria's position above Slovenia and Lithuania in terms of economic strength measured as GDP per capita. In terms of its employment rate, the region also ranks 8 and is below the median of the 10 regions considered. With 46.5% of employees with a higher education degree, Cantabria ranks first among the pilot regions, however, and has an above-average level of highly educated employees compared to the EU average (34.4%) and the national level (42.5%). While Spain does not specialise in manufacturing compared to the EU, Cantabria's location quotient is above the EU figure (Figure 1).

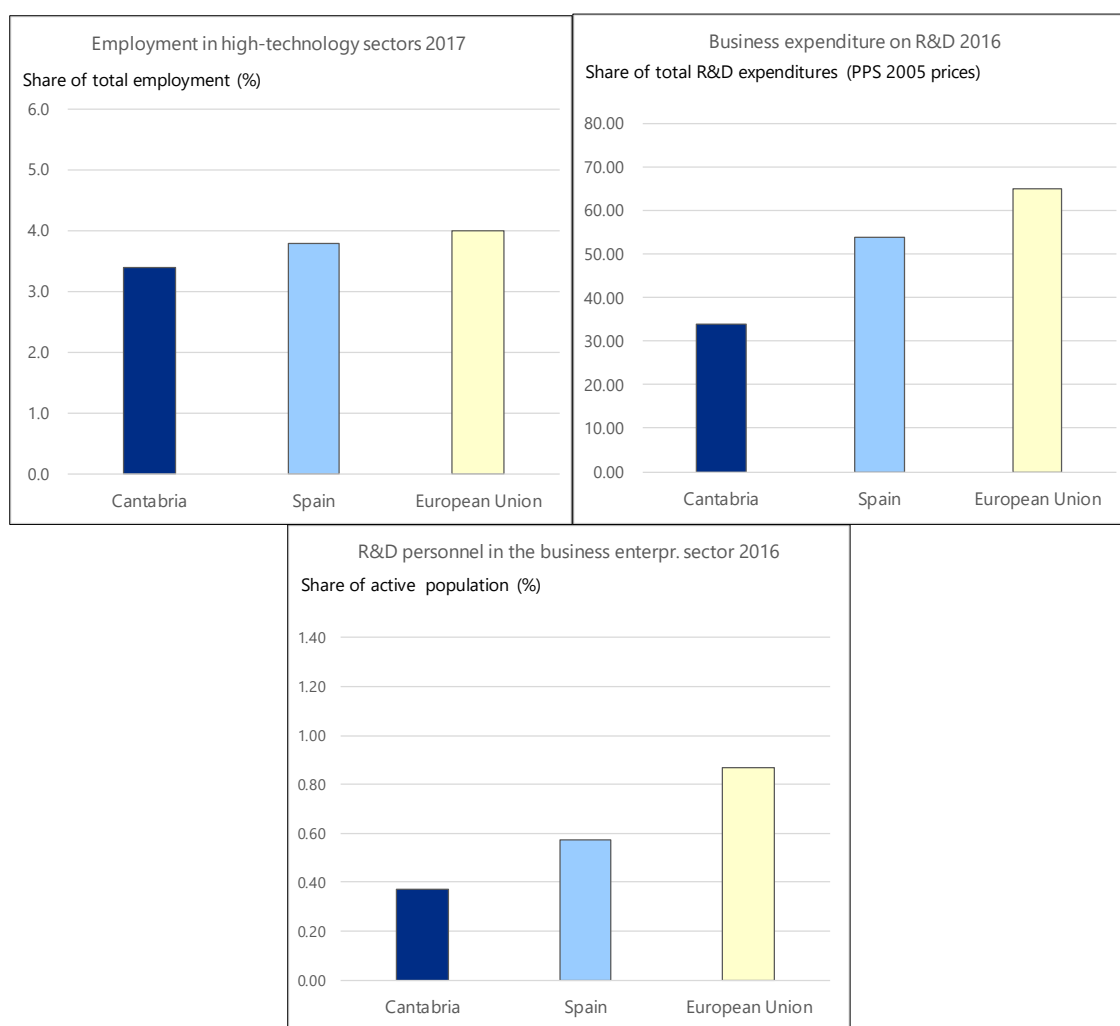
Figure 1: Selected economic data for the 10 pilot regions: GDP/capita, Employment rate, Share of employees with higher education degree and Specialisation in manufacturing



Source: EOCIC, based on Eurostat data and own calculations

Cantabria's share of employment in high-technology sectors (high-technology manufacturing and knowledge-intensive high-technology services) is below the European average and the national level. The business enterprise sector in Cantabria spends a lower percentage of total business D expenditure on research and development activities than enterprises in Spain as a whole and the European Union. In line with this, the region's share of R&D personnel in the business sector is below the national and EU figures (figure 2).

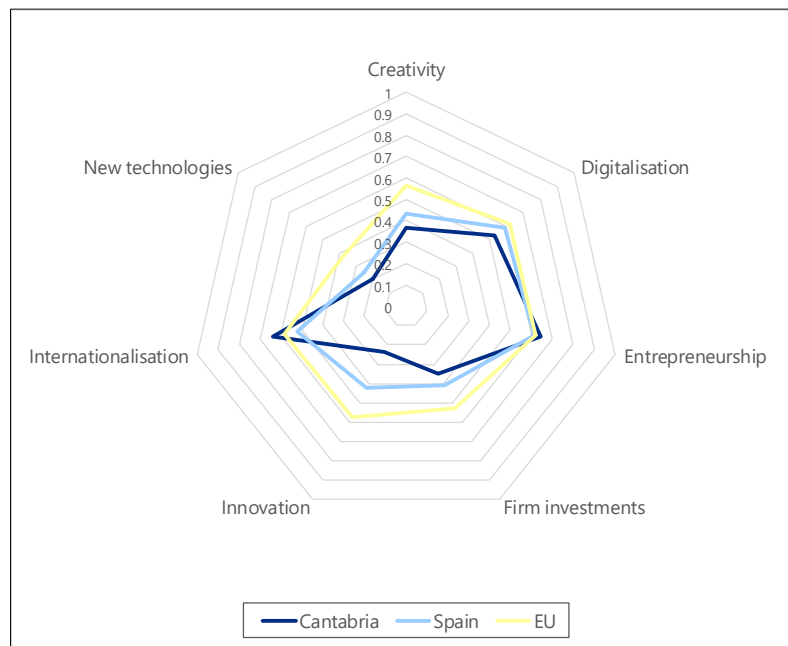
Figure 2: Selected technological indicators for Cantabria



Source: EOCIC, based on Eurostat data and own calculations

In order to provide insights into industrial modernisation, the European Observatory for Clusters and Industrial Change (EOCIC) provides composite indicators on seven dimensions: Evolution towards a more innovative regional economy; New and emerging technologies; Digitalisation; Firm investments; Internationalisation; Creativity; and Entrepreneurship. Each dimension is represented by a set of specific indicators, which are condensed to a composite indicator. Figure 3 presents the results for those seven dimensions in Cantabria. The region's highest scores are for entrepreneurship, internationalisation and digitalisation, and Cantabria represents the maximum value of all 10 pilot regions on the entrepreneurship and internationalisation dimensions. Specifically regarding internationalisation and entrepreneurship, Cantabria scores above the national level. It also exceeds the EU average on these two dimensions. At the other end of the spectrum, Cantabria's lowest score is on the dimension of new and emerging technologies. As per creativity, firm investments and innovation, Cantabria presents the lowest score among the 10 selected pilot regions.

Figure 3: Composite indicators for Industrial Change: Cantabria

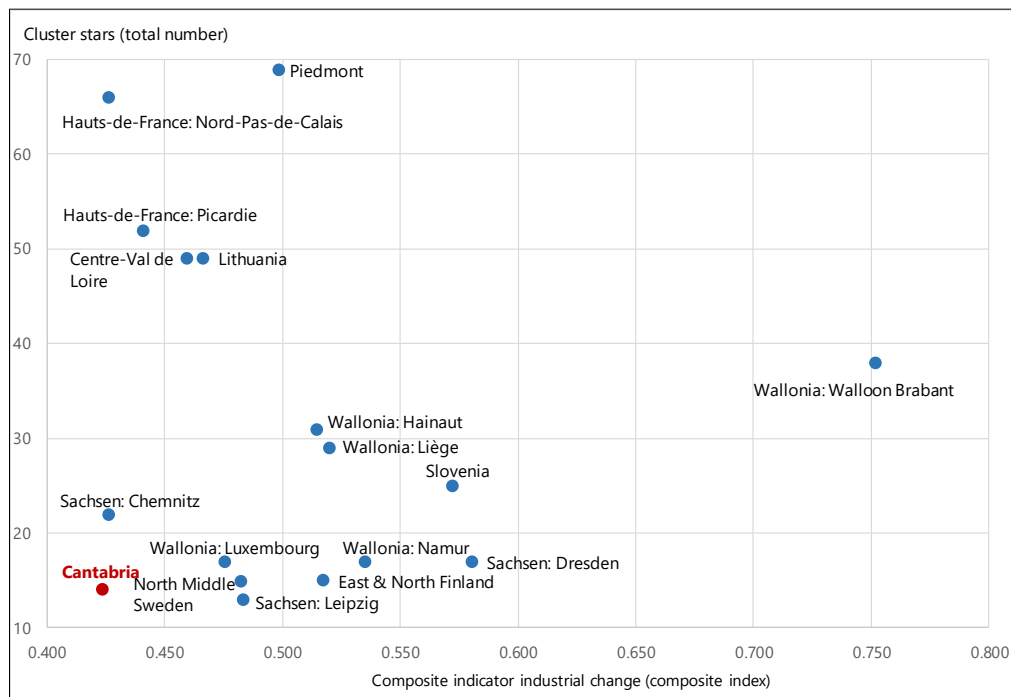


Source: EOCIC, based on various data sources and own calculations

Figure 4 shows the most recent total composite indices for industrial change and the total number of cluster stars in the pilot regions (NUTS 2 level). The composite indices show industrial change in a range between 0.4 and 0.8 between 10 and 70 in the 10 pilot regions, and the total number of cluster stars in a range between 10 and 70 in the 10 pilot regions. Five NUTS 2 regions have 45 or more cluster stars. Piemonte is the clear leader (69 stars). By contrast, various regions have 20 or fewer cluster stars – among them Cantabria (14 stars). Figure 4 also shows that the industrial change ranking is led by Walloon Brabant: on a scale of 0 to 1, this NUTS 2 region has a score of 0.751.

Mapping the pilot regions' industrial change and cluster stars reveals three different types of region: (1) high number of cluster stars, but moderate composite index of industrial change (below 0.5) (Piemonte, Nord-Pas-de-Calais, Picardie, Centre-Val de Loire, Lithuania), (2) regions with moderate figures for both indicators (below 35 cluster stars and composite indices of industrial change below 0.6) (Hainaut, Liège, Slovenia, Dresden, Namur, East & North Finland, Leipzig, Luxembourg, North Middle Sweden, Cantabria, Chemnitz), and (3) Walloon Brabant (composite index of 0.75 and 40 cluster stars). In the second group, Hainaut, Liège and Slovenia stand out from the other regions due to the higher numbers of cluster stars. In part, this is also the case for Chemnitz, but it has a lower index for industrial change.

Figure 4: Composite indicator industrial change (total index) and cluster stars (total) for pilot regions



Source: EOCIC, based on various data sources and own calculations

2. Key challenges, barriers, and drivers of industrial modernisation in Cantabria

This chapter summarises, in tabular form, the political, economic, socio-cultural and technological framework conditions in Cantabria (Table 1). The chapter then presents the key strengths, weaknesses, opportunities and threats (Table 2) that need to be considered in the development of the regional strategy in Chapter 3. This chapter is based on the information collected from the assessment report.

Table 1: The regional ecosystem and framework conditions in Cantabria

Political	Economic
<ul style="list-style-type: none"> • Extensive RIS3, englobing most of the existing sectors. • Lack of sectoral policies. • Soft cluster policy. • Cluster development pushed by the public administration. • Most clusters still in an embryonic stage. • Two public authorities related to innovation and clusters (DGIDTEI - Dirección General de Innovación, Desarrollo Tecnológico y Emprendimiento Industrial, and SODERCAN - Sociedad para el Desarrollo de Cantabria). • National and regional elections in April and May 2019. • Limited collaboration with neighbour regions (e.g. Basque Country or Asturias). 	<ul style="list-style-type: none"> • Industry dominated by micro SMEs. • Cluster organisations lack management staff and procedures. • Limited triple helix and industry-industry collaboration. • Lack of leading companies with capacity to promote cluster creation. • Low rate of industry internationalisation. • Deficient external and internal transport network. • Existence of a competitive maritime port. • No large companies have headquarters in the region; thus, decisions are made outside the region. • Industry concentrated around Bay of Santander. • 4 cluster organisations and 2 export consortia.
Social	Technological
<ul style="list-style-type: none"> • Ageing population. • Population concentrated around Bay of Santander and Torrelavega. • Rural depopulation. • Collaboration is seen as a threat and not as an opportunity. 	<ul style="list-style-type: none"> • Low private and public R&D investment. • Lack of skilled personnel and resources in specific technological areas. • Low rate of digitalisation of companies. • Industry 4.0 and digitalisation are still unknown concepts for most companies.

Table 2 details the strengths, weaknesses, opportunities and threats for industrial transition in Cantabria.

Table 2: Strengths, weaknesses, opportunities and threats of industrial transition

Strengths	Opportunities
<ul style="list-style-type: none"> • Competitive maritime port. • Existence of a teleport. • Privileged geographical position. • Good university with strong research groups in biotechnology and life sciences, and recognised by the industry. • Existence of strong sectors with potential for growth such as maritime energies. • RIS3 priority sectors and cluster organisations are aligned. • Long term policies and strategies for innovation and industrial transition have been developed. • Regional authorities support cluster creation. • Automotive sector with significant contribution to regional industrial GDP. 	<ul style="list-style-type: none"> • Demographic change - ageing population may be an opportunity for the region in terms of developing innovations to the ageing population. • Exploit the ambiguity of RIS3 in order to push several industrial sectors. • Cooperation may enable significant projects and goals that are not possible for SMEs alone to achieve. • Circular economy/blue growth may be a good opportunity for the energy sector, for instance, maritime energies and nuclear energy. • Natural resources are available. • Potential in health/biotechnology and ICT. • Most global megatrends are seen as an opportunity to grow.
Weaknesses	Threats
<ul style="list-style-type: none"> • Industry concentrated around Santander and Torrelavega. • Lack of leading tractor companies for clusters. • Unclear leadership for the promotion of clusters and growth – overlapping responsibilities between DGIDTEI and SODERCAN. • Cluster organisations are still at an embryonic stage and dependent on public funds. • Most cluster organisations do not have a cluster manager. • Size of clusters – few members. • Cluster organisations do not participate in European projects. No registration in the European Secretariat for Cluster Analysis (ESCA) or the European Cluster Collaboration Platform (ECCP). • Low regional investment in R&D. • Difficulties in retaining and attracting talent. • Low level of digitalisation of companies. • Weak triple-helix collaboration, lack of collaborative spirit among entrepreneurs and regional stakeholders. • Vague priority sectors for the region. • High proportion of micro SMEs. • Lack of alignment between university capacities, and industrial sectors and needs. 	<ul style="list-style-type: none"> • Basque Country is Spain's strongest industrial region, although collaboration opportunities with the neighbour region are not being exploited. • Basque Country has great capacity to attract and retain talent, and attract business/investment. • Low national investment in R&D. • Digitalisation and industry 4.0 are concepts unknown to most stakeholders. • Lack of economic resources and equipment for digitalisation of industry. • Rural depopulation, and brain drain and migration of young people with tertiary education to main Spanish cities and abroad. • Deficient external and internal transport network and road networks. • Existence of ICT company association that refuses to create a cluster organisation.

Source: EOCIC

The PEST and SWOT analyses above led to the formulation of four main challenges to be addressed:

1. **Limited collaboration among academia, industry and government.** The SWOT analysis considered the weak triple-helix collaboration, lack of collaborative spirit among entrepreneurs and regional stakeholders as a weakness although there is an opportunity to foster more ambitious projects and goals through cooperation.
2. **Low level of development and growth of cluster organisations.** As indicated in the SWOT analysis, regional authorities support clusters, although measures to increase the impact need to be implemented. In this regard, there is a lack of leading tractor companies, some overlap between organisations supporting innovation and clusters and cluster organisations are quite small.
3. **Limited cluster organisation management capabilities.** As indicated in the SWOT analysis, some cluster organisations are still at an embryonic stage and are highly dependent on public funds. Moreover, some of them do not have a cluster manager. Thus, it is necessary to improve their management procedures and services.
4. **Lack of critical mass in regional priority sectors.** The RIS3 is quite broad and this may be an opportunity to push different industrial sectors. Furthermore, there are some strong sectors with potential for growth, such as maritime energies, and there is an alignment between RIS3 priority sectors and cluster organisations. However, it is necessary to increase the investment in R&D, align technology/knowledge offer and demand, and increase capacities in digitalisation and industry 4.0 in order to increase the critical mass in priority sectors.

3. Proposed regional strategy to address the challenges

The policy review meeting and the assessment report conducted by the EOCIC team showed that **Cantabria faces some challenges related to the lack of collaboration in the regional innovation ecosystem**, in particular, collaboration among academia, industry and government and collaboration among companies. This lack of collaboration, together with the low number of cluster organisations and the small size of those that do exist, hampers the consolidation of sufficient critical mass.

The strategy for Cantabria should, therefore, focus on fostering the development of collaboration dynamics in the regional innovation ecosystem, in particular, across government, companies, clusters, R&D organisations and academia. Moreover, it is necessary to build bridges between those stakeholders and promote mutual knowledge in order to promote cluster creation and development.

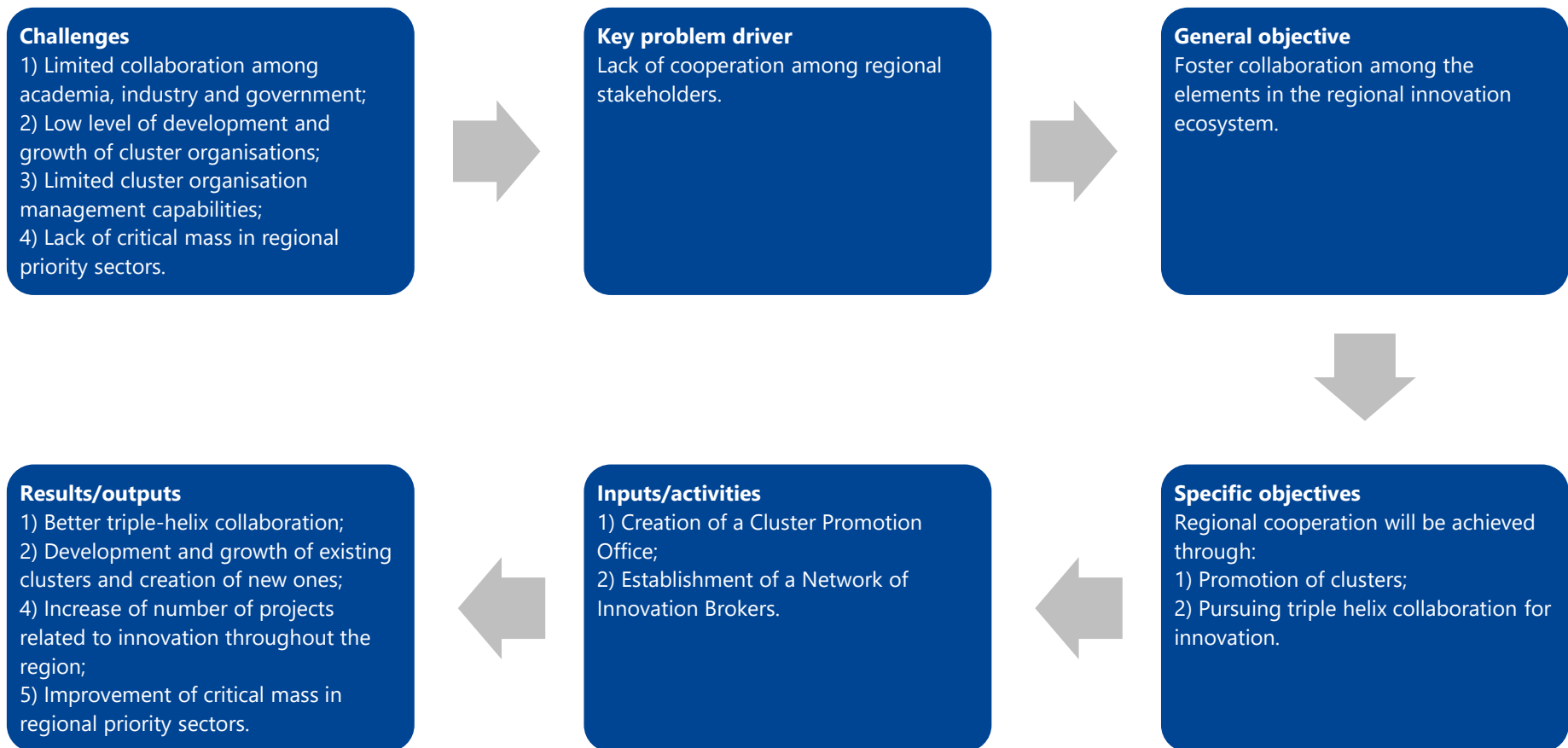
Three elements therefore need to be part of Cantabria's strategy:

- Foster triple-helix collaboration to promote regional innovation;
- Enhance cluster organisations' development and improve cluster management capacities;
- Increase critical mass in regional priority sectors through triple-helix collaboration and cluster promotion.

The main aim of Cantabria's strategy is to foster collaboration between the regional innovation ecosystem through, on the one hand, cluster promotion – the development of existing cluster organisations and the creation of new ones – and, on the other hand, through the establishment of a network to foster innovation activities throughout the region. The implementation of these recommendations should be focused on specific priority sectors defined through the RIS3.

Figure 5 maps these elements against the four challenges identified in the previous chapter.

Figure 5: Overview of the regional industrial modernisation strategy for Cantabria



During the policy review meeting, stakeholders agreed that clusters and cluster organisations are key instruments for the development of the regional economy and industrial transition, since they can provide knowledge on specific industrial sectors and can be key pillars for the implementation of cooperation dynamics and innovation.

To address this, the strategy for Cantabria proposes **the creation of a Cluster Promotion Office**. This Office will be led by the Government of Cantabria and will be in charge of regional cluster policy and the management of cluster organisations in Cantabria. This concept of an office **responsible for managing a network of regional cluster organisations** has been applied successfully in other European regions such as Upper Austria, one of the leading regions in Europe for clusters and networks due to the existence of a well-established system of economic cooperation and networking through clusters³ called Clusterland - Business Upper Austria (Box 1).

Box 1: Clusterland - Business Upper Austria

Clusterland - Business Upper Austria was established in 2006. Its main aim is to support and initiate cooperation for business networks. Currently, Clusterland manages eight clusters (automotive, cleantech, IT, plastics, food, mechatronics, medical technology, furniture and timber construction) and three networks (human resources, logistics and software).

Clusterland's services cover a wide range of activities, including knowledge management, initiation and support for cooperation projects, qualification and event management, marketing, property rights, and. Clusterland supports its partners in increasing their competitiveness and know-how, raises their power of innovation and enhances their internationalisation. Special attention is given to SMEs.

The main services provided by this organisation are: the coordination of projects; compilation of relevant information on specific business sectors; sales and internationalisation activities; fostering participation in cooperation projects; organisation of training courses on demand; and press and public relations.

Source: Business Upper Austria⁴

The strategy for Cantabria will also pursue collaboration between the regional innovation ecosystems. To this end, **a Network of Innovation Brokers will be created to promote the collaboration and development of innovation throughout the region.**

This Network of Innovation Brokers will consist of 10 **innovation brokers, one per administrative district** of Cantabria. They will promote the development of innovation across the region, in particular, within the region's less developed districts. Therefore, this measure would also contribute to decentralising innovative and business activities away from Santander and promoting them in the entire region.

The mission of the innovation brokers will be to build bridges between the main elements of the regional innovation ecosystem and enable collaboration among companies, the university, technology centres, etc. The innovation brokers will provide guidance on project development, look for suitable innovation partners and encourage targeted knowledge transfer and information exchange. They will disseminate the technological offer of regional R&D organisations and regional/national/international funding programmes. Moreover, innovation brokers will identify local industry needs and thus, help ensure the alignment between technological offers and industry needs.

³ New Approaches to Improve the Performance of Cluster Management Organisations in Europe www.cluster-analysis.org/downloads/Newapproachestoimprove.pdf

⁴ Business Upper Austria www.biz-up.at/en/networking/clusterandnetworks/

4. Specific recommendations for policy intervention

This chapter describes the specific recommendations for policy intervention in Cantabria, based on the challenges previously identified.

4.1. Creation of a Cluster Promotion Office

This section presents in detail the process, benefits and estimated costs for the creation of a Cluster Promotion Office in Cantabria.

4.1.1. Description

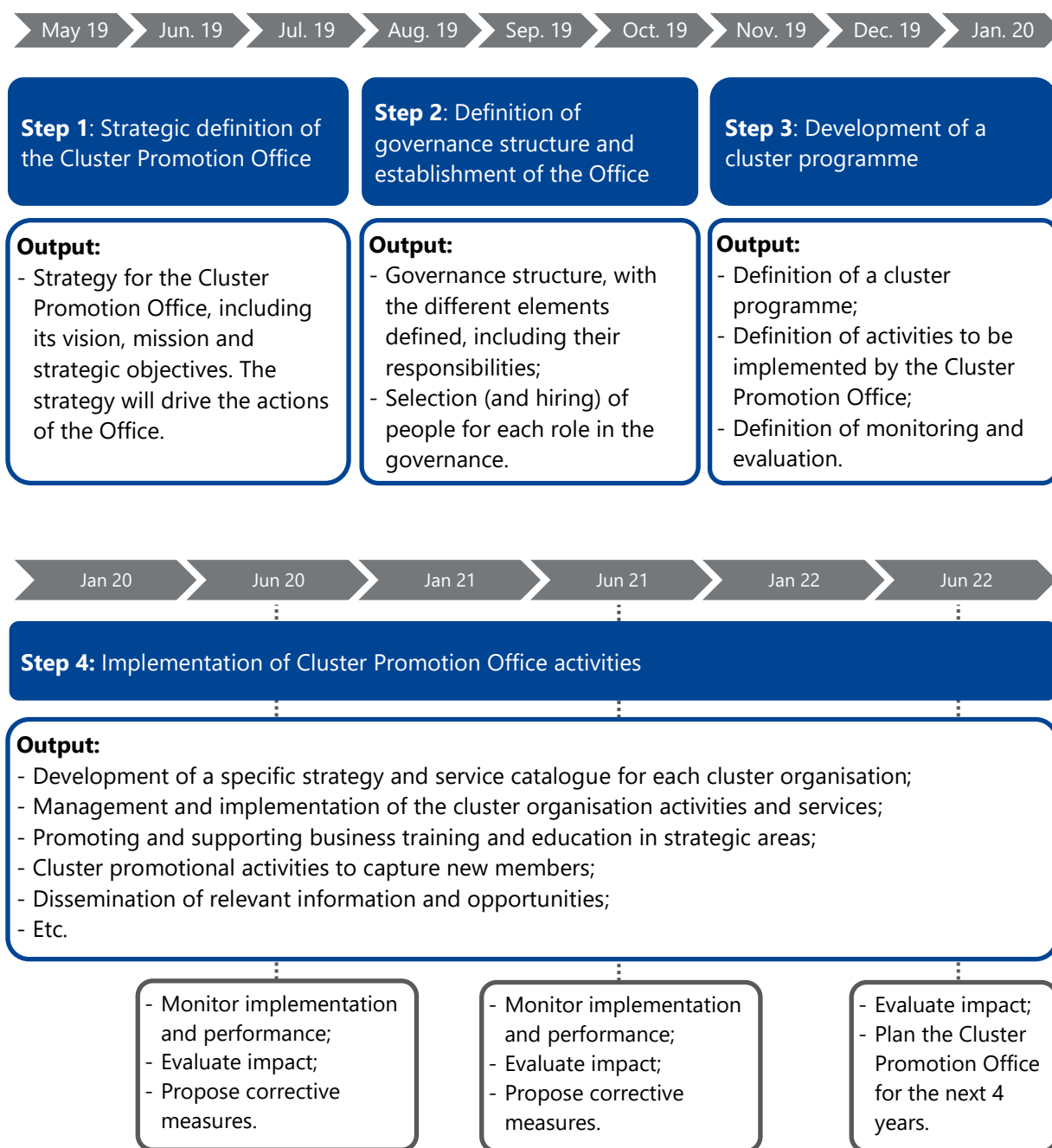
The assessment report reflected a **lack of long-term cluster programmes, as well as a need to improve the cluster development measures and the cluster management procedures**. The current cluster creation and development programme has some aspects that are considered very positive, such as being based on competitive calls, requiring the submission of a strategic plan, or being linked to the RIS3. It also has some aspects that can be improved.

Firstly, the implementation period should be expanded. The 2018 call was published on 11 April 2018, with the call deadline on 15 November 2018 and the execution period from 1 January 2018 to 31 December 2018. The cluster programmes should be multiannual, as this would allow better planning and implementation of cluster services and management. Moreover, as the support measure only takes a one-year period into consideration, so do the actions planned. Furthermore, as the programme is not multiannual, it only includes the verification of costs and does not have a proper monitoring and evaluation process based on results.

This specific recommendation therefore aims to **foster the development of excellent cluster programmes and cluster management processes in a strategic and coordinated manner**, through the creation of a Cluster Promotion Office.

This **Cluster Promotion Office** will be led by the regional government of Cantabria, in particular by DGIDTEI (*Dirección General de Innovación, Desarrollo Tecnológico y Emprendimiento Industrial*) or SODERCAN (*Sociedad para el Desarrollo de Cantabria*), that will be responsible for setting up the Office and for it being developing and functioning properly. These regional authorities will be responsible for providing funds for the establishment of the Office. Figure 6 shows the different steps in creating and setting up the regional Cluster Promotion Office.

Figure 6: Process for the creation and operation of Cluster Promotion Office



Step 1 – Strategic definition of the Cluster Promotion Office

The first step is to develop a strategic plan for the Cluster Promotion Office to define its vision, mission and strategic objectives. This strategic definition will be led by the regional government, although it is of crucial importance that the strategy is co-created with the main stakeholders, more specifically the cluster organisations.

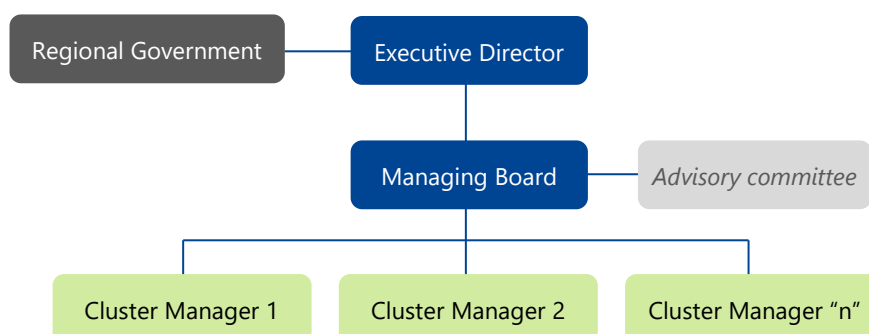
As a preliminary definition, the vision of this Office would be to achieve a significant development of Cantabrian clusters until 2022, while its mission would be to lead and manage efficiently and effectively the regional cluster organisations in Cantabria. The achievements will be reflected in the increasing number of cluster members, the involvement of clusters in international networks, the participation of clusters in interregional and transnational projects and the creation of new cluster organisations.

Step 2 – Definition of governance structure and establishment of the Office

The second step is to define the governance structure of the Office and the distribution of the tasks and responsibilities. For the initial working period, this governance structure may include (Figure 7):

- **Executive Director:** will be in charge of daily management of the Office, including the activities and team. The Executive Director will also be the main contact point for all the stakeholders from the regional innovation ecosystem. It would be an advantage for the Executive Director to be someone with experience and knowledge of cluster management and cluster policy. The choice of an Executive Director is crucial for the success of the Office. This person should be able to lead all the activities, have the soft skills to deal with stakeholders and build trust-based relations with them, and become the regional reference person in terms of clusters.
- **Cluster Managers:** each cluster organisation will be assigned a Cluster Manager under the Cluster Promotion Office. It is important that the Cluster Managers are externally hired staff (not already linked to regional public authorities or agencies). This would help ensure a perception of independence and impartiality, and thus contribute to trust-building. Each Cluster Manager will be in close contact with the Executive Committee of their respective assigned cluster organisation in order to be able to transmit their interests and concerns to the Managing Board.
- **Managing Board:** this board will be composed of the Executive Director and the Cluster Managers. Its mission would be to plan and execute the common cluster network activities and services, as well as facilitate cooperation, interaction and bridges between clusters. The Managing Board will also be in charge of developing the multiannual cluster programmes, under the oversight of the Regional Government, who will ultimately provide strategic orientation and approval for the programmes.
- **Advisory Committee:** composed of representatives of the main stakeholder organisations, such as the university, research centres and companies.

Figure 7: Proposed governance structure for the Cluster Promotion Office



Ultimately, the Cluster Promotion Office will work under the strategic guidance of the Regional Government department it will be attached to (either DGIDTEI or SODERCAN), which will be the decision maker in terms of the duties for the Office. Similarly, the Cluster Promotion Office accountancy (development and management of budgets for the Office operations and implementation of multi-annual cluster programmes) will be the responsibility of the department to which the Office would be attached.

Step 3 – Development of a cluster programme

The Cluster Promotion Office, under the oversight of the Regional Government, will **develop a multi-annual cluster programme** (four-year term). The cluster programme should be **based on good practices and lessons learnt from other European regions**. Moreover, creating the cluster programme

in the context of the industrial transition pilot project will allow Cantabria to develop a learning process with other regions. However, the cluster programme should be tailored to the specificities of the region and address the regional challenges identified in section 2 - *Key challenges, barriers, and drivers of industrial modernisation in Cantabria*.

The regional cluster programmes should address clusters at different stages of development: immature clusters, mature clusters, and clusters in transition⁵. Currently most Cantabrian clusters are immature clusters; thus, the first multi-annual cluster programme should focus on this specific stage of development. Subsequent cluster programmes should plan cluster development with a view to the mature stage. The measures developed for the programmes' measures should be tailored to the needs of each cluster type.

Moreover, **the cluster programme also needs to be integrated in terms of providing managerial and technical support**. Therefore, it should provide financial and/or technical assistance to cluster capacity building, as well as have thematic actions to address the specific needs of the cluster and foster collaborative projects⁶.

The following should be pursued as key results for the immature cluster support programme:

- Cluster-dedicated management provided (through the Cluster Promotion Office);
- Cluster strategy developed;
- Key services provided by the cluster organisation (matchmaking events, joint R&D projects, training, etc.) through the Cluster Manager;
- The cluster organisation promoted among regional companies and the number of members is expanded;
- Cluster organisations position themselves in the regional innovation system.

Step 4 – Implementation of Cluster Promotion Office activities

The activities that it is proposed the Cluster Promotion Office implement and which should, thus, be planned in detail through the multi-annual cluster programme include the following:

- **Development of a specific strategy and service catalogue for each cluster organisation.** This process will be led by each Cluster Manager and co-developed with each cluster organisation's Executive Board and members.
- **Management and implementation of the cluster organisation activities and services.** The Cluster Manager will be in charge of managing all communication and services in the respective cluster organisation. Key services are to be provided through the Cluster Manager by matching the innovation offer and demand, promoting RD&I projects, representing the cluster at relevant tradeshow, etc.
- **Dissemination of relevant information and opportunities.** The Cluster Managers will disseminate support measures, calls and all relevant opportunities available at regional, national and international level for the benefit of their cluster organisation associates.
- **Promotion and support for business training and education in strategic areas.** In the light of permanent technological advances and to ensure the region's priority sectors are aware of and aligned with cutting-edge technologies, it is recommended that the Cluster Promotion Office fosters the improvement of personnel skills through different mechanisms, e.g. through dual training, industrial PhDs, or by supporting short term business training. The Cluster

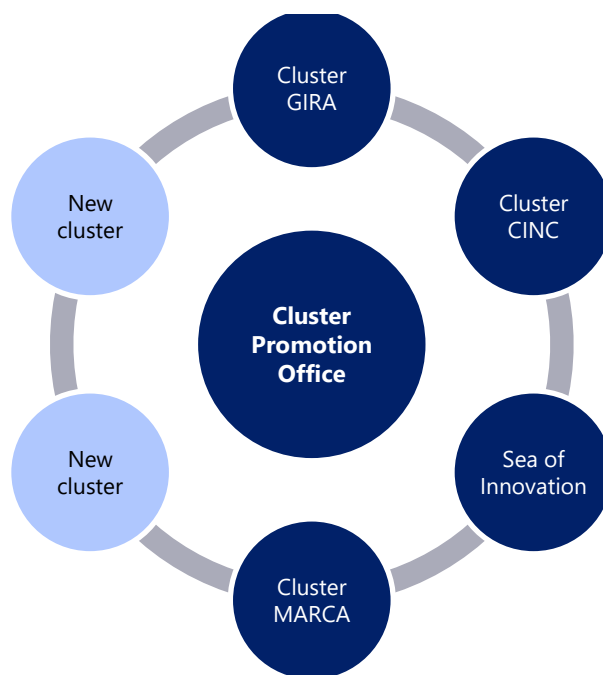
⁵ "Let's make a perfect cluster policy and cluster programme - Smart recommendations for policy makers". VDI/VDE. Berlin/Copenhagen, 2012, www.cluster-analysis.org/downloads/Clusters_web_singlepage_06092012.pdf

⁶ Ibid 5

Promotion Office will build the bridges between the cluster organisation and its associated companies and the knowledge-provider entities.

- **Cluster promotional activities to capture new members.** The Cluster Promotion Office may organise events to present good practices and success stories of companies benefiting from being involved in a cluster organisation, aiming to foster the participation of regional companies and the enlargement of the membership. Furthermore, the services of the cluster and the Cluster Promotion Office should be widely publicised and promoted among the Cantabrian SMEs. In order to further pursue this purpose, the role of provisional cluster partners could be created.
- These partners will be allowed to collaborate in a specific cluster project without being liable to pay the fee. In such cases, a temporary agreement will be signed during the development of the project. Once the project is completed, the agreement between the parties finishes. With this role of provisional partner, it will be possible to foster knowledge about cluster activities to different stakeholders.
- **Fostering inter-cluster activities** (e.g. R&D projects, events, etc.) among the clusters in the network dynamised by the Office (Figure 8).

Figure 8: Cluster network to be managed by the Cluster Promotion Office



It will be responsibility of the Managing Board (under the oversight of the Regional Government) to implement the cluster programme activities and monitor implementation and performance every year. This implies that it will be necessary to conduct sound monitoring and evaluation procedures, including of the benchmarking and performance statistics of cluster organisations and performance statistics of cluster actors, and of the performance and impact assessment of the cluster programme.

4.1.2. Benefits and Costs

The creation of the Cluster Promotion Office will **make the clusterisation process in the region more effective and efficient**. The Office will emphasise the role of the region's cluster organisations as promoters of collaboration and prosperity for the region. In this way, companies will be able easily to identify the benefits on being part of cluster organisations and, in consequence, attract new companies to the cluster and increase critical mass in regional priority sectors.

This Office offers a **new landscape of opportunities to develop new projects at the international level**. The increasing number of companies that take part in cluster organisations will allow bigger projects to be achieved where a strong critical mass is required. In addition, since this Office will facilitate the coordination of regional cluster organisations, it will be possible to carry out new inter-cluster collaborative projects or projects that require covering a large value chain.

This Office will **bring together knowledge about industry and the experience in clusters**. Taking into account that clusters are composed of different type of organisations – R&D organisations, academia, companies and public administration – they are aware of the real situation of their members so they can

relevant expertise. This factor will facilitate the identification of synergies between industry and R&D organisations or among industries. This measure will make it possible to align industry needs in terms of skills with the university's offer and setting up dual training activities.

Another positive point of this Office will be the **contribution to the smart specialisation of the region through clusters**. As shown in the assessment report, clusters are aligned with the RIS3 priority sectors. However, these sectors are not specialised enough. The promotion of existing clusters will bring about an enhancement of the regional specialisation sectors. In addition, the region has potential for the creation of new clusters in ICT and biotechnology. Thus, the Office may also encourage the creation of new clusters related to these sectors since they are pointed to as emerging sectors in the RIS3.

More specifically, the Cluster Promotion Office will contribute to the achievement of the following benefits (Table 3):

Table 3: Expected impact of the Cluster Promotion Office

Direct expected impact	Indirect expected impact
<ul style="list-style-type: none"> Improving regional cluster policy to better promote cluster development and growth. Improving the management of cluster organisations and their activities. Upgrading cluster capacities and services. 	<ul style="list-style-type: none"> Fostering triple-helix collaboration. Increasing cooperation across industry. Building trust-based relations among regional stakeholders. Increasing critical mass in regional priority sectors. Activating innovative projects.

In terms of **costs**, the Office will need mainly human resources and budget for the implementation of activities. An annual budget of approximately EUR 740 000 EUR is estimated for the human resources and the implementation of the cluster programme (assuming that the first cluster programme would support the existing four cluster organisations and the two export consortia). An estimation of costs is presented below:

- Human resources: EUR 242 000
- Travel costs: EUR 60 000
- Participation in tradeshow: EUR 100 000
- Consultancy and external services: EUR 120 000
- Training actions: EUR 100 000
- Marketing actions and materials: EUR 60 000
- Other costs and contingencies: EUR 60 000.

It should be noted that the 2018 regional call to support clusters and export consortia had a total budget of 700.000 EUR. Therefore, this recommendation does not imply a significant cost increase, but a new consideration of how to use funds in support of clusters.

4.1.3. Risks, obstacles and challenges

The main risk of this initiative is the **absence of a clear natural leader entity for the Office**. As pointed out in the assessment report, cluster policies are mainly managed by SODERCAN, while DGIDTEI leads innovation support; some overlapping between the respective functions has been perceived.

The **lack of commitment and coordination among regional stakeholders** may also be a risk for the success of the action. Furthermore, some initial reticence or reluctance about the functioning of the

Office may also be expected, since the Executive Boards of cluster organisations have so far been managing the funds received through public cluster support calls.

4.2. Establishment of a Network of Innovation Brokers

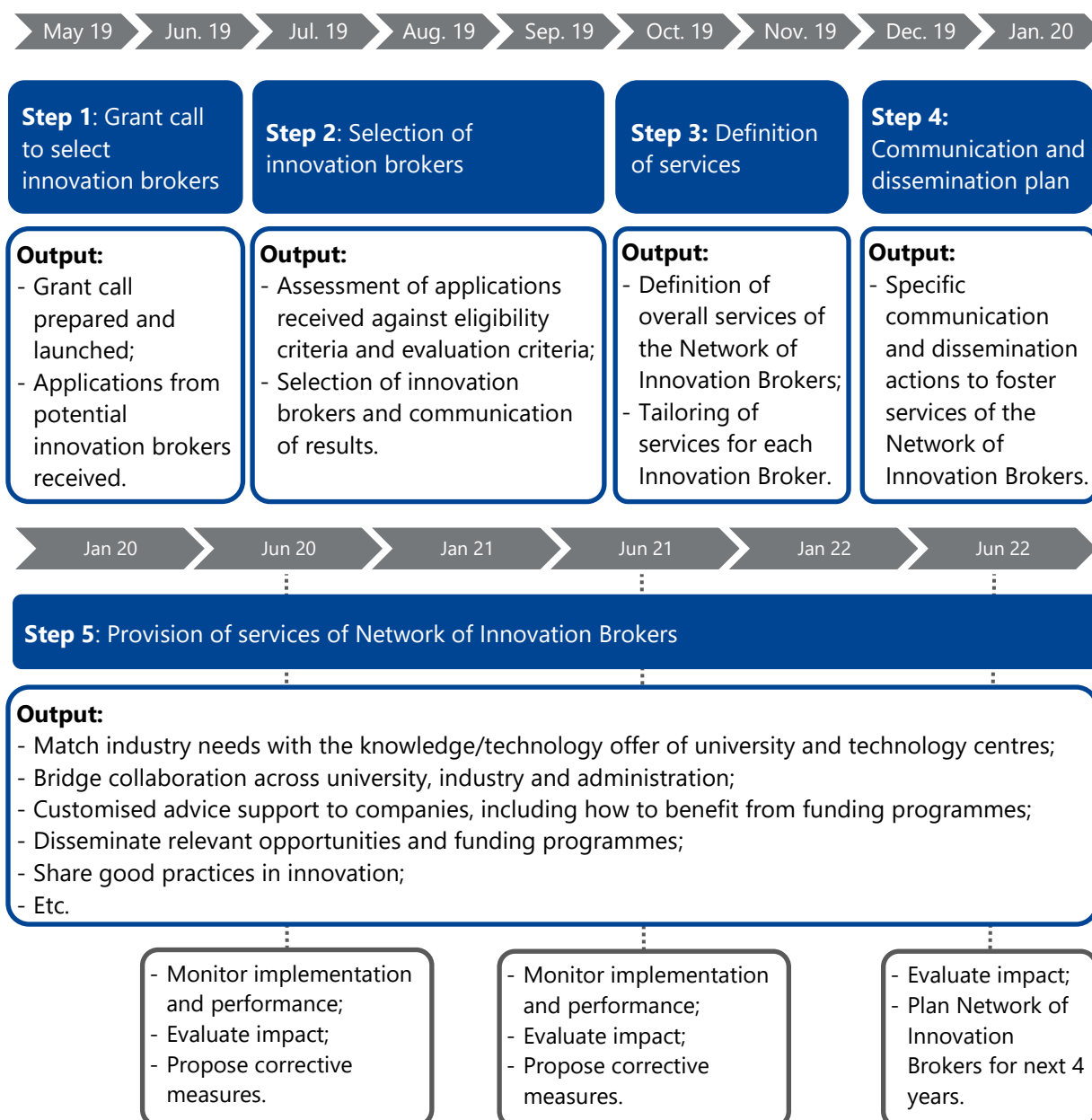
This section presents in detail the process, benefits and estimated costs for the creation of a Network of Innovation Brokers in Cantabria.

4.2.1. Description

The assessment report and the policy review meeting showed that **one of the main challenges for the region is the low level of collaboration among the stakeholders in the regional innovation ecosystem**. This scenario comes from the lack of communication and the limited knowledge about the activities developed among the stakeholders in the ecosystem. In addition, there are some cultural barriers, such as the fear of internal competition – intellectual competence and competition for clients – which cause stakeholders to have individualistic visions and not to see advantages in collaboration.

In order **to address this challenge, this recommendation aims to establish a Network of Innovation Brokers geographically distributed through the region**. The Network will be created through the following process.

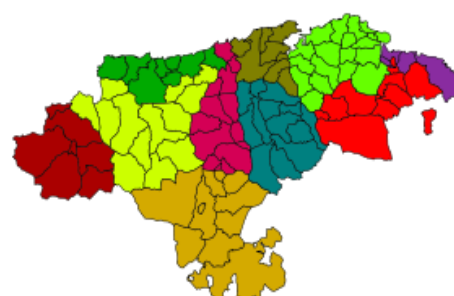
Figure 9: Process for the creation and operation of Network of Innovation Brokers



Step 1 – Grant call to select innovation brokers

As described in the assessment report, Cantabria has two main population nodes – Santander and Torrelavega – with most of the regional industries located in these two districts. Cantabrian districts have different levels of development and, in consequence, they have diverse features and needs. The Network of Innovation Brokers aims to **boost the development and growth of industry in the entire region, mainly in the less developed locations**. A strong focus will be placed on the main regional priority sectors, thus, also contributing to increasing the critical mass. For this reason, it is important that all the Innovation Brokers be located in each district and have skills and capacities related to industry in general or related to a specific industrial sector relevant for the

Figure 10: Map of administrative districts of Cantabria



territory. For instance, these innovation brokers can be placed in all administrative districts of Cantabria (Figure 10: Map of administrative districts of Cantabria) Asón-Aguera; Besaya; Campoo-Los Valles; Costa Occidental; Costa Oriental; Liébana; Saja-Nansa; Santander; Trasmiera; Valles Pasiegos.

In order to identify organisations that may be innovation brokers in their respective target territory, DGIDTEI will **prepare and launch a grant call to select an organisation in each district that is willing to designate an innovation broker**. The call should define the purpose and objectives of the innovation brokers, the expected services and impact, and the eligibility and evaluation criteria, among other relevant aspects. DGIDTEI will need to disseminate the call extensively to ensure a good number of applications are received.

Step 2 – Selection of innovation brokers

The organisations willing to designate an innovation broker may be different in nature, such as the Chamber of Commerce of Cantabria, Chamber of Commerce of Torrelavega, Local Groups for Rural Development that are integrated in the Regional Network for Rural Development⁷, DGIDTEI or local business associations, among others. The Network will be led and coordinated by DGIDTEI, which may also host the innovation broker in Santander.

The main aim of the Network of Innovation Brokers is to bring innovation to all locations in Cantabria through triple helix collaboration. In this way, it will be possible to increase innovative activities in companies through customised support services, dissemination of relevant information and calls, and good practices. Therefore, **to fit the position of Innovation Brokers, the requirements described below need to be met:**

- Knowledge of the features of the territory and its industry;
- Awareness of local industry needs in order to find specific solutions and measures to meet the needs identified;
- Knowledge of the university system and the capacities and capabilities of the University of Cantabria;
- Awareness of the technology offer of regional university and technology centres;
- Knowledge of initiatives, grants, loans or fiscal incentives provided by the public administration (regional and national);
- A contact network among the different stakeholders;
- Communication and people skills, and the ability to build relationships with other people based on trust.

The skills and requirements above will be considered in the evaluation of the applications received.

Step 3 – Definition of services

After the designation of all the innovation brokers, **services to be provided to companies will be defined in detail**. Services should be related to the following expected actions and objectives:

- Bridge collaboration across university, industry and administration, by matching offer and demand;
- Facilitate contact among the elements in the regional innovation ecosystem;
- Compile information about industry needs and transmit it to academia, research centres and the public administration;
- Disseminate research and technological offers from academia among companies;

⁷ <https://redcantabrarural.com>

- Provide customised advice support to companies, including how to benefit from funding programmes;
- Disseminate relevant opportunities and funding programmes at regional, national and European level;
- Identify skills gaps and organise training courses for companies and employers;
- Share good practices in innovation;
- Evaluate the impact of specific measures;
- Propose corrective measures.

Step 4 – Communication and dissemination plan

In the initial stages, the potential users will not be familiar with the Network and the services it can provide. Thus, it will be crucial to develop and implement a strong communication and dissemination plan to ensure that Cantabrian companies are aware of the services offered by the Network and understand the potential benefit for each of them.

Step 5 – Provision of services of Network of Innovation Brokers

The **innovation brokers will be in charge of providing the set of defined services to local businesses, with DGIDTEI coordinating their work.** Services will be provided free of charge, at least in the first working period of the Network.

The Network of Innovation Brokers would also be a key element to **exchange information on the needs and opportunities of companies in the different districts.** For this, all innovation brokers will meet every two months to exchange ideas on the activities implemented and needs/challenges identified, as well as on success stories. This would help bridge the gap in terms of collaboration in the region as a whole. Moreover, it would contribute to fostering peer learning among the innovation brokers and facilitate their provision of services.

It will be necessary to closely monitor the implementation of the services in order to tailor them to the specific needs of the companies in each district. Moreover, annual impact assessments of the overall Network will be carried out in order to implement corrective measures in subsequent grant calls for innovation brokers.

4.2.2. Benefits and Costs

Several aspects of the establishment of the Network of Innovation Brokers will benefit the region. First of all, this measure aims to **promote the establishment of permanent links between the elements in the regional innovation ecosystem throughout the territory** and, in consequence, to facilitate the building of trust-based relationships among them.

Likewise, this Network of Innovation Brokers will be in charge of compiling information about industry needs and disseminating the technological offer of regional R&D organisations. These actions may contribute to **aligning industry needs, regional knowledge and the technological offer.** This progressive rapprochement among regional stakeholders will trigger the development of joint innovation projects.

In addition, the Network will contribute to the **development of the entire region, mainly rural districts,** bringing the opportunity of access to innovation. This situation will enable the promotion of new industrial sectors with great potential, such as agri-food, in rural areas of Cantabria.

Finally, it should be noted that this Network of Innovation Brokers will also contribute to **increasing the critical mass in the region** and opening up existing cluster organisations to stakeholders not based in Santander.

In summary, the Network of Innovation Brokers will contribute to the achievement of the following points (Table 4):

Table 4: Expected impact of the Network of Innovation Brokers

Direct expected impact	Indirect expected impact
<ul style="list-style-type: none"> Promoting cooperation in innovation among regional stakeholders; Pushing business innovation throughout the region. 	<ul style="list-style-type: none"> Fostering local development, in particular, rural development; Fostering decentralisation of businesses and population throughout the region.

In terms of **costs**, this measure will be funded by the regional government. Expenditures incurred from this measure are related to the provision of grants to the specific organisations that will provide Innovation Brokers in each regional district. The maximum grant would be EUR 3 500 per month for each of the organisations that will be Innovation Brokers in the 10 regional districts. Overall, this therefore comes to EUR 420 000.

4.2.3. Risks, obstacles and challenges

One of the risks of this measure may be the **lack of cooperation and involvement on the part of regional stakeholders**, which may hamper the selection of innovation brokers in some districts. In addition, the **lack of coordination and interaction between organisations in the different districts** may be a challenge for the effective functioning of the Network. Strong leadership from DGIDTEI will be necessary to coordinate the different innovation brokers in the Network.

It is likely that, in the initial stages, potential users will not know the Network and the services it can provide and, in consequence, these users will not use the services. A targeted and strong communication plan will be necessary to overcome this challenge.

Furthermore, it will be necessary to tailor the services provided by the innovation brokers to the specificities of each district. This would mean that a test phase would be required, after which the services' performance is assessed, and the services are adjusted if needed. This "trial-error" stage might mean a risk for the reliability of the Network, which can only be overcome when the provision of services is well-established and runs smoothly.

Finally, a recurrent risk in all measures may be **the allocation of limited economic resources for the implementation of the grants**. As the government of Cantabria will be responsible for providing funds for Network's implementation, the funding will depend on the availability of annual budgets.

5. Roadmap and action plan with activities, timeframe and actors

Table 5 summarises the actions required to deliver the specific recommendations presented in Chapter 4. The action plan below also describes the timing and the owner of each action.

Table 5: Action plan

Action	Timing of the action	Owner of the action
Creation of a Cluster Promotion Office		
Development of strategic plan.	July 2019	Government of Cantabria (SODERCAN or DGIDTEI)
Definition of governance structure and establishment of the Office.	October 2019	Government of Cantabria (SODERCAN or DGIDTEI)
Development of a cluster programme.	January 2020	Cluster Promotion Office team (entrusted by Regional Government)
Implementation of Cluster Promotion Office activities.	From January 2020 onwards	Cluster Promotion Office team
Monitoring, evaluation and corrective measures.	June 2020, 2021, 2022	Cluster Promotion Office team (entrusted by Regional Government)
Establishment of a Network of Innovation Brokers		
Definition and launch of grant call to select innovation brokers.	June 2019	DGIDTEI
Selection of innovation brokers.	September 2019	DGIDTEI
Definition of services.	November 2019	All stakeholders involved led by DGIDTEI
Communication plan for the dissemination of information on the Network.	January 2020	DGIDTEI in collaboration with stakeholders involved
Provision of services.	January 2020 onwards	Network of Innovation Brokers
Monitoring, evaluation and corrective measures.	June 2020, 2021, 2022	DGIDTEI and Network of Innovation Brokers

European Observatory for Clusters and Industrial Change

The European Observatory for Clusters and Industrial Change (#EOCIC) is an initiative of the European Commission's Internal Market, Industry, Entrepreneurship and SMEs Directorate-General. The Observatory provides a single access point for statistical information, analysis and mapping of clusters and cluster policy in Europe, aimed at European, national, regional and local policy-makers, as well as cluster managers and representatives of SME intermediaries.



The aim of the Observatory is to help Europe's regions and countries design better and more evidence-based cluster policies and initiatives that help countries participating in the COSME programme to:

- develop world-class clusters with competitive industrial value chains that cut across sectors;
- support Industrial modernisation;
- foster Entrepreneurship in emerging industries with growth potential;
- improve SMEs' access to clusters and internationalisation activities; and
- enable more strategic inter-regional collaboration and investments in the implementation of smart specialisation strategies.

In order to address these goals, the Observatory provides an Europe-wide comparative cluster mapping with sectoral and cross-sectoral statistical analysis of the geographical concentration of economic activities and performance, made available on the website of the European Cluster Collaboration Platform (ECCP)⁸. The Observatory provides the following services:

- **Bi-annual "European Panorama of Clusters and Industrial Change"** that analyses cluster strengths and development trends across 51 cluster sectors and 10 emerging industries, and investigates the linkages between clusters and industrial change, entrepreneurship, growth, innovation, internationalisation and economic development;
- **"Cluster and Industrial Transformation Trends Report"** which investigates the transformation of clusters, new specialisation patterns and emerging industries;
- **Cluster policy mapping** in European countries and regions as well as in selected non-European countries;
- **"Regional Eco-system Scoreboard for Clusters and Industrial Change"** that identifies and captures favourable framework conditions for industrial change, innovation, entrepreneurship and cluster development;
- **Updated European Service Innovation Scoreboard⁹**, that provides scorecards on service innovation for European regions;

⁸ European Cluster Collaboration Platform, *Official Website*. Available at: www.clustercollaboration.eu.

⁹ Previous versions for 2014 and 2015 were developed by the European Service Innovation Centre (ESIC), see http://ec.europa.eu/growth/tools-databases/esic/index_en.htm.

- **"European Stress Test for Cluster Policy"**, including a self-assessment tool targeted at cross-sectoral collaboration, innovation and entrepreneurship with a view to boosting industrial change;
- **Customised advisory support services** to twelve selected model demonstrator regions, including expert analysis, regional survey and benchmarking report, peer-review meeting, and policy briefings in support of industrial modernisation;
- **Advisory support service to European Strategic Cluster Partnerships**, in order to support networking between the partnerships and to support exchanges of successful practices for cross-regional collaborations and joint innovation investments;
- **Smart Guides** for cluster policy monitoring and evaluation, and for entrepreneurship support through clusters that provide guidance for policy-makers; and
- **Brings together Europe's cluster policy-makers and stakeholders** at four European Cluster Policy Forum events, European Cluster Days, and at the European Cluster Conference in 2019 in order to facilitate high-level cluster policy dialogues, exchanges with experts and mutual cluster policy learning. Two European Cluster Policy Forums took place in February and April 2018, and the European Cluster Conference is scheduled for 14 to 16 May 2019 in Bucharest (Romania).
- Online presentations and publications, discussion papers, newsletters, videos and further promotional material accompany and support information exchanges and policy learning on cluster development, cluster policies and industrial change.

More information about the European Observatory for Clusters and Industrial Change is available at: www.clustercollaboration.eu/eu-initiatives/european-cluster-observatory.

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