



S34Growth
Interreg Europe



S34Growth addresses regional policy instruments facilitating industrial innovation-related interregional collaboration which can help the renewal of Europe's industry and boost competitiveness.

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Regional Action Plan: CATALONIA

S34Growth
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 European Union
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THE BALTIC INSTITUTE OF FINLAND


PIRKANMAA

ACCIÓ
 Generalitat de Catalunya
Government of Catalonia

S34Growth

**Enhancing policies through interregional cooperation: New
industrial value chains for growth**

PARTNER 4 - ACCIO

**Regional Action Plan focusing on the improvement of the
RIS3CAT**

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Part I – General information

Project: S34GROWTH

Partner organisation: ACCIÓ-Catalan Agency for Competitiveness (Government of Catalonia)

Other partner organisations involved: Main stakeholders of the project (EURECAT, LEITAT, Fundació CIM-UPC and Ministry of the Vice-presidency and of the Economy and Finance-Government of Catalonia)

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Part II – Policy context

The Action Plan aims to impact:

- Other regional development policy instrument

The policy instrument addressed is the [Research and Innovation Strategy for the Smart Specialisation of Catalonia \(RIS3CAT\)](#).

The following pictures show the strategic objectives and the four pillars of RIS3CAT:



Fig. 1. Strategic objectives RIS3CAT

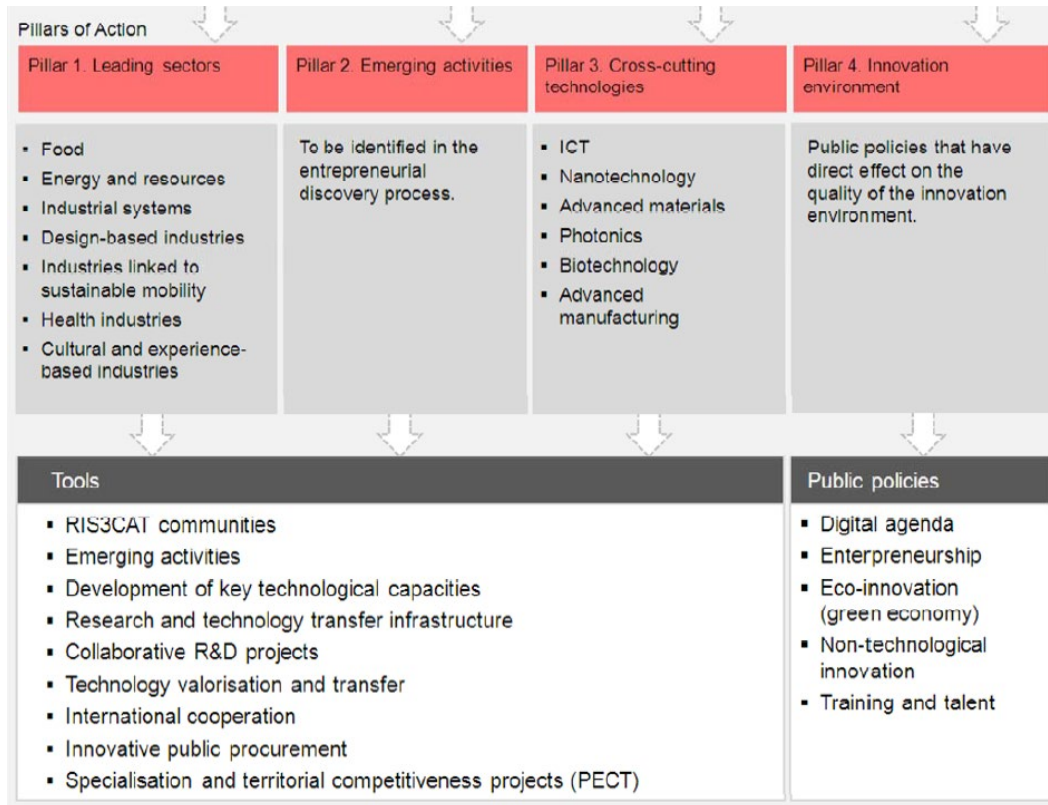


Fig.2 Pillars of action-RIS3CAT

ACCIÓ is participating in the S34Growth project with the aim of fostering several **RIS3CAT strategic objectives** (fig.1) (promoting internationalisation, improving the competitiveness of companies, improving the efficiency of production processes...) and also some of the **pillars of action** (fig.2).

In relation to the pillars of action, our initial goals within the S34Growth were to improve Pillar 1. Leading sectors- **Industrial systems** and Pillar 3- **Advanced manufacturing**, mainly because we decided to focus our efforts during the project in Manufacturing as a whole. This focus remains the same but it's important to highlight that, depending on the evolution of the Regional Action Plan (RAP) and, mainly, the interests of the regions in the actions we are proposing, other sectors and technologies could be also analysed. The main criteria will be that those sectors and technologies should be identified as a **priority in our RIS3CAT**.

Regarding the **tools of our RIS3CAT** (fig.2), the actions we are proposing in our Regional Action Plan pursue the improvement of tools like the Collaborative R&D projects (called NUC LIS), RIS3CAT Communities, International Cooperation, the development of key technological capacities, research and technology transfer...

In parallel, sectorial programmes are being designed since the beginning of RIS3CAT. These programmes were also mentioned in the S34Growth proposal, called PISI (related to Industrial systems and Manufacturing) and PIQER. The sectorial programmes have evolved and the one related to Manufacturing is, nowadays, the **Industry 4.0 Programme** with specific actions in the field of **3DPrinting/Additive Manufacturing**.

The Gantt chart includes the main **3 actions** of the Catalan RAP and other transversal ones.

S34GROWTH REGIONAL ACTION PLAN (RAP)-ACCIO						Now	Duration	Actual start date	% Completed	Real (outside the RAP)	% Completed (outside the RAP)
ACTION	START	COMPLETION	ACTUAL START DATE	ACTUAL COMPLETION DATE	%	PERIODS					
						1	2	3	4		
						04/2019-06/2019	07/2019-09/2019	10/2019-12/2019	01/2020-03/2020		
Action 1. International R&D Programme NUCLIS - fostering interregional collaboration											
1.1 Context Analysis	1	1	1	1	0%						
1.2 Implementation	1	4	1	4	0%						
Action 2. CATALAN INNOVATION HUB											
2.1 Context analysis	1	1	1	1	0%						
2.2 Implementation	2	4	2	4	0%						
Action 3. HORIZON2020-common opportunities aligned with S3											
3.1 Context Analysis	1	1	1	1	0%						
3.2 Implementation	1	4	1	4	0%						
Transversal Actions											
Management	1	4	1	4	0%						
Communication	3	4	3	4	0%						
Monitoring	1	4	1	4	0%						

Fig.3 Gantt Chart Regional Action Plan - ACCIÓ

These actions are supposed to be developed during the next year by the **staff from ACCIÓ** that is already participating in the S34Growth project. In case that some actions require interregional cooperation, ACCIÓ staff will get in contact with the S34Growth regions to implement them. Likewise if, during the development of the RAP, new regions express their interest to join some of the actions, we are open to analyse this possibility.

It's also important to stand out that both 3 actions have already started their implementation during **phase 1** and have been designed taking into account the valuable feedback we have received from our stakeholders. In that sense, private sector has also expressed interest in the project and has provided feedback from the company point of view.

In the case of Catalonia, the following actions are based on the **lessons learned** from other regions during the OSDDs and the project as a whole but, somehow, in our case the actions are also proposed because other S34Growth regions have expressed their interest in exploring interregional collaboration with our region. Because of that, some of the actions are already existing actions at ACCIÓ in which S34Growth will help (and is already helping) to reinforce **interregional cooperation**.

Part III – Details of the actions envisaged

ACTION 1. International R&D Programme (NUCLIS) – fostering interregional collaboration.

1. Relevance to the project

ACCIÓ has been managing the **NUCLIS** programme during the last 10 years. This programme is based on grants for Local R&D projects and **International R&D projects**. In the case of the international ones, this programme offers financial support for Catalan companies with technological cooperation projects at the international level. It allows **international firms and technological centres to cooperate with local Catalan companies** in order to undertake high impact and differential R&D projects together.

Depending on the countries of origin and the activities carried out, international companies and entities have different options of collaboration with Catalan companies. The main reason to include NUCLIS as an action is because of the importance that many of the S34Growth regions, during the OSDDs, have expressed about the implementation of Interregional R&D Programmes. The most attractive issue is that, in the case of NUCLIS, each region/country covers the part of the project that will be developed in their own region/country. The fact that each region tackles their part of the project makes the implementation more available for the regions. Normally, the collaboration between regions is implemented through an **International Agreement** or a **MOU**.

Hopefully the beneficiaries of this action would be companies/entities of the S34Growth regions that could finally participate in an International NUCLIS Project and also companies/entities from Catalonia. The development of this action will help to reach the objectives of Catalonia within the S34Growth project but also respond to a common challenge of the Interreg project: **Enhancing policies through interregional cooperation**.

The following figures show some aspects of the NUCLIS programme in Catalonia:

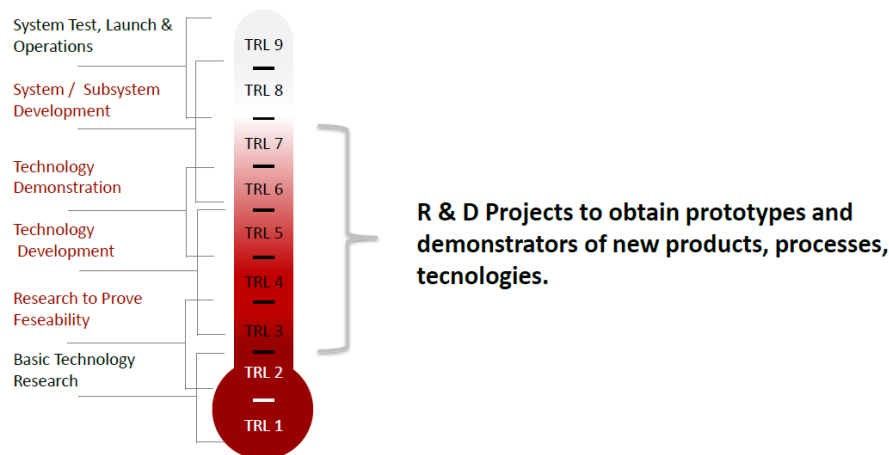


Fig.4. Technology Readiness Levels-NUCLIS

- 1 Grant intensity: up to 25-50%
 - 2 No company shall support more than 70% of the project's budget
 - 3 The Catalan part of the project shall be developed in Catalonia
 - 4 The grant will be awarded in an unilateral way from ACCIÓ.
 - 5 ACCIÓ will analyze the project as a whole, both the Catalan and the international
 - 6 ACCIÓ will perform a follow-up on the part of the project carried out by the foreign partner.
- Consortium Agreement:**
- Definitive version to be handed when applying for the grant.
 - Must include every partner's role.
 - Share of IPR.
 - Authorization to ACCIÓ to do the follow-up of the international part

Fig.5. International NUCLIS-Procedure

As mentioned before, many S34Growth regions have identified the **International R&D Programme (NUCLIS) as a good practice** during the whole S34Growth project. To improve the explanation of the programme with more detail, new staff from ACCIÓ has attended the S34Growth meetings and other new meetings have been arranged with the regions interested in the programme (for instance: Norte, Scotland or South Netherlands). The main objective of these meetings has been to analyse the real possibility of implementing the International R&D Programme with these regions.

More information:

<http://catalonia.com/en/innovate-in-catalonia/innovation-services/international-technological-cooperation.jsp>

2. Nature of the action

INTERNATIONAL R&D PROGRAMME (NUCLIS) – fostering interregional collaboration

ACCIÓ has established collaborations, since 2012, with other regions/countries for the implementation of NUCLIS at the international level. With this action we would like to analyse and foster the participation of S34Growth regions in NUCLIS. Some of them already participate but some others don't.

Therefore, this action will be focused on the final analysis and subsequent implementation (if possible) of the NUCLIS programme with the **S34Growth regions** that have expressed their interest in this programme. For the implementation of the programme, as we mentioned before, an **International Agreement** or a **MOU** set up the conditions of the collaboration between regions but it's not compulsory depending on the territory.

To implement this action, some regions are already doing some regional exercise. For instance, Norte will explore the demand from the Portuguese companies and it's also planned that other regions do dissemination of the programme when the next Call 2019 is published.

Moreover, regarding advanced manufacturing and materials, we also include in our International NUCLIS programme the participation of Catalonia in ERANET MANUNET III. In fact, in this ERANET, we already collaborate with some of the S34Growth regions (Lombardy, Basque Country...).

3. Stakeholders involved

ACCIÓ is in charge of the implementation of NUCLIS programme (both at the local and international level). In that sense, the personnel from ACCIÓ that has been working for S34Growth will develop and follow-up this action, jointly with the ACCIÓ team in charge of NUCLIS.

4. Timeframe

Please, see Gantt chart. According to the Gantt chart, the first 3 months will be dedicated to the final analysis of which regions could join the programme and also to start the implementation of NUCLIS (it is expected that the new Call 2019 will be published in May).

5. Indicative costs

Personnel costs.

6. Indicative funding sources

Own regional resources.

7. Programme management related implications

- Decision-making process: ACCIÓ and, specifically, the Business Innovation Centre is in charge of the NUCLIS Programme management. As was mentioned before, the staff that is already working in S34Growth will develop this action. Each key point during the development of the action will be checked by the NUCLIS team from ACCIÓ.
- Financing allocation plan: for the execution of this action our own personnel is needed.

- Call preparation: normally NUCLIS calls are launched every year. The staff dedicated to the design and implementation of an International call use to be 1 person from ACCIO-Barcelona and 0.5 person located in our offices abroad (ACCIÓ has 40 external offices) to manage the call and the monitoring of the projects approved.

8. Expected impact and results of the policy improvement

The main expected impact will be the **increase of the number of International R&D projects** with the regions interested in NUCLIS. As we mentioned before, our focus in S34Growth is advanced manufacturing. Furthermore, if a region is interested in NUCLIS but in other different sectors, we are also open to analyse this issue always taking into account that this sector should be prioritized in our **RIS3CAT**.

The International Agreements or MOUs are important for the correct implementation of NUCLIS but, at the end, the main goal is the development of R&D Projects.

ACTION 2. CATALAN INNOVATION HUB

1. Relevance to the project

ACCIÓ is designing and performing the **Catalan Industry 4.0 support Programme** taking into account the importance of Industry 4.0 in Catalonia; 41% of all Industry 4.0 suppliers in our region are operating in the data and connectivity segment, 3DPrinting, intelligent tools, professional services, consultancy, artificial intelligence, machine learning and 5G. The segments with the highest aggregate revenue are control and automation and data and connectivity (35% each).

The Industry 4.0 in Catalonia is composed of SMEs, start-ups, universities, RTOs, clusters, fairs, public administration and other support entities. The main technologies in this field are IoT, 3D Printing, Big Data/Data Analytics & Artificial Intelligence.

Because of all that, the Catalan Industry 4.0 support Programme is focused on the **transformation of Catalan Industry**. The actions of this programme are growing and the lessons learned during the S34Growth have been useful to gather information about what other regions are doing in that sense. Also, as happened with the Nuclis programme, some regions (for instance, Scotland) have also expressed that our programme has been an inspiration for them.

In relation to Industry 4.0, during the OSDD in Catalonia and the last meeting in March in Barcelona, the responsible for the programme explained it in detail and also explained the work ongoing about the definition of the Catalan Innovation Hub. In that sense, the explanations during other OSDDs from **Basque Country, Tampere or Zuid Holland** about their strategy on Digital Innovation Hubs have been also an inspiration for us.

The Digital Innovation Hubs theme has been discussed during the co-creation sessions of the OSDDs and many ideas have emerged from them. Even, some regions are already proposing complementary actions between regions for their future hubs, mainly regarding cross-border services for SMEs.

From our side, we consider this action is important for several reasons:

- **Catalan Innovation Hub**: the lessons learned are really useful for the definition of our Catalan Innovation Hub.
- **RIS3CAT**: Digital Innovation Hubs are related to the digitisation and transformation of the European Industry and Services. This approach is aligned with several aspects of our RIS3CAT (Pillar 1. Industrial Systems, Pillar3.Cross-cutting technologies, digital agenda, emerging technologies...) and with our sectorial programmes (Industry 4.0).
- **Horizon2020**: Catalonia is a very active region in Horizon2020 Calls. For us it's important to take advantage of the S34Growth network in order to analyse the future participation in DIH-Calls at the European level. In that sense, this is the way to provide a **pan-European approach** to the regional DIH.

2. Nature of the action

CATALAN INNOVATION HUB

This action will be focused on the definition of the **Catalan Innovation Hub** within our **Industry 4.0 support Programme** and also on the exploration of interregional synergies regarding **DIH Horizon2020 Calls**.

In that sense, during the phase 2 of S34Growth, the implementation of the Industry 4.0 support Programme activities will continue and will be improved with the lessons that we have already learned and new ones that will probably come during phase 2. At this moment, the main activities of our Industry 4.0 support Programme are:

- International benchmark and opportunities.
- Awareness, promotion and training for companies.
- Implementation support services.
- Grant and financing tools.

3. Stakeholders involved

ACCIÓ. The evolution of the action will also be discussed with the stakeholders of the project.

4. Timeframe

Please, see Gantt Chart.

5. Indicative costs

Personnel costs.

6. Indicative funding sources

Own regional resources.

7. Programme management related implications

- Decision-making process: ACCIÓ will develop and monitor this action. The process will be discussed with the stakeholders of the project and also with other stakeholders that could be related to Industry 4.0.
- Financing allocation plan: ACCIÓ staff will be in charge of this action. As this action is related to the European Calls called DIH, if a joint project rise up, the proposal could be submitted to Horizon2020 by the regional stakeholders involved.
- Call preparation plan-terms of reference: through this action, Catalonia and the S34Growth regions will analyse DIH-Horizon 2020 calls 2018-2020.

8. Expected impact and results of the policy improvement

The expected impact and results would be the **definition of the regional innovation hub in Catalonia and their alignment with the pan-European** approach of the DIH in Horizon2020. The most interesting result would be to detect common synergies with the DIH Calls and, depending on the evolution of the RAPs, to participate in these calls (normally through RTOs, companies and other RDI entities of the region).

ACTION 3. HORIZON2020-Common opportunities aligned with S3

1. Relevance to the project

During the OSDDs, one of the lessons learned is that several of the S34Growth regions are very active in European programmes like **Horizon2020**. The OSDDs presentations were focused on the explanation of the regional RIS3 and the policy instruments and thanks to the networking with the rest of the partners during these events, the participation in Horizon2020 was also shared and discussed. Even, during the OSDD in Zuid Holland, ACCIÓ was requested to explain the regional **support service** we provide to companies for the participation in Horizon2020 consortiums and also to the SME Instrument.

In that sense, this service has been also identified as a good practice during the project and a good opportunity to take advantage of the network created in S34Growth to foster participation in **Horizon2020 Consortiums**.

The S34Growth has been also useful to identify with regions were also providing this type of services and which were members of the EEN-Enterprise Europe Network. The OSDDs were also useful to introduce to the host organisation our staff from our external office (for instance, our ACCIÓ staff in Zuid Holland attended the OSDD in this region). This was really useful for both regions to know each other and explore future collaborations. The same situation happened with Lombardy; where our **external office** has established contact with AFIL (S34Growth partner) and even a member of AFIL has recently visited ACCIÓ to explore future collaborations.

Moreover, advanced manufacturing is also a sector/field prioritized in several of the S34Growth partners, not only in Catalonia. This is a good point to search common challenges in Horizon2020 (NMBP Calls, Factories of the Future Calls, ICT Calls...).

2. Nature of the action

HORIZON 2020-common opportunities aligned with S3

This action will be focused on identifying **Horizon2020** and other R&D and Innovation European calls that respond to **S3 common challenges** of Catalonia and the S34Growth regions (advanced manufacturing and other sectors prioritised in the RIS3CAT) in order to enhance participation of companies and other entities to these calls.

To reach these objectives we propose to foster **partner search** in Horizon2020 among S34Growth regions (i.e. Consortium calls, FTI-Fast Track to Innovation...). ACCIÓ is member of the Enterprise Europe Network (EEN) and one of the services provided regarding Horizon2020 is the advisory during the proposal preparation and the partner search. There are S34Growth regions that are also members of the EEN and others that are not. In any case, we consider that the good relationship among the regions thanks to the S34Growth could be really useful to search new opportunities for the following calls (ex. NMBP Calls, FoF Calls, ICT Calls...)

3. Stakeholders involved

ACCIO. It will be also useful to discuss the evolution of this action with our stakeholders. In fact, they have a broad experience in Horizon2020.

4. Timeframe

Please, see Gantt Chart.

5. Indicative costs

Personnel costs.

6. Indicative funding sources

Own regional resources.

7. Programme management related implications

- Decision-making process: ACCIÓ will develop and monitor this process and will discuss the evolution of this action with the stakeholders and with the EEN-team at ACCIÓ.
- Financing allocation plan: ACCIÓ own staff dedicated to S34Growth project will be in charge of this action. As this action is related to European programmes, if a joint project rise up, the funding programme will be Horizon2020.
- Call preparation plan-terms of reference: through this action, Catalonia and the S34Growth regions interested will analyse Horizon2020 Calls 2018-2020 (and perhaps other European Calls, cascade funding...). The European Commission defines the calendar of the Horizon2020 calls.

8. Expected impact and results of the policy improvement

The expected impact and results would be to increase the participation of Catalan companies and other entities in Horizon2020 Calls thanks to the network created within the S34Growth.

Date: 29th March 2019
Signature: Jennifer Ruiz