



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 Region

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**

Content

Part I – General information.....	3
Part II – Policy context.....	3
Part III – Details of the actions envisaged	5
ACTION 1. International R&D Programme (NUCLIS) – fostering interregional collaboration.	5
ACTION 2. CATALAN TECH HUB	11

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)

Country: Spain

NUTS2 region: ES51 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 and tools of RIS3CAT:



Fig. 1. Strategic objectives of RIS3CAT

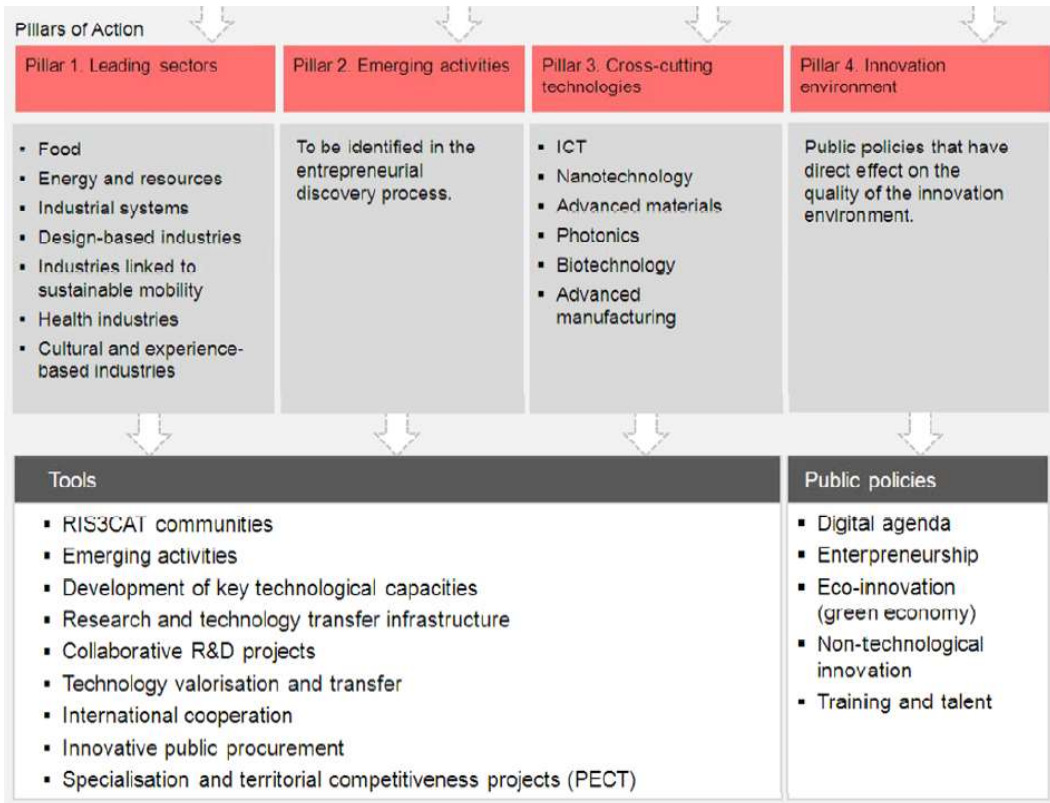


Fig.2 Pillars of action-RIS3CAT

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 and tools** (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 of selection will be based on the sectors and technologies **prioritized 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 NUCLIS), 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 **2 actions** of the Catalan RAP and other transversal ones.

S34GROWTH REGIONAL ACTION PLAN (RAP)-ACCIÓ						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 TECH HUB											
2.1 Context analysis	1	1	1	1	0%						
2.2 Implementation	2	4	2	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 months by the **staff from ACCIÓ** that is already participating in the S34Growth project and other new ones that will be working in these actions. In case that some actions require interregional cooperation, ACCIÓ staff will get in contact with the S34Growth region 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 2 actions have already started their implementation during **phase 1** and have also included the valuable feedback we have received from our stakeholders. In that sense, private sector has also expressed their interest in the project and has provided their 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 interested in exploring interregional collaboration with our region, especially in the following instruments/programmes. 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**. The network created during the S34Growth and the lessons learned have been really useful to design our Regional Action Plan.

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 and also the interest from ACCIÓ to increase the number of projects in this programme.

The most attractive issue is that, in the case of NUCLIS, each region/country covers the part of the project that will be develop 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 NUCLI Project with 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:

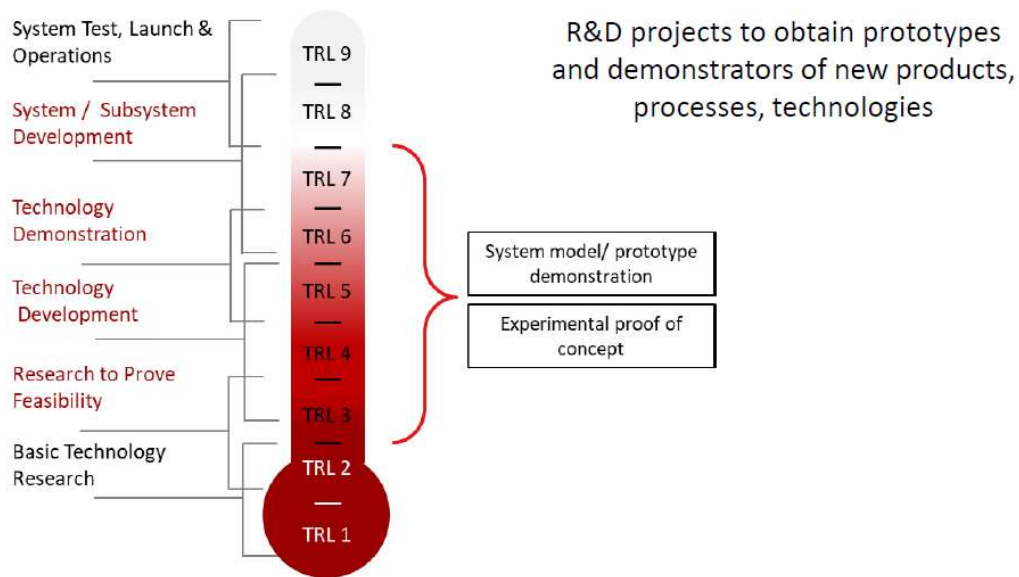


Fig.4. Technology Readiness Levels-NUCLIS. **Type of projects**

R&D Grants: International Nuclis Programme

Collaborative project regulated by a consortium agreement. Minimum of 2 unrelated entities (1 with its operative base in Catalonia + an international one)

1. Project's minimum budget: **150,000 euros**
2. Direct and non-refundable grant of up to **200,000 euros**
3. Grant intensity: **up to 25-70%**, depending on the company's size and the nature of its activities
4. No company shall support more than **70%** of the project's budget
5. Projects shall not start before the application form is officially submitted
6. Projects framed within [RIS3CAT](#) sectors and defined KET
7. The Catalan part of the projects must be developed in Catalonia
8. One-phase application process: The entities shall present different application forms in their country, together with the International Project Report (Joint Project Proposal)
9. ACCIÓ will award grants even when the agency providing funds in the country of the foreign partners does not approve the grant.

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 (in fact, it has been submitted as a good practice in the Interreg Europe Policy Learning Platform). To improve the explanation of the programme with more detail, new staff from ACCIÓ have also attended the S34Growth meetings and other new meetings have been organized 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.

As said, during the whole S34Growth project the interest in International NUCLIS has been stated by **several regions**. Even, in many OSDDs, ACCIÓ explained this programme several times in order to clarify the objectives and mainly the procedure in case that a region wanted to participate in the programme. The S34Growth partners expressed directly that they learned a lot about this programme and found it really interesting to foster R&D interregional projects. Some of the regions can actually participate as they are members of a EU Country but the most important thing is that S34Growth has made some of these regions "open their eyes" and **be really aware of this possibility**. From ACCIÓ, during the Interreg project, we have also learned and listened carefully to the regions about the difficulties or barriers that, in some case, they would have to implement this programme and discussed together the best option to solve them.

The influence of the exchange of experience during the S34Growth in the decision of including this action in the RAP is because International NUCLIS programme, managed by ACCIÓ, is not an easy and fast programme in the sense that arising this kind of projects is a hard work for the regions involved. Catalonia has 40 offices abroad and our staff in Barcelona, who work specifically for this programme, manage the launch of the call, look for interregional projects, monitor the projects approved...but the **real engagement of the other region is key for emerging this type of projects** and for the right performance of them. Because of all these reasons, we really believe that the network created in S34Growth can really help to enhance the appearance of these interregional projects and it's a benefit for both regions involved.

For instance, in the case of **Portugal** and other regions, the first step for this Call 2019 will be the dissemination through their websites when the call is opened. From our point of view this is the first step to enhance the appearance of these interregional projects. Another example is the case of **Scotland** (explained later) where a webinar about NUCLIS has been recently organised with a great participation of 80 entities/companies.

The launch of the next **Call of International Nuclis 2019 (foreseen in June 2019) and this action of the RAP coincide in time**; so it becomes a **great opportunity** at this precise moment.

More information about NUCLIS-INTERNATIONAL TECHNOLOGICAL COOPERATION:

<http://catalonia.com/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. This programme is also useful in the sense that for many entities/companies of industrial regions, the participation in a NUCLIS project is like a step before a future participation in other collaborative programmes like Horizon 2020.

Therefore, this action will be focused on the implementation 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 internal actions like Norte in Portugal (gathering the demand from the Portuguese companies) and other regions that, initially, will do dissemination of the programme when the 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. In that sense, the staff 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. The following picture shows the deadlines for the next Call:

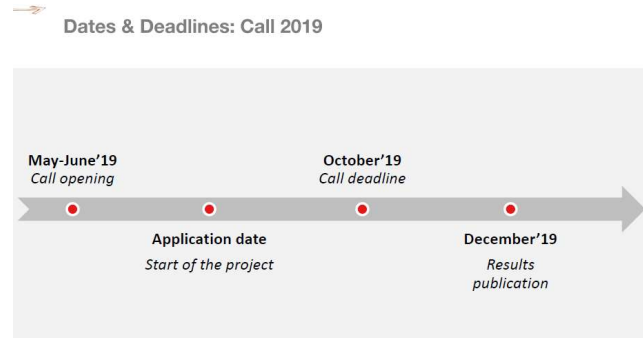


Fig.6. International NUC LIS-Dates and deadlines Call 2019

5. Indicative costs

Personnel costs. ACCIÓ staff manage NUC LIS programme and provides support services for NUC LIS proposal in 3 main aspects:

- Financial advisory service: financial pre-assessment advice to companies with an investment higher than 200.000 €.
- Innovation advice service: accompaniment of companies supporting them during the build up of the international consortia and project ensuring it meets NUC LIS programme requirements.
- Additional service: services aimed at professionalizing the formalization of the consortium agreement (cooperative projects).

6. Indicative funding sources

Own regional resources.

The next International NUC LIS Call, as mentioned before, is expected to be launched at **mid-June 2019** and the deadline will be **10th October 2019**. The budget for the International NUC LIS Call in 2019 is expected to be **800k€**.

These are the eligible expenses of a NUC LIS project (fig.7) and the grant intensity (fig.8):

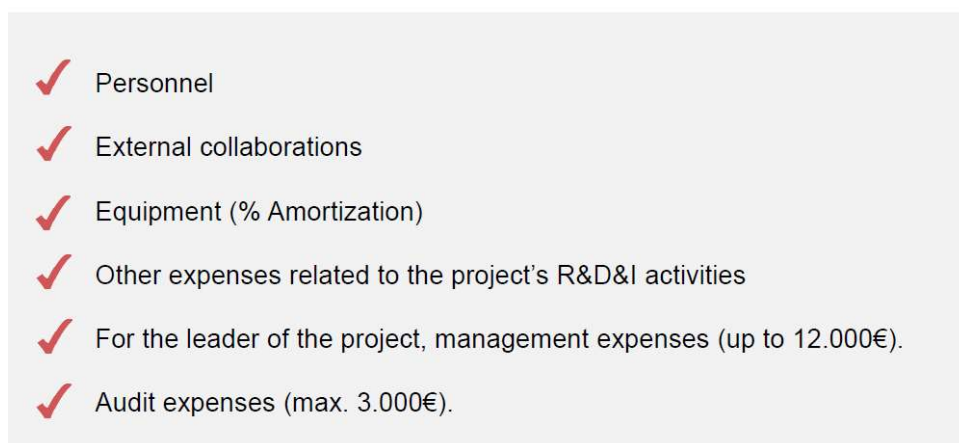


Fig.7. International NUC LIS-Eligible expenses

		Small	Medium	Large
Type of the R&D&I activity	Research	70%	60%	50%
	Development	45%	35%	25%

Other considerations:

- Maximum Grant: 200.000€ per project
- According to regulatory framework: Regulation (EU) no. 651/2014 of the European Commission, of June 17, 2014

Fig.8. International NUCLIS-Grant intensity

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.

The following picture shows the evaluation criteria of the projects:

- ✓ Scientific and technological quality of the project.
- ✓ Project management structure and capabilities of the applicant.
- ✓ Project Impact

Fig.9. International NUCLIS-Evaluation criteria

- Financing allocation plan: for the execution of this action our own personnel is needed and the total budget for the Call 2019 is 800k€, as previously indicated.
- 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 in Barcelona** and **0.5 person located in our offices abroad** (ACCIÓ has 40 external offices) to manage the call and monitor the projects approved.

8. Expected impact and results of the policy improvement

Just to provide a wide overview of the results of Nuclis since 2012, here you can find some figures:

- Support has been given to 63 projects that have mobilized an investment of almost 20 million euros since 2010.
- Since 2012 the programme has supported 20 Catalan companies (18 projects) with an investment of almost 4,5 million euros (Aid: 2,1 million euros)

The main expected impact in S34Growth 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. The type of projects that could be submitted to the call from the regions that have expressed their interest are high impact and differential R&D projects where firms and RTOs can cooperate with Catalan companies.

In the following website you can find one example of **the most recent impact**: the webinar Catalonia-Scotland (28th May 2019), with 80 participants organized by Scottish Enterprise and ACCIÓ (EEN Network is also involved) to disseminate the International NUCLIS Call 2019. The objective of this action is to enhance the generation of projects between both regions:

https://www.enterprise-europe-scotland.com/content/international_innovation_partnerships/collaborative_r_d_with_catalonia/?AcceptTerms=1

ACTION 2. CATALAN TECH HUB

1. Relevance to the project

ACCIÓ is implementing 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 Tech 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. One of the lessons learned was, for instance, the concept of **“one-stop-shop”** that some of these regions used during their explanations and that will be very likely included as one of the actions to be implemented in the Catalan Tech Hub.

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. During the last OSDDs this theme was discussed with more energy compared with the beginning of the project. In the OSDD in **South-Holland**, a person from the TNO did a broad explanation on that, for instance, and at that moment we realised that the topic was really hot. Also, **Tampere** did an explanation about their strategy in this field. After that, during our meeting in 2018 in the Basque country delegation in Brussels, we learned a lot about the strategy the **Basque Country** was designing on their hubs.

Because of all that and due that in Catalonia we are already in the process of definition of the Catalan Tech Hub and also already implementing actions related to our Industry 4.0 programme, we have maintained several internal meetings to analyse all this S34Growth information and start defining our own strategy. **Listening to the strategy of other regions was really inspiring to reflect on ours.**

During the RAP execution, all these lessons will be really valuable to define and implement our Catalan Tech Hub. Even and thanks to the good relationship with these regions we are sure we can also exchange how this is evolving in Catalonia in order to get their feedback.

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

- **Catalan Tech Hub:** the lessons learned are really useful for the definition of our Catalan Tech 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 very active in Horizon2020 Calls. For us is important to take advantage of the S34Growth project in order to analyse the future participation in DIH-Calls at the European level. In that sense, this is the way to give a **pan-European approach** to the regional DIH.

2. Nature of the action

CATALAN TECH HUB

This action will be focused on the definition and implementation of the **Catalan Tech Hub** within our Industry 4.0 support Programme and also on the exploration of interregional synergies regarding **DIH Horizon2020** Calls. Europe is doing great efforts to improve competitiveness of companies at the international level through the digital transformation, especially for SMEs, and our region wants to be aligned with this European strategy.

This action is also aligned with our [Regional Industry Covenant](#) with includes an axis regarding Industry 4.0 and Digitalisation of companies.

ACCIÓ specific objectives regarding the Catalan Tech Hub are to develop:

- A **one-to-shop in Industry 4.0** to encourage the demand of technology advanced services in 4.0 and accompany the companies during the whole process.
- The programme of support for SMEs to **accelerate the process of technological transformation** in SMEs 2019-2020 with the objective of accelerate their technological transformation 4.0. This programme will include the identification of opportunities and the design of individual roadmaps to tackle them.
- A **digital tool** to manage the Catalan Tech Hub.

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. The **current 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.
- Connection of offer and demand.

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 cost

50% personnel costs (5 employees during 2019 and 10 employees from 2020) and **50% external experts**.

Regarding the costs, the main costs are related to personnel costs from ACCIÓ because in our organisation there is staff working in our Industry 4.0 Programme (which is related to the future Catalan Tech Hub). In fact, during the last meeting in Barcelona (20-21 March 2019), our staff from ACCIÓ explained this programme to the S34Growth regions, who were really interested in knowing in more detail how it is evolving.

The concrete activities of the Catalan Tech Hub (aligned with the objectives above) will be implemented during the following months (even, some of them have already been performed during phase 1). As mentioned before, this hub will be related to the current Industry 4.0 Programme which is already running and the activities will be related to it. In the following link you can find more information about our Industry 4.0 Programme:

<https://www.accio.gencat.cat/ca/sectors/industria-40/>

6. Indicative funding sources

PO-ERDF: around a budget of **2M€** (50% of co-funding) is expected to be allocated for the development of the Catalan Tech Hub. This budget is foreseen until december 2022; so part of the budget and the actions will be developed during this phase 2 of the RAP.

7. Programme management related implications

- Decision-making process: ACCIÓ will develop and monitor this action. The process could be discussed with the stakeholders of the project and also with other stakeholders 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 RTOs, companies, entities...involved.
- Call preparation plan-terms of reference: through this action, Catalonia and the S34Growth regions will analyse DIH-Horizon 2020 calls 2018-2020 to search common opportunities.

8. Expected impact and results of the policy improvement

The expected impact and results would be the **definition and implementation of the Catalan Tech Hub and the alignment with the pan-European** approach of the DIH in Horizon2020.

Some other results:

- Improvement of the competitiveness of the industrial sector by the increase of digitalization of SMEs.
- The detection of common synergies among the regions in the DIH Calls and, depending on the evolution of the RAPs, the participation in these calls (normally through RTOs, companies and other RDI entities of the region).
- Improvement of the position of the Catalan competence centres (RTOs) in this field.
- Consolidation of Barcelona and Catalonia as an Innovation Hub in Digitalisation.

****The endorsement from the MA (Managing Authority) to the RAP will be stated through the letter of endorsement. The letter will be sent out as soon as we receive it signed.***

Likewise, since the beginning of the project and during all these years of execution, we had several meetings with our Managing Authority (MA) informing about the evolution of the project. In fact, in the proposal, we included the letter of commitment of the MA with the project and they have act as stakeholders during the S34Growth. All the meetings are justified through signature sheets and communications, if it's needed.

Also important to highlight that our MA published in April'2018 a document related to the monitoring of our RIS3CAT focused on how to foster the complementarity between the Interreg Europe projects in Catalonia and our RIS3CAT:

http://catalunya2020.gencat.cat/web/.content/00_catalunya2020/Documents/angles/fitxers/interreg-ris3cat-en.pdf



Date: 31st May 2019
Signature: Jennifer Ruiz

Regional Action Plan letter of support

Project Information

Project acronym	S34Growth
Project title	Enhancing policies through interregional cooperation: New industrial value chains for growth
Name of project partner	Catalan Agency for Business Competitiveness (ACCIO)

We hereby state:

- that we were informed about the preparation of the Regional Action Plan as part of the above-mentioned project,
- that the topic tackled by this Regional Action Plan is in line with the Catalonia ERDF Operational Programme,
- that we acknowledge the participation of the above-mentioned partner(s) in the Regional Action Plan,
- that we will engage with the stakeholder group and welcome opportunities for exchanging experiences with other institutions in Europe,
- that we will consider possibilities for implementation of the action plan through our policy instrument.

Name of signatory	Teresa MEDINA PLANS
Position of signatory	Deputy General Director of Economic Programming
Date	17 th July 2019

**Signature and institution
stamp**



Generalitat de Catalunya
Departament d'Economia i Finances
Direcció General de Promoció Econòmica, Competència i Regulació