

# MANUMIX INTERREG EUROPE

Innovation policy-mix learning for advanced manufacturing in European regions

## ACTION PLAN OF THE BASQUE COUNTRY



## Part I – General information

### Project:

MANUMIX Interreg Europe

Innovation policy-mix learning for advanced manufacturing in European regions.

### Partner organisations:

- Innobasque, the Basque Innovation Agency.
- Directorate of Technology and Strategy (Vice-Ministry of Technology, Innovation and Competitiveness of the Department of Economic Development and Infrastructure of the Basque Government)

### Other partner organisations involved:

- Orkestra-Basque Institute of Competitiveness (Deusto Foundation).

### Other relevant stakeholders involved:

- SPRI, the Basque Business Development Agency.
- Directorate of Industrial Development (Vice-Ministry of Industry of the Department of Economic Development and Infrastructure of the Basque Government).
- Directorate of Entrepreneurship, Innovation and Information Society (Vice-Ministry of Technology, Innovation and Competitiveness of the Department of the Department of Economic Development and Infrastructure of the Basque Government).
- Department of Presidency of the Basque Government.

**Country:** Spain

**NUTS2 region:** ES21 País Vasco (Basque Country)

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## Part II – Introduction

This action plan was **defined between the Basque project partners** (Innobasque, the Basque Innovation Agency, and the Directorate of Technology and Strategy of the Basque Government) **and the programme managers from SPRI, the Basque Business Development Agency, and the Directorate of Industrial Development** of the Basque Government. This definition was **assessed by Orkestra** since it is the advisory partner and has a deep knowledge of the Basque innovation policy mix for Advanced Manufacturing.

The definition of the **action plan was validated by the following political decision-makers** whose policy instruments are addressed by MANUMIX Interreg Europe:

- **The Deputy Minister of Technology, Innovation and Competitiveness** of the Department of the Economic Development and Infrastructure of the Basque Government.
- **The Director of Technology and Strategy** of the Vice-Ministry of Technology, Innovation and Competitiveness of the Department of the Department of Economic Development and Infrastructure of the Basque Government.
- **The Director of Entrepreneurship, Innovation and Information Society** of the Vice-Ministry of Technology, Innovation and Competitiveness of the Department of the Department of Economic Development and Infrastructure of the Basque Government.
- **The Deputy Minister of Industry** of the Department of the Economic Development and Infrastructure of the Basque Government.
- **The Director of Industrial Development** of the Vice-Ministry of Industry of the Department of Economic Development and Infrastructure of the Basque Government.
- **The adviser for innovation of the Department of Presidency of the Basque Government.**

## Part III – Policy context

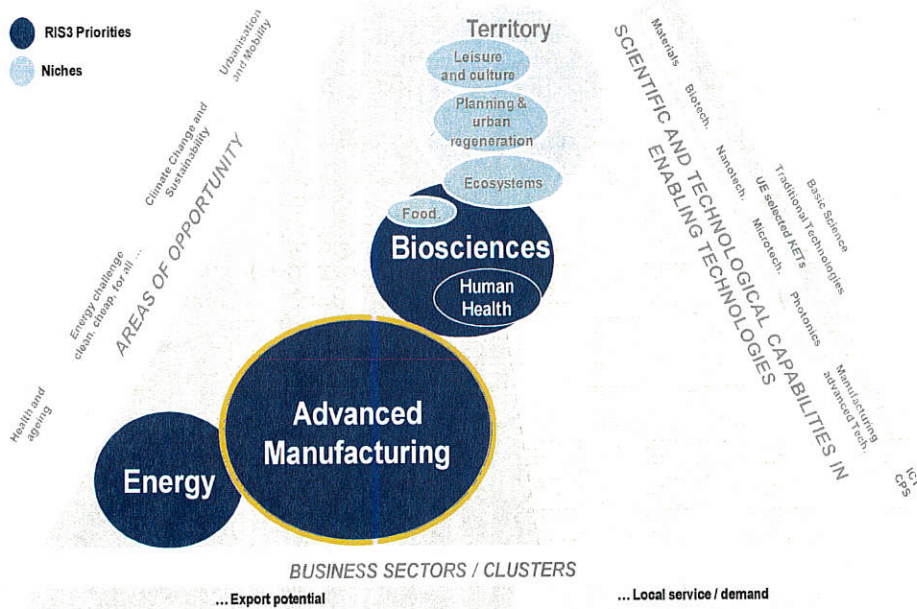
<b>The Action Plan aims to impact:</b>	<input checked="" type="checkbox"/>	Investment for Growth and Jobs programme
	<input type="checkbox"/>	European Territorial Cooperation programme
	<input checked="" type="checkbox"/>	Other regional development policy instrument

### Name of the policy instrument addressed:

- **Basque Country ERDF Regional Operational Programme 2014-2020 (ROP 2014-2020):** Hazitek and Basque Industry 4.0 subsidy programmes that belong to the 1<sup>st</sup> “Boosting RDI” and 2<sup>nd</sup> “Improving the use and quality of ICTs and the access to it” Thematic Objectives.
- **Other Basque policy instruments:**
  - Science, Technology and Innovation Plan (STIP) 2020.
  - Hazitek subsidy programme (under TO 1 of ROP 2014-2020).
  - Basque Industry 4.0 subsidy programme (under TO 2 of ROP 2014-2020).
  - Gauzatu Industria loan programme.

### The RIS3, the ERDF and the innovation policy mix for Advanced Manufacturing

**Advanced Manufacturing is one of the three priority areas of the Basque RIS3** along with Biosciences-Human Health and Energy. In addition, the Basque RIS3 identifies four “niches” that might have potential for growing in the future: Ecosystems, Food industry, Leisure & culture and Planning & urban regeneration. Each of the priorities has a specific strategy. In the case of Advanced Manufacturing it is the **Advanced Manufacturing Strategy – Basque Industry 4.0**.



RIS3 priorities for the Basque Country

**Advanced manufacturing is the biggest topic in business R&D and innovation expenditure.** Furthermore, manufacturing industry accounts for a large part of the Basque economy (25.4% of its Gross Value Added in 2016 according to Eurostat; 16.4% in the European Union).

The Basque Government has a relatively long tradition of supporting business-oriented R&D and business innovation, even before 2009, when the responsibility on RDI policy was devolved to the Basque Autonomous Community by the Spanish State. Currently, the Basque Government's budget for RDI is over €400 million per year. The business-oriented R&D and business innovation accounts for the largest share of the Basque innovation policy mix's budget.

The majority of the Basque RDI programmes had been completely horizontal, but since the RIS3 was entered into force, new ad-hoc programmes have been created (e.g. Basque Industry 4.0) and some of the previously existing programmes have been adapted (e.g. Hazitek). As a result, previous policy rationales based on functional and systemic approaches coexist with new rationales linked to vertical areas, such as, Advanced Manufacturing.

**The Basque Country introduced different modifications in its ROP 2014-2020, which co-funds its RIS3; in order to align RDI investments with RIS3 priorities.**

These changes were focused on the 1<sup>st</sup> Thematic Objective "Boosting RDI", where 44.6% of the funds are allocated. However, this is not enough for the development of Advanced Manufacturing. A coordinated action with other instruments co-funded by ERDF and related to other Thematic Objectives is needed, particularly the 2<sup>nd</sup> Thematic Objective "Improving the use and quality of ICTs and the access to it" (10.5% of the budget), due to the impact of ICTs on Industry 4.0; or the 3<sup>rd</sup> Thematic Objective "Improving the competitiveness of SMEs" (5.7% of the budget), since SMEs are the basis of the manufacturing industry in the Basque Country.

**Therefore, the interrelationships and complementarities between different programmes related to Advanced Manufacturing (policy mix), some of which are co-funded by the ERDF, are even more relevant than they used to be.**

### MANUMIX RDI programmes

**Since the beginning of MANUMIX, our focus has been on three programmes: Hazitek, Basque Industry 4.0 and Gauzatu Industria.** These programmes were selected taking into account the Advanced Manufacturing's logic of intervention; from R&D to market. They are **representative programmes of the innovation policy mix for Advanced Manufacturing**. Each of the programme belongs to a different directorate of the Department of Economic Development and Infrastructure which makes even more complex the management and the evaluation of the innovation policy mix for Advanced Manufacturing.

Hazitek is under the 1<sup>st</sup> Thematic Objective "Boosting RDI" of the Basque ERDF ROP 2014-2020 and Basque Industry 4.0 is under the 2<sup>nd</sup> Thematic Objective "Improving the use and quality of ICTs and the access to it". Although Gauzatu Industria is not co-funded by the ERDF, but its objectives are completely in line with the 3<sup>rd</sup> Thematic Objective "Improving the competitiveness of SMEs", since it supports the improvement of the technological capabilities of industrial SMEs'.

These are briefly the MANUMIX RDI programmes:

- Hazitek is a subsidy programme that supports collaborative industrial research and experimental development projects in RIS3 priorities and conducted by companies. It supports two kind of projects. On the one hand, it supports strategic and pluriannual projects with a minimum budget of €4M. On the other hand, it supports the same kind of projects but with smaller budget (minimum of €100,000) and with a duration of just one year. The Directorate of Technology and Strategy is the policy owner.
- [Basque Industry 4.0](#) (a good practice incorporated in the Policy Learning Platform's database) is a subsidy programme that supports industrial research and experimental development projects for the incorporation of already existing industry 4.0 technologies in Basque RTOs to manufacturing companies. This is a new ad-hoc programme for the Advanced Manufacturing priority. The Directorate of Entrepreneurship, Innovation & Information Society is the policy owner.
- Gauzatu Industria is a loan programme that supports the investments of industrial SMEs in order to support their technological upgrading to enable the production of new products or the adoption of new processes. The Directorate of Industrial Development is the policy owner.

Each programme has its own monitoring and evaluation system and their development level is diverse. For example, in the case of Hazitek, outcome and impact indicators are measured ex-post while no impact is measured (at least ex-post) in the other two programmes. In these two cases, the output indicators are also few and Gauzatu Industria's output indicator is measured only ex-ante. Finally, since Basque Industry 4.0 is a new programme, the monitoring and evaluation system is still under construction.

	Ex-ante	Interim	Ex-post	
	Inputs	Activities	Outputs	Outcomes/Impacts
Basque Industry 4.0	<ul style="list-style-type: none"> <li>Budget</li> <li>Applications (number &amp; quality)</li> <li>Technologies covered</li> </ul>	<ul style="list-style-type: none"> <li>Expenditure</li> </ul>	<ul style="list-style-type: none"> <li>New technologies adopted</li> </ul>	
Gauzatu Industria	<ul style="list-style-type: none"> <li>Budget</li> <li>Applications (number &amp; quality)</li> <li>Intensity in investment and employment</li> </ul>	<ul style="list-style-type: none"> <li>Expenditure</li> </ul>	<ul style="list-style-type: none"> <li>Investment in new equipment</li> </ul>	<ul style="list-style-type: none"> <li>Employment created/maintained</li> </ul>
Hazitek	<ul style="list-style-type: none"> <li>Budget</li> <li>Applications (number &amp; quality)</li> <li>RIS3 priorities-related projects</li> </ul>	<ul style="list-style-type: none"> <li>Expenditure</li> </ul>	<ul style="list-style-type: none"> <li>Scientific publications</li> <li>EPO/PTC patent applications</li> <li>New/improved processes</li> <li>New/improved products</li> </ul>	<ul style="list-style-type: none"> <li>Revenues</li> <li>Employment created</li> <li>Degree of internationalisation</li> <li>Competitiveness level</li> </ul>

Indicators measured only ex-ante

Indicators of the monitoring and evaluation systems of the MANUMIX RDI programmes

In order to develop a monitoring and evaluation system at policy mix level, **the current system of the programmes should be changed**. This is in-line with the need to continue strengthening evaluation as it has been stated by external advisors.

**Evaluation: the need to continue strengthening it**

A series of external evaluations of the Basque Science, Technology and Innovation System have highlighted the importance of improving the monitoring and evaluation of RDI strategies, policies and programmes. Among others, this issue was stressed by the OECD in 2011 and the professor Kevin Morgan from Cardiff University in 2013.



*"The Basque government has made significant effort to understand its economy and the factors of competitiveness. However, it has not sufficiently built up data for **programme, policy and strategy evaluations**. This type of evaluation is a common weakness among OECD regions and member countries. However, given the large share of public funding (direct and indirect) of firm R&D, **such evaluations are particularly important in the Basque Country.**"*

Source: OECD - Evaluation of the Basque Innovation System (2011)



*"The Basque government has not invested in evaluating the implementation of these strategies. We don't know exactly what works."*

Source: Prof. Kevin Morgan, Basque Country RIS3 Expert Assessment, 2013  
[http://ccaa.eipais.com/ccaa/2013/10/11/paisvasco/1381519735\\_000587.html](http://ccaa.eipais.com/ccaa/2013/10/11/paisvasco/1381519735_000587.html)

#### Main comments of external evaluators about the Basque monitoring and evaluation system

Due to an increasing awareness of the importance of evaluation among policy-makers and programme managers, several efforts have been made during the last years. For example, the monitoring and evaluation systems of single programmes have been further developed.

Furthermore, a more integrated monitoring and evaluation system that measures the impact of business-oriented R&D subsidy programmes, including Hazitek, was introduced. This system, called **SIME** (reported good practice under validation), gives precise and structured data of resources, results (e.g. patent applications) and impacts (e.g. incomes, employment, internationalisation and competitiveness). All projects, the majority of which are related to Advanced Manufacturing, are measured ex-ante, on-going and at completion. In addition, a representative sample of projects are measured ex-post to gather impact data.

Apart from that, the latest Science, Technology and Innovation Plan, includes a multilevel monitoring and evaluation system.

#### Science, Technology and Innovation Plan 2020: alignment between the strategy's and the programmes' evaluation and monitoring systems

**The Basque Science, Technology and Innovation Plan (STIP) 2020 is the umbrella of the Smart Specialisation Strategy.** It has two major vectors: the specialisation and the pursuit of higher levels of efficiency of the Basque Science, Technology and Innovation System.

As it has already been mentioned, **it has a multilevel monitoring and evaluation system conducted by the Basque Innovation Agency, Innobasque:**

1. STIP's monitoring and follow-up. This is conducted annually to monitor how the objectives are evolving.
2. Evaluation of the contribution of RDI programmes to the strategy every two years.
3. Evaluation of organisations that belong to the Basque Science, Technology and Innovation Network (BSTIN), for example, RTOs, business R&D units, universities and public hospitals. This is conducted every year to monitor how they are aligning with the strategy.
4. Comparative assessment of the Basque Country. This context analysis is conducted every two years to check if the strategy's objectives are still suitable.
5. Ex-post evaluation after 2020. This will be conducted to know which the effects of the strategy were and to get useful learnings for the following STIP.

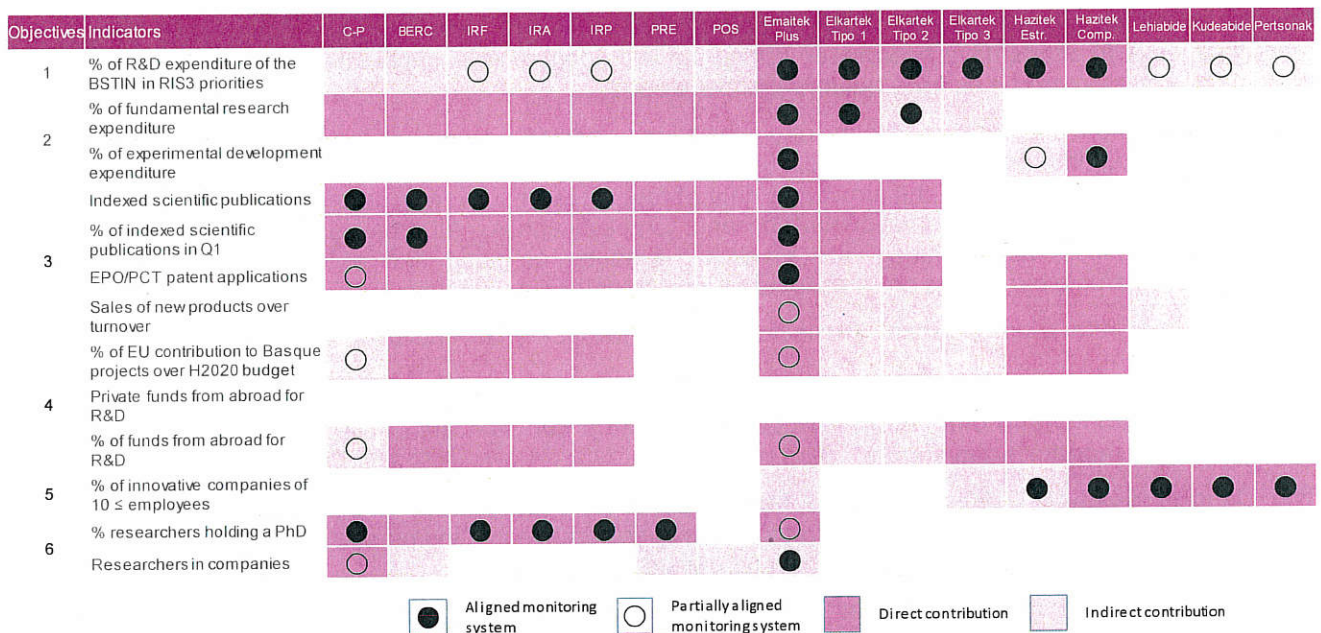
Regarding the second point about the contribution of the RDI programmes, it was carried out for the first time in 2018 and it is considered a pilot analysis.

The analysis's goals were: (1) to assess the contribution of a selection of instruments of the Basque innovation policy mix to the STIP's objectives; (2) to assess the extent to which the objectives of the STIP are covered by

the innovation policy mix; and (3) to assess the alignment of instruments' monitoring system with the STIP's indicators.

The analysis, due to its pilot nature, included a selection of programmes of the whole policy mix that is representative of each of the five main categories of instruments (e.g. support to the business innovation ecosystem, generation of scientific and technological capacities). The **Basque innovation policy mix is complex** since it includes nearly 60 programmes from different ministries (mainly the Department of Economic Development and Infrastructure, the Department of Education and the Department of Health) and even government levels (Basque Government and Provincial Councils). In terms of the policy mix framework by Rogge & Reichardt (2016), the study mainly focused on the consistency of the instrument mixes with policy strategic objectives.

**One of the main findings was the room for improvement in the alignment of the monitoring systems of the programmes with the monitoring system of the STIP.** Moreover, there were cases where the policy objective of the programme was in line with one of the operative objectives of STIP, but there was no indicator that measured it. Due to this, it was difficult to assess quantitatively the real exact contribution of the programmes to the strategy.



Gaps between the monitoring system of the STIP and its main RDI programmes

### Other relevant factors: industrialisation of research results

Despite the rich portfolio of RDI programmes for Advanced Manufacturing of the Basque Government, **there is no ad-hoc programme for the industrialisation of research results**. Although, new infrastructures and schemes of collaboration between academia, RTOs, large companies and SMEs have recently been created to boost the industrialisation (e.g. [CFAA](#)), these are focused on concrete sectors (i.e. aeronautics) and there is still the need to support companies "crossing" the Valley of the Death.

Hazitek might cover industrialisation activities to some extent, but **it is needed to analyse whether a new ad-hoc programme will better meet the requirements of this kind of projects**.

### Other relevant factors: innovative public procurement

**The Basque Country has developed its science, technology and innovation strategy for 30 years**. It has been focused on policies for the development of capabilities on R&D and innovation, but **no demand policies**, such as the innovative public procurement, has been introduced yet.

However, some attempts had been made, mainly with the Department of Health, but with no success since no proper formula was developed or identified. In addition, it was quite constrained to help pharmaceutical companies or medical devices' manufacturers, rather than being opened to all Advanced Manufacturing domains.



## Part IV – Details of the actions envisaged

### ACTION 1: TRANSFERENCE OF GOOD PRACTICES: IR<sup>2</sup> from Piedmont (Italy)

#### Objective:

**Introduce changes into Hazitek programme based on IR<sup>2</sup>** – Industrialisation of Research Results from Piedmont in order to foster the industrialisation of the results of previous R&D projects and develop capabilities among employees to be able to work with Advanced Manufacturing technologies.

*The background (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*

**IR<sup>2</sup> (Industrializzazione dei Risultati della Ricerca)** is the **Piedmontese subsidy programme for the industrialisation of the results of previous R&D projects**. It is funded under the 1<sup>st</sup> Thematic Objective “Strengthening research, technological development and innovation” of the region’s ERDF ROP 2014-2020 and it is also co-funded by the ESF. It was reported as a good practice and it is included in the project’s website.

IR<sup>2</sup> promotes projects that connect research and their results with industrialisation and economic enhancement, favouring the implementation of the knowledge generated, reducing the time to market and encouraging the transference of innovative ideas into new products and processes capable of generating significant benefits for businesses and/or for the territory.

It supports innovative projects positioned prevalently in the pre-industrialisation and pre-commercialisation phases, or the different phases of development of new products/processes aimed at reaching the industrial stage/the market.

<b>Purpose</b>	Support industrial research and experimental development activities for the production and introduction of innovative products on the market.		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Big companies</li> <li>• SMEs</li> <li>• Research organisations (cannot lead)</li> </ul>	<b>Main characteristics</b>	<ul style="list-style-type: none"> <li>• Cofounded by ERDF</li> <li>• In accordance with EU No 651/2014</li> <li>• Sequentially granted (non competitive)</li> </ul>
<b>Budget</b>	€63M	<b>Instrument</b>	Subsidy (maximum of €10M per project) <ul style="list-style-type: none"> <li>• 35-45% depending on the company’s size for industrial research activities</li> <li>• 35% for experimental development activities</li> <li>• 35% for research organisations for all type of research activities</li> </ul>
<b>Projects’ typology</b>		<b>Conditions that the projects must meet</b>	
<ul style="list-style-type: none"> <li>• <b>Innovative solutions</b> for the company and the market of reference.</li> <li>• Industrial research and experimental development projects with <b>particular emphasis on previous phases to commercialisation</b> (high TRLs, at least 7)</li> <li>• <b>Big investment projects</b> of interest for the region and strategic for the company.</li> <li>• <b>Individual or collaborative</b> projects (with other companies or research organisations).</li> </ul>		<ul style="list-style-type: none"> <li>• <b>Eligible costs ≥ €5M.</b></li> <li>• Based on a <b>patent or concrete results of previous R&amp;D activities.</b></li> <li>• <b>Business plan</b> to guaranty the introduction of the results on the market (not eligible).</li> <li>• Maximum duration of <b>36 months.</b></li> <li>• <b>Experimental developments costs &gt; industrial research costs</b></li> <li>• <b>Reach at least TRL7</b> (demonstration of a prototype in a real environment)</li> <li>• Projects in <b>RIS3 areas</b> or in related ones</li> <li>• In collaborative projects, a <b>legally constituted temporary association</b> (leader’s eligible costs &gt; 50% of total costs)</li> <li>• <b>Research organisations’ costs &lt; 20%</b> of the total eligible costs</li> <li>• <b>One application as a leader</b></li> <li>• It is possible to collaborate with <b>organisations from outside Piedmont</b> (maximum of 15% of eligible costs)</li> <li>• <b>Subsidy’s 20% payment at the end of the project</b> depending on the objectives achieved.</li> </ul>	

*Brief explanation of IR<sup>2</sup>*

This programme has also a complementary support line related to the creation of new professional profiles. Since the introduction of such product innovations needs trained and skilled employees, the participating companies can design ad-hoc academic or specialisation courses along with the Piedmontese universities. The employees that pass those courses obtain an official certificate (a degree, a postgraduate degree, a PhD, etc.). The courses follow the dual training approach.

As it has previously been stated, although some improvements in the Basque innovation policy mix for Advanced Manufacturing has been introduced, there is still the need to support companies "crossing" the Valley of the Death and adapting the workforce to introduce the innovations into the market. The Basque stakeholder group, that includes SPRI (Business Development Agency), manufacturing companies and RTOs considered a highly interesting good practice. The political decision-makers agreed on that.

#### *Activities (please list and describe the activities to be implemented)*

The concrete actions that will be developed are the following ones:

1. Analyse IR<sup>2</sup> in-depth (typology of supported projects and companies, alignment with EU, Spanish and Basque rules, etc.) and identify potential changes for Hazitek.
2. Analyse linkages between Hazitek and other programmes for new R&D professional profile creation (e.g. Bikaintek<sup>1</sup>) and identify potential changes for Hazitek.
3. Check the changes of the programme with potential beneficiaries.
4. Introduce new characteristics to Hazitek.

If the changes are applicable, the main output of the actions would be **an improved Hazitek** that could better support experimental development activities of previous industrial research projects. It also could include training activities for employees in order to be able to produce and sell the developed product innovation.

Regarding these changes, some have already been considered in the case of singular Hazitek projects<sup>2</sup>, for example, require that the proposals must be the continuation of previous R&D projects, include a link between these projects and training activities related to industrial PhDs or eliminate the budget restriction of this kind of projects (currently, only 20% of Hazitek budget for strategic projects could be allocated to singular projects).

#### *Players involved (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)*

- The Directorate of Technology and Strategy. It is the policy owner of Hazitek. Any change related to the transference of any of the characteristics of IR<sup>2</sup> is expected to be included under the umbrella of Hazitek, since it supports R&D projects of strategic nature over €4M which are similar to the ones supported by the Piedmontese programme.
- SPRI, the Business Development Agency. It is the policy manager of Hazitek. In addition, its deep knowledge of industrial needs and of the definition of R&D programmes will be a necessary input for the project.
- Innobasque. Innobasque will conduct most of the technical analysis.

<sup>1</sup> Bikaintek is a new subsidy programme that supports industrial PhDs and business R&D projects conducted by PhD holders.

<sup>2</sup> Hazitek supports two type of industrial research and experimental development projects depending on their time horizon and budget: "competitive projects" (annual projects of more than €100,000) and "strategic projects" (multi-annual projects of more than €4M). As a general rule, all strategic projects must be in collaboration. If the project consortium includes only one company or different companies of the same corporation, it is considered a "singular project".

### *Timeframe*

In **April 2019**, the need of including some characteristics of IR<sup>2</sup> will be discussed within the Directorate of Technology and Strategy. By then, the technical team of the Directorate will analyse IR<sup>2</sup> and its alignment and differences with Hazitek.

The rest of the activities will be developed **throughout 2019 and 2020**. All the defined activities are expected to finish by the end of 2020.

### *Costs (if relevant)*

**Staff costs** of the Directorate of Technology and Strategy, SPRI and Innobasque are the main costs to develop the activities. These activities are part of the **ordinary tasks** related to evaluation and the continuous improvement of the innovation policy mix.

If changes are made in Hazitek, the **budget** of the new support lines would be the main source of costs. These costs are not measured yet.

### *Funding sources (if relevant)*

The staff costs will be covered by the **ordinary budgets** of each of the organisations.

Regarding to potential changes in Hazitek, the programme is mainly funded by the Directorate of Technology & Strategy. It is also co-funded by the ERDF and the Innovation Fund of the Department of Presidency. The commitment of the Basque Government is to increase the RDI budget 5% yearly by 2020. This increase would be enough to fund the potentially additional support lines of Hazitek.

## ACTION 2: TRANSFERENCE OF GOOD PRACTICES: SBRI from Wales (United Kingdom)

### Objective:

**Develop a similar programme to SBRI** (Small Business Research Initiative) from Wales to foster the innovative public procurement of solutions developed by SMEs.

*The background (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*

**SBRI (Small Business Research Initiative)** is the Welsh Government's initiative that enables the **development of innovative products and services through Public Procurement of Innovative Solutions (PPI)**. It is a public sector challenge-led procurement initiative. It was included in the Policy Learning Platform's good practice's database.

It provides innovative solutions to challenges faced by the public sector, leading to better public services and improved efficiency and effectiveness. It also generates new business opportunities for companies, especially small and medium-sized enterprises (SMEs), providing a route to market for their ideas and bridges the seed funding gap experienced by many early stage companies.

It has two phases:

1. Identification and definition of the challenge. The Innovation Department launches a call opened to all public organisations of Wales (other Government's Departments, town halls, police force, etc.)
2. Launch of the challenge by the public organisation that needs an innovative solution. Firstly, a feasibility study is conducted. Secondly, a demonstration project is contracted.

The public organisation that needs an innovative solution pays for the 40%-70% of the costs of the second phase. These costs are co-funded by a public fund jointly financed by the Welsh Government and the United Kingdom's Government. This fund was especially created for this purpose.

As it has previously been mentioned, the STIP 2020 states the need to introduce a mechanism for innovative public procurement. Despite some attempts had previously been made, mainly with the Department of Health, they had no success since no proper formula was developed.

This good practice was of great interest for the Department of Presidency (the adviser for innovation visited Wales in July as a stakeholder) and this interest was later shared by the **Director of Entrepreneurship, Innovation and Information Society** that supports close-to-market business innovations with an increasing focus on SMEs. Furthermore, the **Provincial Councils**, that play an important role supporting SMEs' innovation in the Basque Country, showed a great interest too.

Apart from that, the **Centre for the Development of Industrial Technology (CDTI)** of the Ministry of Science, Innovation and Universities, which fosters the technological development and innovation of Spanish companies, forecasts to launch a new Public Procurement Programme in 2019. This programme will support relevant projects over €2M to buy and validate non-demonstrated technologies in an operational environment.

This is an opportunity to try it again but following a new approach which is opened to more topics and sectors, rather than just to human health, many of which belong to Advanced Manufacturing.

### Activities (please list and describe the activities to be implemented)

The concrete activities that will be developed are the following ones:

1. Analyse SBRI in-depth (typology of supported projects and companies, alignment with EU, Spanish and Basque rules, compliance with the Basque Government's procurement procedure, etc.).
2. Contact the Spanish Government and analyse the new Public Procurement Programme.

3. Design a proposal for a new public procurement initiative and check it with Government's departments and other public bodies, particularly Provincial Councils, as well as with the potential beneficiaries (companies).
4. Develop a pilot programme.

If the introduction of the new programme is applicable, the **main output would be a pilot programme** for innovative public procurement for the first time in the Basque Country.

*Players involved (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)*

- The Directorate of Entrepreneurship, Innovation and Information Society. If a new similar programme is developed, this Directorate is expected to be the policy owner.
- The Provincial Councils. They showed a great interest in developing a pilot programme.
- The Department of Presidency. It is the policy owner of the Science, Technology and Innovation Plan. This Department has been the most proactive trying to introduce an innovative public procurement mechanism.
- Innobasque. Innobasque will coordinate the actions and conduct most of the technical analysis.

#### *Timeframe*

**In December 2018**, SBRI was analysed in-depth thanks to the information shared by the Welsh Government. In order to ensure the compliance with the Basque Government's procurement procedure, the Director of Entrepreneurship, Innovation and Information Society checked it with the person in charge of the procurement within the Government. The compliance was verified.

**At the beginning of 2019**, the need of the programme was checked with the Department of Economic Development and Infrastructure, but the launch of any SBRI-inspired programme in 2019 was postponed since new initiatives with high priority are being prepared to be launched by the Directorate during the first semester of 2019.

**During 2019**, the Directorate and Innobasque will contact the Spanish Government to ask for more information about the new programme.

At the **beginning of 2020, in the context of the elaboration of the new STIP**, The Directorate and Innobasque will check the need of the programme with the Department. If it is accepted, the main characteristics of the new programme would be defined throughout 2020. All these activities will take into account the Provincial Councils.

#### *Costs (if relevant)*

**Staff costs** of the Directorate of Entrepreneurship, Innovation and Information Society and Innobasque are the main costs to develop the activities. These activities are part of the **ordinary tasks** related to evaluation and the continuous improvement of the innovation policy mix.

**It is not discarded an external support** for the definition of a new SBRI-inspired programme. If there is an external support, it is expected to be **lower than €15,000**.

If a new programme is launched, its **budget** would be the main source of costs. This cost is not measured yet.

#### *Funding sources (if relevant)*

The staff costs of the activities will be covered by the **ordinary budgets** of each of the organisations. And if there is an **external support**, which organisation will fund it **will be discussed**.

If a similar new programme is developed, the policy owner (Directorate of Entrepreneurship, Innovation and Information Society) will require additional budget from the Basque Government's annual budgets. The commitment of the Basque Government is to increase the RDI budget 5% yearly by 2020. This increase would be enough to fund the potentially new programme.

### ACTION 3: SETTING OF GENERAL GUIDELINES ABOUT EVALUATION AND MONITORING IN THE FOLLOWING SCIENCE, TECHNOLOGY AND INNOVATION PLAN AND THE IMPROVEMENT OF THE METHODOLOGY TO EVALUATE THE CONTRIBUTION OF RDI PROGRAMMES TO THE PLAN

#### *Objective:*

Set general guidelines about evaluation and monitoring in the following Science, Technology and Innovation Plan (STIP) in order to **align the evaluation and monitoring system of the programmes** with the strategy's, so the real contribution could be measured. Helping **programme managers with useful recommendations** regarding evaluation and monitoring is another objective.

In addition, the **improvement of the methodology to evaluate the contribution of the programmes** to the Plan is also considered **following the learnings from the case 1 of the benchmarking** study about good practices for innovation policy mix evaluation.

#### *The background (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*

The benchmarking study about good practices for innovation policy mix evaluation elaborated by Orkestra is an inspiring input for this action, particularly, the case 1 "Synthesis of evaluation evidence. Final report for the Department for Business, Enterprise and Regulatory Reform (BERR)" from the UK conducted by SQW Consulting. One of its objectives was to identify evidence gaps and best practices in current evaluation practices of BERR in evaluating the contribution of policy interventions to BERR's objectives. For this purpose, other types of evidence (previous studies and research evidence) were used to fill the gaps and extract conclusions.

As it has previously been mentioned, the analysis of the contribution of the STIP's RDI programmes to its objectives showed a **room for improvement in the alignment of the monitoring systems of the programmes with the monitoring system of the STIP**.

Due to the **complexity of the Basque innovation policy mix** since it includes nearly 60 programmes from different ministries (mainly the Department of Economic Development and Infrastructure, the Department of Education and the Department of Health) and even government levels (Basque Government and Provincial Councils), a higher coordination is needed in order to measure the contribution of the programmes to the STIP's objectives.

Apart from this, since the first evaluation of the contribution of RDI programmes was a pilot analysis, the **evaluation system itself has also room for improvement**. In this sense, the mentioned case study could help **defining a performance score** to measure the contribution of the interventions to the objectives when it is not possible to assess it quantitatively. The case study used four factors that were judged to be relevant for determining the likelihood of an intervention to lead to higher contribution: (i) low public expenditure per beneficiary, (ii) high number of assisted beneficiaries, (iii) high net to gross output ratio or high additionality and (iv) high contribution to productivity drivers. Moreover, the case study showed that other sources of information could be used to fill the gaps in some data, which was not taken into account by the pilot evaluation.

In addition to this improvement, the **analysis of the interaction** between interventions is another learning that could be applied in the more sophisticated method. This is aligned with the holistic understanding of the policy mix. **The case study developed a framework to measure the complementarities or competitions**.

#### *Activities (please list and describe the activities to be implemented)*

The concrete actions that will be developed are the following ones:

1. Analyse in-depth the monitoring and evaluation system of the RDI programmes included in the Science, Technology and Innovation Plan (STIP) 2020.
2. Define the general guidelines in accordance with the objectives of the following STIP that will be elaborated throughout 2019 and 2020 and will come into effect by the end of 2020.
3. Organise training courses for the STIP's programmes' managers. The calendar and topics will also be defined.

4. Develop a more sophisticated method for the evaluation of the contribution of RDI programmes to the STIP based on the case study 1 "Synthesis of evaluation evidence. Final report for the Department for Business, Enterprise and Regulatory Reform (BERR)" from the UK.

*Players involved (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)*

- The Department of Presidency. It is the policy owner of the Science, Technology and Innovation Plan.
- Innobasque. Innobasque will coordinate the actions and conduct most of the technical analysis as the technical secretariat of STIP.

#### *Timeframe*

**Throughout 2019**, the strategic objectives and indicators of the following STIP will be defined. The gaps identified in the above-mentioned study will be a good source of information for the definition of the indicators and the methodology to evaluate the contribution of the programmes. Along with the definition of the new indicators of the STIP, a deeper analysis of the main RDI programmes will be conducted.

**By the first semester of 2020**, the guidelines are expected to be defined.

The training sessions will be prepared during the **first semester of 2020** too. These sessions are expected for the second semester of 2020.

#### *Costs (if relevant)*

**Staff costs** of the Department of Presidency and Innobasque are the main costs to develop the activities. These activities are part of the **ordinary tasks** related to evaluation and the continuous improvement of the innovation policy mix.

**It is not discarded an external support** for the definition of the guidelines or the training sessions. If there is an external support, it is expected to be **lower than €15,000**.

#### *Funding sources (if relevant)*

The staff costs of the activities will be covered by the **ordinary budgets** of each of the organisations. And if there is an **external support**, which organisation will fund it **will be discussed**.



## **ACTION 4: IMPROVEMENT OF THE MONITORING AND EVALUATION SYSTEM OF MANUMIX'S PROGRAMMES**

### *Objective:*

**Improve the monitoring and evaluation systems of each of the MANUMIX's programmes and evolve them towards a joint monitoring and evaluation system.**

*The background (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)*

The peer review session with the Lithuanian partners of MOSTA and their stakeholders and Orkestra is the major source of learnings that will help to the development of this action.

As the final document of the peer review states, there has been a lot of advances in the monitoring and evaluation systems of the three programmes, but they could still be improved. There are recommendations which are common for the three programmes' systems:

- "Clarifying and build a common vision towards the objective of the evaluation.
- Define the logic model of the interventions or combination of programmes.
- Define and review the indicators for each programme.
- Define and improve the best way for collecting data for evaluation.
- Select the best method for analysing the information according to the defined evaluation goal(s).
- Establish a governance mechanism for evaluation, which will support policy learning and communication of the evaluation results. Visualisation of the results is also an activity to work on during the process. the evaluation system of the three programmes share common recommendations."

In addition, recommendations regarding each of the programme's system were also made:

- Basque Industry 4.0. It was recommended to develop a monitoring system that could identify new tendencies in industry 4.0 and evaluate ex-post. Not only the improvement should focus on measuring the programme's relevance, but also on having a continuous policy learning tool.
- Hazitek. It was recommended to measure the relevance of the programme and to improve the impact measurement.
- Gauzatu Industria. It was recommended to measure the relevance and the efficiency of the programme and to improve the impact measurement.

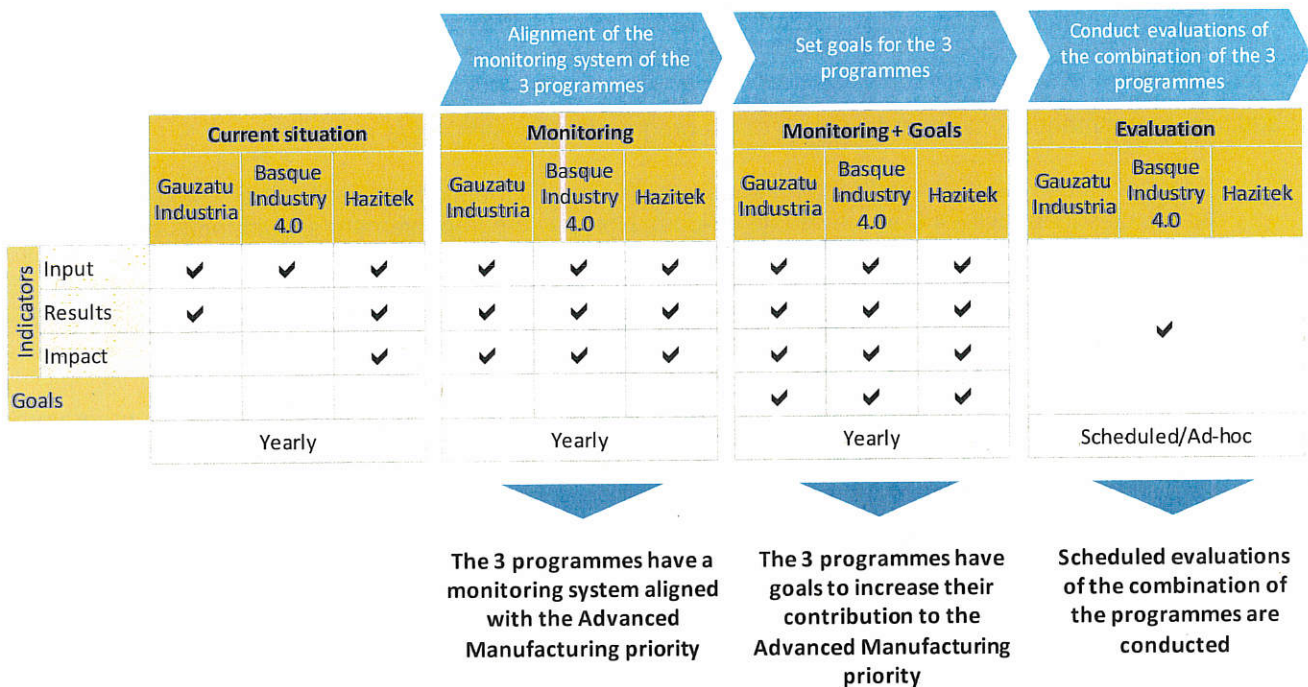
Since the initial objective of the Basque Country in MANUMIX was to build a monitoring and evaluation system at innovation policy mix level in the area of Advanced Manufacturing, several steps should be done previously. (e.g. improving the individual monitoring and evaluation systems) following the peer review's recommendations.

*Activities (please list and describe the activities to be implemented)*

The concrete actions that will be developed in three phases:

- **Phase 1: Alignment of the monitoring system of the three programmes**
  1. Analyse in-depth the monitoring and evaluation system of Gauzatu Industria and Basque Industry 4.0 following the recommendations of the peer review and including new indicators.

2. Analyse the feasibility of conducting an impact study for Gauzatu Industria and Basque Industry 4.0.
  3. Design mechanism to collect information and to evaluate, and conduct impact studies, if applicable.
- **Phase 2: Set goals for the three programmes**
    4. Evaluate the possibility of setting goals to input, result and impact indicators of the three programmes.
    5. If applicable...
      - a. Conduct a base-line study of the situation of Advanced Manufacturing in the Basque Country.
      - b. Set goals to input, result and/or impact indicators of the three programmes.
  - **Phase 3: Conduct scheduled evaluations of the combination of the three programmes**
    6. Explore the existing or potential relationship between the three programmes from the companies' utility's point of view and identify changes to be made, if applicable.
    7. Set possible itineraries for the companies and communicate them.
    8. Evaluate the possibility of creating a technical committee to analyse the interaction between the programmes.



Working phases of Action 4

*Players involved (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)*

- The Directorate of Technology and Strategy. As a partner and programme owner of Hazitek will play a major role helping Innobasque coordinating this action.
- The Directorate of Industrial Development. It is the programme owner and manager of Gauzatu Industria. This programme's monitoring and evaluation system is expected to be changed and it will work on it.
- SPRI, the Business Development Agency. It is the programme manager of Hazitek and Basque Industry 4.0. Their programme monitoring and evaluation system is expected to be changed and they will work on it.
- Innobasque. It will coordinate the action and will conduct most of the technical analysis.
- Orkestra. Orkestra will advise the players and ensure an optimum knowledge transference.

#### *Timeframe*

All the defined actions are expected to finish by the end of 2020.

#### *Costs (if relevant)*

Staff costs will be almost the only costs of these activities. We estimate the 10% of equivalent full-time of the Basque partners and the 5% of the programme managers of Basque Industry 4.0, Gauzatu Industria and Hazitek, the institutional stakeholders, both in 2019 and 2020. In addition, we expect a commitment of 1% of the political decision-makers of each directorate. Considering an average €40 per hour cost and a working calendar of 1,750 hours per year, we estimate a cost of €66,048 in two years.

#### *Funding sources (if relevant)*

The costs of the actions will be covered by the ordinary budgets of each of the organisations.

## Part V – Signature

Place and date: Vitoria-Gasteiz, 26 de junio de 2019

Signature:



**Ms. Estibaliz Hernández Laviña**

Deputy Minister of Technology, Innovation and Competitiveness  
Department of Economic Development and Infrastructure  
Basque Government

Stamp of the organisation: