



MANUMIX

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Evaluation management

Basque Country



28th of November 2018

- I. How is structured the evaluation management
 - RIS3 strategy for Advanced Manufacturing
 - Current programmes
- II. Which changes could be done in order to effectively manage policy-mix evaluation?

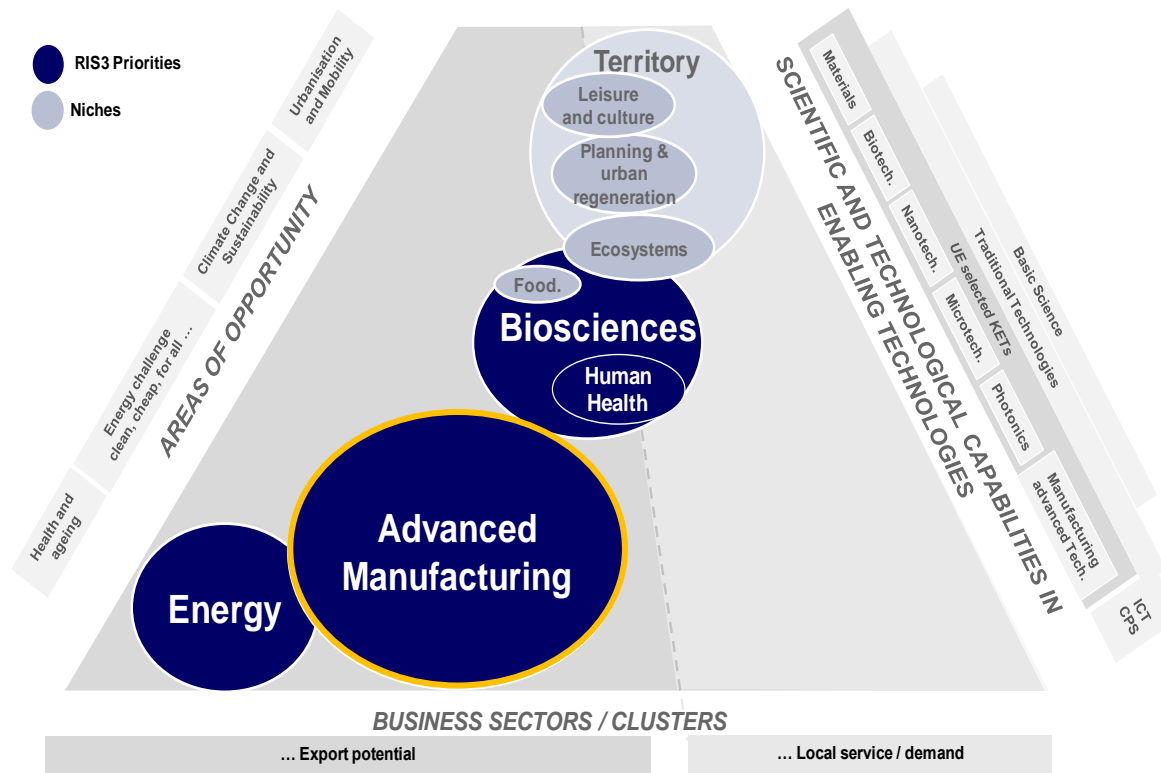
I. How evaluation management is structured

RIS3 strategy for Advanced Manufacturing

How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

Advanced Manufacturing is one of the 3 RIS3 priorities along with Energy and Biosciences-Human health.

In addition, there are 4 niches that might have the potential of growing in the future.



The selection criteria of the RIS3 priorities were the competitiveness level of the Basque business sector within the priority and the scientific and technological capabilities present in the region

How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

Advanced Manufacturing Strategy – Basque Industry 4.0 is the strategy of advanced manufacturing.

Each RIS3 priority area has its own strategy.

Mission

Strengthen the position of the Basque Country as an economy based on industry due to knowledge and technology intensive manufacturing

Strategic objectives



How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

The monitoring system of the Advanced Manufacturing Strategy is still under development.

The Business Development Agency (SPRI) monitors the strategy.

4- Result indicators

1. ADDED VALUE

- Number of new products, processes or services in the market (commercialisation)
- Incomes/savings from new products and processes
- New companies/business units created

5- Impact indicators

- **Industrial GVA (%)**
- **Gross fixed capital formation (%)**
- **Industrial exports (%)**
- **Industrial employment (%)**

3- Activity indicators

4. SCALING UP

- Number of projects in high TRLs
- Number of testing and validation infrastructures ongoing (Advanced Manufacturing Centres/Network of assets)
- Number of participating companies
- Number of patents of new products and processes
- Number of advanced services tested

2. INTEGRATION OF KETS

- Number of RDI projects
- Number of researchers in each KET
- Number of scientific publications

3. GLOBAL VALUE CHAINS

- Number of multithematic RDI projects or collaborative customer-suppliers RDI projects
- Number of companies involved in these kind of RDI projects
- Number of other transference projects

5. TALENT

- Number of new PhDs
- Number of new training networks
- Number of graduates in vocational training
- Number of students trained in learning factories
- Number of students in lifelong learning courses

BOOSTING KNOWLEDGE GENERATION AND TECHNOLOGICAL AND NON-TECHNOLOGICAL DEVELOPMENT

BOOSTING THE GENERATION OF TALENT

2- Direct indicators (process)

PARTICIPATION AND COLLABORATION

- Number of ongoing working groups
- Number of participants in those working groups per topic (technologies, training, business models, etc.)
- Number of companies and cluster organisations involved in those working groups
- Number of strategic initiatives identified
- Number of cross-thematic initiatives identified

R&D EXPENDITURE ON ADVANCED MANUFACTURING (%)

1- Input indicators

How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

The Basque Science, Technology and Innovation Plan (STIP) 2020 is the umbrella of the Smart Specialisation Strategy and it has a multilevel monitoring and evaluation system.

Innobasque conducts almost all of these monitoring and evaluation activities and prof. Kevin Morgan from Cardiff University conducted an analysis of the plan as an external advisor.



1. Strategy's monitoring and follow-up (STIP)

How do objectives evolve?

2. Evaluation of RDI programmes' contribution to the strategy
3. Evaluation of science, technology and innovation organisations

How do they contribute to objectives?

4. Comparative assessment of the Basque Country

Are the objectives still suitable?

5. An ex-post evaluation after 2020

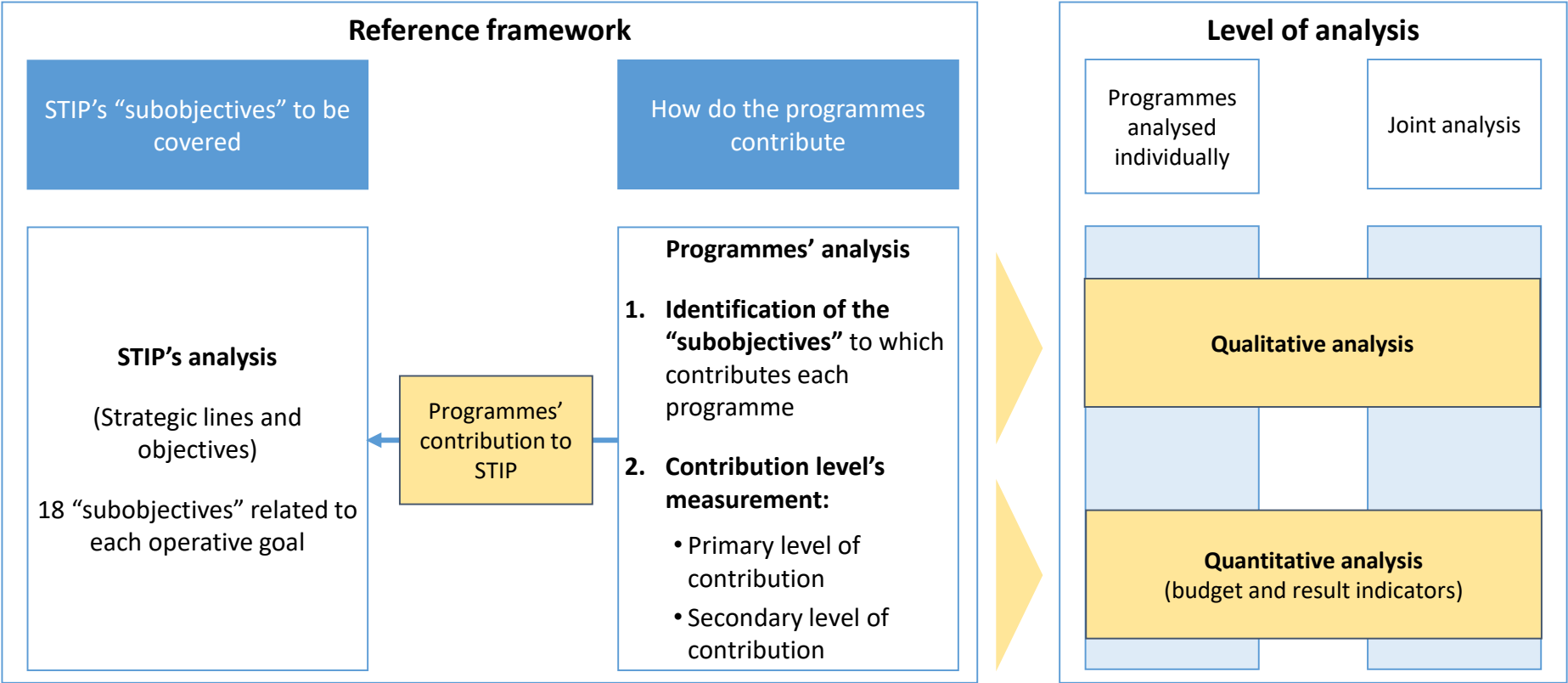
Which was the effect and what can be learned to improve the following plan?

http://www.euskadi.eus/contenidos/informacion/pcti_euskadi_2020/es_def/adjuntos/pcti_libro_en.pdf

<https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/policy-document/science-technology-and-innovation-plan-pcti-euskadi-2020>

How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

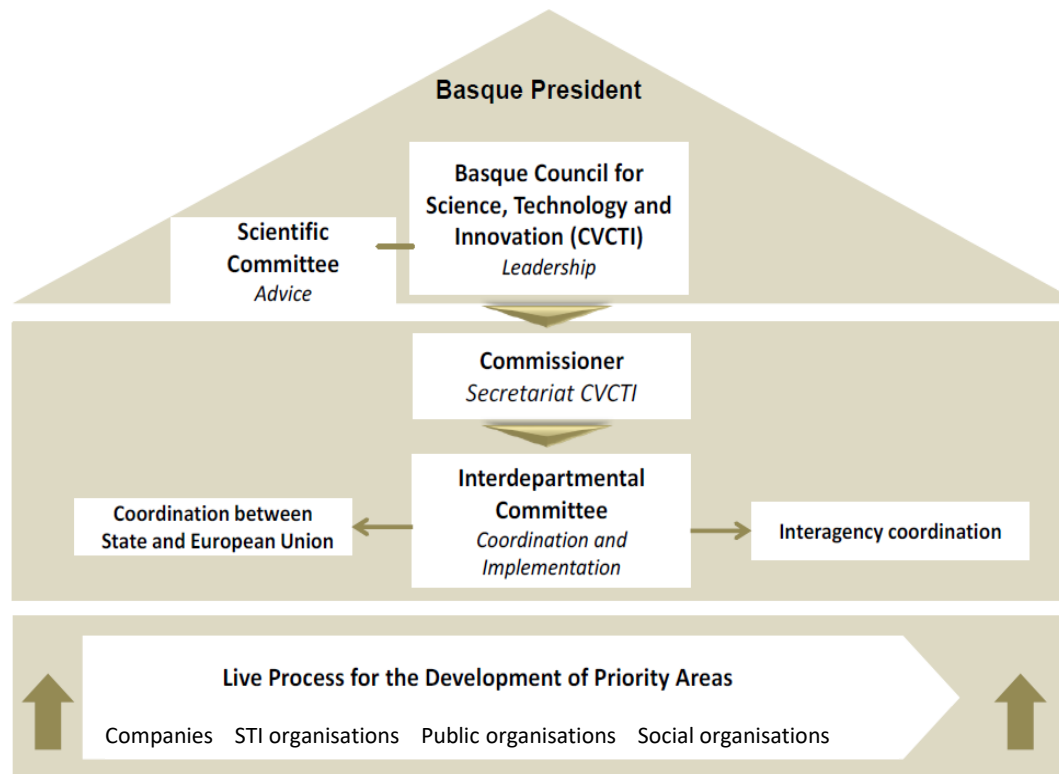
Within this evaluation system, there has been a pilot action to evaluate the contribution of RDI programmes included in the STIP to its strategic objectives following qualitative and quantitative approach.



How evaluation management is structured: RIS3 strategy for Advanced Manufacturing

The results of these evaluations are shared once a year in the Interdepartmental Committee of the Basque Government and the Basque Council for Science, Technology and Innovation that lead and coordinate the STIP.

In addition, there is a continuous flow of monitoring and evaluation information shared with the commissioner and the RDI related ministries.



These results led to changes in the innovation policies

I. How evaluation management is structured

Current programmes

How evaluation management is structured: Current programmes

There is a wide range of subsidy programmes and other instruments related to advanced manufacturing, although many of them are open to other priorities as well.

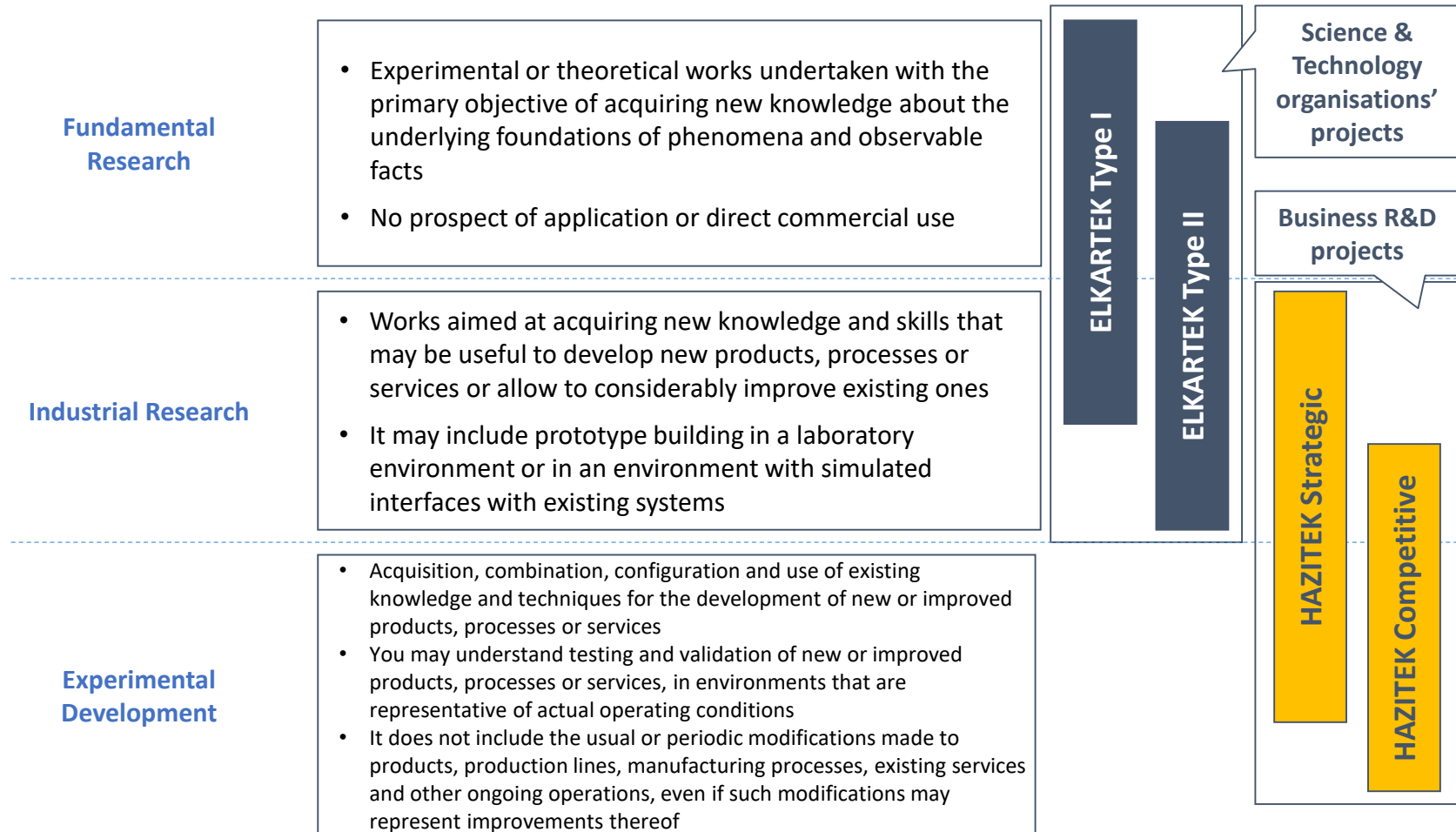
Hazitek, Basque Industry 4.0 and Gauzatu Industria are the target of MANUMIX.

List of subsidy programmes, services and other instruments of the Department of Economic Development and Infrastructure related to advanced manufacturing

R&D subsidy programmes	1. TECHNOLOGY & INNOVATION Hazitek Elkartek Emaitek + Reports on Qualification for Fiscal Purposes Financial Support (New)	2. ENTREPRENEURSHIP Ekintzaile Basque Venture Capital Fund Bind 4.0	4. INTERNATIONALISATION Internationalisation Services
	5. BASQUE COUNTRY VENTURE CAPITAL CORPORATION	3. FUNDING FOR INDUSTRIAL INVESTMENTS Gauzatu Industria (Industry) Gauzatu Implantaciones Exteriores (Foreign Roll-outs) Renove Maquinaria (Machinery renovation)	6. INFRASTRUCTURE
Digital Agenda	Industria Digitala Basque Industry 4.0 Mikroenpresa Digitala		
	Innobideak Lehiabide Innobideak Kudeabide Innobideak Pertsonak Innobideak Prestakuntza		

How evaluation management is structured: Current programmes

Advanced manufacturing-related R&D subsidy programmes cover from fundamental research to experimental development and have a different scope depending on who conducts the project (i.e. companies or Science & Technology organisations).



How evaluation management is structured: Current programmes

Example. Elkartek: science and technology organisations' fundamental and industrial research

PURPOSE	Support for the completion of Fundamental Collaborative Research Projects, and High-Potential Industrial Research Projects carried out by Basque Science, Technology and Innovation Network's (RVCTI) organisations in the fields of Science, Technology and Innovation Plan (STIP) 2020.
INTENDED FOR	Basque Science, Technology and Innovation Network's (RVCTI) organisations.
GRANT DESCRIPTION	<p>Fundamental Collaborative Research Projects. Fundamental research projects completed through collaboration by RVCTI organisations to broaden knowledge in the priority fields of the PCTI. Total minimum budget: €500,000 per project and €50,000 per participating entity. Duration of up to 2 years.</p> <p>High-Potential Industrial Research Projects. Focused fundamental research projects or industrial research projects led by the Business R&D Units of the RVCTI, with high driving power and access to the market. Total minimum budget of €100,000 per project and €50,000 per participating entity. Duration of up to 2 years.</p> <p>Complementary actions of special interest. Mediation projects between technological supply and demand developed by supply-demand Mediation Entities and Dissemination Entities to draft prospecting and technology monitoring studies, actions to promote cooperation, R&D and innovation management activities for technology transfer or the promotion of participation in R&D and innovation internationalisation activities. Duration of up to 2 years.</p>
REQUIREMENTS	In order to ensure the grants' effects as an incentive, only projects which are begun after the date when the grant application is submitted may become grant recipients. Electronic processing with a digital certificate from the entity's legal representative.

How evaluation management is structured: Current programmes

Example. Hazitek: business industrial research and experimental development

Objective	Support industrial research (TRL3) and experimental development (TRL6) projects, of either a competitive or strategic nature in the fields of the Basque Science, Technology and Innovation Plan (STIP) 2020	Instrument	Subsidies
		Beneficiaries	Companies <i>Bigs & SMEs</i> RVCTI (start-ups)
Sectors	Priorities of the STIP 2020 <i>In strategic projects the 80% of the budget is for RIS3 priorities</i>	Year of launch	2016
		Annual budget	82.8M€ (2017)

Description

A. Competitive projects (annual projects).

- Development of new products or new companies based on science and technology.
- Individual projects or in collaboration.
- Total minimum annual budget of €100,000; in the case of collaborative projects, €50,000 per company.
- Subsidy: up to the 25% of eligible costs. 30% in transnational collaborative projects (e.g. Manunet).
- Maximum amount of non-refundable subsidy: €250,000 per beneficiary each year.

B. Strategic projects (muti-annual projects, up to a maximum of 3 years).

- Strategic R&D projects in the priorities of the Basque Science, Technology and Innovation Plan 2020.
- Strategic projects, developed under collaboration or one-off projects. Minimum budget of €4M.
- Subsidy: up to 40% of eligible costs for industrial research projects.
- Subsidy: up to 25% of eligible costs for experimental development projects.

How evaluation management is structured: Current programmes

Example. Basque Industry 4.0 programme: Technology transference of electronics and ICT related to Advanced Manufacturing

Purpose	Support of Industrial Research and Experimental Development projects with demonstrative effect that involve technology transfer of electronics and ICT related to AM from technology suppliers to companies (TRL5-TRL9)	Instrument	Subsidies
		Beneficiaries	Manufacturing companies
Sectors	Advanced Manufacturing	Year of launch	2015
		Annual budget	€2.2M (2017)

Description

- Technologies supported (CPS):
 - Cybersecurity and industrial communications.
 - Cloud Computing.
 - Big Data.
 - Advanced Analytics and Business Intelligence.
 - Collaborative robotics.
 - Augmented reality.
 - Artificial vision.
 - Sensor systems.
 - Design & additive manufacturing in metallic and advanced materials (ceramics, composites, etc.).
- Subsidy figures: up to the 25% of the eligible expenses and investments approved +15% when the project involves effective collaboration between a company and one or more research and knowledge dissemination entities, up to a limit of €200,000 per company.
- Minimum budget of the projects: €75,000.

How evaluation management is structured: Current programmes

Example. Gauzatu Industria: Technological upgrading for industrial SMEs

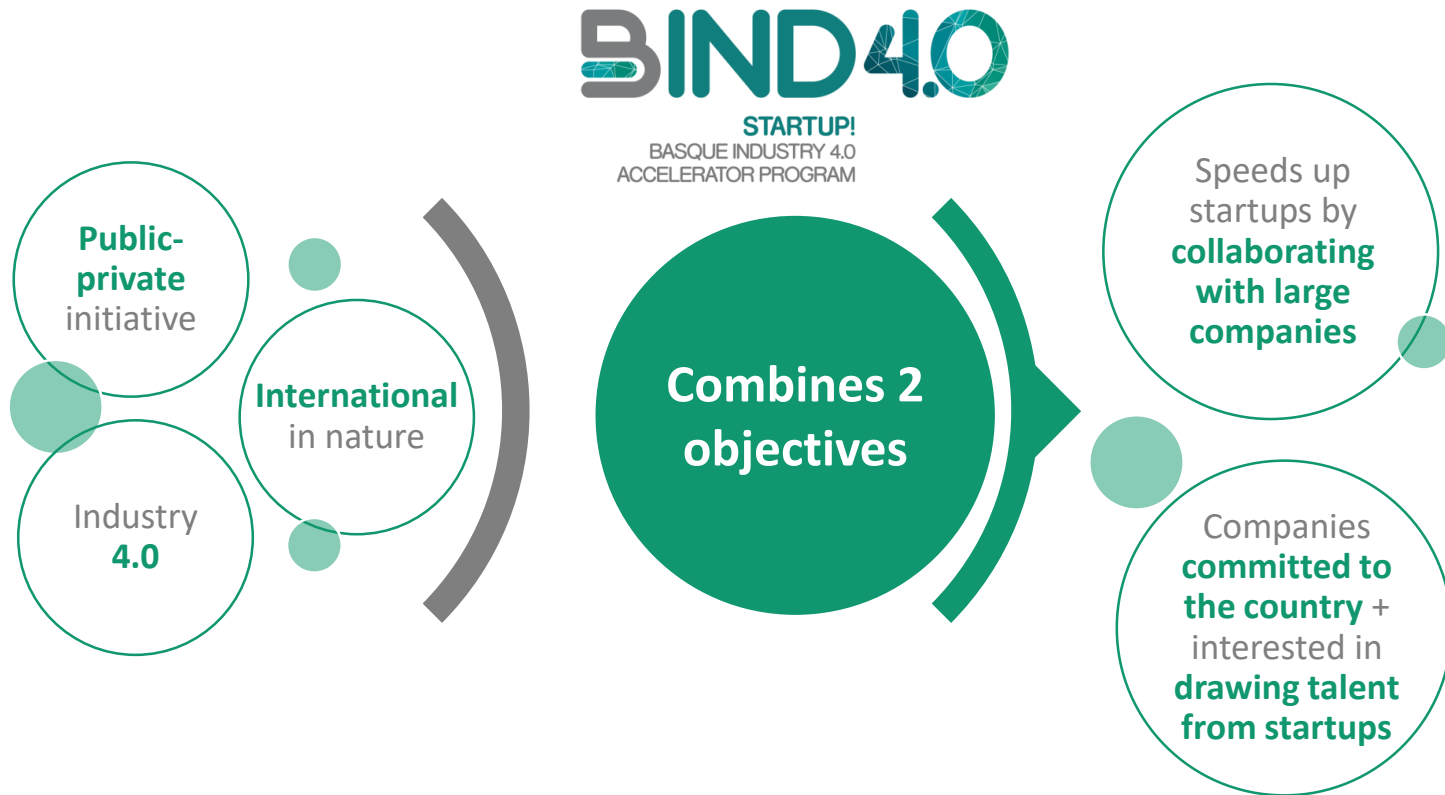
Purpose	Creation and development of industrial SMEs based on technology and/or innovation.	Instrument	Loans
		Beneficiaries	Industrial SMEs or related services
Sectors	Industry and related services	Year of launch	2000
		Annual budget	€28.0M (2017)

Description

- Support for new investments:
 - Industrial Property.
 - Software.
 - Terrains and natural assets.
 - Buildings.
 - Technical installations.
 - Machinery and tools.
 - Hardware for information processing.
- 24 MONTHS + GRACE PERIOD + 5 REPAYMENT
- Minimum project investment: €120,000
- Recoverable advances that may amount to 25%-35% of the investment supported, depending on firm size and its nature of innovative or technological.
- Maximum advance of €1.5M.
- Maximum of €150,000 per job created and a maximum of €100,000 in the case of saving jobs.

How evaluation management is structured: Current programmes

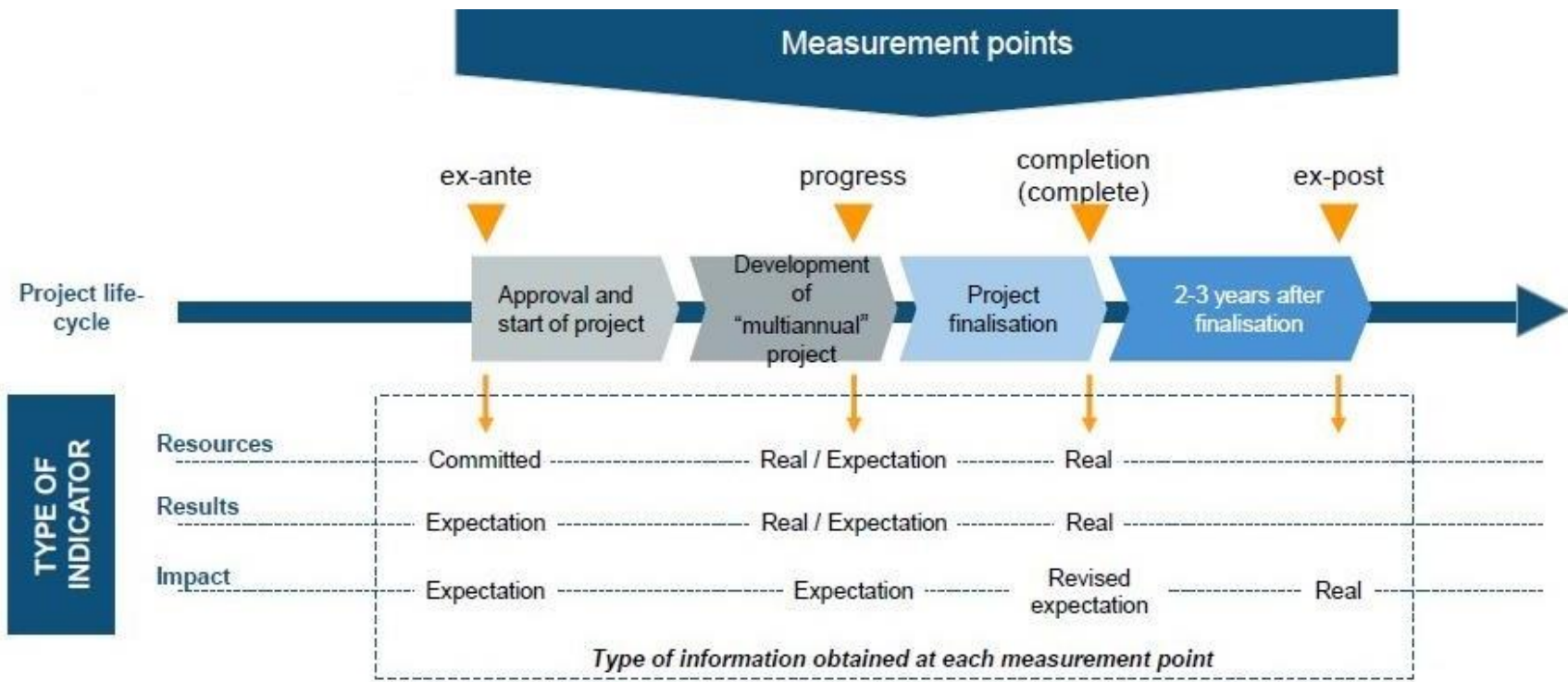
Example. BIND 4.0: Access to the first quality client for industry 4.0 start-ups



How evaluation management is structured: Current programmes

Currently, each programme has its own monitoring and evaluation system and only business-oriented R&D programmes (Hazitek and Elkartek) are monitored and evaluated in a combined way thanks to SIME (reported good practice).

Each Basque Government's departments and the Business Development Agency (SPRI) are the responsible to monitor and evaluate the programmes.



How evaluation management is structured: Current programmes

It happens the same in the case of formal decision-making process: there is no formal-decision-making process for the combination of programmes and the combination is not a major issue in each programme's process.

Hazitek	Basque Industry 4.0	Gauzatu
<ol style="list-style-type: none"> 1. The Business Development Agency makes the evaluation and writes a report with the analysis and the conclusions. 2. This report is discussed within a working group constituted by the Technology & Strategy unit of the Basque Government (programme owner), the Business Development Agency (programme manager) and Innobasque, the Innovation Agency. 3. This working group sends its proposals of changes, if there is any, to the minister of Economic Development & Infrastructure who makes the changes. 	<ol style="list-style-type: none"> 1. The technicians of Entrepreneurship, Innovation & Information Society unit of the Basque Government (programme owner) and the Business Development Agency (programme manager) make proposals of changes to the managers. 2. These proposals are checked by the RTOs. 3. The director of the Entrepreneurship, Innovation & Information Society unit of the Basque Government makes changes in the programme's regulation and sends it to the general manager of the Business Development Agency in order to implement it. 	<ol style="list-style-type: none"> 1. A committee of experts evaluates the quality and the innovative character of the projects every year. 2. The conclusions of these evaluations are checked, if needed, by the Industrial Development unit of the Basque Government (programme owner) with the support of the Strategy, Technology & Innovation unit of the Business Development Agency (programme manager) and makes proposals of changes. 3. The proposals are sent to the deputy minister of Industry who, along with the minister of Economic Development & Infrastructure, make the changes.

II. Which changes could be done in order to effectively manage policy-mix evaluation?

II. Which changes could be done in order to effectively manage policy-mix evaluation?

Currently, there is a monitoring and evaluation system at strategic level as well as at each programme level, but there is no system that takes into account the combination of programmes nor its contribution to the strategy.

Nevertheless, there are some experiences of combined monitoring and evaluation such as SIME and the study of the contribution of programmes to the STIP.

Strategic level STIP 2020

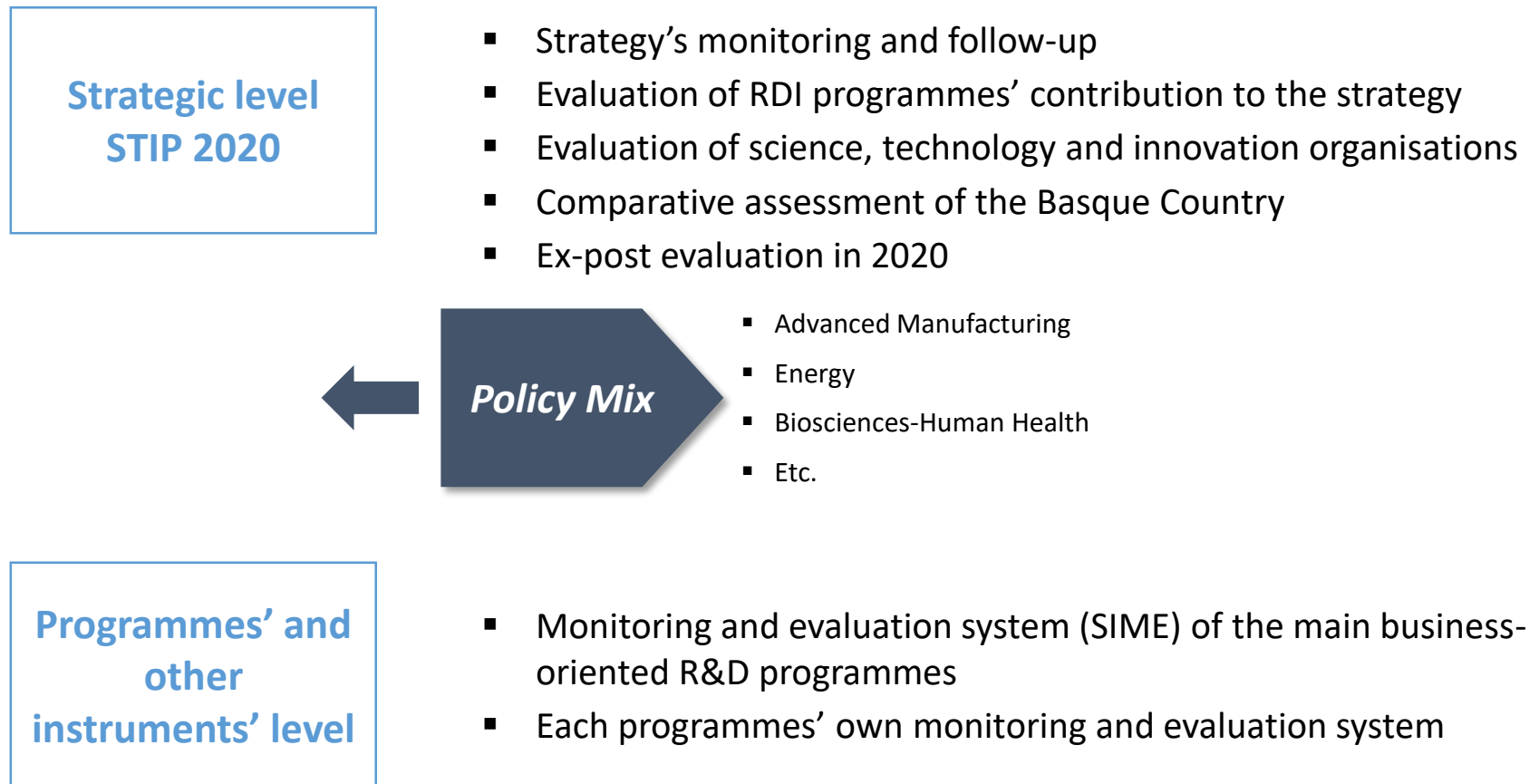
- Strategy's monitoring and follow-up
- Evaluation of RDI programmes' contribution to the strategy
- Evaluation of science, technology and innovation organisations
- Comparative assessment of the Basque Country
- Ex-post evaluation in 2020

Programmes' and other instruments' level

- Monitoring and evaluation system (SIME) of the main business-oriented R&D programmes
- Each programmes' own monitoring and evaluation system

II. Which changes could be done in order to effectively manage policy-mix evaluation?

Due to the smart specialisation, there is a new evaluation layer that makes even more necessary the monitoring and evaluation at policy mix level in order to measure how the combination of different instruments and programmes affects each priority



II. Which changes could be done in order to effectively manage policy-mix evaluation?

How are we going to do it?

The answer is in our action plan

It will be a pilot action that might be expanded to include other programmes and instruments and other priorities



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