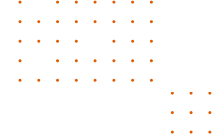




R&D&I Policy

M05.5.4 v5 June 2021

General Management



TECNALIA's R&D&I policy.

1. Coherence with the mission.

TECNALIA is a private foundation, recognised by the Ministry of Science, Innovation and Universities of the Spanish Government and the Department of Economic Development and Infrastructures of the Basque Government as a Technology and Technological Innovation Support Centre.

TECNALIA's mission is to "transform technological research into prosperity", i.e. to transform technology into economic development and prosperity to improve people's quality of life, developing activities that respect the environment, contributing to sustainable development objectives and creating business opportunities for companies. True to this mission, TECNALIA promotes and prioritises its own R&D&I and that of its clients in the target Transversal Areas of Action (ATAs), with innovation as a differential factor of competitiveness.

2. Alignment with the R&D&I strategy, focused on the ATAs.

The TECNALIA 2024 strategy establishes the Transversal Action Areas (ATAs) on which R&D&I will be prioritised: Advanced Manufacturing, Urban Ecosystem, Energy Transition, Sustainable Mobility, Health and Digital Transformation. (See Figure 1).

R&D&I in the ATAs will be carried out, in accordance with the guidelines of the Basque Government for Technology Centres, with an appropriate mix of fundamental research, industrial and experimental development activities (in their approximation: 10%, 60% and 30% respectively), so that knowledge and technological assets can be developed with the collaboration of other agents in open innovation mode and in coherence with our mission. These technologies will be raised to higher levels of technological development (Technology Readiness Levels or TRLs) using experimental and semi-industrial prototypes that help reduce technological and market risk for better transfer to customers.

3. Aligned with the RIS3 strategy of research and innovation for smart specialisation.

Practically all R&D&I (over 90%) will be carried out in the strategic areas of smart specialisation RIS3 Euskadi related to: advanced manufacturing, energy and biosciences / health, as well as the 4 territories of opportunity defined in the RIS3 Euskadi (food, urban habitat, ecosystems and cultural and creative industries). The objectives set for R&D&I will be directly related to the scorecard for Multi-focused Technology Centres of the Emaitek plus Programme of the Department of Economic Development and Infrastructures of the Basque Government.

These R&D&I objectives refer to the generation of knowledge and technologies with sufficient novelty and inventive activity to be translated into patent applications and capture of value through their exploitation or transfer, doctoral theses, scientific publications of impact, creation of companies, employment and wealth through them,



transfer of R&D&I results to companies, training of researchers and their transfer to the productive sector, contracting of international cooperative projects of the European Commission. All this in collaboration with other agents of the RVCTI (Basque Science, Technology and Innovation Network) and companies.

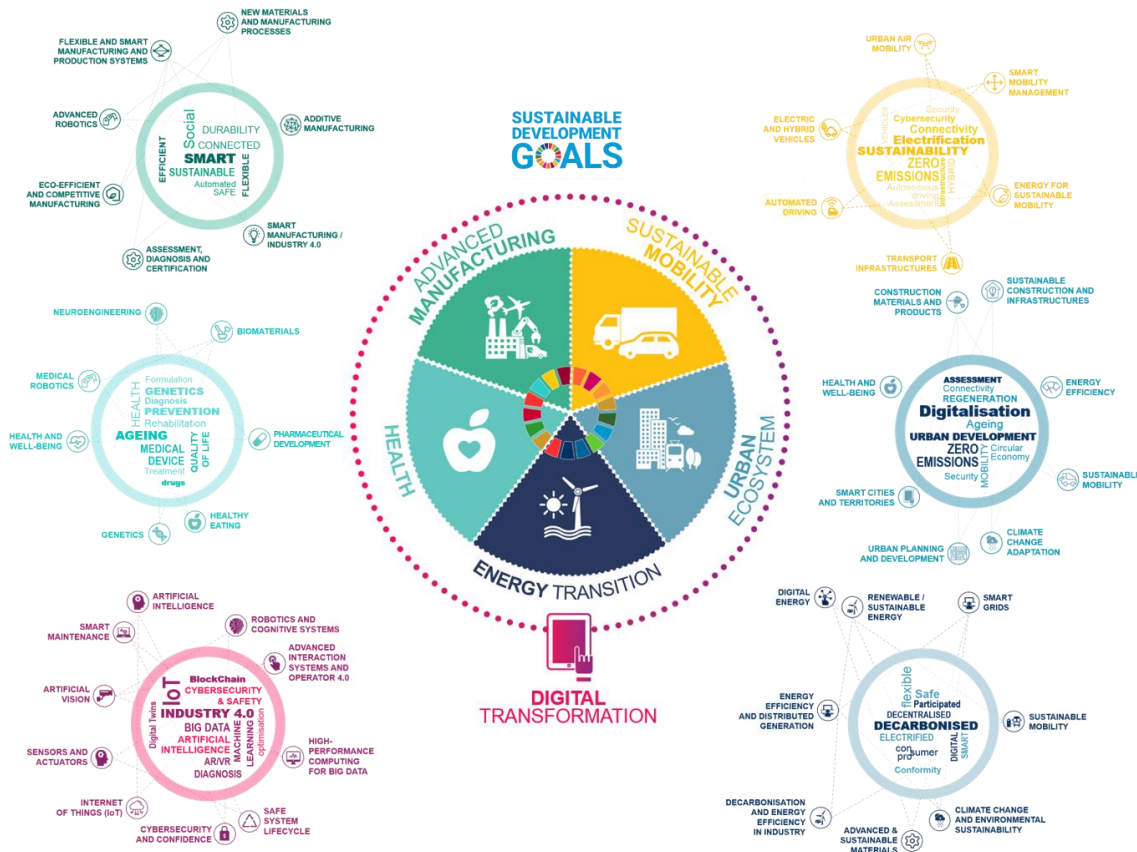


Figure 1. The 6 Transversal Fields of Action on which TECNALIA's R&D&I will be carried out, associated with: the urban ecosystem, energy transition, advanced manufacturing, sustainable mobility and health, all in a world undergoing a profound digital transformation.

4. Open Innovation and Partnerships.

All innovative organizations have turned to open innovation as a means to improve their innovation capacity, in the face of a greater acceleration of technological change and market competitiveness at a global level. Today few companies and technology centres rely solely on internal R&D&I capacity to develop innovations and accelerate their innovation processes through collaboration.

TECNALIA, among other reasons, adopts open innovation as a means of:

- Shortening time to market for your innovations
- Finding and accessing new technologies
- Access to additional talent and competencies, including intellectual property.
- Access to new innovation opportunities and ideas for their realization.

- reduce development costs and risks
- Access channels to new markets

The decision to develop R&D&I in an open innovation model will depend on factors such as: the criticality of the technology to be developed, the control over the IP developed, the risk involved in its development, the internal capacity for technological absorption, the existence of suitable alliances, etc... Open innovation can occur at any stage of the R&D&I process: from the identification of an opportunity, the development of R&D&I projects or during the search for ways to exploit IP assets.

In order to facilitate the establishment of strategic innovation alliances, the standard UNE-EN ISO 56003:2021 - Innovation management. Tools and methods for innovation alliance. Guidance (ISO 56003:2019).

5. Organised to maximise the creation, capture and transfer of value.

To enable greater efficiency in the creation, capture and transfer of value from R&D&I carried out with public funds, TECNALIA has an R&D&I Management Unit and TECNALIA Ventures. The aim of TECNALIA Ventures is to be a catalyst and accelerator of the creation of value associated with the technological assets developed in TECNALIA, in order to maximise returns through the process of transfer and creation of technology-based companies.

TECNALIA's R&D&I Management Unit is made up of a Corporate Technological Directorate, which reports to the Technological Directorates in each of TECNALIA's Operating **Units**. This Technological Directorate will ensure that the activities necessary for the R&D&I management system are established, implemented and maintained, will report to Management on the performance of the R&D&I management system and any need for improvement detected, and will promote awareness of innovation activities at all levels. Additionally, it will ensure the specialisation of key transversal technologies (KETs) or sectorial technologies (TEs) and prioritisation of its lines of research in response to the transversal areas of opportunity (ATAs) defined in TECNALIA's strategy; it will promote relevant technological excellence, and will help to efficiently manage the investment of its own R&D&I funds and the portfolio of R&D&I projects, by means of the technological platforms, which will give rise to valorisable technological knowledge and industrial property technological assets.

6. Supported by a team of people with a solid organizational culture and scientific-technological excellence.

- An Organizational Culture based on ATTITUDES with a clear vision of permanence, and already consolidated; Dare; Always Create Something New; Be Free, Be Responsible; Be Consistent; Put yourself in the Customer's shoes. with a LEADERSHIP MODEL deployed that has defined the behaviours that TECNALIA needs from its Leaders.
- With tools to help you meet the professional and personal goals of your entire team of people.

- And with participation and internal communication as the main means for its consolidation.

7. R&D&I policy that respects ethical and sustainability principles.

All TECNALIA's R&D&I will be carried out in accordance with applicable national, EU and international legislation, respecting ethical principles and responsible research (RCR).

TECNALIA will develop its R&D&I activities in accordance with its mission and with the aim of achieving the greatest possible impact with useful and tangible solutions, with not only economic benefits for companies, but also with positive effects for society and the environment. R&D&I activities should therefore contribute to the reference goals of the Basque Government's 2030 Agenda for Sustainable Development (SDO).

8. According to UNE 166002 and ISO 56002 standards.

TECNALIA will develop R&D&I activities within an R&D&I Management System in accordance with the UNE 166002 and ISO 56002 standards, based on the R&D&I Policy established by the General Management, and presented here, with a commitment to comply with the relevant applicable requirements and review the achievement of objectives, establishing improvement plans where necessary. All this according to a "Plan - Do - Check - Act" cycle for the continuous improvement of the R&D&I management system.

9. R&D&I policy that takes into account the principles of innovation management.

TECNALIA's R&D&I Policy takes into account and is based on the 8 principles of innovation management, in accordance with the ISO 56000 standard (2020):

1. Generation and capture of value, both economic and non-economic, with an impact on our customers and stakeholders.
2. With the existence of leaders at all levels in the organization, focused on the future.
3. With a strategic direction of innovation activities.
4. With a strong culture of innovation.
5. Leveraging knowledge, from internal and external sources, to build innovative ideas in response to identified opportunities.
6. With appropriate management of uncertainties and risks.
7. Constantly adapting to maximize innovation capabilities.
8. With a focus on systems with interrelated and interacting elements for innovation management, evaluation and continuous improvement.

10. Policy Framework, Communication and Review

The R&D&I Policy is a reference and framework for specific policies that are documented for other processes and activities of the R&D&I Management System:

- Surveillance and Strategic Intelligence Policy
- Knowledge Management Policy
- Publications Policy
- Industrial Property Policy
- R&D&I Results Exploitation Policy

This R&D&I Policy is communicated, disseminated within TECNALIA and made available to all interested parties. The Policy is reviewed annually for continuous adaptation by TECNALIA's General Management.

Signed:

Mr. D. Jesús VALERO

General Manager of TECNALIA



Change control

Date	Version.	Pags./Apdos modified	Modifications
June 2016	0		Initial version
March 2017	1		Including continuous improvement and stakeholders in the principles underpinning the policy
March 2020	2		Including areas of action, reference to ISO 56002 standard
February 2021	3	Entire document	The document in its entirety, including as fundamental changes the new mission of Tecnalia, the focus on R&D&I through the ATAs, and the guide on the 8 principles of innovation management.
May 2021	4	Point 7	A paragraph is added which includes the respect of R&D&I activities for the principles of ethics, responsibility in research and contribution to sustainable development objectives.
June 2021	5	Current point 6 Point 10	A paragraph is added to further develop the principle of R&D&I Culture.

