

Leading industrial transition

An Interreg Europe Policy Learning Platform event

6 – 7 November 2024

Bilbao, Spain

www.interregeurope.eu/event/Leading-industrial-transition



Summary: Interreg Europe community members gathered in Bilbao to exchange their experiences on industrial transition processes at regional level towards a more digital, green and resilient economy. The event included working sessions on **research valorisation**, **regional transformation processes**, **supporting the transformation of specific sectors** and **promoting the emergence and growth of new businesses in future-oriented sectors**. On each of these themes, good practices were presented to illustrate relevant approaches and workshop participants shared their own local challenges and experiences. The participants shared key recommendations stemming from the exchanges and learnings they benefited from.

Contents

Contents.....2

Why Bilbao? 2

1.Policies for the industrial transition..... 3

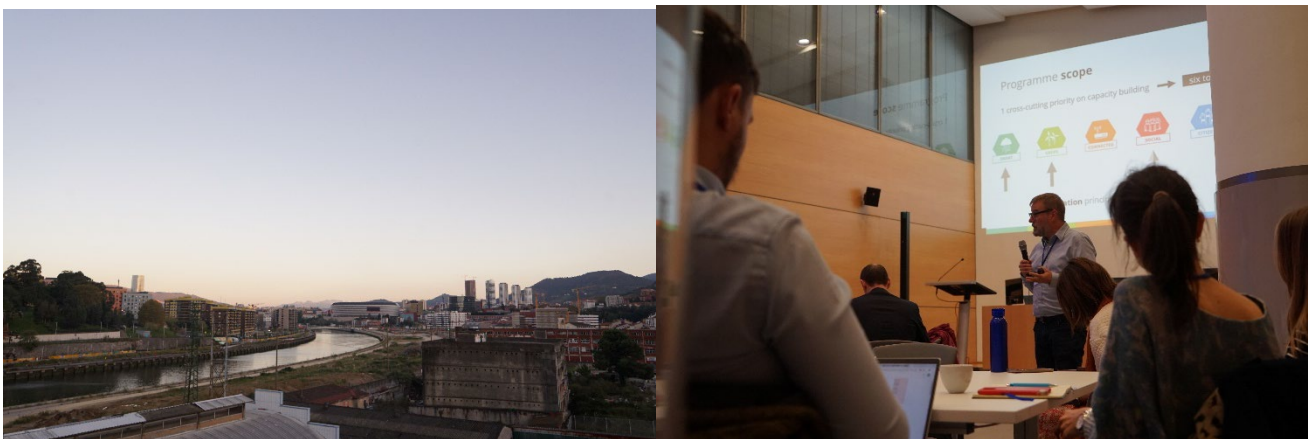
2. Research valorisation..... 6

Why Bilbao?

Since the Green Deal Industrial Plan, set off by the European Commission in 2020, policies and programmes at national, regional and local level have been deployed to respond to the need of a deep industrial transformation in all territories of the European Union. In the European context, industrial transformation is connected to highly knowledge-based economies and is linked to the development and successful uptake of innovative digital and green technologies. It therefore requires an efficient valorisation of research.

The event, organized over two days, looked into the tight connection between transition and research valorisation: Bilbao offers a unique space to investigate good examples of local policies steering the industrial transition, with a strong innovation ecosystem where academia and industry have established successful cooperation.

The Interreg Europe community met in Bilbao to be inspired by the examples of the success stories of this city, while reflecting on the role of local authorities towards the design of better policies for the industrial transition.



1. Policies for the industrial transition

The rapid evolution of industrial landscapes across Europe demands a comprehensive approach to ensure a seamless transition towards a more digital, green, and resilient economy. Key drivers of the industrial transformation are:

- **Digitalization:** The rise of digital technologies offers unprecedented opportunities to enhance industrial productivity and innovation. By leveraging AI, IoT, and big data, industries can improve efficiency, reduce costs, and open up new avenues for growth.
- **Green Transition:** Sustainability is at the core of the European Green Deal, aiming to make Europe the first climate-neutral continent by 2050. Industries must adapt to stricter environmental standards and embrace circular economy principles to thrive in this green future.
- **Resilience and Sustainability:** The recent disruptions, such as the COVID-19 pandemic and geopolitical tensions, have highlighted the need for resilient and adaptable industrial sectors. Strengthening supply chains and fostering community resilience are essential to withstand future shocks.

The European Green Deal, the Digital Strategy and the Recovery and Resilience Facility emphasize the importance of digital transformation, environmental sustainability, and economic resilience, making it imperative for policymakers to understand and integrate these principles into regional and national strategies.

Supporting the transformation of specific sectors – Key learnings

Policies and regulations are triggering the change - Optional is not fast enough

While many companies are aware of the necessity of an industrial transformation, sectoral efforts are still happening rather slowly. Mostly, it is only the pressure of existing or announced regulations that triggers significant transformation efforts across economic sectors. If resistance to change is still strong, both in the society in general and in businesses, regulations can push businesses to address necessary transformation processes. Regulations also provide clarity on requirements and create a common field of competition for all businesses, thus making transformation initiatives less risky for single businesses. This is why the role of the public sector is crucial.

Beyond regulations, it is important that stakeholders agree on norms with clear progress **indicators**. Having clear indicators enables benchmarking and pushes businesses to stronger efforts generating competitive advantages. Ideally, **sustainability** (or circularity) **should become the norm** at industry level. Energy consumption remains a key factor in the sustainability equation of economic activities. Promoting the use of alternative/renewable energy sources is necessary to make progress across sectors. The participants highlighted the potential role of hydrogen in industrial applications.

Collaboration is needed across private and public organisations

Industrial transformation processes are complex processes, which require joint efforts from policy makers, businesses and their representative organizations, higher education and research, workforce and consumers. Especially strong collaboration between public (policy, academia) and private (businesses) organizations are needed to trigger significant changes at the level of entire economic sectors.

Act with speed in a highly competitive world

Competition is harsh on the global level. Industrial transformation processes are happening fast in different sectors, especially but not only with respect to the digital transformation. Not taking action might lead to losses in competitiveness and a brain drain of skilled workers towards stronger regions. Such processes are difficult to revert. Many traditional industrial regions are experiencing **brain-drain phenomena and lack skilled workers** able to drive industrial transformation processes. This can lead to a negative spiral and accelerate the gaps between those regions and the most developed ones. New models to balance those inequalities are needed.

People and mindset are key

Industrial transformation processes cannot be successfully performed without the adhesion of the people concerned, in policy, businesses and society

in general. It is essential to convince as many people as possible and maintain a mindset open to the needs and challenges of industrial transformation processes. However, in many regions, there is still a **low awareness level** among policy makers for the necessity of an industrial transformation. And even when such processes are addressed, their coordination across departments is not always ensured, thus reducing the efficiency and visibility of the efforts made.

Use funding programmes to foster the transformation

Existing funding programmes could be used in a targeted way to foster industrial transformation, for instance by including respective criteria in the eligibility conditions

Promising sectors

Among the most promising sectors in terms of strong opportunities for the emergence of new value chains, the participants identified the following ones: **digital technologies in healthcare solutions for the**

elderlies, quantum computing, hydrogen as an energy carrier, tourism, agrifood / food, in particular the development of new proteins, **drones and their diverse application fields, ecological fuels in aerospace**.

From research to market

Bringing new ideas to the market remains difficult. More initiatives helping promising research results to find their way into new products and services are needed. Field labs as the ones in aerospace ecosystem in the Netherlands (see presentations) are one of those. Innovation procurement is also an interesting approach (see section 2 of the present document).

Increase entrepreneurial activities and develop strong entrepreneurial ecosystems

Support to entrepreneurial activities such as business incubators and accelerators are needed to channel regional support for new businesses. All relevant stakeholders need to be involved and coordinated.

During our visit to **Mondragon University at BBF Bilbao**, we explored its unique model that combines education, research, and entrepreneurship, fostering collaboration and innovation within a dynamic ecosystem.



The workshop concept and overall moderation were ensured by **Luc Schmerber** and **Rene Tönnisson**, Policy Learning Platform thematic experts.

Good practices

Industrial transformation of the Basque Country

(Amaia Martinez, Basque economic development agency SPRI)

With a strong focus on R&D&I, the Basque Government has implemented a comprehensive Industrial Policy since 1981, positioning the region as a leader in industrial transformation. The Basque Country stands out as a high-innovation region, excelling in various key areas that drive its economic and social progress. The presentation outlines a structured approach to governance, including the launch and development of pilot projects, evaluation of value chains, and prioritization of technological solutions to reduce CO2 emissions.

From Dark to Grey to Green - A story on how the region of Duisburg and Ruhr transformed from a coal mining region to a sustainable economy (Accelerate GDT project, presenter: Anna Steinmeier)

The presentation outlines the city's evolution from an industrial hub to a leader in sustainable innovation. Today, Duisburg is transforming through sustainable projects, positioning itself as a European hydrogen technology center and establishing initiatives like Hy.Region.Rhein.Ruhr, a network of over 50 members focused on hydrogen innovation. Projects like Circular Rhein.Ruhr and the upcoming DU.circular emphasize circular economy practices in metals, logistics, and construction.

Realign cluster policies to accelerate industrial transformation (Accelerate GDT project, presenter: John Hobbs, Emma Vendrell)

The presentation focused on the 'shared value' concept promoted by ACC'IO (Catalonia, Spain) to engage regional clusters in industrial transformation processes combining economic and social impact. The program's structured methodology includes training, research, and best practice exchanges, with special focus on social and environmental impact. This work impacts over 800 companies and involves collaboration with a range of stakeholders, including private companies, funding bodies, and public administration.

Sustainable Travel Finland (STF) (Tourbo project, presenter: Liisa Kokkarinen)

The STF programme in Finland provides a comprehensive toolkit and structured pathway for sustainable tourism development. Through its 7-step

development path and adherence to international standards, STF guides businesses towards sustainability and ensures ongoing commitment through regular review processes. The programme's focus on education and competence-building, facilitated by Visit Finland Academy and sustainability consultants, further enhances its value by empowering stakeholders with the necessary knowledge and skills to effectively implement sustainable measures. The programme also grants a sustainability label for tourism businesses and destination.

Policies for developing a knowledge-intensive economy in San Sebastian (NOTRE project, presenter: Xabier Hualde)

The presentation provides a comprehensive overview of the policies aimed at developing a knowledge-intensive economy in San Sebastian. The strategic lines for Fomento San Sebastian from 2023 to 2027 are outlined, focusing on promoting innovative projects, fostering municipal public innovation, and positioning the city as a hub for entrepreneurship and science. The means involve accelerating innovative projects, promoting technology transfer, and supporting the growth of new sectors such as AI and biotechnology. The presentation also details the EKIN program, which aims to support advanced innovation and entrepreneurship in San Sebastian.

Aerospace Innovation Hub Delft – Fostering the development of the regional aerospace ecosystem (MAE project, presenter: Jos van den Boom)

The presentation discusses efforts to foster a regional aerospace ecosystem in the Netherlands, with a focus on sustainability, digital transformation, and business growth. This ecosystem-building effort emphasizes co-creation spaces, known as field labs, where partners work together on practical innovation. Through shared infrastructure and collaborative projects, these field labs accelerate innovation by allowing knowledge institutes, corporations, SMEs, and startups to jointly develop and test solutions. Overall, the project aspires to create a resilient aerospace sector by leveraging regional collaboration, shared resources, and a focus on sustainable and digital advancements.

2. Research valorisation

Research valorisation is an essential component of thriving regional innovation ecosystems

The European Commission actively promotes [EU Valorisation Policy](#) as a critical component to maximise the social and economic impact of research and innovation. This involves leveraging research results to address societal challenges and drive green and digital transitions, particularly those funded publicly. Research valorisation is the process of creating social and economic value from knowledge by linking different sectors and transforming data, know-how, and research results into sustainable products, services, solutions, and knowledge-based policies that benefit society. It is also an essential aspect of technology transfer ([read our policy brief on research valorisation](#)).

Beyond competitiveness to benefit society

Valorisation refers to the process of translating and applying research outcomes or findings to create tangible benefits for society, industry, or the economy. It implies taking the knowledge, innovations, or technologies generated through research and turning them into practical and valuable solutions. Valorisation aims to bridge the gap between academic research and real-world applications, playing a pivotal role in overcoming the ‘valley of death,’ a critical stage in innovation where funding is often scarce for transitioning early-stage university research (TRL 1–3) to a functional prototype (TRL 4–7). **Collaboration with industry is instrumental in this process.**

Valorisation has two main components—the commercialisation of research results and entrepreneurship. Research valorisation is thus an essential element of technology transfer.

Leverage European initiatives to build capacities

The European Commission is supporting [EU Valorisation policy](#) through various initiatives. These include the [EU Guiding Principles for Knowledge Valorisation](#) which sets out a common line on policy principles and measures to improve research valorisation. Additionally, the Commission promotes the [Code of Practices on intellectual assets management and standardisation](#) to support the implementation of the guiding principles by providing more detailed guidance on these areas of research valorisation.

The European Commission has also launched the [Knowledge Valorisation Platform](#) that connects players in Europe with the ambition to turn research results into sustainable products and solutions for the public good - be it economic or environmental benefits, social progress or improved policy making.

This community allows to share experiences, good practices, listen to lessons learnt or work together with different partners from all over Europe. Policy makers can [submit good practices](#) and be speakers at the EU Knowledge Valorisation Talks 2025. Other European initiatives for valorisation are [Horizon Results Booster](#), [Horizon Results Platform](#), [EIT Food Knowledge Transfer Pathways](#), or [European IPR Helpdesk](#).

Design a policy-mix for valorisation

Regional policymakers are called to design the most effective policy-mix using a variety of such tools to enhance research valorisation. The [OECD report on University-Industry Collaboration](#) offers a comprehensive overview of 21 policy tools to promote university-industry collaboration. The 21 policy tools can be divided into financial, regulatory, or soft instruments.

The use of [pre-commercial procurement \(PCP\)](#) is a demand-side innovation approach to develop R&D services with the objective to stimulate innovation. The activity is undertaken by a government or a public-private partnership, to support innovation through the purchase of R&D services, which usually includes the delivery of a ‘product prototype’.

Innovation vouchers are small lines of credit (usually ranging from €2,000 to €20,000) provided by regional or national governments to Small- and Medium-sized Enterprises (SMEs) to purchase services from knowledge providers such as universities, research

centres, or consulting firms with a view to introducing new products, processes, or services in their business operations.

Good practices

Research Valorisation Programme 2.0. (RVP 2.0) (TRACS3 project, presenter Andreea Leru) The Research Valorisation Programme 2.0 (RVP 2.0) represents a collaborative effort between the North-East Regional Development Agency (RDA) and the World Bank, with the goal of facilitating the commercialisation of research outputs from public research organisations (PROs). This intensive 10-month program, conducted in English, serves as a platform for mentoring, capacity-building, and fostering interaction between PROs and industry stakeholders. It provides invaluable support in knowledge exchange, focusing on areas such as marketing strategy, intellectual property rights (IPRs), and commercialisation strategy. Through RVP 2.0, participating research teams have the opportunity to elevate the technological and market readiness of their projects, pinpoint potential markets, and deepen their understanding of IPRs.

Scouting Public Lab Inventions: Bridging Innovation (VIADUCT project, presenter Pauline Pupier) This good practice involves proactive scouting of innovative research findings within university labs through two main actions: weekly permanencies and educational events organised by business and detection officers from SATT Conectus, the regional TTO from Alsace, France. These officers aim to integrate into lab teams, fostering trust and facilitating faster tech transfer. Researchers benefit from ongoing support and educational opportunities, while Conectus efficiently identifies transferable research results. Evidence shows that this approach has led to successful tech transfer projects. Key lessons include the importance of trust, flexibility, integration with academic activities, and political support.

Deeptech Entrepreneurship (VIADUCT project) The Deeptech Entrepreneurship initiative is a short course offered at the University of Strasbourg, targeting PhD candidates, researchers, and aspiring entrepreneurs to promote the creation of Deeptech spin-offs or start-ups. Half of the participants are PhD candidates involved in the “MatureYourPhD” tech transfer project. The course covers topics such as strategy, business models, intellectual property, financing, and human resources, using innovative methods like hackathons, interactive workshops, and project-based learning. Offered as a Master’s or lifelong learning course, it is co-designed by Pépite ETENA, the QuestForChange regional incubator, and SATT Conectus Alsace. With an annual budget of €12,000, the programme has trained 12 participants, six of whom are leading the creation of five new spin-offs.

TECNIOspring – ACCIÓ’s international talent attraction programme. (S34Growth project) The program TECNIOspring is a mobility scheme to attract international researchers to develop R&D projects in Catalonia. The programme provides 100% financial support to offer fellows 2-year employment contracts to develop applied research projects with focus on technology transfer. TECNIOspring is an example of a technology push initiative that gives financial incentives for private companies to conduct and to invest in R&D. In addition to incentivise private companies, the programme allows for extra-regional knowledge flows and linkages with other R&D centres.

The day closed with a study visit to the AS Fabrik Bilbao – Mondragon University, a retrofitted building that combines different faculties, spaces for startups, FabLab, and demonstrators at the centre of the urban regeneration initiative in Zorrotzaurre. Mondragon University is a cooperative university, which belongs to the

MONDRAGON Corporation. The workshop concept and overall moderation were ensured by **Marc Pattinson** and **Arnault Morisson**, Policy Learning Platform thematic experts



Images of the study visit at AS Fabrik Bilbao.



Bilbao, Spain – 6 and 7 November 2024

www.interregeurope.eu/policylearning