

2023 BASQUE COUNTRY COMPETITIVENESS REPORT

TRANSITION TO ENVIRONMENTALLY
SUSTAINABLE COMPETITIVENESS
Executive summary



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Executive Summary

Climate change and its environmental, social and economic consequences present us as a society with a major challenge, undoubtedly one of the most complex faced by humankind. The process of reducing greenhouse gas (GHG) emissions to net zero must be undertaken as quickly as possible to limit the increase in the global average temperature and to ensure that the impacts of climate change are manageable and the costs bearable.

The advantages of moving towards an economy with a low environmental footprint of human and economic activities include not only avoiding highly adverse socio-economic scenarios, but also taking advantage of the multiple economic and social benefits that arise. However, the required transformation can also have negative economic and social consequences, depending on how it is managed.

Above all, this is a highly complex process due to the very nature of the climate crisis, which affects the entire planet, the entire value chain of the economy (production, distribution, consumption), all sectors (energy, residential, industrial, transportation, commercial, etc.), and other dimensions of society (culture, behaviours, relationships, knowledge, etc.). Furthermore, the context in which the planet has found itself since 2020 adds additional layers of complexity to the challenge. The pandemic and the resulting economic crisis, current geopolitical crises, the energy crisis in Europe and the complex macroeconomic scenario all have a significant effect on defining not only the response to the challenge of climate change, but also the pace of adaptation and transformation.

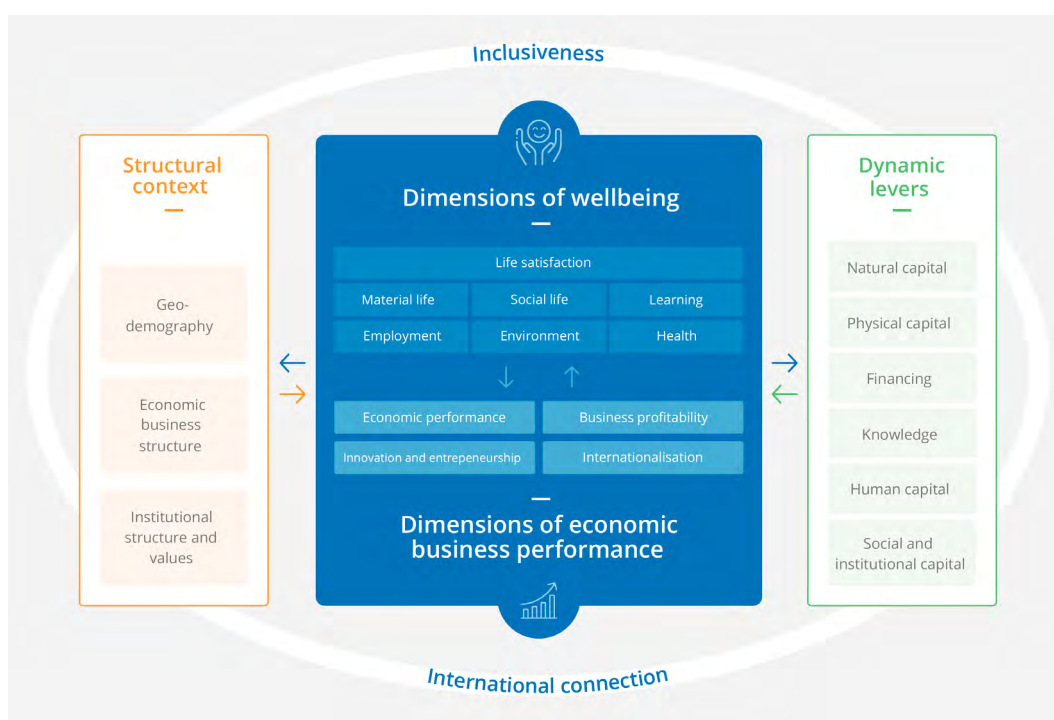
In short, we are facing a multidimensional, global and comprehensive problem that requires urgent changes, many at regional and local level, and for which there is no set formula to solve the challenges faced by each society and each economy.

It is not surprising, then, that the challenge of environmental sustainability has been a common element in the conclusions of the last three Orkestra Competitiveness Reports. In 2020, in the context of recovery from the pandemic, the report emphasised the need to promote a green transition to strengthen the resilience of the economy and society. In 2021, the introduction of our new "competitiveness for wellbeing" framework highlighted the need to accelerate this transition to improve performance in terms of the environmental dimension of wellbeing. And in 2022, "fostering the leadership of a new sustainable industrial competitiveness" was among five priority cross-cutting actions identified in analysis of the foundations of Basque competitiveness.

Orkestra's competitiveness for wellbeing framework is a holistic framework, designed to understand and strengthen the determining factors of a territory's competitiveness and wellbeing. In this sense, it is well-suited to understanding the complexity of the transition towards sustainable competitiveness. In this Report we apply the framework to:

- Identify the current **results of competitiveness and wellbeing** in the Basque Country, as a starting point for sustainability transition in the coming years.
- Understand the **relationship between sustainability transition and competitiveness for wellbeing**, and how the two concepts can be made compatible and reinforced.
- Explore some of the key dimensions of the six **dynamic levers of competitiveness and wellbeing** in the Basque Country to advance the sustainability transition.

TERRITORIAL COMPETITIVENESS FOR WELLBEING FRAMEWORK



Current competitiveness and wellbeing in the Basque Country

In terms of economic-business and wellbeing results, the Basque Country is in a generally positive situation, consolidating the picture of previous years' reports, but with some areas to which we should pay attention.

Economic and business outcomes	
Economic performance	The Basque Country grew slightly more than the UE-27 average in 2022, reaching GDP per capita of 109.5% of the EU-27 value. In productivity, the Basque Country is ahead of Spain and the EU-27 average and has slightly narrowed the gap with Germany. In the manufacturing sector, however, the level of productivity is quite similar to that of the EU-27.
Business profitability	All indicators of corporate profitability have improved. Unit labour costs decreased in 2021 to be lower than those of Germany, Spain and the EU-27 for the economy as a whole, and equal to those of Germany (and higher than those of Spain and the EU-27) in the manufacturing sector. Gross operating surplus increased in the Basque Country between 2020 and 2022, and both return on assets (ROA) and return on equity (ROE) increased in 2022.
Innovation and entrepreneurship	The good health of the Basque innovation system is reflected in the rise in the <i>Regional Innovation Scoreboard</i> . However, the challenge of innovation in SMEs remains, since despite the slight increase in the percentage of SMEs with innovative activity, this figure is still below the pre-pandemic level and the gap with the EU-27 and Germany remains considerable. On the other hand, the rate of entrepreneurial activity in the Basque Country has remained relatively stable over the last few years and is slightly below that of Spain and well below that of Germany.
Internationalisation	Exports from the Basque Country increased in 2022, mainly due to the strong evolution of exports of energy products. However, the increase in energy prices has also had an impact on imports, which have increased to a greater extent, causing the positive balance of international trade to shrink. Likewise, if exchanges with the rest of the State are taken into account, the total balance for goods and services is in deficit and this deficit increased in 2022.

Wellbeing outcomes	
Life satisfaction	Life satisfaction fell across the board in the first year of the pandemic, with no major differences in the level of satisfaction between men and women.
Material life	The average disposable income of Basque households remains above the European average, but has deteriorated to a greater extent than in other territories during the pandemic. The level of inequality has increased slightly, as has fuel poverty, but the proportion of people at risk of poverty or exclusion has decreased slightly in 2022 and remains one of the lowest among the territories analysed.
Employment	Following the rise in unemployment due to the crisis that began with the pandemic, unemployment fell in 2022 to below the 2019 level. Job satisfaction has remained stable in recent years and the gender wage gap continues its downward trend.
Social life	Levels of satisfaction with leisure time have increased in recent years, but confidence in people fell in the first year of the pandemic. The rate of property crime is similar in the Basque Country and Spain and lower than in the other territories analysed.
Learning	The evolution of the learning indicators has been positive, contributing to the continued reduction of the gap with other territories in terms of population with higher than compulsory qualifications and to the fact that the Basque Country continues to be very well positioned in terms of lifelong learning.

Wellbeing outcomes	
Health	The Basque Country is very well positioned, both in terms of life expectancy and self-perceived state of health. It is also one of the territories analysed with the fewest premature deaths due to air pollution.
Environment	Levels of GHG emissions and air pollutants are improving, but GHG emissions are still far from reaching international targets. Although the recycling rate is higher than in Spain, there is still a long way to go in terms of circularity and reuse of waste.

Levers to strengthen the relationship between competitiveness and environmental sustainability in the Basque Country

The challenges that the Basque economy will face in the sustainability transition are multiple and will generate dilemmas and trade-offs to which different institutions and public entities, companies and other private entities and the public in general will have to respond. These dilemmas range from the allocation and prioritisation of available resources between different purposes to the acceptance that in the process of change there will be winners and losers (and therefore measures needed to compensate the losers) or that some strategies, policies and measures will generate a certain degree of social rejection.

In any case, to guarantee an effective and efficient transformation process (with the minimum socio-economic cost) and to materialise the multiple opportunities expected, the policies, strategies, action plans and regulatory and normative frameworks applied in the Basque Country must be stable and adapted, as far as possible, to the Basque economic reality. In this sense, the Basque Government is proposing a sustainability transition strategy based on consolidating and increasing the strong technological and industrial capacities generated in the Basque Country over the years in order to: (i) respond to global challenges; and (ii) create a local supply of clean technologies, services and innovative solutions that support the decarbonisation of industrial sectors and the Basque economy as a whole.

One of the main conclusions of this report is that the success of the sustainability transition in the Basque Country will depend on the capacity to advance in changes, transformations and adaptations that simultaneously allow Basque companies to compete in international markets, increase the attractiveness of the territory and generate positive economic and wellbeing outcomes. The concepts of environmentally sustainable transition and competitiveness for wellbeing are therefore inseparable.

Orkestra's framework identifies six dynamic levers through which different actors in the territory can act to positively influence competitiveness and wellbeing outcomes, promote structural change in the medium to long term, and achieve an economy and society with a low or zero environmental footprint. We have focused the analysis of these multidimensional levers on some of their most important dimensions in the context of sustainability transition.

Dynamic levers for environmentally sustainable competitiveness

Natural capital	<p>During the last decades, the Basque Country has advanced in energies and technologies, environmental protection and biodiversity, soil recovery and the circular economy, among others. There are numerous challenges ahead, including:</p> <ul style="list-style-type: none"> • Increasing renewable energy resources. • Showcasing the value of available natural resources. • Achieving a more stable and sustainable supply of raw materials by moving towards circularity. • Having legislation that supports the separation, classification, reuse and disposal of waste. • Achieving proper management of water resources, which will also have a positive impact on biodiversity. • Making progress in reducing emissions of air and water pollutants, as well as in soil remediation. • Developing tools and technologies for monitoring, forecasting and data analysis to manage resource and waste flows.
Physical capital	<p>The Basque Country has a set of infrastructures that provides an adequate basis for driving the sustainability transition, although it also faces challenges to avoid bottlenecks that jeopardize the materialisation of business and technological opportunities:</p> <ul style="list-style-type: none"> • Ensuring social support and acceptance of the necessary energy, transport and communication infrastructures. • Strengthening and updating holistic and integrated infrastructure planning. • Promoting the complementarity of the different energy sectors in order to increase efficiency and realize synergies between them. • Increasing the resilience of critical infrastructure to disruptive climate events. • Facilitating the financing of infrastructure investments.
Financing	<p>Financing is an integral part of the sustainability transition, not just a resource. It is therefore important to have a financial ecosystem made up of all the relevant actors that facilitates the orientation of financial resources towards the challenges of sustainability transition. In this sense, the current initiative to promote a finance and investment cluster in the Basque Country is a key opportunity to increase the collective capacity for innovation and knowledge around the development of new financial instruments aimed at sustainable projects and infrastructures. The main challenge is to strengthen and guide the financial ecosystem to increase its capacity to:</p> <ul style="list-style-type: none"> • Generate financing flows that give continuity to the ambitious energy-environmental policy and facilitate the decarbonisation and diversification initiatives of Basque companies. • Maintain the pace of investment in infrastructure and R&D. • Provide incentives for the business fabric to advance in the transformation of its production processes.

Dynamic levers for environmentally sustainable competitiveness	
Knowledge	<p>The Basque Country has a base of institutions, policies and knowledge with great potential to effectively advance in the sustainability transition. This is supported by analysis of different indicators related to R&D expenditure and funding, scientific excellence and sustainability-related patent performance. In the coming years it will be important to reinforce the directionality of policies and the efforts of the Basque Science, Technology and Innovation Network (RVCTI), channelling them towards knowledge, technologies and collaboration mechanisms that lead to tangible sustainability and competitiveness results. The main challenges are to:</p> <ul style="list-style-type: none"> • Consolidate good positioning in knowledge on sustainability, as a critical lever to take advantage of the opportunities of the transition. • Strengthen knowledge transfer mechanisms to ensure that the results of patents and publications are converted into applications and innovations that simultaneously advance competitiveness and sustainability.
Human Capital	<p>The transition to environmental sustainability involves the creation of new jobs, as well as the redefinition and replacement of others. To this end, it is critical to foster the green skills that the new 'green jobs' would require. We have identified 26 occupations with high green potential, and, in 2022, 9.2% of the employed population in the Basque Country had this employment profile. Among the training courses that currently graduate more people who end up in these occupations are university degrees in mechanical and civil engineering, as well as biology. Vocational training includes degrees in occupational risk prevention and analysis and quality control, among others. In this context, the main challenge is twofold:</p> <ul style="list-style-type: none"> • Making progress in the development of green competencies and skills, through the identified key qualifications and through training modules that move towards a skills-based approach. • Ensuring that there are continuous training mechanisms for people employed in sectors and value chains negatively affected by the sustainability transition, in order to recycle and update their skills and abilities.
Social and institutional capital	<p>The Basque Country has a wide range of knowledge and experiences related to collaboration between very diverse actors, which constitutes an asset for the development of collaborative governance, necessary to reach solutions to specific problems related to sustainability transition. There are several experimental collaborative initiatives between actors in the field of sustainability transition in the Basque Country that allow us to discover and understand the leading role that collaborative governance processes can play in the future. During the last decade Orchestra has collaborated in several action research projects with different agents of the territory, which show the importance of:</p> <ul style="list-style-type: none"> • Defining the problem and designing spaces to address it. • Defining roles based on reciprocity and trust. • Constructing shared visions and agendas for action. • Managing the conflicts generated by non-aligned positions, interests or visions.

Six general recommendations

The main message of this report is that, despite the complexity of the process, there is great potential in the Basque Country to promote, coordinate and align the drivers of territorial and business competitiveness with environmental sustainability in order to achieve desired economic, environmental and social results. It is essential to continue generating economic value and well-being through greater specialisation in sustainable technologies and activities, and a greater ca-

capacity for innovation in sustainability that places Basque companies and the Basque Country at the forefront of the transition.

But this cannot be done without taking decisions now. The sustainability transition has its risks and will involve costs and sacrifices, as well as facing dilemmas and unpopular or uncomfortable choices. However, moving forward with the transformation under a clear vision and strategy will make it possible to materialize the economic, industrial and business opportunities linked to the changes underway, giving rise to a net positive effect on the wellbeing of Basque citizens in the medium and long term. In this regard, our analysis suggests six general recommendations:

1. **Implement an intelligent sustainability transition process based on a clear, shared and long-term strategic vision.** This implies making decisive progress in decarbonisation, based on energy and technology pillars on which there is consensus, and establishing roadmaps that are ambitious but at the same time pragmatic and coherent with the Basque business and economic reality. This is achieved, for example, by moving forward in the short term in areas where emissions can be reduced without jeopardizing economic activity or creating new opportunities that do not compromise economic and social wellbeing, while simultaneously promoting profound transformations in sectors that still depend on fossil fuels. It will be important to use existing technological and industrial capabilities to develop new capacities, clean technologies and an innovative and competitive business fabric in areas such as decarbonisation or advanced environmental services. It will also be important to promote legal and regulatory frameworks for a sustainability transition that are simple, stable and transparent. These need to be smart, result-oriented, but with the flexibility and agility necessary for our companies to compete with companies in other parts of the world (e.g. China or the US).
2. **Focus R&D and innovation policies on achieving results that imply greater environmental sustainability, seeking synergies with economic competitiveness and advances in wellbeing.** Knowledge and innovation are key resources in identifying and taking advantage of the opportunities that sustainability transition opens up in multiple economic sectors and areas of life. Both policy experimentation, e.g. through pilot experiences, and policy learning, e.g. through the development of sophisticated evaluation mechanisms and processes to ensure the most effective use of available resources, will be important during the transition.
3. **Strengthen cross-cutting areas that facilitate a better alignment of the drivers of competitiveness and wellbeing with environmental sustainability.** Four key cross-cutting areas stand out:
 - The **ecosystem of innovation and knowledge generation and transfer** in the field of sustainability and especially in areas that are critical for the Basque economy (e.g. critical materials for industry).
 - The **skills, training and talent ecosystem**, which must increase its responsiveness in order to dynamically match the human capital of the territory with the skills required for the sustainability transition and demanded by businesses.
 - The **finance ecosystem**, critical to ensure the most appropriate tools and mechanisms for financing investments in infrastructure, projects and sustainable activities.
 - **Intermediary organisations**, such as Local Development Agencies and Cluster Development Organisations, have a key role to play, especially in supporting SMEs in addressing technological, process, regulatory and market changes so that they can take advantage of the opportunities of the transition and increase their competitiveness.

4. Reinforce the central role of Basque citizens in the process of sustainability transition.

On the one hand, through greater knowledge and empowerment to make informed decisions about consumption, investment and participation in different initiatives (e.g. energy communities, self-consumption systems, etc.). On the other hand, through greater social support for sustainability transition and greater understanding, awareness and acceptance of its implications. This implies not only increasing available information and education, but also designing and implementing systems and mechanisms to compensate and protect the most vulnerable segments of society.

5. Continue to innovate in cooperation and collaborative governance schemes. We must value the knowledge and experience accumulated in recent decades in the Basque Country on how to build shared visions and agendas among different actors in a collaborative manner, and how to manage the inevitable conflicts due to different visions and interests. In this regard, it will be important to incorporate collaborative governance mechanisms based on co-responsibility and reciprocity among agents in the future Basque Law on Energy Transition and Climate Change and the associated Roadmap.

6. Consolidate a leading role in the global sustainability transition. The Basque Country must continue to play a leading role in international initiatives in energy, technological innovation, sustainable industry and other areas where it can lead the way towards solutions for the reduction of the environmental footprint of economies across the planet and the implementation of the Sustainable Development Goals (SDGs) (e.g., the location in Bilbao of the permanent headquarters of the Secretariat of the United Nations Local Coalition 2030). One way to combine competitiveness and sustainability is the export (also to countries of the Global South) of knowledge, technologies and solutions based on digitalisation and clean technologies, through the leadership of Basque companies in international markets.

Panel of indicators of economic-business and wellbeing results.

The panel collects the latest available data on the 36 economic-business and wellbeing performance indicators. The first of the columns with symbols indicates whether the indicator has improved (green arrow), worsened (orange arrow), or has remained the same as the previous year (grey equals sign). The second column shows whether (in the event the indicator is available for the EU-27 that last year) the position of the Basque Country is better than average (green triangle), worse than the average (orange triangle), or similar (grey equals sign). Finally, the last column compares the evolution of the indicator in the last year against EU-27 evolution, indicating whether it was better in the Basque Country (green plus symbol), worse (orange minus symbol), or similar (grey equals sign).

ECONOMIC AND BUSINESS OUTCOMES

Indicator	Year	Value	Evolution (last year)	Position relative to EU-27	
				Level	Change
Economic performance					
GDP per capita (PPP)	2022	38 524	→	▲	+
Apparent productivity of labour (thousands €/person)	2022	72.2	→	▲	+
Apparent productivity of labour (€/hour)	2021	42.2	→	▲	+
Apparent productivity of labour (manuf) (thousands €/person)	2021	70.8	→	▼	+
Apparent productivity of labour (manuf) (thousands €/hour)	2021	43.0	→	▼	+
Business profitability					
Unit Labour Cost (%)	2021	62.3	→	=	-
Unit Labour Cost (manuf) (%)	2021	67.6	←	▼	+
Gross operating surplus (% GDP)	2022	43.2	→	▲	+
ROA	2022	5.1	→	n/d	n/d
ROE	2022	8.5	→	n/d	n/d
Innovation and entrepreneurship					
SMEs (10-249 employees) that innovate (%)	2021	39.6	→	▼	-
Product innovative SMEs (10-249 employees) (%)	2021	24.5	←	▼	+
Process innovative SMEs (10-249 employees) (%)	2021	30.7	→	▼	-
SMEs sales of new products (%)	2021	12.0	←	▲	-
Total entrepreneurial activity (TEA) (% population 18-64 years old)	2022	5.2	→	n/d	n/d
High-growth firms (%)	2022	9.2	←	▲	+
Internationalisation					
International exports of goods (% of GDP)	2022	38.3	→	▼	+
Balance of international trade in good (% GDP)	2022	3.7	←	▲	+
International exports of goods and services (% of GDP)	2022	40.7	→	▼	+
Balance of international trade in goods and services (% of GDP)	2022	5.7	→	▲	+

Source: Compiled by authors based on preceding analysis.

WELLBEING OUTCOMES

Indicator	Year	Value	Evolution (last year)	Position relative to EU-27	
				Level	Change
Life satisfaction					
Life satisfaction (0-10)	2022	7.5	←	=	–
Material life					
Households equivalent median income (PPP)	2021	21 652	←	▲	–
Proportion of people at risk of poverty or exclusion (AROPE) (%)	2022	15.7	→	▲	=
S80/S20 ratio for income	2021	5.0	←	=	–
Population who cannot afford to keep their home at an adequate temperature (%)	2022	9.3	←	=	+
Employment					
Unemployment rate (15-74 years) (%)	2022	8.6	→	▼	–
Degree of job satisfaction (0-10)	2022	7.3	=	=	=
Gender pay gap (%)	2021	7.3	→	n/d	n/d
Social life					
Satisfaction with the time available (0-10)	2022	6.9	→	=	–
Confidence in people (0-10)	2020	5.1	←	▲	–
Crime against property rate (per 100,000 inhabitants)	2022	639	←	n/d	n/d
Learning					
Population aged 25–64 with tertiary education (%)	2022	77.8	→	▼	+
Lifelong learning (%)	2022	17.5	→	▲	–
Health					
Life expectancy (years)	2021	83.7	→	▲	+
Self-perceived state of health (%)	2021	74.8	←	▲	–
Years of life lost due to air pollution (per 100,000 inhabitants)	2020	298	→	▲	+
Environment					
Greenhouse gas emissions (tonnes of CO2 equivalent per capita)	2021	8.0	←	▼	–
Air pollution (PM2.5 microparticles)	2021	8.8	←	▲	–
Urban waste recycling rate (%)	2020	45.4	→	▼	+

Source: Prepared based on the foregoing analysis.



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