

EXECUTIVE SUMMARY
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INNOVATION IN GIPUZKOA. A COMPARATIVE ANALYSIS



Gipuzkoako Foru Aldundia
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GIPUZKOA
ETORKIZUNA ORAIN

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This study is primarily based on the Eustat (Basque Statistics Office) and Eurostat innovation surveys. The former refers to establishments and goes up to 2019, the latter refers to enterprises and goes up to 2018. With a view to comparability and better data reliability, the analysis generally excludes units with fewer than 10 employees and some sectors with limited innovation (non-core sectors).

A territory's innovation behaviours and outcomes are associated with certain sectors (R&D Services and Industry), size brackets (large firms) and certain business behaviours (exports, cooperation and employee skill level). Comparatively, Gipuzkoa's **firms as a whole** report much higher values than other territories for specialisation in R&D Services, cooperation, and employees with a tertiary education, as well as in Industry and exports. In contrast, it has a much lower percentage of large firms (with these also being smaller on average).

As a result of this and the particular innovation performance of its units, the percentage of **units with innovative activities (EINs)** is lower in Gipuzkoa and the Basque Country (43% and 42%) than in the EU-27 (50%) and particularly, Germany (68%). This poorer result is due to poorer performance by small units, as for medium-sized and large units, Gipuzkoa clearly ranks higher than the EU-27 and close to Germany.

The percentage of enterprises that **have introduced product or process innovations** is 41.9% in Gipuzkoa. This is higher in Industry than in Core Services (45% vs. 38%); and increases by size bracket (34% in small firms, 76% in medium-sized and 83% in large).

After a significant increase from 2018 to 2019, Gipuzkoa caught up with the EU-27 (31% vs. 30%) in **product innovation**, but it remains behind Germany (40%). In **process innovation**, Gipuzkoa and the Basque Country (37% and 36%) are between Spain (24%) on one side, and the EU-27 and Germany (41% and 55%) on the other. Of the three major subtypes of process innovation, it is in organisational innovation (particularly, workplace and human resources organisation) that Gipuzkoa lags the most. In general, for these types of innovation, Gipuzkoa reports better results in Core Services and medium-sized enterprises, and worse results in Industry and small enterprises.

The analysis of **innovation expenditure** is strongly affected by the unique nature of the Basque Science, Technology and Innovation Network (RVCTI), most of whose members are recorded under the branch of R&D Services, within Core Services. If R&D Services are not excluded from the analysis, Gipuzkoa has a high percentage of innovation expenditure over turnover (2.8%), with much more intense innovation expenditure and a higher share of total expenditure on innovation in Core Services. If R&D Services are excluded from the calculations, the atypical results are largely corrected: innovation expenditure over turnover for Gipuzkoa (1.9%) is slightly lower than the EU-27 (2.2%) and more than a third lower than Germany (3.3%); and innovation expenditure in Core Services (1.4%) is less intense than in Industry (2.1%) and the level for the EU and Germany (1.4% in both).

While in the EU and Germany, large firms account for the majority of innovation expenditure, in Gipuzkoa, it is medium-sized enterprises that hold the largest share. This is influenced by Gipuzkoa's business structure and the unique nature of the RVCTI.

Of all innovation expenditure, **R&D expenditure (internal and external)** accounts for 84% in Gipuzkoa, a much higher percentage than in the EU and Germany (63% and 57%). Once again, these and other anomalies discussed in the study are mitigated or reduced if R&D Services are excluded. The percentage for Gipuzkoa drops from 84% to 80%, but remains very high, which is still not in line with the more limited presence of large firms in Gipuzkoa.

If R&D Services are excluded, the percentage of external R&D over total R&D in Gipuzkoa (19%) is also corrected and increases to 25%, higher than the EU (20%) and Germany (16%). This greater use of external R&D in Gipuzkoa is in line with the powerful RVCTI in this region. It is large firms that report the most external R&D; and small enterprises in Gipuzkoa utilise external R&D to a lesser extent than those in the Basque Country.

After growing by 7 percentage points (pp) between 2018 and 2019, the percentage of **sales of new or improved products** in Gipuzkoa is 24%: this is 6 pp higher than the Basque Country, 9 pp higher than Germany and 12 pp higher than the EU-27. Of this 24%, 17% are new-to-firm products and 7% are new to the market.

While in Spain, the EU-27 and Germany, the percentage of EINs that engage in **R&D&I cooperation** is around 25%, in Gipuzkoa and the Basque Country, it is more than double: 56% and 52%, respectively. This advantage is also found, proportionally, when looking at sector and size bracket. In Gipuzkoa, R&D&I cooperation primarily takes place on the regional level. The percentage of firms engaging in R&D&I cooperation abroad is lower in Gipuzkoa (28%) than in the EU (43%). As regards the stakeholders involved, cooperation with value chain stakeholders (suppliers and customers) and academia is lower in Gipuzkoa than in the EU. However, in contrast, Gipuzkoa tops other territories in cooperation with consultants and laboratories.

The percentage of enterprises that receive **public aid** is 36% in Gipuzkoa (69% in the case of EINs), and for R&D&I aid, the percentage is 21% (57% for EINs). These percentages are somewhat higher than those found in the Basque Country, and almost double the EU average. In Gipuzkoa and the Basque Country, the percentage of firms that receive aid from regional and local government bodies is notable (triple the figure for Spain). The percentage of firms that receive public aid is higher in Industry than in Core Services and even higher than in Non-Core Sectors. And this percentage increases along with the size bracket. Additionally, the gap between the percentages of small and large enterprises that receive public aid is greater in Gipuzkoa than in the Basque Country, pointing to greater relative difficulty in accessing this aid among small enterprises in Gipuzkoa.

The percentage of firms that encounter **medium or high barriers to innovation** is comparatively greater in Gipuzkoa (44%) than in the EU (34%). In general, obstacles linked to the market (Uncertain Demand or High Competition) are as significant as those of a financial nature (insufficient Internal Finance or Private External Finance, lack of Public Aid and High Costs). In contrast, obstacles linked to knowledge (availability of Skilled In-House Personnel, access to External Knowledge and Collaboration Partners) are less important than the previous two. Comparatively, in the case of Gipuzkoa, High Costs and Uncertain Demand become more important. Additionally, less importance is given to the availability of Public Aid, possibly due to the fact that it declined during the Great Recession. Despite this, in comparison with other territories, it is still clearly higher in Gipuzkoa. Furthermore, EIN enterprises encounter more obstacles than non-EIN enterprises, which may be due to the fact that when they engage in innovative activities, they become aware of the obstacles, and that non-EIN enterprises include firms that do not innovate because they have done so recently or do not need to.

Based on the preceding analysis, it is possible to make seven major recommendations.

1. To correct the lower **percentage of innovative enterprises** in Gipuzkoa, in comparison with the EU and Germany, which is concentrated among smaller firms, it would be advisable to firstly, promote general policies designed to increase the share of large firms in the industrial fabric, while also adapting innovation programmes to the characteristics and needs of smaller firms.
2. Among innovation programmes, it is necessary to strengthen those aimed at driving **organisational innovation**, particularly improvements in the organisation of workplace and human resources. As Orkestra indicated (2019) and is confirmed here, the greatest problem in the sphere of human resources is their management and use.
3. In view of the fact that Gipuzkoa is lagging behind in this area and its particular importance for small firms, the type of innovation expenditure which should be promoted the most is **non-R&D based**. As regards R&D expenditure, the use of **external R&D** by small firms should be encouraged, with both supply-side (changes in the operation and composition of R&D infrastructure) and demand-side (support programmes for subcontracting R&D at small firms) initiatives, and intermediation functions.
4. It would be advisable to continue promoting the **cooperation** that informs a large part of public policy, but further reinforcing that which takes place with foreign partners, with value chain stakeholders (suppliers and customers) and with academia.
5. The percentage of Gipuzkoa firms that receive **public aid** being so high, it would be advisable to assess the impact of existing programmes in greater depth. Additionally, it would be advisable to study the reason behind this and try to correct the more limited access which small Gipuzkoa firms seem to have in comparison with the rest of the Basque Country.

6. The **barriers to innovative activities** related to markets (demand-side policies and competition policies) are as important as financial barriers. Programmes operating in this area (for example, innovative procurement) should be included in the public policy arsenal.

The **statistics, data and analyses on innovation** which are published must make it possible to isolate the somewhat distortive effect on international comparisons of the unique nature of the RVCTI and the inclusion of the majority of its stakeholders' activity as business innovation expenditure for commercial services.



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