BASQUE COUNTRY
REGIONAL DEVELOPMENT STRATEGY
INDUSTRIAL FOCUS

€32,500
GDP per capita
122% (UE28=100)

22.8%
Industrial GDP
(EU28=19.3%)

128.5
Productivity per employee

31.9%
Exports to GDP ration

2.01%
R&D expenditure on GDP

30,000
People in R&D

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122% (UE28=100)

22.8%
Industrial GDP
(EU28=19.3%)

128.5
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30,000
People in R&D
• Basque Country has a long history defining economic development strategies over the last 35 years.
• Consecutive plans and strategies, responding to specific needs of each stage, have progressively sought modernization, competitiveness, specialization, diversification and sophistication of Basque economy.
Basque innovation policies phases:

- **1980 – 1995**:  
  - Technology offer generation. Setting the base for the Basque Science, Technology and Innovation Network

- **1995 – 2005**:  
  - Offer – demand combined policy orientation. Incorporation of industry demands. Cluster policy

- **2005 – 2014**:  
  - Results oriented policy. Diversification strategies into knowledge intensive sectors

- **2014 – 2020**:  
  - Smart Specialisation Strategy
The Basque Country is usually seen as a successful case of industrial transformation and innovation upgrading.

2014, a moment of reflection and change to align Basque industry with a strategy of re-industrialization:

- Upgrading and focusing on the higher added value activities: BASQUE INDUSTRY 4.0
- Reshaping of the Basque Cluster policy
- Enhancing the outward looking dimension of the innovation policy through interregional cooperation

RIS3 BASQUE COUNTRY

Evolution of manufacturing’s share of Basque GDP (Millions of current Euros, %, 2005-2012)*

CARG 05-12
2.2%

CARG 05-12
-1.5%

6% less of manufacturing share in GDP
Priority domains are a combination of technologies, products, processes and services from the different sectors and knowledge areas to give response to the opportunity areas.

RIS3 strategy is a natural extension of Basque historical policies in this area.
ADVANCED MANUFACTURING is a multisector priority with plenty of economic agents to be taken into account: “A main bet in the Basque Country’s Industrial strategy”.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Processes</th>
<th>Means</th>
<th>Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials and their transformation processes</td>
<td>Manufacturing processes</td>
<td>Products and production tools</td>
<td>ITC support equipment to optimize the manufacturing resources</td>
</tr>
<tr>
<td>Transformation of raw materials into materials suitable for use in manufacturing processes</td>
<td>Set of phases necessary for the transformation of raw materials</td>
<td>The means utilized for carrying out the various manufacturing processes</td>
<td>Intelligent support tools for design, development, production and integrated manufacturing management</td>
</tr>
</tbody>
</table>
Joining visions, steps and strategies requires a really intensive-cooperation-driven process. To strengthen the position of the Basque Country as an economy with an industrial base through the promotion of knowledge intensive manufacturing.

**Advanced Manufacturing Strategy Mission**

SO1. To help and guide Basque companies towards more knowledge intensive manufacturing activities which have greater added value.

**Strategic Objectives**

**Integration of KETs**
- SO2. To promote multi-disciplinary and technological convergence in a structured fashion so as to develop best-in-class manufacturing capacities and solutions while optimizing existing resources.

**Global value chains–Cluster 2.0**
- SO3. To integrate local and international value chains to meet the challenges of Advanced Manufacturing using the sum of the particular capacities of each sector and its companies.

**Scaling Up**
- SO4. To foster collaboration and support as a catalyst for the industrialization of the results of R+D+i in Advanced Manufacturing.

**Talent**
- SO5. To support education and job training in technologies and management systems related to Advanced Manufacturing.
A commitment to technological development in Advanced Manufacturing is crucial to maintain competitiveness in industry and to secure positioning in market niches with greater added value.
8 Strategic Initiatives capable of transforming Basque industry to “Basque Industry 4.0”

- Employment
- Education

- Promotion of S.T.E.A.M
- Smart training network

- Industry 3.0
- Advanced manufacturing
- Distributed and connected smart manufacturing
- Basque Open Industry Platform 4.0
- Advanced services 4.0
- Circular economy
- Utilisation of heat

- “Core” initiatives
- “Talent” initiatives
- “Efficiency and sustainability” initiatives

- Energy
- Electric vehicles
- Offshore 4.0
Policy Mix for Advanced Manufacturing Strategy

1. Support for scientific-technological Agents within the Manufacturing Community
2. Support for Excellence in Basic Directed Research
3. Support for R+D projects: Strategic industrial research; Business product development R+D; Company start-up R+D
4. Help and support for the introduction of TEICs (Electronics, IT and Telecommunications Clusters)
5. Design and support for Advanced Manufacturing Centres (CFAs)
6. Setting up a network of show-rooms pilot plants
7. Help and support for design
8. Setting up Models of Advanced Management in companies
9. Training of high-level researchers
10. Training and enablement in design
11. Training and enablement in business models and manufacturing management (postgraduate in manufacturing)
12. Dual FP- (professional training)
13. Teaching and Learning Factories - CFAs
14. Clusters policy
15. Coordination with and participation in European R+D+I programs: Basque Contact Points
16. Advanced Manufacturing Steering Group
# Program Monitoring and Evaluation

<table>
<thead>
<tr>
<th>Type of indicators</th>
<th>RESOURCES (mobilised resources)</th>
<th>RESULTS (achieved by the end of the projects)</th>
<th>IMPACT (achieved when results are put to use)</th>
</tr>
</thead>
</table>
| Programmes supporting the RVCTI | • Subsidy granted  
• Mobilised R&D expenditure  
• No. of supported projects  
• No. of researchers  
• No. of supported companies  
• Establishing partnerships  
• Etc. | • New knowledge  
• Patents  
• Publications  
• Employment in R&D  
• Etc. | • Knowledge transfer to companies  
• Employment  
• Turnover  
• Internationalisation |
| Programmes supporting companies | | | |
Strategic Industrial Research in Automotive Cluster

Title
Intelligent development and fabrication of new generation chassis structural components

Leader
GESTAMP BIZKAIA, S.A.

RIS3 Priority
Advanced Manufacturing

Cluster
ACICAE / GAIA / AFM

Budget
4,949,440,60 €

Summary

- The FRAMETOP project is part of the technological development of chassis and safety structural parts, manufactured in advanced materials for serial production with the technical / economic requirements defined by the customer and the market.
- The main objective of the project is to obtain a range of structural chassis components made of advanced materials with intelligent processes and in-line control, facilitating their integration into series vehicles.

Results

<table>
<thead>
<tr>
<th>Results</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>New products or existing products substantially improved as a result of the project</td>
<td>6</td>
</tr>
<tr>
<td>R2</td>
<td>Substantially new or improved processes as a result of the project</td>
<td>2</td>
</tr>
<tr>
<td>R3</td>
<td>Number of new companies created in relation to the results of the project</td>
<td>0</td>
</tr>
<tr>
<td>R4</td>
<td>Expected number of patents derived from project activities</td>
<td>3</td>
</tr>
<tr>
<td>R5</td>
<td>Expected number of marks, designs, industrial models or copyrights</td>
<td>1</td>
</tr>
</tbody>
</table>

Impact

<table>
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<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>Impact on employment in participating companies as a result of the project (jobs)</td>
<td>17</td>
</tr>
<tr>
<td>I2</td>
<td>Impact on the turnover of the participating companies as a result of the project (M €)</td>
<td>18,52</td>
</tr>
<tr>
<td>I3</td>
<td>Expected impact on exports (%)</td>
<td>50</td>
</tr>
</tbody>
</table>
The objective of E-FLEET project is to develop technologies and strategies to create modular, flexible and scalable eMobility solutions to make feasible the massive deployment of medium/large fleets of electric buses, minimizing impact on the electric grid, reducing its initial deployment and operation costs.

<table>
<thead>
<tr>
<th>Title</th>
<th>Electrification of Large Bus Fleets</th>
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<tr>
<td>Leader</td>
<td>IRIZAR S.COOP.</td>
</tr>
<tr>
<td>RIS3 Priority</td>
<td>Energy</td>
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<tr>
<td>Cluster</td>
<td>ACICAE / ENERGY CLUSTER</td>
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| New products or existing products substantially improved as a result of the project | 4 |
| Substantially new or improved processes as a result of the project | 3 |
| Number of new companies created in relation to the results of the project | 0 |
| Expected number of patents derived from project activities | 2 |
| Expected number of marks, designs, industrial models or copyrights | 2 |

| Impact on employment in participating companies as a result of the project (jobs) | 16 |
| Impact on the turnover of the participating companies as a result of the project (M €) | 94,2 |
| Expected impact on exports (%) | 12 |
Strategic Industrial Research in Automotive Cluster

Integration of gearbox + Electric Motor + Inverter and associated electronics + Data Capture and Communications for Hybrid and Electric Vehicles

Presented Budget
4.814.903,64 €

• The EAFULLIN project has as main objective the design and development of a new product that integrates gearbox, motor, inverter, electronics, data capture and communications, being necessary for this the development of:
  1. Design and manufacturing process
  2. Real Prototypes
  3. Specifications and test equipment

• The expected result of the project is the complete electric PowerTrain from the battery (not included) to the wheels (not included), 94 kW / 130 hp, including the corresponding communications with the vehicle

Summary

Results

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Leaders:
GKN DRIVELINE ZUMAIA, S.A.
Advanced Manufacturing
ACICAE
Coordination of a Manufacturing Community made up of clusters, scientific-technological agents and institutions around a public-private collaboration scheme: BASQUE INDUSTRY 4.0 STEERING GROUP
• Following a **mapping of industrial sectors**, instruments were created to support the development of new associations and strengthen the existing ones.

• **New framework with more emphasis on the strategic planning process of the cluster associations** in order to better align cluster logic and regional priorities.

• There was a move to extend the policy to other activities, beginning a ‘pre-cluster policy’ to **identify and develop new clusters**.
Revamping Cluster Policy in 2015

**Business perspective**
Enhancing the performance of firms in related sectors through the cooperation among them

- Give access to business opportunities to which companies would not be able to access by themselves
- Reduce entry barriers (costs and risks) in foreign markets (information, contacts, assessment, etc.)
- Increase the capacity to innovate while reducing costs and time-to-market (shared infrastructures, cooperation with R&D institutions, etc.)
- Increase both national and international visibility of the company

**Region’s perspective**
Boosting the regional development and support its economic transformation

- Complete value chains by developing cooperation projects in the domains or niches prioritised by the RIS3
- Build-up world-class capacities in those prioritised domains or niches in order to increase the competitiveness, internationalisation and innovation level of companies, especially SMEs
- Reinforce the branding of the region as a place in which to invest and from which to import
11.100 million Euros of Public-Private collaboration on R+D+i along 2014-2020

Internationalisation strategy for the Basque Science, Technology and Innovation System, setting for Horizon 2020 participation goals and offering support services to achieve them.
INTERREGIONAL COOPERATION

VANGUARD INITIATIVE
NEW GROWTH THROUGH SMART SPECIALISATION

Efficient and Sustainable Manufacturing

Advanced Manufacturing for Energy Applications in harsh environments

Catalonia
Lombardy
Basque Country
Scotland

SMART SPECIALISATION PLATFORM
REGIONAL DEVELOPMENT STRATEGY

- Economic development focus: companies at the core
- Outward looking dimension: European reference
- Stability, sustainability & evolution
- Stakeholders involvement
- Evidence-based policy
Cristina Oyon
Head of Strategic Initiatives
SPRI
Cristina@spri.es