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Policies to stimulate the deployment of SMART technologies in electric vehicle charging and smart grids in the Basque Country



London, 6th April 2011



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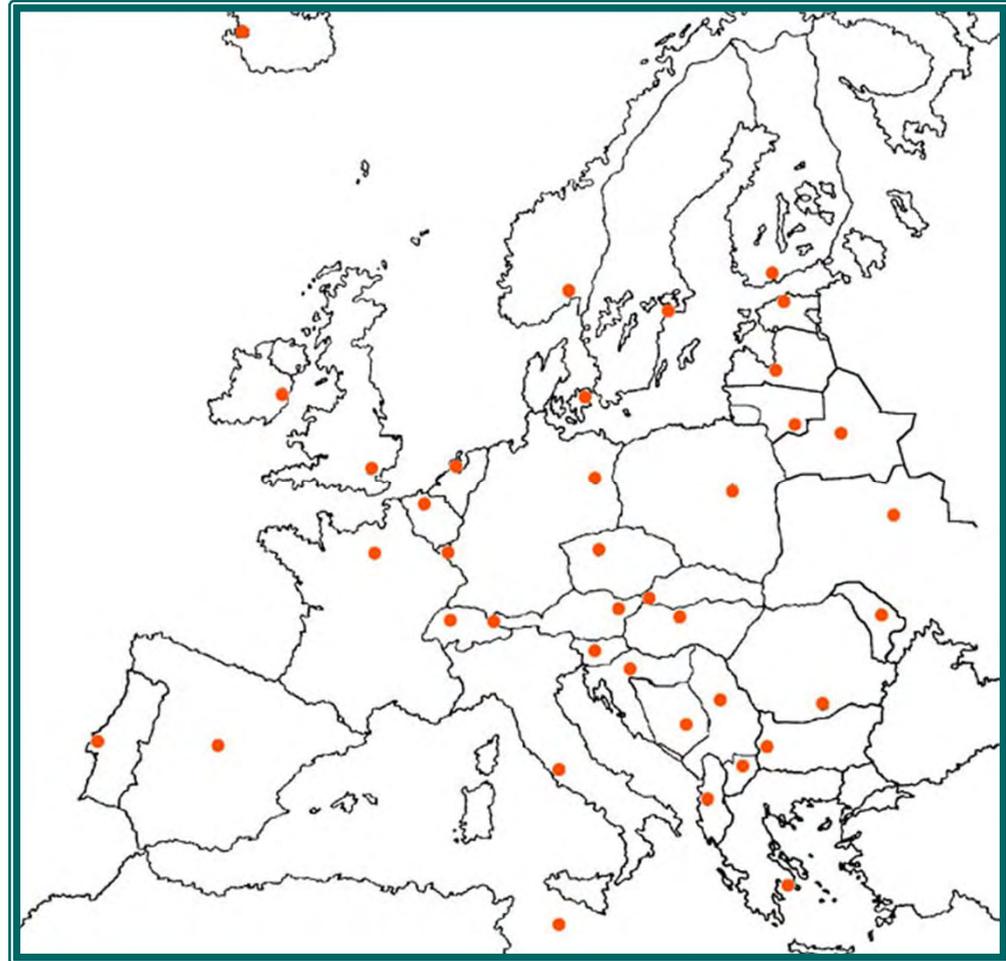
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LOCATION



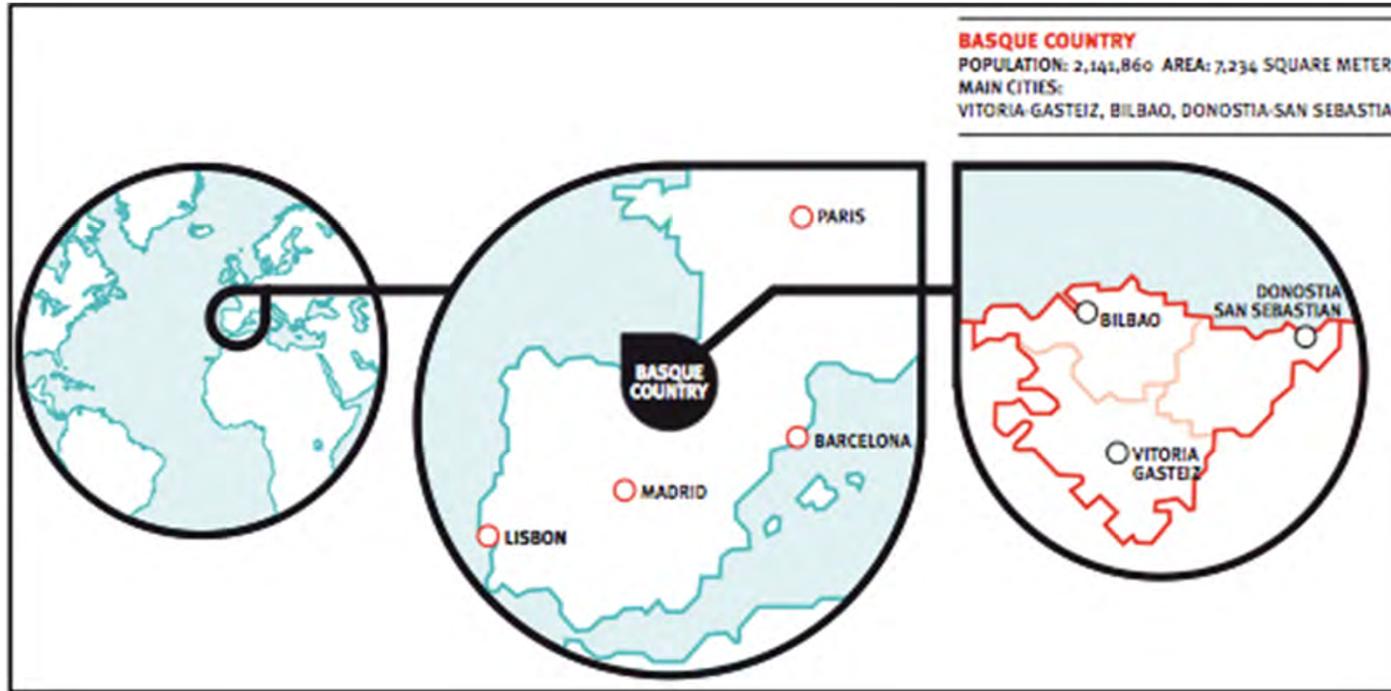


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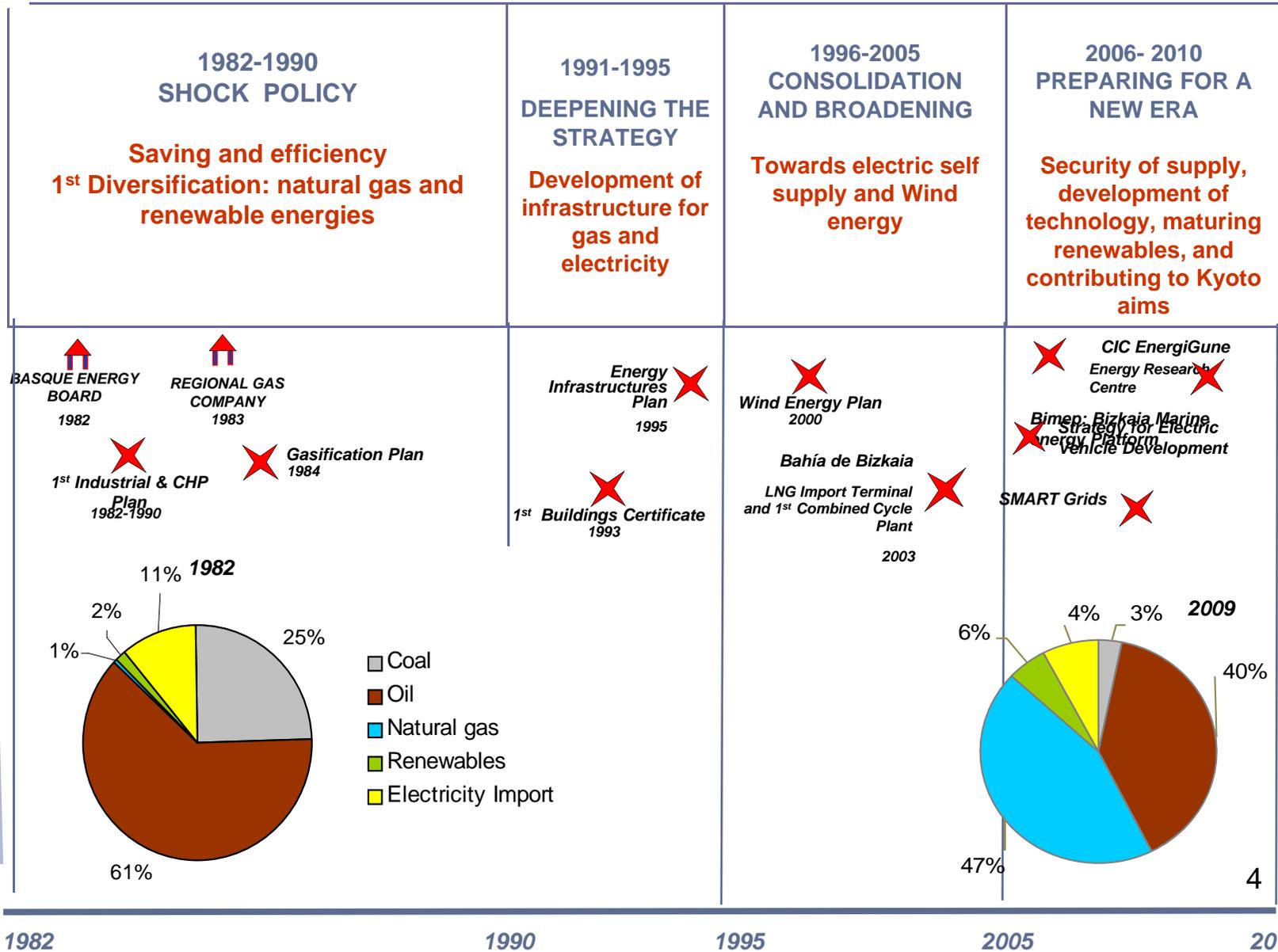
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Land Area	7,234 sq km
Population	2,172,175
Population density	300.23 per sq km
Official languages	Spanish / Basque
Population aged 20 to 24 years with higher level education (%)	78.0

GDP	€68.43 bn
GDP per capita	€31,712
Growth in GDP	3.9 %
R&D	1.85% of GDP
Source: Eustat 2008	





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SAVING AND ENERGY EFFICIENCY AS A PRIORITY

- Important efforts and results in energy efficiency in industry
- Need to mobilize saving and efficiency in “diffuse” sectors:
 - Building
 - Transport
- Technical, logistical . . . and financial challenges.



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Finance formulas used by the Basque Government

- Direct subsidies for users and consumers. Origin of funds:
 - Government budgets and EVE (Government energy agency)
 - Percentage collected through the electricity tariff (1%)
- Savings shared with the user: EVE is owner of the energy installation and sells energy/heat to the user of the building .
- Direct participation in energy service companies (ESCOs)

In most cases the energy agency EVE is the vehicle through which the Basque Government channels its aid, purchases and shareholding.



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OBJECTIVE

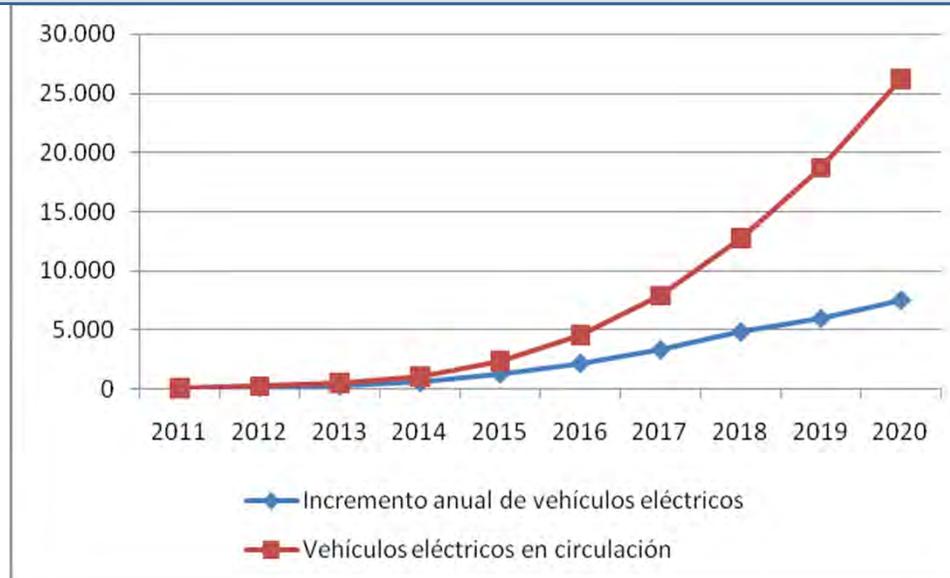
Promote the introduction of the electric vehicle (EV) in the Basque Country as a way to improve energy efficiency in transport and as a boost for new business opportunities in the Basque industrial fabric.

Specific Objectives

- Create a network of charging stations in the territory of the Basque Country
- Support the Basque electric and electronic equipment sector in the development of industrial and technological capacities in the area of the EV
- Support the Basque automotive sector in the development of systems and components for the EV
- Facilitate access to the EV for organizations and citizens of the BAC
- Promote the development of a legal framework that favours the introduction and use of the EV at all geographical levels and areas

TIME OBJECTIVE

The time objective for this Strategy aims to achieve, for the year 2020, that 10% of vehicles sold be electric (pure or chargeable hybrid).





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• Strategic axes

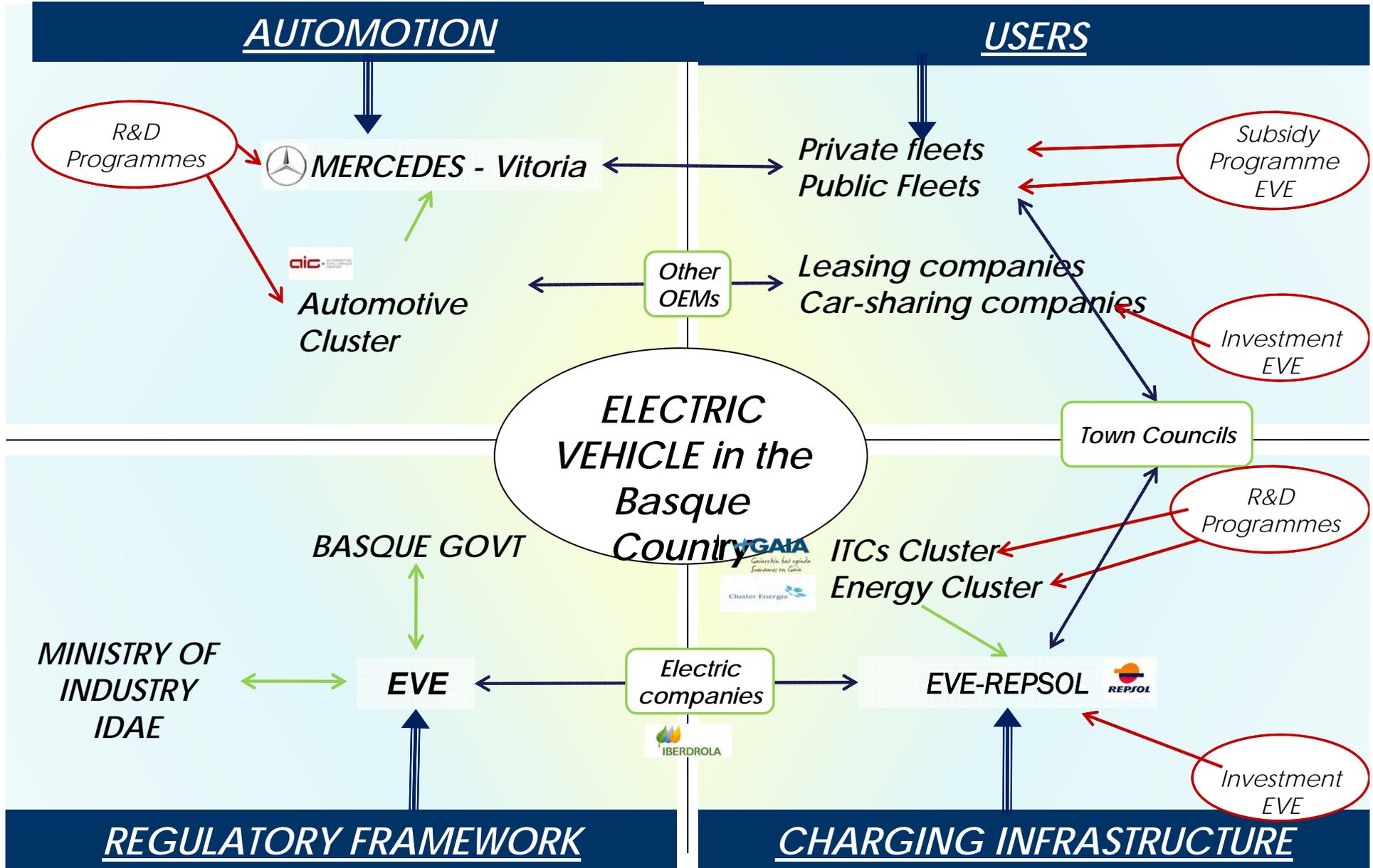
1. **Development of an infrastructure of charging stations with total coverage for the region**, thereby guaranteeing mobility by electric vehicle within the BAC.
2. **Creation of a critical mass** of vehicles in circulation, in order to advance the market breaking point.
3. **Adaptation of the regulatory framework**, proposing regulatory modifications that facilitate a rapid incorporation of electric vehicles.
4. **Boost the automotive sector** through support for the design of a new electric vehicle produced in the Basque Country and the opportunity to design specific components by Basque companies in this sector.
5. **Smart grids**. Agreement EVE Iberdrola. 60 million Euro.



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 Otros agentes
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- **Agreement Basque Government – Mercedes Benz**
 1. **Pilot project for use of electric vehicles (E-Vito and E-Smart) in Basque Country fleets including the monitoring and assessment of results (Collaboration with EVE)**
 2. **Project to generate knowledge and joint development between Mercedes Benz and Basque automotive industry, R&D and innovation related to electric vehicle projects (Collaboration with AIC and Basque companies in the automotive sector)**
 3. **Development and production project for the electric vehicle at the Mercedes-Benz plant in Vitoria (Contracting the RVCTI Technology Centre)**



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EVE-REPSOL Agreement . Charging infrastructure

1. Initial Phase

- Analysis of the technology, profitability and viability of possible battery charging systems and rapid substitution of batteries in electric vehicles
- Preparation of the technical specifications of selected solutions
- Determination of the most suitable sites
- Analysis of the economic viability and preparation of the Business Plan

2. Investment Phase

- The Boards of Directors of both companies (EEV and REPSOL) have approved the constitution of a joint company that set up and run the charging installations throughout the BAC.
- IBIL has already started its business operations.
- Company stock shared at 50% for EEV and REPSOL each, and the headquarters are in the Basque Country. IBIL

Charging infrastructure in the Basque Country

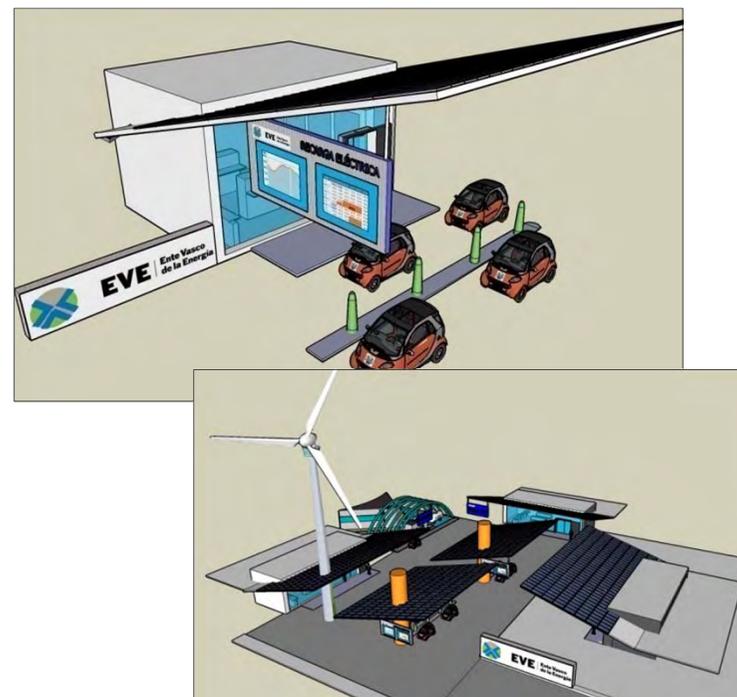
EEV together with REPSOL, are lead in the design and introduction of the basic network of charging stations, to guarantee the mobility of electric vehicles in the BAC.

Opportunities for Basque companies in new products:

- *Design and construction of charging installations*
- *Manufacture of specific equipment and components for charging stations*
- *Control and management systems for the charge network and communication with vehicles*

Opportunities for new businesses:

- *“Electric refueling”*
- *Renting and replacing batteries*
- *Battery manufacture*





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Collaboration Agreement between the Automotive Cluster of the Basque Country (ACICAE) and the Energy Cluster

Aim: promote the framework for collaboration between the two clusters to increase the competences of their companies with regard to the electric vehicle and associated charging systems, by means of joint actions in areas related to these activities that offer value to both organizations and their associates.



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Implementation of smart grids

The Basque Government has identified Smart grids as one of the priority Smart technologies to be implemented, with two objectives: provide electrical distribution grids and consumption points in the Basque Country with digital services that allow for an improvement in the service and a reduction in electricity consumption and, at the same time, to promote a qualitative leap in the competitiveness of Basque manufacturers of equipment and systems for distribution grids



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Implementation of smart grids

Iberdrola and EVE signed on February 14, 2011 of a partners Agreement. According to this agreement, both entities jointly set up a company in order to implement smart distribution grids in the urban centres of Bilbao and Portugalete, which would involve the adaptation of 1100 transformation centres to be fitted with the latest electronic equipment, and the renewal of more than 230,000 meters to serve 410,000 inhabitants. It is estimated that the development of these new Smart grids will require an investment of approximately 60 million euros over the next three years.



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• CONCLUSIONS

1. **The main energy priority for the Basque Government has been to reduce consumption through energy saving and improvements in energy efficiency.**
2. **Over the last two years, the Basque Government has put into practice policies and innovating formulas for public-private collaborations in order to overcome the regulatory and financial barriers for the implementation of Smart technologies in the aforementioned sectors.**



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3. Two practical experiences, initiated in 2010, are eloquent proof of this:

- **The deployment of infrastructures for charging electrical vehicles in the Basque Country through a company set up 50-50 by the Basque Energy Board (EVE) and REPSOL.**
- **The implementation of Smart grids in Bilbao and Portugalete, for which investments are made through an instrumental company set up by Iberdrola (54%) and EVE (46%).**

4. In both cases, the formula used to develop these initiatives has consisted of the formation of instrumental companies with the participation of private companies which are leaders in the energy sector, together with a public entity that answers to the Basque Government.