



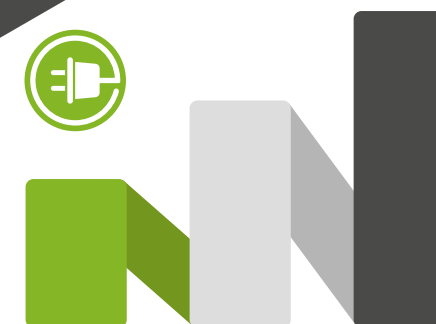
+34 924 00 86 71
+34 924 00 56 10

+invest@juntaex.es


@investext


investinextremadura

www.investinextremadura.com



**INVEST IN
EXTREMADURA**
ELECTRIC VEHICLE CHAIN VALUE

 JUNTA DE
 EXTREMADURA

Location



Iberian Peninsula strategic positioning



GDP 2022 Spain Data

Δ 5.8% GDP
€ 1.5 Trillion GDP
€ 28,160 PCI

Source: INE National Statistics Institute

FDI 2022 Spain Data

12 th FDI (inflow)
12 th FDI (outflow)

Source: DECO FDI Statistics

According to
AT Kearney
FDI confidence
index, Spain
achieved in 2022
the 8 th position
in this world
ranking

Source: AT Kearney FDI Confidence Index 2022



Highway connections
to Madrid, Seville
and Lisbon (less than
two hours away) and
between main regional
municipalities

Railway connections
to the ports of Sines
(TENT European railway
corridor) and Algeciras
from the industrial zones
with intermodal terminal

Airports: Badajoz, air
connections with the
airports of Madrid and
Barcelona. Two hours by
Highway to Seville and
Lisbon airports.

Regional support

- Objective 1 region for the European Union
- Wide range of available aids

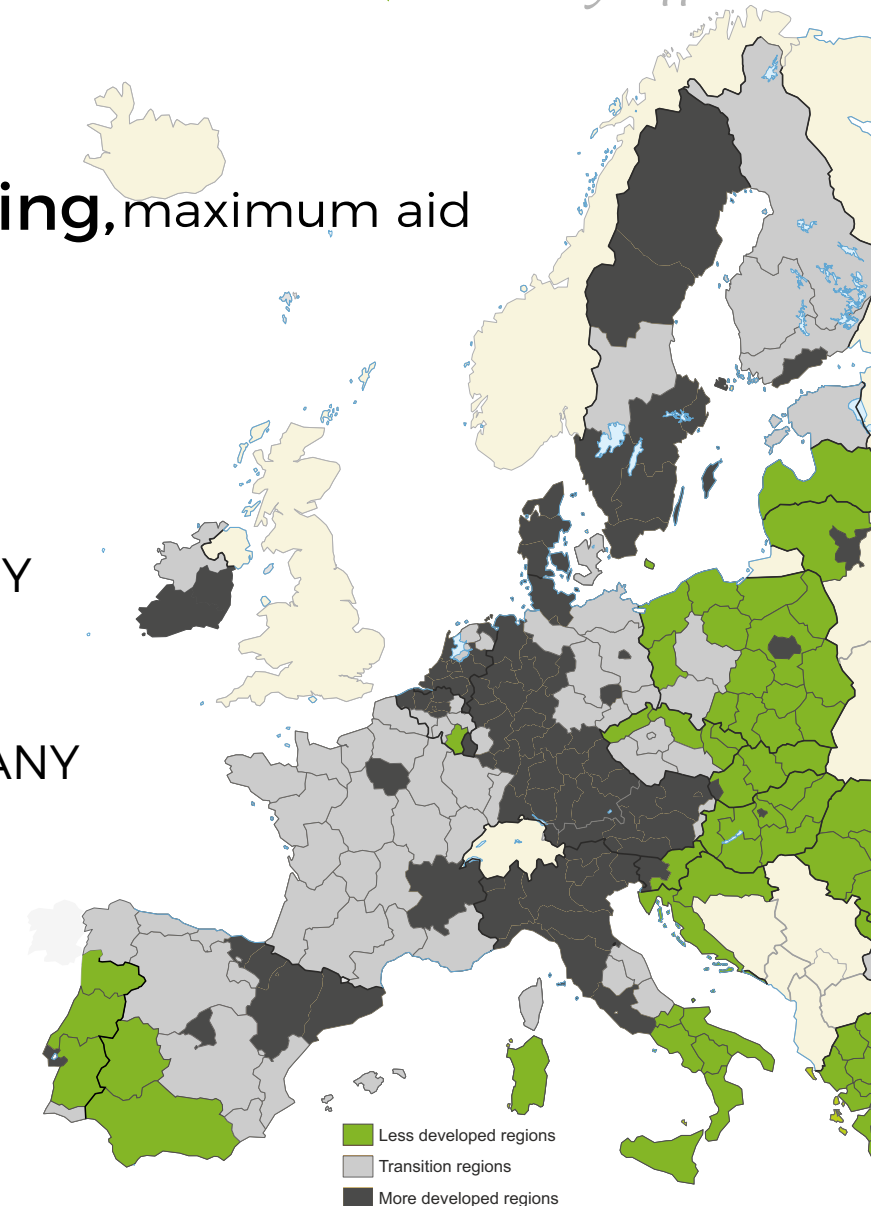


- Priority financing, maximum aid for investments

60%
SMALL COMPANY

50%
MEDIUM COMPANY

40%
BIG COMPANY



- The Regional Government, strategic institutional partner through its **venture capital** companies



Sodieux



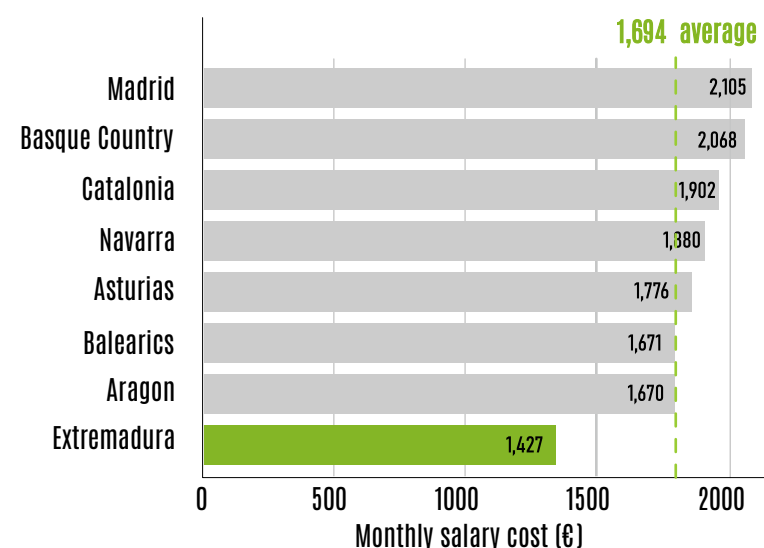
- Qualification of projects as **PREMIA**
- Business Projects of Regional Interest

- Declaration of public utility or social interest.
- Priority and urgency for the entire regional administration, reducing established deadlines.
- Urban planning or building permit replaced by the consultation process.
- Expropriatory capacity for access roads, power lines and supply pipelines.
- Direct granting of subsidies for employment purposes.



Competitive costs

Extremadura has the most competitive labor cost of Spain

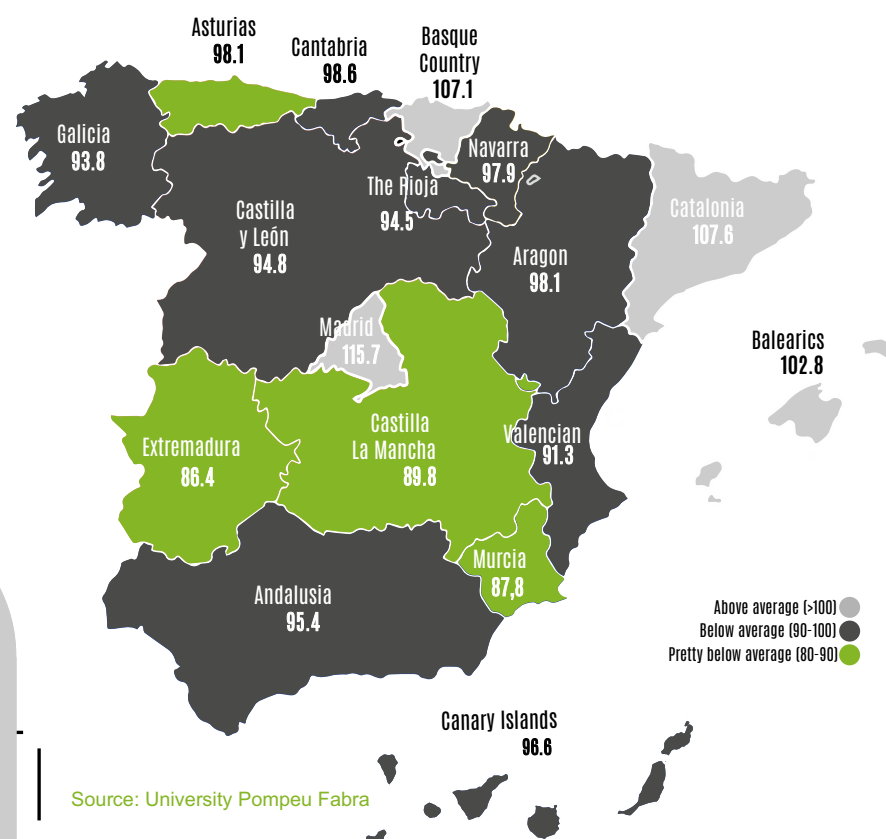


The labor cost in Extremadura (€ 1.426), is the lowest in Spain, 67,77% of the national maximum.

Labor costs in Spain are 30% less than the average of the 12 largest EU economies.

Economic wellbeing

Extremadura has the lowest cost of living in Spain with almost 30 points below Madrid. This makes it possible for labor costs to be 48% less than in Spain's capital



Source: University Pompeu Fabra



Low cost of industrial infrastructures

The prices of industrial areas in Extremadura are amongst the most appealing in Europe.

Source: Eurostat Labor Cost and Earning Survey.

- Plots for large industries, with supply infrastructure built for standard consumption, in industrial parks equipped with intermodal railway terminals and logistics connections.
- Plots and warehouses for small businesses, in industrial zones located in medium-sized towns populations.

Three big industrial areas connected to TEN-T railway corridor



Located in **Badajoz**, it is a powerful logistics node with more than **510 hectares** of land (60 in its first phase) in the border of Spain with Portugal and connected with the **A-5** highway (Madrid-Lisboa). This logistics node has a railway terminal (dry port), with a planned annual capacity of 376,320 that allows the charge of trains of up to 750 m in length.




Located in **Mérida**, it is a logistics node with more of **207 hectares** of land in the center of the region, with connections to the **A-5** (Lisbon-Madrid) and the **A-66** (Gijon-Seville). This logistics node has a railway terminal with a planned annual capacity of 60,000 containers, allowing trains of up to 600 m in length.



Located in **Navalmoral de la Mata**, in the northeast of the region. It is an industrial area with more of **425 hectares** of land, with connections to the **A-5** (Lisbon-Madrid). This node has a railway terminal with a planned annual capacity of 60,000 containers, allowing trains of up to 600 m in length.

Innovation and work force

 The proportion of the population with **post-secondary education** is higher than in other parts of Europe

% Population 30-34 with third studies

Community Madrid	53,6
Spain	46,7
Portugal	43,7
Valencia	43,3
EU 28	41,6
Andalusia	39,6
Germany	37,8
Extremadura	34,1
Italy	26,8
Romania	24,8



Students graduated degrees STEM

STEM	Women	Men	TOTAL
Sciences	969	612	1581
Tecnologies	35	120	155
Engineering	159	355	514
Mathematics	7	13	20
TOTAL	1457	803	2.270

Source: University of Extremadura 2021-22

Source: Eurostat 2022

Degrees at the University of Extremadura related to STEM field are enough in order to fulfill the demand of techonology service industries and companies which are established in the region.

 International **center of research and innovation** in energy storage



The Iberian Energy Storage Research Center (CIIAE) came into being in order to resolve scientific and technological challenges that make a decisive contribution to the manageability of green energy production.



The CIIAE aims to be a global reference research center in the entire energy storage cycle, from the physical chemistry of materials to their scaling and application, combining basic research supported by the Public Sector, technological development driven by public-private collaboration and business innovation.



The CIIAE will be supported by the creation of a Technological pole and a Industrial Pole specialized in the value chain of the so-called Energy Transition so that research and technological development activities can materialize in the creation and attraction of a new business fabric.



- CIIAE objectives

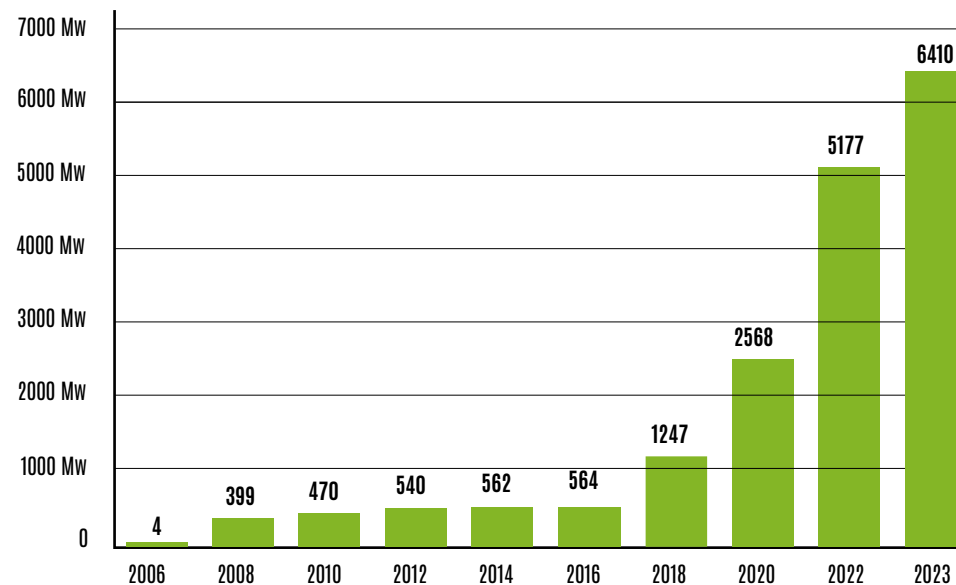
 - Deployment of energy storage technologies based on lithium-ions and Industrial applications of Hydrogen,
 - Production, storage, transportation in the large-scale hydrogen industry.
 - Research of excellence.
 - Attraction of talent to the region.
 - Business attraction pole.
 - Promotion of public-private collaboration.

Renewable energy

- Extremadura is the leading region in photovoltaic energy of Spain



In the last four years, the installed power capacity in Extremadura has INCREASED TENFOLD, representing 25.1 % of Spain.



One of every four Mw is located in Extremadura . The two biggest plants of Europe are in this region, both of more than 500 Mw.

- Public rural land Data Base a tool to locate self-consumption photovoltaic plants

Extremadura has a geolocated database with all the properties owned by the more than 400 municipalities in the region, which also includes electricity, optic fiber and gas supply networks, water, etc.

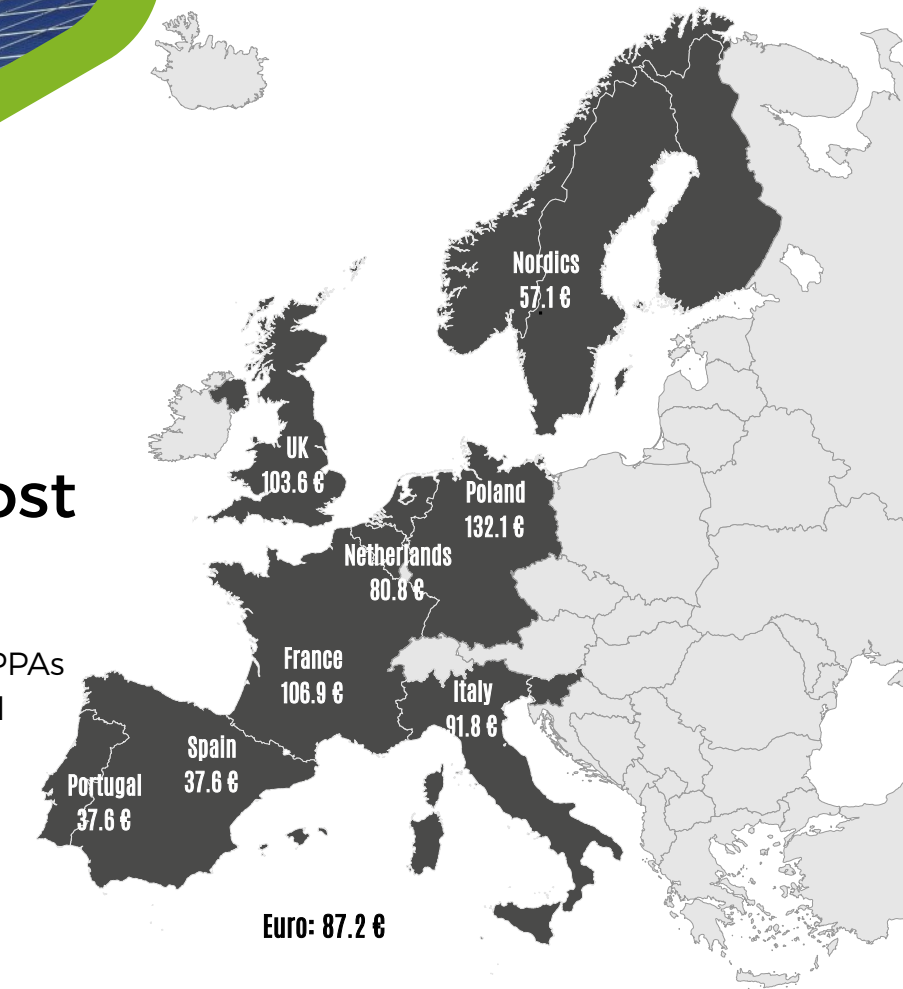
This tool has allowed us to identify more than 70 potential location that have been used to locate photovoltaic plants for projects such as Envision or Diamond Foundry



- Spain has the most competitive PPA cost

The cost in Spain is 37,6 €/ Mw. Spain also leads the number of PPAs signed in the last years and total installed power in Europe and the UK.

Source: Pexapark



- Extremadura is already a destination for investments that are searching affordable energy with zero emissions

Extremadura is a privileged destination for projects seeking an cost-effective source of energy, with zero carbon footprint. Off grid photovoltaic plants for self-consumption, allow complete independence from energy markets.

Last greenfield projects installed in Extremadura are going to be supplied by PPAs with electric energy producers. Prices near €20/kw are being considered by projects studying their own self consumption photovoltaic plants.

● Mining energy transition

- **Extremadura** is the leading region in **Lithium and Niquel** of Spain

The Valdeflores mine in Cáceres (Cáceres) has resources initially calculated, at **111.3 million tonnes at 0.61% Li₂O** and 206 ppm Sn (calculated with a 0.10% Li limit). It may be the second largest lithium mine in Europe.

The Ministry of Industry, Commerce and Tourism has granted a subsidy of **€ 18.82 million** under the framework of the **PERTE VEC II** call for proposals to the first transformation industrial plant of **EXTREMADURA NEW ENERGY**, which will produce 33,000 tons of lithium hydroxide per year.



The Las Navas mine in Cañaveral (Cáceres) is operated by **LITHIUM IBERIA S.L.** The preliminary calculation of resources and reserves made by the company suggests the existence of potential resources of **130 million tons with an average grade of 2.245 g/t of lithium** that suggesting an exploitation of 41.90 million tons.

Between the mine and the lithium hydroxide plant, **LITHIUM IBERIA** plans to invest 1,43 billion euros, for an annual production of **33,000 tons of lithium hydroxide** and 700 Jobs during the 26 years of the project's life. The lithium hydroxide plant project has obtained a **€ 13.3 million aid** for an investment of **€ 88.6 million**.



Discovered in 1994, the Aguablanca mine is one of the only deposits in Spain capable of producing nickel and copper. It has recently been acquired by Denarius Metals.

The underground Mining Plan for the Aguablanca mine has already been approved by the regional mining authority and the Environmental Impact Study, approved in 2017, is still in force. All of the mine surface facilities, including the processing plant, are in good condition, and maintenance activities are expected to resume operation in June 2024.



Valdeflores Mine



Li

Li

Las Navas Mine



Aguablanca Mine



Ni

Other value chain links

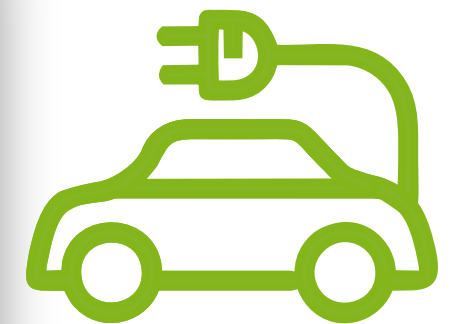
- A cathodes factory will be installed in **Cañaveral**
- Several multinationals are considering doing so.

PHI4TECH plans to implement in the municipality of Cañaveral a lithium cathodes factory for the **supercapacitor cells** that they will produce in their Badajoz factory,

For has announced a total investment of **200 million euros** of investment and 360 direct jobs for the production of cathodes in Cañaveral.

Extremadura is receiving numerous requests from multinationals that wish to locate their cathode factories in one of the three large industrial areas in the region, (Badajoz, Merida and Navalmoral de la Mata) which have the large plots of industrial land they need.

Big industrial areas available



All these projects want to have the competitive advantage of having lithium hidroxi and nickel suppliers such as Extremadura New Enregy, Litium Iberia and Denarius Metals as well as battery manufacturing clients such as Envision or Phi4tech.

The confidentiality agreements (NDA) do not allow the identity of these companies to be revealed, but Invest in Extremadura has provided landing services to up to five projects, some of which even have an MOU signed with the investors.

- The **battery recycling industry** has set
- its sights on locating in the region.

In the same way as in the manufacture of cathodes, there are several battery recycling companies that, in view of the development of the Connected Electric Vehicle value chain in the region, are considering setting up in the region.

Cañaveral Cathodes plant



Phi4tech

🕒 Lithium Battery factories

- Two **battery factories** are going to be located in our region

The Chinese group **ENVISION** and its subsidiary created in Spain, ENVISION AESC SPAIN are landing in Navalmoral de la Mata (Cáceres) with a project to create a gigafactory for the manufacture of lithium batteries, which will create 3,000 new green jobs with high added value and will have with an investment of more than 2.5 billion euros when it is fully operational in 2025.

The **ENVISION** plan is based on the development and manufacturing of batteries from a zero emission plant, integrated into different electric platforms, including a system of removable batteries adapted for other innovative mobility models.

The megafactory will be installed in the business park in the north of Extremadura, Expacio Navalmoral, specifically on plot I-67, which has a surface area of 1,088,399 square metres. In 2028, once the last of the planned phases has been completed, the production capacity will be 94.24 GWh (gigawatt-hours), with a total investment of 5,098 million euros.

In September 2023, the **PERTE VEC II** was approved, with the Envision project in Navalmoral, to which a total of 300 million euros were granted, 200 of them, as a non-refundable subsidy, and 100 as a loan.



ENVISION

- More than a **half of the PERTE VEC II*** goes to four projects in the region, with 236 million of 588.

*Strategic Projects for the Recovery and Economic Transformation of the Connected Electric Vehicle



Phi4tech

The **Phi4tech** cell factory will have a planned final capacity of 10 gigabytes, planned modularly over time in 5 2GW modules. The initial 2GW module will be inaugurated 20 months after the works begin, approximately in 2024, will require an investment of around 80 million euros and will create 200 direct jobs.

When the maximum capacity is reached (10GW), a total of 400 million euros will have been invested and some 500 direct employees will work in the factory.

This is the fourth project that has received aid from **PERTE VEC II**, in this case for an amount of 4.7 million euros.

