

# Other Bioenergy plans in the EU

Castilla y León is the first Region to develop a Bioenergy Regional Plan in Spain. Ten European Regions have developed Regional Plans and thirteen states are implementing bioenergy national plans or strategies.

It is a recommendation from the Commission to boost the renewable energy sector.



Additional Information about the Castilla y León Bioenergy Plan:

[www.jcyl.es](http://www.jcyl.es)

[www.eren.jcyl.es](http://www.eren.jcyl.es)

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# Objectives for 2020

According to European initiatives, Castilla y León projects a group of **objectives for 2020:**

- To mobilise indigenous resources: around 7 million t/year of biomass. Its energy valorisation equals 1,600 ktoe of primary energy.
- To reach an installed power of 438 MW<sub>e</sub> to produce electricity, equivalent to the annual consumption of 750,000 homes.
- To heat 390,000 homes.
- To fulfil the European Union commitment for biofuels that implies the replacement of 10% of fossil fuels in transport by others from renewable sources.
- To produce 435,000 t/year of pellets and 590,000 t/year of biofuels.



**A strategic measure for the Region**



# Castilla y León Bioenergy Action Plan

Bioenergy in **Castilla y León** has the potential to be a great source of alternative energy thanks to the existing potential in the Region. The development of this sector will promote the qualities, characteristics and benefits associated with renewable energy.

## Main qualities, features and benefits of Bioenergy

<b>Variety of products</b>	Solid biofuels: pellets, chips, briquettes, etc. Liquid biofuels: biodiesel, bioethanol, bio-ETBE, etc. Gas biofuels: biohydrogen.
<b>Energy use versatility</b>	Heat and cool generation. Electricity generation. Transport.
<b>Forest improvement</b>	Fire and pest prevention.
<b>Environmental impact reduction</b>	Less reliance on fossil energies. Less GHG emissions.
<b>Sustainable, local and indigenous production</b>	Rural and industrial development. Creation of employment and economic activity.

**Castilla y León Bioenergy Plan, PBCyL** is approved and equipped to promote this sector.

Following a first phase of analysis, mainly focused on resources in the region and the technology alternatives for its energy valorisation, the **PBCyL** presents a group of measures to encourage bioenergy in the medium and long term. These measures are based on a sector diagnosis, setting out specific problems, proposing solutions and evaluating the effects.



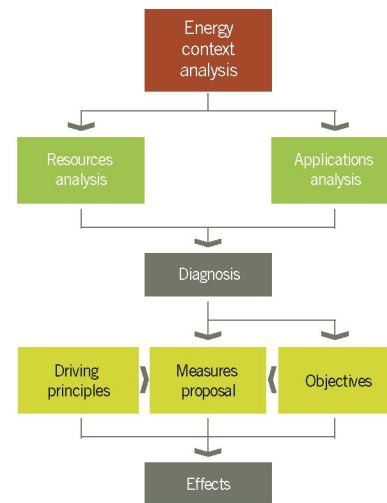
## PBCyL driving principles

The Plan has been developed by the Environmental Department of Castilla y León Region, the Regional Energy Agency and the Agriculture Technological Institute, together with CESEFOR Foundation and 110 organisations related to the bioenergy sector.

Collaboration amongst them has resulted in the **PBCyL** which is driven by the following fundamental principles:

1. Rural development and social awareness.
2. Environmental and sustainable development.
3. Energy diversification.
4. Economic and business development.
5. Regional resources use.

## PBCyL structure



The **PBCyL** strategically proposes 49 measures and 116 specific actions to boost the bioenergy sector in our Region.

These measures cover the bioenergy sector and involve different agents from raw material to the final consumer.

## Bioenergy Strategic measures



### Resources main measures

- To elaborate a Plan for wood mobilisation that will increase the use of this resource.
- Energy Crops R&D Programme.
- Grants to acquire biomass production equipment.
- To promote biomethanisation of urban biodegradable organic matter.
- To encourage and support biomass producers associations.
- To improve livestock biomass and agri-food industries management.



### Applications main measures

- To plan large scale projects. Installations and technical monitoring.
- To improve and adapt subsidy schemes for different types of equipment and facilities.
- To facilitate the financing of bioenergy projects.
- To introduce biomass boilers in public buildings and vehicles.
- To promote biomass fuelled heating networks.
- To develop and finance R&D and innovation programmes for equipment, technology and processes.



### Horizontal measures

- To advise SMEs, individuals and local bodies about bioenergy matters.
- To provide training courses for bioenergy sector employees.
- To publish bioenergy handbooks for different groups.
- To promote the elaboration of standards for solid biofuels.
- To encourage the installation of domestic boilers and pellet use.
- To create a Regional Bioenergy Monitoring Centre.



Resource production >>> Logistics >>> Processing >>> Consumption

