



Environmental Technologies

AVENIA Competitiveness Cluster: Future Energy Environment

- Aquitaine Wind Industry Cluster
- Sysolia Cluster (Aquitaine Industrial Solar Systems), top region in France for the photovoltaic industry
- Clusters structured around specific scientific competencies: Xylofutur (products and materials from managed forests), CREAHD (environmentally-conscious construction, sustainable living)
- 2 Future Investments-listed Carnot Institutes: ISIFOR (sustainable engineering of fossil fuels) and CEMAGREF (environmental science and technology)
- An Institute of excellence for De-carbonated Energies has been preselected: INEF 4
- Number 1 region in France for creation of 'green jobs' in 2009 and 2010
- **Dedicated sites in development:** Blanquefort Ecoparc (environmentally friendly construction), Bègles Environmental Intelligence Park (Renewable energies), the Montesquieu Technopolis, Verdon port area, Pauilhac, Grattequina...
- **Natural resources:** Europe's largest managed forest, a wealth of sunshine and hydraulic energy...
- Two new activities making progress in the Gironde: biomass and geothermal energies

Cutting edge

Production of trackers for solar panels
 Biomass-fuelled electricity generation
 Plasma torch treatment for dangerous waste
 Production of wind turbine blades
 Oceanography
 Centre Lithium-ion batteries for electric vehicles
 Expertise in materials: design, production, processing
 Construction of wood frames
 Geosciences



Training

- École Nationale Supérieure for the Environment, Georesources and Sustainable Development Engineering (ENSEGID) and the others engineering schools of the Bordeaux Polytechnic Institute
- Bordeaux École Nationale Supérieure of Architecture and the Countryside – ENSAP
- Blanquefort Professional College for Housing, Public Works and Transport
- 'Science and the Environment' Doctoral Institute
- Master's Degrees in 'Forestry and Sustainable Development' and 'Environment, Ecology and Earth Sciences'
- Creation of a program dedicated to wind turbine components (C2T)
- The University of Bordeaux 1 offers a vocational degree in wood construction

Research

- 250 doctoral researchers working in twenty research laboratories
- Observatory for the Earth, the Sea and the Universe (OASU)
- Institute of Molecular Science – ISM
- Materials and Systems Integration Laboratory - IMS
- Bordeaux Institute for Condensed Material Chemistry – ICMCB
- Mechanics and Engineering Institute (I2M)
- Technological Institute of Forestry, Cellulose and Wood Construction – FCBA
- Technological Resource Centre RESCOLL
- EGID Institute
- Applied Geosciences Development Centre-CDGA
- Private research centers: Eurovia, Saft, Veolia, Lyonnaise des Eaux (Lyre), Bordeaux European Environmental Institute...

Industry associations / Transfer

- Innovalis Aquitaine wood-living spaces and energy-environment
- Agency for the Environment and Energy Control – ADEME
- AVENIA, the Cluster's governing body (Future, Environment, Energy)
- CREAHD Center (environmentally-conscious construction, landscape management and sustainable living)
- CDPEA (Sustainable Construction and Energy Performances in Aquitaine)
- Nobatek Technological Resource Centre for sustainable construction
- French National Institute for Building Energy Performances – IFPEB
- Technological Institute of Forestry, Cellulose and Wood Construction – FCBA

Main companies

Aboxia – Arkema- Europlasma – Valorem – Exosun – Exoes – Sunnco – Bertin Technologies – Eosol Énergies Renouvelables – Fonroche- Solarezo- ScopusBio – Evtronic – Vertige – Plantover – Ecocoon – Énergie de la Lune – Epsilon Composites – Fermental – Lectra – Kipoplue – Silimet – Gaia Converter – SOPREMA – PENA – Phytoactif – Thermya – EADS Astrium – Plastinov- Rescoll-Valeol...