Bordeaux Invest

Bordeaux Invest is the key point of contact for any business that wishes to invest in Gironde. Its team advises, guides and assists investors throughout the various stages in their decision to settle and invest in the area.

Bordeaux Invest has ISO 9001 certification and provides services in the following domains:

- Project study and assistance in drawing up specifications
- Identification of real-estate solutions to develop projects
- Information and advice in terms of legislation and taxation
- Search for public funding solutions (subsidies) and private financing (risk capital, banks...)
- Contact with potential local partners: research laboratories, training organizations, professional associations, human resources specialists...
- Assistance in employee mobility and human resources

Bordeaux Invest services are free of charge and meet only one objective: ensure that each new implantation in Gironde is a success by assisting investors throughout their project and facilitating their integration into the economic fabric and the local networks.

The 183 members of Bordeaux Invest are companies and socio-professional bodies that provide efficient support and contribute to strengthening the local economic fabric and the image of their territory.
With the ambition of ranking amongst the TOP 20 European cities by 2020, Bordeaux and the wider Gironde area are committed to the development of a new model of regional identity, founded on a knowledge-based economy and a spirit of creativity and sustainable development.

Ranked by FDI magazine as the 3rd best city in western Europe, after Berlin and Hamburg, for its policies to promote investment, Bordeaux and its surrounding region provide a wealth of attractive opportunities for business.

This dynamism is backed up by two further accolades which suggest that 2010 marks the start of a decade which will belong to Bordeaux: number one region in France in terms of number of jobs created in the environmental sector according to the Cabinet TRENDEO, and the 3rd best “City for Enterprise” according to Enterprise magazine (November 2009).
Performances 2009...

- Number 1 region in France for job creation in the environmental sector
- Number 1 region in 2009 for dynamism in terms of job creation
- Number 1 region for number of jobs created by foreign investment in relation to the active population
- 4th region in terms of population growth between 1999 and 2008
- 5th region in terms of business start-ups and GDP per job

Main Business Customers

Competitiveness Clusters
- One world cluster: “Aerospace Valley – Aeronautics, Space and Embedded Systems”: with the Midi-Pyrénées region: the industry’s biggest employment pool in Europe – 8,500 researchers – 120,000 industrial jobs – €10 billion earnings – 1,600 establishments – One business park: Bordeaux Aéroparc.
- Route des Lasers® – Lasers, Photonics and Applications: 70 businesses – 200 graduates/year – 8,800 jobs – 600 researchers. Dedicated business parks: Laséris 1 and 2 and the City of Photonics. The Megajoule Laser, the only scientific facility of its kind in the world.
- XyloFutur – Cultivated Forest Products and Materials: 200 researchers – 25,000 employees – 1,700 establishments.
- Avenia – Avenir Energie Environnement: a certified “competitiveness cluster” in the environmental technology sector since May 2010 – 3,580 researchers - 125 businesses including big names from the petrochemical sector and small and medium-sized businesses from the region, 14 public training courses and 6 private vocational training courses.
- Other regional clusters: CREAhD (Sustainable Construction, Resources, Environment and Habitat); Prod’Innov (Innovative Products and processes for healthcare) and Innovins (Wine sector); similar initiatives are underway for the wind turbine and drone technology sectors.

... and major projects:

Infrastructures
- Paris/Bordeaux high-speed train link in 2 hours in 2016 and connections to Toulouse (1 hour), Bilbao (1½ hours) and Madrid (3½ hours) in 2020.
- New international links: A65 motorway to Pau and Spain in 2010, Eco Fret Atlantic truck-on-train system.
- Tramway – 3rd phase: an additional 35km by 2015 and the opening of a 4th line.
- Digital Gironde: digital development project for the Gironde area, to provide full comprehensive 2Mb/s broadband coverage of the area.

Urban developments
- Bordeaux Euratlantique: an international business district dedicated to higher service activities, located near the train station, soon to offer high-speed train links to Paris in 2 hours. Accredited as an Operation of National Interests.
- A University Campus development project: Bordeaux, one of 6 French universities selected for a large-scale program of renovation and construction of new facilities. Total investment: €538 million.
- Themed business parks: Laséris 1 and 2, Cité de la Photonique for lasers/photronics, Aéroparc for aerospace, Bioparc for health and biotechnologies, Ecoparc and Parc de l’Intelligence Environnementale for eco-activities.
Innovation

Bordeaux and its region boast a high-tech industrial fabric and among the 5 highest private R&D expenditure levels in France. The spirit of innovation is essential to the region’s research laboratories and SMEs, encouraged by a highly effective technology transfer and development incentive system. Growing world awareness of the energy and environmental issues relating notably to climate change, has led the Aquitaine Region to provide specific support for eco-innovation development and to foster the emergence of eco-activities.

Some recent examples of the exceptional research potential in Bordeaux:

- Electrical engineer Hervé Finan has launched a new generation of LED components for lighting purposes, Luxener LEDs.
- Jean-Michel Coindre, a Bordeaux-based pathologist and leading specialist on sarcomas, has recently been given the responsibility of heading the Reference Center for Sarcoma Pathology in Soft Tissues and Organs of the National Cancer Institute (INCA).
- Laurent Cognet, physics researcher at the Centre for Optical and Hertzian Molecular Physics (CMPOH), is currently conducting research into nano-particles with the intention of identifying properties which may have useful neurobiological applications.
- Two young Bordeaux-based engineers working within the Technowest technology incubator scheme have recently developed a prototype for a device specializing in aerial surveillance, the 360° UAV drone. This machine can carry a load of 10kg, and travel over 100km to take aerial photographs and video.
- Announced in an article published in February in the American journal Analytical Chemistry, a team of scientists working at the Paul-Pascal Research Center in Pessac has made an important discovery in the field of bio-batteries. The team succeeded in generating energy from a vegetable source (cactus).
- The Labri laboratory, located in the Gironde region, is leading a European project on the future of the internet, known as ALICANTE. The aim of the project is to find permanent solutions which will make digital content accessible to users across all platforms.
- A team from the Magendie neuroscience center in Bordeaux has discovered the causes behind the ineffectiveness of medicines used to treat eating disorders.
- Carole Lartigue is a biologist hailing from Bayonne, who is now N° 3 in Dr. Craig Venter’s research team in Washington (the American researchers who first decoded the human genome). The team recently announced the successful creation of the world’s first synthetic living cell.
- A research scholarship grant has recently been awarded to Greek researcher Georges Hadziioannou, who is working on “inventing the photovoltaic technology of the future” at the Bordeaux Polytechnic Institute. The aim of his project is to use organic materials to replace the minerals, such as silicon, which are commonly used in the production of photovoltaic cells.

Technology transfer

- “Innovalis Aquitaine”, the regional innovation promotion agency supports companies’ innovative projects, working alongside its regional partners. It provides support for innovations in the following sectors: bio-industries and medical technologies, wood and housing, chemistry and materials, environment and energy, food industry, ICT, transport and mechanical industries.
- Aquitaine Valo, a joint research development body set up by the Universities of Aquitaine. The 15-strong team is at the service of 4,000 researchers to raise their awareness of the need to file patents and promote the skills and know-how of their laboratories.
- Technology resource centres: Agir and ITERG (agri-food), Rescoll (glues for materials), Alphanov (lasers), CTBA (wood construction) and CRT Nobatek (sustainable technology and construction...).
- Facilities to foster the creation of innovative businesses: Aquitaine Regional incubator, the technology clusters (Bordeaux Unitec, Bordeaux Montesquieu, Bordeaux Technowest, Bordeaux Productic...) and the dedicated technology parks (Ecoparc, Bioparc, Aeroparc...).
Research

The University of Bordeaux Research and Higher Education Centre (PRES) boasts a number of strong research specialities organized around key facilities.

- 3 100 professors and researchers.
- Le Collège Doctoral (10 écoles doctorales) représente environ 3 000 doctorants. 700 thèses environ sont soutenues chaque année.
- 300 chercheurs étrangers (hors UE) accueillis chaque année.
- 188 university laboratories and the major national research centres: CNRS (80 laboratories, 2,500 permanent staff), INSERM (8 research units, 675 people), INRA (560 people, 15 centres in Aquitaine), CEMAGREF (120 people), INRIA, IFREMER, CEA/CESTA (500 researchers), BRGM...

In R&D, Aquitaine is demonstrating a development which is above the national average, in terms of number of researchers in private companies as well as in public bodies (+9% p.a. and +7% respectively). 11,300 people in the region work in R&D in some capacity (not including the defense sector), of which 6,000 are researchers.

Aquitaine is also amongst the leading regions in terms of the proportion of its per capita budget allocated to research and innovation.

Private research is focused largely on the aeronautical, chemical and healthcare industries, and plays a major role in the region’s 4 competitiveness clusters.

2 CARNOT institutes

- **MIB = Materials and Systems Institute of Bordeaux**

  One of the 20 French bodies to be awarded Carnot accreditation by the Ministry. Composed of 9 laboratories: CRPP, ICMCB, LaBRI, LCPO, LCTS, LMP, TREFLE, ISM, IMS and 3 resource centres, it has 500 researchers in the fields of chemistry, physical chemistry, mechanics, electronics, computer science and production science.

- **LISA = Lipids for the Health Industry**

  The LISA Carnot Institute was born out of a merger between three players, the ITERG, IMBL and the University of Bordeaux Research and Higher Education Centre (PRES), forming an original alliance between public and private research in the field of fats. A permanent staff of 120 researchers and 70 PhD students. Themes covered: health, nutrition, food safety, biomolecules, green chemistry.

Major research fields

- **Materials**: polymers, composites, inorganic and hybrid materials, bio and nanomaterials.
- **Optics-Lasers**: lasers and applications, biophotonics.
- **Information Technologies**: embedded systems, calculation models, imaging, displays, imaging and virtual reality.
- **Environmental, Development and Sustainable Development Sciences**: functional ecology, proteomics/genomics, environmental performance, geochemistry.
- **Neuroscience**: neurobiology, synapses, neural plasticity, nano-imaging, Alzheimer’s, cognition.
- **Life Biotechnologies**: bio-imaging, translational research.
- **Public Health**: epidemiology, ageing, AIDS.
- **Archaeological Sciences**: archaeomaterials, virtual imaging, prehistory.

Major scientific projects

- The Neurocampus centre dedicated to neurosciences.
- The new INRIA research centre at the University of Bordeaux 1.
- The internationally-renowned ISVV, Institute of Vine and Wine Sciences.
- Creation in Bordeaux of the Institute of Optics Graduate School (ISOG).
- Construction of the PETAL Petawatt laser.
The Bordeaux PRES (Research and Higher Education Centre) was set up in 2007 and represents:
- 71,650 University students, including 8,500 foreign students
- The fifth-largest French University (outside the Paris region) by number of students
- 4,000 post-graduate students
- 250 foreign training agreements
- The University of Bordeaux 1 is in the world TOP 100 in the Shanghai ranking in 2009 in computer and engineering sciences.
- Creation of a Bordeaux Polytechnic Institute bringing together 4 schools: National School for Electronics, Computer Science, Telecommunications, Mathematics and Mechanics of Bordeaux, the National School for Chemistry, Biology and Physics (ENSCBP), the National School for Cognitics and the National School for Biomolecules of Bordeaux.

Major projects
- Operation Campus, spearheaded by the Research and Higher Education Centre of the University of Bordeaux (includes four universities, the Bordeaux Polytechnic Institute, ENITA and IEP), is a project for the development of academic facilities for the benefit of scientific and educational projects.
- 2011 will see the opening in Bordeaux of the Optical Institute Graduate School
- The recently-launched Bordeaux University Foundation provides a new interface between the worlds of academia and business.

University higher education
- University of Bordeaux 1 Sciences and Technologies: mathematics, computer science, physics, chemistry, biological sciences, earth and sea sciences – 9,000 students.
- Michel de Montaigne University of Bordeaux 3: arts, humanities, languages, art, development, information and communication, social careers – 15,200 students.
- Montesquieu University of Bordeaux 4: law, social and political sciences, economics and management – 18,200 students.

Engineering schools in Bordeaux
- National School for Chemistry, Biology and Physics (ENSCBP), merger between the ISTAB and ENSCPB.
- National School for Arts and Crafts (ENSAM).
- National School for Electronics, Computer Science, Telecommunications, Mathematics and Mechanics of Bordeaux, merger between MATMECA and the ENSEIRB.
- National School for Agricultural Engineers of Bordeaux (ENITAB).
- Bordeaux National School for Biomolecule Technology (ESTBB).
- National School for Cognitics.
- Centre for Higher Industrial Studies (CESI Aquitaine Poitou-Charentes).

Other Grandes Écoles
- 3 IUP (University Professional Institutes), 6 IUT (University Technology Institutes).
A region without borders

In 2009, Aquitaine recorded a trade surplus of 2.4 billion Euros, an increase on the year before in spite of a steep drop in exports (-15%) and imports (-21%) between 2008 and 2009. The USA is once again the biggest export destination, followed by Spain and Germany; Spain remains the largest supplier, followed by Germany and the UK.

As of 2009, the Regional Customs Authority has records for 7,200 export businesses with their headquarters in Aquitaine.

Last but not least, Aquitaine is ranked third amongst the regions of France in terms of jobs created as a result of foreign investment, after the Paris region and Rhône-Alpes (2890 jobs created in Aquitaine for 29 foreign investment projects). Aquitaine also ranks first for number of jobs created in relation to the active population.

International trade (2009)

- Exports from Aquitaine: 12 083 million Euros
  In 2009, the top three export products alone accounted for more than 40% of the region’s total exports. They were: components for the aeronautic and space industry, pharmaceutical products and drinks (mostly the region’s famous wines).

- Aquitaine imports: € 9,664 million
  Leading imports: refined petroleum products, air and spacecraft, automobiles, pharmaceutical preparations, organic chemicals.

Top French region for exports of wood products
2nd French region for exports of wine and agricultural produce
3rd French region for exports of aerospace construction products and paper-cardboard

Source: Customs

International groups

- Germany: Allianz, Boehringer Ingelheim, Evonik Degussa, Funkwerk, DHL, Getrag Ford Transmissions GMBH, HZ Holding, Heidelberg, Hillebrand, Kloekner Distribution, KSB, Siemens, Linde Gas, Merck-Serono Biopharmaceutical ...

- Belgium: Agfa Healthcare, Belgacom, Sea Invest, ABX Logistics...

- Canada: Tembec, Massonite, Premdor, SNC Lavalin, Alcan, Vermilion Energy...

- Spain, Portugal: Porto Cork International, Amorim, Anon, Freixenet, Exa, Saica emballages, Sonae Industria, Finsa, Proségur, Acelaria, Leita...

- United States: CommScope Inc, Stryker Corp, Abbott, Carpenter, Carlyle, Krafts, Emerson Electric, Chanel, Kraft, IBM Corp, International Paper, Johnson & Johnson, PNY Technologies, McKesson, Oracle corp, Quisksilver INC, Microsemi, Marsh, Sun Hydraulics Corp, AON, Zimmer... - First Solar et Steris Surgical Corporation en cours-

- United Kingdom – Ireland: Barclays, Smurfit Kappa, Logica CMG, Oaktree, Experian, R&R Icecream, Rexam, Salvesen, Sage Group, Hays...

- Italy: Ficep, Italcementi, Nanni, Unichips, ...

- Japan: Ezahi Glico, Furuno, Keyence, Suntory, Toyo Aluminium, Toray Industries, Fujitsu Siemens...

- Netherlands: Argos, Akzo Nobel, ABN Amro, Hiscox, Enovation, ...

- Scandinavia: Ahlstrom Paper Group, Corenso United, F-Secure, Metso, Yara, Schades, Meda, Securitas...

- China: Altex group, Longhai International trading Co.Ltd, Hongkong A & A International...
**International relations**
- **Over 50 consulates and diplomatic representatives**, including the United States, United Kingdom, Germany, Spain, Italy...
- **A network of cooperation and twinning agreements**: Bristol, Munich, Fukuoka, Los Angeles, Quebec, Madrid, Porto, Saint Petersburg, Bilbao, Ashdod, Wuhan, Hessen...
- **Hosting networks for foreign visitors**: some fifteen associations in Bordeaux, such as the Franco-British Business Association, Franco-German Business Club, Bordeaux Quebec Association, Bordeaux-USA, Aquitaine-China Friendship, Bordeaux-Aquitaine Alliance Française...
- **Presence of the French National Education and Training Agency**.
- **A Maison Internationale** hosting foreign researchers and students.
- **250 foreign training agreements for the University of Bordeaux Research and Higher Education Centre**.
- **An international school – BIS (Bordeaux International School)** and a large number of European and international classes in Gironde secondary schools, issuance of dual diplomas.

**Logistics**


**A logistics management training and research centre**: ISLI (Institute of Industrial Logistics), Transport and Logistics Management University technology institute, AFT IFTIM training courses (CERELOG, ISTELI...).

**Carrefour logistique du corridor Nord-Sud Atlantique**
- 1st “secondary” logistics hub in France.
- Some 30,000 jobs and over 1,980 logistics establishments in Aquitaine (AFT IFTIM).

**Logistics hub on the North-South Atlantic corridor**
- New railway hub for southern Europe
- Connecting hub for the road network of the Atlantic coast: A 10 (Bordeaux Paris), A 62 (Bordeaux Toulouse), A 63 (Bordeaux Bayonne), A 89 (Bordeaux-Clermont-Lyon
- 6th largest port in France – 6 specialized terminals, including one deepwater dock.
- Free trade zone at Le Verdon, with considerable amounts of land available
- 5th largest regional airport (3.3 million passengers p.a.) – Billi Low-Cost Terminal – Freight Terminal of 15000m²
- 3rd largest regional railway station – 9 million passengers p.a.

**Major infrastructure projects**
- Paris-Bordeaux high speed train: journey time reduced to 2 hours by 2016
- Grand Projet Sud Ouest: 2 new high-speed lines towards Spain and Toulouse planned for 2020
- 'Atlantic Eco Freight’ rail motorway planned for 2011
- A65 (motorway connecting Bordeaux to Pau): December 2010

** Freight traffic (2009)**
- Rail freight : 10.5 MT, of which 2.2 MT for combined transport
- Air freight : 25,375 T
- Port traffic : 8.8 MT
Metropolis Attitude

Creative spirit
- Internationally-renowned architects and designers
- 2nd capital of comic strips, after Angoulême
- Major cultural facilities under construction: auditorium, ARENA venue...
- Leading companies in digital leisure, games and virtual reality
- Renowned, creative, star-rated chefs
- Unique urban developments: the water mirror and garden of light, roller skate park, tram stations, St-Michel sports plain, botanical garden...
- New districts being developed in the heart of the city: Chartrons, St Jean Belcier, La Bastide Ecodistrict
- Cultural events all year round: Evento, River Festival, Wine Festival, Garonne Festival, Historic Film Festival, Novart...

Sustainable development
- An accredited “Sustainable Development Area”
- Launch of the Green and Connected Cities network
- Gironde, leading County (department) for the number of Agenda 21 programs
- New “Towards Bordeaux 2030, a Sustainable Metropolis” urban project.
- 17m² of green spaces per inhabitant in the urban area
- 3 tram lines, 44km network, 89 stations
- Creation of a 4th line of 24km to serve the north-west of the conurbation
- Inauguration of Eco-Citizen Centres
- One of the lowest pollution levels in France
- Development of eco-districts (Berges du Lac, Darwin...)

Harmony
- Bordeaux, 2008 Grand National Prize for its urban project
- The largest urban area to feature on the UNESCO World Heritage List
- Accredited as a “City of Art and History”
- In the heart of one of the world’s most prestigious wine regions
- One of the finest examples of 18th-century architecture
- A 150-hectare protected area in the city centre
- 47 museums, 205 listed monuments
- Over 600 cultural shows each summer

Quality
- The world’s only city with vineyards in its centre
- Bordeaux lauded by Trip Advisor, capital of wine tourism
- Over 150 days of sunshine a year
- A 150 miles-long ocean coastline
- The Bay of Arcachon 40 minutes away by road, the Pyrenean skiing resorts 2½ hours
- 3 of the 30 spots on the international surfing circuit
- 2nd County (department) in France for golf, with 14 courses within 1 hour of Bordeaux
- Over 250 miles of cycle routes
- 75% of home-to-work trips under 6 miles
- 70% of the population own an individual house
‘Aerospace Valley’ – A world competitiveness cluster for the aeronautical, space and embedded systems industries

- 161 research and development projects with total funding of 550 million Euros have been conducted since the cluster was founded.
- Creation of a new Aquitaine Cluster for ‘drone systems’.
- Major international names: Airbus, Ariane Espace, Boeing, Bombardier, NASA and more.
- Strong presence from the defense sector: 16,000 employees in the arms industry (10% of the total French workforce in this sector).
- 690 establishments working in aeronautic and space construction, including 290 industrial subcontractors. Almost 41,000 jobs in the sector (up 6.6% between 2007 and 2008), with an annual turnover of €4 billion (+3.1%).
- Biggest importing sector and 2nd biggest exporting sector in Aquitaine.
- World’s largest manufacturer of helicopter rotor blades (Turbonéca), landing gear (Messier Dowty), luxury business aircraft (Falcon 7X Dassault) and aircraft batteries (Saft).
- European leader for propulsion and launch technology (Snecca Propulsion), high performance composite materials (EADS Astrium Snecca), military aircraft (Dassault), radars and airborne systems (Thalès), cockpit systems (Thalès), flight testing.
- Bordeaux Aeroparc: a technology park dedicated to aeronautics, including a drone development area – located next to the airport.

Cutting edge

**Energy, propulsion and engines:** gas turbines, turboreactors, solid-propellant rocket engines, propulsion systems, propulsive load, specialist batteries, drones...

**Mechanics and materials:** tailpipes and heat shields in thermo-structural composite materials, atmospheric re-entry and heat protection systems, high-performance composite components, energy materials, pyrotechnics, component structures for civilian and military aircraft...

**Electronics, modeling and simulation:** cockpit systems, display screens, surveillance systems, radars, imbedded programs...

**Maintenance:** turbines, turboreactors, engineering, repairs, re-fitting of civilian and military aircraft.

**Testing:** atmospheric re-entry simulation, extreme condition testing, propulsion tests, zero-gravity tests, world’s first zero-gravity surgery experiment, drone testing area...

**Training**

- Specialized masters in ‘Aeronautics and Space Engineering’ offered in Bordeaux’s 5 Grandes Ecoles (ENSAM, INSEEC etc.) to train Aeronautics Managers:
- École Nationale Supérieure of Chemistry, Biology and Physics - ENSCBP
- École Nationale Supérieure of Arts and Trades – ENSAM (includes the Aeronautic, Space and Defense Technology Division)
- École Nationale Supérieure of Electronics, Computing, Telecommunications, Mathematics and Mechanics
- Aeronautical Maintenance Institute
- École Nationale Supérieure of Cognitive Informatics
- The training centre of the General Arms Delegation, administered by the Regional Council.

**Research**

- More than 1000 researchers, lecturers and engineers, 26 public research laboratories including the MIB Carnot Institute (the Materials and Systems Institute of Bordeaux) and its 9 research labs.
- INRIA Bordeaux Sud-Ouest: the skills center specializing in the implementation of ICT solutions for aeronautics, space vessels and embedded systems.
- The Aeronautics and Advanced Technologies (ATA) Platform, with an educational mission.
- The Albatros Scientific Interest Group (ALliance Bordeaux universities And Thales on Research in aviOnicS)

**Industry associations / Transfer**

- Aerospace Valley (governing body of the Cluster)
- Innovalis Aquitaine
- BAAS: Bordeaux Aquitaine Aéronautique et Spatial
- TOPOS: federal association of the companies associated with the European Galileo Program
- Bordeaux-Technowest (certified EBIC: European Business and Innovation Centre)

**Main companies:**

A Competitiveness Cluster known as ‘Route des Lasers®, Lasers, Photonic Technology and Applications’

- The Megajoule Laser: a total investment of 2.1 billion Euros
- A Laser Integration Line (LIL) attached to the Petawatt Laser ‘PETAL’
- 600 publically-funded researchers, 1,000 publications in 4 years
- 8,850 jobs spread among 70 companies (structuring optics and diffusing optics)
- National Training Centre for Laser-related professions – 200 graduates per year, specializing in laser optics
- Laser and Plasma Institute (ILP) – a national project of scientific coordination for civilian research
- A Technological Resource Centre for Optics and Lasers: Alphanov
- Establishment of a Satellite Institute of the Optical Institute Graduate School, opening 2012
- Invest In Photonics: annual international business convention for the optics/laser industry
- Sites dedicated to laser/optic activities: Laséris 1 and 2, Photonic City
- Innovative projects combining laser and vision technology for the benefit of the solar cell industry
- POLINUM: Digital book operational platform, project certified by the competitiveness cluster

Cutting edge – Centres of excellence

Bio-imaging
Instrumentation, NDT
Laser sources and their applications, such as laser micro-manufacturing
Medical and surgical applications of laser technologies
Bio photonics
Materials for optics

Training
- Master of Fusion Science
- Professional Master’s Degree in Lasers and Processes
- Doctoral program in Laser and Dense Materials
- Professional Master’s Degree in Design, use and sale of physical instruments
- Science and Technology Master’s Degree with two research options: ‘Astrophysics, plasma, corpuscles’ and ‘Lasers, materials and nanosciences’
- International Interdisciplinary Master’s Degree: ‘Intense Laser Interactions’
- Professional Degree in Laser Control and Maintenance
- Inter-university Degree in Lasers and Medicine

PYLA: Continuing education platform for laser-related professions.

Research
10 laboratories of Universités de Bordeaux I and II collaborate in this field, including:
- Laser and Plasma Institute – ILP
- Centre for Intense Lasers and Applications – CELIA
- Centre for Optical and Hertzian Molecular Physics – CPMOH
- Powerful Laser Department – CEA – CESTA
- Bordeaux Institute for Condensed Material Chemistry – ICMCB
- Materials and Systems Integration Laboratory - IMS

Industry associations / TransPer
- Alpha: The sector’s coordinating body, and governor of the competitiveness cluster
- The ‘photonic imagery’ centre of the Bordeaux Imaging Center (BIC) R&D platform
- Alphanov: Technological Resource Centre (CRT)
- COLA: The COLA platform (Centre for Optics and Lasers in Aquitaine)
- LYNCEO: Centre for virtual and augmented reality and its human applications

Major companies working in the optics sector
AVENIA Competitiveness Cluster: Future Energy Environment

- **Natural resources:** Europe’s largest managed forest, a wealth of sunshine and hydraulic energy...
- **Clusters structured around specific scientific competencies:** Xylofutur (products and materials from managed forests), CREAHD (environmentally-conscious construction, sustainable living)
- **Around 925 ecological businesses in Gironde,** with 6,300 employees (Bordeaux Chamber of Commerce and Industry - CCIB)
- **Number 1 region in France for creation of ‘green jobs’** in 2009 (1000 new jobs announced)
- **250 doctoral researchers working in twenty research laboratories**
- **Establishment of a regional mixed-investment company devoted to renewable energies**
- **A network of solar power experts** specializing in organic and hybrid photovoltaic technologies
- **Dedicated sites in development:** Blanquefort Ecoparc (environmentally friendly construction), Bègles Environmental Intelligence Park (Renewable energies), the Montesquieu Technopolis
- **Creation of a wind-technology industrial structure**
- **Two new activities making progress in the Gironde:** biomass and geothermal energies
- **Arrival of a production facility for wind turbine blades for EADS Astrium (2011)**
- **Construction of France’s largest photovoltaic production facility by the American firm First Solar (opening 2012)**

**Major forthcoming projects in Gironde:** 4 photovoltaic solar power stations, construction of the largest biomass power facility in France. photovoltaïque, construction de la plus grande unité française de production d’électricité par biomasse...

### Cutting edge

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

### Training

- Creation of a program dedicated to wind turbine components (C2T)
- Bordeaux Polytechnic Institute
- École Nationale Supérieure of Architecture and the Countryside at Bordeaux – 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’
- The University of Bordeaux 1 offers a vocational degree in wood construction
- Planned training center for SUNNCO (solar power)

### Research

- Institute of Molecular Science – ISM
- Materials and Systems Integration Laboratory - IMS
- Bordeaux Institute for Condensed Material Chemistry – ICMCB
- Energetic Fluid Transfer and Flow - TREFLE
- Technological Institute of Forestry, Cellulose and Wood Construction – FCBA
- RESCOLL Technological Resource Centre
- EGID Institute
- **Private research centers:** Eurovia, Saft, Véolia, 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
- French National Institute for Building Energy Performances – IFPEB
- Technological Institute of Forestry, Cellulose and Wood Construction – FCBA

### Main companies

‘Xylofutur: Products and Materials from Managed Forests’ Competitiveness Cluster

- 71 certified projects, 33 projects funded
- Leading region in France for production and transformation of timber
- 25,000 industrial jobs, 34,000 total jobs in the sector (forestry professionals and industrial workers)
- Annual turnover of this sector: €2.5 billion, of which €1 billion exports
- The major international figures in the industry have a presence in the region
- Ranked second French region for the wood industry (9% of the total workforce)
- Europe’s largest managed forest – 1.76 million hectares (covering 44% of Aquitaine’s surface area; composed of 62% maritime pine)
- First region in France to be awarded pan-European Forestry Certification, for 750,000 hectares
- Industrial specialization: wood working and manufacture of wood products; manufacture of paper paste, paper and cardboard, workable wood for carpentry
- Technological innovations: microwave drying, wood treatment, wood composites, binding, green wood joints ...
- Industrial projects in biomass and wood power
- Development of a future strategy structure: prefabrication of wooden houses in timber from maritime pines.
- The NAPEVOMO project, a prototype for an energy-positive home in maritime pine, winner of an award at the international Solar Decathlon Europe event. internationale Solar Decathlon Europe.

Cutting Edge

Decoration: softwood flooring and paneling (80%); softwood molding (66%)
Wood packaging, including pallets (60%)
Wooden wine cases: biggest user in France (90%)
Panels: (20%)
Sawing: (20%), top region in France for softwood
Kraft paper for cardboard boxes and large volume bags (100%), paper overlaid and buffed, fluff pulp whitened with oxygen (European leader)
Wood construction

Training

- XYLOSUP: new advanced training platform for forestry and related professions
- University of Bordeaux I: 5 Professional Master’s degrees, 2 Research Master’s degrees
- Qualification not available anywhere else in Europe: Master’s degree in ‘Forestry and Sustainable Development’
- National Institute for Agricultural Engineering – ENITA Bordeaux
- Degree in Engineering and Integrated Management of Forests and Agricultural Systems
- Two vocational degrees at Bordeaux: Wood Construction and Industrial Quality and Procedure
- Commercial Marketing Institute (IPC) specializing in Wood
- École Nationale Supérieure of Architecture and the Countryside at Bordeaux – ENSAP

Research

A top class scientific and technical research center with more than 250 researchers
Specialism: wood and softwood product chemistry, paper chemistry, physics and mechanics of wood, binding, forest biodiversity
- EFI Atlantic, a research of the European Forest Institute (EFI)
- National Institute of Agronomic Research – INRA
- The Pine Institute’s green materials laboratory and technical platform
- Wood and Bio-polymer Science Unit – USBB
- Center for Studies in Agricultural Mechanics, Rural Engineering, Water and Forests – CEMAGREF
- Technological Institute of Forestry, Cellulose and Wood Construction (FCBA)
- European Center for the Technical Study of Fluff and related products (Tembec)

Industry associations / Transfer

- Association Xylofutur
- Cap Forest (partenariat enseignement recherche)
- Innov'Alis Aquitaine Bois et Habitat
- Centre Régional de la Propriété Forestière (CRPF)
- Association pour la Recherche sur la Production Forestière du Bois – ARBORA
- Fédération des Industries du Bois d’Aquitaine (FIBA)

Major Companies:

Coopérative Agricole et Forestière Sud Atlantique (CAFSA) – Smurfit Kappa (4 établissements) – FP Bois – Tembec
CUTTING EDGE
Imaging technology
Healthcare ICT
New mobile phone applications
Document digitalization solutions
Radio solutions
Embedded systems
Medical electronics
Organic electronics

TRAINING
à Bordeaux Polytechnic Institute
à École Nationale Supérieure of Electronics, Computing, Telecommunications, Mathematics and Mechanics
à Doctoral Institute for Mathematics and Computer Science
à New training program with MIAGE devoted to healthcare information and management systems – the only course of its kind in France
à Embedded Electronic Systems Engineering program at CFAI
à One of the first Bioinformatics Master’s programs available in France
à Professional degree in ‘computer business management’ at the Bordeaux IUT
à Master’s Degree in Science and Technology at the University of Bordeaux, Computer Science specialization

RESEARCH
à Institut National de Research en Informatique et en Automatique – INRIA
à MIB Carnot Institute (the Materials and Systems Institute of Bordeaux): 9 research laboratories renowned for their scientific excellence in the fields of chemistry, physical chemistry, mechanics, electronics, production theory and information technology.
à Materials and Systems Integration Laboratory - IMS
à Ausonius Institute – French National Centre of Virtual Reality for Archaeological Applications
à Bordeaux Laboratory for Computer Science Research – LaBRI
à École Nationale Supérieure of Cognitive Sciences in Bordeaux – IdC

INDUSTRY ASSOCIATIONS / TRANSFER
à Innovalis Aquitaine ICT and business services
à Association for the Development of the Electronic and Information Technology Industries in Aquitaine - ADEISO
à Bordeaux Games Association

MAIN COMPANIES
Jeux vidéo : Asobo studio – AtOnce – Betomorrow – Concours Mania – Mad Monkey Studio SC2X – Mimesis Republic – Motion Twin – Tiki Move – Solid game – Business Anywhere...

ICT
→ Number 1 region in France for Healthcare ICT: 1,000 jobs, 40 businesses, almost 50% of the national turnover for this sector
→ A centre of excellence for video games: 22 small and medium-sized businesses, 400 employees
→ Internationally-renowned centre of expertise in virtual reality technology
→ Region ranked 3rd in France for computing services and telecom activities
→ Region ranked 4th in France for company start-ups in the ICT sector: 2,610 businesses, over 30,000 employees
→ Electronics: 10,240 employees, €1 billion turnover
→ A large research provision, with 1000 scientists of internationally-recognized expertise
→ Bordeaux Digital City: developing digital applications for everybody
→ Establishment of CLUSIR Aquitaine (Regional Information Security Club)
→ Leader of the European INTEROP-Vlab network - European virtual laboratory for Enterprise Interoperability
→ Heavily involved in the ‘Aeronautics and Embedded Systems’ and ‘Route des Lasers’ programs
→ Creation of the POLINUM platform – Operational Platform for Digital Books
→ LaBRI, European project leader for the ALICANTE internet future initiative.
- Almost 1000 establishments with over 16,000 employees (of which 5,750 working in Pharmaceuticals)
- Aquitaine is home to branches of various companies of international scope
- 1,500 publically-funded researchers, of whom 400 work in neuroscience
- Pharmaceutical products are Aquitaine’s 3rd largest export
- Great expertise in vegetable product extraction, bio-production, pharmaceutical products and design and execution of clinical trials.
- The Bordeaux Neuroscience Institute is the best in France
- A proposed Neurocampus (450 neuroscience researchers)
- One of France’s largest university hospitals (14,250 people)
- Bioprotec – Platform for the development of biopesticides
- Sectors growing rapidly: medical solutions and biomaterials, spinal implants and surgery
- National leaders in healthcare information technology – 1000 jobs, 40 businesses
- Bioparc: a business park devoted to small and medium-sized businesses working in biotechnology and healthcare
- An acknowledged wealth of expertise in the areas of biophotonics and bioinformatics.
- The only platform in France for experiments on cardiac rhythm.

Cutting Edge
- Cardiology
- Cell and gene therapy,
- Clinical and experimental neuroscience
- Infectious disease pathology, cardiovascular pathology,
- Graft biology, implants, biomaterials,
- Functional genome studies
- Formulation and vectorization of medicines and other pharmaceutical products
- Biological and medical imaging, biomolecular technology,
- Phyto genesis, polyphenols
- Human nutrition and health foods (lipids)
- Oncology (particularly for the study of rare cancers)

Training
Home to one of France’s 3 Schools for Biotechnological Engineering
- École Nationale Supérieure for Biomolecular Technology in Bordeaux – ENSTBB
- Doctoral School for Biological and Medical Sciences (300 doctoral students)
- Bordeaux Institute of Industrial Pharmaceuticals (IPIB)
- One of France’s first Master’s degrees in Bioinformatics

Research
Region ranked 4th nationally in terms of number of researchers and lecturers in healthcare-related subjects
South-West Cancer Research Pole (250 medical teams in Bordeaux, Limoges, Montpellier, Nîmes and Toulouse)
- LISA Carnot Institute (Lipids for Industry and Healthcare)
- European Institute of Chemistry and Biology – IECB
- National Institute of Healthcare and Medical Research – INSERM – 32 laboratories, 400 researchers including:
  - Bordeaux Neuroscience Institute: leading regional centre for research on the central nervous system
  - Bordeaux Clinical Investigation Centre
  - Bergonié Institute (oncology), a leading institution in research on rarer cancers
- Institute for Public Health, Epidemiology and Development – ISPED
- Institute for Biochemistry and Cell Genetics – IBGC
- Aquitaine Institute for Research on Human Nutrition - IRNHA

Industry associations / TransPer
- The South-West Interprofessional Association for the Pharmaceutical and Healthcare Industries – GIPSO
- Aquitaine Association for Biomaterial and Implant Technology
- Innovalis Aquitaine for the biological and medical technology industries
- Functional Genome research platform
- Biomedical Technological Innovation Platform
- Bordeaux Imaging center
- Center for Clinical Investigation and Technological Innovation - CICIT

Main companies
Presence of large companies of international scope
11,600 jobs (chemistry, rubber and plastics) in Aquitaine, in 719 businesses
Between 100 and 150 businesses making or processing composite materials (5000 jobs)
The 4th largest export for the region
The 4th highest concentration of researchers and scientific publications in France, in the sectors of ‘materials sciences’ and ‘physical chemistry’ (850 researchers)
Bordeaux is France’s leading center of Engineering Sciences according to the 2008 Shanghai Rankings
A European centre of excellence for assembly using glues and other adhesives
Launch of the new Canoe platform – Consortium for Electronic and Nanomaterial Innovation in Aquitaine
A number of private European research laboratories - Rhodia, Eurovia, Saft, SNPE, SNECMA
Creation of Composites Techno Training (C2T)
Creation of the ‘Sustainable Chemistry for Aquitaine’ program by UIC
A top class technological platform in ATA – Advanced Aeronautical Technologies
Sites which are competitive in the face of environmental challenges and changing regulations (Reach)

Cutting Edge
European Center for Advanced Materials and Thermostructural Composites
European leaders in pultrusion of industrial shaped materials
Nanomaterials
Green chemistry and environmental science
Chemistry of wood and wood derivatives
Wine-related products, fertilizers, nitrates, phytosanitary products,
Sulphur chemistry, vegetable extraction, preparation of active ingredients,
Varnish, detergents, nitrocellulose, explosives, pyrotechnics, rubber

Training
5 specialized Master of Chemistry programs at University of Bordeaux I
École Nationale Supérieure of Chemistry, Biology and Physics - ENSCBP
École Nationale Supérieure of Arts and Trades – ENSAM
A chemical sciences doctoral school
IUP Materials Engineering
New professional degree in composite technologies at the Bordeaux IUT
Creation of a dedicated training program for wind technology: Composite Techno Training – C2T

Research
Chemistry accounts for 12 % of Aquitaine’s researchers.
European Institute of Chemistry and Biology – IECB
The MIB Carnot Institute (the Materials and Systems Institute of Bordeaux) has 9 research laboratories, including:
  • Paul Pascal Research Centre– CRPP
  • Bordeaux Institute of Condensed Matter Chemistry – ICMCB
  • Materials and Systems Integration Laboratory – IMS
  • Molecular Science Institute – ISM
  • Organic Polymer Chemistry Laboratory - LCPO
  • Thermostructural Composites Laboratory - LCTS
  • Transfers, Flows, Fluids, Energy – TREFLE

Industry associations / Transfer
Chemical Industries Union
Center for Technological Resources in the Field of Materials and Binding - Rescoll
Innovals Aquitaine Chemistry and Materials
Technical Platform: Cheminov
GIS Materials in Aquitaine
Advanced Materials in Aquitaine (AMA) Research Group

Main companies :
Food and wine

Prod’Innov – A cluster for Innovative Products and Procedures for Nutrition and Healthcare:

- Leading sector in the region for innovation (OSEO)
- Leading industrial sector: 35,000 jobs, 4,400 establishments
- Leading region in terms of agricultural value added
- Annual turnover of 8 billion Euros (of which 3 billion in wine), 5th nationally
- 27 large international groups present in the region
- Leading region in France for quality seals: 83 AOC, 54 Red Labels and 14 IGPs
- Strong industrial expertise in the fields of bioproduction, extraction, nutrition and food preservation, nutrition and brain function, fatty acid technologies
- 2 technological resource centers: the AGIR platform and ITERG
- The Institute for Vine and Wine Science, the largest research centre of its type in Europe
- Creation of a European development centre for oil products at ITERG

Wine by numbers

- 145,000 hectares of vines, of which 96% are AOC
- Top region in the world for production of AOC-certified wines
- Second largest wine exporter in the world (1.5 billion Euros p.a.)
- 400 wine trading houses
- 12,000 winegrowing estates, 66,000 direct and indirect employees

Centers of excellence

Fatty acids, food lipochemistry,
Oenology, polyphenols
Quality and security of foodstuffs, toxicology
Food transformation technology
Health and nutrition, genetic traceability
Vegetable biotechnologies, varietal selection

Training

- National Institute for Agricultural Engineering – ENITA Bordeaux
- École Nationale Supérieure Chemistry, Biology and Physics at Bordeaux (formerly ISTAB)
- École nationale Supérieure of Biomolecular Technology at Bordeaux – ENSTBB
- Regional Training Institute for the Agricultural and Alimentary Industries – IFRIA

Research

- LISA Carnot Institute (Lipids for Industry and Healthcare)
- National Institute for Agricultural Research – INRA
- Institute of Fatty Acids – ITERG
- Institute for Biochemistry and Cell Genetics – IBGC
- Institute of Integrating Vegetable Biology – IBVI
- Institute for Vine and Wine Science – ISVV
- French National Institute for Research and Study of the Sea - IFREMER
- Aquitaine Institute for Research into Human Nutrition – IRNHA

Industry associations / TransPer

- Association of Alimentary Industries in Aquitaine (ARDIA)
- Innova des Aquitaine Bio Industries
- AGIR Platform – Agrifood Innovation Research
- Interprofessional Technical Centre for Oily Products

Main companies:

- Génétique – Frigor – Lou Gascoun – Le Petit Basque – Les Eaux Minérales d’Arcachon – Fermentalg...
Automotive industry

- A network of 400 subcontracting firms (23,300 jobs) in the aeronautics and automobile sectors – annual turnover of €5.2 billion
- **Unique expertise in R&D**, particularly in the areas of materials, electric power, embedded electronic systems, security and testing systems
- **Development of a Center of Excellence in Electric Power (Vehicles and Boats)**, earning the City of Bordeaux an E-visionary award from the World Electric Vehicle Association (WEVA)
- Launch of a joint initiative between Gaz de Bordeaux and GNVert to build and run a network of NGV service stations (Natural Gas for Vehicles)
- **Cutting Edge**: Airbags, batteries for electric vehicles, manual and automatic gearboxes, anticollision radars

Shipbuilding

- 3 world leaders: CNB, CNC Couch, and Zodiac
- 1700 direct jobs and 175 companies in Gironde; turnover of €200 million
- Aquitaine accounts for more than 7% of the national turnover for this sector and more than 6% of the workforce
- Thirty active docks around the Bay of Arcachon (55%) and Bordeaux (29%)
- Proven expertise in the design of high performance boats
- Skills centre for composite materials
- Companies specializing in: construction (engineering, architecture, design, construction), service and maintenance, rigging (sails and leather fittings, motors, mechanics and electronics)
- Specialized in snow sports

Training

- Bordeaux Polytechnic Institute
- Ocean technology professional college
- Industrial Apprentices Training Centre – CFAI
- Training for engineers in partnership with the Institutes of Industrial Engineering Technology
- New professional degree in composite technologies at the Bordeaux IUT

Research and technology transfers

The research, conducted primarily at the University of Bordeaux, focus mainly on:
- Energy storage and battery materials
- New catalysts for fuel batteries
- Command and control electronics
- Optimizing the quality and reliability of components in electric vehicles
- Composite materials

- MIB Carnot Institute (the Materials and Systems Institute of Bordeaux)
- Bordeaux Institute for Condensed Materials Chemistry (ICMCB)
- Rescoll: Centre for Technological Resources specializing in materials science
- Innovatis Aquitaine Transport and Mechanical Industries
- Aquitaine Electric Boat Vehicle Network – RAVEL
- French Electric Boat Association
- Federation of Nautical Industries

Main companies

Advanced Tertiary Activities

- French leaders in healthcare information technology
- Biggest centre outside Paris for ICT service centers
- 4th largest concentration of banks in France: a large number of interregional head branches and business banks
- 3rd provincial city for customer relations
- 5th French city for advanced jobs
- 217 corporate headquarters employing at least 100 people
- Strong specialization in financial and insurance sectors (26,000 jobs)
- Large number of ICT/SSII companies
- 1/3 of tertiary establishments involved in business services
- Many design offices and engineering firms: over 1,000 companies and 10,000 employees in Gironde
- A new business zone: Bordeaux Euratlantique, with between 450,000 and 500,000 m² of office space by 2020.
- Five conference centers hosting 280 international professional events (last year)

Cutting Edge

Finance and banking
- 3rd largest brokerage centre in France
- Around 100 Customer Relations Centers
- Healthcare ICT
- ICT Service Centers
- Private R&D centers
- International Logistics and Negotiations
- Training
- Université Montesquieu: 57 specialized Master’s programs in law and economic science
- Université Michel Montaigne: languages, information and communication, social careers...
- Bordeaux Business School
- Bordeaux Institute of Political Studies
- Institute for Advanced Economic and Commercial Studies – INSEEC
- Institute of Business Administration (IAE) – International Management Master’s
- Advanced Institute for Industrial Logistics (ISLI)
- IUT Bordeaux Montesquieu: Managing businesses and administrations, logistics management, marketing
- Bordeaux Aquitaine Institute of Journalism (IJBA)
- Bordeaux School of Architecture and Landscaping
- School of Fine Art

Main companies

Audit et Conseils: Ernst & Young – KPMG Entreprises – PriceWaterhouseCoopers – Deloitte – Grant Thornton

Directions informatiques: CA Technologies (GIE Informatique du Crédit Agricole) – Caisse des Dépôts – Caisse d’Épargne SEDI – La Poste DISF – EDF SEISO-GDMI – Pôle Emploi DS1 – Sanoﬁ Aventis – Orange...

Centres de services SSII: Atos Origin – Bull – Logica – Capgemini – CS – AxYus – Sqli – Sogeti...

SSII: Capgemini – Alten – Cheops Technology – Sopra – Aquitaine Valley – Coframi – IBM – Steria...

Informatique de santé: AGFA Healthcare – McKesson France – Siemens Health Services France – AGDF Cegedim...

Les centres de R & D privés: Rhodia Laboratoire du Futur – Eurovia – SAFT – Institut Européen de l’Environnement de Bordeaux (IEEB) – EADS...

Assurances et courtage: directions nationales de Filhet et Allard Assurances (siège social) – AMV - Assurances Moto Verte (siège social) – Gan Prévoyance – AXA – AGF – AON Conseil – Gras Savoye – GCE Assurances (Groupe Caisses d’Épargne) – Myriade...


Financement Investissement: Aquitaine Creation Investissement – Galia Gestion – Aquitaine Amorçage – FINAQUI – Institut Régional de Participation (IRDI) – COFINOGA – Natixis...

Centres d’appels: Bouygues Télécom – Sage – LaSer Cofinoga – LaSer Contact – Orange – Téléperformance Grand Sud – Free – EDF – GCE Assurances – Banque Casino – La Poste – CPAM Gironde...


Air links from Bordeaux

Weekly international flights

Distances between:
- Barcelona: 690 km
- Bilbao: 340 km
- Brussels: 890 km
- Geneva: 720 km
- Hambourg: 1500 km
- Madrid: 690 km
- Milan: 1000 km
- Munich: 1375 km
- Paris: 577 km
- Porto: 1065 km

Travel time (by high speed train):
- Bordeaux-Paris: 2h58
- Bordeaux-Milan: 5h40
- Bordeaux-Strasbourg: 5h40
- Bordeaux-Lyon: 2h
- Bordeaux-Toulouse: 2h58
- Bordeaux-Bilbao: 4h00
- Bordeaux-Bordeaux: 2h

Weekly international flights

(Source Bordeaux-Mérignac airport, March 2010)
Touristic sites

Sites Unesco
1. Bordeaux
2. Saint-Émilion
3. Bazas
4. La Sauve Majeure
5. Soulac

Unesco sites

Spots de surf
Surfing spots

Golf
Golf courses

Port de plaisance
Marinas

Réserve naturelle
Nature reserves

Pistes cyclables
Cycle tracks

Vignobles
Vineyards

Forêts
Forests

Nationales
Main roads

Autoroutes
Motorways

Touristic sites

Source: Communauté urbaine de Bordeaux
Communications infrastructure