



AQUITAINE

INVESTING IN INTELLIGENCE
AND INNOVATION



“For many years, the region has been placing its money on intelligence and innovation”

I believe in innovation – that is, in the capacity of human beings to move forward and to come up with new solutions. Innovation is a remedy to pessimism and the pervading sense that things are on the decline. Encouraging innovation demonstrates optimism and a belief in the future and human progress.

Yet believing in innovation relies on openness to new ways of doing things and new attitudes. This requires working together and being open to young people – without this, innovation is impossible.

There are still many obstacles to overcome. The innovation chain is often not as solid as it could be, and funding remains problematic. Red tape also weighs heavy, with some administrative duplication between national and regional governments and difficulty in bringing together the spheres of education and business.

In Aquitaine, we are well aware of these pitfalls. Yet we have chosen to rise to the challenge. For many years, the region has been placing its money on intelligence and innovation. We are the leading region in France for investment in research and innovation, and the fifth in the number of new businesses created.

We are acting on all fronts. In addition to supporting our technopoles, Aquitaine is encouraging closer links between universities and businesses. We are assisting our laboratories in attracting top researchers from France and abroad. We are supporting innovative start-ups by offering zero-interest loans, grants, subsidies, unsecured loans, seed capital and venture capital. We offer the widest range of support possible.

Our persistence and proactivity are paying off – our region is beginning to reap the benefits. Growth in Aquitaine was appreciably higher than the national average in 2010, and is set to be higher in 2011 as well. This is a great source of pride for us.

Alain Rousset,
President of the Aquitaine Regional Council

Encouraging high-potential sectors of excellence



Promoting scientific excellence and innovation



Supporting businesses at every stage of their development



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Aquitaine

competitive

Encouraging
high-potential
sectors of
excellence

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COMPETITIVE CLUSTERS

WHAT IS A COMPETITIVE CLUSTER?

A competitive cluster is a geographical concentration of companies, research units and training bodies whose aim is to develop synergies and cooperation in certain fields. Aquitaine has several clusters approved by the French Government that bring together a variety of partners, including the national and local public sector. These partnerships support innovative and collaborative projects that allow the businesses involved to take a leading role in their field, both in France and internationally.

> AEROSPACE VALLEY

An interregional (Aquitaine and Midi-Pyrénées) competitive cluster with a global reach, Aerospace Valley is an international leader in aeronautics, space and embedded systems.

www.aerospace-valley.com

EXAMPLES OF ANCHOR PROJECTS ARCOCE – REBECCA PROGRAMMES

Initiated by the company Snecma Propulsion Solide, these two collaborative R&D projects seek to improve the performance of aircraft engines by making lighter parts made from composite materials. The projects also involve pioneering work on reducing engine noise. This collective initiative is the first of its kind to incorporate a network of small- and medium-sized businesses (SMEs) from the earliest phase of Research & Development to develop the industry of Aquitaine. Project cofinanced by the Aquitaine Regional Council and the European Regional Development Fund (ERDF).



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AERONAUTIC – SPACE – DEFENCE SECTOR
• 42,000 jobs
• 600 specialised companies, including 30 major groups and 250 suppliers
• 4 billion euro turnover

SOME PARTICIPATING COMPANIES
EADS Astrium, Dassault Aviation, Snecma Propulsion Solide, Thales, Turbomeca, Messier-Dowty, Altep, Creuzet, Exameca, Map, Potez, MGP Asquini, Lauak

> ROUTE DES LASERS

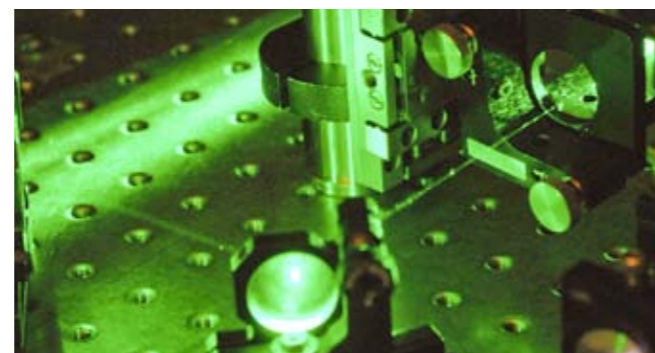
The aim of this competitive cluster is to become the benchmark in the development and dissemination of innovative optics and laser technology (laser systems and applications, metrology, imagery and innovative physics) in a range of sectors (health care, solar energy, lighting, aeronautics, vision, chemistry and electronics).

www.routedeslasers.com

OPTICS AND LASER SECTOR
• 600 researchers, engineers and technicians
• 1,300 jobs
• 70 companies

EXAMPLE OF ANCHOR PROJECT PLUS: this collaborative project brings together the Thales group, the SMEs i2s and Novalase, and the Bordeaux research unit IMS. It was approved by the Aerospace Valley and Route des Lasers competitive clusters in 2007. The goal of the project is to develop a high-precision positioning system with six degrees of freedom for aviation headsets.

SOME PARTICIPATING COMPANIES
Lectra, Serma Technologies, Sagem, ASTF, Acteon, Novalase, i2s, Edit, Amplitude Systèmes, Proditec, SEIV Aquitaine, Lyracom, Eolite Systems, EADS Astrium, Dassault Aviation, Snecma Propulsion Solide, Thales, Turbomeca, Messier-Dowty, Altep, Creuzet, Exameca, Map, Potez, MGP Asquini, Lauak, Photonis



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> XYLOFUTUR

The focus of the Xylofutur competitive cluster is cultivated forest products and materials. Its objective is international excellence in solid wood products for the construction, home improvement, design and packaging sectors, as well as fibre products, the chemistry of lignocellulosic components (green chemistry) and the management and exploitation of forests cultivated for industrial use.

www.xylofutur.fr

EXAMPLES OF ANCHOR PROJECTS ABOVE COLLABORATIVE R&D PROGRAMME

This project is working on new green wood jointing technology. This groundbreaking innovation will allow the use of maritime pine for building solutions, ensuring sufficient wood length and consistency for the construction industry.

BIOEXTRA COLLABORATIVE R&D PROGRAMME

This project is working on the extraction of natural bioactive substances from industrial wood waste (bark, knots, etc.) for use in a range of applications, including the cosmetics and pharmaceutical sectors.

SOME PARTICIPATING COMPANIES

Smurfit Kappa, Gascogne, Tembec, Egger Rol, Finsa, PGS-Beynel, FP Bois, Lesbats, Menuiseries Grégoire, Biolandes, DRT

FOREST – WOOD –

PAPER SECTOR
• 1 million hectares of maritime pine
• The largest cultivated forest in Europe
• 34,000 jobs
• 2.5 billion euro turnover



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A new regional agency working for innovation and industrial development

A new agency has been formed from 2ADI (Aquitaine Agency for Industrial Development) and Innovalis Aquitaine.

From 2012, its key missions will include:

- coordinating and supporting the strategic plans of key sectors and competitive clusters
- assisting companies' innovation projects
- encouraging the development and attractiveness of the region
- developing initiatives to promote regional industries, including prospecting for and welcoming investors
- economic, technological and strategic watch and trend forecasting.

> AVENIA

The goal of this competitive cluster is to prepare for future energy transition through the sustainable exploitation of underground resources, the responsible development of fossil fuels, geosequestration (geological carbon capture and storage), underground energy storage and the geothermal industry.

www.pole-avenia.com

GEOSCIENCES SECTOR
• 125 companies, including 110 SMEs
• 3,580 researchers
• 20 public and private educational programmes

SOME PARTICIPATING COMPANIES
Total, IFP, GDF, Arkéma, Rhodia, Dalkia, GDF-Suez, Vermilion



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REGIONAL HUBS AND CLUSTERS

Alongside its government-approved competitive clusters, the region of Aquitaine has contributed to the establishment and resourcing of regional hubs and clusters aimed at promoting specific sectors of activity with a view to diversifying the region's economy and job market.

> SUSTAINABLE HOUSING (CREAHD)

Part of the building and public works sector, CREAHD (Construction, Resources, Environment, Urban Planning and Sustainable Housing) is a hub that groups together a range of players involved in these sectors. It focuses on eco-materials and sustainable building systems, from eco-design and sustainable construction to the management of the deconstruction and recycling of buildings at the end of their life.

www.creahd.com

> BOARDSPORTS (GLISSE)

The Glisse cluster, recognised by the French Government, brings together players in the boardsports sector (surfing, snowboarding, skateboarding, etc.), from world leaders in the field to skilled craftsmen such as shapers. This cluster focuses on a range of areas, including sustainable development, human resources and innovation.



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EXAMPLE OF ANCHOR PROJECT NOBATEK – TECHNOLOGY RESOURCE CENTRE

NOBATEK is a centre of application-oriented research and technology transfer that specialises in building, materials and the environment. NOBATEK offers a comprehensive service to innovating companies, particularly by aiding them in developing products, procedures or new services. Project cofinanced by the Aquitaine Regional Council and the European Regional Development Fund (ERDF).

SOME PARTICIPATING COMPANIES
Eiffage, Vinci, Fayat, Lafarge, GSM, Arici, Egeris Construction, Tellus Ceram, Unikalo, Ouateco, Kel'air



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BUILDING AND PUBLIC WORKS SECTOR

- 22,000 companies
- 70,000 employees
- 6.7 billion euro turnover

EXAMPLE OF ANCHOR PROJECT BAIA PARK

Located in Anglet, near Biarritz, this hub consists of a business park and boardsports-dedicated incubator created to attract companies specialising in the production of equipment, apparel and accessories, as well as marketing, press relations and other industry-specific services. Project cofinanced by the Aquitaine Regional Council and the European Regional Development Fund (ERDF).

KEY FIGURES FOR THE BOARDSPORTS SECTOR

- 3,200 jobs
- 400 companies
- 1.2 billion euro turnover

SOME PARTICIPATING COMPANIES
Quicksilver, Rip Curl, Billabong, Oxbow, O'Neill, Volcom, Hoff

> HEALTH (SANTÉ)

The Santé hub concentrates businesses and academic institutions in the health sector: public and private research laboratories as well as companies involved in developing medicines and medical devices, in bioproduction, in galenic and other types of formulation and in clinical trials. Its intention is to bring the region's assets in the development of innovative medicine to the forefront and promote its offering of health services.

EXAMPLE OF ANCHOR PROJECT SATELEC

Specialising in the development of electronic technical applications, this R&D project led by the company Acteon is working on a new range of instruments for bone microsurgery. Project cofinanced by the Aquitaine Regional Council and the European Regional Development Fund (ERDF).

SOME PARTICIPATING COMPANIES
Sanofi Aventis, Viatris, Pierre Fabre, Acteon, Technoflex, B. Braun, Flamel Technologies, Fluofarma, Ceva Santé Animale, BMS UPSA, Merck Serono

HEALTH SECTOR

- 2,500 researchers
- 10,500 jobs
- 500 companies



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> WINE (INNO'VIN)

With a view to consolidating Bordeaux and Aquitaine's leading position in the international wine industry, the Inno'vin cluster is working in the areas of sustainable winegrowing, the quality and characteristics of wine, the economic efficiency of the sector and the integration of new technology in the wine industry.

www.innovin.fr

WINE SECTOR

- 66,000 direct and indirect jobs
- Over 144,000 ha of AOC vineyards producing some 8 million hl of wine
- Ranked first in exported products

EMERGING HUBS AND CLUSTERS

The region of Aquitaine is actively working to bring together research units, educational institutions and industry to create new business clusters in emerging high-potential areas that can develop economic activity and jobs. In this way, Aquitaine is preparing for the future and anticipating the regional economy of tomorrow.

> WIND ENERGY CLUSTER

Aquitaine is developing an industrial sector based on wind energy. This initiative, in part linked to the region's expertise in composites, unites industrial skills with local and regional agencies around projects such as making subassemblies for wind turbines, developing infrastructure, and creating R&D and training programmes. The region benefits from the presence of key players such as EADS Astrium, Valorem and the Maritime Port of Bordeaux: for example, Astrium brings its strict standards from the aeronautic sector to the manufacture of a range of wind turbine blades that it is mass-producing with the company Plastinov. This sector represents a potential of over 600 jobs in coming years. The wind energy cluster in Aquitaine was launched in December 2010.



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> COMPOSITES AND ADVANCED MATERIALS



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Composites and advanced materials are a key factor in innovation and competitiveness for a range of regional sectors (aeronautics, construction, wind energy, etc.). With this in mind, the Aquitaine Regional Council is developing a hub of academic and manufacturing skills in this field to create an industry value chain incorporating regional SMEs, as well as launching a national training programme. This strategy makes use of the region's unique concentration of specialist industries (Arkéma, EADS Astrium, SPS, Epsilon Composite, Soficar, etc.) and has set up key projects such as a consortium of innovation in nanostructured materials and organic electronics (CANOE).

> SYSOLIA, SOLAR CLUSTER

In May 2011, the region of Aquitaine and the ALPhA – Route des Lasers cluster created the Sysolia cluster to better position Aquitaine's solar sector in the international market. Despite an unsettled national context that is currently affecting the development of photovoltaic solar energy in France, the global market is very promising: it should reach 21,300 megawatts in 2011, representing a turnover of around 60 billion euros. In this context, Aquitaine aims to develop a competitive, innovative solar sector capable of exporting its expertise internationally.

SOME CLUSTER PARTICIPANTS

- Companies: Exosun, Fonroche, Groupe MWE, IC-nergie, Neasol, Immosun, Silimelt, Solarezo, Sunnco, ASTF, TCE Solar, Valorem, Duosun, Allsun, Amplitude Systèmes, Eolite Systems, i2s, Novalase, Oxymetal, Polyrise, Rescoll, Saft
- Laboratories: Institut Carnot MIB, nine University of Bordeaux laboratories
- Technological innovation consortiums: ALPhANOV, CANOE, ELORGA



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Planning for the future

The region of Aquitaine prioritises the creation of other clusters based on future growth areas, including electronics and digital technology, video games and fine chemistry.

> ENVIRONMENTALLY FRIENDLY BOATS

In the wake of Aquitaine's numerous dynamic water sports businesses (eg Couach, Nanni Industrie, Dubourdieu, Debord, I2EF, Black Pepper), reinforced by regional skills in the field of electric vehicles (eg Ecova, EVTronic) and the promotion of sustainable boating by famous yachtsmen (eg Lalou Roucaÿrol, Yves Parlier), the region aims to design an eco-friendly boat based on a new range of hybrid engines, and thus integrate sustainable development in its economic model.



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> ICT-HEALTH CLUSTER

Aquitaine is the leading French region in hospital information systems (45% of national turnover) and medical software for doctors (52% of national turnover). The main industry leaders are found here, such as Agfa HealthCare, McKesson, Hellodoc and Cegedim. To boost this high-potential sector, the Regional Council has an ambitious policy to create new training programmes, support collaborative R&D projects, lead promotional initiatives and develop partnerships with leading companies (particularly Agfa HealthCare). To this end, in April 2011 the region of Aquitaine, the University of Bordeaux, the INRIA research institute and the companies McKesson and Agfa HealthCare launched the Aquitaine ICT-Health cluster.



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> AETOS CLUSTER – DRONE SYSTEMS

Aquitaine is a key player in the field of drones: the Thales Group, innovative start-ups and SMEs representing the entire value chain are based here. In addition, the region hosts the only test flight area for civilian drones, as well as a specialist business incubation centre and a top-quality academic infrastructure. The region's ambition is to nurture a dual-applications sector, create a regulatory environment that allows an open market, reinforce the existing business cluster by incorporating further technological and industrial skills, and position the Bordeaux Aéroparc, and more generally Aquitaine, as the European leader in drone systems by 2020. The AETOS drone systems cluster was launched in July 2010.



© Forcella

> A GREEN GROWTH CLUB IN AQUITAINE

In April 2011, the region of Aquitaine created a Green Growth Club that brings together some 20 business leaders to reflect on and put together proposals to promote new policies that will encourage the emergence of new green industry sectors.

> GEOLOCATION

With the launch of the European Galileo satellite radio navigation programme, the Aquitaine Regional Council decided to bring together all of the regional players concerned with geolocation applications within the Topos organisation. Today it has 38 members, including Thales, Cap Gemini, Bull, Héliéléo and Maxsea. Its objective is to position Aquitaine in R&D projects that will allow the development of applications with regional spin-offs. The region's skills in geolocation have been recognised internationally with the choice of Bordeaux to welcome the ITS World Congress on Intelligent Transport Systems in 2015.

A close-up photograph of a scientist wearing a white lab coat and gloves, working in a laboratory. The scientist is holding a petri dish and looking at it intently. The scene is illuminated with a strong blue light, creating a high-tech and scientific atmosphere. The background shows a tiled wall.

Aquitaine

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Promoting
scientific excellence
and innovation

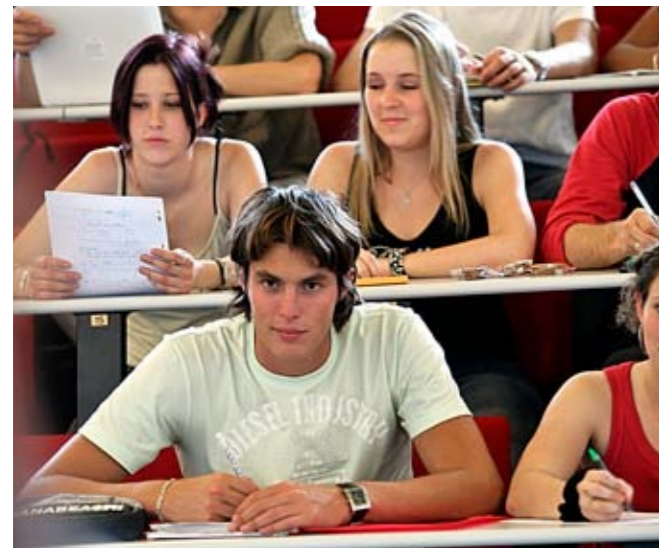
Aquitaine is France's leading region in R&D spending in relation to its total budget (about 10% of its budget).

The Regional Council's policy in fostering research and higher education aims both to encourage the economic and social development of Aquitaine by facilitating links between researchers and businesses, and to increase the potential and the scientific recognition of laboratories in Aquitaine and their national and international visibility.

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UNIVERSITIES AND STUDENT LIFE

To maintain the region's competitiveness within an increasingly globalised knowledge economy, the Aquitaine Regional Council's proactive policy in support of higher education aims to double the number of engineering students in the region. This will allow us to strengthen our key sectors and develop new educational programmes in response to the **skills that companies need**.



> DEVELOPING TRAINING IN LINE WITH THE JOB MARKET

Regional policy has three goals:

- Supporting the development of training programmes and educational initiatives, including long-distance learning and advanced excellence training.
- Ensuring an educational and training offering that allows students to acquire skills in line with business needs.
- Improving the information about training options and assisting students in entering the labour market.

> INVESTING IN UNIVERSITY INFRASTRUCTURE

Together with the French Government, the region is committed to creating the best possible conditions for students and to upgrading the higher education infrastructure. In the period of 2007-13, the region will have invested a total of 68 million euros to reach these goals in the following areas:

- student life, interuniversity projects and campus development
- ensuring university sites meet European standards
- increasing engineering potential.

Example of anchor project: Bordeaux Institute of Optics

The Institute of Optics Graduate School (IOGS) has decided to establish a satellite in Aquitaine in 2012.

Aquitaine's advantages encouraged this decision:

- The region has a dynamic optics and lasers sector.
- The presence of an optics and laser competitive cluster.



IOGS's objectives

- Allow IOGS engineering students to follow their course in Aquitaine from their second year.
- Develop an **Innovation Entrepreneurs™** course to promote innovative projects and **business creation**.
- Centre research on optics, nanosciences and complex systems / optics and digital technology / nanobio-optics and neurosciences.

- Cooperate with Alphanov, the technology transfer centre created with the support of the Regional Council.

Aquitaine regional support

- The Regional Council will:
- Construct a building to accommodate IOGS, as well as the Alphanov technology transfer centre and the Pyla continuing education service.
 - Provide financing of over 46 million euros for the building's construction.



> INVESTING IN STUDENT ACCOMMODATION

Regional student housing initiatives focus on four main areas:

- aid for construction and renovation
- aid to organisations developing temporary accommodation in the private sector
- aid for rental and security deposits for young people (Clé Aquitaine)
- the implementation of innovative housing solutions.

THE REGION OF AQUITAINE HAS FOUR MAIN PRIORITIES:

- **Social:** develop low-rental housing options in order to strengthen equal opportunities in accessing educational qualifications, jobs and self-sufficiency.
- **Economic:** support the creation of economic and educational hubs and facilitate entry into the labour market.
- **Environmental:** introduce environmental quality standards that improve comfort and reduce energy costs.
- **Attractiveness:** enliven campus life and encourage the growth of economic activity and student participation.

KEY FIGURES

- Aquitaine is the leading region in France in the promotion of student housing.
- 3,900 student accommodation places were built or renovated from 2005-10.
- Nearly 500 young people benefit from the Clé Aquitaine programme each year.



> ENCOURAGING STUDENT MOBILITY

In our globalised world, an experience abroad has become crucial for young graduates entering the labour market. In partnership with its universities, the region of Aquitaine supports projects that encourage international exchanges for students earning bachelor's or master's degrees, with priority given to students from low-income families.

Aquitaine Mobility: www.aquimob.fr

MOBILITY IS A +

- An experience in independence
- A cultural discovery
- Added value for employers
- **Potential professional opportunities**
- A language-learning opportunity

KEY FIGURES

- Some 1,500 students received aid in 2009-10 for an average amount of 2,294 euros per student.





© Benoit Alain/Burdin

> FACILITATING GRADUATE ACCESS TO JOBS

The region of Aquitaine supports its PhD students and graduates in entering the labour market via:

■ **ORPEA (Regional Agency for the Schooling of Aquitaine Students):** run by the University of Bordeaux, this organisation aims to better understand students' school careers in order to adapt courses accordingly.

■ **The Aquidoc forum:** a forum where young researchers and businesses can meet each other and make themselves known. It aims to showcase the expertise of PhD students and postdoctoral

researchers and meet the **specific needs of companies**. Event cofinanced by the Aquitaine Regional Council and the European Regional Development Fund (ERDF).

■ **The support of R&D and technology transfer projects** involving Aquitaine businesses, facilitating **access to scientific jobs** through CIFRE grants, and aid to postdoctoral researchers and corporate missions.

OPERATION CAMPUS, SYMBOL OF AQUITAINE'S SCIENTIFIC EXCELLENCE



© Forgeau

This exceptional plan to develop the region's universities will create 12 'campuses of excellence' that will showcase the attractiveness and reach of French universities. The project, proposed by the University of Bordeaux's research and higher education hub at the Talence-Pessac-Gradignan site, is one of six initial projects that have been selected among the 70 submitted.

An innovative project

- Public partnership (PRES) University of Bordeaux/Region of Aquitaine/Consignments and Loans Fund
- Creation of a publicly owned company to oversee the development of Operation Campus

KEY FIGURES

- 400,000 m² of premises will be renovated
- 7 university colleges will be created
- 3 departments and 11 research excellence centres will be set up
- Campus housing, cultural and athletic sites, and interuniversity day care centres will be created
- Total cost: 538 million euros
- **Participation of the Regional council: 200 million euros**

In a climate of increased global economic competition, the Regional Council has a very proactive policy of supporting research, not only to develop knowledge creation, but also to assist the evolution of Aquitaine's traditional economic sectors and aid the emergence of innovative advanced technology sectors with the aim of diversifying the regional economy.

> MASSIVE INVESTMENT IN RESEARCH

INSTITUTE OF VINEYARD AND WINE SCIENCES (ISVV), A CENTRE OF EXCELLENCE IN THE WINE SECTOR

Inaugurated in 2009 in Villenave d'Ornon, near Bordeaux, the ISVV hosts 400 students and 120 researchers, engineers and technicians. Its 7,000 m² are devoted to research, teaching and technology transfer.

.....
www.isvv.fr/isvv/



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KEY FIGURES

- Total cost of the ISVV: 29 million euros, of which 18 million euros financed by the region of Aquitaine and 2 million financed by the ERDF.

THE INTERDISCIPLINARY RESEARCH INSTITUTE OF THE ENVIRONMENT AND MATERIALS (IPREM)

Located in Pau, near the Pyrenees and the Spanish border, the IPREM is a centre of excellence in environmental and materials sciences. Covering a surface area of 5,000 m², it brings together laboratories working on both fundamental research programmes (in molecular physical chemistry, chemistry, physical chemistry, environmental biology and microbiology) and applied research programmes (surface treatment technologies, new polymeric materials and soil remediation) and which engage in **technology transfer with industry**.

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<http://iprem.univ-pau.fr/live>



© IPREM



© IPREM

KEY FIGURES

- Total cost of the IPREM: 16 million euros, of which 14 million euros financed by the region of Aquitaine.

EUROPEAN INSTITUTE OF CHEMISTRY AND BIOLOGY (IECB), AN INTERNATIONAL INTERDISCIPLINARY SCIENTIFIC RESEARCH CENTRE

Opened in 2003 in Pessac, just south of Bordeaux, the IECB gathers together more than 120 researchers in chemistry, physical chemistry and biology working both on fundamental research programmes and applied research programmes leading to **technological and industrial developments in the biomedical field:** treatments for cancer, infectious diseases, diabetes, etc.

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www.iecb.u-bordeaux.fr

KEY FIGURES

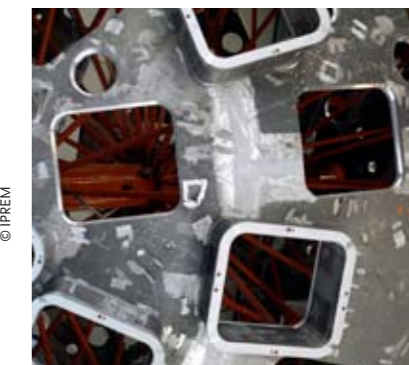
- Total cost of the IECB: 22 million euros, of which 13.8 million financed by the region of Aquitaine and 1.3 million financed by the ERDF (for the facility).



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PETAL, a petawatt laser facility in Aquitaine

The PETAL (PETawatt Aquitaine Laser) facility houses a high-energy 7-petawatt laser (ie 7 quadrillion watts). This petawatt laser will be coupled with the CEA-Cesta megajoule laser (LMJ). The PETAL facility serves fundamental research in the field of **future energy and astrophysics**. Since 2007, the development of the PETAL laser facility has been part of the European High Power Laser Energy Research (HiPER) programme, of which it is the first stage. The construction of the PETAL facility in Aquitaine will play a major role in making the region attractive in this advanced field.



© Gilbert Alban

KEY FIGURES

- Total cost of PETAL: 50 million euros, of which 22 million euros financed by the region of Aquitaine and 12 million euros financed by the EFDF. The facility should be available to scientists by 2015.

> SUPPORTING RESEARCH PROJECTS

Aquitaine's regional policy to promote research is part of a wider strategy of supporting our economy, with the goal that **each major economic sector in Aquitaine benefits from top-quality research** (for example, in aeronautics, wine, timber, optics and lasers). The aim is to encourage researchers to unite around joint 'big projects', pooling their resources in an interdisciplinary approach that takes into account the requirements of companies.

The Regional Council's financial support for research projects focuses on two main areas:

- **the modernisation of research lab equipment:** our goal is for Aquitaine's research laboratories to be equipped with the best high-technology facilities and equipment in the world in order to be competitive on a global scale.
- **the recruitment of PhD students and postdoctoral researchers,** essential participants in research efforts taking place daily in Aquitaine.

> ATTRACTING TOP RESEARCHERS

In order to attract the best researchers to Aquitaine, the Regional Council has put in place a **Visiting Research Chairs Programme**. This initiative offers a comprehensive package (in line with those offered at American and British universities) allowing researchers to get their projects up and running quickly and in the best possible conditions. The beneficiaries of regional aid will be prominent, internationally recognised researchers who can strengthen our centres of excellence, develop an area of regional excellence or complement a strategic sector.



> ORGANISING INTERNATIONAL SCIENTIFIC CONFERENCES

In addition to supporting scientific symposiums, the region has organised a series of conferences in two disciplines in which it boasts internationally recognised advanced scientific and technological skills: **polymers and neurosciences**.

The Aquitaine Conferences have several objectives:

- Reinforce Aquitaine's image in scientific excellence in the fields in which it has competitive scientific and technological resources.
- Improve international recognition of the region's laboratories to attract the best PhD students and post-doctoral researchers from around the world.
- Increase Aquitaine's attractiveness to the world's most prominent scientists.
- Allow Aquitaine's PhD students and post-doctoral researchers to work side by side with the world's top specialists in preferential conditions.
- Develop the local economy through the activity generated by hosting the event.
- Demonstrate the region's interest in research, particularly fundamental research.

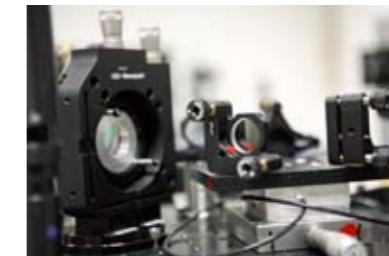
Outside of each scientific conference proper, a **public conference** will be held with the aim of making the subject accessible to the general public and to bring the domain of science closer to society.



> ENCOURAGING COLLABORATION BETWEEN RESEARCH LABS AND COMPANIES

The region supports technology transfer to increase the competitiveness of Aquitaine businesses by meeting their technological needs and encouraging the emergence of new technologies.

- It aids projects led by Aquitaine businesses in collaboration with public laboratories and technology centres.
- It assists and gives financial support to organisations that act as an interface between regional businesses and skill centres (for example, technology transfer organisations, technology centres and laboratory technology transfer units).



ALPHANOV, Optical and Laser Technology Centre

Created in 2007 by the Aquitaine Regional Council, the CEA (Atomic and Alternative Energy Commission), the CNRS (National Centre of Scientific Research), the University of Bordeaux 1 and 2, and the competitive cluster ALPhA – Route des Lasers, Alphanov is a unique national centre for the transfer of technology between academic laboratories and businesses. It is cofinanced by the Regional Council and the ERDF.

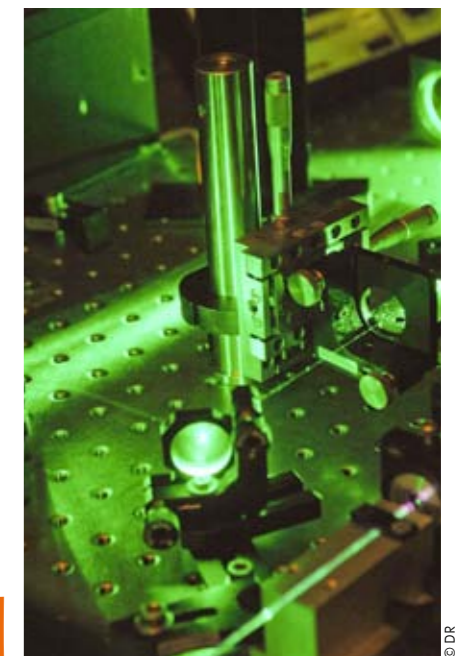
Its principal missions are:

- Helping the creation and development of businesses by coming up with innovative solutions.

- Promoting the research carried out by laboratories and the transfer of technology.
- Enabling collaborative projects, the development of new technologies and the rapidity of bringing products to market.
- Providing resources and services in optics and lasers.

Alphanov's activities cover five areas:

- laser processing and micromachining
- laser sources and applications
- optical design and imaging
- terahertz applications
- medical applications.





Aquitaine

enterprising

Supporting businesses
at every stage of their
development

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BUSINESS CREATION



© Guillaume Bonnaud

> COFINANCING ORGANISATIONS THAT SUPPORT BUSINESS CREATION

- **Technopoles** energise regions with innovations resulting from pioneering partnerships between local government, research units, funding agencies and companies. **There are six technopoles in Aquitaine:** Hélioparc in Pau, Izarbel in Bidart, Agropole in Agen, Montesquieu in Martillac, Technowest in Mérignac and Unitec in Pessac.
- **Support organisations** aid the creation of small-scale or commercial businesses. They include guild chambers, business incubators, cooperatives, etc.

Example of a supported business: Fermentalg



© Stéphane Lantique

This young, innovative business in Libourne, not far from Bordeaux, specialises in the culture and exploitation of microalgae. Its founder, Pierre Calleja, is developing a new production method that he has patented: heterotrophy. This innovative technique allows the culture of microalgae in three dimensions, resulting in spectacular yields.

The company targets three markets:

- biomass production for aquaculture
- products to replace fish oils by extracting microalgal lipids for the cosmetic and food supplement industries
- third-generation biofuel derived from microalgae, a very promising market.

KEY FIGURES FOR BUSINESS CREATION

- 32,400 businesses created in Aquitaine in 2010
- 5th region in France for the number of businesses created in 2010
- 22.7 million euros invested to promote business creation since 2005
- 1,000 business creation projects supported and 500 projects financed each year

> FINANCING BUSINESS CREATION PROJECTS

GRANTS AND ZERO-INTEREST LOANS FOR START-UPS

■ Aid for Manufacturing Start-ups (ACEP)

Its aim is to financially consolidate business projects by providing working capital. Beneficiaries: manufacturing and/or innovative start-ups requiring substantial initial investment to set up production facilities and/or to finance R&D programmes.

■ Aid for New Innovative Start-ups (JEI)

Its aim is to support innovation and particularly the creation of new companies with breakthrough innovations that represent real development potential to act as drivers for the sectors of excellence in the regional economy.

■ Aid for Jobseekers Starting a Business (ADECE)

Its aim is to help jobseekers with the initial investment and cash flow required to start their own business.

FUNDING FOR ENTREPRENEURS

THE REGION OF AQUITAINE HELPS ENTREPRENEURS TO ACCESS CREDIT THROUGH ORGANISATIONS THAT OFFER UNSECURED LOANS, GUARANTEE FUNDS AND VENTURE CAPITAL FUNDS.

■ Unsecured loans organisations

They can advise, provide contacts and finance entrepreneurs with unsecured loans. There are nine unsecured loan organisations in Aquitaine: Aquitaine Amorçage, Adour Entreprendre, Aquitaine Entreprendre, Béarn Initiative, Bultza, Gironde Initiative, Landes Initiative, Lot et Garonne Initiative and Val de Garonne Initiative.

■ Guarantee funds

These can facilitate entrepreneurs' access to bank financing. The three Aquitaine guarantee funds financed by the region are OSEO, SIAGI and Aquitaine Active.

■ Regional grants for seed and venture capital

These aim to support the creation of innovative businesses.

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INDUSTRIAL DEVELOPMENT

The Regional Council supports its manufacturers in developing economic activity and jobs in Aquitaine, as well as in diversifying the regional economy. The projects that receive support must have a concrete medium- or long-term impact on the regional economy in terms of new jobs, increased turnover, use of local suppliers, creation or consolidation of technical collaboration (scientific or academic) or integration in a sector of excellence or a regional skills hub.

> INITIATIVES FOR INCREASING BUSINESS COMPETITIVENESS

- Regional business aid includes:
- Financial backing for business innovation projects.
 - Support for SMEs' international development.
 - Financial help in recruiting key employees for the company.
 - Financing for expert consultants to advise a company at significant points in its development.
 - Financing for investment programmes:
 - property: industrial buildings (High Environmental Quality is required)
 - equipment: production equipment that allows a technological leap
 - intangible assets: patents or product design software.

- Promotion of companies' adoption of strategic workplace planning and measures to safeguard job security.

Each project is subjected to a detailed examination to define the amount of possible public aid. Particular attention is given to the company's equity capital and its financial capacity to carry through its plans.

KEY FIGURES

- Some 350 business projects received aid in 2010 for an amount of over 40 million euros.

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A contract for partnership and growth to improve regional competitiveness

In 2006, the region of Aquitaine launched a partnership initiative with leading companies in their fields that are prepared to include the region in their development plans. The goal is to encourage new industrial sectors with high development potential (particularly in terms of job creation) and to create new intermediate-sized businesses (between 250 and 5,000 employees).

EXAMPLES OF ECONOMIC DEVELOPMENT PARTNERSHIPS

- ARKEMA centre of excellence in nanostructured materials.
- ASTRIUM centre of excellence in high-performance structural composites.
- CEVA Santé Animale, **veterinary health** sector
- French Government Defence Procurement Agency: **dual-use technology**.
- Snecma Propulsion Solide: **thermostructural materials for civil aeronautics**.
- Nanni Industries: **environmentally friendly boats**.

SUPPORT FOR EXPORTS: A REGIONAL PRIORITY

In 2011, the region of Aquitaine launched a new initiative to help Aquitaine companies develop their international markets. Working in close partnership with the French Trade Commission (Ubrifrance) and regional chambers of commerce, the region has devised a policy that prioritises primary exporters and intermediate-sized businesses. A service dedicated to export has been created within the Regional Council's Department of Economic Development and Employment.

> INVESTMENT CAPITAL

- The Regional Council offers companies in Aquitaine a complete range of financial tools designed to reinforce their equity capital from start up through each stage of their development. Each approach lies within an ethical framework that retains the confidentiality of strategic interests.
- The region has invested in 14 capital investment funds for a total amount of over 20 M euros, allowing up to 40 M euros of project financing every year: *Aqui-Invest (cofinanced by the Regional Council and the ERDF), Newfund, SOCRI 1 and 2, Aerofund 1 and 2, IRDI, ICISO 2, Aquitaine Amorçage, Herrikoa, Aquitaine Création Investissement, Groupe Expanso/Galia, SFAP.*
- In 2009, the region created the co-investment fund *Aqui-Invest* to support innovative companies in their start-up phase.

KEY FIGURES

- Since 2006, 167 Aquitaine businesses have received over 42 M euros of investment in their capital assets.

www.aquitaine.fr
Go to: Politiques régionales > Économie emploi > Capital risque



> INNOVATION, RESEARCH AND DEVELOPMENT: A REGIONAL PRIORITY

The region wants to make innovation and sustainable development the drivers of Aquitaine's competitiveness. In this aim, the Regional Council and the regional agency INNOVALIS assist businesses in their innovation strategies with:

- technical advice, strategic partnerships and putting businesses into contact with centres of excellence or research units
- help for businesses in finding suppliers or industrial partners
- integration in regional business clusters and participation in collaborative projects
- financial aid (regional funds, European funds and funding from other public stakeholders) and equity capital (putting businesses into contact with regional and national financing organisations).

KEY FIGURES

More than 100 R&D and innovation projects aided in 2010 for a total amount of over 17 million euros.

- **THE REGION OF AQUITAINE MANAGES EUROPEAN FUNDS PROMOTING RESEARCH AND INNOVATION**
Recognised for its proactive policies, the region of Aquitaine has been entrusted to manage ERDF funds dedicated to research and innovation. Between 2007 and 2013, the Regional Council will have contributed 175 million euros to such projects.

An appeal for eco-innovation projects

In 2006, in partnership with Oséo, ADEME (French Environment and Energy Management Agency), DIRECCTE (Regional Office for Business, Competitiveness, Consumption, Work and Employment) and the Adour Garonne Water Agency, the region launched a call for eco-innovation projects from Aquitaine businesses in the areas of:

- eco-innovative development
- diversification towards new eco-activities
- eco-product design
- adoption of sustainable methods of organisation and production.

KEY FIGURES

Since 2006, 130 projects have received aid totalling 12 million euros.

> THE AQUITAINE AWARDS FOR INDUSTRIAL DESIGN

Because design is an essential element in improving business competitiveness, since 2007 the region has organised the Aquitaine Awards for Industrial Design (TADI).

This initiative consists of:
- financial support for businesses that initiate design projects
- an award for the best projects at the end of the year.

KEY FIGURES

Since 2007:
• These awards have allowed 162 projects to be financed for a total amount of 1.7 million euros.
• 13 companies have received awards.

> A REGIONAL PLAN

Aquitaine assists the transfer and takeover of the region's companies in order to ensure the continuity and sustainability of our expertise and jobs. The region can offer assistance in putting together a takeover project and remove difficulties related to takeover financing. Regional aid aims to:

- Engage in detection and awareness initiatives and to support assignors (sellers), with the help of chambers of commerce and industry.
- Encourage the use of expert advice to study and put together takeover projects (including assistance in evaluating the project and aid for consulting experts).
- Build or strengthen the equity capital of takeover candidates (via special bank accounts, unsecured loans and investment capital).
- Facilitate the securing of bank loans by providing guarantees (Aquitaine pre-guarantees, Aquitaine guarantee funds, Artisan/Very Small Business guarantee funds).
- Strengthen the structure of the business before takeover in terms of its production tools (aid for investment) and human resources (aid for recruitment by the potential buyer).
- Consolidate the resources of the business after takeover (aid for takeovers of manufacturing companies) to assist its redeployment.
- Reinforce the skills of the buyer of the company.

<http://transmission-reprise.aquitaine.fr>

Example of a supported takeover project

Bruno Enfedaque (aged 40) took over the Cunèges company Lagrange Truffaut, a business specialising in the production of roof frames and roofing and zinc cladding. The buyer is committed to a development plan based on the construction of components for timber frame houses and has thus created two new jobs.

KEY FIGURES

Since 2005:
• 1,400 projects assisted
• 9,500 jobs created or taken over
• More than 22 million euros of regional funds marshalled.

Some examples of supported R&D projects

■ **Biolandes**
SME with 109 employees, located in Sen
Aided R&D programme:
- collaborative project approved by the Xylofutur competitive cluster.
- objective: establish a complete sector around the reuse of industrial wood waste by extracting bioactive substances for various industrial uses.



© DR
Aided R&D programme:
- collaborative project approved by the Xylofutur competitive cluster.

■ **2 MORO**
SME with 44 employees, located in Bidart
Aided R&D programme:
- project approved by the Aerospace Valley competitive cluster
- field: aeronautical maintenance.

■ **Epsilon Composites**
SME with 141 employees, located in Gaillan, Médoc
Aided R&D programme:
field: composite applications in the aeronautics industry.

■ **Exosun**
SME with 47 employees, located in Martillac
Aided R&D programme:
field: renewable energy (innovative technology in solar energy generating systems).



© Paul Robin/Exosun
Aided R&D programme:
field: renewable energy (innovative technology in solar energy generating systems).

■ **Syst'am**
SME with 62 employees, located in Le Ledat
Aided R&D programme:
field: design and production of respiratory assistance devices and systems for bedsores prevention.

■ **Optim'eau**
SME with 5 employees, located in Coly
Aided R&D programme:
field: development of a range of concrete tanks for rainwater harvesting.



© DR
Aided R&D programme:
field: development of a range of concrete tanks for rainwater harvesting.

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SMALL BUSINESSES AND ARTISANS

> A COMPREHENSIVE POLICY TO ENCOURAGE ARTISANS AND SMALL BUSINESSES

Artisans make up a large number of businesses in Aquitaine – currently 57,000, involved in around 250 different professions and trades. The Aquitaine Regional Council has chosen an approach that supports key sectors. In the period from 2009–12, sectors such as eco-construction, meat, crafts and home care services were assessed and received a variety of action plans to support any artisans that want to participate.



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PROMOTING ECO-BUILDING

This rapidly growing market is not only vital from an ecological point of view, in terms of saving energy and reducing greenhouse gases, but from an economic standpoint, with the national market for the insulation of old buildings estimated at 600 billion euros. However, there are currently not enough qualified builders. Regional policy aims to inform and train professionals to meet this need.



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Key aims of regional action plans

- Inform artisans about the market for insulation.
- Assist businesses in positioning themselves in this market, encouraging them to collaborate to better coordinate work.
- Set up a monitoring service and effective training programmes.
- Communicate the issues and solutions to the general public and recommend artisans qualified to conduct in-depth audits and undertake quality work.
- Provide financial subsidies for homeowners to carry out an energy audit to indicate areas that could be improved with eco-projects.

COOPERATIVE AND VOLUNTARY SECTORS

In keeping with its policy encouraging economic development and employment, the Aquitaine Regional Council supports its cooperative and voluntary sectors.



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> REGIONAL POLICY AIMS FOR THE COOPERATIVE AND VOLUNTARY SECTOR

- Support employment.
- Promote social inclusion.
- Develop activities that have social benefits and create jobs.
- Build a more socially responsible economy.

> AREAS OF ACTION

Supporting Aquitaine's cooperative and voluntary sectors via:

- Organisations that facilitate access to the job market.
- Cooperative businesses (SCOP and SCIC).
- Assistance for the long-term unemployed to construct a professional activity (aid for jobseekers who want to start a business).

Economic approach for cooperative and voluntary sectors:

- Regional aid to help organisations at key stages in their development.
- Support with structural guidance.
- Financial tools via Aquitaine Active.

Example of anchor project: call for cooperative projects

Regional aid has allowed: the number of AMAPs in Aquitaine to go from 6 to over 80 in four years, with 160 local producers supplying foodstuffs to more than 4,000 families that have committed to pre-purchase agreements.

The region supports FR CIVAM (Regional Federation for Initiatives to Promote Agriculture and the Rural Environment) in its:

- actions to promote the region
- support for the creation of new AMAPs (Associations that Support Small Farming).

AMAPs

Are a link between city dwellers and rural suppliers, who provide eco-conscious customers with fresh local products and make their agricultural methods transparent for consumers.



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KEY FIGURES

- Aquitaine's cooperative and voluntary sector = more than 11,764 organisations, representing 10.54% of the region's jobs.
- Facilitating access to the job market = 205 organisations employ 13,000 people in the process of professional reinsertion.
- Regional support for this sector = over 3 million euros of the annual budget.

AQUITAINE: A DYNAMIC AND ATTRACTIVE REGION

> AN ATTRACTIVE REGION

- A surface area of 41,000 km² (7.6% of France)
- A population of 3.2 million
- Over 1% population growth per year

> AN ENTERPRISING REGION

- Over 32,000 businesses created (2010)
- 5th French region in the number of businesses created (in 2010)
- 85.7 billion euros GDP

> A GREEN REGION

- Number 1 French region in the creation of green jobs
- More than 2,100 green jobs created in 2009–10

> AN INNOVATIVE REGION

Over 10% of the regional budget (more than 130 million euros) dedicated to research and innovation each year. In the period 2007–13, 175 million euros of ERDF funding has gone towards research and innovation in the region.

- 107,400 students
- 14 engineering schools
- 12,100 researchers
- 130 research laboratories
- over 1 billion euros spent on R&D
- 400 patents published in 2010

> A REGION OF RECOGNISED SCIENTIFIC EXCELLENCE

Many Aquitaine projects have been submitted in the framework of the French Government funding programme 'Investing in the Future', including:

- 1 project for excellence in higher education and research
- 15 projects for high-quality scientific facilities
- 10 internationally recognised laboratories
- 1 health research cohort
- 1 teaching hospital
- 3 Carnot Institutes (public research laboratories)
- 1 Institute of Technological Research
- 1 Institute of Carbon-free Energy

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