Content

Why Portugal

Portuguese Aeronautical Industry

aicep Portugal Global
PORTUGAL IS A BUSINESS OPPORTUNITY

Why choose Portugal?
Strategic location

Portugal is the European nearest country to the U.S.
3-hour distance between Brazil and Russia.
Same time as UK and Ireland.

Attractive Consumer Market

<table>
<thead>
<tr>
<th></th>
<th>Million Inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>10,6</td>
</tr>
<tr>
<td>Iberian Market</td>
<td>51</td>
</tr>
<tr>
<td>European Market</td>
<td>494</td>
</tr>
<tr>
<td>Portuguese Speaking countries</td>
<td>220</td>
</tr>
</tbody>
</table>

Great and privilege economic relations between Portugal and Brazil, Angola and Mozambique.
Daily flights to major European cities.

Why choose Portugal?
Qualified Workforce

- Flexible labour law
- High-standard education
- Wide availability
- Partnerships with world-class US institutions

Portugal has a highly skilled and educated workforce. Portugal ranks on Top within the EU countries in number of PhDs per 1,000 inhabitants.

40% of students in tertiary education are enrolled in engineering, sciences and health. The increase rate in the last 3 years is about 30%.

Portuguese are known for commitment to work which places us below the EU average regarding working days lost per year.

Language skills: English, French and Spanish are the most spoken languages. English is universally taught from 1st grade.
Portugal is still cost competitive according to international recognized sources. There was a decrease of -1.2% in hourly labour costs in 2012 Q1 (Euro 27 rose by +2.0%).

In terms of real estate – industrial space - and within 53 countries/cities worldwide, Portugal/Lisbon is the 8th less expensive location.

Portugal also has one of the lowest monthly minimum wage in Europe (485€).
The percentage of fiber connections in total broadband is already 6% for Portugal, ahead of countries such as Netherlands, Finland, France, Spain, Italy, Poland, Austria, Germany or Belgium.

The Internet is also well developed. Portugal is a United Nations case study in terms of e-Government and its availability of public services on-line.

Telecommunications have been a major priority in Portugal. The country has now 95% coverage of broadband infrastructures. The net increase in the broadband penetration growth for Portugal is above the OECD average (Dec 2010).
Portugal offers a dynamic real estate market. High quality space, well designed and energy efficiency oriented has boomed and rent prices are competitive comparing the other European countries.

Why choose Portugal?

Portugal is ahead of countries such as France and Spain in terms of cost. The figures are shown for Lisbon. If we considered Porto area, prices can lower 25%.
Business friendly environment

**MULTI-CULTURAL**

Portugal is very **open** to foreign cultures: the availability of international schools, the safety record and quality of life attract expatriates.

As a result Portugal is **ranked #2** in the Migrant Integration Policy Index 2011.

“Portugal is unique in attracting young graduates and executives.” Carlos Brazão, Cisco Portugal

**EASE OF DOING BUSINESS**

- Major public services are on-line;
- Portugal is considered by the United Nations, a case study in e-Government;
- Average time to set up a firm is less than 1-hour
They chose us

Our decision is a result of the recognition of the hospitality and the commitment of the Portuguese Government, of the multilingual skills of the local population as well as its professionalism and ability, and proven success in innovation areas.”

Chris Dedicoat, Senior Vice-President for Europe, Cisco

One of our main strategic lines was always to shorten distances with the academic world and to bet in strong innovation, investigation and development in Portugal thus taking advantage of the Portuguese engineer’s excellence.

João Picoto, Chairman of Nokia Siemens Networks Portugal

SERVICES

MANUFACTURING

Why choose Portugal?
Portuguese Aeronautical Industry
The Portuguese Government selected the Aeronautical Industry as a priority area to develop and improve for the next decades.

Aeronautical Highlights

Two Greenfield plants: new centers of excellence since 2012.

PEMAS association is a Network of more than 30 Portuguese companies for aerospace industry. PEMAS participation in both national and international projects is based upon a close cooperation with the aerospace supply chain systems integration companies. The member companies employ more than 2000 highly qualified specialists working on different areas of expertise.

OGMA and other Portuguese companies are working together in the Embraer’s new military airlifter, the KC-390, mainly in engineering development and primary structures production.

CEIIA is an Engineering Center with 180 engineers focused on the automotive and the aeronautics industries. Around 110 engineers are working on several international aerospace projects, mainly for Embraer, AugustaWestland and EADS-SOCATA.
The Portuguese Aeronautical Industry is set for growth:

Increasingly integrated and complex technological offer.

Distinctive capabilities in component manufacturing, systems’ development and maintenance.

World-class engineering schools and work-force qualification programmes.

Vibrant entrepreneurial activity in the aerospace sector.

Strong presence in international aerospace R&D and Innovation programmes, through active participation in R&D and Innovation Framework Programmes, the European Space Agency (ESA), or the European Aviation and Safety Agency (EASA).

Involvement in some of the major aeronautical programmes worldwide such as Embraer KC-390, AgustaWestland AW609 tilt-rotor or EADS-CASA C-295.

Aerospace competence centres flourishing throughout the country.
Two Greenfield plants: new centers of excellence

Dedicated to manufacturing complex airframe structures, metallic assemblies and composites, both to be located in the city of Évora, south of Portugal.

New factories highly automated using state-of-the-art manufacturing processes.

Estimated investment of €100 million (metallic) and €48 million (composites) over the next six years.
Aircraft Manufacturers

Engineering Centre for Mobility Industry

Design
- Metallic and Composite Structures
- Mechanisms
- Systems Installation

Structural Analysis and Simulations
- Static Analysis, Fatigue and Damage Tolerance
- Specialized Solutions (Flutter, Impact and Structural Dynamics, etc)

Aerodynamics and Avionics
- Body and Rotor fluid dynamics
- Systems integration

Systems Engineering
- Electrical, Mechanic, Propulsion and Navigation Systems

Composite Production
- Certified clean room and Autoclave

Management
- Integrated Product Development
- Project Management, Resource Planning and Scheduling
LIFE research project is led by a Portuguese Consortium in close collaboration of four companies and one R&D institution: Couro Azul; SET; Amorim Cork Composites and INEGI with the participation of Almadesign and Embraer. The goal is to create skills for design, development, and manufacture of functional and technical solutions for aircraft interiors at eco-efficient, lightweight and comfort in an integrated and innovative design.

Successful projects

Crystal Cabin Awards 2012
Project Life was the winner in the Visionary Concepts category.

LIGHTER, INTEGRATED, FRIENDLY, ECO-EFFICIENT AIRCRAFT CABIN

LIFE STRENGTHENS AND PROMOTES A MULTIDISCIPLINARY APPOACH AMID COMPANIES WORKING TOGETHER ON AERONAUTICAL PROJECTS, DEMONSTRATING ECO-EFFICIENT, LIGHTWEIGHT AND COMFORTABLE SOLUTIONS - SEEDING THE FUTURE WITH SPIN-OFFS.

More at: http://www.portugalglobal.pt/EN/General/Pages/Communications.aspx
Airbus relies on Portuguese expertise in very sensitive issues like sensors. Airbus A380 has optic fiber sensors manufactured in Portugal.

FiberSensing

From electric switchboards to Airbus 340 to helicopter tails or even structural components for Airbus A320, A330 and A340 and Embraer 145, 170 and 190 airliners and also components for fighters, a wide range of aircraft components are manufactured in Portugal. Others can begin to be manufactured like moulds and tooling where our country is internationally recognized.

Portugal offers an extensive range of skills within the aeronautic industry, both for civil and defense applications. Around 140 innovative companies comprising:
- 7,000 jobs;
- Sales turnover of 680 M€.

Airbus is relying on Portuguese cork to take care of that issue and keep customers happy. It’s a renewable biomaterial and a by-product of wine cork stoppers and has an outstanding thermal and acoustic isolation capacity. Portugal is a leading supplier.

Portuguese expertise in aeronautical industry also includes high tech systems and software for critical applications.
Components Suppliers

Areas of Expertise

RESEARCH, DESIGN, ENGINEERING AND TESTING

MOULDS AND TOOLING

MAINTENANCE, REPAIR AND OVERHAUL
Participation of the Portuguese Aeronautical Industry in the development and production of the new Embraer KC-390 multi-role Transport Aircraft

This program will allow the Portuguese Aeronautical industry to

- Specialise its competences
- Develop world-class suppliers for Aeronautics
- Foster new Aeronautical FDI projects in Portugal

The Portuguese industry is responsible for the engineering design and manufacturing of Tooling and the following structural modules:

- Central fuselage
- Elevator
- Sponson
The Portuguese Aeronautic Consortium is running a project for the development of unmanned aerial vehicles.

Ongoing programmes

Unmanned Aerial Systems (UAS)

- **Onboard Systems**
  - Onboard systems
  - Payload
  - Communication Systems

- **Airframe**
  - Aeronautic Design and Engineering
  - Innovative Composite Development
  - Metallic and Composite Manufacturing and Assembly
  - Aero structure Assembly
  - Tool Development and Manufacturing

- **Ground Segment**
  - Mission Land & GCS
  - Mission Maritime & GCS
  - Simulation Systems

Source: PEMAS: The Portuguese Association for the Aerospace Industry
Ongoing programmes

Tekever has unveiled the newest addition to its family of unmanned vehicles at the Aerospace and Defence Industries Association of Europe (ASD) convention in Portugal, the AR5 Life Ray tactical UAV (TUAV).

The AR5 Life Ray is designed for maritime and near-shore surveillance, and search and rescue (SAR) missions. The UAV has a 9 metre wing span, a cruise speed of 120 km/h, and a 90 kg payload capacity to house multiple sensors and communications equipment.

Spin.Works is an engineering company dedicated to the development of systems and structures for the Aeronautics, Space and Defence markets, namely: Complete Structural Solutions & Composites, Mechanisms, Navigation & Flight Control Systems, Simulation Systems, Detection Systems and Unmanned Aerial Vehicles. Spin.Works continually develops its expertise by focusing in R&D projects in cooperation with top universities and R&D institutes, as well as in technical projects in collaboration with leading companies in the space and aeronautical fields.
The aviation maintenance sector in Portugal is dominated by two large companies: OGMA and TAP ME.

There are several smaller companies operating in the country. These companies are located either at Lisbon and Oporto airports. At Évora, Alverca and Tires airfields, line maintenance for smaller aircrafts is available.

Typical operation by OGMA and TAP ME includes A, C and D checks, avionics repair, engine repair and aircraft painting.

Aircraft types include Airbus models (except A380), Boeing 707, 727 and 737 family, all Embraer models, Lockheed Martin models, Bell helicopters, Cessna training aircrafts, among others.

More information on the aeronautic sector at: www.pemas.pt
Significant activity for third parties.

Nearly 1900 highly skilled personnel at Lisbon airport on a 24-hour daily operation.

Approved as a JAR 145 Aircraft Maintenance Organisation and as certified JAR 145 Repair Station.

ISO 9001 and certified by numerous national aviation authorities.

Acquired VEM-Varig Engineering and Maintenance, South American largest maintenance company.

Partnership agreement with OGMA, using its Alverca facilities.

Key scope of services by TAP Maintenance and Engineering

- Line Maintenance;
- Aircraft A, B, C, D, IL checks;
- Engine & Components Maintenance;
- Maintenance Program customization;
- Engine Health Monitoring;
- Airworthiness Directives monitoring and scheduling;
- Maintenance Program Control.
Founded in 1918, OGMA is one of the longest established aviation companies in the world.

Strong MRO Capability
(Maintenance Repair & Overhaul)

About OGMA

OGMA's Shareholders composition

Airholding
65%

Empordef
35%

Airholding
Embraer – 100%

Empordef
Portuguese State – 100%

Fully qualified company in both civil and military aviation, certified as a FAR 145 and as a EASA 145 repair station, AQAP 2110 and ISO 9001-2000 Quality Management.

Established and authorized maintenance center for several Original Equipment Manufacturers, including Lockheed Martin, Embraer, Rolls-Royce, Turbomeca and others.

Elected as the Best European Independent MRO Operation of 2008 by Overhaul & Maintenance Magazine.

Proudly serving clients in more than 45 countries worldwide
Booming aviation sector

Beja new airport (IATA code: BYJ). Opened in 2011, is 12 km from Beja, 170 km south of Lisbon.

The World largest fraction jet operator with a fleet of 170 executive jets in Europe.
It has chosen Lisbon area to install its European centre for operations.

NETJETS

EasyJet has opened a base at Lisbon airport in April 2012; Network grows by five to 21.
Two 156-seat A319 aircraft are now based at Lisbon, enabling the launch of five new routes (Amsterdam, Asturias, Bordeaux, Copenhagen and Venice).
This raise to 21 the number of destinations served non-stop by EasyJet from Portugal's busiest airport.
We are a Business Development Agency, focused on the development of a competitive business environment that contributes to the international expansion of the Portuguese Economy.

Increasing the country’s competitiveness, promoting large private investment and fostering the internationalization of Portuguese companies.

Focus on clients. We serve our clients in accordance to their requirements through various solutions and long-term relationships. 

Selectiveness. We direct our activity towards projects and markets that make a better contribution to company competitiveness and the sustainability of the Portuguese economy.

Excellence. We seek to exceed expectations by means of a rigorous approach, effectiveness, enthusiasm and a willingness to innovate.
Pre-Investment

Incentives Negotiation

Settling In

After Care

Single point of contact in all phases: pre-investment, incentives negotiation, settling in and after care

Dynamic approach focused on the client or investor

Promoting a **direct negotiation** with companies, through which a tailored approach to incentives may be applied in order to define a global package that fully satisfies the investor's needs

**Government** business entity, flexible, **free of charges** and streamlined services