

6 Aeronautics Agglomeration in Portugal

6.1 Basic Data of the Territory

Portugal faces the challenge of considering the advantages associated with the dynamism of the national aeronautic sector before possibly rising in the value chain. An analysis of the Portuguese productive specialisation shows that labour intensive goods (textile and footwear), or strong scale economies (automobiles and parts), or products obtained from local natural resources (bark, wood, paper, cardboard and food and agricultural products) predominate. On the other hand, goods requiring technology and knowledge represent only a small amount of the total produced and exported goods. According to data provided by the *National Institute of Statistics*, Portugal's GVA percentage in high technology sectors is approximately 35% in contrast to average values of 49% in the EU and 52% in the OECD. (see table 6.1). But Portugal is also the second European country, after Finland, with the highest increase in relative significance of high and medium technological intensity from the middle of the 1990's to the first years of the 21st century. The automobile sector contributed most to this change and has received significant investments in R&D.

The aeronautical field is included in the CAE 353 as "other transportation materials". The sector represents only 3% of exports and 2% of high technology imports. Also in terms of Technological Balance, the sector displays a high surplus revealing the presence of a dynamic sector in the Portuguese economy.

In his book *"Building Competitive Advantages in Portugal"* (1994), Michael Porter held that high technology industries, *per se*, do not determine competitiveness in a country such as Portugal. Portuguese competitiveness should be obtained through those sectors where there is tradition and competition, such as textile, florist, wine or footwear.

Nevertheless, Portugal has demonstrated potential in fields of higher technological content, such as the automobile sector. Recent evolution in

aeronautics indicates the possible creation of an aeronautical *mega-cluster*¹ in the country.

Table 6.1. Firms polled

Date of Creation	Name of Company	Location	Main Activity
1918	OGMA (commercialisation)	Alverca	Aeronautical maintenance and manufacture
1918	OGMA (manufacture)	Alverca	Aeronautical maintenance and manufacture
1945	TAP – maintenance and engineering	Lisbon	Aeronautical maintenance
1948	EFACEC – engineering	Lisbon	Conception, project and manufacture of electrical and electromechanical systems
1951	Aerocondor	Tires	Aeronautical maintenance
1968	Quinago - metallic cut and shape	Sintra	Metallurgy
1969	Fundínio – aluminium smelting and injection	Porto	Manufacture of injected aluminium components, of high pressure, for the automobile and telecommunication industry
1970	Cinave	Lisbon	Manufacture of aeronautical navigation instruments
1978	Planimolde	Marinha Grande	Plastics
1980	A Brito – Portuguese Industry of Gear Assembly	Porto	Manufacture of precision components and brake and transmission systems
1982	Aerohélice	Alenquer	Maintenance of propellers
1986	Couro Azul	Alcanena	Tanned skins
1988	Astro Metalúrgica	Albergaria-a-Velha	Metallurgy
1988	Edisoft	Lisbon	Software service and development
1989	Plasdan	Marinha Grande	Plastics
1992	Agroar	Évora	Maintenance of light fire-fighters and forest airplanes
1995	LAS – Louro Airships	Lisbon	Aeronautical maintenance
1997	Almadesign	Lisbon	Project and Design
1998	Critical Software	Coimbra	Software development
2000	TeandM	Coimbra	Technical coatings
2001	Dyn'Aero Ibérica	Ponte de Sôr	Manufacture of light airplanes

¹ Concept proposed by the OECD, to be defined later on in this study.