Many international players have sought out Catalan partners because of low labour costs in the region. Catalonia is the production centre of Spain. Its 6 million inhabitants contribute proportionately more to Spanish output than any other region of Spain except Madrid, which is the focus of the country's capital markets, and the Balearic Islands which are a major tourist destination. The borders of Catalonia are defined by the Mediterranean and by the Pyrenees. Barcelona, the capital of Catalonia, contains many architectural masterpieces and is presently undergoing extensive renovations in preparation for the 1992 Summer Olympics.

## Structure

Most of Catalonia's companies are small, family-owned enterprises that lack the capital resources to expand. Catalonia's overall economy is heavily industrialized, although the service sector is now dominant: manufacturing accounts for 40.6% of GDP, services 56.8%, and agriculture 2.6%.

## Infrastructure and capabilities

Catalonia has a large number of diversified suppliers, a highly skilled labour force with low wage rates relative to the rest of industrialized Europe, a rapidly growing domestic market, and a well developed infrastructure that includes industrial parks, transportation, and advanced communications. In preparation for the Olympics, Barcelona has built a new airport, subways, ring roads, new sewers, hotels, and apartments. The City is also spending \$590 million in renewing its telecommunica-

## Representative Salaries in Barcelona, 1989 (\$)

Sector: professional electronic Annua equipment	al salary	Total cost to company*
Supervisor, grade 1	17,657.5	23,838.4
Qualified worker (grade 1)	15,872.2	21,427.6
Qualified worker (grade 2)	14,333.5	19,349.6
Qualified worker (grade 3)	13,486.2	18,206.2
Warehouseman	13,769.4	18,589.7
Truck driver	12,781.8	18,031.6
Labourer	11,684.4	15,773.1
Head, accounting department	47,970.5	64,759.6
Engineer (some experience)	32,709.6	44,158.0
Executive secretary (with English	) 19,067.6	25,741.7

\*Approximate total wages are obtained by adding an average of 35% for social security costs.

Source: Center for Information and Business Development (CIDEM), Ministry of Industry and Energy, Generalitat of Catalonia.

## Sector Distribution of the Catalan GDP (in percentage)

Metal products & Machinery	19.1
Textiles, leather goods & footwear	18.1
Food, beverages, & tobacco	12.3
Chemical products	10.9
Energy products & electricity	10.6
Rubber & plastic	7.5
Paper products & printing	7.0
Transport material	5.4
Construction materials	5.2
Wood, cork & furniture	2.9
Minerals & metals	0.9

Source: Center for Information and Business Development (CIDEM), Ministry of Industry and Energy, Generalitat of Catalonia.

tions. In the past it had been difficult to obtain an international telephone line out of the region during peak morning hours. In total, the City is investing \$4.7 billion on new infrastructure.

In July 1987, the Catalan and Barcelona governments created the Valles Technological Park (PTV) as an industrial and research zone devoted to high technology. Co-located with the National Microelectronics Centre and the Autonomous University of Barcelona, it is 15 km from Barcelona. Approximately 20 multinational technologybased firms and five research centres have also located nearby. The PTV has five priority areas: microelectronics, telecommunications, advanced automation, lasers and new materials, and biotechnology. The following businesses are already present or committed to locating in the PTV:

- Olivetti
- T&G International
- Lana Sarrate
- Ready Systems (65% Geveke)
- Grupo Comelta
- Telesincro (40% Honeywell Bull)
- Takio
- Centro Tecnologico ASCAAM
- Telefonica D Espana
- McDonnell Douglas
- Semiconductors
- Balzers-Elay (20% Balzers AG)
- Craftsman
- Protoc Robotica
- Tedel (50% Tonna Electronique)