

Automotive

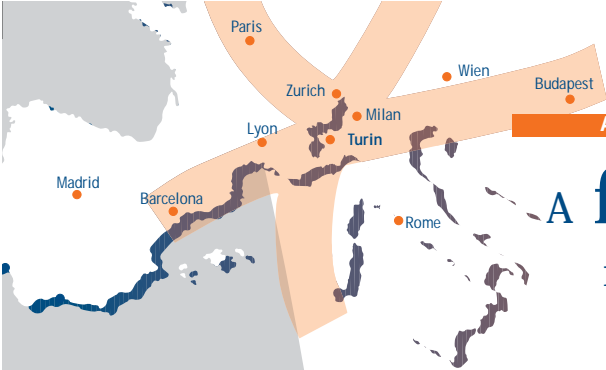
ITP
Invest
in Turin
and Piedmont



Turin and Piedmont

In the heart of North West Italy
At the centre of European development

The choice of success



Automotive - Why Piedmont

A favourable environment for automotive companies.

**PIEDMONT
FACTS & FIGURES**

- 4 million inhabitants (7,5% of the national population)
- 400,000 companies
- €25,400 per capita income
- 9% of national income produced
- 10% of national industrial production
- 10% of national exports
- 25% of Italian private investment in R&D
- 14% of total employment in medium-high tech sectors

STRENGTHS

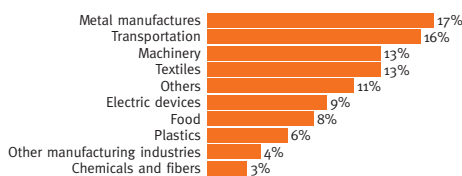
- Access to the Central European and Mediterranean areas
- State of the art telecommunications infrastructure
- Training institutions and R&D centres of international standing
- Skilled workforce at competitive costs
- Flexible labour market
- Tradition of innovation
- Strong investment in R&D
- An efficient and reliable public administration
- Strategic support for new investments
- Quality of life
- The Olympic Winter Games in 2006

**THE AUTOMOTIVE
SECTOR IN PIEDMONT**

- Over 1,200 companies
- 80,000 employees
- €15bn turnover
- Excellence in design
- 70% of national exports of cars and components

Piedmont strategic competency is its capacity for integration. Engineering, electronics and telecommunications together help develop the technologies of tomorrow, starting with industrial automation.

A diversified industrial fabric



Source: Confindustria Piemonte 2003

- **Tradition and capacity of innovation**
Piedmont has been a hub for major technical innovations, from the electric engine in the 19th century to MP3 in the software industry and the common rail for diesel engines. From the first load-bearing body and independent front suspension of the 1922 Lambda to the Common-Rail fuel injection system and the Multijet created by the Fiat Group Research, Piedmont is always at the forefront.
- **Quality, production process and environmental certification is a consolidated practice.**
- **Piedmont's companies hold 20% of Italian patents, mostly in the mechanics sector.**
- **Qualified professional services are available, experienced in full development of intellectual property potential, in terms of patents, trademarks and licensing.**

A "five star" region

Whith its extensive vineyards, hundreds of kilometres of ski slopes, spa towns, lakes, nature parks and a vast artistic heritage, Piedmont has much to offer. Everything is at your fingertips, from the Alps to the



Mediterranean Sea, with Liguria and the Côte d'Azur just an hour away. In its great sporting tradition the region will host the 2006 Winter Olympics, an event that is creating great local development and investment opportunities.



■ **Availability of skilled personnel**

Three major universities, an extensive network of post-graduate schools, and several professional training institutions provide a steady stream of highly motivated and skilled young people.

■ **An efficient logistics system**

Piedmont is in a strategic position between northern Europe and the Mediterranean, a natural platform between Asia and the European market. 1,000 km of highways and three Alpine tunnels, 2,000 km of railroad tracks, 3 intermodal terminals, 2 airports for all destinations, ensure efficient international links.

- Over the next 10 years more than €30bn investments have already been planned and started, to improve the region's infrastructures: road network, airports, high speed trains, intermodal and logistics platforms, tunnels.

A unique Automotive cluster in Europe.

ASSET-LIGHT STRATEGY

OEMs have the opportunity to drive an overall re-location of the capital investment throughout the value chain, that could minimize the risk for all the players, including suppliers.

This would allow them to:

- prune overcapacity and its costs, especially in the most capital intensive areas (e.g. stamping and welding of components);
- reduce the risk related to volume and mix fluctuations;
- re-define the level of partnership with different types of supplier, in order to make risk-sharing agreements more transparent and more beneficial for both parties, beyond usual negotiation games;
- focus their managerial efforts on the areas they can control best.

In order to do so, OEMs need to develop a number of "smarter suppliers" with which to start more sophisticated discussions, well beyond usual negotiation parameters of quality, productivity and throughput time.

McKinsey & Company 2004

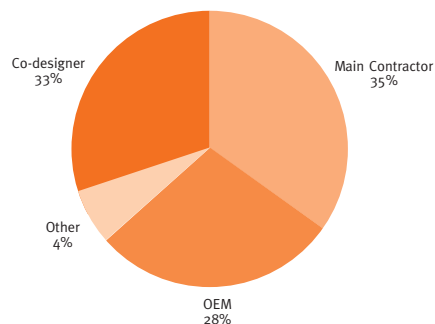


2003 Maserati Quattroporte designed by Pininfarina

- Turin-Piedmont's automotive cluster hosts an integrated system of companies covering the areas of the process "from concept to car", operating at all different levels of integration and experienced in collaborating with many foreign companies in the automotive sector.
- **The core of the cluster**
200 different engineering companies - excluding those belonging to Fiat Group - do business worldwide, with about 50% of their revenues from international contracts and a number of partnerships.
- Engineering companies with 2nd/3rd tier suppliers' capabilities offer manufacturing flexibility;
- Styling companies with strong experience in co-design and programme management services;
- A wide range of models, prototypes and mould makers.

Their customer portfolio shows a substantial balance between manufacturers, main contractors and co-designers. Most of them have their main business in the area of research and development of products and processes.

Contracts by kind of client



Source: Torino Internazionale, 2003



From concept to car (www.fromconcepttocar.com), project run by the Turin Chamber of Commerce together with Piedmont Foreign Trade Office, is the link between the companies of excellence in Piedmont and international buyers, acting as a free of charge Contact Office.

Project and engineering

Piedmont know-how encompasses all automotive sectors: cars, light and heavy commercial vehicles, buses and earthmoving machines, combining traditional creativity and the most advanced technologies for product and process engineering.

N° of companies

Product and process research and development	150
Style modelling	16
Style creation	14
Prototyping and certification	7
Project mgmt consulting	5
Testing	5
Electrical/electronic system project and development	4

Source: Torino Internazionale, 2003

Project and engineering companies are increasing the number of their employees (+20% in the last 4 years) and their spending on research and development, to sustain their focus on innovation and to widen the scope of their services.

Excellence in design: convergence of science, engineering and the arts.

Turin and Piedmont are the homeland of renowned world leaders in car styling and design development which currently employ around 7,000 people. Italian car designers are both artists by birth and businessmen by vocation, capable of combining the two roles. Their services cover different areas mainly in R&D, with a focus on shaping new models as well as restyling and face lifting of existing products in any car segment. Fair competition helps them strive for excellence and all the world's leading manufacturers already have stable relations with the Turin cluster, acknowledging its excellence.

The whole automotive value chain: styling, engineering, prototyping, tooling, components and system services.



■ **An integrated fabric of companies**
Originally formed around Fiat, the cluster developed and achieved great independence thanks to a process of industrialisation that led it to acquire important contracts from the world's leading carmakers. The cluster is composed of an integrated fabric of companies that supply parts and components, machinery, equipment and services, especially styling and engineering. In addition, a number of second and third tier companies not only feeds the first tier suppliers, but has also established international operations, exporting 50% of the total production of parts and components.

■ **FIAT, a leading industrial Group**
Fiat has more than 100 years' experience in the automotive field, designing, manufacturing and marketing cars, trucks, tractors, agricultural machinery, construction equipment, motor vehicle engines and components, and production systems. The Group's manufacturing activities are carried out by Operating Sectors. The three major ones, which account for 70% of turnover, are Fiat Auto (cars), CNH Global (agricultural and construction machinery) and Iveco (commercial vehicles). In addition to the latter, the Ferrari and Maserati Group (luxury sports cars), Magneti Marelli (components), Comau (production systems), and Teksid (metallurgical products).

[Source: www.fiatgroup.com, 2004]

■ **One of the pioneers of the car industry**
Fiat built its first car in 1899. Since then it has produced more than 85 million cars and light commercial vehicles. Fiat Auto operates in international markets under three brands, all distinguished by their innovative content, style and manufacturing solutions: Fiat, Lancia, and Alfa Romeo.

[Source: www.fiatgroup.com, 2004]

Supply tiers in Piedmont

	No. firms	Staff	Turnover
Supplier of processes, technology, systems	179	12,161	€2bn
1st tier Module supplier System supplier	22	12,080	€4bn
2nd tier Components supplier	128	37,982	€7bn
3rd tier Sub-contracting	2,100	14,013	€2bn
Total	2,430	76,236	€15bn

Source: Roland Berger, 2003

The **Bertone Group** integrates the skills of a team specialised in design, product and process planning, use of innovative technologies and materials, with a state of the art production structure that is second to none in terms of finished product quality.

[Source: www.bertone.it]

Italdesign - Giugiaro A consolidated organization with five managerial sectors that handle more than 30 operating divisions to bring together the flexibility of the service with state of the art technology, ensuring carmakers a comprehensive consulting service.

[Source: www.italdesign.it]

A hub for research and development.

■ Best Italian region for business-funded R&D

Piedmont's businesses provide one-quarter of the overall Italian R&D funding. Piedmont is in fact the first Italian region for business-funded R&D as a share of GDP.

The local R&D tradition is deeply rooted into practical problem-solving aimed at simplifying production, improving products and increasing their acceptability and appeal. Many Italian and the major foreign companies have located R&D centres in Piedmont.

■ A network of R&D centres and science and technology parks

Five science and technology parks focused on different sectors, and over 200 public and private R&D centres are evidence of the region's commitment in the field of research.

Many of the over 200 R&D centres active in Piedmont operate in the automotive area, among them the Fiat Group Research Centre, Telecom Italia Lab, Motorola Technology Centre, to name just a few.

■ Competitive R&D costs

According to KPMG's comparative analysis of business costs conducted in the main 11 developed countries, Turin is the best large European city for setting up research and development operations.

[Source: "The Competitive Alternatives" (www.competitivealternatives.com) by KPMG, 2003]

■ High performance environment

Italian cars have been performing at top levels in the world of motor sports, as Alfa Romeo has been doing in recent editions of the FIA European Touring Car Championship and Lancia did in the World Rally Championship in the past. These outstanding performances are built on a combination of craftsmanship, cutting-edge technology and pure passion.



■ A unique driver for automotive innovation

Italian automotive sector knows how to express innovation and technology, so much so that Formula 1 racing has been speaking Italian for years. Ferrari is the only team to have taken part in all world championship races and recently it has collected an impressive record of successes (world champion from 1999 to 2004).



Pininfarina is a production-proven Full Service Provider, with flexible approaches to meet customer needs. The company offers OEM's creative solutions based on its know-how and flexibility as a full-cycle turn-key partner, or a provider of specific services.

[Source: www.pininfarina.com]

Other important design companies and body makers: Carcerano, Carrozzeria Savio, Cecom, Coggiola, Fioravanti, G.Studio, Golden Car, I.D.E.A. Institute, L.I.T.L.A., Maggiore, Opac, Repetti, Stola, Tesco (PCL group).

Strong cross-sector competencies in automotive related fields.



■ Electronics and microsystems

The cost of electronic and micro electro-mechanical systems is today above 15% of the overall production cost of a vehicle and it is expected to grow to 25% in the near future. All Italian players in the field of microsystems are in North-West Italy and have recently formed a network to invest in MEMS research applied to the automotive industry: Fiat Group Research Centre, Magneti Marelli, Olivetti Ijet, Pirelli, Saes Getters and ST Microelectronics.

■ Hydrogen

Piedmont hosts: HySyLab, focused on production, stocking and commercial applications; Fiat Group Research Centre, involved in fuel cell development and applications (it has developed the first Italian hydrogen bus); Edison R&D centre dedicated to hydrogen to test fuel cell systems and stacks for stationary applications, natural gas reforming and hydrogen production by renewable sources. Turin is home to the first Italian PhD course on hydrogen technology, in partnership with Berkeley University, U.S.



■ Nanotechnology

Nanotechnologies may impact so many different fields of automotive industry: safety, environment compatibility as well as on-board well-being. The local R&D tradition, rooted into practical problem-solving and product improvements, offers state of the art nanotech know-how regarding structural and functional materials, sensors, energy, coatings, lightings and on-board information.



■ Information technology

The ever increasing density of electronic intelligence in automotive products demands mutual interaction between the IT and automotive sectors. Technological developments as well as breakthrough innovations find mutual applications in the two sectors. Piedmont, homeland of the Italian automotive industry, offers a complete IT sector with all ranges of specialisation, featuring excellence in integrated circuits design and software development.

■ Wireless

Today, vehicles contain up to 50 processors, with kilometres of cables connecting microsensors. Tomorrow's integration of the vehicle systems to external networks will push the need for efficient and reliable wireless connections even further. Torino Wireless Foundation, with a 5-year budget of €150m, connects corporate research with universities, research centres and financing partners. Motorola, Fiat, SKF, Telecom Italia and a number of other companies are taking advantage of the local know-how in this field.

■ Mechatronics

The deep roots of the region's industrial tradition have made it the home to automation systems for the world automotive industry. Companies like Comau, Fata, Fidia, Dea offer the most complex and flexible automation systems and production lines. The Mechatronics Laboratory research centre of the Politecnico of Turin performs basic and applied research.



■ WORLD'S LEADING COMPONENTS MANUFACTURERS PRESENT IN PIEDMONT

- Arvin Meritor
- Bosch
- Collins & Aikman
- Continental
- Dana
- Delphi
- Denso
- Eaton
- Ergom
- Federal Mogul
- Freudenberg
- GKN
- Gruppo Magnetto
- Hutchinson
- Johnson Controls
- Johnson Electric
- Lear
- Magna
- Magneti Marelli
- Mahle Mondial
- Metzeler
- Michelin
- Motorola
- Rieter
- Sachs Automotive
- Saint Gobain
- Saurer
- Siemens
- SKF
- Sumitomo
- ThyssenKrupp
- TRW
- Valeo
- Visteon
- Webasto
- Yazaki

Strong industrial culture.

A solid industrial culture, an innovative business system and a high percentage of employment in engineering companies combined with an extensive training network, with particular competence in the automotive sector, allow Piedmont to offer a wide choice of highly qualified and specialised professional resources.

■ Education and research

The region's universities have a strong R&D base and a good track record of industry collaboration.

- The Politecnico of Turin, the leading Italian engineering university, with 24,000 enrolled students and an outstanding graduate school, manages 700 collaborative projects per year with the industry.
- It offers, among many others, a 5-year degree course in Automotive Engineering, hosted in the unique environment of the refurbished Lingotto car-factory.
- A 5-year degree course in Industrial Design is also offered.
- Links between the research community and companies are fostered and encouraged by the public institutions with regional, national and European funds.

Many international training institutions are located in Piedmont, and recently the ESCP-EAP European School of Management also opened its fifth European campus in Turin, based on the strong alliance of academic networks and institutional and industrial partners.



- 650,000 WORKERS IN INDUSTRY
- ABOUT 10,000 STUDENTS GRADUATE YEARLY FROM PIEDMONT'S UNIVERSITIES, OF WHOM 2,350 AT THE POLITECNICO OF TURIN.

■ Flexible and competitive labour market

All national laws and all EU programmes to support new production operations are in force in the region.

The reform that recently came into force has strongly increased the flexibility of the Italian labour market. Several new forms of contract governing fixed term or open-ended employment relationships are now available.

■ Strategic support for new investments

The region offers a broad range of incentives and grants to foreign companies that invest locally, focusing on four macro-areas: investment, technology, employment, personnel training.

- For the most sizeable investments, offering high employment, it is possible to use the negotiation instruments with local and national government which define the set of grants available.
- Investment of a lower range may also be supported thanks to regional and EU funds, covering up to 20% of the fixed investment.

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ITP Invest in Turin and Piedmont,

created by the main public institutions and private business associations, is a non-profit organisation dedicated to securing new investment from overseas.

It responds to enquiries from all over the world and supports foreign companies expanding within the region.

From finding the most suitable location to sourcing advice on financial incentives for your investment in our region, our support will continue as you expand and develop, once your operations are established.

ITP services

We support companies in developing their investment projects in Piedmont through macroeconomic factors and market research, pre- feasibility and feasibility studies, introduction to public and private agents in the region, selection of location opportunities in the target areas (objective 2 and phasing out) funded by the EU, and 360° support for the identification of incentives and fiscal advantages for investments.

Our services are free and confidential.

With the contribution of:



MINISTERO DELL'ECONOMIA E DELLE FINANZE

