

Politecnico di Torino:

- ▬ **Research**
- ▬ **Education**
- ▬ **Cooperation with industry**



Politecnico di Torino at a glance

The Politecnico di Torino (www.polito.it), was founded in 1906 from the roots of the Technical School for Engineers created in 1859. It is a centre of teaching and research, and one of the most important universities in Europe for engineering and architecture studies, strongly committed to collaboration with industry.

Facts & figures

- 26,000 students
- 1,000 lecturers/researchers
- 4 schools of Engineering, 2 schools of Architecture
- 35 Master of Science degrees
- 24 PhD courses
- 18 departments
- 800 research contracts with public institutions and industries per year
- € 35 million of annual budget for research

Campuses

- *Main campus*: the central seat of the Engineering Schools, located in a 300,000 sq.m. area
- *Castle Campus*: XVII century royal residence, seat of the Schools of Architecture
- *Polis Campus*: a 170,000 sq.m. area where can be allocated companies for developing research activities jointly with the Politecnico
- *Mirafiori Technological Campus*: for industrial production of projects developed within the Polis Campus

Diversified teaching offer

From Aerospace Engineering to Telecommunications, from Biomedics to Mechatronics, Industrial Design, Automotive Engineering and Engineering for Cinema and the Media, the Politecnico di Torino offers a wide range of courses and specialization programs. Several courses are conducted in English. Distance-learning programs are also available.

International programs

Over 50 international agreements allow students to obtain double degrees, and 1,600 foreign students are enrolled in different schools in the university, including PhD students. Six collaboration agreements with Chinese universities have recently been signed, and the Sino-Italian Campus has been inaugurated in the new buildings of the Tongji University of Shanghai (www.tongji.edu.cn). New agreements with Indian universities specialized in the ICT sector have already been planned.

Research collaborations

The Politecnico has a very good track record of collaboration with industry, and it is strongly committed to basic and applied research, as the over 800 research project contracts obtained every year testify. Alenia, Compaq, Ferrari, FIAT, General Motors, IBM, Michelin, Microsoft, Motorola, Nokia, Philips, Piaggio, Pininfarina, Pirelli, Siemens, STMicroelectronics, Telecom Italia, are just some of the research partners of Politecnico.

Incubator for hi-tech businesses

I3P (www.i3p.it) is the Innovative Enterprise Incubator of the Politecnico di Torino, aimed at promoting the creation of new enterprises. It provides equipped premises to newly-established companies developing knowledge-based projects. During its 5 years of activity, it has hosted over 60 start-ups. In 2004 I3P won the international award for the Best Science-Based Incubator.



Excellence in Research

The Politecnico di Torino (www.polito.it) is a research university with close links to international institutions, high-tech companies and government bodies. Advanced research fields and top quality education include all areas of architecture and engineering sciences: Industrial Engineering, Information Technologies, Building Engineering, Environmental Engineering, Management Engineering, Architecture and Design.

Research Centres

The Politecnico di Torino has a range of internationally renowned Research Institutes and Research Centres, and provides the backbone of research to support them:

- Network of High Quality Experimental Laboratories (LAQ), financed by internal investments amounting to around 26 Million Euros.
- 78 Research Labs managed directly by the 18 Departments and open to business needs.
- 3 National Research Centres: CSDF - the Centre for Fluid Dynamics studies, IEIIT - the Institute of Electronics and ICT Engineering (www.ieiit.cnr.it), IEGG - the Institute of Environmental Geology and Geoengineering.
- ISMB (www.ismb.it), the Centre of excellence in the ICT sector, focusing mainly on wireless and e-security.
- Si.T.I. (www.siti.polito.it) Higher Institute on Territorial Systems for Innovation.
- COREP (www.corep.it) the Consortium for research and continuing education.
- PROPLAST (www.proplast.it), the Centre for Engineering of Plastic Materials.

Main research sectors

- **ICT** ... Politecnico hosts ISMB, one of the best research centres in wireless communications in Europe, including state-of-the art labs in Antennas and Electromagnetic Compatibility, e-Security, Photonics, Networking, Services and Applications, Radio Technology for Multimedia Applications, Materials and Microsystems, Satellite Navigation.
- **Nanotech** ... one of the most advanced Italian labs, the LATEMAR (www.latemar.polito.it; www.polito.it/micronanotech) specializes in interdisciplinary topics, like micro and nanotechnologies, biotechnologies and biomedical applications.
- **Aeronautics** ... the Politecnico di Torino cooperates with prominent national and foreign research centres and with the main companies in the field.
- **Renewable energy sources** ... such as hydrogen, are investigated in the Lab of Technological Innovation for Energy Sustainability IN.TE.SE and at the HySyLab (www.hysylab.com) at the Environment Park.
- **Industrial design** ... with particular emphasis on the design of eco-compatible products.

Financing of research

- Revenues from research projects in 2005 was over €35mIn, €14.6mIn of which from private contracts (+ 10% as compared with 2004) and €5.2mIn from European funds.
- Within the 6th Framework Program of the European Union the Politecnico obtained funds for 78 projects amounting to €17mIn (with the highest percentage of success among Italian universities).

The Politecnico di Torino research activities database is available at: www.swas.polito.it/services/ricerca



ISMB lab



Architecture, laboratory

Excellence in Education

Teaching at the Politecnico di Torino (www.polito.it) is managed by 6 Faculties and 18 Departments, each specializing in a specific field, that can be grouped in 7 branches.

Physical, Chemical and Mathematical Sciences for Engineering

Chemical Engineering, Fluid-Dynamics, Physics, Mathematics, Metrology, Materials Science and Technology.

Computer Science and Information and Communication Technologies

Electronic Devices, Electronics and Communications Engineering, Information and Systems Engineering, Biomedical Engineering.

Industrial Engineering

Mechanical Engineering, Electrical Engineering, Automotive Engineering, Energetics Engineering, Aerospace Engineering, Mechatronics.

Production System Engineering and Management

Industrial Production System Engineering.

Industrial design

Industrial Product Design and Compatible Development.

Architecture and Civil Engineering

Architecture and Building Design, Structural Engineering, Technological Innovation for Built Environment, Surveying and Representation, Preservation and Restoration, History of Architecture and Town Planning, History and Valorization of Architectural, Town Planning and Environmental Heritage.

Environmental Engineering and Territorial Planning

Environment and Territory Management, Water and Territory Management.



Working with the Politecnico di Torino

As one of Italy's leading technical universities, the reputation of the Politecnico di Torino (www.polito.it) rests on the quality of the research, training and services it provides for business and industry.

The Politecnico di Torino can match company needs with its expertise and find the right solution for any company - whatever its size or location. There is a broad choice of how the Politecnico's expertise can be accessed:

- ❖ **Building partnership** for basic/applied Research Activities, either on a one-off basis, or within long term agreements, including access to facilities, know-how and staff.
- ❖ **Consulting** on technical issues, including project management, business planning, and certification to deliver compliance reports:
 - Testing and analysis
 - Prototype design and construction
 - Practical problem solving or reporting
 - Inspecting, verifying or certifying assets as well as projects, products or systems.
- ❖ **Exploiting the knowledge base acquired**, placing relevant faculty and research information at the company fingertips.
- ❖ **Professional Programs and Executive Education** available in a variety of formats, including short courses, summer schools, e-learning, in-house programs, degree and diploma courses and interactive learning.
- ❖ **Employing Politecnico di Torino Graduates**, because recruiting the best possible people is the key to a company's success:
 - Internship programs, to integrate academic competencies with a full-immersion job experience.
 - PhD sponsorships, to invest in young and qualified researchers working in the Politecnico labs to perform research on business relevant topics.
 - Hiring graduates through an up-to-date database.
- ❖ **Qualified professional services** in the full development of intellectual property potential, in terms of patents, trademarks and licensing.
- ❖ **Conference Facilities** available both in the Castle and Main Campus for business meetings and events.



Wind tunnel



The new "Polis Campus"

A strategic development program

The project for the expansion of the Politecnico, to create the new "Polis Campus", in a central position in the city, is part of the global process of major urban change favored by relocation of large industrial areas.

The Politecnico is tackling the challenges of the new millennium with the construction of a modern, efficient extension to improve the quality of teaching with new spaces for students (study rooms, canteens, gardens, sports facilities etc.), as well as to offer cutting-edge research facilities.

The "Polis Campus project" is being developed on a 170,000 sq.m. area behind the present premises.

Aims of the project

The project is intended to make the Politecnico a place not only for academic learning and research, but also an attractor of major investments in research by multinationals, a place for technology transfer, community services, social and students meeting points and urban regeneration.

Within the Polis Campus the creation of a Business School is planned in collaboration with Piedmont's Universities, business associations, banks and regional institutions.

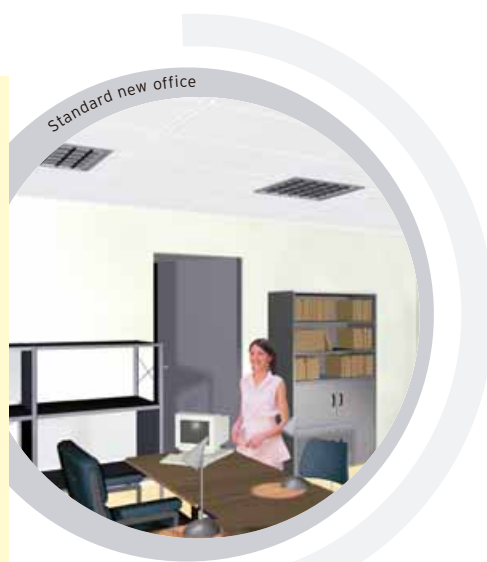
The Business Research Centre

The Politecnico di Torino is interested in developing permanent collaboration relations in research and education with industries that want to take advantage of university collaboration for innovation and development.

The Politecnico Business Research Centre, within the Polis Campus, is the place dedicated to cooperation in research and education between the Politecnico and industries.

Spaces for offices, laboratories and industry facilities are available for this aim.

www.research.business.polito.it





Turin & Piedmont, a welcoming region for Italian and foreign investment, strongly committed to fostering R&D

Facts & figures

- 4.3 million inhabitants
- €113bn GDP (8.4% of the national total)
- €31bn exports
- 1.7% of GDP invested in R&D
- 200 public and private R&D centres
- 18,000 R&D professionals (11% of national R&D employees)
- 1st Italian region for private investment in R&D
- 1st Italian region for expenditure on innovation in the manufacturing sector
- 1st Italian region in terms of capacity for collaboration between universities and industries
- Second centre in Italy for venture capital operations

Piedmont, a leader in innovation

The Region invests 1.7% of its GDP in innovation, more than triple the Italian average, like the most highly developed areas in Europe. In 2006, the region also approved a new law on research that envisages doubling resources in the next three years, with the goal of reaching 3% of GDP. Piedmont is the Italian region with the highest share of private R&D expenditure, and also leads in Italy in terms of patents registered at the European Patent Office.

A highly prized system of R&D centres

Over 200 private and public R&D centres specialized in automotive and information and communication technology, as well as in many innovative sectors such as bio and nanotechnologies, offer a network of top-quality skills and facilities.

Among them are: CRF - Fiat Group Research Lab (www.crf.it), GM Powertrain Europe (www.gm.com) research centre, Telecom Italia R&D centre (www.telecomitalialab.com), Motorola Technology Centre (www.motorola.com), CRIT - Technological Innovation and Research Centre of the national broadcasting company (www.crit.rai.it), Istituto Nazionale di Ricerca Metrologica-INRIM (www.inrim.it), IEIIT - Institute of Electronic and ICT Engineering (www.ieiit.cnr.it).

The ideal location for Italian and foreign companies

Piedmont is an extremely welcoming region, with a solid economy in all sectors. 700 foreign companies have already set up operations here, where the quality of life is a key factor. Piedmont offers a first class environment for living as well as doing business, with plenty to suit everyone. The region has successfully hosted the Winter Olympics of Torino 2006 and is now equipped with brand-new facilities and further specialized services.

Finally, ITP Invest in Turin and Piedmont, is the agency dedicated to welcoming and supporting foreign companies interested in developing their activities in the region.

ITP Invest

in Turin and Piedmont

supports 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, and 360° support for the identification of incentives and fiscal advantages for investments.

ITP services are free and confidential.



Invest in Turin and Piedmont

The free business tool for companies that want to locate in Turin and Piedmont. (www.itp-agency.org)





Castle Campus

Politecnico di Torino

Contracts Office
External Relationships
and Contracts

Corso Duca degli Abruzzi, 30
10129 Turin, Italy
tel. +39 011 564 6243

research.business@polito.it
www.research.business.polito.it

ITP Invest in Turin and Piedmont

Via Bogino, 9
10123 Turin, Italy
tel. +39 011 8153911

info@itp-agency.org
www.itp-agency.org



Politecnico di Torino



Invest in Turin and Piedmont