



ENTERPRISE | INNOVATION | EDUCATION

WHERE THE SMART FACTORY GROWS



TRENTINO



800 companies active in the mechanics/mechatronics sector in Trentino

400 new jobs created in the mechatronics sector

+70% employment growth in the mechatronics sector planned by 2018

100.000 sq.m. the total area of Polo Meccatronica

50.000 sq.m. area destined for production facilities

25.000 sq.m. area destined for training

THE PROJECT



Polo Meccatronica is a system project promoted by the Autonomous Province of Trento involving key players from the public and private sectors and trade associations. It offers a **common workspace for businesses, students and researchers** and a dynamic base from which to produce, research, and test innovative products, with the scope of enhancing traditional mechanics and energy efficiency through the application of electronic components, sensors, and software. As an **innovative hub** at the service of the whole supply chain, it hosts businesses in sectors ranging from the automotive industries, to robotics, sensors, industrial automation and biomedical engineering. It is one of the most important industrial policy projects of Trentino, a venture on which the Autonomous Province of Trento invests a total of around **80 million euro** for the construction of new production spaces, technological laboratories, school buildings.







TRENTINOSVILUPPO
IMPRESA INNOVAZIONE SOSTENIBILITÀ

YESTERDAY TODAY TOMORROW



P

1925

The origins: the Pirelli cotton mill

The first production plant dates back to 1925. It was a cotton mill used by Pirelli until 1982 to produce cotton yarn with which to make the material for the manufacture of electrical cables and tyres.



1983

Reconversion: The region's first BIC is born

The Autonomous Province of Trento buys the entire sector and initiates a conversion project that transformed the original buildings into the Business Innovation Centre: the warehouses become a "business incubator" with modular production spaces and services to support the launch of new business initiatives.

TS

2003

The new service centre

Along the side overlooking Via Zeni, a new building is completed, designed to house services and laboratories essential to the life of the Technology Hub of Rovereto. It hosts, among other things, the headquarters of the Development Agency which later became Trentino Sviluppo.



2011

From Tecnology hub to Polo Meccatronica

The start of the project that transforms the Technology Hub in Rovereto into the new Polo Meccatronica, where business, research and education meet in service of all Trentino.



2013

The new production building

On 12 December, after only 389 days of work, the new production building is inaugurated. Built with the latest construction techniques with low environmental impact and high efficiency (LEED, ARCA), it includes important companies and research centres but also dynamic start-ups and a high level of innovation.



2016

Work starts on the laboratories

Occupying an area of about 1200 square meters, they will be equipped with innovative machines for rapid prototyping and the three-dimensional printing, including with the use of sintered metal alloys. Spaces will be available to companies for specific research projects.



2018

Increasing production space

New buildings for a total of 6000 square meters will be built at Polo Meccatronica, so as to meet the space requirements of both the companies present and those of new arrivals.



2022

The Training Hub

The main building of Polo Meccatronica will host the new headquarters of the “G. Marconi” Technology Institute and the “G. Veronesi” Vocational Training Centre, counting for a total of approximately 1,200 students. Situated alongside businesses and the world of work, schools will have production laboratories and dedicated learning islands, with cutting-edge multimedia tools.

VISION



A network of companies, research centres and educational institutions contributing to the social and economic development of the entire Trentino production system.

Within Polo Meccatronica, players from the world of production, training, and research can dialogue and collaborate, driving forward **mechatronic engineering** that combines **IT, electronics, mechanics, hydraulics, pneumatics**, and **sensors**.

The cohabitation of start-ups, colleges, university departments, research centres, and industrial accelerators, supported by high value-added services offered by **Trentino Sviluppo**, creates ideal conditions for the testing and the production of innovative processes and products.

Polo Meccatronica is the latest development which reflects Trentino's natural inclination towards mechanics and mechatronics. Indeed, this is the sector that employs the highest number of employees in the Trentino manufacturing industry (almost 10,000), counting about 800 active companies and providing an important contribution to the region's export.

Working in a hub, companies, research centres and educational institutions develop their respective roles and together fulfil the need for local innovation.



WHY CHOOSE IT



Polo Meccatronica in Trentino is a unique reality in Italy and on the European scene. Why decide to work, study, research, or set up a business here?

Because there is a **“knowledge triangle”**: where research and innovation, business and training interact on a daily basis.

Because it offers **advanced laboratories** that support enterprises in product development, in creating products which are innovative, efficient and ready for the market sooner, being able to count on the technological heritage of Trentino research centres.

Because the Trentino model of **vocational education** and **technical secondary education** is able to quickly and flexibly accommodate the **technological needs of companies**, thanks to the dual system that acts as a “hinge” between school and work and which can “bend” the training programs to meet business needs even throughout the year.

Because it is a **hub at the service of all businesses and start-ups** in the region.

Because it offers a wide variety of functional and modular spaces, ready to use.



NEW BUILDING FOR MECHATRONICS PROTOTYPING LABORATORIES



The result of collaboration between Trentino Sviluppo, Fondazione Bruno Kessler and the University of Trento, provides businesses in the mechatronics industry an integrated platform for the design, development, implementation, verification and validation of systems and manufacturing processes.

According to the principles of **"Industry 4.0"**, development time/prototyping can be reduced through technology in the following areas:

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- mechanical: 3d printing, AM-machining
 - electronics: boards and integrated systems
 - ICT: simulation, networking, the Internet of Things
 - system integration: Product prototyping
 - metrology: accurate measurement of the product, qualifications and certification
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The ProM (Prototyping Mechatronics) Facility laboratories are available also for the **specialized training** of students of technical and professional schools, for degree and doctoral dissertations, and for technical staff training for companies in the mechanical and mechatronic sector.

NEW COMPLEX

6,000 square meters for industrial research and development activities and prototyping. Mechatronic Prototyping Laboratories





NEW PROM FACILITY FOR MECHATRONIC PROTOTYPATION

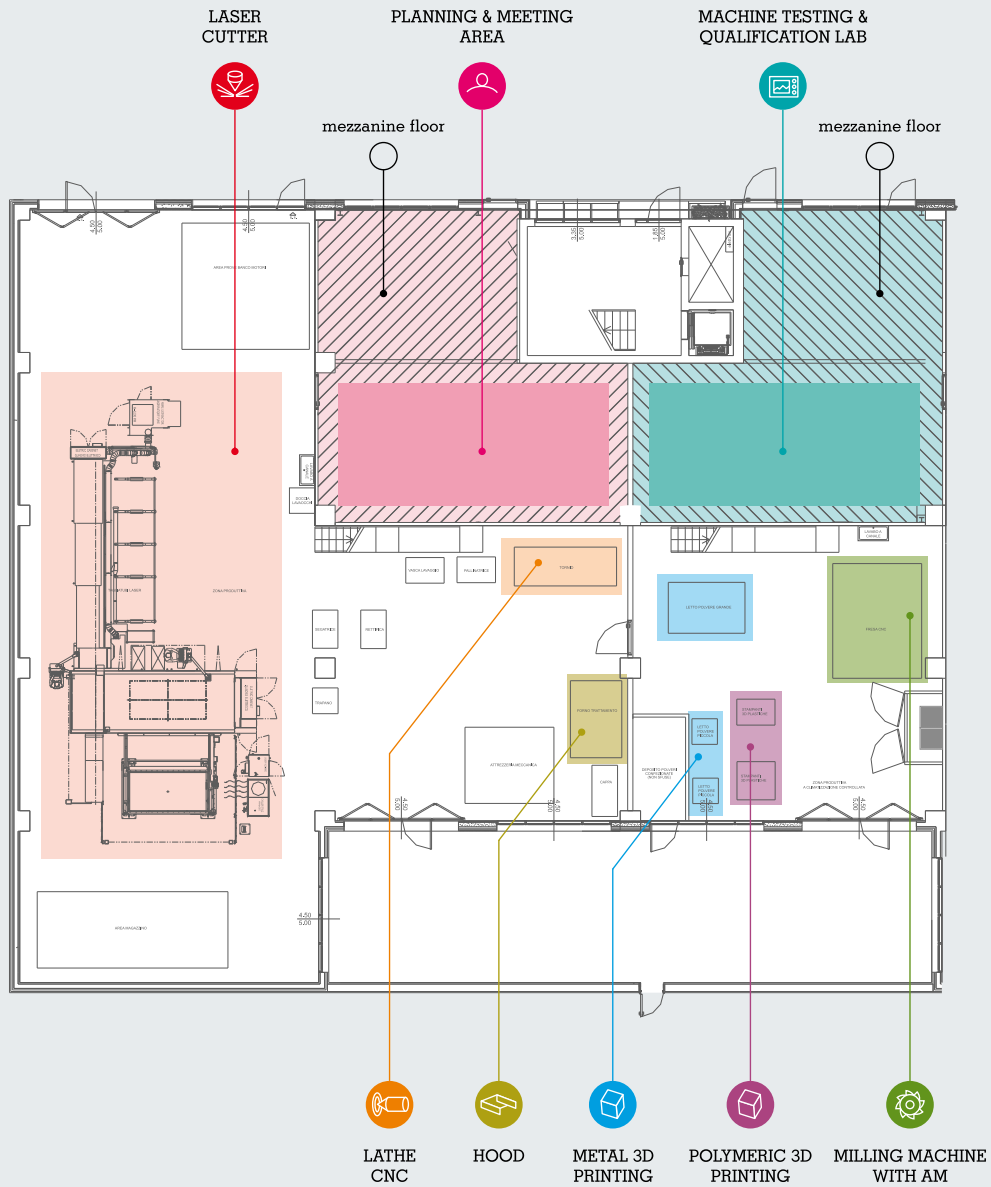
1,200 square meters for new prototyping activities in mechatronics:

- rapid prototyping, 3D printing (metal and plastic) and the new 'Multifunctional' approach;
- for CAD design and simulation software;
- testing and quality assurance for all products and mechatronic systems.

Specifically, the systems and the innovative machines available in the Pro-M Facility offer businesses:

- support at all levels where it contributes to the **production of electromechanical mechatronics systems**: from the user interface architecture hardware and software, to the models which define their behaviour;
- automatic generation of test cases, the verification of temporary properties and the production of usage scenarios able to highlight the **presence of defects** before releasing the product to the final customer;
- tools to measure and assess the **reliability of a system** with automatic analysis and design techniques for the detection, identification and recovery;

- techniques and tools to identify threats and vulnerability by ensuring the resilience of the system with respect to **cyber-attacks** (cyber security);
 - **graphical control interfaces** for machines with a user-centered approach to improve usability;
 - ergonomics and learning;
 - ICT tools to facilitate the **training** and re-training of personnel;
 - new modes of **person-machine interaction**, intelligent interfaces, wearable and environmental devices;
 - **analysis** of new adaptive processes to ensure and satisfy production targets and for analyzing and **monitoring** existing processes;
 - design, production and characterisation of industrial **electronic sensors** and **MEMS** sensors (Micro Electro Mechanical Systems) on silicon and other materials;
 - new solutions for **tribological coatings** for moving mechanical organs;
 - **3D printing** via sintering of **metal alloys**, to produce high-performance products to be tested on real testbeds.
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SERVICES



The several opportunities offered by Polo Meccatronica range from support geared towards company competitiveness to technology transfer.

Operating within the Hub means having access to **high-profile services** offered by **Trentino Sviluppo**: business support in the areas of product and market development, assistance with technology transfer and protection of intellectual property, and with export and search for international partnerships.

In Polo Meccatronica also operates **Industrio Ventures**, the first startup hardware and technology accelerator in Italy.

The proximity between companies, schools, research institutions also generates reciprocal opportunities, such as work experience for students in companies, promoting educational opportunities run by entrepreneurs and top managers, **networking** and **cross-fertilisation**, managing online communities, **sharing machinery** and **facilitated investments in new equipment**.





SPACES



Polo Meccatronica provides special areas for training, research, enterprises.

Business and production

17.000 sq.m.

The production area is composed of two levels and of raised wooden buildings available as office modules. The structure is able to ensure **high flexibility of use**, thanks to a structural mesh of 6 meters by 12 meters, a height of 6 meters, respectively, to the basement and 5 meters to the ground floor, and lofts which are able to support up to 3,000 kg or 1,000 kg / sqm.

Industrial expansion area

22.500 sq.m.

In part still free, it is available for the setting up of production facilities with specific logistical needs.

Laboratories

6.000 sq.m.

Area destined for the laboratories of **ProM Facility** (Mechatronics prototyping), the link between business, research and schools.

Education

25.000 sq.m.

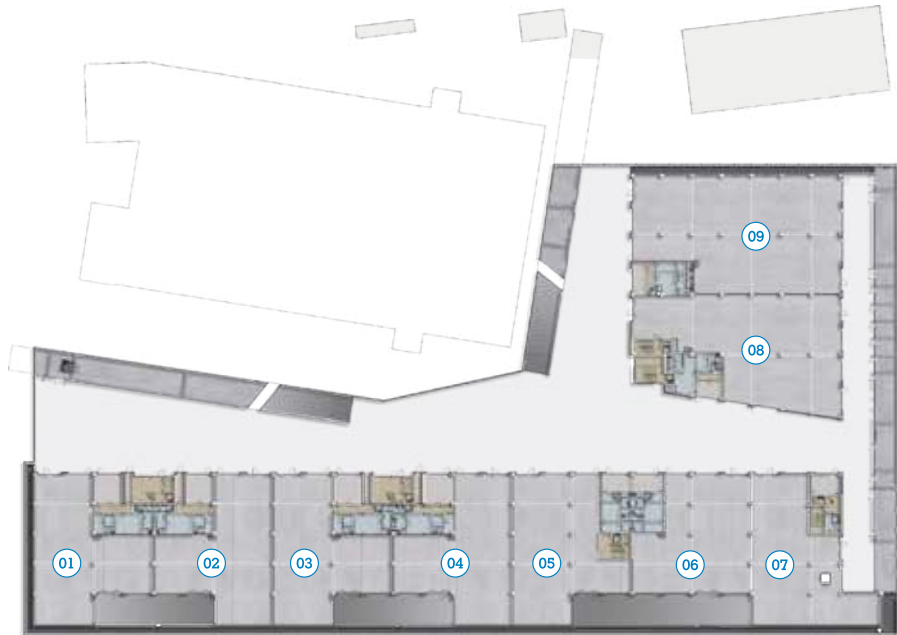
The area that will host the two technological secondary schools **ITT Marconi** and **CFP Veronesi** is in the main part of the Hub, where once the Pirelli Cotton Mill stood.

The buildings of Polo Meccatronica are conceived to fit high quality and environmental sustainability standards. The production area was built according to **LEED** (Platinum level) and **ARCA** (Gold level) standards, the first Certification in Italy for wood construction.





Basement



Units
from 604 to 1.075 sq m

Internal height
6 metres

Floor payload
floor against ground









CORPO

Scala

L

CORPO

L

ZEISS



Mezzanine



Units
from 74 to 124 sq m

Internal height
2,8 metres

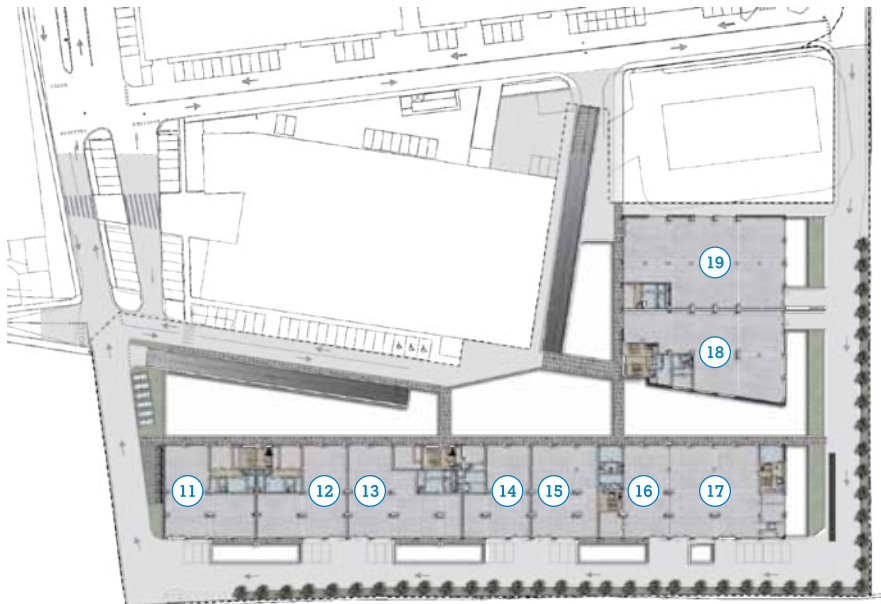
Floor payload
500 kg/sq m







Ground floor



Units
from 422 to 1.073 sq m

Internal height
5 metres

Floor payload
3.000 kg/sq m







First floor



Units
from 30 to 123 sq m

Internal height
3 metres

Floor payload
600 kg/sq m











Settlement formulas

Polo Mechatronica offers interesting opportunities both in starting a business, through the **Starter** program, and in consolidating it, through the **Innovation Factory** program.

The setting-up offer is structured to accommodate different types of enterprises, from services to light and heavy manufacturing, and is designed to accommodate a plurality of organisational forms and sizes.

Logistical support to businesses provided by Polo Meccatronica includes, among other things, optical fiber, shared meeting rooms, cafeteria, and night surveillance.







Starter Flex

In today's world, the conception and design phase of a new venture is, in a competitive and globalised market, particularly delicate. Often, new entrepreneurs start their own businesses while performing other activities and therefore Polo Meccatronica offers a specific flexible support tool for the price of:

€ 30 per month for a maximum period of 12 months

+ € 5 per month for use of the wifi network

The logistical support is particularly flexible in adapting to an entrepreneur's needs. The area is in fact shared in an **open-space** design, as inspired by other international examples of co-working.

It is possible to access the **new entrepreneurs** program (enterprises established max. 2 years) or **would-be entrepreneurs**, operating or intending to operate in the field of mechatronics or technology at its service if they need to be accompanied or require assistance in starting their own business venture.





SERVICES INCLUDED

Basic services

- Use of a non-assigned workstation in an open shared space
- Availability of storage space for filing and office equipment
- Unlimited wifi
- Utilities for electricity and heating
- Parking
- Equipped meeting rooms
- Cleaning
- Photocopier and fax
- Night security service
- ICT Technical support

Value-added services

- Basic training in the field of management, production and business strategy
 - Basic Tutoring in the areas of corporate finance, marketing and legal aspects of business
 - Support for the creation of a business model and business plan
 - Mentoring by experts or entrepreneurs
 - Assistance in the search for investors
 - Support in accessing incentives and provincial funds
 - Access to seed money
 - Support in organising events and workshops
 - Facilitating relationships with research institutions
 - Access to market research in the field of mechatronics
 - Scouting international technological and business partners (through the EEN)
 - Support in the protection of intellectual property rights
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ADDITIONAL FEE SERVICES

Basic services

- Access to subsidised canteens
- Dedicated server space
- Equipment rental

Value-added services

- Administrative and legal support
 - Managerial support to boost innovation and competitiveness
 - Advanced Mentoring
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Innovation Factory

For companies which are growing, **office** and **production space** and **equipped laboratories** can be found at Polo Meccatronica. Its unit-based structure is equipped and ready for use, within which you can take advantage of a program for acceleration and consolidation, targeted information desks, funds for the purchasing of equipment, as well as other opportunities arising from the territorial innovation system.

The tangible result, as an entrepreneur, is the possibility to concentrate your energies and resources on the quality of your product range, on market penetration and the consolidation of a credible and effective business strategy, including new investments in technology and innovation.

The process of setting up in the Innovation Factory at Polo Meccatronica is regulated by provision of **service contracts, possibly eligible for public contribution, of varying duration**. The fee is the following:

from € 11,90 per sq m/month for office space

from € 6,80 per sq m/month for production space

Access to the business program is available to companies operating in the Province of Trento in the mechatronics sector.

To submit an application, companies have to prepare a business plan based on pre-defined forms. Basic support is available from the staff of Polo Meccatronica for filling these.





SERVICES INCLUDED

Basic services

- Use of workspace as offices or as production units
- Parking
- Equipped meeting rooms
- High speed internet (optical fiber)
- Night security service
- Equipped space to host your own server

Value-added services

- Mentoring by a dedicated tutor
 - Assistance in the search for investors
 - Support with gaining access to incentives and Provincial funding
 - Facilitating relations with the national and International research institutions (EEN)
 - Search for technology and business partners
 - Support in the protection of intellectual property rights
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ADDITIONAL FEE SERVICES

Basic services

- Wifi connection
- Utility bills for electricity, heating, telephone and internet
- Access to special canteens
- Dedicated server service
- Cleaning and maintenance of common areas
- Equipment rental

Value-added services

- Administrative and legal support
 - Managerial support to boost innovation and competitiveness
 - Advanced training in the fields of management, strategy and business communication
 - Advanced Mentoring
 - Access to market research in the field of mechatronics
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PROJECT PARTNERS

Polo Meccatronica is a project involving the public and private sector and associations..

Autonomous Province of Trento

It is the number one driver behind the Polo Meccatronica, considering it a strategic manufacturing platform for the region's development.

Trentino Sviluppo - Regional development agency

The regional development agency, is the project supervisor for the Polo Meccatronica, one of the six Business Innovation Centres (B.I.C.) managed within the Province.

Overall, the "business incubators" are home of 106 business activities - including startups, companies and research centres for large industrial groups – employing 700 people and generating a turnover of more than 380 million euro per year.

Fondazione Bruno Kessler, Bruno Kessler Research institute

FBK counts for 400 researchers and twenty research centers, which are specialised in particular in the analysis of materials, the manufacture of micro-silicon devices, energy saving systems, and the creation of innovative information systems.

University of Trento

Approximately 16,000 students, over 600 professors and researchers divided among 10 departments, three University Centres, and seventy laboratories and spin-offs.

ITT G. Marconi - Technical and technological secondary school

Alongside the technological courses "Electronics and Automation", "Mechanics", "Mechatronics and energy", "IT and Telecommunications", the Technology Institute has launched a two-year post Diploma of Higher Education for "Senior Technician in automation and mechatronics systems", in response to demand from businesses for advanced technical and technological skills.

CFP G. Veronesi - Professional training center

Runs various training programs for qualifications and for technical diplomas in the areas of: electrics, mechanics, mechatronics, industrial automation, running and maintenance of automated plants, digital fabrication. Laboratories, advanced equipment and alternating school and work allow for an offer in line with the requirements of job market.

Confindustria Trento - Association of industrial companies of the Province of Trento

Represents 600 companies in the region with 30,000 employees.

Industrio Ventures

A private accelerator, it is proposed as a springboard launch for industrial startups, supporting them with financial resources, equipment, technologies and a network of international partners from Italy, the US, and China.

Municipality of Rovereto

Second city of Trentino and the first industrial center by number of established activities and for the important manufacturing tradition.



TRENTINOSVILUPPO
BUREAU REGIONALE INNOVATIONE E SVILUPPO



Marconi



INDUSTRIO
REGIONAL STARTUP ACCELERATOR





OUR PARTNERS



January 9, 2015

«We launched our venture eight years ago, and today Rovereto is for us a definitive choice. In Trentino we found a favourable environment to do business, good universities, staff well trained and qualified at all levels, a rapid and reliable public administration and less bureaucracy than in other Italian cities»

Guidalberto Guidi
President of Ducati Energia



January 23, 2015

«The decision to launch the Dana Mechatronic Technology Center and to set it up in the Rovereto Hub is a fundamental step for the growth of our business and for the consolidation of technological and competitive leadership in the global market. It will be our springboard from which to switch from the current traction systems to the integrated and optimised systems of the future, and vehicle energy management for off-highway applications»

Rino Tarolli
President Dana Italy



November 13, 2015

«Our relationship with the Province of Trento and Trentino Development? I'd call it an exemplary case of virtuous dialogue and transparent cooperation between public and private, and hope as an entrepreneur that it might serve as an example for other regions»

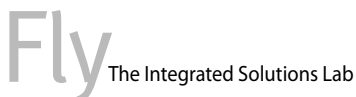
Marco Bonometti
President OMR Group



January 20, 2016

«Starting in Rovereto, in 2012, a research laboratory on topics of mechatronics proved to be an extremely positive experience that has convinced us to take a definitive path: all Bonfiglioli mechatronic activities will be located in Trentino, in Polo Meccatronica»

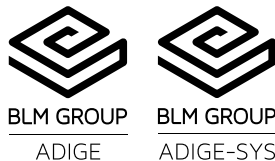
Fausto Carboni
Ceo Business Bonfiglioli



April 6, 2016

«We received offers from Singapore, other foreign countries and from numerous Italian regions. We chose Trentino for cultural affinity, the reliability of its institutions, rapidity of response and for the quality of education and research»

Nadir Spezzapria
President Fly (Forgital Group)



March 1, 2016

«Work is created where there are valuable human resources and in Trentino there are. The partnership with public entities is a further simplifying factor that can induce a Group like ours to strengthen its investment in this region»

Luca Arighi
General Manager Adige (BLM Group)

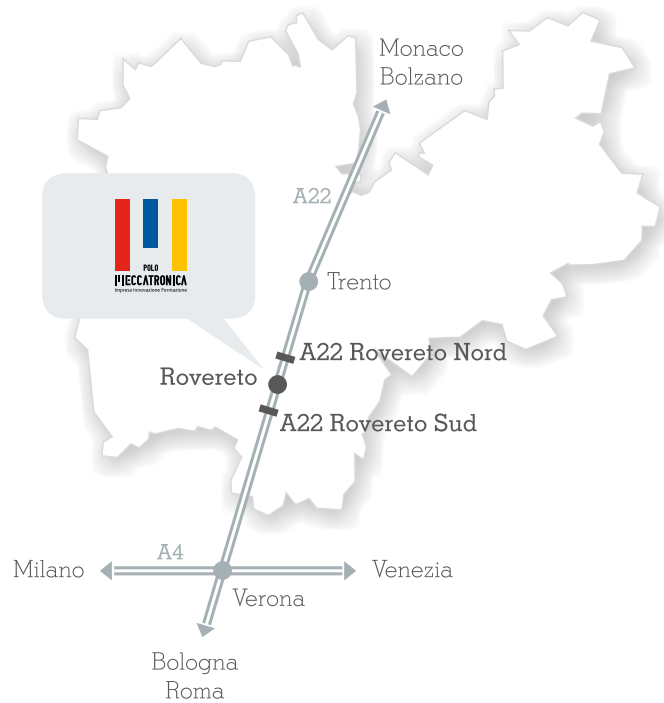


April 15, 2016

«Product innovation is one of the important drivers in the competitiveness of companies and many of the companies with the highest growth rate operate within technology clusters where creative ideas are concretised into innovative products. So for us it is a strategic choice to make Polo Meccatronica the first research and innovation center for the Watts Group worldwide»

Fabrizio Fedrizzi
CEO Watts Industries Italy

HOW TO REACH US



By car: 5 minutes from the railway station and the coach stop, 10 minutes from the motorway exit Rovereto Nord.

By bus: direct connection between Railway station and bus stop "Tecnofin Center" Via Zeni (line no. 2).

By plane: Verona airport Valerio Catullo (70 km highway A22)

Walking: 10 minutes from the railway station, 15 minutes from the central bus stop, 10 minutes from the historic center.

Cycling: the cycling network of the city of Rovereto passes directly via Zeni.

A project of

TRENTINOSVILUPPO
IMPRESA INNOVAZIONE MARKETING TERRITORIALE

Polo Meccatronica

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Photo: Carlo Baroni, Michele Bommassar, Alessandro Gadotti, Alessandro Massei, Andrea Sottana
Rendering: Studio Barozzi Veiga, Studio Archidea

17.000 sq m customisable modular production spaces

386 working days to build the new production building

6.000 sq m of Mechatronics prototyping laboratories

5 million euro value of the machinery in the mechatronics prototyping laboratories

106 companies situated in the Trentino Sviluppo BIC

700 employees

380 million euro turnover

2,5 euro of private investment every euro invested by the public

