

INVEST IN TRENTINO



IN TRENTINO

Trentino Sviluppo SPA

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WELCOME TO TRENTINO

...space for life, space for innovation

A TERRITORY RICH IN TRADITION, CULTURE, HOSPITALITY

Trentino is an alpine region full of wonders, placed in the **heart of the Dolomites** and on the shores of the largest lake in Italy, **Lake Garda**. It embraces the area from the Adamello-Brenta group to some of the most charming mountains in Europe: the Dolomites of Val di Fassa, the Brenta Group, and Val di Fiemme. The landscape features an extraordinary variety of habitats: **superb mountain peaks, woods, wide valleys, pristine water streams, small and charming Alpine lakes,** an enchanting interplay of lights among the pinnacles of mountains that serves as the backdrop to quaint towns overlooked by high bell towers. The authentic and pristine nature is characterised by the one thousand and one shades of the extraordinary number of plants and animals that live in an uncontaminated and heterogeneous territory. With a **long record of sustainability and good quality of life**, Trentino boasts important **protected natural areas** such as the Stelvio National Park, the Adamello Brenta Natural Park, the Paneveggio - Pale di San Martino Natural Park, and several **thermal centres** for wellness and health treatments.

The landscape is dominated by the **Dolomites**, mountains that belong to the UNESCO's world heritage sites list. Their peaks, whipped by the winds and grey or pink in colour at sunset, attract a great number of tourists and were a source of inspiration for several spiritual leaders such as the Dalai Lama and Pope John Paul II, artists, musicians, and writers. Le Corbusier described them as the most beautiful example of natural architecture in the World.





WELCOME TO TRENTINO

BEARING THE NICKNAME OF "MOST BEAUTIFUL WINTER PLAYGROUND IN THE WORLD", THE DOLOMITES CAN NEVER DISAPPOINT

With their snow-covered peaks, hundreds of kilometres of ski slopes, and famous tourist destinations, they are the perfect place for a **holiday fuelled by nature, sports, and entertainment.** A typical sight of Trentino is the one provided by Lake Garda, which in Trentino shrinks in size and becomes a fjord cradled by the mountains. This enchanting corner, where the blue of the water meets the green and the scents of the Mediterranean flora, mesmerised several emperors and princes, philosophers, artists, and poets: from the Habsburgs to Nietzsche, from Goethe to Thomas Mann and Rilke. Still today, this amazing area wins the hearts of thousands of tourists, thanks to the power of its Mitteleuropean charm, the breath-taking scenery of its majestic mountains, and an open air gym without boundaries for cycling, trekking, climbing, sailing, and windsurfing.

A fascinating border territory, a bridge between Latin and Northern European culture, Trentino cherishes its rich cultural heritage that features prehistoric sites, delightful castles, sanctuaries, and cities of historical and artistic relevance.

Important museums, namely Mart in Rovereto and MUSE in Trento, designed by world-renowned architects such as Mario Botta and Renzo Piano, represent a chance to discover science, nature, and the art of the 20th and 21st century in an innovative way. Trentino is a land small in size but big in its results and assets. Trentino equals nature, art, culture and tradition, entertaining events, dance festivals, music and other creative arts, traditional town festivals and wine tasting sessions. It is also a land of good food and wines: old-fashioned alpine cabins, agritourism farms, and Michelin-starred restaurants offer a simple and tasty cuisine featuring a wide range of flavours, from those typical of mountain areas to those offered by lake and Mediterranean cuisine, with prime quality products such as extra virgin olive oil, grappa, and the wines produced in Trentino, such as Marzemino, Mozart's favourite wine, and Trentodoc, the renowned "classic method" sparkling wine.









INNOVATION AND TECHNOLOGY

RESEARCH

With a per capita investment in research and innovation at the level of the most advanced countries in Europe, Trentino is at the forefront of scientific progress, with a University ranked among the best in Italy and more than 20 international public and private research institutions. Trentino is an important hub for several big international research networks in sectors like the study of materials, neuroscience, nanotechnology, genomics, and the development of algorithms for voice recognition.

INNOVATION

Trento tops the list of the Italian provinces with the highest density of innovative startup firms with a record of 144 enterprises out of a total of 10,000 companies. In total, 147 new enterprises with a high rate of innovation are established in Trentino, thanks to the opportunities provided by the "Trentino system" and the programmes financed by the Autonomous Province of Trento, such as Seed Money- FESR and incentives to new enterpreneurship, the spaces and mentoring services offered in the business incubator centres, and the quality of its University, Foundations and Research Institutions.

TECHNOLOGY

Trentino is currently investing in several flagship projects: **Polo Meccatronica**, a single hub that gathers the stakeholders involved in education, training, innovation, and industrial applications, which represents an opportunity for enterprises operating in the field of mechatronics (www.polomeccatronica.it), and **Progetto Manifattura**, a hub open to enterprises operating in the field of environmental sustainability, sustainable construction, renewables, and cleantech (www.progettomanifattura.it/en).

EDUCATION

The territory boasts a high level of education, accompanied by very low dropout rates and high levels of school performance, thanks to the activities of groundbreaking education and training centres and an advanced vocational training system. Trentino invests heavily in the development of cross-sectorial upskilling projects that aim at increasing the students' competitiveness on the labour market. Examples of these projects are "Trentino trilingue" (trilingual Trentino), a school-work transition programme, and a territorial cooperation project.



ACCOUNTABILITY AND **USER-FRIENDLY ADMINISTRATION**

AUTONOMY

The historical and cultural identity of the Autonomous Province of Trento, enshrined in the Statute of Autonomy, endows it with legislative, administrative, and financial powers in strategic fields such as education, health, manufacturing policies, transport and university. Thanks to its **financial autonomy**, 90% of tax revenues are reinvested locally. This enables Trentino to offer extraordinary tools to local enterprises, such as opportunities for tax offsetting, outright grants that cover up to 80% of the eligible investment for applied research projects, innovative public-private financing instruments, and a five-year exemption for regional tax on productive activity (IRAP) for new initiatives.

ECONOMY

The economic fabric of Trentino benefits from a **quality-oriented** agriculture in the field of fruit and wine production, a well-rooted and internationally **renowned tourism** industry (5 milion tourists per year, 40% of which are foreigners), innovative industrial realities, a widespread tradition of **craftsmanship** and cooperation. Per capita GDP in the area is 26% higher than the European average.

MOBILITY

Trentino acts as a natural bridge connecting Central Europe to the Mediterranean Sea. Thanks to its strategic position, it is served by an efficient infrastructural system, logistics and transport services. Its main centres are spread along the Brenner railway and motorway, which connects North-Eastern Italy to Austria and Germany. The proximity of the most important airports in Northern Italy and an optical fibre network more than 1.000 km long, combined with a wireless network, ensure fast services and communication for both citizens and enterprises.

ONE STOP SHOP

Trentino Sviluppo is the perfect **one stop shop** to meet all the needs of the **enterprises looking for a way** to start a business in Trentino. It provides support in handling administrative procedures, mentoring programmes for technology development, and support in the search for the most suitable real estate offers and technical skills as well as in the establishment of manufacturing partnerships.



LOCATION AND LIFE

EUROPE

As a borderland with the right balance between Italian tradition and Austro-Hungarian heritage, Trentino is right at the heart of the Alpine mountain range and of Europe. A mountainous area as well as an important connection hub for goods and people with a **population of 538,000** and sound economic fundamentals, Trentino enjoys levels of wealth and quality of life among the highest in Italy and in Europe.

TERRITORY

Trentino boasts a natural heritage of extraordinary beauty, with unique and exciting landscapes: woods, alpine lakes, natural parks, mountain groups, and natural trails. The **Dolomites** - thanks to their stunning and unique landscapes as well as their geological and geomorphological features - are listed among UNESCO's Natural World Heritage sites. Lake Garda, the largest lake in Italy with its 370 km², attracts tourists from all over the World with its **mild climate** and plethora of **old towns**, as well as the opportunity of practicing several open-air sports.

SUSTAINABILITY

Trentino is ranked among **the best areas in Italy** in the Index of Fair and Sustainable wealth (BES), making environmental sustainability one of its main priorities. The territory has a long tradition in the production of renewable energy - particularly hydroelectric power - and an excellent system of waste management, good air and environmental quality, and good performances also in the field of sustainable mobility.

WELFARE

Trentino combines a modern and **efficient welfare system**, an excellent education network, a first-rate health sector and low youth unemployment, as well as a precious natural heritage, with the ability to innovate in a multicultural setting. Its welfare system is in line with the most advanced policies implemented in Europe, which explains the **high life expectancy** and the high levels of satisfaction for the health care system.

CULTURE

The artistic and cultural heritage of Trentino is very rich, featuring castles, museums and archaeological sites. The **Buonconsiglio Castle** is the largest monument in the region and hosts successful exhibitions every year. The new **MUSE** museum, with its innovative design by Renzo Piano, represents the perfect place to discover the natural world in a creative and unusual way. Furthermore, futurism, pop art, the international stars of contemporary art, and international exhibitions can find their home at the Mart museum of Rovereto, one of the most interesting museums in Italy.











RESEARCH INSTITUTES



WELCOME TO TRENTINO

1. FOCUS TRENTINO

GEOGRAPHY AND CLIMATE 1.1

Trentino is located in the **central Alps**. It has an area of **6,207** km² and more than **70%** of its territory has an altitude over 1,000 meters above sea level. Trentino is characterised by several alpine valleys disposed in different directions and with different dimensions, mountain chains and glaciers, lakes, dips and hills shaped by the action of glaciers and water flows, but it also features subalpine valleys, plateaus, and small plains with a sub-Mediterranean climate in proximity of Lake Garda.

Woods and forests cover more than half of the territory of Trentino. Conifers are most frequent at the highest altitudes, but there are also beech trees, ash trees and service trees. Renowned for its **brown bear** repopulation programme that increased the number and distribution of this species in the area, Trentino is home to animals such as deer, stags, roe deer, chamois, steinbocks, hares, foxes, marmots, and capercaillies, thanks also to the presence of three natural protected areas (one national and two provincial natural parks): the area of the Stelvio natural park within the borders of Trentino, the Adamello-Brenta natural park, and the Paneveggio-Pale di San Martino natural park.



Trentino's climate is extremely varied: the lowest areas - like the plain of Alto Garda and the Adige valley - are characterised by moderately cold and snowy winters and hot summers, with the exception of Alto Garda where summer afternoons are refreshed by the Ora breeze coming from Lake Garda. On the other hand, the temperatures are slightly lower both in summer and winter in the lateral valleys and significantly lower in the mountains, where it often snows in winter.

POLITICAL SYSTEM AND AUTONOMY 1.2

Trentino's special autonomy is the product of the agreement reached by Austria and Italy in 1946, but its origins are much older, related to historical and complex events, traditions, civil praxis, and rules of the communities that were jealously protected despite the political and social changes occurred over time.

Autonomy translated into a do-it-yourself attitude, rather than a tendency to delegate decision-making to others, waiting for them to act and meet the needs of the community. This applies to a wide range of sectors: education and health, economic, social and healthcare development policies, energy sources management and **urban** planning, **tourism promotion** and development aid, but also the powers and competences related to the international dimension of politics.

Thanks to its Autonomy, Trentino has turned into a territory that consistently ranks among **the best** regions in Europe for its **per capita revenue** and, even more importantly, **for its quality of life**.

PUBLIC FINANCES 1.3

Rating agencies rank the financial soundness of Trentino at the top of the list of the Italian regions. In 2016, Fitch Ratings confirmed the long-term A-rating (Idr) given to the Autonomous Province of Trento, and the short-term **F1-rating**, qualifying its perspectives as "stable". Moody's gave the Province an A3-rating that placed it at the top in the list of Italian regions, with a rating two notches over the one given to the Republic of Italy, a rarity among public bodies even at an international level. Its favourable rating reflects its stronger legislative and financial autonomy, combined with a surplus in current accounts and a low level of total debt.

With a total **annual budget of almost 5 billion euros**, the Autonomous Province of Trento boasts a high level of per capita wealth, thanks to the sound economic and financial fundamentals of the territory and a careful management of the resources that is reflected in sound and predictable budgetary results. These factors, combined with the autonomy enshrined in its Statute and strengthened by the Guarantee Pact recently signed with the Italian government, allow Trentino to enjoy a higher rating than the one given to Italy.



As for the management of resources, which represent 90% of the tax revenue produced by the territory, Trentino enjoys competences and manages services that are otherwise under the control of the State, namely education - including university education - socioeconomic safety nets, healthcare, culture, transports, public works, industry, agriculture, scientific research, environmental protection, European relations, and international aid. Trentino's autonomy provides the possibility to finance the efforts related to its autonomy powers with its own resources, without adding an additional burden to Italy's budget. Furthermore, Trentino always pays its debts with the State, also those regarding the economic conjuncture and public finances.







10 Thousa





On January 2016, 538,223 people lived in Trentino, recording a net increase of 807 people compared to the previous year. The population is made up of 263,270 men and 274,953 women (51.1% of the total population). The fertility rate is **9.0 new-borns per 1,000 inhabitants**, well above the national average of 8/1,000 inhabitants and the highest fertility rate in Italy, confirming the data collected over the last four years. The mortality rate is 9.4 deaths per 1,000 inhabitants, well below the national average of 10.7/1,000 inhabitants.

50 Thousar 40 Thousa

LANGUAGES AND CULTURAL HERITAGE 1.5

1.5.1 FOREIGN LANGUAGE LEARNING

Progetto Trentino Trilingue (Project for a Trilingual Trentino) is a plurilingual plan that was launched in the schools of Trentino with the aim of implementing actions - starting from nursery schools and primary schools - to improve the linguistic skills of the citizens of Trentino and the ability of economic sectors to exploit the above-mentioned skills. The project represents a stage programme that guides students from an early age in the learning of Italian, German, and English. The schools are committed to providing students with a knowledge of foreign languages through the gradual introduction of curriculum classes taught in different languages using CLIL (Content and Language Integrated Learning) and in particular by allowing them to obtain language qualifications recognised at an international level. This effort is accompanied by a series of projects aimed at spreading trilingualism in the field of culture, research, and manufacturing activities.



1.5.2 PATRIMONIO CULTURALE LINGUISTICO

Multiculturalism and multilingualism were two of the main features of the Austro-Hungarian Empire, which included Trentino until the end of WWI. Three minorities, whose rights are protected by the Statute of Autonomy, live in Trentino.

"Ladin", a neo-romance language, is considered the most ancient indigenous language in the Alps and it is spoken only in **Val di Fassa**, where 90% of people speak it as their mother tongue. "Mocheno" is a language spoken in the namesake valley. It has features and words coming from the Bohemian tradition and a Tyrolean substratum. The three municipalities of Valle dei Mocheni (from the German verb "machen", "to do") count 1,500 speakers of this language. "Cimbro" is a Germanic language; it is spoken in an area that shrank in size over the centuries and it is currently spoken in Trentino only in the village of Luserna



100+

Figure 1.1 Distribution of population on age basis

10-14

20-24

30-34

40-44

50-54

60-64

70-74

80-84

90-94



1.6 INTERNATIONAL ORGANISATIONS

1.6.1 EUREGIO. TYROL - SOUTH TYROL - TRENTINO

The Alpine European region of Tyrol-South Tyrol-Trentino took shape **in the early 1990s**, when an important effort of transnational cooperation was undertook in this Alpine region, placed on the **strategic line of the Brenner pass**, to leave behind the tensions of the past. Since then, the three territories strengthened their friendly relationship, based on shared historical roots, leading to the **opening of a common representative office in Brussels**, in order to improve their relations with the European Union. In 2011, the parties involved, signed the **EGTC Statute** (European Group of Territorial Cooperation), a forum of transnational cooperation in the area of the Brenner Pass established by the European Union.

Among the high number of common initiatives developed, it is possible to find activities in the field of energy, environment, health, research and higher education, employment, social policies, youth policies, tourism, agriculture, cultural policies, mobility, and transport.



1.6.2 OECD

The **OECD LEED** centre headquartered in Trento is part of the wider OECD LEED Programme. Established in **June 2003** by the General Council of the OECD, in partnership with the Italian government and the Autonomous Province of Trento, **the centre is tasked with the enhancement of the local development skills** of the member and non-member countries of the OECD.

The objectives of the Centre include the **enhancement of the quality of public policies** at local level through the monitoring and constant evaluation of current practices, using research and comparative studies in order to provide political recommendations; the **promotion of innovation**, **economic development**, **and employment** at local level; the development of the skills related to the design, implementation, and evaluation of economic and employment development strategies at local level in order to foster the growth of local economies in member and non-member countries; the strengthening of the relationships among political authorities, professionals of local development, and the scientific community; and the streamlining of the procedures of knowledge and **skills transfer as well as the exchange of experiences among the economies** of the member and non-member countries of the OECD.





1.6.3 TRENTINI NEL MONDO

"Trentini nel Mondo" (Trentini in the World) is an association **created in 1957** that promotes **social solidarity** and provides a tool to reunite and help the people who decided to leave Trentino and their descendants. The Association is present in **25** countries and on **four** continents, with more than **200** clubs that work with a view to promoting the culture of Trentino and Italy in the World and create a bridge between the communities living abroad and their homeland. The Association carries out information and training activities aimed at promoting the social and economic integration of **Trentino's expats in the place where they reside**. It is responsible for the organisation of meetings and seminars, exhibitions, and events designed to foster mutual understanding and feed the relations of Trentino with foreign countries.

The potential of the network established by the Association and its clubs has already been shown by the synergies with the universities, research centres, foundations, and organisations that were able to seize the mutual opportunities of collaboration provided.





2. ECONOMY

2.1 **GENERAL FIGURES**

In 2015, Trentino's Gross Domestic Product increased by +0.8% in line with GDP growth at the national level. Based on the current prices, the GDP amounts to 17.9 billion euros with a per capita GDP of 34,196 euros, compared to a national average of 26,700 euros.

Trentino's per capita revenue is higher than that of Italy and its inequality rate is among the lowest among Italian regions, a sign of a moderately fair revenue redistribution at a local level.

In Trentino, ISTAT recorded one of the lowest unemployment rates in Italy, at **6.4%**.



With its 47,250 enterprises, Trentino is characterised by a majority of **micro and small enterprises** (72%), followed **by medium enterprises** (16%), and **big enterprises** (only 12%). The average number of enterprises per 1,000 people is among the highest in Europe.

The agricultural sector is characterised by a majority of small enterprises. This has led to a widespread use of corporate aggregation forms, such as cooperatives and producers' organisations, in line with the cooperation and association spirit rooted in the territory.

Industrial activities represent the second biggest sector in Trentino, with several enterprises operating in the metalworking and mechanical engineering industry; precision mechanical industry; iron and steel industry; chemical industry; rubber and plastics industry; paper, press, and publishing industry; food and beverage industry; forestry and furniture industry.

The construction industry is the third economic sector of Trentino, with a special focus on specialised and sustainable constructions.

The tourism industry In the service sector, in addition to real estate and retailing activities, the tourism industry plays a crucial role and represents 15% of the total GDP. The tourism industry has been constantly growing in Trentino, both in terms of income and number of tourists (15.5 millions), supported by a growing flow of foreign tourists coming in particular from Germany, Poland, and the UK.

The ICT and telecommunications industry has increased its importance over the years, thanks to the substantial investments and the initiatives supported by local authorities and developed under the supervision of important agencies of Trentino's public administration.

TRENTINO AT AN INTERNATIONAL LEVEL

2.2.1 **EXPORTS AND IMPORTS**

Exports have increased over the last two years to account for a total value of **3.4 bilion** euros in 2015. The textile and clothing sector contributed sensibly to the annual growth, together with the **chemical industry**, metal manufacturing, metal products and transportation industry. The main outlet market for products exported from Trentino is Germany, where goods were sold for a total value of more than **555** million euros. In second and third place are the United States and France, respectively with 407 and 298 million euros of exported goods. As for the internal demand, imports from abroad increased by 4.6%, for a total value of 2.03 bilion euros. In 2015, Trentino imported goods mainly from Germany, France, Austria, Netherlands, China, Spain, Japan, United Kingdom, United States and India (source: CCIAA 2015).



2015 exports:

3,4 billion euros



2.2.2 FOREIGN DIRECT INVESTMENT

There are 76 foreign-owned companies operating in Trentino: the graph below shows the figures related to the number of employees and the turnover. These companies operate mainly in the field of **manufacturing**, particularly in the sectors of machinery and mechanical devices engineering. Important companies operate also in the chemical industry, the metal works industry, the mining industry not related to iron ore, and the food industry. The main countries represented are Germany, France, and the United States. There are **263** enterprises based in Trentino that have decided to invest abroad. The graph below shows the figures related to the number of employees and the turnover.



Important research institutions in the area have been working for years in the field of sensors and microsystems manufacturing, both at a module/system level and focusing on single technology components. Those include the Department of Physics and the Department of Engineering of the University of Trento, the Materials and Microsystems Centre of Fondazione Bruno Kessler (which is mainly committed to the research and development of electronic devices and integrated microsystems, MEMS, with a particular focus on innovation), the Trento section of the National Institute for Nuclear Physics (specialising in the development of sensors) and some units of the CNR (the Italian National Research Council) specialising in micro-mechanics and micro-optics.

Finally, it is worth mentioning the high number of **ICT enterprises** potentially linked to mechatronics and working with Trentino Sviluppo on a project based on operating synergies, in partnership with Informatica Trentina, which manages the ICT partnership forum.





2.3 SMART SPECIALISATION

The Autonomous Province of Trento has identified four priority development areas: Mechatronics; Energy and the Environment; Quality of life; Agrifood.



2.3.1 **MECHATRONICS**

The mechatronic industry includes more than 800 enterprises and employs more than 10,000 professionals in the territory where the Province of Trento established a technology hub, Polo Meccatronica, which is located in Rovereto, in order to provide a physical setting for the partnership among enterprises, research institutions, innovation stakeholders, and education and training institutions, supported by the high added value services provided by Trentino Sviluppo.

The term "mechatronics" indicates the field of activity that combines the classic disciplines of mechanics, hydraulics, pneumatics, electronics, and IT sciences in order to improve the functioning of a technical manufacturing "system". Mechatronics represent a strategic activity for the enhancement of the manufacturing industry of Italy and Trentino. The sector also features a **substantial number of registered patents** (almost 50 over the last few years, which accounts for **half** of the total number of patents registered by the economic players operating in Trentino) and a number of **innovative startups** (25% of the total) that focus on products in the fields of electronics, optics, and electrical devices.

ENERGY AND ENVIRONMENT (GREEN & CLEAN) 2.3.2

The focus area on the themes of "Energy and the Environment" represents a wide development sector that encompasses several aspects related to the generation, production, and consumption of energy as well as the protection and sustainable use of the environment in a broader sense. This strategic area has a huge importance in Trentino, considering its well-rooted environmental sensitivity, which has led to the adoption of a wide range of environmental and energy policies and to a high level of acceptance of the green economy: Trentino generates almost 9% of the total hydroelectric power of Italy and, despite the morphology of its territory, can boast excellent performance in the **field of separate** collection of waste, reaching **72%** of all waste.

From an economic perspective, the construction and energy industries play a paramount role both for their added value and for the number of enterprises involved, reaping good results in the fields of environmental sustainability, widespread production, and the technology supply chains related to these sectors.



In the area "Energy and the Environment", Trentino counts on the activities of important "innovation drivers" operating in the fields of sustainable constructions and environmentally friendly technologies: Progetto Manifattura, which focuses on the creation of innovative startups in the field of renewable energies, green building, and enviroinmentally friendly technologies; and Habitec - the technology hub of Trentino for energy and the environment - which gathers more than 8,000 professionals and 300 enterprises of the construction, energy, and mobility industries for a total turnover of **1.5 billion** euros, focusing in particular on the definition of new housing models and energy and environment certification systems as well as on the creation of stronger bonds between research and the construction industry to promote the use of new construction systems and materials.



Trentino is also the main sponsor of **ARCA** (ARchitettura, Comfort, Ambiente - Architecture, Comfort, and the Environment), the first certification system designed and implemented exclusively for buildings with a wooden load-bearing structure. It aims at ensuring their safety, energy efficiency, comfort, and sustainability. Furthermore, Trentino is home to the headquarters of Green Building Italia, an association that promotes the use of advanced certification protocols for urban planning and sustainable constructions. Finally, the institutions and enterprises established in Trentino are part of the European Partnership for Innovation "Smart cities and communities" and the Italian National Technology Cluster "Technology for Smart Communities". Moreover, several research centres and specialist innovation centres in the fields of technology and science are headquartered in Trentino. Among them, it is worth mentioning the University Centre for Smart Buildings (CUNEDI), the CNR (National Research Council) IVALSA institute, the Applied Research Centre on Energy Systems of FBK, the Edmund Mach Foundation, the Fiat Research Centre, and the Ducati Research Centre. The priorities in this focus area concern the sustainable use of resources, environmental safety and monitoring, GIS and remote sensing, sustainable construction and housing regeneration, smart systems and renewable energies.

QUALITY OF LIFE 2.3.3



The focus area devoted to "Quality of Life" includes: the physical, mental, and social well-being of citizens; the living environment; the management system for tourism, culture and sports; the urban setting; and finally the landscape elements strictly linked to the territory and its mountains.

In Trentino, there are several research and innovation players who operate in this field. Among them, in addition to Fondazione Bruno Kessler and Edmund Mach Foundation, is the Centre for Integrative Biology (CIBIO), the Centre for Biomedical Technologies (BIOTech), the Centre for Computational and Systems Biology (COSBI), the Interdepartmental Centre for Mind/Brain Sciences (CIMEC), the Biophysics institute (IBF) and the Institute of materials for electronics and magnetism (IMEM) for the studies on nanomedicine technologies, Create-NET, Fondazione Graphitec, the Agency for Proton Therapy, and EURICSE.

Finally, the engagement of local stakeholders and the implementation of policies takes place in the framework of major national and European initiatives, such as the Italian National Technology Clusters called "Technologies for living environments" and "Technologies for Smart Communities", as well as the European Innovation Partnerships on "Active and Healthy Ageing" and on "Smart cities and communities". The following priority activity areas have been identified: smart cities and communities; protection and enhancement of the natural, human-made, and urban environment; tourism, culture, sports, and leisure; health, wellness, and personal care.

2.3.4 AGRIFOOD

- The focus area devoted to "Agrifood" involves a wide range of manufacturing sectors, which are related to: **the primary sector,** with a strong focus on fruit and vegetable production, livestock, and fisheries;
- **the industrial sector,** with a particular focus on food and beverage processing, the mechanical and food industry, and the packaging and packaging material industry;
- **the tertiary sector,** with a particular focus on distribution (i.e. mass retail channels and wholesale and retail marketing, catering and restaurants, gastronomy and agritourism), and other services (logistics and transport; analysis, monitoring, and certification services; ICT; energy recovery from food waste and by-products).

The Agrifood sector is crucial for Trentino, which is a territory particularly sensitive towards highquality products, as testified by the high number of protected designations of origin (apples, grapes, and small fruits), in line with its environmental policies on sustainable production processes and the growing attention paid to themes such as the well-being of citizens and the quality of life. The traditional and high-quality produce of Trentino includes different types of cured **meats**, cheese, oils, and wines.

From a technological and scientific perspective, Trentino is well placed with several research and innovation centres and specialist training programmes, offered by the Edmund Mach Foundation, COSBI, CNR-IBAF, and the University of Trento.

The following priority activity areas have been identified:

food guality and safety, nutrition and nutrigenomics

2. ECONOMY



3. RECEPTION

Trentino Sviluppo

Trentino Sviluppo is a company established by the Autonomous Province of Trento to foster the sustainable growth of the "Trentino system" by developing actions and services aimed at supporting the creation of new entrepreneurial and innovation projects. In particular, Trentino Sviluppo represents the reference point for the enterprises willing to operate in Trentino.¹

3.1 ONE STOP SHOP

Trentino Sviluppo accompanies the **enterprises at all stages in the process leading to their establishment**. For example, it helps them search for skilled workforce, get in touch with research institutions, identify the most suitable areas and venues, engage with the public administration in order to get a licence or a permit, get access to credit or apply for a grant. Even fully-fledged enterprises are supported in the development of new projects, both in terms of research and the technological and organisational development of the enterprise.

The actions performed by Trentino Sviluppo to welcome new enterprises apply to:



- enterprises from other areas operating in the field of research and advanced manufacturing services, as well as in specific market niches characterised by a high level of specialisation and integration with other stakeholders operating in the local supply chain;
- startups with a high growth potential in the field of manufacturing and business services, from a perspective focused on local activities that should lead to the establishment of the "missing links" of the supply chains involved in Smart Specialisation.



Enterprises willing to operate in Trentino are asked to present a general investment project (annex 1) which is followed by a value proposition by Trentino Sviluppo (see annex 2), **structured according to the specific needs of the enterprise and based on the following elements:**

support in the administrative procedures linked to the drafting of the establishment project;

- search for the technical and scientific skills needed to carry out research projects;
- search for **skilled workforce**;
- identification of the areas most suited to the needs of the enterprise, selection of real estate properties and implementation of the technical adaptation needed;
- support in getting access to specific economic and financial instruments needed to implement the establishment project;



3.2.1 TRENTINO FILM COMMISSION

The activities of Trentino Film Commission (TFC) deserve a particular mention in the field of the support provided to enterprises operating in the audio-visual industry. Launched in 2010, TFC promotes and supports cinema, TV, and documentary production teams coming from Italy and abroad that can enhance and disseminate the cultural, environmental, and historical heritage of Trentino. TFC provides logistical support in the search for venues and hotels, as well as in the relations with the professionals working in Trentino, the public administration, and local police forces. At the same time, it promotes the development of local audio-visual industry and it provides training courses for the upskilling of local professionals.

The activities of Trentino Sviluppo in this field focus in particular on the identification of potential supply chains related to film productions, such as **3D animation**, **visual activities**, and **post-editing**.

- support in the establishment of partnerships with local enterprises or newly established enterprises in different technology sectors;
- introduction to selected **local suppliers**;
- support in the development of new projects aimed at widening the research activities and technologic developments that can lead to job openings;
- support in the identification of **benefits** for the corporate managers who have moved to the local headquarters.

TECHNOLOGIC AND SCIENTIFIC PARKS: 3.2 TECHNOLOGICAL CENTRES OF EXCELLENCE

Trentino Sviluppo manages six technological centres in Trento, Mezzolombardo, Pergine Valsugana, Borgo Valsugana, in addition to two centres devoted to initiatives with a strong systemic identity in Rovereto: Polo Meccatronica and Progetto Manifattura.

The Business Innovation Centres (BICs) host enterprises, research centres, accelerators, and two specialist pre-incubators in the fields of mechatronics and green technology. In total, these facilities are currently home to almost 120 enterprises and 750 employees.

In addition to the basic services of facility management (availability and adaptation of spaces, parking lots, canteens), BICs offer specialist services to support the startup stage of enterprises as well as their further development.

Every enterprise that settles in an incubator is accompanied by a **tutor** who believes in its potential, follows its evolution, and provides support in order to promote its development and meet its consolidation needs. When enterprises ask for help in specific areas, tutors can also resort to a wide partnership network of national consultants and investors.

The services provided include:

- **pre-incubation** services, which can last up to one year of tutoring before the launch of the enterprise, in order to turn ideas into real enterprises;
- **consultancy on norms**, licences and procedures for grants for the purchase of technology equipment;
- **support in the management** of issues related to intellectual property rights;
- mentoring for business startups and first activities;
- **training academy:** addressed to the enterprises and startups already in the BICs and willing to deepen their knowledge on issues related to the setting-up of enterprises, communication, innovation, project management, management of credit, and the most appropriate way to find and get to know new investors.





Progetto Manifattura - Green Innovation Factory

3.2.1 POLO MECCATRONICA

Polo Meccatronica has **35,000 square meters** of equipped spaces available for the development of entrepreneurial activities and service structures that can offer support and tutoring to the enterprises that it hosts in its **Industrio Ventures**, the startup accelerator in the field of mechatronics. Inside Polo Meccatronica, several technical institutes of the secondary school will find their new home, as well as new advanced training programmes in the field of mechatronics, in order to improve and provide a distinctive feature to the training offered to specialised technicians. These institutes will also offer **dual-training** programmes - learning and working - and an active participation in corporate projects for young trainees. According to plans, education and training structures will have 25,000 square meters at their disposal. In addition to this, Polo Meccatronica will soon have workshops and technological facilities developed in partnership with Fondazione Bruno Kessler and the University of Trento. These will provide high-level technology services to enterprises, testing and qualification opportunities for enabling technologies such as the covering of high precision mechanical devices, sensors, actuators, mechanical and electrical integrated systems, the development and enhancement of sensors solutions combined with electronic and mechanic units, and 3D print in metals and plastics ("additive manufacturing").

3.2.2 PROGETTO MANIFATTURA - GREEN INNOVATION FACTORY

Progetto Manifattura is an initiative sponsored by the Autonomous Province of Trento to turn the former tobacco factory "Manifattura Tabacchi" in Rovereto into an **industrial innovation hub** in the fields of environmentally friendly constructions, renewable energies, green technology, and the management of natural resources. The Green Innovation Factory currently hosts almost 50 enterprises and research centres. In total, the site will stretch over **9 hectares** of land, with a surface of **70,000 square meters**. The cluster will be made up of startups, enterprises, research centres, training facilities, public administration services, with the aim of fostering their dialogue and creating a reference point in the field of **clean tech** at a national and European level.

3.3 **BUSINESS ACCELERATORS**

Within the process of creation and growth enterpreneurship, accelerator programs "accelerate" startups encouraging meetings with investors, combining incubation services with resources, expertise and experiences designed to validate the business idea and to launch it on the market. The network of Trentino Sviluppo includes:

Industrio Ventures

Private accelerator, springboard for industrial startups, supporting them with financial resources, equipment, technologies and an international network of partners from Italy, the U.S., and China.

Spinnvest

Company that transforms ideas, business models and innovations into startups, bringing "seed capital" and managerial skills. Spinnvest develops entrepreneurial initiatives in different sectors: cleantech, renewable and alternative energy, agri-food, medical and mechatronics.

3.4 BUSINESS SERVICES

Trentino Sviluppo's action mainly targets enterprises and, in particular, it focuses on: new enterprises; internationalisation; support to corporate structuring; projects for financial consolidation aimed at specific development projects.



The enterprises that decide to settle in Trentino - in particular those working in technological centres - are given the opportunity to profit from the services of Trentino Sviluppo:

- **strategic analysis** of the enterprise and identification of improvement margins;
- drafting of a **growth plan** through the identification of factors critical to its success;
- support in the definition of a **marketing plan** related to the development of a new product or service;
- support in the establishment of **technologic partnerships**;
- **assessment of the impact** of the introduction of new technology on the organisation of the enterprise;
- **assessment of the organisational model** and HR **management policies**;
- design & innovation: design audit to lay the basis for new products and services, thanks to its conventions with centres of excellence in the field of design (Politecnico Milano, University of Trento, IUAV Venezia, and Libera Università of Bolzano);
- tutoring and follow-up in the internationalisation processes, through information, market and sectorial assessments (i.e. reports regarding export evaluations on a specific product or product line and on specific markets); International Coaching programmes; integrated sectorial projects aimed at the creation of homogeneous groups of enterprises and integrated projects on markets with specific destinations; incoming projects, scouting and visits abroad, support to the participation to international fairs.

3.5 TERRITORIAL BRAND

The territorial brand **represents the entire "Trentino system"**, which is made of people, enterprises, local communities, territorial and environmental heritage, tradition, and history. The enterprises that display the territorial brand on the national and international markets associate their image to their area of origin, thereby **guaranteeing the authenticity and the quality** of their product and conveying at the same time a sense of belonging and a bond with tradition.

3.6 PATENT FUND

Established in 2006 and placed under the management of Trentino Sviluppo, the Patent Fund is a tool **for the enhancement of the research results obtained in Trentino.** Its goal is to **enable the technology transfer between research and enterprises**, creating a return on the investment made by the Autonomous Province of Trento in the field of research. In particular, Trentino Sviluppo is tasked with the acquisition of intellectual property rights and all the actions linked to their protection - i.e. filing a patent request or registering a trademark - in order to move swiftly to the economic benefit through sale, license contracts, or other tools. These procedures are managed in strong cooperation with the research institutions that produce the research results, such as the University of Trento, FBK, and the Edmund Mach Foundation.



3.7 **BUSINESS STARTUP TOOLS**

Trentino has launched a series of initiatives with the aim of **enhancing the knowledge** of its research centres and its university and promoting knowledge transfer to the manufacturing sector, thereby fostering the development of new entrepreneurship in the territory. These activities include:

D2T Start Cup

An enterprise and innovation award given to the young people between 16 and 35 years of age with the best entrepreneurial ideas, coupled with a tutoring service to turn ideas into real enterprises. The winners receive a sum and the invitation to attend a targeted tutoring programme with promotion services and spaces provided in the business incubation centres. The D2T Start Cup reached its 8th edition in 2015. It focuses on the following categories: mechatronics, green industry, and digital tourism.

Seed Money

An open call jointly financed by the Autonomous Province of Trento and the European Union (EFRD) aimed at promoting entrepreneurial initiatives in innovative and high technology sectors. It can be used to partly cover startup costs (i.e. market analysis, establishment of a business plan, research expenses linked to the setting-up of the activity, company establishment, etc.) up to a maximum of 150,000 euros. The applications are collected and evaluated according to the specific requirements of each open call. Three calls were launched, respectively in 2009, 2011, and 2013.



THE BUSINESS SUPPORT NETWORKS 3.8 **OF TRENTINO SVILUPPO**

Trentino Sviluppo works in partnership with several national and international networks that provide **business** tutoring opportunities through access to European programmes, searching for investors, support in the internationalisation process, partnership creation, and access to international research programmes. The following are some of the networks to which Trentino Sviluppo belongs:

- EEN Enterprise Europe Network
- AIFI Italian Venture Capital and Private Equity Association
- APSTI Italian National Association of Science and Technology Parks
- IBAN Italian Business Angel Network
- Italian National Association of BICs and Local institutions of entrepreneurship promotion
- EBN European Business and Innovation Centre Network
- IASP International Association of Science Parks and Areas of Innovation
- Italian National Association of University Incubators and Business Plan Competition
- Eurada European Association of Development Agencies
- ICE Italian Trade Agency
- International network of Italian Chambers of Commerce.

In addition to those, Trentino Sviluppo has activated collaborations with some financial institution.







HOW TO SET UP AN ENTERPRISE 4.1

Starting an enterprise in Trentino is an **easy and fast operation**. Thanks to the **ComUnica** (Unique Administrative Communication) procedure and the register of undertakings, entrepreneurs can file a single electronic request and meet all the administrative requirements needed to enter the register of undertakings, receive a personal ID and a VAT number as well as file all requests and/or complaints to Agenzia delle Entrate (Italian National Revenue Agency), INPS, INAIL, Ministry of Employment, Health, and Social Policies, and Sportello Unico Attività Produttive.

The type of activities of the enterprise, its strategic objectives, and all possible costs will determine the most appropriate legal form of the company.

According to Italian law, companies may have different legal forms.

Partnerships - associations of persons or unincorporated companies - whose members have a strong personal bond fall into one of the following categories:

- non-commercial general partnership ("società semplice" or "s.s.");
- commercial general partnership ("società in nome collettivo" or "s.n.c.");
- limited partnership ("società in accomandita semplice" or "s.a.s");

Companies are enterprises where the capital is the main factor. They can fall into one of the following categories:

- private limited company ("società a responsabilità limitata ordinaria", or "s.r.l.");
- simplified private limited company ("società a responsabilità limitata semplificata" or "s.r.l.s.");
- joint-stock company ("società per azioni" or "s.p.a.");
- publicly traded partnership ("società in accomandita per azioni" or "s.a.p.a.");
- cooperative limited company ("società cooperativa");
- consortium ("consorzio").

Foreign enterprises may instead opt for one of the following legal forms:

- representative office ("ufficio di rappresentanza");
- secondary establishment (branch) of the foreign company;
- subsidiary, a company owned by the foreign company but under Italian law.

INNOVATIVE STARTUPS

In order to provide more advantages to young entrepreneurs and/or innovative enterprises, the following corporate forms have been introduced:

- Reduced-capital private limited company ("Società a Responsabilità Limitata a capitale ridotto" or "S.r.l.c.r.");
- Innovative startup.

4.2

All these corporate forms belong to regimes with different advantages, both on an administrative and tax level. It must be noted that the status of **innovative startup** is limited in time. The advantages provided are limited to a period of 5 years. Furthermore, innovative startups must be registered in a specific section of the register of undertakings.

4.2.1 ITALIA STARTUP VISA

A special visa for **foreign entrepreneurs** keen to set up an innovative startup in Italy. Among the criteria that must be met to request an Italia Startup Visa, the main one is to set up an innovative startup (which shall meet several conditions, such as a core-business devoted to technology innovation) and the onus probandi of possessing at least 50,000 euros in financial resources (through the financing provided by venture capital funds or other investors, crowd funding, or governmental or non-governmental

bodies operating in Italy or abroad).

Special treatment is granted to foreign entrepreneurs who have been invited by a certified business incubator to use its facilities and launch an innovative startup.







Simplified private limited company ("Società a Responsabilità Limitata Semplificata" or "S.r.l.s.");

5. REAL ESTATE AND INDUSTRIAL AREAS

Enterprises keen to settle in Trentino have several options at their disposal to find spaces for their operations. The first one is to get in touch with professionals of the private market or directly with Trentino Sviluppo, entering a simple and streamlined admission procedure, on the condition that the planned investment will foster technology innovation, research, and job creation.

SEARCHING FOR A REAL ESTATE PROPERTY 5.1

Trentino Sviluppo provides enterprises with spaces for their establishment, expansion, or refurbishing, and it promotes the activities of innovative startups and fully-fledged enterprises with strong potential through the following measures:

- **50% reduction** (in "de minimis" regimes) on the market price of the spaces for a maximum of 12 years;
- **six Business Innovation Centres** (BICs) with services and spaces suitable for business startup;
- **manufacturing real estate** properties spread all over Trentino (purchase, leasing, rent, usufruct up to 30 years).

The website of Trentino Sviluppo features a special search engine for this purpose in the section called "Invest in Trentino".

Furthermore, Trentino Sviluppo periodically publishes a series of calls for tenders on its website for the allocation of the available real estate properties and their conditions of use.

When enterprises decide to contact Trentino Sviluppo they receive an offer containing possible solutions responding to the needs identified through the investment project in annex 1. Once a choice has been made, their specific demands (maintenance, lot or equipment sharing) are assessed, leading to the drafting of a contract.

Purchase, leasing, renting or other rights in rem are established according to market conditions and local laws applicable to the undertakings of Trentino Sviluppo.

In addition to this, Trentino Sviluppo is a contracting part of an agreement with the Italian Federation of Business Realtors which is aimed at promoting manufacturing and office premises in Trentino through the use of the website of Trentino Sviluppo.

Geo-referenced database: the establishment of a database that will provide geo-referenced and geolocalised information on Trentino's real estates, both public and private, is currently under way. Designed to promote a flexible management of databases and a user-friendly approach, it will allow users to directly explore the archives of local real estate registers and get access to information in a swift and efficient way.

PURCHASE OF REAL ESTATE 5.2

The procedure leading to the purchase of real estate is divided into the following stages:

- opening of negotiations;
- final purchase offer;
- drafting and signing of a preliminary contract;
- checking of grants applicable;
- signing of the final draft of the contract.

LEASING OF REAL ESTATE 5.2.1

In alternative to a purchase agreement, when the purchase involves exclusively real estate properties owned by Trentino Sviluppo, a **real estate leasing** contract with special conditions is also an option: duration of contract agreed by the parts (normally 18 years);

- period of grace up to three years;
- redemption up to a maximum of 30% of the value of the real estate;

Euribor rate for one year, increased by a variable spread according to the rating of the enterprise. Taking into account the contract conditions outlined above, the agreement establishes a series of publicpolicy constraints, namely a provision whereby a given number of employees shall be maintained for five years according to the industrial plan presented by the tenant.





RENTING OF REAL ESTATE 5.3

Renting contracts are in line with the provisions established in the Italian Civil Code and the relevant special laws. In particular, they shall be valid for six years, with a clause allowing for a six-year extension. If the renting contract applies to a real estate property owned by Trentino Sviluppo, a financial **contribution** covering 50% of the total cost (in "de minimis" regimes) for a maximum period of 12 years may be obtained. In this case, a given number of employees shall be maintained for a period of three years according to the industrial plan presented by the tenant. Besides, it is possible to buy the real estate within 12 years. The **annual rental** is determined on the basis of the relevant local laws applicable. It amounts to 4.5% of the current value of the real estate property. In the event that only one request for renting had been presented for the real estate property involved, this rate may be reduced by 1%.

5.3.1 SPACES IN THE BUSINESS INCUBATORS

Among the services provided by Trentino Sviluppo is the opportunity to get access to the spaces offered in Technology Centres through specific service contracts. Reduced prices are offered for the first 6 years with a **contribution** (in "de minimis" regimes) **covering 50%** of the costs.



USUFRUCT OF REAL ESTATE 5.4

The usufruct 'rent' - only for real estate owned by Trentino Sviluppo - is fixed at a value that takes into account commitments that may have been made by the enterprise in the public interest and investments made on the real estate property.

5.5 PURCHASE OF MANUFACTURING AREAS

In the case of a purchase involving land owned by the Autonomous Province of Trento, a discount of up to 30% of the market value of the land may be obtained through the implementation of the so-called "Areas **Directive**" which takes into account the number of employees hired by the enterprise. To obtain the maximum discount rate, this directive requires that one person be employed for every 400 square meters of the entire surface purchased.





6. LABOUR MARKET

Labour market rules have been substantially revised over the years. The last review concerned the "Jobs Act" which was approved by the Italian government in December 2011. It launched four main initiatives: a new open-ended labour contract increasing the protection of the employee ("contratto a tutele Crescenti"); the restructuring of fixed-term labour contracts; new rules on the dismissal of employees which allow for increased flexibility; and the review of unemployment benefits.

Additional provisions were approved with the Financial Law 2015, which slashes the social benefits paid by employers (up to 8,060 euros per year) for a period of three years, and abolishes the costs related to the increase of local taxes (IRAP) for newly-hired permanent workers.

6.1 HOW TO FIND SKILLED WORKERS

In Trentino, searching for skilled workers is made possible by the traditional channels of the private market and the enterprises involved in HR selection, as well as by the public bodies listed hereunder.

6.1.1 **EMPLOYMENT AGENCY**

The Employment Agency is an agency of the Autonomous Province of Trento and as such its activities are fully in line with the economic policies carried out by the local authorities. It is the main reference point for enterprises and workers, who are granted access to its services for free through the Employment Centres spread all over Trentino. It provides assistance to the enterprises looking for skilled workforce through services of information, reception, guidance, demand-supply matching, workers' skills assessment, and enterprises' training needs assessment.

Moreover, enterprises may get in touch with their local Employment Centre to gain access to and use the online HR selection tool to publish their vacancies on the Employment opportunities billboard or to consult the offers published online.

Finally, the Employment Agency manages the Youth Guarantee scheme, an initiative designed to promote the entry on the labour market of young people aged between 15 and 29 who are unemployed and do not attend any education or training course or **internship programme** (NEETs). Internships may have a duration of 8 to 24 weeks, according to the employment profile of the beneficiary. Employment bonuses are offered to the enterprises that decide to hire the intern at the end of his/her internship programme.

UNIVERSITY - PLACEMENT 6.1.2

Through the so-called **Placement** scheme, the University of Trento offers **services** and promotes initiatives aimed at facilitating the contacts between enterprises and students who are approaching the end of their studies and young graduates.

Post-graduate internships may be started within the 12 months following the graduation of students, for a maximum duration of six months (which cannot be extended). In their search for eligible candidates, enterprises can consult an **online recruiting** service that offers the possibility to publish vacancies and sort candidate profiles present in its database. Furthermore, the University promotes the organisation of pre-selection events, such as **Career Days** and **in-company** visits.

6.2 MAIN CONTRACTUAL FORMATS

An individual employment contract is an **agreement between an employer** (sole proprietor, company, association, firm, etc.) and an employee. According to the terms of the contract, the employee consents to perform manual or intellectual duties for the benefit of the employer in return for a salary paid by the employer. The main contractual formats available are the following:

- **open-ended employment contract:** the employee takes on the duty of providing his/her work to the employer on a permanent basis, with no end date specified, in return for remuneration. This type of contract represents the most common employment relationship on the market;
- **fixed-term employment contract:** this type of contract sets a clear end date and it shall have a maximum duration of 36 months;
- **apprenticeship contract:** it comprises a training curriculum whereby the employer, besides the apprentice has been hired. The apprentice must follow a training programme carried out in-house or externally;
- **part-time contract:** an open-ended or fixed-term contract which provides for a total number of working hours lower than those of a full-time position;
- **staff leasing contract:** this contractual format involves three parties. The provider of work (an authorised party recognised as a labour agency), the user, and the worker. The worker is hired by the provider, but he/she carries out his/her work on the premises of the user (in a so called "mission" regime);
- **job sharing contract:** this contractual format is signed between two workers who commit how to manage and divide the work between them, as well as on how to manage their working time;
- **"job on call" contract:** this contractual format formalises a subordinate form of work, possibly of the employer in order to carry out working activities.

providing a remuneration for the work of the apprentice, provides him/her with the training that is deemed necessary to develop the professional skills needed in the workplace and for the tasks for which

themselves to carry out the same working activity. They become therefore personally and directly accountable for the provision of the working activity required, but at the same time they may agree on

with a fixed end date. According to its terms, the worker provides his/her availability to meet the requests

- **contract for occasional employment:** this contractual format involves a sporadic collaboration between the parties. It requires that the total duration of the working activities carried out for the same employer do not exceed the limit of 30 days over the same calendar year or, in the field of assistance and care, 240 hours. Finally, it requires that the remuneration provided do not exceed a total value of 5,000 euros over the same calendar year for the same employer;
- **ancillary employment contract:** this contractual format requires that the total remuneration provided by all employers do not exceed 5,000 euros over the same calendar year, with a threshold of 2,000 euros for each employer (entrepreneur or operator).

REMUNERATION AND WORKING TIME 6.3

Remuneration is the money paid to the employee for the working activities carried out. It is established autonomously by the parties signing the employment contract, but it must meet the minimum wage requirements established by the collective agreements valid for a given sector according to the position covered.

Monthly remuneration is characterised by some elements that include the basic wage received by the employee and a series of accessory elements that vary according to the type of activity carried out and its conditions.

The elements typical for any monthly remuneration are the following:

- Minimum wage: minimum wage due to the employee. It may vary according to the qualifications of the worker or the conditions set by national collective agreements;
- Contingency allowance: it adjusts the wage according to the increase in living costs;
- Seniority-linked increases: this component of the monthly remuneration depends on the collective agreements and it is distributed after the worker reaches a specific number of working years for the same employer.

The accessory elements of monthly remuneration are the following:

- merits of the worker involved.
- Occupational benefit: this benefit has the aim of remunerating working activities that require an additional work or burden for the employee;
- of a house, or the signing of insurance policies.

The amount of working hours is set by collective agreements in line with the general rule, which sets the limit at 48 working hours per week.

TRADE UNION REPRESENTATION 6.4

Workers have the right to organise their trade union representation autonomously in the enterprise as well as to join trade unions **outside the enterprise**, creating a double level of trade union representation. The main role played by trade unions is to allow for the participation of workers to collective bargaining in collaboration with the representatives of employers. Collective bargaining is structured on several levels and its goal is to establish the basic elements of working contracts in a specific sector and regulate relationships among the parties.

Employers may choose freely the employers' association that they wish to join. Once decided, they shall implement the provisions of the national collective agreement reached by the association to which they belong.

There is also a second level of collective bargaining (at local or business level) that complements the national collective agreement with a series of provisions aimed at meeting the needs of a single enterprise or the enterprises of a specific territory.

Super minimum allowance: specific element agreed in the single contract by the parties or in the framework of the negotiations taking place with an enterprise. The employer and the employee are free to set individual super minimum allowances according to the type of work carried out, or for specific

Fringe benefits: they represent benefits that supplement the normal wage to increase the total amount received or foster the productivity of workers, to cover costs such as the use of a car, the purchase





7. SUBSIDIES, TAX POLICY, AND FINANCING

In order to foster economic development, Trentino offers a streamlined system of aid, subsidies, and tools aimed at supporting the growth of existing enterprises and attracting and developing new enterprises, with substantial benefits for technology innovation initiatives.

7.1 **SUBSIDIES**

The tools provided by the Autonomous Province of Trento focus on the following areas:

- Research and Development
- Internationalisation
- Business development
- Business startup
- Fixed investment

RESEARCH AND DEVELOPMENT 7.1.1

The Autonomous Province of Trento supports specific Research and Development projects aimed at creating **new local economic opportunities and jobs**.

These projects can be divided into two categories:

Industrial research: development of new knowledge related to new products, services, and processes. Experimental development: exploitation of existing knowledge to develop a demonstration prototype related to new plans, projects, or blueprints of products, processes, or services.

Requests may be filed by local companies, consortia, and research centres of medium and big enterprises. Eligible costs are related to the staff involved in the development of the project, the purchase of consultancy services and patents, the technical depreciation costs of tools and equipment related to research activities, and general additional expenses (up to 40% of staffing costs).

Financial contributions may cover eligible costs from a minimum of 20% to a maximum of 80% of the total amount. The maximum contribution is set at **3 million euros**, but the Local Government Council may accept derogations in the case of projects of particular interest for the local territory.

over a period of one year for research projects may be **exclusively covered for 20%** of their total amount through tax returns.

In all other cases, projects shall be presented beforehand, since they shall be subject to assessment and negotiation. Subsidies related to these projects are provided as non-refundable grants, according to the rules established by the Autonomous Province of Trento. In order to foster technology transfer from research institutions to enterprises, even projects that call for the hiring of researchers and technicians may be supported. The eligible expense amounts to the hiring costs of researchers for a period going from two to five years, in

line with the following ratios:

- the research institutions established in Trentino;
- research and academic institutions.

INTERNATIONALISATION 7.1.2

SMEs and their consortia headquartered in Trentino may benefit from the aid made available for projects aimed at entering new international markets. The following tools are available:

- Attendance to international trade fairs: in this case, up to 70% of costs (in case of joint a single enterprise willing to take part in an international fair, tax returns are provided for a total amount that goes from 50% to 30% of the costs, depending on whether it is the first time that the enterprise takes part to an international trade show.

Systemic marketing initiatives: 30% of costs related to joint missions abroad in non-EU countries or incoming initiatives may be covered, on the condition that they take place under the coordination of institutional bodies or cooperatives and consortia composed of more than ten enterprises. Tax returns may be provided to enterprises with more than 15 employees or in the case of requests filed by consortia or cooperatives. In the case of enterprises with more than 15 employees or business networks, non-refundable grants are also possible.



In particular, expenses between 25,000 and 100,000 euros incurred by small and medium enterprises

up to 50% of the costs related to the temporary hiring of researchers and technicians coming from

up to 60% of the costs related to the permanent hiring of researchers and technicians coming from

attendance) may be covered, for a total amount that goes from 5,000 to 150,000 euros. In the case of

- Internationalisation projects: 50% of the costs related to strategic analyses (competition, product placement, barriers, marketing channels, potential markets) and operational analyses (marketing plans, business plans, financing...) may be covered when related to internationalisation entrepreneurial projects in non-EU countries. In this case, contributions are provided in the form of non-refundable grants.
- Technical consultancy services: 50% of the costs incurred for consultancy or certification services may be covered when the marketing activity targets non-EU countries, while in other cases the contribution amounts to 40%.
- Human capital training abroad: in this case, not only SMEs may file a request but even big enterprises established in the Autonomous Province of Trento. Eligible expenses related to the permanent hiring of new young employees that shall be sent abroad to work of at least three months and a maximum of three years may be covered at 40% for projects involving non-EU countries, and 30% in all other cases.

7.1.3 BUSINESS DEVELOPMENT

Aid is provided to SMEs looking for targeted consultancy services related to business development and consolidation. Several areas are embraced: product innovation, product design, process and organisational innovation, quality, certifications, good practices in the prevention and reduction of waste, operational standards for higher environmental protection, market surveys, advertising campaigns development, operational and strategic marketing, information and telecommunication technologies, energy efficiency and energy consumption assessment, etc.

The contributions provided may cover between 15% and 50% of the costs, according to the type of service/initiative and the size of the enterprise.

These contributions are provided in the form of non-refundable grants, with the exception of the following activities that may be covered only through tax returns: innovation for the Family Audit certificate, certification, network contracts, energy efficiency and energy consumption assessment.



7.1.4 **BUSINESS STARTUP**

The Autonomous Province of Trento supports new entrepreneurship through dedicated incentives. In particular, from 2015 a new "Package of measures" simplified the regulatory framework, merging tools, identifying in Trentino Sviluppo the single point of reference and providing the opportunity to anticipate the subsidy, which is no longer granted only at the moment the final balance.

In 2015 and 2016, **714 applications were submitted (86% of which by young people and women)** with a private investment of over **60 million euro** and a public investment of around **29 million euro**.

Innovative startups are supported through specific and targeted measures

(see 3.7 Business start-up tools and 4.2 Innovative startups).

7.1.5 FIXED INVESTMENTS

Public aid is provided to foster the investments in **real estate**, **installations**, **equipment**, **machinery**, **patents**, **and purchase of know-how**, as well as all expenses that relate to initiatives that fall in the category of environmental protection activities. In order to make sure that the initiatives financed are reflected into social benefits, a set of conditions relating to the employment levels shown in the business plan shall be met. Contributions are mainly intended for entrepreneurial projects related to substitute and replacement activities, new initiatives and conversions, consortia and business networks, business quality, business innovation, and business growth.

Real estate investments: these may concern the **building**, **extension**, **or renovation** of buildings owned or under leasing contract; the purchase of real estate (which is covered only in the case of substitute and replacement activities related to a property disused for at least three years), the purchase by Trentino Sviluppo, or through collective procedures.

Investments in securities: furniture, furnishing, equipment, machinery, vehicles, installations, and patents (worth at least 1,000 euros).

In this case, financial aid is provided **to cover 15%** of costs but this ratio may be increased. Fixed investments are covered through tax returns for expenses up to **300,000 euros** (with the exception of new initiatives and business networks): **20% of the eligible expense** in the case of the replacement of polluting vehicles and occupational safety; **15%** for other investments. Investments in **environmental protection**: they range from interventions aimed at increasing the environmental protection within the enterprises (from 40% to 60% of eligible costs in terms of the extra costs involved), and measures related to improved **energy efficiency** (30% of eligible costs), to investments in **cogeneration plants** (45% to 60% of the additional cost of the investment compared to the standard cost of traditional plants), and investments in **renewables** (45% to 65% of extra costs).

7.1.6 BROADBAND

Investments for gaining **access to ultra broadband services**: in this case, all enterprises may benefit from a financial contribution for connecting to broadband networks that covers **50% of eligible costs** through tax returns.



7.1.7 INVESTMENT IN HIGH-TECHNOLOGY INSTALLATIONS

The **"Installations Fund"** is a **financial support** tool open to enterprises that invest in innovative technology installations and equipment.

It allows for the purchase of high technology machinery through Trentino Sviluppo under a regime based on **five-year leasing** contracts and, for new replacement initiatives, a two-year period of grace.

The enterprises benefitting from this kind of financing may receive financial support for their fixed investment **according to the rules on business** support of the Autonomous Province of Trento, in the form of compensation on the last instalment of their loan. Furthermore, Trentino Sviluppo may extend the payment deadline by recovering the interests due on the de minimis financing provided to the enterprise.

The "Installations Fund" is **open to all enterprises**, particularly newly established ones or enterprises replacing former ones, which operate in the real estate properties of Trentino Sviluppo. The installations of Trentino Sviluppo may be used in the forms of finance lease, ordinary lease or usufruct. Enterprises belonging to the mechatronics industry recognised by the Province and other industries identified and approved by the Province may also benefit from the fund.



TAX POLICY

7.2.1 IRAP

IRAP is the regional tax on productive activity. **For the enterprises established** in Trentino, an **exemption from the payment of IRAP is granted for the first five years**, both in the case of newly established enterprises and fully-fledged enterprises that decided to move their registered office to Trentino. Furthermore, the following exemptions on the IRAP basis of assessment are available:

- deduction of the amounts paid to the employees of private enterprises related to increased productivity, in line with the implementation of local and business agreements (maximum threshold: 5,000 euros per year per employee);
- deduction of the notional value of new equity capital (determined according to the provisions of art. 1 of Law Decree no. 201/2011 on Aids for economic growth, while the notional value is determined by adding a rate set every year by the Provincial Council to the equity capital;

deduction of the labour costs linked to the permetended solidarity contracts.

On top of these, the following tax deductions are possible:

- **deduction of 90%** of the contribution paid by Bilateral Bodies that provide wage support benefits, within the limit of 0.46% of the IRAP basis of assessment;
- deduction of 50% of the financing provided to Tourist Boards and Local Tourism Promotion Consortia, within the limit of 0.46% of the IRAP basis of assessment.

7.2.2 TAX CREDIT

Tax credit represents a **new tool to provide local** public funds to enterprises. It was introduced by the 2015 Finance Law, which allows for the use of advantages and concessions by local authorities to reduce the amount of taxes paid by enterprises.

Once the contribution owed to each applicant is established, the Autonomous Province of Trento does not pay **this contribution directly** to the enterprises but it rather notifies the applicant about the deductible amount, forwarding it to the Italian National Revenue Agency. **The pros of this approach** include **cutting red tape**, **reducing general taxation** for the enterprises that decide to invest, and the possibility to provide support to the small and medium enterprises that focus on innovation and quality.

Tax returns may be used in combination with all existing support tools provided by the Autonomous Province of Trento. Currently, its use is limited to the concessions established by Provincial Law no. 6/99, as outlined in the previous paragraphs.

deduction of the labour costs linked to the permanent hiring of workers following the initiative on



7.3 FINANCING AND ACCESS TO CREDIT

The Autonomous Province of Trento has launched a series of financial tools to support the economic and social development of Trentino. The tools available to facilitate access to credit for enterprises are listed hereunder:

- Trentino-Alto Adige Strategic Fund (FSTAA): an innovative tool, complementary to the traditional banking sector, to provide financing to enterprises.
- Revolving Fund: it combines public and private resources in equal measure to provide enterprises with financial resources at favourable interest rates.

7.3.1

TRENTINO-ALTO ADIGE STARTEGIC FUND (FSTAA)

FSTAA is a **territorial, multi-sectorial closed-end investment fund** for qualified investors. It is used to invest in debt securities. The fund has a duration of **ten years**. It currently amounts to **213.8 million** euros divided equally between the Province of Trento and the Province of Bolzano. It also includes resources coming from the **Pension Funds** that have signed a convention with the Trentino Alto Adige region, the two Provinces, the Region, their subsidiary companies, and **private qualified investors**.

The fund focuses **primarily on debt securities** issued by SMEs, micro-enterprises, or bodies/banks established on the territory that meet specific criteria. Its goal is to **develop financing sources** that are alternative/complementary to the ones provided by the traditional banking sector, in order to support SMEs (particularly after the so-called credit crunch).

The entrepreneurs whose enterprise has its registered office or operating headquarters established in one of the two Provinces may access the fund through the following financial tools:

- Minibond, project bond;
- Securitization;
- Export credit notes.

7.3.2 REVOLVING FUND (FRAM)

Public-private fund that can count on an equal financial contribution from the Autonomous Province of Trento and a group of partner banks, through which **companies gain a loan secured by Confidi** (consortium of local guarantee authorities).

The loan, with a maturity up to 15 years and the amount of a minimum of EUR 30,000 and a maximum of 2.5 million Euros, is granted for fixed investments, research and innovation projects, export or services. A maximum of 30% of the funding could be allocated to the increase of operating business conditions.

The funding may be activated through the concession of an interest break, consisting in **resetting the interest rate accrued** on the fund allocated by the Province. It may also consist in the granting of the guarantee of public resources provided by Confidi.

7.3.3 TRENTINO INVEST

Trentino Sviluppo, together with La Finanziaria Trentina S.p.A., Istituto di Sviluppo Atesino - ISA S.p.A. and Finanziaria Trentina della Cooperazione is a member of Trentino Invest, a **public-private partnership** (where the minority is held by Trentino Sviluppo and the majority is secured by private investors) which has the aim of **promoting the sustainable development of Trentino**, through actions and services aimed at supporting the **growth of entrepreneurship** and the innovation capacity through the provision of knowledge and capital.

The company's purpose is the **acquisition of equity interest in high growth potential companies** operating or willing to operate on the territory of the Province of Trento. Support requests, coming from **innovative entrepreneurial** firms such as from **spin-offs** and **startups**, as well as **established companies** with **high growth potential**, **are evaluated from time to time**. The investment in any single company shall not exceed the amount of **1.5 million** Euros per year.

7.3.4 **BUSINESS ANGELS**

To meet the demand for funding coming from the territory, financing supply is completed by the local Business Angels network. It is composed of **"informal" investors** in risk capital (the Italian definition of the English term "Business Angels"): former **business owners, working or retired managers**, who have financial means (also limited), network connections, strong managing skills, and sound experience. Business Angels know how **to manage a business** and they **wish to invest** in enterprises with a strong growth potential, **in order to obtain** a future return on their investment. Their goal is to **contribute to the economic success** of an enterprise and **create new jobs**. The Business Angels network of Trentino is headquartered in the facility of Trentino Sviluppo in Rovereto.

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8. INFRASTRUCTURES

8.1 ACCESSIBILITY

The main connection ways to access Trentino are the railway network, the **motorway network**, and the main road leading to the Brenner Pass.

Trento is located at a one hour drive from the Catullo Airport of Verona, one hour and 30 minutes from the Marco Polo di Tessera airport of Venezia, two hours from the Milano Linate airport, two hours and 30 minutes from Milano Malpensa, two hours from Bologna, and one hour and 40 minutes from Bergamo-Orio al Serio. The connection with the airport of Munich, main European hub for all international flights, particularly for those with destinations in the US and the Far East, should not be overlooked. The airport of Munich is located at a four-hour distance.



8.2 TRANSPORT AND LOGISTIC

The efficiency of the transport system is one of the key elements of a competitive economy. Not only does the transport sector represent a huge economic sector, but its interests are also strongly intertwined with those of the manufacturing and commercial system in its entirety.

For example, strategic choices related to the location and development of industrial activities must be based on the presence of **transport infrastructures.** Furthermore, technological developments in the field of transport (vehicles, infrastructure, management systems, etc.) have strong and widespread effects on all industries. **The Brenner motorway and the railway network** provide a swift connection with the main national and

international airports. In addition to the national **railway lines**, the connection with the smallest towns in Trentino is ensured by a series of bus services and a narrow-gauge train network.

The Brenner motorway allows for a fast connection linking the North to the South of Trentino, with exits

near the main cities and tourist destinations. Besides, the motorway plays an important role in supporting the activities of the intermodal logistics centre located 6 km north of Trento (Interporto di Trento), the "Quadrante Europa" logistics centre in Verona, and the main airports in the area. The motorway has two lanes for each driving direction, placed on separated carriageways and equipped with an emergency lane. The logistics centre of Trento is the reference hub for the logistics and transport sector in the Autonomous Province of Trento. Interporto di Trento is located at the centre of the way connecting the harbours and logistics centres of Northern and Southern Europe. This strategic position has provided the opportunity to develop an advanced logistics centre that represents the entry port to Italy and a perfect connection hub with the regions located in the North-Eastern part of the country. Interporto di Trento employs 1,300 people on a daily basis and it manages 14,000 customs operations every year. 86 enterprises have their offices in the area surrounding the centre. Trentino has three railway lines: the double track and electrified line that connects Verona with the Brenner pass on the North-South axis of Trentino, the single track and non-electrified line that connects Trento with Venice on the East, and the single track, non-electrified and narrow-gauge line that connects Trento with Malé, a town located in the North-West of Trentino. The current railway network covers in total 197 km.

8.3 BROADBAND

Digital infrastructure-wise, Trentino boasts a hybrid network with more than **1,100 km of optical fibre** and more than **700 wireless hotspots** that ensure a broadband connection for almost 100% of the population. This asset is crucial for the activation, provision, and successful use of innovative services for the whole territory, such as remote diagnostic procedures in hospitals, e-Health, etc. Currently, **57.4%** of households and **96.9%** of enterprises with more than 10 employees have a fixed or mobile broadband access. The Autonomous Province of Trento has set the bar very high with a new objective: creating the conditions needed to reach a real **"digital mountain"** within 2019, ensuring a connectivity at a speed of **100 Megabits** for people working with the Internet (all enterprises and professionals) and schools, and at least **30 Megabits** for households (with a final target of 50 Megabits). **Trentino Network** is the public funded company tasked with the development and management of the telecommunication networks of Trentino.



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ENERGY 8.4

In the energy sector, renewables account for almost 30% of users' energy consumption in the Autonomous Province of Trento, a share **three times higher** than the national one. Furthermore, the Autonomous Province of Trento has overshot by a good margin the target set by the National Action Plan on renewables, reaching already at the end of 2012 a cumulative power two times higher than the goal of **8 GW** of installed power foreseen by the National plan for 2020.

The main renewable energy sources available in Trentino are:

- **Hydroelectric power:** in this field, the Autonomous Province of Trento can count on a high number of hydroelectric power stations (152) and a gross installed power of 1,260 MW, which represents 8.7% of the total power in Italy. In particular, hydroelectric power meets more than 90% of the electricity demand of Trentino and accounts for 8.6% of the hydroelectric power installed in Italy.
- **Solar energy:** Trentino boasts a per capita solar surface seven times higher than the national average
- **Biomass:** in the Autonomous Province of Trento, biomass represents by far the renewable energy source that is most used after hydroelectric power. In this field, two supply chains play a crucial role: one linked to the **combustion** of woody biomass, the other related to **biogas**.





SOLAR ENERGY



ENERGY COST 8.4.1

The energy cost structure is partly determined by the Italian power exchange market, which applies the same conditions to the entirety of the national territory, and partly by the negotiations on the free market. Half of the tariff structure, 60% after tax, is therefore the same all over Italy. The remaining 40% varies according to the negotiations conducted on the free market, but also in this case the offer is guite homogeneous in the whole of Italy. Variations are mainly due to the energy scenario existing at a national level, therefore the tariff obtained depends mainly on the period during which the price negotiations took place.

On average, the final **cost of the energy bill** (tax included) in June 2015 went from **0,20 €/kWh to 0,23** €/kWh. By signing conventions or special agreements even lower tariffs can be obtained, while for high consumption volumes a discount of some percentage points may be applied on the 0.055% of the raw material price.



8. INFRASTRUCTURES







BIOMASS

9. TRAINING AND EDUCATION

Trentino stands out for its levels of secondary and university education, well above the national average, both in terms of the number of people with at least a higher education diploma (69% in Trentino in 2014 compared to the national average of 59.3%), and people with a university diploma (27.4% in Trentino compared to the Italian average of 23.9%). Furthermore, Trentino records a dropout rate (8.5%) lower than the national (15%) and European (11.2%) average as well as a modest rate of young NEETs (16.7% in Trentino compared to 26.2% in Italy and 17% in Europe).

9.1 **VOCATIONAL TRAINING**

Trentino's vocational training system provides working opportunities to young people by strengthening the bond between education, training, and employment. Training takes place both at school and in the workplace. Besides, various support tools are provided thanks to the Youth Guarantee, the commitment of schools in employment guidance, and the technical centres that complement the opportunities offered by schools, enterprises, and research centres.

Vocational training currently represents 25% of Trentino's educational offer, with 30 centres and 6,100 students enrolled in which the Autonomous Province of Trento invest every year more than 54 million euros. One guarter of the students finishing first grade secondary schools decide to enrol in vocational schools (32% in technical institutes, 44% in secondary schools). Students in the 16 to 27 age group who finish their studies and obtain a diploma or vocational qualification have a 85% chance of being in employment. Vocational education and training also offers a cultural enrichment opportunity for young people, combining it with courses aimed at enhancing their technical and professional skills. Training curricula are based on workshop activities developed in strong partnership with manufacturing enterprises, and on several internship and school-work education opportunities. Vocational qualifications are issued at the end of a three-year programme and they are useful to immediately enter the labour market. By attending an additional training year (fourth year), a vocational training diploma can be obtained and exploited to seize technical and operational employment opportunities that require a higher level of autonomy and responsibility. People who have obtained their diploma have the possibility to attend a targeted programme of the duration of one year that provides training to undertake a final vocational training National exam.

LIFELONG LEARNING 9.2

The **Employment Agency** supports the training programmes organised by enterprises to provide training to their employees, owners, partners, or assistants (including non-permanent employees) with specific funds at its disposal, in order to foster further integration, upskilling, and the professional development of workers, contributing to the stabilisation of the labour market and the competitiveness of enterprises.

- Training for employees (so called lifelong learning);
- Training for newly-hired employees;
- Training for apprentices.

Lifelong learning initiatives include:

Outsourced individual professional update initiatives for workers (with a contribution up to 80% of the expenses), with a targeted programme that aims at developing professional skills to introduce new management or manufacturing methods, as well as innovative technologies.

9.3 **UNIVERSITY OF TRENTO**

Trentino hosts one university, the University of Trento, which has 10 departments, 3 centres, and 57 degree programmes. The University employs 600 professors and researchers and is attended by more than **16,000 students**, representing a reference point for education and training at national and international level. Furthermore, it plays a pivotal role in transferring academic knowledge to the manufacturing and business sector. The University of Trento was established by Bruno Kessler in 1962 as a Higher University Institute for Social Sciences. Over the years, new departments were added: Natural Sciences, Economics and Trade, Literature and Philosophy, Law, Engineering, and Cognitive Sciences. Currently, it is structured as follows:

- the departments of Sociology and Social Research, Economics and Management, Literature and Philosophy, Law, and the School for International Studies, located in the University Pole of Trento;
- the departments of Physics, Mathematics, Environmental and Mechanical Engineering, Industrial hills surrounding Trento.
- the department of Psychology and Cognitive Sciences, located in the University Pole of Rovereto.

The University of Trento ranks at the top in the list of Italian universities, boasting a second position in the general ranking of State universities.

Among the assets of the University of Trento is its strong **attraction** potential, highlighted by the high number of students coming from other regions, the total number of eligible candidates who received study grants, the good percentage of university credits obtained by its students abroad, the excellent marks received by its research products, and the ability of its professors to obtain funds for research projects.

- Individual training initiatives to foster workers' further specialisation (with a contribution up to 80% of the expenses incurred to attend the programme), which are aimed at introducing new processes of innovation and internationalisation in the enterprise.
- Collective professional update initiatives for workers (with a contribution up to 80% of the expenses), which shall support the processes developed within the enterprises to promote smart specialisation, technology innovation, management and social innovation, as well as internationalisation.
- Training courses to enhance occupational safety and health.

Engineering, Information Technology engineering and sciences, located in the University Pole on the

10. RESEARCH ENVIRONMENT

In Trentino, investment as a percentage of GDP is well above the national average, while being in line with the European average. As for research and higher education, Trentino can count on the activities of several players active in the sector (university, foundations, research centres) recognised at an international level.

The Autonomous Province of Trento has set out a multi-annual research programme that ensures a coordinated scheduling for the initiatives carried out in this sector, identifying objectives, guidelines, priorities, and assessment criteria.

These are the strategic aspects on which research focuses:

- **connections** with the manufacturing and business world and local effects;
- **international openness** and regional, national, and European partnerships;
- **local research actors:** synergies, excellence, and creation of a critical mass of researchers;
- social innovation;
- **enhancement** of human capital and talents;
- **bond** between research, innovation, training, and education;
- improvement-oriented assessments.

TRENTINO: A TRUE RESEARCH CENTRE 10.1

In a national landscape divided between ordinary Regions and Regions/Provinces with special statute (and therefore endowed with specific powers and resources), the research and innovation system of Trentino represents one of the pillars on which the entire autonomy concept was built.

In this context, the Autonomous Province of Trento plays a coordination and negotiation role among the players who promote scientific research and those who benefit from it, placing itself both as a promoter and user of research with the aim of supporting development. That is considered critical to the pursuit of its institutional interests and goals.

In particular, Trentino excels at national level as an area with a strong will to **invest resources in research** and development, with investment levels around 1.84% of GDP (2013), well above the national average (1.31%) and in line with the European average (2%).

The total number of professionals involved in research and development is **3,526 people**, which represents 2.4% of the active workforce, once again well above the national average of 1.5%. The ratio of research and development professionals per 1,000 inhabitants is 6.7, compared to a national average of 3.8, with a percentage of human resources employed in the field of science and technology on the active population that reached **34.9%** in 2012, compared to figures of **32.9%** and **40.9%** at national and European level respectively. The public research and innovation system of Trentino is an asset for the whole territory, with **1,800 professional** in 2011 and a public expenditure for research and development that amounts to **163 million euros.** Of those, **89** millions are provided by public institutions and **74** by the University. This expenditure represents 1.01% of the GDP of the Autonomous Province of Trento, above the national (0.54%) and European (0.74%) average, and 49.47% of the total expenditure in R&D (above the national and European ratios of 49.47% and 37.08% respectively). Locally the knowledge system of Trentino is well structured. It is characterised by a high degree of specialisation in several technicalscientific disciplines, with more than 40 international research centres and groups.

The public research system focuses on the following priority fields:

- **The environment**, natural resources management, and sustainable production;
- **Biotechnology,** genomics, and computational biology;
- Neuroscience and cognitive sciences;
- Materials sciences;
- Information and communication technologies.



10.2 FBK - FONDAZIONE BRUNO KESSLER

The Bruno Kessler Foundation (Fondazione Bruno Kessler - FBK) is active in the field of science (both technology and humanities). It employs over **400 researchers** and is involved in more than 20 partner research centres, startups, and spin-off firms. FBK is interested in **scientific excellence** and in making a tangible return on research investment for the local community. FBK organises training and information sessions on issues related to science and technology, works in partnerships with other players in the framework of European and international projects, develops **innovation projects** to promote technology and knowledge transfer, and **supports** industrial research activities. Over the last 5 years, more than **600 initiatives** have been carried out. FBK leading sectors include: materials analysis, silicon micro-device manufacturing, design of energy sparing systems, creation of innovative information systems.

Among the research centres operating inside FBK are ICT - Centre for Information Technologies, CMM -Centre for Materials and Microsystems, ECT - European Centre for Theoretical Studies on Nuclear Physics and Connected Sectors, CIRM - International Centre for Mathematical Research, ISIG - Italian-German History Institute.

10.3 FEM - EDMUND MACH FOUNDATION

Since 2008, the Edmund Mach Foundation (Fondazione Edmund Mach - FEM) has provided a follow-up to the activities and goals of the Agricultural Institute of San Michele all'Adige, which was established in 1874. It is a prestigious institution with almost 350 employees divided among researchers, professors, technical experts, and testers. Over the years, FEM has achieved remarkable international results in the fields of education, training, research, and technology transfer in the sectors of agriculture, agrifood, and the environment. Located 16 km north of Trento in the municipality of San Michele all'Adige, the three centres of the academic campus of FEM cover 14 hectares with their classrooms, greenhouses, laboratories, and offices, and they can count also on 70 hectares of green areas. In addition to the Education and Training Centre that is tasked with activities of education, training, and upskilling in agriculture, agrifood, the environment, and forestry management, FEM also includes a Research and Innovation Centre, a qualified international research centre that has launched several research projects and innovative technology platforms in the sectors of computational biology, metabolomics, functional genomics, isotopic analysis, GIS climate analysis, and remote sensing. Finally, the Technology Transfer Centre of FEM represents the facility of the foundation with the largest disseminated presence on the territory for its activities of applied research and testing, services, and consultancy services provided to the agro-forestry and environmental fields.

Partners of FEM include, among others, **Foxlab**, European Institute for Forests, Laboratories for the quality of water.

10.4 UNIVERSITY AND OTHER RESEARCH CENTRES

In the field of research the University of Trento **ranks first** in Italy among medium size universities. An evaluation exercise carried out by the National Agency for the Assessment of University and Research assessed the scientific products issued by **133 facilities** placed all over the national territory, including university structures (95) and research institutions (38). In this assessment, the University of Trento recorded a mark over the national average in **11 of the 16 sectors evaluated**. **More than 1,500 "research products"** (patents, publications, software) coming from the University of Trento were evaluated. **72%** of them entered the two top class categories **(excellent and good)**. Seven departments and centres ranked first, second or third in their category. The Department of Civil Engineering, Environmental and Mechanical Engineering, and the Interdepartmental Centre for Mind/ Brain Sciences - CIMeC ranked first.

Among the specialist research centres of the University of Trento, the following are for sure worth mentioning:

- Center for Integrative Biology (CIBIO) for issues related to genomics and neurobiology,
- Center for Biomedical Technologies (BIOTech) for regenerative medicine studies and biomedical physics,
- Centre for Computational and Systems Biology (COSBI), bioinformatics research centre established in 2005 in partnership with Microsoft Research;







- Interdepartmental Centre for Mind/Brain Sciences (CIMeC), specialising in cognitive sciences;
- University Centre on Smart Buildings (CUNEDI);
- National Institute for the Physics of Matter BEC centre.



Other important research and innovation bodies operating at national and international level are:

- The units of the Italian National Research Council: the Institute for photonics and nanotechnologies (CNR-IFN); the Institute of Biophysics (CNR-IBF): the Institute of materials for electronics and magnetism (CNR-IMEM) for studies and technologies related to nanomedicine; the Trees and Timber Institute (CNR-IVALSA): the Institute of Cognitive Sciences and Technologies; the Institute of Agro-Environmental and Forest Biology (CNR-IBAF);
- The Local Agency for the implementation of a Proton Therapy Centre (ATREP), specialising in the research and innovation of the treatments for some forms of neoplasms;
- Create-NET, an international research centre in the field of ICT and telecommunications. which identified key innovation sectors that are strictly related to the quality of life ("Smart Infrastructures", "Sustainable Mobility", "Healthy Living and Well being");

- Graphitech Foundation (Fondazione Graphitec), a research centre in the field of advanced computer graphics, mixed reality, and largescale visualisation systems for geographical data:
- European Research Institute on Cooperative and Social Enterprises (EURICSE), a research foundation that was established to develop and disseminate knowledge and innovation processes among cooperatives, social enterprises, non-for-profit organisations, and commons;
- National Institute of Nuclear Physics (INFN);
- India-Trento programme for advanced research - ITPAR:
- Laboratory for Applied Ontology (LOA);
- Research unit for Forestry monitoring and planning (CRA);
- Muse.

Among the private research centres operating in Trentino, the following ones are the most noteworthy:

- Centro Ricerche Fiat;
- Centro Ricerche Ducati Trento;
- Bonfiglioli Mechatronic Research;
- DANA Mechatronic Technical Center.

KIC - KNOWLEDGE AND INNOVATION COMMUNITY 10.5

KICs are highly integrated and excellence driven partnerships operating in various sectors considered strategic by the European Union and acting through the European Institute of Innovation and Technology (EIT). KICs aimed at building medium and long-term excellence networks that effectively include the main actors of the knowledge triangle, in order to create new business with strong social impact, educate and develop entrepreneurial spirit in a specific sector. Within KICs, established companies, universities and research centers work closely to create more efficient and innovative solutions for the European system. So far, EIT has launched six KICs in different subject areas. The Province of Trento is one of the core partners of the **winning consortium of the KICs** operating in the following areas:

- and Eindhoven. Inside the Italian partnership, besides FBK, the University of Trento and recently Trentino Innovation Hub (HIT), there are also partners belonging to the business world, such as Telecom, Engineering, Post, Reply, STMicroelectronics, and CEFRIEL;
- manufacturing and urban mobility.

CTN - NATIONAL TECHNOLOGICAL CLUSTER 10.6

CTNs are public-private groupings formed by companies, universities, public and private research institutions, technology clusters, which are present in different Italian regions and focus on a specific technology or application area of strategic interest for the industrial system in the country. Over the past three years, the eight existing CTNs have been launched and financed by the Ministry of Education, University and Research (MIUR), even starting from districts and existing science and technology parks. HIT, according to the shareholders and the guidelines of the Province of Trento, acts as a unitary representation of the area inside CTNs governance organs and promotes the presence and the involvement of local actors (research centers, universities and enterprises) in projects and activities funded by CTNs. HIT has already been part of the governing bodies related the following areas:

- Agrifood;
- Intelligent Factory;
- Technologies for the living environment;
- Technologies for Smart Communities.

In 2016, The Ministry of Education, through a new announcement, tried to strengthen and complete the national CTN policy, fostering the emergence and the development of **four additional areas of strategic interest**.

ICT: in this case **Trento** also hosts the national co-location center of **KIC** Digital (Povo - FBK), one of the European innovative computer industry hubs as well as London, Paris, Berlin, Helsinki, Stockholm

Commodities: HIT is a core partner and participates, together with its members, in the activities of the KIC. HIT is connected with the South Europe node of the KIC, which is based in Rome and is coordinated by ENEA. In the two-year period 2017-2018 EIT should launch new initiatives targeted to the establishment of **two new KICs** dedicated to the following thematic areas: value added

11. LIVING IN TRENTINO

Trento is one of the provincial administrative centres with the best quality of life in Italy and Europe, as many socio-economic indicators have shown over the years (i.e. perceived sense of security, life satisfaction, and employment levels).

Trentino's welfare system is in line with the most advanced policies in Europe, ensuring a long life expectancy in good health and a high level of satisfaction for healthcare services.

The community is characterised by a strong sense of belonging, solidarity, and social cohesion, which translates into a widespread popularity of voluntary work and cooperative movement even in the production and manufacturing system.

The natural environment is an excellence of the territory, thanks to low levels of air pollution, dirt, and traffic, and to the unique natural features such as the Dolomites, a World heritage site recognised by UNESCO.

11.2 SUSTAINABILITY AND ENVIRONMENT

Environmental sustainability is a horizontal theme that pinpoints the production and manufacturing system of Trentino. Between 2008 and 2013, the rate of **enterprises that invested** in green products and technologies was among **the highest in Italy**. Furthermore, the Trentino-Alto Adige region **tops the national ranking** based on the green economy indicators developed by **Fondazione Imprese**, which combined 21 performance indicators on energy, business, agriculture, tourism, construction industry, mobility, and waste management.

Among the most significant initiatives promoted in the field of green economy and sustainability with the support of the Autonomous Province of Trento, it is worth mentioning **Habitech** (the technology district of Trentino on the issues of energy and the environment that works in the fields of energy, mobility, and the construction industry), the **Green Building Council**, and **Progetto Manifattura**, a business hub devoted to energy and green tech.

Considering recreational activities, it is important to mention the local **network of cycling and pedestrian paths**, a sound and visible infrastructure that covers more than **430 km** of the main valleys of Trentino that has become an important tourist attraction for several types of open-air activities, sports, alternative and active travels and holidays that feature the bike as the main transport mode. Some of these paths are also **listed in transnational routes** (i.e. the **"Via Claudia Augusta"** route) and national routes **(i.e. Ciclopista del Sole)** which are included in special guides and attract a lot of tourists during the summer season.

11.1 SECURITY AND QUALITY OF LIFE

Trento is the province in Italy that recorded the best quality of life in 2015.

Since 1999, Trento ranks consistently among the best Italian provinces and, during the 17 editions of this survey, it has never slipped below the 7th position, conquering **the first place in 2002 and every year from 2011 on**, and the **second place in 2000, 2003, 2006, 2007, 2008, 2010 and 2016.** The result of this year therefore does not come as a surprise, since it is the outcome of specific structural conditions that have been characterising the province of Trento for the last 10 years.

Trento is among the provinces in group 1 for seven areas of the nine listed (business and employment, environment, crime, social discomfort, population, financial and school services, leisure), in group 2 for the standard of living, and in group 3 for the health care system.

In **2014 and 2015 BES** reports (Fair and Sustainable Wealth), the Autonomous Province of Trento ranked on top, according to the **121 indicators** used to **measure economic wealth**, **education and training, safety, and the quality of services**, confirming the **high level** of socio-economic **wealth** and a generally high level of satisfaction.

11.3 CULTURE AND LEISURE

Trentino boasts a first-class cultural offer: **MUSE**, **the new Science Museum designed by Renzo Piano**, represents an excellence hub to popularise science; **MART**, the Modern and Contemporary Art of Trento and Rovereto, is one of the most important museums of its kind in Europe. Rich collections of cultural items are on display at the **Castle of Buonconsiglio**, covering the sectors of archaeology, medieval art and painting, as well as the **castles of Beseno**, **Stenico**, **and Thun.** The **Museum of customs and traditions of the people of Trentino** in San Michele all'Adige illustrates the work, art, and devotion to rural life in the Alps.

The offer is completed by a number of international cultural initiatives, starting with **Festival dell'Economia** (Economics Festival) economists, politicians and representatives to discuss and ponder the main economic **Oriente Occidente**, one of the most which is organised every year in Rovereto (the and to I **Suoni delle Dolomiti**, an event from all over the world in the most beautiful

11.4 ASSOCIATIONS AND VOLUNTARY ORGANISATIONS

In Trentino, one citizen out of ten devotes his or her time and passion to the community. Voluntarism and social commitment organisations involve more than 45,000 citizens and cover the main sectors of community life: assistance to the elderly, new mothers and children, healthcare, civil and environmental protection, sports and culture, tourism and landscape enhancement activities. Associationism and voluntarism, fuelled by the peculiar historical and geographical features of Trentino, give concrete expression and visibility to the concept of territorial community and its core values: cohesion, sharing, and openness.

The search for common answers to needs and situations that cannot be tackled individually has led to the establishment of **sound networks of cooperatives** that became an incentive and a way to do business. This approach makes it possible to meet the current challenges created by competition through the efficient use of human and financial resources, both in local public administrations and in private enterprises, with a particular attention to the sectors of care for the elderly, new mothers, and children, healthcare and civil protection, with levels of involvement (22.2% in 2013) that are well above the national average (9.40%).

11.5 HEALTHCARE SYSTEM

The healthcare and welfare system of Trentino represents an excellence not only at national level but also in Europe, contributing to push the Autonomous Province of Trento to the top of national and international rankings in the fields of well-being and quality of life. The sector provides a local added value of 10% (1,088 million euros) and includes 188 enterprises registered with the Chamber of Commerce, Industry, Crafts and Agriculture. The territory has 17 hospitals (public and private) and 13 certified social and healthcare facilities, for a user pool of 538,000 people (15% of which are under 15 years and 21% over 65 years). An essential contribution to overall well-being and quality of life comes from the hightened sense of social responsibility and general 'voluntarism'; especially as regards assistance to the old, to new mothers and their infants as well as from health and civil protection measures with levels of active involvement being very high - 22% in 2013 - well up against a national average of 9.4%.

11. LIVING IN TRENTINO







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