

TRENTINO

Innovation, economic dynamism, financial and administrative reliability, social cohesion and quality of life.

TO BE SMALL MEANS GREAT THINGS

Trentino, the ideal destination for international business

Trentino, quality of life and authentic experiences

Trentino, research and innovation

Trentino, a leader in sustainable building and renewable energy in Italy

Trentino, the cooperative movement and international solidarity

Trentino, lying in the heart of Europe

A frontier land, which has achieved a perfect balance between its Italian traditions and Austro-Hungarian past, Trentino lies in the heart of the Alps, mid-way between two of the most highly developed areas in Europe: the Po valley and Bavaria. With its 533,000 inhabitants and solid economic base, today Trentino offers levels of wellbeing and quality of life which are among the highest in Italy and Europe. Its unique geographical position makes the area a natural production and technology platform for international business and an ideal trading hub between Southern and Continental Europe.

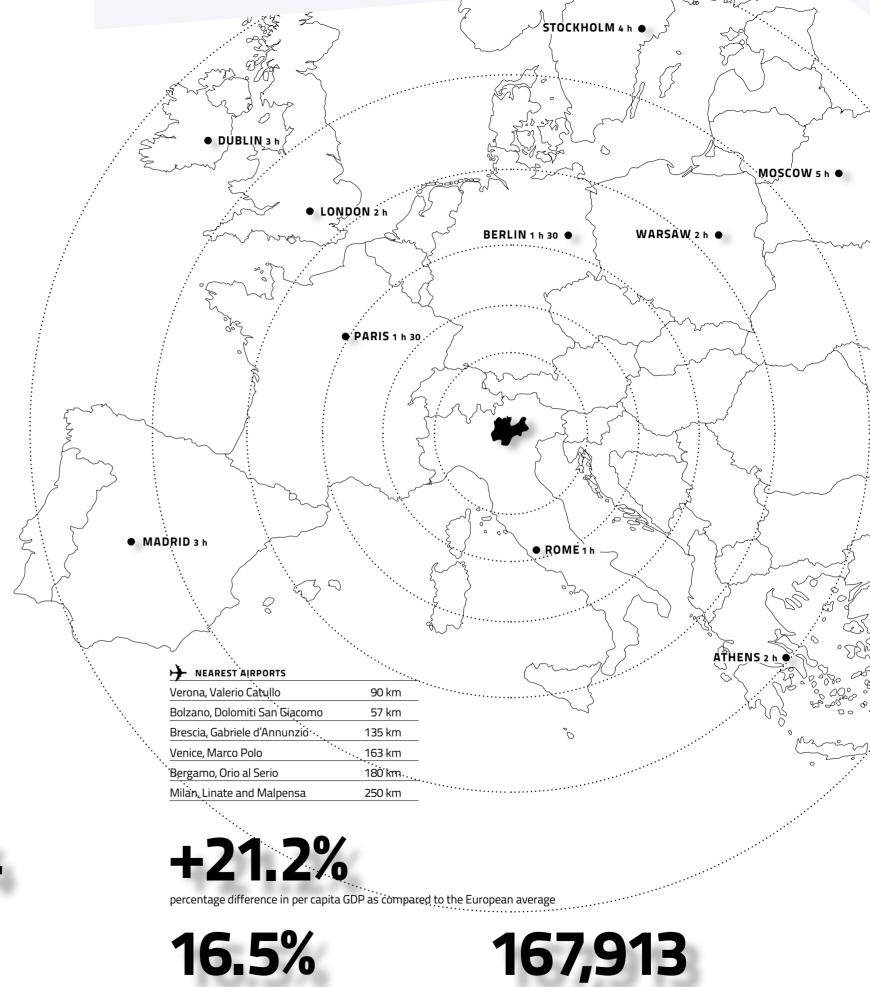
6,206

38,552

533,394

84.6

population density per square kilometer



of the area is subject to environmental protection

eds in the area in hotels and other types of accommodation

Efficiency and responsibility as key cultural attributes of the territory

The Autonomous Province of Trento can claim a truly unique historic and cultural identity, codified in the form of a special institutional autonomy granted after the Second World War (1946) in a specific agreement signed by Italy and Austria. In Trentino all the most important political decisions are taken locally, rather than being referred to central Government; hence economic decisions are made rapidly, on the basis of the specific characteristics of the area and with the objective of promoting excellence. Bureaucratic procedures in Trentino, streamlined and effective, also benefit from Provincial autonomy and are inspired more by the bureaucratic system in the Anglo-Saxon world than by the Mediterranean model, guaranteeing rapid and effective responses according to a clearly defined timescale.



www.provincia.tn.it www.investintrentino.it

autonomy and its role as a driving force for development and innovation

The characteristics of Trentino's

Trentino's special Statute of Autonomy - in effect since 1948 - grants the Autonomous Province direct legislative, administrative and financial jurisdiction in fundamental areas, including education, health, industrial policy, transport, the University and tourism and allows it to manage 90% of direct and indirect income collected within the Province. The financial resources and wealth produced remain within Trentino and are managed by the Provincial Government. Autonomy has thus allowed the Province to plan its own development and to transform the public administration into a system for organising and providing services, able to adopt the same approach as the best private companies. This is oriented towards providing the best possible quality in terms of results and the services offered, responding rapidly to the requirements of resident-users, ensuring the economic and financial reliability of companies and Provincial bodies and stimulating and supporting private enterprise through services and strategic long term investment.

Trentino: an autonomous, cohesive and competitive community

In Trentino one out of ten residents dedicates time and enthusiasm to the community. Volunteer work and social commitment sees the involvement of over 45,000 people in all the main fields of public life: assisting the elderly, supporting mothers and children, health, civil defence and environmental protection, education and training, sport and culture, tourism and care of the mountain environment. This wealth of associations and volunteers is the result of Trentino's unique historical and geographical background, a background which has made the concept of the local community and its underlying values, namely cohesion, sharing and hospitality, into something concrete and clearly evident. The search for common answers to needs and requirements which cannot be dealt with individually has led to the creation of a solid cooperative movement networks in the Province. These have acted as a stimulus and breeding ground for new ways of doing business, responding to the current economic challenges in terms of competition, through more efficient use of human and financial resources, both in the public sector and in private businesses within the Province.

0/10

of tax income produced locally remains in the Province, thanks to the Statute of Autonomy

linguistic minorities:
Ladin, Cimbrian and Mocheni



signing of the Degasperi – Gruber agreement which gave special autonomy to Trentino





Trentino's development and investment strategies

In terms of development strategies, the Autonomous Province of Trento pursues a policy of constant modernisation, growth and international openness with hard determination

Financial and legislative autonomy has facilitated the planning of investment and

Telecommunications infrastructures

Thanks to extraordinary efforts made in this field by the Autonomous Province of Trento (through the "Trentino Digitale" project) a fibre optic system almost 800 km long and reaching all the municipalities is in the process of completion, supplemented by a wireless network with more than 700 access points, to reach even the most remote corners of the Province, such as mountain refuges for example. By the end of 2013 Trentino will be the only Province in Italy in which 100% of the population has access to broadband services and an advanced telecommunications infrastructure providing connectivity services at a speed of 20 mbps to businesses and residents. The new communications structure proposes to be one of the most extensive in Europe and will make it possible to offer innovative services, such as telediagnosis for hospitals and a single digital health system capable of managing prescriptions, clinical records and examinations. Businesses will be able to offer and benefit from innovative services and young people will have the chance to access opportunities for "world-wide" knowledge.

2012

TRENTINO: STRUCTURAL INDICATORS Trentino Italy

	Trentino	Italy	EU15
Per capita GDP in PPS	€ 29,677.77	€ 25,928.12	€ 25,491.19
Employment rate	65.5%	56.8%	65.2%
Unemployment rate	6.2%	10.7%	10.6%
Unemployment rate for young people (aged 15-24)	20.5%	35.5%	22.3%
Activity rate	70.2%	63.7%	73.0%

strategic projects related to the main competitive resources for the Province

Transport infrastructures for sustainable mobility

Encouraging movement between the main urban centres, particularly those along the Adige valley, lateral valleys and locations in the mountains, in a rapid, safe and ecologically sustainable way is one of Trentino's priorities. For this reason considerable attention is paid to railway transport, which today already links Trento with the two most heavily populated valleys, the Valsugana on one side (with a rail link continuing up to Venice) and the Non and Sole valleys on the other. In the future ever increasing attention will be paid to this means of transport, reinforcing rapid rail links, largely through tunnels, which will go from the valley floor through the mountains, to reach towns scattered all over Trentino. The same objective is promoted through significant investment in reinforcing the system of road links alon<mark>g valleys, wi</mark>th scrupulous respect for environmental compatibility, and through the extraordinary commitment of the Provincial Government to doubling the Brennero railway link, with a view to the creation of the new base tunnel which will link Alto Adige to Austria. Once work has been complete<mark>d, it will be p</mark>ossible to increase the number of trains passing daily (from 130 to 400) and hence the development of hi<mark>gh speed railw</mark>ays, allowing the growth of intermodal transport and integration of Trentino's economic and territorial system within an extended Europe. Trentino is also served by Verona airport, one of the most important airports in North-Eastern Italy (the Autonomous Province of Trento is a shareholder).

Research & Development

Financial and legislative autonomy has facilitated the planning of investment and strategic

Trentino takes pride in its high public investment in research and development. Overall, taking into account public institutions and the University, this totals 150 million euro a year, representing 2.03 per cent of GDP. There are 6 people working in the field of R&D per 1,000 residents (as compared to the Italian average of 3.7 per 1,000). In Trentino almost 190 million euro a year is invested in research and development activities in both the public and private sector (businesses, research institutes and non-profit-making institutions), with a system of business incentives for investment dedicated to companies which is unparalleled in Italy and in Europe.

for some time the Autonomous Province of Trento has considered the streamlining of administrative procedures and the computerisation of services for businesses and residents to be essential for recovering competitiveness in terms of pursuing greater organisational efficiency at a lower cost. As regards computerisation and reducing the time necessary for bureaucratic procedures, in recent years concrete and significant forward steps have been taken. For example, in 2008, 53% of administrative procedures were completed within 90 days, whereas in 2012 the figure had increased to 86%. The extraordinary plan of action underway to reduce bureaucracy for businesses (with a reduction of 25% in the "costs" of procedures for companies) provides for increasingly extensive use of telecommunications technology, continuing simplification of procedures, particularly in sectors considered to be strategic (including aid for businesses, families and agriculture) and payment of creditors by the public administration within 30 days of

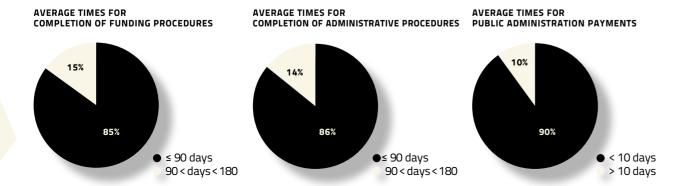
Innovation in the public administration:

termination of the procedure.

projects related to the main competitive resources for the Province

In 2013 the budget of the Autonomous Province of Trento

was 4.1 billion euro. The ratings given to the Trentino financial system remain higher than those given to the Republic of Italy, demonstrating the financial reliability of the province, even in the context of the difficult international crisis underway. The Trentino business system has shown itself to be solid and active, making it possible to gather and make use of substantial investment destined to support strategic entrepreneurial and area development projects, an increasing number of these being directed at safeguarding the environment, sustainable development and the promotion of new businesses. The financial reliability demonstrated by the Autonomous Province of Trento and its associated companies represents a particularly important asset for international companies and investors interested in operating in Italy.



A dynamic & international business fabric

Trentino has a dynamic economy, open to innovation and increasingly also to foreign markets. The economic fabric is based mainly on small and medium-sized businesses – there are around 39,000 active enterprises, almost one for every 10 inhabitants – organised within a network and united by a long-standing tradition of cooperative societies. In Trentino, the economy is based on people, their ideas, values and cultural and professional skills. At industrial level, Trentino is characterised by a relatively diversified system in terms of the types of products realised and the levels of specialisation. From ICT to mechanics, food and agriculture, sustainable building and woodworking, Trentino's economic system has succeeded in achieving recognised excellence in terms of innovation and market quality in many areas of production. With an excellent balance between tradition and innovation, local business people have not abandoned the strong ties with their land of origin but have demonstrated an increasing capacity for dialogue with the world, bringing together artisan skills and the search for quality at the highest level. www.trentinosviluppo.it

Trentino is undoubtedly the optimum place for doing business in Italy

Trentino can boast the lowest taxes in Italy, in addition to a particularly advantageous system of support and incentives for companies and investors. These conditions have been achieved by fully exploiting the margin of manoeuvre permitted by autonomy and by reducing the tax imposed on production (so called IRAP tax) activities to the greatest possible degree.

Excellent climate for investment

A number of key factors underline the appeal of Trentino for international business: a highly competitive tax regime; a user-friendly bureaucratic system with a considerably simplified system of administrative procedures; stable government ensuring reliable references and targeted decisions for the establishment and future evolution of businesses; a tendency for public and private investment to be higher in the Province than in other Italian Regions or in countries such as Austria and Germany; a system of infrastructure links, roads and technology at the highest level

www.investintrentino.it

DISTRIBUTION OF TRENTINO EXPORTS BY SECTOR 2012 10.2% means of transport 4.4% electrical appliances 22.1% mechanical products 6.5% steel industry and metal products 17% food and drink 7% rubber and plastic 8.5% paper and wood 14.6% other sectors 9.7% chemical products

LIVING AND WORKING IN TRENTINO:

63.8%

level of satisfaction with economic conditions

2012

THE IDEAL ITALIAN PROVINCE FOR DOING BUSINESS

2nd	Trento				710
14th	Verona			670	
27th	Milan		(658	
56th	Turin	5	97		
63rd	Rome	564			
71st	Bari	538			

Source: Confartigianato (L'indice della qualità della vita dell'impresa)

A package of targeted incentives to encourage the setting up of foreign businesses in Trentino

The Autonomous Province of Trento has also made use of its jurisdiction to pass a unified business law (no. 6 of 1999) which provides for a specific package of measures to attract business to the territory and incentives for operators and international investments. The main incentives are designed to support investment in production by SME's, above all for investment in research carried out by companies in order to become more competitive. Businesses investing in innovative research and development projects can benefit from grants ranging from 20% to 80% of the capital invested. In specific cases it is also possible to benefit from profit-participation loans for recapitalisation, relocation costs and intervention for the recovery, restructuring and conversion of established and stable businesses in Trentino.

> www.apiae.provincia.tn.it www.investintrentino.it

647.58 million euro private sector expenditure funded in 2012 for fixed investment in services, research and development

Funding for investment	from 7.5% to 30%
Research and development	up to 80% for industrial research; up to 60% for experimental development
Consultancy	up to 70%
Export and internationalisation	70% initial participation at international trade fairs; 50% for subsequent participation
Young and women entrepreneurs	50% of start-up costs
Consortia and business networks	up to 60% of increase in investment funds

Subsidised spaces for international companies

Through Trentino Sviluppo Spa, the development agency of the Autonomous Province of Trento, it is possible to have access to production or office space which is subsidised or provided at advantageous rates. Together with production structures set up throughout the Province, Trentino Sviluppo also manages a series of modular business incubators, the Business Innovation Centres (BICs), and a science and technology park, providing additional services which may be difficult to obtain for individual businesses, especially small companies, in addition to spaces on advantageous terms.

Trentino Sviluppo, a reliable partner for international projects

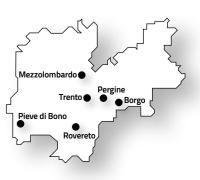
The Autonomous Province of Trento has equipped itself with a specific organisation to support projects and initiatives from and towards foreign countries, through dedicated organisations, policy and services. Trentino Sviluppo helps companies to set up in Trentino, offering personalised consultancy and support services, also through the newly created Internationalisation Help Desk. Furthermore it provides Trentino companies with promotional, information and sup-

www.trentinosviluppo.it

port services in order to encourage international openness and development.

STATISTICS FOR BICS	2012
B.I.C.	6
Companies set up on 31.12.2012	91
Number of employees	667
Survival rate	92%
Average permanence of companies*	4.18 years

^{*}calculated for Rovereto BIC, operational since 1988



TRENTINOSVILUPPO

Specialist business sectors in Trentino



Mechanics and mechatronics

This is the business sector employing the largest number of workers in the Trentino manufacturing industry. There are around 9,700 workers in this sector, with just under 800 companies operating in the field. Mechanical companies make an important contribution to Trentino exports.



Transport and logistics

More than 1,250 businesses operate in this sector, which has a significant influence on employment, providing almost 10,000 jobs, and on the international dimension of the whole Trentino production chain.



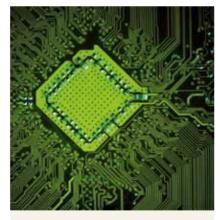
Renewable energy and energy efficiency

The last year more than 88 GWh were produced from renewable energy sources in Trentino, as compared to the European average of 17.7 (EU 15). This is also thanks to the contribution of a dynamic, technologically advanced business system, particularly open to internationalisation.



Sustainable wood construction

In Trentino the construction sector generates a turnover of over a billion euro and added value representing around 8% of the Provincial total. In this framework, businesses oriented towards sustainability and those promoting the use of wood as a primary construction material have a growing influence.



Advanced services industry

In Trentino the specialist private service sector contributes considerably to the economic competitiveness of the area and to the creation of added value.

More than 2,500 businesses are involved in providing information, financial, consultancy and marketing services and support for research and development, with more than 12,000 employees.



Information and communications technology and electronics

The turnover of the approximately 1,000 ICT companies operating in Trentino exceeds 530 million euro. There are 4,500 workers in the sector, with an average turnover per worker of around 118,000 euro. The entrepreneurial fabric interacts constantly with the Trentino research and training system.

Alpine technology and articles for the mountains

In Trentino more than 60% of the terrain is situated at an altitude of over 1,000 metres. One of the most advanced industrial sectors has developed precisely out of the difficulties and challenges of living in the mountains, with recognised production expertise in the field of snow-making systems, lift systems and technical products for the mountains.



Qualità Trentino

This is the new area trademark which will distinguish Trentino food products, indicating the geographical origin and certifying that they offer high standards of quality and excellence, thanks to checks by independent accredited certification bodies.



Paper and woodworking

Total wood production exceeds 527,000 cubic metres annually, generating important satellite industries in the fields of exploitation, the transformation of raw materials, construction and the production and working of paper.



Quality food products

Apples, wild berries, vegetables, cured meats, milk and cheese are the flagship products in a sector which includes more than 16,000 farms, brought together by the very high quality of the products offered and by particular care for respecting nature, traditions and sustainable innovation.



Tourism and tourist facilities

More than 5 million visitors come to Trentino each year, a third of these being foreigners. Tourism provides more than 7% of the area's added value, generating opportunities for growth and innovation in numerous sectors, from real estate to facilities and user services.



Wine and Spumante

Trentino produces both red and white wine of renowned excellence. Production takes place in vineyards covering more than 10,000 hectares of land, cultivated by around 3,000 winemakers. The Province of Trento is the largest producer of Spumante in Italy, with more than 40% of total production and over 7 million bottles sold each year all over the world.





Living (well) in Trentino

With a safe urban environment offering many cultural activities, set in an attractive natural environment, with good professional opportunities, an excellent education system and an efficient health service, Trento is one of the top Italian cities to live in. This is confirmed by the quality of life classifications issued annually by "II Sole 24 Ore" and "Italia Oggi" newspapers, which show Trento and Trentino in first place or close to the top of the list. In Trentino the natural environment makes the difference, with forests covering 60% of the Province, 200 alpine lakes, 3 nature parks and the Dolomites, the second natural wonder in Italy, after the Aeolian islands, to be recognised by UNESCO as a World Heritage Site. The exceptionally pleasant living conditions in Trentino and its main town, Trento, are also confirmed by European rankings: the Urban Audit, which compares 80 European cities with between 80,000 and 150,000 inhabitants, has confirmed that the quality of life in Trento is one of the best in Europe.

www.comune.trento.it www.visitdolomites.it

LOCAL ATTRACTIVENESS

QUALITY OF LIFE:

TRENTINO'S RANKING

"Italia Oggi" quality of life classification

National survey on 'Local Attractiveness' for Expo 2015 (2013) Assirm (Association of Institutes of market research, opinion polls and social research)

Trentino: a favourite destination for international tourism

In the past, when the territory was part of the Austro-Hungarian Empire, the extraordinary environmental heritage of the Province had already made it a favourite destination for travellers. Tourism and tourist facilities in Trentino represent a major opportunity not only for unique and authentic experiences in the heart of the Dolomites, but also for economic, commercial and investment opportunities linked to the arrival of 5 million visitors each year, 40% of whom are foreigners. There are considerable economic spin-offs and related opportunities for investment, both in accommodation facilities and in infrastructures and services. www.visittrentino.it



Trentino is a land of extraordinary natural beauty with strong "roots" in the territory

Much of the Province's wealth comes from business activities for which it is traditionally famous around the world, such as the cultivation of high quality crops, particularly apples and grapes, and from crafts. Artisan activities involve more than 14,000 businesses in the Province, based on "know-how" which is strongly rooted in the territory, producing wealth and opportunities for almost 30,000 families each day. It is man who moulds the natural elements with his skill and enthusiasm, transforming them into services and niche products marked by their distinctive quality.

TOURISM

29,872,584
overnight stays 2012 5,090,186

ABILITY OF TOURISM TO ATTRACT TOURISTS Daily presence of tourists in hotels and other accommodation in relation to residents



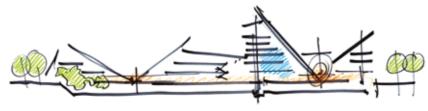
First class cultural facilities

Trentino can boast a first class range of cultural facilities. The "Museo di Arte Contemporanea di Trento e Rovereto (MART)", designed by the Ticino architect Mario Botta, is one of the most important contemporary art museums in Europe. The extensive archaeological, painting, and medieval art collections of "Buonconsiglio Castle" are also on display in the "Castles of Beseno", "Stenico" and "Thun". The "Museo degli Usi e Costumi della Gente Trentina" in San Michele all'Adige is dedicated to the trades, art and religious traditions typical of rural life in the alpine environment. In Trento the new "Science www.trentinocultura.net Museum" designed by Renzo Piano opened in July 2013. It represents a masterpiece of "green" architecture, offering an innovative itinerary exploring different altitudes in order to discover the changing nature of the landscape and human habitat, with the focus on alpine ecosystems. There is also an extensive range of cultural initiatives at international level, starting with the "Festival of Economics", which brings together Nobel prize-winners, economists, political decisionmakers and civil society in Trento, with a wide-ranging programme of meetings, debates and discussions on the most important economic issues of our time. "Oriente Occidente" is an internationally renowned dance festival held annually in Rovereto (the second largest city in Trentino in terms of population), while "I Suoni delle Dolomiti" is a unique event, bringing together musicians from all over the world to perform on the most beautiful mountains in Trentino.

www.mart.trento.it www.buonconsiglio.it www.isuonidelledolomiti.it www.festivaleconomia.it







Renzo Piano, Muse, 2006

A testing ground for welfare policy

Over the last few years, alongside traditional measures regarding pensions, health, housing policy and support for the weaker segments of society, particularly the elderly, the Trentino welfare system has also adopted more innovative measures, in line with the most advanced policies in Europe, acting as a testing ground for the whole country. In order to protect minimum income levels and the purchasing power of families, the Autonomous Province of Trento was the first Province to adopt a minimum guaranteed income. In relation to families, the main objective is to influence the expectations of the family, also acting to support population growth. For this purpose there are a range of provisions: financial support, social and educational services, information services and promotion of subsidiarity and hence the role of volunteer work. Considerable attention is paid to reconciling working schedules with home life, also by providing services such as crèches and "tagesmutter" (childminder service). Special measures are provided for large families or families with young children.

www.trentinofamiglia.it

Support for youth entrepreneurship

Supporting the economic and social development of a community means in the period 2013-2015) and the Eulooking to the future, and therefore to the young. It's not just about schooling and higher education, but also encouraging those who have ideas, enthusiasm, and ambition. Above all, it's about those who want to do business. This ers and graduates, to contributions tois precisely the aim of a project which has recently been launched in Trentino to support entrepreneurial initiatives by young people up to 35 years old, financed by the European Regional De-

velopment Fund - ERDF (€6.5 million ropean Social Fund - ESF (€12.9 million over the provincial budget period 2012-2015). Funded activities range from training courses aimed at promoting enterprise culture among school leavwards the creation of new businesses, to the setting up of six centres/hubs specialising in areas such as welfare and well-being, tourism, environment, agriculture and culture. The project also opportunities for private initiative.

foresees the availability of venture capital funding for social enterprises and a similar fund for all other businesses created by young entrepreneurs. New businesses must be set up in the Province of Trentino by young people (not necessarily from the province), working in sectors where there is a growing demand which has not yet been met by the existing offer, or dealing with the outsourcing of parts of the public sector, creating new

Efficient comprehensive health care system

Trentino enjoys "good health", with an average life expectancy which is one of the highest in Italy (the average is 85.8 for women and 79.9 for men), investing in research in the field of health and in continuing training for medical and paramedical staff. It can boast an efficient health system, with a new Provincial hospital currently in the process of being built and with a network of peripheral facilities in the valleys, which are well-integrated with the services offered in the Province's main town (over 50 local first aid centres and 7 hospitals) The high average quality of health services - accessible to all, free of charge or through specific agreements - is guaranteed by significant investment aimed at actively promoting wellness and every aspect relevant to the quality of life.



Trentino is a centre of international excellence in training and research

Over the last forty years Trentino's autonomy has allowed it to plan and fund increasing investment in the field of Research & Development, transforming the Province's economic system into a genuine "research and knowledge hub", recognised internationally for the significant results achieved. With more than 20 public and private research institutes, a University at the top of national and international classifications in the sector and more than 3,100 researchers (the ratio between the number of inhabitants and the number of researchers is one of the highest in Italy), the Province has become an important focal point for the most well-established international research networks, in areas as diverse as materials studies, neuroscience, nanotechnology, genomics and voice recognition algorithms. The objective is to create an integrated education-research-innovation system which can transform Trentino into a "Living Lab", further reinforcing quality and internationalisation.

The management of knowledge in Trentino

The first example of a "glocal" university in Italy: thanks to an agreement signed in 2009 between the Italian Government and the Autonomous Province of Trento (the "Milan agreement"), the Province will now deal directly with the financial and administrative management of the University of Trento. Starting from 2012, Trentino will thus have a concrete opportunity to try out a new form of management in the field, putting into effect an experience which is unique in Italy, but not dissimilar to experiences which have already been underway for some time in other countries, such as Germany for example. Firstly, the University will have the opportunity to avail itself of secure and significant resources from the Autonomous Province of Trento and establish an up-to-date and autonomous organisational system, ensuring more dynamic and flexible management, with standards of service in line with those at international level. Secondly, this opportunity will allow the University to adopt innovative methods of recruitment, management and incentives for staff, closer to models outside Italy, not only in the public sector but also in the private sector.

COMPETING FOR THE FUTURE: RESEARCH AND INNOVATION IN TRENTINO

Per capita public investment in R&D

Trentino	€ 308
Italy	€138
EU15	€ 218

The University of Trento





www.unitn.i

INTERNATIONALISATION OF TRENTO UNIVERSITY

41	bilateral and multilateral agreements
62	EU programmes in the field of research and training
27	joint and double degrees
27	jointly awarded and double PhD courses
2	research projects with a specific international dimension
70	foreign lecturers
Inter	nal internationalisation: 4 Jean Monnet projects and 9 degree courses taught entirely in English



Fondazione Bruno Kessler - FBK



www.fbk.ei

Involved in applied research at both national and international level for more than forty years, the "Fondazione Bruno Kessler" today has more than 350 researchers, mainly carrying out research in areas related to information technology, materials and microsystems, Italian-German historical studies and religious science. Thanks to an extensive network of alliances and collaborative agreements, the FBK also operates in the fields of theoretical nuclear physics, mathematical science, networks and telecommunications and social science (research to evaluate public policy). Projects underway include a project dedicated to silicon photomultipliers, which can be used in medical diagnosis systems such as PET scanners and in experiments in the field of physics, such as those carried out at CERN in Geneva, and a project dedicated to e-inclusion, namely the study and development of communication services directed at the elderly.

Fondazione Edmund Mach - FEM

Mach" is an institution with a history dating back more than 130 years, specialising in research, training and the transfer of technology in the agricultural, nutritional and environmental sectors. It has more than 700 employees, around a thousand students and course participants and is based in an area covering 100 hectares, with workshops, greenhouses, cultivated fields and classrooms. Its most important results include decoding of the vine genome, specifically Pinot Nero, in 2007. In 2010 the Foundation also sequenced the apple genome for the Golden Delicious variety, while sequencing of the wild strawberry genome followed in 2011 This type of scientific discovery extends the knowledge of plant species by at least a thousand times, making it possible to examine the natural and nutritional properties of the fruit in depth, evaluate environmental impact, explore biodiversity and obtain fruit naturally resistant to parasites/ diseases, avoiding the unnecessary use of chemical agents and agricultural techniques.

The "Istituto Agrario di San Michele all'Adige - Fondazione Edmund

FONDAZIONE EDMUND MACH



www.fmach.it

STATISTICS FOR THE BRUNO KESSLER FOUNDATION

350

J

7 research centres

30 spin-offs, start-ups and joint companies

STATISTICS FOR THE MACH FOUNDATION

700 researchers, employee and other workers

6,000

1 internati

nal doctorate FEN

international doctorate programme in genomics and the molecular physiology of fruit trees FEM doctorate international institutional partners

Trento RISE: partner of the European Institute of Innovation and Technology

Following the international competi-Trentino system of research, innova-

The Fondazione Bruno Kessler (FBK) cated to information and commu- EIT and its ICT network (EIT ICT Labs) and the University of Trento, with nication technology and it includes is expected to receive over one billion their respective areas of expertise in some of the most prestigious Euro- euro funding from the public and prithe field of ICT, were the driving forces pean academic institutions, such as vate sector. The candidacy of Trento behind the creation of Trento RISE. the TU in Berlin, DFKI and Max-Plank RISE to become the Italian node and (Germany), INRIA (France), KTH (Swe- co-location centre of the European tion launched by the European Insti- den), TKK (Finland), and the Polytech- Institute of Innovation and Technoltute of Innovation and Technology, the nics Consortium in the Netherlands. ogy - EIT, IT section, was accepted Affiliates of the consortium also by the General Assembly of the EIT tion and higher education was the include several high calibre compa- ICT Labs in September 2011, making only Italian applicant to be awarded nies such as Nokia, Ericsson, Philips, Trento a co-location centre equal to the status of partner in the EIT ICT Alcatel-Lucent, SAP and British Tel- the other "nodes" based in Berlin, Ein-Labs network. This network is dediecom. Over the next five years, the dhoven, Helsinki, Stockholm and Paris.



INTERNATIONALISATION STATISTICS FOR THE TRENTO RISE ASSOCIATION – THE INTEGRATED ICT NODE FOR TRENTINO

English is the official language, also for graduate studies

70% of ICT PhD students are from abroad

Double degrees, e.g. with Edinburgh, Aachen, GeorgiaTech, Pisa, CMU, IIT, Toronto etc.

Research: 22 with h-index > 20 / 72 with h-index > 10 [googlescholar]

18 listed as among the most cited authors in computer science [citeseer]

European projects: 6th Framework Programme, 55 projects (11 as coordinators). Total funding 24,088.044 euro

7th Framework Programme, (first 5 calls) 36 projects (6 as coordinators). Total funding 21,250.323 euro

The Trentino research system: bodies, institutes and joint projects based in Trentino



ATREP www.atrep.provincia.tn.it



CREATE-NET Center for REsearch and Telecommunication Experimentation for NETworked communities www.create-net.org



BOSF-FINSTFIN CONDENSATION CENTRE bec.science.unitn.it



FURICSE European Research Institute on Cooperative and Social Enterprises www.euricse.eu/it



BIOtech www.unitn.it/biotech



GRAPHITECH Center for Advanced Computer Graphics Technologies www.graphitech.it



BONFIGLIOLI MECHATRONIC RESEARCH www.bonfiglioli.com



ISTITUTO NAZIONAI E FISICA NUCI FARE www.tn.infn.it



CENTRO RICERCHE DUCATI TRENTO www.ducatienergia.com



CNR-IVALSA Trento Trees and Timber Institute www.ivalsa.cnr.it



CENTRO RICERCHE FIAT Trento Branch



ITPAR India-Trento programme for advanced research disi.unitn.it



Centre for Integrative Biology www.unitn.it/en/cibio



Laboratory for Applied Ontology www.loa-cnr.it



CIMEC Center fot Mind/Brain Sciences www.unitn.it/cimec



Unità di ricerca per il Monitoraggio e la Pianificazione forestale mpf.entecra.it



Microsoft Research University of Trento Centre www.cosbi.eu



Preserving and enhancing the natural environment in Trentino: an obligation which has become an opportunity

Over time, the obligations and requirements linked to safeguarding the extraordinary environmental heritage of the Province have become a powerful stimulus for developing new ways of conceiving, producing and selling goods and services, capable of combining innovation and environmental sustainability. This is why Trentino can today boast excellent technological knowledge and production know-how in the field of green technology and in particular sustainable wood buildings, renewable energy and so-called smart technologies associated with sustainable mobility. Today Trentino is the second Region in Italy in terms of the production of clean energy, producing energy exceeding its effective daily requirements with its hydroelectric power stations.

RENEWABLE ENERGY IN TRENTINO

385	hydroelectric power plants
16	district heating biomass power plants
3	wind power plants
0.25 m ²	solar thermal systems per inhabitant
126	Watt energy supplied per inhabitant by photovoltaic panels
1	motorway corridor (A22) with systems under construction for the production and distribution of hydrogen

The first Italian technological district for sustainable building and renewable energy in Trentino

The expertise of Trentino businesses and research centres in the field of "green" technology was recognised by the Italian Ministry for Universities and Scientific Research with the setting up in 2006 of the first Italian technological district in the environmental technology sector. "Habitech", the "Trentino Energy & Environment District", aims to integrate the know-how of the University, laboratories, research institutes, businesses and institutions. It encourages a symbiotic relationship between different experiences and facilitates experimentation of new combinations of knowledge and technology, to improve ways of living and assist with urban and territorial planning. Habitech is a centre of excellence, made up of more than 300 businesses, research institutes and public agencies, with a total of 8,000 employees and a turnover of around 1.5 billion euro. Habitech is also a founder member of Green Building Council (GBC) Italia, a sustainable building network based in Rovereto, which developed and presented Italian LEED certification in April 2010, the first case of national "localisation" of the most widespread rating system in the world for the sustainability of buildings.





www.gbcitalia.org

1.5 billion⁶

turnover of Habitech members

8,000workers in businesses located in the Habitech district

Porphyry and wood firms also back the supply chain

Habitech is not the only industrial cluster in Trentino. Indeed the Trentino porphyry and stone district has been operational since 2009, incorporating more than 452 firms quarrying, working and marketing stone products (total annual production of 5 million tons). These companies employ more than 3,200 workers and have an overall turnover of around 424 million euro.

Distretto del Porfido
e delle Pietre Trentine
pietra

www.pietretrentine.it

Increasing integration of the forest-wood-energy supply chain has also been promoted. There are over 1,000 companies in this industry, with 4,600 employees and a turnover of 450 million euro, equivalent to 6% of provincial GDP. The intention is to promote the whole Trentino wood supply chain, concentrating particularly on the opportunities offered by sustainable wood buildings. In the wooden structure building sector, Trentino can count on the "SOFIE" patents, relating to a construction system developed and tested by "CNR-Ivalsa" in collaboration with the Autonomous Province of Trento.

This is based on a wooden load-bearing structure, made up of solid cross-layered wood panels (X-LAM technology) offering high mechanical performance combined with low energy consumption. It is a construction system which guarantees in particular high levels of protection against fire and earthquakes, as demonstrated by the surprising results obtained in the test of the seven storey building carried out in Japan, where the structure succeeded in surviving unscathed an earthquake measuring 7.2 on the Richter scale, simulated in October 2007 using the Miki earthquake shaking table.

www.legnotrentino.it www.filieralegno.provincia.tn.it

The main standards defined by the SOFIE project are the basis of "ARCA – Architettura Comfort Ambiente" (Architecture Comfort Environment), the first certification system for wooden buildings in Italy, launched by the Autonomous Province of Trento in 2011.



STONE/ PORPHYRY SECTOR

452 companies operating in the stone sector5.3 million tons produced annually

WOOD/ENERGY SECTOR

1,000 companies in the wood/energy production chain
450 million euro company turnover (6% of Provincial GDP)

Dolomiti Energia: a new player in international cooperation in the field of green tech

The Dolomiti Energia Group is one of the largest multi-utility companies in Italy and the leading company in Trentino; it is present in over than 210 municipalities of Trentino, it has more then 1,300 employees and a consolidated turnover of € 1,133 million. Its main business is related to energy products and the Group is leader in Trentino with 85% of the electricity market and 80% of the gas market, it is also active in the field of integrated water services, cogeneration and district heating, renewable energy and environmental services. The Dolomiti Energia Group, always focused to combine business goals with a sense of social and environmental responsibility, has historically held a green vocation. The Group is one of the first Italian hydroelectric energy producers, managing 20 large and 7 small power plants (1.7 billion kilowatt hours / year) and a real commitment to sustainable development, it operates at national level in sale of energy "100% clean" from renewable sources certified.

www.gruppodolomitienergia.it



DOLOMITI ENERGIA

Value in millions of Euro	2008	2010	2012
Turnover	557	787	1,133
EbitDa	91.4	116.6	202
Ebit	48.7	69.5	105
Net income	54.4	56.8	43.7
Urban waste: 80,000 tons/	ear of waste collec	ted	
Laboratory tests (water): 18,000 samples examined per year			

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The "Manifattura" project: green innovation factory



www.progettomanifattura.it

The "Manifattura" project is trasforming the former "Manifattura Tabacchi" plant in Rovereto into a centre of industrial innovation focusing on green building, renewable energy and environmental technology. By fostering businesses with a qualified workforce (to date, 25 start-ups are already based at the centre), the project – promoted and supported by the Autonomous Province of Trento – is giving new life to the ageing Rovereto factory, in an environment designed to inspire innovation and creativity. The low environmental impact buildings, new or renovated, now act as a focal point for businesses in tune with key sustainability issues. By regenerating an ageing factory which was very significant in the industrial era, Trentino has reaffirmed the importance of environmental, economic and social sustainability as a basis for its future wellbeing.

MANIFATTURA PROJECT

sectors in which to develop innovative business initiatives: renewable energy, green building and technology for the environment
number of businesses which could be based at the new Manifattura centre
covered surface area available to host green economy businesses, with state of the art infrastructures and highly customised services
surface area of modules destined for companies, with flexible areas offering spaces ranging from individual open spaces to areas equipped for light industry
reduction in CO ₂ emissions from electrical and thermal energy
reduction in the demand for primary non-renewable energy



www.polomeccatronica.it

Mechatronics hub, where business, innovation and training come together

More than 17 thousand square metres of modular production space, 70 thousand square metres available for new initiatives, two vocational and technical schools, a degree course, an industrial acceleration project and public and private sector research centres. The mechatronics hub offers itself as a common space for the manufacture, research and experimentation of innovative and more efficient products and processes, thanks to interaction between information technology, electronics and mechanics. In a word: mechatronics.

A cluster in Trentino that sees the presence of companies with expertise in the automotive industry, intelligent systems and robotics, sensors and industrial automation.

The new large building has been constructed in accordance with the highest quality and environmental sustainability standards. It offers spaces for manufacturing and offices and will be available from November 2013 for companies and research centres, also offering an area destined for the industrial acceleration centre. Completion of the whole mechatronics hub is expected by 2018, with overall investment of around 85





The Cooperative Movement in Trentino: economic and social organisations

The social and economic difficulties experienced by many alpine areas after the Second World War was a major stimulus for the development of cooperative societies in the Province as social and productive organisations. With a population of half a million inhabitants, Trentino has more than 227,000 cooperative society members. The widespread presence of cooperative societies throughout the Province makes Trentino a genuine "cooperative" district" with few analogies around the world. The turnover of Trentino cooperative societies, which guarantee stable employment to more than 15,000 people, is 2 billion euro, while

overall assets amount to 2.4 billion euro. The statistics illustrate the extent of the phenomenon: the market share of cooperative society businesses in the agriculture sector is almost 90%, while it stands at 60% in the credit sector ("Casse Rurali"), and 38% in terms of consumption ("Famiglie Cooperative"). The turnover of cooperative societies exceeds 900 million euro. The world of volunteer organisations is linked to this movement, with more than 5,000 associations and between 40,000 and 50,000 volunteers active in fields ranging from social care to blood donation, health, first aid, environmental protection, sport and culture.

Cooperazione Trentina

www.ftcoop.it

2 billion[®] turnover of the Trentino cooperative system

Cooperative societies and Consortia of societies operating

in Trentino

International solidarity in Trentino

The ability to promote cohesion and develop social networks is also demonstrated in the concrete help provided to populations in difficulty and countries torn by conflict. This has been the main objective pursued by the Trentino economic and social system through the work of more than 270 volunteer organisations, particularly in the fields of dialogue between peoples, development of the cooperative movement in the poorest areas of the world and the promotion of human rights. A fixed quota of the Autonomous Province of Trento's budget (at least 0.25%) is destined for international solidarity annually and numerous humanitarian projects have been undertaken, above all in Africa, but also in Latin America, Asia and Eastern Europe. For historical reasons and due to its convictions, the Province is particularly in tune with those promoting peaceful coexistence and values related to autonomy, from the Balkans to Tibet, not to mention various regions of Africa.

www.trentinosolidarieta.it

Networking with Europe and the World

has always been a frontier land lying between different cultures, representing a place for the exchanging of both goods and ideas. This explains the high level of local and institutional internationalisation, demon-

As a result of its position, Trentino strated by the extended network of territorial and sector agreements promoted by the Provincial government and other bodies extablished in the province. The European dimension is now reinforced by the Province's participation in the Euregio, a collaborative project extending beyond confines and frontiers, which also involves Tyrol and Alto Adige. The Euroregion shares a "common home" with its members: a single representative office at the European Union in Brussels.

INVESTING IN SOCIAL CAPITAL

227,000	cooperative society members
15,000	people employed
270	volunteer organisations involved in international cooperation
0.25%	of the Provincial GDP is the fixed quota of the public budget destined for cooperation and development

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TRENTINOSVILUPPO IMPRESA INNOVAZIONE MARKETING TERRITORIALE

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