

Invest  Italy



Life Sciences in Italy

Where a Healthy Business thrives


SviluppoItalia


Italian Trade Commission



Contents

Innovation and Research	2
Italy's Life Sciences Industry	8
Business Costs	12
Skilled and Creative Workforce	13
Opportunities in Clinical Trials	14
Openings in the Italian Market	16
Business Climate	17
Business Settings	19
InvestInItaly	22



Italy at a Glance

Keys to Life Sciences investing

Italy is one of the world market leaders in Life Sciences. The business environment for foreign companies is traditionally welcoming and offers an ideal setting for the development of innovative investment projects.

Italy's Life Sciences industry is the third largest in Europe in terms of turnover and number of employees.

The sector is going through a period of transformation that places great emphasis on innovative offshoots connected with biotechnological developments in the Health field.

Spending on R&D is on the rise and the number of new biotechnology ventures continues to grow, mainly as spin-offs of academic work and of foreign companies.

This process, aided by the existence of research centers with a proven track record of excellence in Healthcare Research and ever stronger ties between academic and business world, has already given life to several Biotechnology clusters including some specialized in Diagnostics and Therapeutic Trials. Recent applications, in particular in the Biomedical, Bioinformatics, Biomechanics, and Nano-biotechnology fields are drawing the investors' interest.

The opportunities offered by Clinical Trials, mainly carried out by foreign companies, are likewise encouraging, featuring cutting edge set-ups in the development of a wide range of therapeutic areas (Oncology, Neurosciences, Cardiology and Vascular Diseases, Immunology).



Innovation and Research

Creative Methods, Exhaustive Results

Italy is amongst the avant-garde countries in Europe and in the world in terms of public and private research with a long and well-established tradition of excellence in Medicine, Biomedical technology, Machinery, Robotics, Microelectronics and in certain segments of Optoelectronics.

Research in Italy at a Glance

- Fourth in Europe for R&D spending (approximately 15 billion Euro)
- Fourth in Europe for patent registrations
- Average annual growth rate (7%) of Italian scientific publications over the last 5 years considerably higher than USA (5.7%), Germany (5.61%), UK (5.19%), France (4.71%)
- International presence in research, 37% of all publications co-published worldwide

Source: Medline Databank of the US National Library of Medicine, Eurostat, Istat, MUR

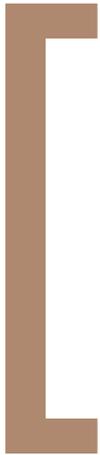
The quality of research is borne out by a high rate of scientific output, continually increasing spending on R&D and a large and wide-ranging network of universities and both public and private institutes that are actively involved in the fields of Vaccines, Oncology, Neurosciences, Gene Therapy, Cardiovascular Diseases and Infections and Immunology. As a result many important medical breakthroughs have originated in Italy, including recombinant vaccines for several diseases (e.g. pertussis, meningitis, etc.) as well as discoveries of the oncogenes connected to longevity and the molecular mechanisms that develop the cerebral cortex. One of the most promising vaccines for AIDS is the result of research by the National Institute for Health (ISS - Istituto Superiore di Sanità).

Italy's National Health Plan: Selected Priority Areas

- Cardiovascular Diseases
- Oncology
- Infectious and Neuro-degenerative Diseases
- Transplants and Organ pathologies, Stem Cells and Tissue Replacement Therapy
- Immune System Diseases; Allergic or Hypersensitivity Diseases (Respiratory, Digestive and Cutaneous)
- Molecular Medicine and Genetic Diseases: Molecular Diagnosis, Gene and Cell Therapy, Pharmacogenomics and Pharmacogenetics, recent developments in Biotechnology (Nanotechnology)
- Diabetes



In Italy Healthcare Research is one of the most important drivers of innovation, opening up avenues for private companies to apply for the co-funding of research projects.



KEY FACTS

- **Long standing excellence in applied medical research** in the fields of Vaccines, Oncology, Gene Therapy, Neurosciences, Immunology, Cardiovascular and Infectious Diseases
- **A huge number of universities, hospitals and research centers** providing an ideal business setting for innovative investment projects
- **7 universities** among the top 65 in Europe in terms of impact factor in the Life Sciences sector
- **40 universities** running specialist Biotechnology degree courses
- **14 specialized science and technology parks** offering technology transfer services



“You can make top notch clinical research in Italy. For three or four years in a row, Italy has been the best country among the large countries”.

Giacomo di Nepi. Global Head of Business Unit Transplantation and Immunology. Former CEO, Novartis Italy

Italy is a key country for the Novartis Group on international level: the fifth largest market in the world with an annual turnover of over 1 billion Euro (6% up on 2003) and with major research and development investments undertaken (32 million Euro in 2003 alone).

Novartis focuses on various therapeutic areas: Cardiovascular, Oncology, Neurosciences, Dermorespiratory, Immunology and Transplantation.

Novartis Italia is based in Origgio, Lombardy, but the company also has offices in Rovereto (Trento), Marcon (Venice), and Torre Annunziata (Naples) – a production cluster internationally renown serving 83 foreign markets which, in 2004, took on the responsibility for the production of several Novartis product lines.

Fields of activity. Like the entire international Group, Novartis Italia operates via its Pharmaceuticals and Consumer Health Divisions, which head up various independent businesses: Sandoz Industrial Products Spa (production of antibiotics) and Sandoz Spa (production and marketing of generic medicines), Novartis Consumer Health Spa (Over the Counter-OTC and Medical Nutrition), Novartis Animal Health Spa (Veterinary specialization) and Ciba Vision Srl (Ophthalmics). The Group's core business is, however, managed by Novartis Farma Spa (Pharmaceuticals and Clinical Trials), representing over two thirds of the Group's overall turnover in Italy.

In terms of Clinical Trials, the Group's Italian arm is second only to the US division, performing over 13,000 trials, employing more than 3,000 researchers, and with 28.5 million Euro invested in 2003 alone.





Institutes and Research Centers Communities of Expertise

Life Sciences research in Italy is underpinned by an extensive network of dedicated centers, some of them internationally renowned.

There are numerous specialized university degree courses, committed research centers and both public and private institutes like those of the National Research Council (CNR - Consiglio Nazionale delle Ricerche) and the National Agency for Energy and the Environment (ENEA - Ente Nazionale per l'Energia e l'Ambiente) operating throughout Italy. Also many working hospitals such as the Scientific Institutes for Research, Hospitalization and Health Care (IRCCS – Istituti di Ricovero e Cura a Carattere Scientifico) are actively engaged in research and testing.

Similarly to the National Institutes of Health in the USA or the British Medical Research Council in the UK, the IRCCS carry out research, development and production of new diagnostic, therapeutic and preventive methods in the areas of Biotechnology and Biomedicine, Oncology, Neurosciences, Transplants, and Metabolic and Genetic Diseases.

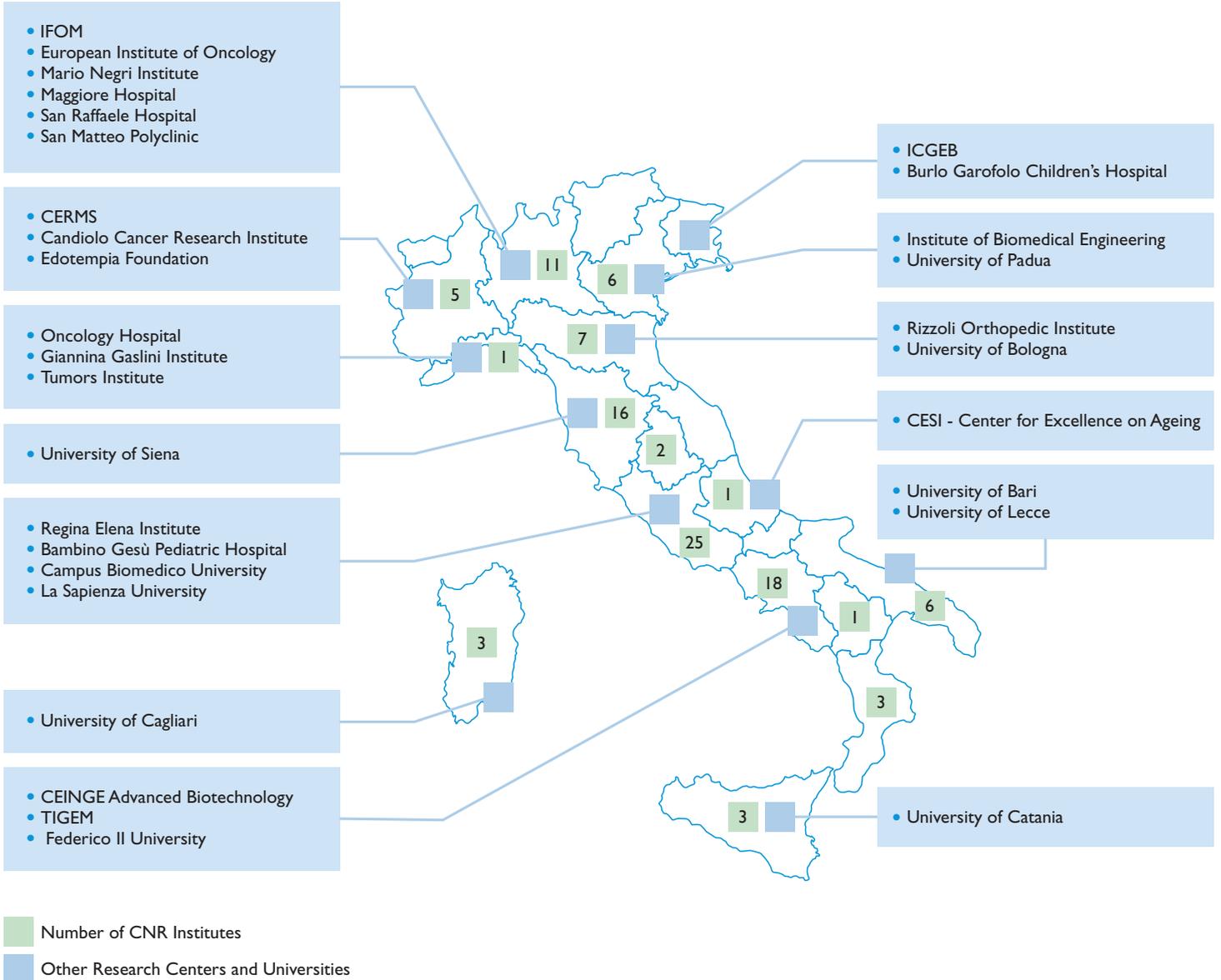
Furthermore, private centers, such as the Mario Negri Institute for Pharmacological Research (Istituto di Ricerche Farmacologiche “Mario Negri”) in Milan and some 100 other CNR Institutes throughout the country, make many invaluable contributions to research and innovation in the sector. With 12 projects in different areas of the Life Sciences sector, the CNR, in cooperation with business, undertakes considerable amounts of scientific work.

Among the top public and private centers there are:

- San Raffaele Hospital in Milan, a world leader in Gene Therapy and Neurosciences
- National Institute for the Study and Cure of Tumors (Istituto Nazionale per lo Studio e la Cura dei Tumori) in Milan
- European Institute of Oncology (Istituto Europeo di Oncologia) in Milan
- National Cancer Research Institute (Istituto Nazionale per la Ricerca sul Cancro) in Genoa
- Regina Elena Institute for the Study and Cure of Tumors (Istituto Regina Elena per lo Studio e la Cura dei Tumori) in Rome
- Giovanni Pascale National Institute for the Study and Cure of Tumors (Istituto Nazionale per lo Studio e la Cura dei Tumori “Giovanni Pascale”) in Naples.



Selected Institutes and Research Centers





Science and Technology Parks Locations for sharing Know-How

Closer ties between the academic and the business world have done much to accelerate the innovation in the sector; thanks in no small part to recent legislative developments and Italy's long-standing focus on applied science.

A recent survey has found that 60% of universities and research institutes cooperate on a regular basis with companies operating in Italy. Moreover, the number of the research centers working with start-ups in Italy and abroad amounts to an impressive one fourth of the total.

Among the main technologies currently in use and shared in Italian research centers are Molecular Biology and Monoclonal Antibodies. Bioinformatics is assuming ever greater importance in the areas of Genomics and Proteomics: Bioinformatics units, involved in the integration of databases compiled during the Mapping of the Human Genome and of other organisms, have greatly reduced research times.

In-Vitro Testing, Transgenic Animals, Enzymatic Biocatalysis and the use of growth regulators are just some of the new research strands most commonly employed.

Start-ups and new business initiatives in the most innovative sectors can count on the support of a network of 40 science parks and business incubators that, thanks to the dynamic interaction among companies, research centers, finance institutions and authorities, has contributed to the creation of a growth-oriented business environment. These centers, comprised of companies, venture capitalists, universities, laboratories and research centers, can offer a wide range of services such as locating premises, technology transfers, patenting, marketing and commercialising products.

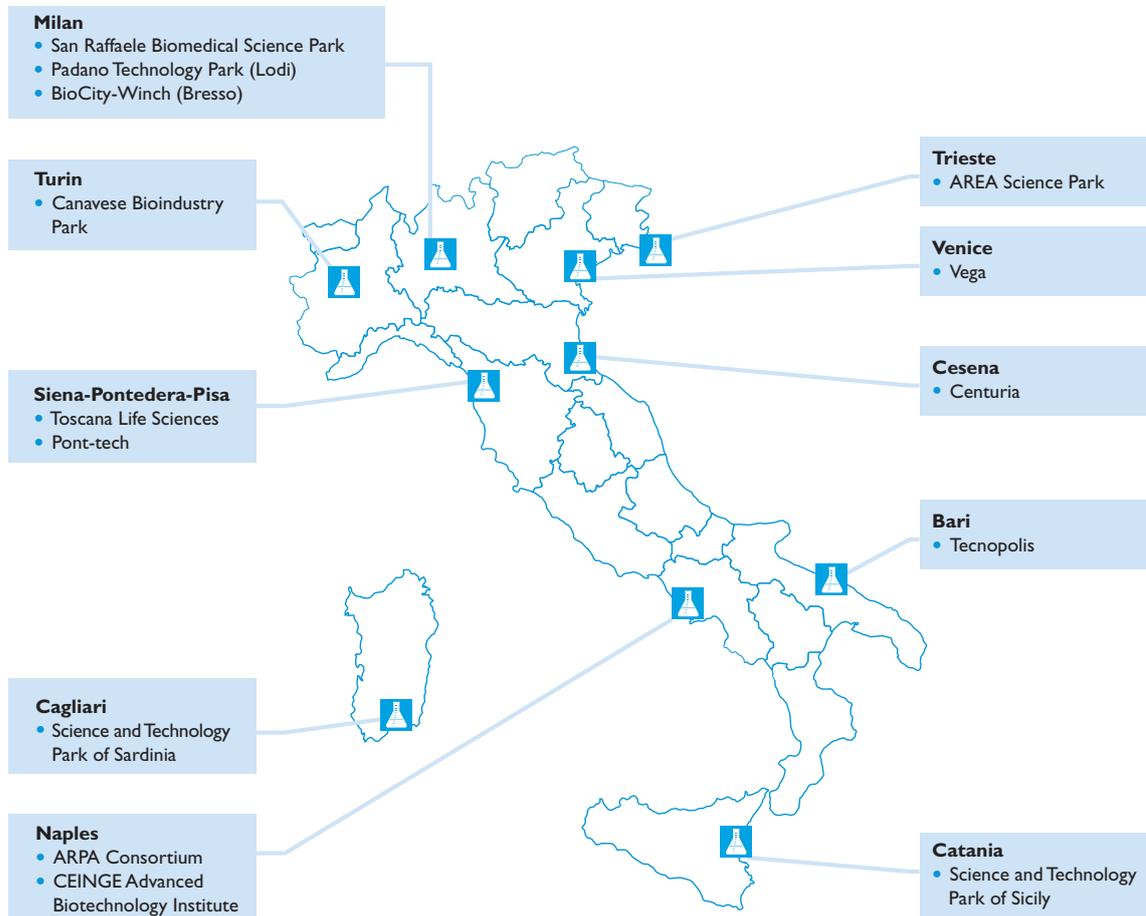


Bioindustry Park Canavese (Turin)



Life Sciences Parks

Source: APSTI and Italian Biotechnology Directory



Several parks are specialized in the Life Sciences sector. Among the most important are:

- **San Raffaele Biomedical Science Park** in Milan, one of the largest in Europe specialized in Biotechnology and Biomedical technology. The Park, which is linked to the San Raffaele Hospital, hosts numerous research centers (e.g. DIBIT, Vita-Salute San Raffaele University) and is particularly active in transferring technology for the benefit of locally-situated businesses (e.g. Axxam, BioXell, Bracco, Schering-Plough, TelBios, MolMed)
- **Canavese Bioindustry Park** in Turin, which promotes and develops biotechnology research in Chemicals, Pharmaceuticals, Diagnostic, Veterinary, Agro-food, Cosmetics, Bioengineering, Bioinformatics and IT sectors
- **AREA Science Park** in Trieste, one of the main multisectoral science parks in Europe with institutes and centers of excellence in the fields of Biotechnology, Diagnostics, Chemicals and Biochemicals, and Biomedical Technology
- **CEINGE Advanced Biotechnology Institute** in Naples actively involved with advanced Biotechnology research
- **Science and Technology Park of Sardinia** in Cagliari, specialized in Genomics and Pharmacology.

Italy's Life Sciences Industry

Robust and Ready for Growth

Italy is a world market leader in Life Sciences. Italy's companies cover the whole spectrum including Pharmaceuticals, Biotechnology, Biomedical applications, Bioinformatics, Biomechanics and Nano-biotechnology, integrated with traditionally strong Italian sectors such as Agro-food, Chemicals and Textiles.

Among the factors for encouraging continued foreign investment interest in Italy's Life Sciences industry, two stand out: its highly prolific research and innovation funded annually by private R&D investments and its long-standing tradition of production directly involving almost 600 companies as well as hundreds of industry-related businesses, most of which are multinationals.

An International Destination

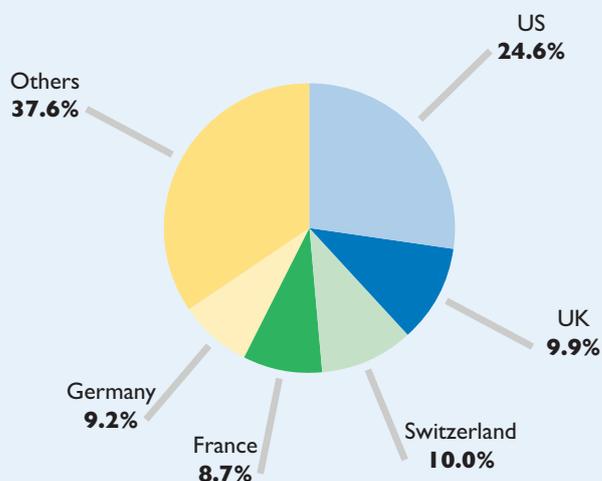
The Italian market has already grabbed the attention of all the most important multinationals in the Life Sciences industry.

About 100 foreign companies already invested in Italy with around 10,000 employees. They operate in a wide range of market segments such as the Cardiovascular field, Oncology, Genome and Proteome research, development and production of Diabetes-fighting drugs, Viral Diseases, Vaccines, and Diagnostics.

Particularly significant are: Abbott, AstraZeneca, Baxter, Boehringer Ingelheim, Bristol-Myers Squibb, Chiron, Elan Pharma, Eli Lilly, Ethicon, GlaxoSmithKline, Merck Serono, Merck Sharp & Dohme, Novartis, Patheon, Pfizer, Roche, Sanofi-Aventis, Schering Plough, Servier, Takeda, and Wyeth Lederle.

Main Foreign Investors (% of the Life Sciences Market)

Source: Farmindustria, 2005



Pharmaceuticals

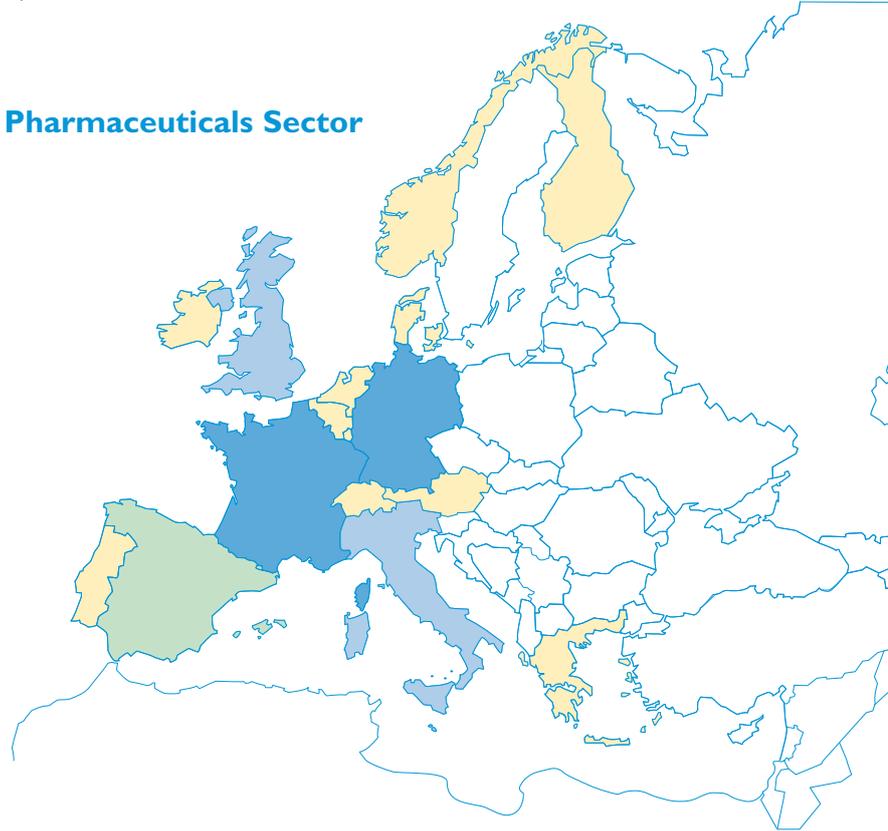
A Prescription for Success

Italy is a European and global leader in the Pharmaceutical sector. It is the third largest market in Europe in terms of turnover and workforce.

Turnover in the Pharmaceuticals Sector

Source: Farindustria, 2005

Billion Euro

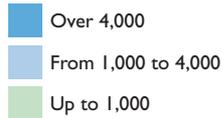


The sector is experiencing a change, partially thanks to a thorough process of reorganization, that will see it increasingly oriented toward high-end value-added activities: in the Italian pharmaceutical industry three-quarters of the workforce are qualified researchers or technicians.

Italian pharmaceutical companies are characterized by substantial exports (worth over 11 billion Euro in 2005), profits above Europe's average and high levels of R&D investments, which generate almost 10% of the national private research spending.

Regional Concentration of Employees

Source: Farindustria, 2005



KEY FACTS

- The third highest turnover in Europe (over 15 billion Euro)
- 74,000 employees and a further 220,000 engaged in hundreds of industry-related businesses
- Significant levels of R&D spending amounting to over 1,000 million Euro per year and over 6,000 R&D employees
- About 100 foreign companies operating in the sector
- Strong export-orientation (11 billion Euro in 2005)

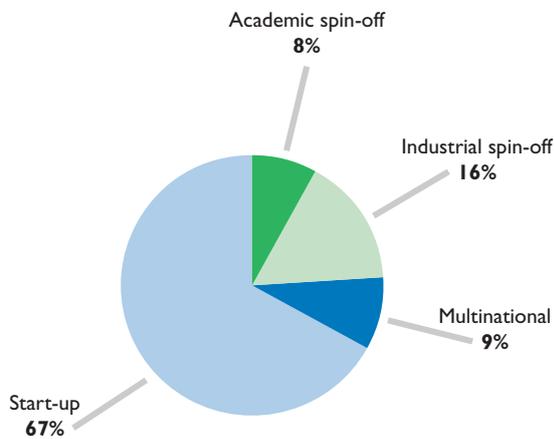
Biotechnology Growing by Nature

According to 2007 Blossom Associati – Assobiotech Report, in 2006 the Italian Biotechnology Industry – one of the national most dynamic sectors – has been growing at a rate of 19.3% in value (13.4% generated by increases in volume of demand and 6.7% by new products), second only to Canada, among the largest markets. The annual turnover is constantly rising, now amounting to over 4,000 million Euro, with an average growth of 7.5% over the last 2 years.

The 222 businesses active in the sector employ about 14,000 units, of whom more than one third engaged in R&D.

Main Types of Biotech Business in Italy

Source: Report Blossom Associati, 2007



Future trends for the industry are encouraging, especially considering the strong investments made in R&D, amounting in 2005 to 31% of turnover. Growth has received a further boost from the increasing trend among pharmaceuticals multinationals to out-source research projects. The Biotechnology industry is made up of small innovative businesses that frequently emerge as spin-offs and management buy-outs of research laboratories sold off by multinationals. These companies are extremely productive in terms of research and high performing in the development of new applications and clinical trials. The dynamic R&D activity is testified by an ever growing product pipeline: 35 projects in the preclinical phase and 42 in clinical phase, developed with 70% of proprietary technologies.

The largest share of the Biotech market (73% for number of business) is concentrated in the Health sector with particular emphasis on Therapeutic Trials and Diagnostics. The Agricultural Biotechnology also represents an important part of the market counting about 15% of active companies.

A number of businesses active in pharmaceutical research, development and production offering consultancy services and supplying chemical and biological products, round off and reinforce the sector's profile.

There are some 300 companies engaged in the development of Diagnostic instrumentation, Biomedical, IT and Electronics equipment, not to mention the numerous related applications in traditionally strong Italian sectors such as Agro-food, Fine Chemicals and Textiles.

In particular the Biomedical industry, with its 20,000 strong workforce and thanks to the widespread sharing of knowledge between assorted sectors (from Machinery and Electronics to Chemicals, Biology, IT and Material Sciences), is one of Europe's most innovative producers of Medical and In-Vitro Medico-Diagnostic Devices. Many important developments in Bioinformatics have been achieved also thanks to the efforts of public research centers.

A growing number of specialized small and medium-sized enterprises are flourishing in the provision of niche services such as analyzing, evaluating and displaying data, creating internet-accessible Bioinformatics platforms, and a whole range of consultancy services to international giants like Bayer, Menarini and Sanofi-Aventis. Another noteworthy development concerns "Cheminformatics", which involves the application of IT and knowledge management to the protein structures or to other tiny molecules of pharmacological interest to speed up and rationalize the discovery of new medicines and optimize the process of drug discovery.

Life Sciences companies are situated throughout Italy and stimulate Industrial Clusters by providing specializations and skills in Oncology, Neurosciences, Genomics, Bioinformatics, Biomedicine, Diagnostics, and Nano-biotechnology. The majority are situated in Lombardy, a leading Biotechnology region in Europe and the world.

Recently, three Biotechnology Districts have been set up – one in the Lombard capital Milan, another in Trieste (Friuli Venezia Giulia) and a third in Cagliari on the island of Sardinia. An additional one will be set up in Southern Italy (Puglia).

KEY FACTS

- Italy is a leader in the Biotech sector in **Europe with 222 companies**
- Notable focus on the **Health sector** (73% of all biotechnology businesses)
- **Complete value-chain coverage:** Diagnostics, Biomedicine, Biomedical Equipment; Bioinformatics, Genomics, Oncology and Neurosciences
- **1,283 million Euro investment in R&D**
- An increasing number of **new Biotech companies** (+50% over the last 5 years)
- A strong tendency towards innovation: **around 5,000 R&D employees**



www.italianbiotech.com

The Italian Biotech Database is the complete online directory to get immediately in touch with all you need to know about the Italian Biotech community.

The online database – accessible through the www.italianbiotech.com web site – offers in depth information, data, fact sheets and useful contacts for about 700 among the most prominent operators in the Biotech field and in the even wider Life Sciences Italian market listed by sector and sub-sectors. The online catalogue lists businesses, suppliers, public organizations, investors and consulting firms showing the complete company profile with product information, description of used technologies, financials, clients and activated collaborations. The Italian Biotech Database is sponsored by InvestInItaly and developed in collaboration with Assobiotech, the Italian Bioindustry Association, the National Research Council (CNR) and the Italian Ministry of University and Research (MUR).

Business Costs

Competitive Rates, Exceptional Results

According to a study published by KPMG, the set-up costs of an R&D center in Italy's Biotechnology sector – particularly in terms of labor and facilities costs – are extremely competitive and represent a considerable potential saving to investors when compared to other major industrialized countries such as the USA, the UK, and Germany.

Biomedical R&D Total Labor Costs

Salaries & Wages, Statutory Benefits and Other Benefits ('000s of USD)

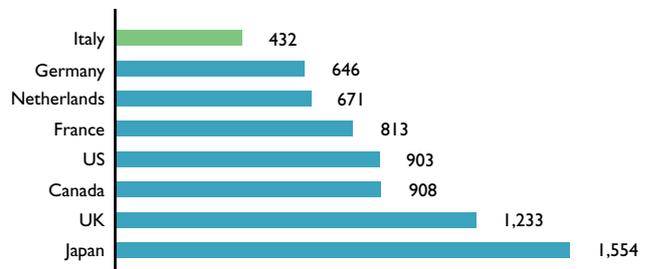
Source: Competitive Alternatives, KPMG 2006



Biomedical R&D - Facility Lease

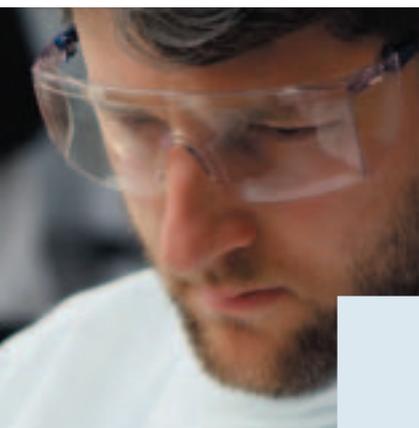
('000s of USD)

Source: Competitive Alternatives, KPMG 2006



“Italy has very good productivity which is comparable to anywhere else in Europe. The cost of a researcher is 50% lower than in Switzerland”.

Roberto Gradnik. Senior Executive Vice President, Merck Serono Europe



Italy is the jewel in the crown for the Merck Serono Group in terms of Research & Development, and third largest reference market on the international level.

Of Italian parentage, the company is now Europe's number one and the world's number three in Biotechnology, with a turnover exceeding 2 billion USD. Founded in Italy in 1906, the Serono Group relocated its headquarter to Switzerland in 1977. Nevertheless, over the last few years the company has returned to its roots, investing heavily in Italy and making it the Group's main technological platform. Beyond research centers in Ardea (Lazio) and Ivrea (Piedmont) – which work in close collaboration with Merck Serono's other research institutes around the world – the Group opened in 2004 a new center in Guidonia, just outside Rome, investing around 70 million Euro in the process.

Fields of activity. Merck Serono Group's activities in Italy are based on four core therapeutic areas: Reproductive Health, Multiple Sclerosis, Endocrinology, and Dermatology.

KEY FACTS

- **Competitive labor costs** for Biotechnology investments
- **Savings from 7% up to 30%** in comparison with the USA, the United Kingdom, and Germany for qualified personnel

Skilled and Creative Workforce

Highly Productive, Strongly Committed

Italy's human capital is one of the chief attractions for Life Sciences investors. By investing in Italy companies gain access to a highly-qualified labor pool, the direct product of a school and university system that provides education and research developed according to market needs.

Italy can offer companies a modern and dynamic business environment in which to invest with 11,000 researchers employed by biotech and pharma companies, a pool of 14,000 university researchers, 200,000 students and 37,000 graduates every year in Biotechnology, Pharmacy and Medicine, a traditional flair for creativity together with high productivity levels.

In a survey by AT Kearney & Evidenze, Italian workers have been highly praised by foreign companies that have invested in Italy: they especially appreciate the high productivity, flexibility, genuine company loyalty, creativity and commitment to hard work displayed by their staff.

Italian biotech researchers operate at high levels of productivity: their performance is impressive, weighing in at 261,000 Euro per head.

Life Sciences Human Resources in Italy

Regional Distribution of Researchers, Graduates and Students

Source: MUR



KEY FACTS

- 11,000 skilled, loyal and productive R&D personnel in Life Sciences
- 14,000 university researchers in Life Sciences
- 220,000 talented young people studying Biotechnology, Pharmacy and Medicine
- 37,000 graduates per year

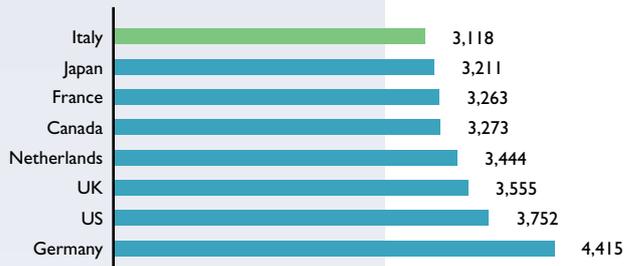
Opportunities in Clinical Trials

Underpinning Tomorrow's Healthcare

Clinical Trials Total Labor Costs

Salaries & Wages,
Statutory Benefits and
Other Benefits
('000s of USD)

Source:
Competitive Alternatives, KPMG 2006



Italy offers plenty of scope for opportunities in the field of Clinical Trials. In recent years, changes to regulatory procedures, now based on European rules, have decentralized decision-making to special Ethics Committees. This move, combined with the presence of an extensive network of over 170 competent centers (including hospitals, IRCCS institutes and universities), has led to a drastic reduction in times to market and costs that make Italy one of the most appealing locations for carrying out clinical trials.

Concentrated primarily in Phase II and Phase III, Clinical Trials in Italy are routinely conducted following the internationally recognized clinical protocol and standards of quality control. The market for trials already amounting to about 600 studies each year, is sure to grow substantially in the future.

The therapeutic areas of greatest interest originate in the fields of Oncology, Cardiology and Immunology and the main objects of study include Gemcitabine Therapy, Acetylcarnitine, Erythropoietin (EPO), Levocarnitine, and Influenza Antigens.

Top Five Areas of Therapeutic Trials

- Oncology = 26.4%
- Cardiology/Vascular Diseases = 11.7%
- Immunology and Infectious Diseases = 9.6%
- Gastroenterology = 7.4%
- Neurology = 8.1%

Source: Bulletin of Clinical Trials in Italy, 2006

Pharmaceutical companies are the prime players in the area of Clinical Trials. Over 280 businesses are responsible for testing principally on Antineoplastic and Immunomodulatory Medicines, drugs for the treatment of the Nervous System, and Antimicrobials.

Top Companies Share of Total Trials

- Novartis = 7.3%
- GlaxoSmithKline = 5.9%
- Roche = 4.5%
- Bristol-Myers Squibb = 3.9%
- Pfizer = 3.9%
- Sanofi-Aventis = 3.8%
- AstraZeneca = 3.4%
- Merck Serono = 3.1%
- Eli Lilly = 3.0%
- Wyeth Lederle = 2.9%

Source: Bulletin of Clinical Trials in Italy, 2006



Among several important non-profit organizations that carry out Clinical Trials, the San Raffaele Hospital in Milan, the San Matteo Hospital in Pavia, the Suor Orsola Malpighi Hospital in Bologna, the Gemelli University Hospital in Rome, the European Institute of Oncology in Milan and Giovanni Pascale National Institute for the Study and Cure of Tumors in Naples, are all leaders in the field.



“This is an important time for clinical drug development in Italy. The results we are obtaining in this market are outstanding”.

Mauro Germinario. *Clinical Operation Manager, Chiltern Italy*



Established in London in 1982, Chiltern International is a dynamic medium-sized Clinical Research Organization whose 14 international offices (4 US, 9 European, 1 Asian) underline its impressive global outreach and experience. Due to the increasing volume of clinical research in Italy and a continuing trend of growth in the market, the company has recently opened a new site in Milan.

Fields of Activity. The company provides Clinical Operations, Project Management, Data Management, Biostatistics, and Quality Assurance as well as Regulatory and Medical Affairs services to operators in the Pharmaceutical, Biotechnology and Medical Device industries.

It supports clients in developing their drugs by running clinical trials from the earliest stages right through to the end of clinical testing, across a broad range of therapeutic areas.

Chiltern's target for March 2007 is to generate revenues for 100 million USD with its Italian operation entrusted to account for a significant share.

Arrival in Italy. Chiltern International has been present in Italy since July 2002. In its first year it was already running 10 clinical trials and generating income for approximately 200,000 Euro. In July 2004 the company set up a small office in Milan in order for it to play a more significant role in the Italian market. In Italy the company now employs 7 people, mainly involved in monitoring 15 clinical projects. The company is aiming to reinforce the Italian team in the short run by taking on additional qualified staff.

KEY FACTS

- **A more favorable legal framework** ensuring competitive time-to-market
- **Over 170 specialized research centers**
- **International profile:** over two-thirds of the 3,500 clinical trials carried out over the past 5 years in cooperation with foreign research centers
- **Leading private sector role** amounting to 75% of all trials with over 280 leading businesses engaged including GlaxoSmithKline, Novartis, Bristol-Myers Squibb, and AstraZeneca
- **3,500 studies completed** on the cutting edge of research in Antineoplastic and Immunomodulatory Systems (31%), the Nervous System (11%) and Antimicrobials (10%)
- Notable incidence of research in **Phase II** of testing (34% of all clinical trials) and **Phase III** (55%)

Openings in the Italian Market

Meeting the Challenge of a Growing Local Demand

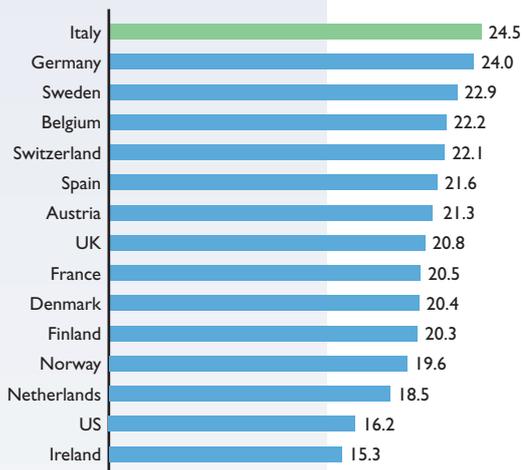
The Italian market for Pharmaceuticals, worth over 18 billion Euro a year with an average per capita expenditure of over 320 Euro, is a major draw for investors. Furthermore, the market is constantly growing through the introduction of new product lines designed to meet the needs of Italy's increasingly sophisticated consumers.

The future is likely to see further consolidation as a result of demographic change among the Italian population that has extended average life expectancy by many years.

According to data released by the OECD (Organization for Economic Cooperation and Development) ageing in Italy is more intense and rapid than anywhere else in the world and has raised average life expectancy rates at birth to 77 years for men and 83 for women.

Percentage of Population Aged 60 and Above

Source: The World Health Report, 2004



For companies investing in Italy there is also considerable market potential for Biotechnology applications in traditionally lively sectors of the Italian economy. These range from improvements in agriculture to environmental clean up and industrial applications for enzymes in the Food, Chemicals, Textiles, Leather, ICT and Paper industries. This market is destined to develop rapidly due to the growing demand for innovation in the area of industrial and agricultural production as well as research and quality control.

KEY FACTS

- One of the most attractive domestic markets in the world, worth over **18 billion Euro per year**
- **Over 320 Euro per capita expenditure in Pharmaceuticals**
- **Significant market opportunities for new product lines** due to the intense ageing of the Italian population (the highest rate in Europe and in the USA)

Business Climate

A Caring Approach to Life Sciences

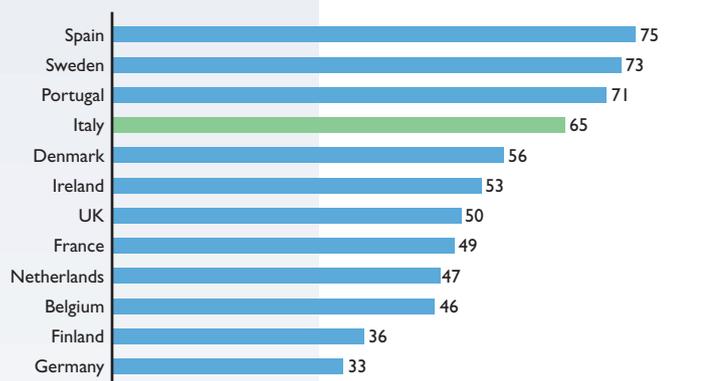
Laying the figures aside for a moment, today's Italian business environment has experienced a thorough-going modernization that is especially well suited to investment projects in Life Sciences and Biotechnology. Recent reforms and implemented innovation support policies make Italy's potential clear and the changes taking place open up attractive opportunities for foreign businesses aiming to enter the market.

Companies operating in Italy today can count on new business rules and modern tools for conducting their affairs thanks to important reforms implemented in the Italian Tax System, Company Law and the Labor Market that ensure the required flexibility.

In general, Italian confidence in research progress and in the innovation in Biomedicine is extremely high, much more than in other European countries.

Biotechnology Optimism Index (100 extremely positive)

Source:
Eurobarometer 64.3. Europeans and Biotechnology, 2005



In a scenario where public funding for R&D is growing, national and regional initiatives in favor of research and innovation in the Life Sciences continue to rise demonstrating the centrality of the sector to the Government's economic policies. Biotechnology in particular is one of the strategic priorities set by the Italian Government in its National Research Plan (Piano Nazionale della Ricerca).

The Ministry of University and Research (MUR) and Regions have set aside over 100 million Euro for the creation and development of four Technology Districts specialized in Biotechnology located in Lombardy, Friuli Venezia Giulia, Sardinia and Puglia.

In addition to such public initiatives, the role of non-profit Foundations, involved in Biomedical research or fund-raising for research projects, continues to grow. Some 20 Italian foundations (featuring, among the most important, the San Raffaele Foundation, the Italian Association for Cancer Research - AICR, the Salvatore Maugeri Foundation, Telethon, the Mondino Foundation and the European Institute of Oncology

Foundation) accounted for over 200 million Euro invested, over a three-year period, in over 4,500 conducted or funded projects. These forms of support for public research are highly attractive because of the mix of public and private resources, greater management flexibility, and the easier interaction with industry.

The activities of Telethon and its research institutes, namely the Telethon Institute of Genetics (TIGEM), the Hsr-Telethon Institute of Gene Therapy (TIGET), Tecnothon (the Auxiliary Technological Laboratory for the Disabled), and the Renato Dulbecco Telethon Institute are particularly noteworthy. Telethon enjoys a strong international profile, through partnerships with the likes of JDRF of the United States and AFM of France, and has released over 1,200 publications in international science journals. The Foundation has invested some 300 million Euro in over 1,200 research projects mainly in the fields of Genetic and Neuromuscular Diseases.

It is also worth remembering Italy's incomparable biodiversity and an entrepreneurial backbone of small and medium-sized enterprises that is particularly flexible and open to innovation.

KEY FACTS

- **New Government's policies and incentives** supporting new Biotech ventures and the development of four dedicated Biotechnology Districts in Milan, Trieste, Bari and Cagliari
- **A prosperous non-profit research system** enthusiastically supported by Italians (200 million Euro invested in 3 years and 1,500 projects conducted per year)
- **A renewed business environment** for investors with a more favorable Tax System, and flexible and easier rules for doing business and hiring personnel
- **A country that trusts and welcomes Biotechnology** research and innovation

Business Settings

Italy's Life Sciences Hotspots

Life Sciences in Italy are concentrated throughout the country in consolidated and emerging clusters with strong specialization in various segments of the sector: Diagnostics, Biomedicine, Bioinformatics, Genomics, Oncology, Pharmaceuticals, and Biomedical Equipment.

The sector benefits from a tradition based on an integrated network of locally accessible companies, services, working relationships and skills that fully meet whatever requirements may arise, from start-up to the development of new lines of business.



Milan

Oncology, Neurosciences,
Genomics, Diagnostics,
Biomedicine, Pharmaceuticals,
Environment, Agricultural
Biotechnology

Turin

Pharmaceuticals, Bioinformatics,
Diagnostics, Biomedicine,
Biomedical Equipment, Environment
(bioremediation), Cosmetics

Siena-Pisa-Florence

Vaccines, Diagnostics,
Pharmaceuticals, Agricultural
Biotechnology, Genomics, Proteomics

Rome

Ematology, Oncology,
Pharmaceuticals, Neurology,
Infectious Diseases, Cardiology,
Genetics

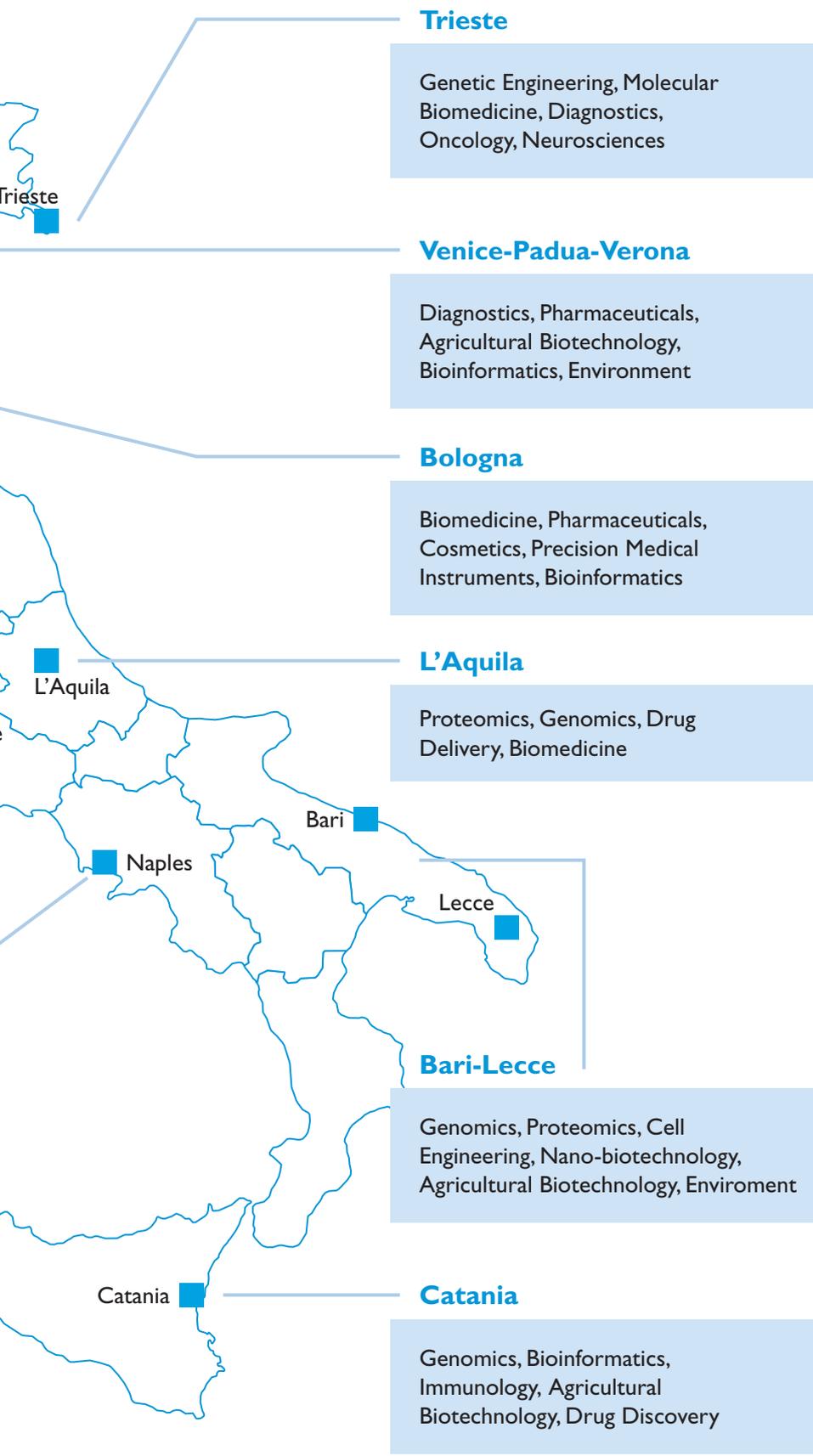
Cagliari

Genomics, Biomedicine,
Diagnostics, Bioinformatics,
Computational Medicine

Naples

Genetics, Molecular Diagnostics,
Oncology, Pharmaceuticals,
Agricultural Biotechnology





InvestItaly

Your First Port of Call

InvestItaly is the Italian organization for investment promotion created by Sviluppo Italia, the National Agency for Inward Investment and Enterprise Development, and the Italian Trade Commission, the Government Agency which promotes the internationalization of Italian companies.

Its mission is to offer a single and reliable reference point to current and prospective foreign investors intending to set up or expand their business in Italy.

InvestItaly Services

Supporting your Business Venture

InvestItaly provides a full spectrum of professional services throughout the investment process: from location scouting to the set up phase, from incentive negotiations to Public Administration dealings and after care services.

The services offered are free of charge and strictly confidential. The skilled and multilingual staff have an international background and a knowledge of industrial sectors, business needs and corporate law.

Pre-investment information

Socio-economic indicators

Business environment

Corporate law and setting-up procedures

Tax system

Financial incentives

Business set-up support

Project evaluation

Location scouting

Site visits

Public Administration relations management

Financial support:

- tailored financial engineering and assistance for fund application
- grants
- easy-term loans
- equity participation

Location Agreement, guaranteeing:

- support for R&D and training activities
- disbursement of incentives
- one single point of reference and constant assistance for the whole procedure
- time-efficient evaluation process

After care

Ongoing support and follow-up business services

Business expansion

InvestInItaly Contacts

The Italian Investment Promotion Network

With headquarters in Rome, InvestInItaly relies on a fully integrated network of 17 Sviluppo Italia regional companies, 9 ICE international information desks and a pool of selected partners for business development.

The international network of InvestInItaly is available for local assistance in the following countries:

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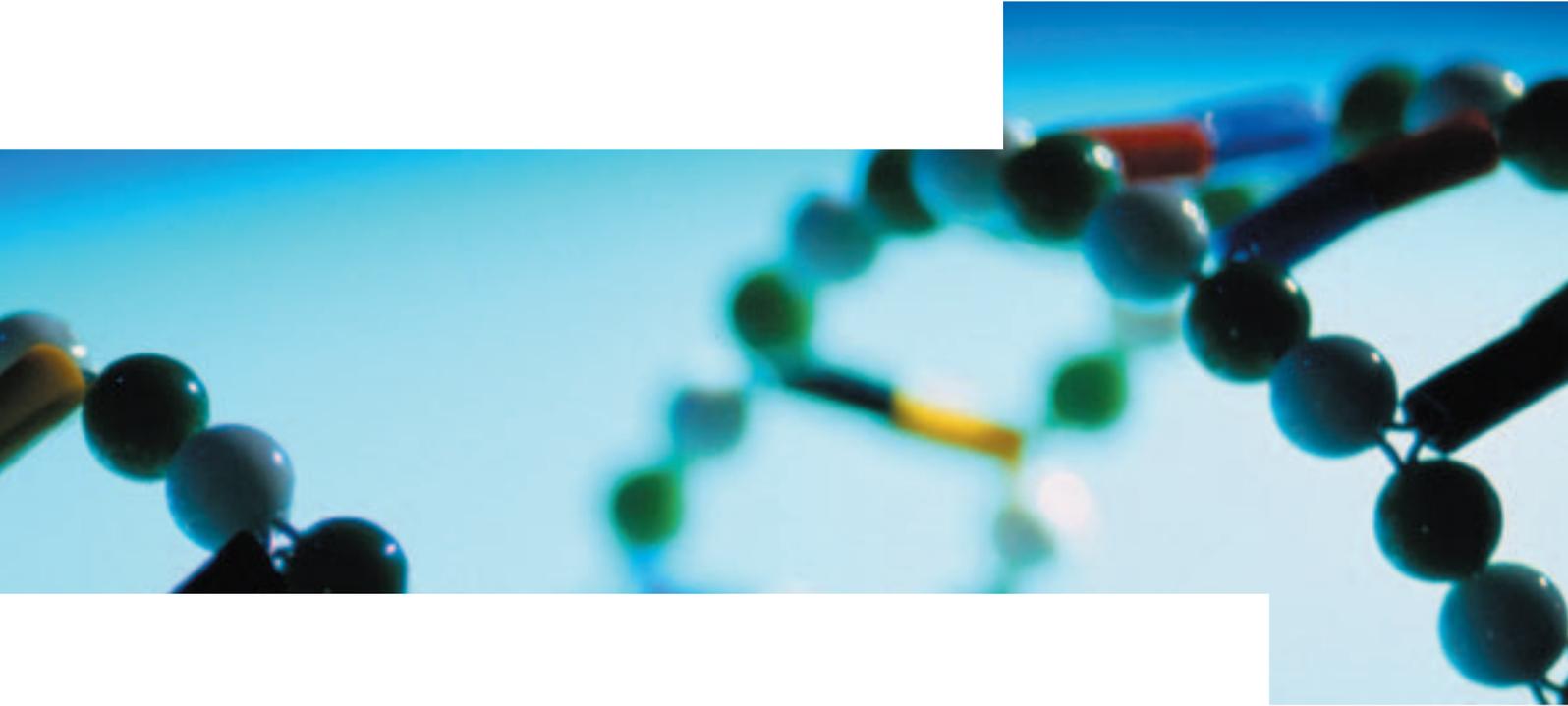
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