



invest in tuscany

P
iS smart
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Why invest in Pisa

Invest in intelligence



Pisa,
where history meets the future.



Regione Toscana



REPUBBLICA ITALIANA



UNIONE EUROPEA
FESR



Le ali alle tue idee

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AN EXEMPLARY STORY

I am happy to tell my story if it can help to understand the possibilities that this city offers. I was born in '64, on the 15th of February in Pisa, the first of seven children. My father was a wandering musician, my mother was a housewife, severe and religious. I was never religious – I even contrasted the Church – until I became older and was obliged to change my mind.

I was quite a good student, but when I tried to support myself with a scholarship I failed. Thanks to the long-sightedness of a businessman who believed in young people and innovation, I managed to continue studying. Even though I was good at Physics and Maths, my father wanted me to study Medicine. After many years I can now say that I didn't like it and never obtained my degree.

In spite of this, and even because of certain things I had invented in the meantime, I obtained a three-year contract when I was 25 and began teaching at Pisa University.

I wasn't exactly a normal teacher and I said many things that the academicians found hard to swallow. They could not even accept the fact that I refused to wear the toga as I taught. Among my publications of that time, you will find a small book that tries to explain my reasons.

The episode that changed my life happened in Pisa. I was visiting the Dome, and I saw the great light in the nave (now replaced but it was there) swing while it was being cleaned. This brought the idea that was central to my subsequent studies.

What happened after is history. It was not always easy to disclose my studies and support my ideas, but my city gave me many instruments, many hints and great courage – the courage to always experiment – which allowed me to do everything I did. I think that if I had been born elsewhere, it would not have happened. Pisa is a perfect place for understanding, doing research and investing. In particular for young people, who I advise to do what another irregular person without a degree (just like me) said: "Feel madness, feel hunger".

*Galileo Galilei**

**The text, apocryphal, is freely based on the biography of Galileo.*



*Pisa, aerial view of Piazza dei Miracoli
(Image courtesy of Pisa Municipality - Report on the 2006 State of the Environment)*



Six good reasons to invest here

It possible to summarize in the following important points:

Accessibility

Excellent network of transport infrastructures

Scientific Atmosphere

Skills in the scientific-technological and economic-managerial fields

Business Atmosphere

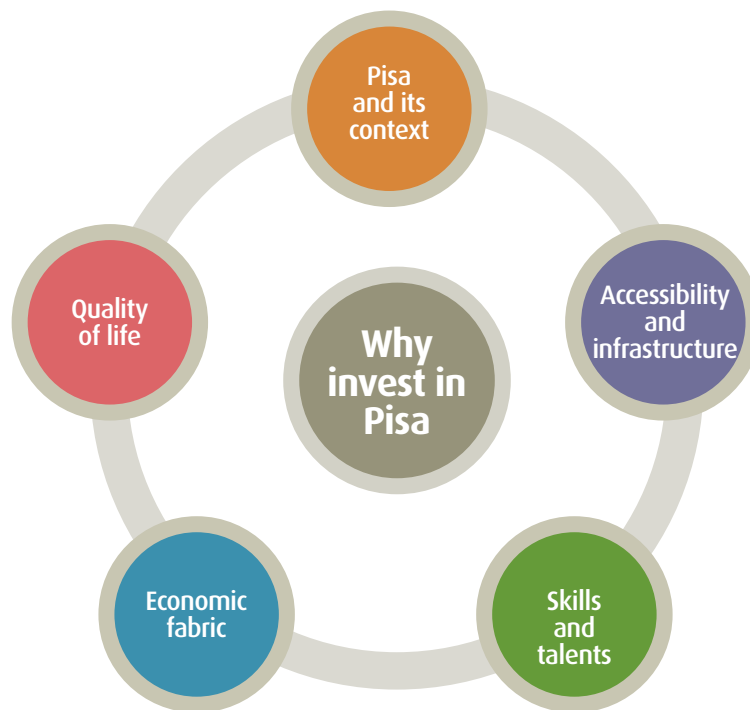
Rich and diversified economic environment

Competitive Costs lower than the Italian and European average for labour and for Rental Costs. Assistance: Services assisting in settlement and suitable spaces

Edutainment and quality of life.

Monuments and quality of life, with sea, and nature.

value drivers





*Pisa, Piazza dei Cavalieri, Palazzo della Carovana, sede della Scuola Normale Superiore
(Imm. royalty free)*

1

Pisa and its context

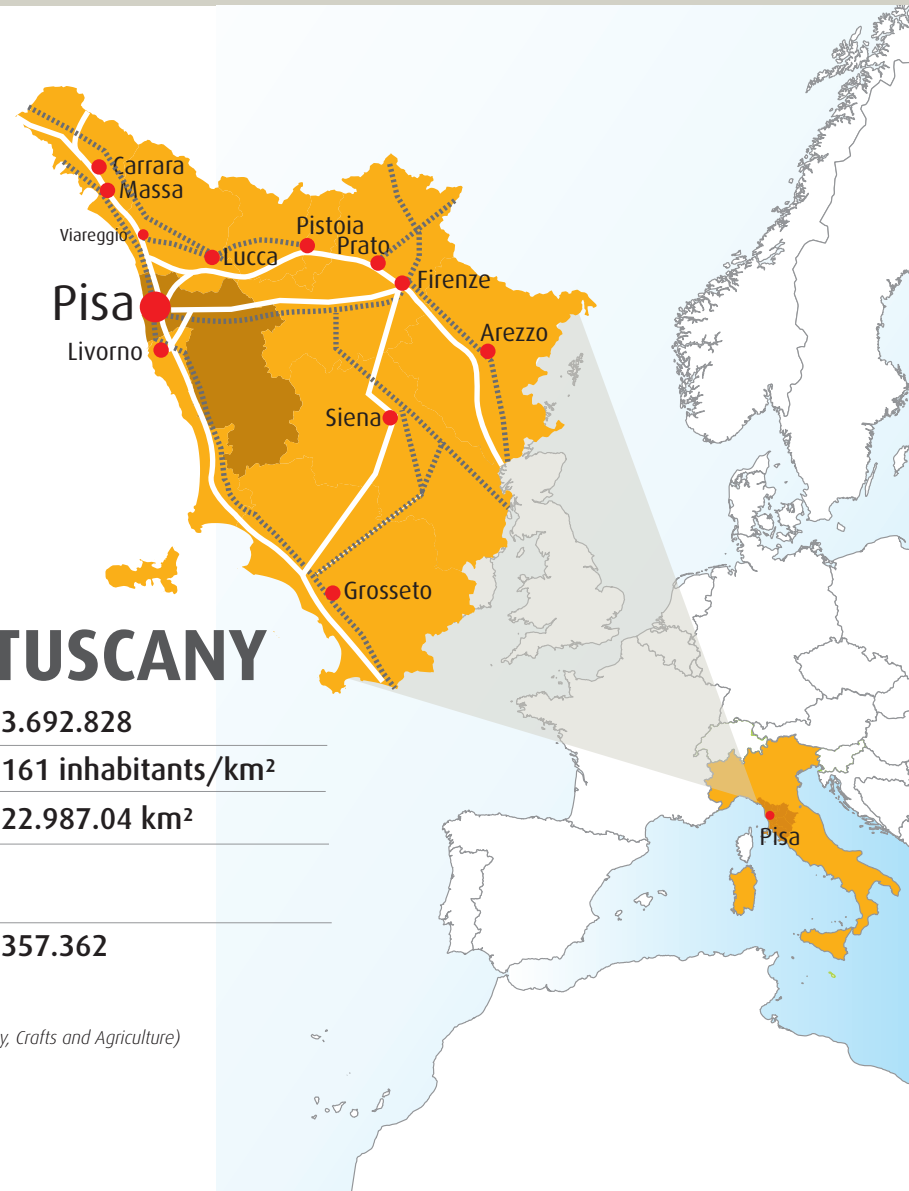
Let us look around

Pisa has an ideal dimension and a focal position. It hosts a large number of multinational companies, with a special propensity for those which operate in the field of research and innovation. It boasts an excellent quality of life.



1. Let us look around

Pisa has a central position within the Mediterranean, which over time has made it a centre of exchange and communication with the Mediterranean and the ports of Europe.



PISA

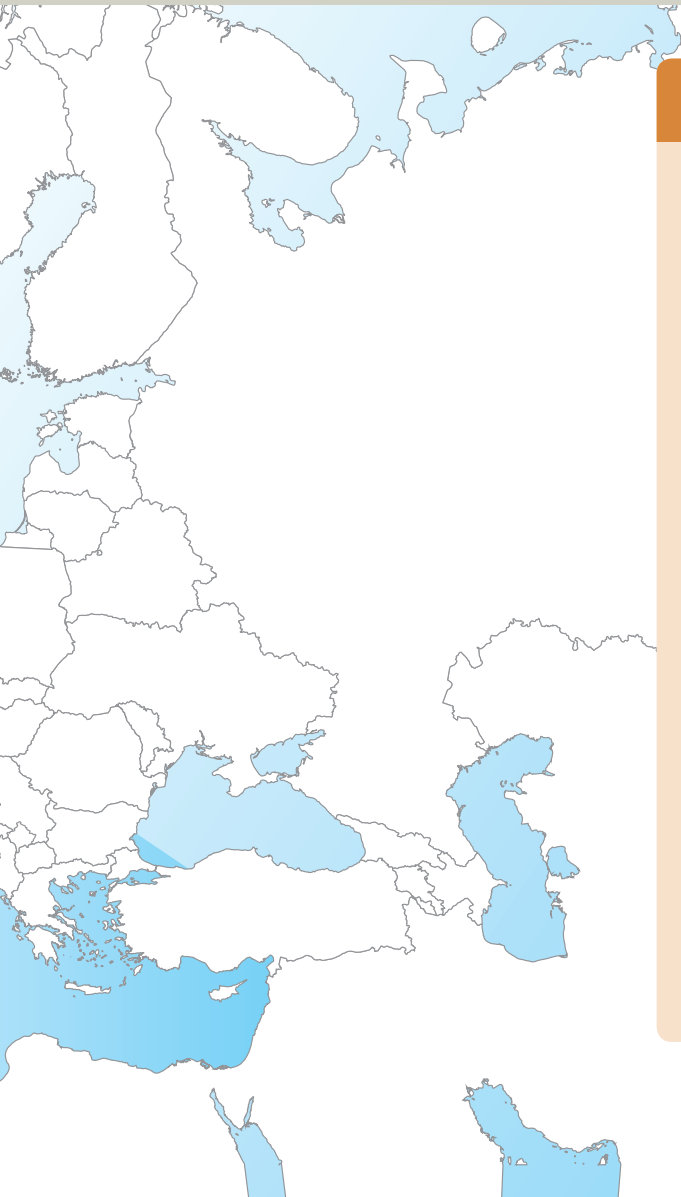
• Population	89.991
• Population density	466 inhabitants/km ²
• Surface	185.2 km ²
• Population residing within the metropolitan area (2014)	110.000
• Companies present	37.372

October 2014 vital statistics from Pisa Municipality

TUSCANY

3.692.828
161 inhabitants/km ²
22.987.04 km ²
357.362

2014 data from Pisa's CCIAA
(Chamber of Commerce, Industry, Crafts and Agriculture)



For the high-tech companies

The Pisa area in Tuscany offers companies the opportunity of fitting into a **unique environment**, which ensures:

- the capacity to recruit highly qualified **skills**,
- **partnership** opportunities with universities and research centres acknowledged worldwide,
- support services to facilitate their **settlement**,
- in a **localization** which is
- competitive in terms of **costs**,
- easily **accessible** and renowned for its quality of life

The Pisa area in Tuscany is an ideal localization for the activities of:

- **Research & Development**
- **Manufacturing e Logistics per l'Italia and SEMEA (South Europe, Middle East & Africa)**
- **Manufacturing and logistics for Italy and S**
- **Engineering & Design**
- **Technical Support**
- **Customer Relationship Management**
- **Manufacturing**
- **Data Centre**



The quality of life

Pisa can boast a quality of life acknowledged worldwide, which enables companies to attract or retain key skills.

It has the sea, the mountain and a lot of green; it has an ideal dimension, a very mild weather.

“If a paradise existed, I wish it would be like this city”, thus did the dear departed Keith Haring (the last of many guests of a city which has turned welcoming reception into its hallmark) define Pisa. A unique heritage of art and history which also offers a thousand chances for amusements and encounters.



*Why Invest in Pisa - Testimonial
Interview with Prof. Guido Tonelli*



A city rich in genius

Besides **Galileo Galilei**

- **Enrico Fermi**, Nobel Prize for physics (1938)
- **CEP** (Pisa's Electronic Calculator), the first Italian Electronic Calculator (1957-1961)
- **1st degree course in IT technology** in Italy (1969)
- **Enrico Bombieri**, Medaglia Fields (1974)
- **Carlo Rubbia**, Nobel Prize for physics (1984)
- **Ennio de Giorgi**, Wolf Prize (1990)
- **Guido Tonelli**, Fundamental Physics Prize (2012)



2

Skills and talents

A campus as large as a city

Pisa's university is one of the oldest in Italy. Today it has three campuses, two of which are Schools of excellence. It hosts, among others, one of the most important seats of the National Research Council (CNR). It is, among Italian cities, the one which has, by far, the highest number of students, structures, labs, professors and researchers, proportionately to the resident population.



2. A campus as large as a city

In Pisa there are three high-level university education Institutions which collaborate with one another in terms of both lecturers and services.

Mission of Pisa's university system:

Human capital factory

training and qualification of the human resources

Knowledge factory

basic research and creation of new knowledge

Technology transfer factory

constant interaction with the world of companies, so as to valorize and transfer the research results

Subjects	Graduates – Pisa	% Pisa/Italy	% Tuscany/Italy
Engineering	1.232	3,4%	5,5%
Scientific subjects	379	4,6%	7,7%
Defence & Security	136	23,3%	23,3%
Chemistry-Pharmacy	289	3,4%	7,3%
Medicine	883	2,8%	8,0%
Agrarian sciences	192	3,3%	7,6%
Geology-Biology	389	2,8%	7,3%
Economics-Statistics	843	1,8%	5,0%
Jurisprudence	385	2,0%	5,7%
Total	6.762	2,2%	6,0%

Source: MIUR (2015 – 2013 data)



Three universities and several talents

The University of Pisa



Pisa University represents one of the oldest university education structures in the world. Its official establishment dates back to 1343, but already in the second half of the XII century we can find historical information on the presence in Pisa of law schools, both secular and monastic. In addition to its entrenched roots, Pisa University represents one of the most prestigious campuses in the world. It was one of the first universities to support the activities of its own researchers abroad.

www.unipi.it

The Scuola Normale Superiore



SCUOLA
NORMALE
SUPERIORE

Established in 1810, the Scuola Normale Superiore of Pisa is a public institute of university education with unique characteristics: selection of students purely on merit, lessons in seminar form, a deep education/research interconnection, an integrated college life, great openness to international exchanges according to the best model of Europe's Higher University Schools.

www.sns.it

The Scuola Superiore Sant'Anna



Scuola Superiore
Sant'Anna
di Studi Universitari e di Perfezionamento

The Scuola Superiore Sant'Anna is a public university institute with special status, which operates in the field of applied sciences: Economics and Management, Jurisprudence, Politics, Agrarian and Bio-technology studies, Medicine, Industrial and Information Engineering.

www.sssup.it



Training & Research

Pisa boasts an excellent university and research system, acknowledged worldwide – holding significant positions in various international rankings:

Academic Ranking of World Universities (ARWU, Shanghai Jiao Tong University), QS World University Rankings, Times Higher Education World University Rankings...



Rankings

In Shanghai Jiao Tong University's

l'ACADEMIC RANKING OF WORLD UNIVERSITIES (2014)

- **Pisa's University** ranks: between the 150th and the 200th place in the world
- **Pisa's Normal High School** ranks: among the top 400 universities worldwide

In **TIMES HIGHER EDUCATION**

World University Ranking (2014)

- **Pisa's Normale High School** is : 63rd in the world, 1st in Italy
- **Pisa's University** is: between 301st and 350th in the world, 10th in Italy

In **QS** (Quacquarelli Symonds)

World University Ranking (2014)

- Pisa's University is: 245th in the world, being the only Italian university ranked "QS Stars" (4th)
- ranked 77th in Natural Sciences, and between the 100th and the 150th place in Medicine
- Between the 100th and 150th place in:
 - Computer Science & Information Systems
 - Mathematics
- Between the 150th and 200th in:
 - Statistics & Operational Research
 - Engineering – Electrical & Electronic
- Between the 200th and 250th in:
 - Engineering & Technology



DEGREE	
ENGINEERING	Computer engineering
	Embedded computing systems
	Telecommunication engineering
	Electronic engineering
	Robotic and automation engineering
	Biomedical engineering
MATHEMATICAL, PHYSICAL AND NATURAL SCIENCES	Computer Science
	Computer Science and networking
	Computer science for the economy and for companies
	Humanistic computer science
	Mathematics
	Molecular and cellular biology
	Molecular biotechnologies
	Biology applied to biomedicine
	Marine biology
	Chemistry

DEGREE	
MEDICINE AND PHARMACY	Pharmaceutical Chemistry and Technology
	Pharmacy
	Medicine and surgery (6 years)
	Dentistry and Dental Prostheses (6)
	Clinical and health psychology
	Sciences and techniques of preventative and adapted motor activities
	Nursing and obstetric sciences
	Rehabilitation sciences for the health care professions
AGRARIAN AND VETERINARY SCIENCES	Vegetable and microbial biotechnologies
	Bio-safety and quality of foods
	Veterinary medicine
	Sciences and technologies of animal productions

MASTER I°	MASTER II°	PhD's
Development of mobile applications	Big data analytics & social mining	Mathematics
Turismo & ICT	Smart cities	Information (Electronics & Telecommunications) Engineering
Nutrition and dietetics in nephrology	Addictology	Biology
Swallowing disorders	Oral and urgent odontostomato-logical surgery	Clinical physiopathology
Clinical posturology	Diagnosis and therapy of vascular diseases of surgical interest	Science of pharmaceutical drugs and bioactive substances
Sports physiology; Sciences and technologies highly specialized in rehabilitation	Clinical experimentation of drugs in internal medicine, haematology and oncology	Clinical and translational sciences
	Implantology	Veterinary sciences
	Child dentistry and interceptive orthodontics	
	Integrated treatment models in clinical psychology	
	Veterinary oncology; Nephrology and urology for cats and dogs	

Students and graduates

2013-2014



THE UNIVERSITY OF PISA

- 50,363 members, of which:
- 574 are in Mathematics; 1,272 in Computer Science; 3,599 in Information Engineering; 2,042 in Engineering in Energy, Systems, Territory and Construction; 5,060 in Civil and Industrial Engineering
- 2939 in Agrarian, Food, Agro-environmental and Veterinary Sciences,
- 2097 in Biology, 813 in Chemistry, 1 800 in Pharmacy, 6 531 in Medicine, 1 416 in Biomedical Engineering
- 6,238 graduates, 207 PhDs, 333 Master's degree graduates and 355 second-level Master's degree graduates
- 102 in Mathematics
- 102 in Computer Science,
- 528 in Information Engineering
- 258 in Engineering in Energy, Systems, Territory and Construction
- 620 in Civil and Industrial Engineering
- 275 in Biology;
- 408 in Agrarian, Food, Agro-environmental and Veterinary Sciences
- 112 in Chemistry, 225 in Pharmacy,
- 1 112 in Medicine
- 166 in Biomedical Engineering

2014-2015



THE SCUOLA NORMALE SUPERIORE

- 504 Students
 - 278 Undergraduate students, 226 graduate students in Mathematics, Physics and Natural Sciences
 - 52 Undergraduate students who gained their Bachelor's degree (2013/14)
 - 31 in the Sciences class
 - 43 PhD students who gained their Doctorate (2013/14)
 - 15 in the Sciences class, with:
 - Mathematics
 - Financial Mathematics
 - Physics ...
- some of whom busy with:
- Methods and models for molecular sciences, Neurosciences
 - Biophysical sciences...

2013-2014



THE SCUOLA SUPERIORE SANT'ANNA

- 110 Tutors, 31 in disciplines related to ICT & Engineering
 - 800 Students undergoing university and post-graduate studies
 - 282 Undergraduate students, 342 PhD students, 62 graduates per year
- Undergraduate Programmes:
- Industrial and Information Engineering: 65 students (21 graduates)
 - Post-graduate Programmes (only in English):
 - MD Computer Science & Networking: 47 (9);
 - MD Embedded Computing System: 16 (N/A);
 - GM Computer Science & Technology 10 (1)
- PhD:
- Emerging Digital Technologies: 35;
 - Biorobotics: 90 ; Innovative Technologies: 16
 - Ordinary university programs:
 - Medical sciences: 56 (10 graduates);
 - Agrarian and bio-technology sciences: 23 (6)
 - Advanced courses (1st and 2nd level Master's degrees):
 - Clinical ultrasonography & nephrology: 10;



Research & partnership

Cardiac Surgery: 12;
 Theory & practice of vascular access in patients on haemodialysis: 20
 – PhD's:
 – Agro-biosciences: 29 (3); Agro-biodiversity: 22 (8);
 Translational Medicine: 28 (6); Bio-robotics: 90 (27);
 Management – Innovation, Sustainability and Healthcare: 35 (6)

The Pisa area exhibits one of the highest concentrations of skill and research networks in Italy and in Europe.

The Pisa area exhibits one of the highest concentrations of skills and research networks in Italy and in Europe
 Pisa's university system strongly hinges around the research activities
 Public research alone can count on more than 3 000 researchers
 It boasts collaborations with the most important and prestigious companies in the world
 It is also at the origin of several start up companies with activities always strongly orientated towards research and development
 It has attracted even leading companies to the development of R&D activities in Pisa

Key players

The university system of Pisa is strongly developed in activities of research

University of Pisa:

- 1,800 Researchers, 270 laboratories
- Scuola Superiore S. Anna in Pisa
- 110 Professors and researchers, 251 research fellows
 - and 147 research collaborators, 6 research institutes

Scuola Normale Superiore of Pisa

- 170+ Employees engaged in research activities, including 58 researchers, 12 research centres and laboratories

The research Area of Pisa's National Research Council (CNR) boasts 1 100 employees and 13 research Institutes

Pisa's University Hospital and is advanced research activity – in collaboration with Pisa University and Sant'Anna's Higher School

Research places



THE UNIVERSITY OF PISA

1,800 researchers, 270 laboratories
40 laboratories dedicated to ICT, 2 Reference Departments.

EUR 20m/year on research expenditure, 48% funded by companies.

Department of Computer Science:

- 60 professors and researchers, 43 PhD students, 13 post-doctorates

Department of Information Engineering:

- 81 professors and researchers, 74 PhD students, 31 post-doctorates

In the 7th European Framework Programme (FP7 - 2007-2013), the University participated in 56 European research projects:

- 4 as Co-ordinator, 42 as partner, 10, as "third party"
- Had 40+ spin-offs in the last 10 years



THE SCUOLA NORMALE SUPERIORE

170+ employees engaged in research activities (58 researchers), 2,5 million EUR in research costs

Research centres, of which:

Mathematics

- Ennio De Giorgi Mathematical Research Centre & Fibonacci Laboratory (partnership with the CNRS, France)
- Research Groups, of which in Mathematics & Computer Science:
- Complex Analysis and Analytical Geometry, Harmonic Analysis, Calculus of Variations and Geometric Measure Theory, Infinite Dimension Analysis, Diophantine Geometry, Algebraic Geometry, Quantitative Finance, Dynamical Systems

Life Sciences

"Bio@SNS" research centre
Neurobiology; Neurosciences
Molecular Biology
20 PhD



THE SCUOLA SUPERIORE SANT'ANNA

110 Professors and researchers, 251 research fellows and 147 research collaborators
EUR14 million on research expenditure, 500+ active projects with a self-financing capacity equal to 95%.

Research institutes, of which:

- **the TeCIP centre** (Communication, Information and Perception Technologies) - with 29 professors and researchers, 63 research fellows and 3 areas:
 - Communications, with the Integrated Research Centre for Photonic Networks and Technologies and Ericsson Research Branch Italy
 - Embedded Systems
 - Perceptual Robotics
- **the Life Sciences Institute:**
 - Bio-medical sciences; Agrarian and biotechnology sciences
 - 103 employees - including 50 between professors and researchers (ordinary and associate), 32 holders of research grants...
- **The Biorobotics Institute**
 - 150 employees - including more than 90 PhDs





CNR

The CNR Research Area of Pisa (National Research Council) has 1,100 employees and 13 research institutes, of which 4 are in the area of ICT & Electronics

ICT AREA

- Institute of Informatics and Telematics
 - 47 Researchers and technologists, 12 associates, 46 research fellows ..
 - Ubiquitous Internet; Security, Reliability, and Privacy for the Internet of the Future; Algorithms and Computational Mathematics; Web Technologies for the Internet of the future, Taxonomies, Thesauri and Classification Systems
- Institute of Computational Linguistics
 - 20 Researchers and technologists, 5 associates, 14 research fellows ...
 - Automatic Processing of Text and Computational Philology; Natural Language Processing and Knowledge Extraction; Resources, Standards, and Infrastructure; Computational Models of Language Processing
- Institute of Information Science and Technology "A. Faedo"

- 102 Researchers and technologists, 53 associates, 92 research fellows ...
- Networking (Domotics, Internet Services Technology, Wireless Networks); Software (Formal Methods & Tools, Software Engineering & Dependable Computing, System & Software Evaluation); Knowledge (Human Interfaces in Information Systems, Networked Multimedia Information Systems, Knowledge Discovery & Data Mining); Visual & High Performance Computing (High Performance Computing, Signals & Images, Visual Computing Laboratory); Flight & Structural Mechanics
 - National Institute of Optics (INO)
 - 17 Researchers and technologists in the Pisa headquarters
 - Optics, Photonics and Plasmas

LIFE SCIENCE AREA

- Institute of Clinical Physiology (IFC, HQ in Pisa) – 400+ employees

- 120 researchers and technologists, 18 associate researchers, 54 holders of research grants, 42 PhD students and 101 affiliated researchers, 37 trainee researchers
 - Cardiovascular diseases, with integrations and ramifications on the relationships (physiologically and disease-wise) between heart and lung, heart and metabolism, heart and environment, heart and brain, heart and cancer
 - Approximately 300 publications in peer-reviewed international magazines (average Impact Factor of 4) in 2012 and 2013; 21 patents, 9 of which international; 27 activated European grants (20 FP7 (Seventh Framework Programs), 5 of which as coordinator); attraction of external resources, in 2012 and 2013, of 9 million EUR/per year
 - Officina farmaceutica with its own production style for the sake of a sterile production of radiopharmaceuticals certified as conforming to Good Manufacturing Practice



- Institute of Neurosciences (IN, HQ in Pisa)
 - 14 researchers and technologists, 10 associate professors, 21 holders of research grants
 - Processing of the membrane's muscular proteins; Chemistry and Biology of natural compounds; Epidemiology of ageing and Biostatistics; Neuroplasticity
 - around 200 "peer-reviewed" publications/per year (average "Impact Factor" of 5)
 - 2,5 million Euros a year from external sources (grants, contracts)
- Institute of Biomedical Technologies (Pisa unit)
 - 3 researchers
 - Somatic Stem Cells
- Institute of Biophysics (Pisa unit)
 - 9 researchers and technologists, 8 associate professors, 3 holders of research grants
 - Photoinduced processes in Biomolecules and Cells; Organization models and complex

- systems dynamics; Protein structure and dynamics; Biodevices and biomolecules; Biophysics and molecular biology in the study of environmental processes
- Institute of Chemistry of Organometallic Compounds (Pisa unit)
 - 24 researchers and technologists, 8 associate professors
 - Development of analytical methods and instrumentation; Raman and LIBS spectroscopies and multi-spectral imaging; Set up & application of NMR and EPR techniques; Preparation & characterization of functional polymers and polymer-based nano-composites; Models & methods for studying complex systems from (bio) molecules to advanced materials
- Institute of Biology and Agrarian Biotechnology (Pisa unit)
 - 10 researchers and technologists, 1 associate professors, 2 holders of research grants
 - Soil Microbiology; Mutagenesis and Differentiation



PISA'S UNIVERSITY HOSPITAL

Pisa's University Hospital

- Hospital founded in the 13th century
- New structure with 70 operating units and 900 beds
- 5 000 employees
- 68 000+ admissions; 550 000+ patients for outpatient clinic services; 22% of patients from other Italian regions
- Transplants (source: AOUP, 2012 data):
 - 60 of kidney, 83 of liver, 84 of bone marrow, 12 of kidney/pancreas, 4 of pancreas



Technology Transfer Factory

Thanks to its adhesion to the most prestigious international research projects, Pisa's university system constantly invests in frontier researches of international relevance, by systematically exploiting the results in terms of:

- Production of national, European and international Patents
- Creation of SPIN OFF businesses

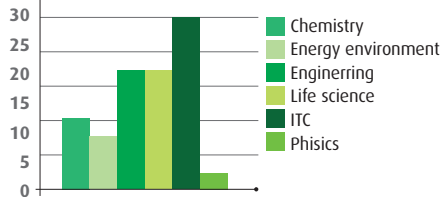
Patents' portfolio – Pisa University

as at 31.12.2013

APPLICATIONS	PATENTS
103 Italian National applicants	61
16 US applicants	8
18 EUROPEAN applicants	4

61 national appointments according to PCT PHASE 2
 438.133 Euros of valorization of active patents, of which more than 50% concerning the last three years
 21 million Euros/per annum the technological transfer in favour of third parties through companies

Distribution of patents granted by Pisa University

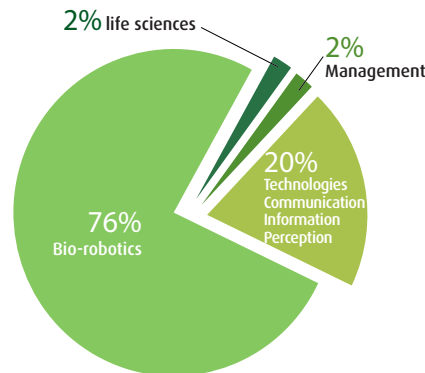


Patents' Portfolio – Scuola Sant'Anna

International patents	52
National patents	72
Total active patents	124
4 brands	
4 designs at EC level	
14 US and enjoyment agreements/licences/cessions within a technological context	

Source: Scuola Superiore S. Anna

Percentage of Scuola Sant'Anna active patents



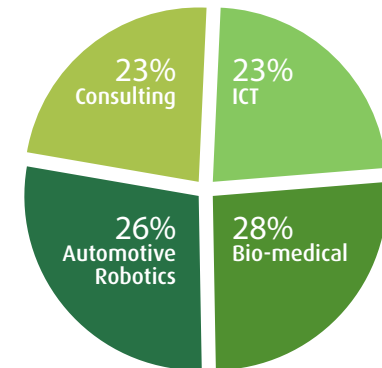
Source: Scuola Superiore S. Anna
 List of available patents accessible from the www.sssup.it/brevetti link

Spin-off – Pisa University

Accredited companies out of totale of 53 examined (beginning with 2002)	37
Accredited companies of which, 12 (beginning with 2011)	25
Millions of euros in overall turnover (2012)	13.2
Companies with 2012 turnover in excess of 1 millions E	3
Awards won by the currently accredited spin-offs	41
PhDplus's Spin-offs	12

Source: University of Pisa

Percentage active Spin-off of Scuola Sant'Anna



Source: Scuola Superiore S. Anna
www.sssup.it/spinoff





3

Operating costs

The vocation to innovate, and thereby save

The cost of work in Tuscany is the lowest among the regions of Italy's centre-north, the costs of office rentals are nearly one-quarter of those in Rome and Milan.

Offices of every size, equipped according to very high standards, are either ready or underway.



3. The vocation to innovate, and thereby save

Pisa is a competitive localization in terms of operating costs

Work costs

The cost of work in Tuscany is in fact lower than the Italian average (CNEL, 2012 data)

- it is the lowest among the 11 regions of Italy's Centre-North
- the cost of work in Lombardy and Lazio is 10% higher

Office rental costs

Office rentals are likewise moderate

- 120 EUR/square meters/per annum on average (108/156 – data: OCO Global, 2015)
- compared to: 425 EUR/square meters/per annum in Rome and 475 EUR/square meters/per an-

Pisa is Low Cost

REGION	Empl. rem. (per single unit of employment)	INDEX 100 = TUSCANY
Piedmont	41.005,1	108,2
Liguria	39.892,6	105,2
Lombardy	43.139,5	113,8
Trentino Alto Adige/Südtirol	40.893,2	107,9
Veneto	39.335,3	103,7
Friuli-Venezia-Giulia	40.790,5	107,6
Emilia-Romagna	39.585,5	104,4
Tuscany	37.914,8	100,0
Lazio	42.539,2	112,2

Fonte: CNEL (2015, dati per il 2012) – Calcoli OCO Global

num in Milan
(Cushman & Wakefield, 2014)

2 incubators might host start ups and R&D activities

- Incubator of Pont-Tech – Pontedera / CERFITT;
- Incubator of Navacchio's Technological Pole

Manufacturing costs

Pisa is a competitive localization in western Europe in terms of operating costs for a manufacturing activity

- The cost of work in Italy is in fact lower than the western Europe average (Eurostat) and
- the cost of work in Tuscany is lower than the Italian average (CNEL, 2012 data)
- the cost of work in Lombardy, Piedmont, Ligu-



- ria and Lazio
- is, in the industry sector, 10% higher than Tuscany's cost
- The costs associated with industrial sites are likewise moderate
- estate
- depots

Work - Cost (Industry)

Country	Hourly Compensation Costs (USD, 2013)	Italy = 100
Switzerland	63,23	171,3
Belgium	54,88	148,6
Sweden	51,10	138,4
Denmark	51,07	138,3
Germany	48,98	132,7
Austria	44,37	120,2
France	42,85	116,1
Netherlands	42,26	114,5
Ireland	41,98	113,7
Italy	36,92	100,0
United States	36,34	98,4
United Kingdom	31,00	84,0
Spain	28,09	76,1

Work - Cost (Industry)

REGIONE	EMPL. REM. (per single unit of employment)	INDEX 100=TUSCANY
Piedmont	47,6	115,0
Valle d'Aosta	41,7	100,9
Liguria	46,0	111,1
Lombardy	46,7	113,0
Veneto	42,4	102,4
Friuli-Venezia-Giulia	43,3	104,7
Emilia-Romagna	45,5	110,0
Tuscany	41,4	100,0
Lazio	50,2	121,3

Many places where to work

Solutions for Relocation

- Cittadella Galileana - Pisa (available end 2015)
 - 15 offices of 30 sqm - EUR330/month
 - 6 offices of 150 sqm - EUR1,650/month
- Polo di Attività Montacchiello - Pisa (Forti Holding)
 - 5,000 sqm of offices under construction - with an "LEED" Gold standard
 - (6 000 sqm of offices already occupied - 50+ companies, 1,000 employees)
- Pont-Tech Incubator - Pontedera / CERFIT, Research and Training Centre for Innovation and Technology Transfer
 - Incubator, Accelerator, Virtual Office
- Polo Tecnologico del Navacchio Incubator
 - 10 000+ sqm of spaces for businesses and start-ups
 - Incubator: 20 modules, over 1,200 square metres





4

Accessibility and infrastructures

All the roads lead to Pisa

Two complementary international airports, a railway network of the highest importance, three highways and one freeway, one port, one freight terminal. Pisa's infrastructures make it easily accessible from every side by every means.



4. All the roads lead to Pisa

Pisa finds itself in a unique position within Tuscany, easily reachable from the whole of Europe and from the Mediterranean countries. It is additionally endowed with an excellent network of infrastructures for the movement of goods and persons.

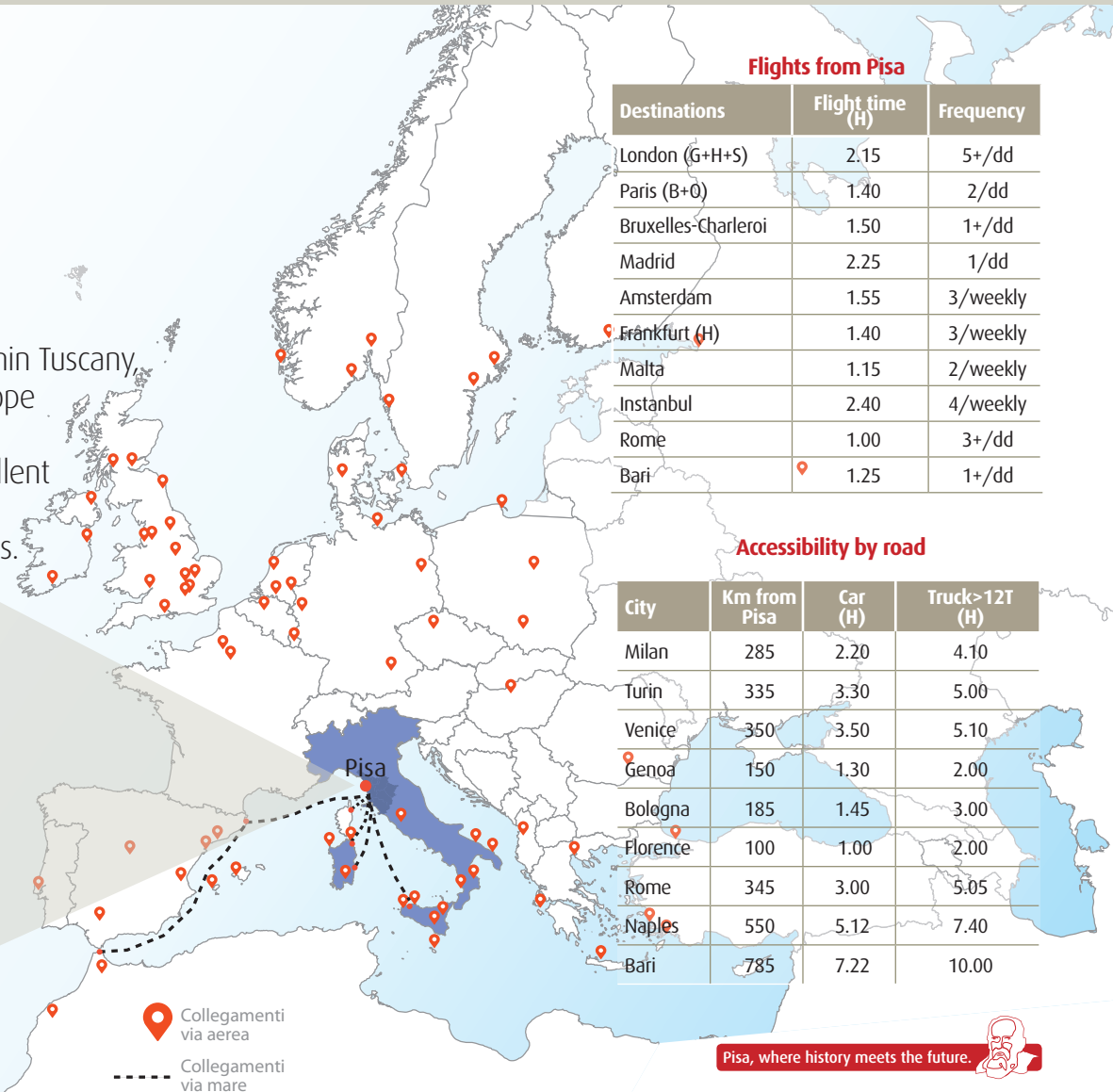


Flights from Pisa

Destinations	Flight time (H)	Frequency
London (G+H+S)	2.15	5+/dd
Paris (B+O)	1.40	2/dd
Bruxelles-Charleroi	1.50	1+/dd
Madrid	2.25	1/dd
Amsterdam	1.55	3/weekly
Frankfurt (H)	1.40	3/weekly
Malta	1.15	2/weekly
Istanbul	2.40	4/weekly
Rome	1.00	3+/dd
Bari	1.25	1+/dd

Accessibility by road

City	Km from Pisa	Car (H)	Truck > 12T (H)
Milan	285	2.20	4.10
Turin	335	3.30	5.00
Venice	350	3.50	5.10
Genoa	150	1.30	2.00
Bologna	185	1.45	3.00
Florence	100	1.00	2.00
Rome	345	3.00	5.05
Naples	550	5.12	7.40
Bari	785	7.22	10.00



Collegamenti via aerea
 Collegamenti via mare

Pisa, where history meets the future.

Pisa exhibits an excellent network of transport infrastructures which facilitates the city's accessibility

a nearby international airport (less than 5 km from downtown Pisa), Tuscany's top airport and among the top 10 airports in Italy

with daily flight connections to London (5 days), Paris (2 days), Bruxelles/Charleroi (1 day)... and Rome (3 days)

another international airport in Florence, 85 km from Pisa

railway connections enabling one to be in less than:

3 hours in Rome and 3 and a half hours in Milan (and only 1 hour from Florence)

a highway network enabling one to reach in less than 4 hours the other major Italian cities: Milan, Rome, Turin, Venice



Flights connections

Pisa's "Galileo Galilei" airport, the top airport in Tuscany and among the top 10 airports in Italy in terms of passenger traffic (only 1,5 km away from the city)

- 4.683.811 passengers (2014 – a rise of 4,6%)
- regular flights to the main Italian and European cities
 - London, Paris, Munich, Berlin, Amsterdam, Charleroi, Madrid, Barcelona, Valencia, Dublin, Istanbul...
 - Rome, Cagliari, Palermo, Catania, Bari...
- seasonal flights to New York (USA) and many other European cities
- closeness to the city center, railway connection with Pisa's station



Accessibility goods

Pisa is a 5 hour drive (by truck > 12T) from the other major Italian cities: Milan, Turin, Venice, Bologna and Rome

Pisa benefits in fact from an excellent highway network:

- North-South highways: A12-E80 Genoa-Livorno (+ Civitavecchia-Rome) and A15-E33 La-Spezia-Parma + A1-E35 Parma-Milan
- East-West airway: A11-E76 Pisa-Florence

Pisa's airport boasts a Cargo Village for air freight

- with a handling capacity of 30 000T, 4 200 square meters of warehouses, 6.950 square meters of handling/car parking service areas by the air-side and 7.300 square meters of a handling/car parking service area by the land-side

Pisa is located near 2 of the top 6 Italian ports:

- Livorno's Port (the 6th Italian port), 25 km from Pisa, Genova's Port (the 2nd Italian port), 165 km away



Railway network

Main station right in the city centre.

Direct connections with other cities in Tuscany and Italy

Florence (1h/1h15 min), Livorno (15/20 min)...

Rome (2h30/2h50) , Genoa (1h45/2h15), Turin (4h00/4h15)...

Connections through high-speed trains with Milan (3h10/3h20), Bologna, Venice, Rome, Naples... – via Florence



Highway network

- North-South highways:
 - A12-E80 Genoa-Pisa-Livorno + Civitavecchia-Rome
 - A15-E33 La-Spezia-Parma + A1-E35 Parma-Milan
- East-West highway :
 - A11-E76 – Pisa-Florence

The Inland Navigation System

The system of inland water with Navicelli canal will connect Pisa with the Porto of Livorno.

- A width of 16.5 km
- A surface of 31.60 m



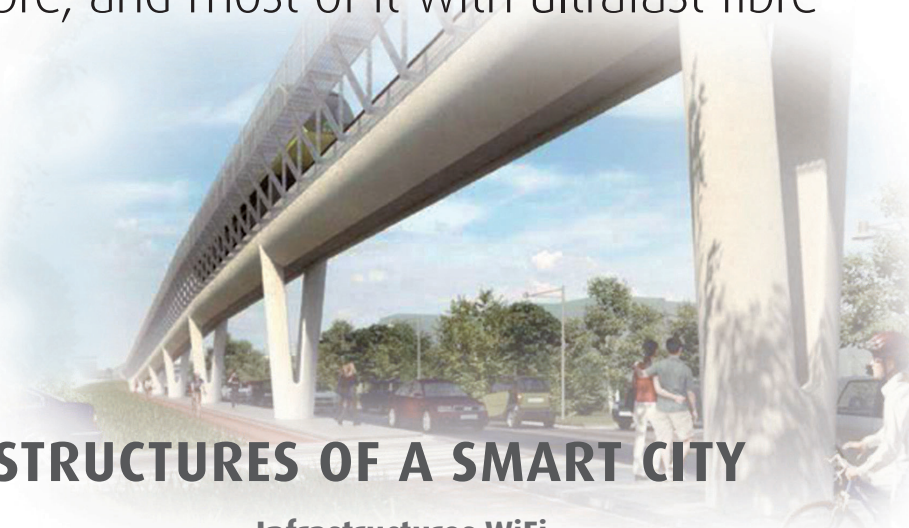


Besides the municipal wi-fi infrastructure, the whole city of Pisa is equipped with optical fibre, and most of it with ultrafast fibre

The city of Pisa invests in smart technologies for the sake of a significant reduction in the emission of CO2:

- People Mover which from 2015 will ensure a fast connection between airport and station, thereby facilitating the tourist and business flow from and to the airport
- E-Mobility, the capillary infrastructure for electric cars
- Bike Sharing
- Info-mobility boasting traffic detectors and panels for car drivers

Also underway are the Car Sharing and Electric Busvia Route projects which will take one from the station to Cisanello Hospital and which can count on a network of power stations for the utilization of electrical cars



INFRASTRUCTURES OF A SMART CITY

Infrastructures WiFi



- 27** Hotspot
- 80** Access points
- 92.720** square meters of cover area
- 32.735** Registered users
- 94%** Customers positiv (since january 2014)

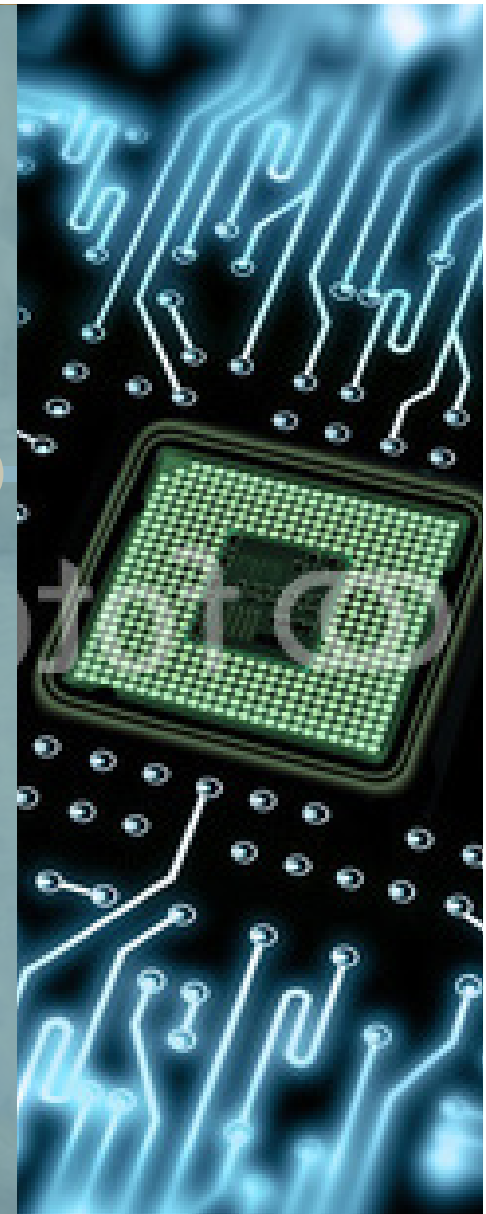


5

The economic fabric

Fertile ground for innovation

Pisa's area boasts a rich presence of manufacturing industries brimful of quality and history (the legendary Vespa was born here). It is Tuscany's number one in province in terms of number of ITC companies. Many were born here, others have chosen it as their natural and functional seat due to the opportunities it offers.



5. Fertile ground for innovation

Dynamic and diversified territory
where traditional companies
and innovative ones coexist.



Economic fabric

The Pisa area represents an important productive pole in Tuscany's economy, second only to that of Florence. It has a strong specialization in the fields of light vehicles – including a world leader in Piaggio (3 000 employees) – and pharmaceutical drugs – including Baxter, Octopharma, Guidotti (Menarini), Abiogen Pharma, Farmigea, Laboratori Baldacci...
It represents reference sites of large international groups such as Continental (car components, 1 000 employees – including a R&D centre) or Saint-Gobain (glass, 300+ employees)
In the city of Pisa itself, a substantial concentration of research, development and technical support activities are linked to information and communication technologies.

High-Tech

Pisa is considered the cradle of Italian information technology, with the first electronic calculator (CEP) in the mid 50s. The area of Pisa sees a concentration of favorable factors of development: University, from which come 60% of graduates in technical and scientific information, the National Research Council (CNR) and also the activities of the three Innovation Poles (Navacchio Pole in Hi-tech; Sant'Anna Valdera in the biomedical, micro-engineering, robotics, Pont-Tech as incubator). With results there is an incidence of 6% of patents registered in Italy and the 8% of the Italian university spin-offs.
The province of Pisa is the second in Tuscany by High Tech start-ups, with companies especially in ICT, Advanced mechanics and Chemistry.

Economy – Foreign companies

The Pisa Province boasts 50 sites controlled by foreign companies, with a great diversity of sectors and activities, and the presence of several world leaders

- Manufacturing & Logistics – automotive (Continental), building material (Knauf, LafargeHolcim), glass (Gerresheimer, Saint Gobain), chemistry (Caparol-Daw, McPhy), mechanics (DAB Pumps-Grundfos, Pentair Water, Smith Bits-Schlumberger, United Technologies), consumption electronics (Linn), pharmaceutical drugs (Baxter, Octopharma), food (Carlsberg, Heineken), leather (Kering)...
- Services, ICT & R&D – engineering (Altran, Aarhus Geophysics), software (IOS Trading, Aspen Technology), electronics (AMS, Dialog Semiconductor, Ericsson, Maxim Integrated), call centers and shared service centers (Experian, Vodafone)...

Target Sectors are ICT-LIFE SCIENCE AND ROBOTICS

ICT Cluster

Tuscany has the F.O.R.T.I.S.

"Technological District", which is an organisation of clusters in the ICT & Electronics sectors:

– Photonics, Optoelectronics, Robotics, Telecommunications, ICT and Space.

It brings together more than 700 companies - representing 27,000 employees - and the University system and research.

The cluster is supported by the Regione Toscana.

www.optoscana.net

ICT Sector

Pisa, the top Tuscan Province for numerous companies in ICT, has seen the birth of and has attracted many leading Italian and International companies in the various segments of ICT

- Software:
 - Acta, Apparound, Aspen Technology, Insurance Online, ION Trading, List Group, PC System...
- Digital content & media:
 - Biobeats, Italiaoline, Tiscali - istella, Synthema...
- Electronics/Microelectronics:
 - AMS, Dialog Semiconductor, Ericsson, Maxim Integrated
 - Consultancy services in Technology and Information Technology
 - Altran, Aruba, Exis, Extra, Sysdat.it, Tea Sistemi, Team Duemila, TD Group...

ICT - Foreign Companies

- Altran (technology consulting & outsourced research)
- Apparound (software - CPQ/Configure, price & quote)
- Aspen Technology (software for process industries)
- AMS/Austriamicrosystems (microelectronics - sensors)
- Dialog Semiconductor (microelectronics - semi-

conductors)

- Ericsson (Electronics - photonics)
- Italiaonline/Libero (digital media)
- ION Trading (software - fintech)
- Maxim Integrated (microelectronics - semiconductors)
- Unique Lights (electronics - LED)
- Vodafone (telecommunications)

ICT – Italian Companies/Start-ups

- Aruba - Exentrica (computer services - security)
- Extra (computer services)
- Sysdat.it (consultancy, IT services and solutions)
- TD Group (computer services)
- Exis (computer services for Oil & Gas)
- Tea Sistemi (engineering & software for Oil & Gas)
- Insurance Online (software - fintech)
- List (software - fintech)
- PC System (enterprise management software)
- Synthema (computational linguistics)
- Tiscali (digital media - search engine "istella")
- Acta (software - industrial and nuclear security)
- BioBeats (digital media - e-health)
- Erre Quadro (software - IP)
- IngeniArs (software and electronics - space, telemedicine, vehicles, energy)
- Kiunsys (software and electronics - mobility/ Smart City)
- NetResults (telecommunications - components/ network equipment)
- Witech (telecommunications - wireless)



- QB Robotics (robotics - Natural Motion™ engines)
- Marwan Technology (optics - laser)
- PlasmaTech (optics - laser)
- JOS Technology (electrical systems)
-

Life Sciences

The Pisa area represents an important productive pole in Tuscany's economy, second only to that of Florence. Pisa has witnessed the creation of, and has attracted, several leading Italian and international companies across the different Life Sciences segments, such as: Guidotti (Menarini group), Abiogen Pharma, Farmigea, Laboratori Baldacci...

Baxter (USA), Octapharma (Svizzera)

Pisa currently boasts around 40 companies and more than 850 jobs in activities associated with the Chemical-Pharmaceutical and Biomedical fields.

Most of these companies carry out in Pisa activities focused on the production, research and development functions.

Life Sciences - Companies

Leading companies

- Baxter (human albumin)
- Octapharma (plasma)
- Guidotti - Menarini group (cardiology e diabetics)
- Abiogen Pharma (Primary Care and rare diseases)
- Farmigea (ophthalmology)
- Baldacci Labs (drugs, medical devices, food supplements)
- Pharmanutra (nutraceutical)
- Gensan (nutraceutical)
- Regulatory Pharma Net



Economy - "High-Tech"

Sector	Local units	Persons in charge	% local units / Tuscany	% persons / Tuscany
Life Sciences	15	484	13 %	5 %
Advanced Mechanics (of which Robotics)	30	1484	11 %	14 %
Chemistry	24	368	27 %	8 %
Electronics	14	107	9 %	3 %
Energy & Environment	16	486	17 %	33 %
ICT	126	1537	20 %	21 %
Services for innovation	14	134	19 %	17 %
Other	14	126	24 %	5 %
TOTALE	253	4726	17 %	12 %

Source: Observatory of High-Tech Companies, St. Anna's Higher School (2014, 2011 data)





6

Support services

What is needed to grow

All the necessary services. Environment, logistics, information, facilitations and assistance for the best reception of companies which will choose to invest here.



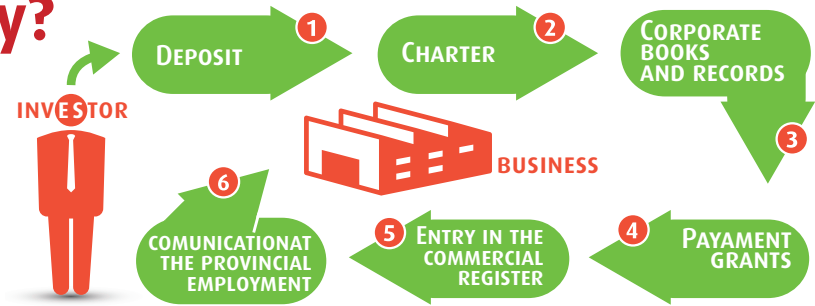
6. What is needed to grow

Services to companies

The Pisa Municipality – in collaboration with the Tuscany Region and its agency Tuscany Promotion offers free of charge information, liaison work and assistance to the establishment and development of new companies within the territory:

- information about the territory, the sector, the infrastructures, the operating costs – liaison with qualified service providers (advocates, accountants), universities and research centres
- assistance in the search for offices/spaces, incentives to R&D, employment of qualified staff.

How to make a business in Tuscany?



The six steps to set up a business in Italy

As regards the information and the procedural support, there is at present a national online service, called “Business in one day”¹. It consists in a portal which aims at facilitating communications between companies and Public Administration (PA). Since 2010, the Single Business Communication (“ComUnica”)² was introduced, thereby simplifying the relationship between Companies and Public Administration.

Now, therefore, all the necessary obligations might be complied with by resorting to a single online pole³. By means of a notification to the Chamber of Commerce, one can perfect even the information for the Municipality (SUAP Office: One Stop

Shop for Productive Activities), the Tax Agency (as regards VAT), and the INPS-INAIL portal as regards to the pension fund and insurance positions.

There are, moreover, various sites where one can find information on what are the laws and the regulations which are part of the European network EUGO4. The procedure for opening a business in our Country, according to the reconstruction by Doing Business 2013 in collaboration with lawyers and professionals, necessitates six procedures, each of which requires approximately one day to be finalized. The costs of those procedures come up to close to Euros 4.000 overall, in addition to the starting capital. Such costs decrease for persons under 35.



OVERALL FRAMEWORK OF INTERVENTIONS ON BEHALF OF FESR - 2014-2020

THEME-BASED OBJECTIVE/INVESTMENT PRIORITY	ACTIONS	RESOURCES (%)
1 – Strengthening research, technological development and innovation / Promoting companies' investments in innovation and research and developing synergies between companies and R&D bodies. Enhancing the infrastructure for research and innovation (R&I)	<ul style="list-style-type: none"> - Aids to investments in RDI - Aids to the innovative start-ups - Aids to the qualified services - Cooperation platforms - Infrastructures for research 	32%
2 – Improving access to information and communication technologies, as well as their commitment and quality / Extending the broadband and high-speed networks and supporting the adoption of emerging technologies and digital economy networks	<ul style="list-style-type: none"> - Completion of broadband infrastructure - Realization of ultra-wideband - Realization of digital platforms 	10%
3 – Promoting the competitiveness of Small-to-medium companies / Supporting the capacity of Small-to-medium companies to commit to their own growth on the regional, national and international markets and in the innovation processes. Business creation Internazionalization	<ul style="list-style-type: none"> - Aids to business creation - Aids to investments for the sake of Small-to-medium companies' competitiveness - Internazionalization: aids to exports and attraction of investments 	19%
4 – Supporting the transition towards an economy based on low emission of Co2 in every sector / Promoting energy efficiency and the use of renewable energy in companies as well as low emissions of Co2	<ul style="list-style-type: none"> - Aids to energy efficiency of the immovable properties used as corporate head offices and of the production plants - Aids to the production of renewable energy sources for the sake of companies' self-consumption 	25%
5 – Urban axis / Protecting, promoting and developing the natural and cultural heritage	<ul style="list-style-type: none"> - Urban innovation projects - Great cultural / museum attractors 10% 	10%
6 – Technical assistance		4%
TOTAL RESOURCES – approximately 800 MILLION		100%



invest in tuscany

YOUR KEY PUBLIC PARTNER FOR BUSINESS IN TUSCANY

Invest in Tuscany is the programme promoted by the Region of Tuscany, in collaboration with its dedicated Economic Development Agency, Toscana Promozione, to assist investors in the setting-up and the expansion of their operations in Tuscany. Invest in Tuscany provides a comprehensive support to foreign investors establishing businesses or planning equity investments in Tuscany.

It assists investors in creating and developing networks with Tuscan partners and facilitates the relations with the local authorities and public and private institutions.

The Tuscan Region (Investment Attraction Sector) coordinates activities of investment promotion and investor assistance and supports enterprises interested in making direct investments.

Toscana Promozione performs international promotion activities and offers expert consulting services in support of decisions to locate investment projects in Tuscany.

Tuscany's Provincial and Municipal Administrations offer a service of assistance connected with the local area and with harnessing their own points of excellence and locations, emphasising their advantages and skills.

We wish to thank, for their beneficial collaboration to the drawing up of the present File:

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Pontech

Polo Tecnologico Navacchio

Prof. Guido Tonelli – testimonial

Q-R Quadro

Jos Technology

Biocare Provider

Source International

Endotics

Otsuka

Biobeats

Quiipu

Biobeats

Net result

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