

# THE FUTURE GETS THROUGH HERE

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**TUSCANY, WITH ITS DISTRICTS, ITS CLUSTERS AND INNOVATION CENTRES DESIGNED, IN THE LAST YEARS, A PERFECT NETWORK OF OPPORTUNITIES AND RELATIONSHIPS FOR THE DEVELOPMENT OF VALUABLE PROJECTS AND PRODUCTS FROM THE NOTICEABLE INNOVATIVE PROFILE.**

Tuscany at the  
centre of Europe

## ACCESSIBILITY INFRASTRUCTURES



**THEREFORE, THERE ARE MANY FOREIGN COMPANIES THAT ARE ATTRACTED TO THE TUSCAN TERRITORY, IN ORDER TO DEVELOP EXCELLENCE PRODUCTIONS. HERE FOLLOW THE SCOPES AND SECTORS IN WHICH THE TUSCAN SPECIFICITY IS MORE MARKED.**

## **BIOMEDICINE AND BIOTECHNOLOGIES (LIFE SCIENCE)**

Tuscany presents a relevant concentration of university departments and research centres, involved in this field. The University of Pisa, Siena and Florence “produce”, every year and in this sector, more than 9000 graduates. The biotechnologies compartment is the most active one at the CNR (Italian National Research Centre) and for which Regional Incubators, 10 altogether, and Technological Centres receive most support requests. The heart of this ferment is the central area of the region that, from Pisa to Siena, spreads to the florentine metropolitan area. In these territories Novartis, Eli Lilly, Menarini, El.En, Boehringer Ingelheim, Abiogen that, since many years, have chosen Tuscany as one of the main locations for their development politics. These companies understood the value of system’s processes and the articulation of allied industries able to satisfy the more diverse needs of the process of production, from the planning phase.

Tuscany counts 201 firms in this sector, generating a yearly turnover of 3.5 billion euro and employing more than 13000 operators, figures that put it at the second place among Italian regions.



## ROBOTICS

A few people know the value of the research carried out in the department of Robotics of the University of Pisa and of the artificial intelligence department in the sienese university but, actually, the level of research in this sites place Tuscany in a high rank in terms of excellence, world-wide.

In the last twenty years, studies and researches, starting out from the traditional automotive sector (paper and fabric processing machinery), proliferated and aimed to added value ranges, above all the medical compartment and "humanoid" robotics.

Tuscany is the third region for number of companies, 83, and operators in this sector, with an export attracting the 28 % of production and involving countries such as Germany, USA, France and Spain.

## ENVIRONMENT

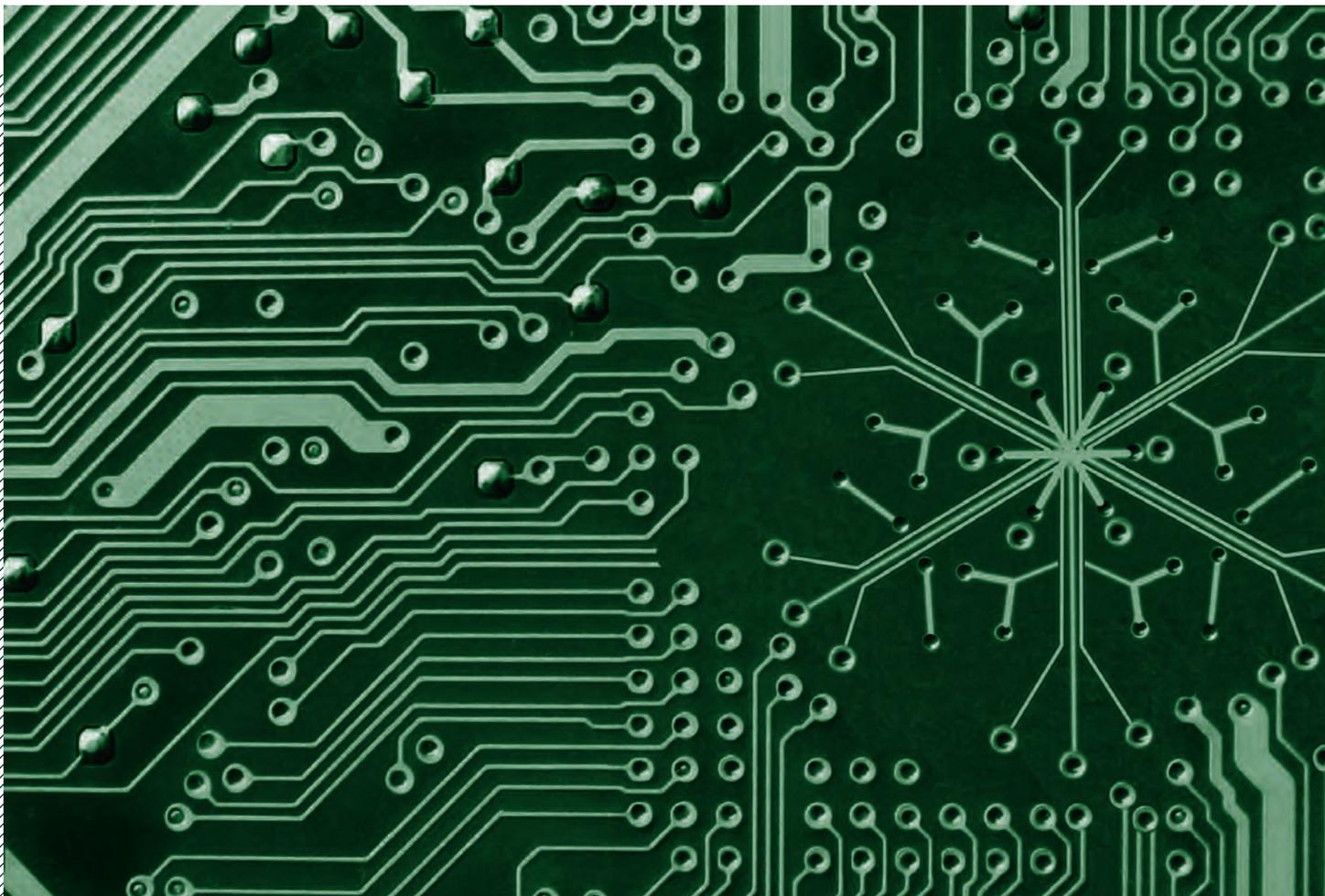
Tuscany, since many years, has interpreted the global necessity for sustainability and readjustment of resources, directed to development of advanced technologies in the renewable and non-polluting energies sector. Almost the 100% of the Italian geothermal energy is produced in Tuscany and has here the head office of the ENEL (National Electricity Board)

Research Centre, that, with years, promoted studies and researches for the production of biomass energy and experimented technologies for energy saving applied to housing.

Other important studies are carried out by university departments and by the CNR and are shared with small and medium firms, developing innovative projects. The most palpable results are the amount of renewable energy produced in Tuscany, about the 30 % of the total, and the high number of patents that, every year, are brought to big international companies' notice.

## PHOTONICS

As mentioned above, Tuscany has many surprises in store for who does not know deeply its innovative character. A case over all: photonics, a market's niche in which this region is European leader and can compete worldwide for its very high concentration of parties involved in research and development activities. From optics, that maybe has Galileo Galileo as its initiator, to laser and lighting sectors, we talk about a field engaging companies at National and International level, such as .En., SELEX Galileo, Esaote e Targetti. Many of these companies, with the support of university and research centres, are involved in such a continuous development activities to lead them to



excel in key fields of Tuscan economy: ICT, biomedical and health and, even, cultural heritage and aerospace industry. Sectors where the use of laser and photonics technologies is extremely successful.

Particularly, the application of laser in the restoration of architectural heritage and artistic artifacts sees Tuscany excel world-wide and its companies are popular in many areas of the world. In this field, the studies run by CNR and the researches produced by companies as El.En, allowed to expand extremely advanced technologies for measurement, cleaning and restoration of marble and stone artifacts, leading the *Opificio delle Pietre Dure (Workshop of Semi-precious Stones in Florence)* to be considered one of the most refined and advanced restoration laboratories in the world.

In short, Tuscany is in the vanguard in a field, the photonics one, that will be one of the keys to access to the XXI century's market and that will end up affecting many aspects of everybody's life and determining new competitiveness logics.

## AUTOMOTIVE

Engineering has always been an old friend of Tuscany and, without disturbing the great names of the past, we can state that in this region an high quality profile

and, most of all, an excellent synthesis between the reasons of mechanics and design's refinement is carried on.

This region hosts research centres committed daily in study activities and in laboratory tests with specialization in energy and engineering applied to automated equipments and automotive industry. It's here that Piaggio and Breda have their head offices and where components for Ferrari, Lamborghini e Ducati are produced.

General Electric choose Tuscany for the production of turbines exported all over the world and used in the sector of traditional and new-generation energies.

## ICT

Let us start with a figure that conveys the level of enterprise of this territory in the ICT field: 23 research centres are involved in studies, processes and development.

From telecommunication to wireless systems, from satellite and space technologies to microelectronics, from the web to the definition of procedures for bioinformatics, the areas in which thousands of excellent working researchers and companies at global level, included "big" companies like IBM or Google, are extensive indeed.

