When you think of Italy, what comes to mind? The most beautiful cars in the world, the red Ferrari as one of the ten most famous brands in the world? The most delicious food, like Parmigiano-Reggiano or balsamic vinegar? The films of Fellini and Antonioni? The voice of Luciano Pavarotti? Well, maybe you don’t know it, but when you think of Italy, you’re thinking of our region, Emilia-Romagna. In fact, the Ferrari cars, the delicious food, Fellini and Pavarotti all come from here, and they’re all famous all over the world.

Emilia-Romagna is the first European destination according to Lonely Planet 2018 and it is renowned for its quality of life and for the best kindergartens, a striking example for the rest of Italy. Look at it on the map: we are the pivot that connects the crossroads of northern and southern Italy, where people and cultures, highways and railways meet. We are a land of cultural and commercial exchanges: look at our exports, well above the Italian average.

In this land of natural beauties, you can go from the Tuscan-Emilian Apennines to the Po Delta - both UNESCO sites - passing through historical cities and enjoying food and dancefloors. This is the reason why the number of visitors has increased so much in recent years.

Spend a few days here with us and you will understand that in Emilia-Romagna there is even more. If our region were a car, we could say that it is powered by a very special engine: local collaborative institutions, cutting-edge research institutes and universities supported by a training system that works in close collaboration with companies. Brain and creativity, tradition and technology, taste and beauty: if you come to visit our companies, in mechanical engineering or in the biomedical sector, in the food industry or in fashion, you will find a special spirit in everything we do. Our transformation is always underway and now we are working hard to become a worldwide reference point to produce big data and digital devices.

What will you think when you leave Emilia-Romagna? You will think that this is a cutting-edge region, with its constant ability to amaze and inspire. I hope you will have the opportunity to see all this with your own eyes, this is happening in Italy here and now. You will fall in love.
EMILIA-ROMAGNA: A EUROPEAN REGION

A REGION OF WELLBEING
- BEAUTY: top Lonely Planet European destination in 2018 - 13 UNESCO HERITAGES
- INCLUSION: lower social exclusion rate than in Italy and Europe
- QUALITY OF LIFE: higher employment and GDP per capita than in Italy and Europe; strong cultural offer

A WELL CONNECTED REGION
- TRANSPORT INFRASTRUCTURES: in strategic position connecting Northern Europe and Mediterranean area
- DIGITAL INFRASTRUCTURES: 1st Italian region according to the Digital Economy and Society Index (DESI)

A REGION OF KNOWLEDGE AND RESEARCH
- EDUCATION: oldest University in Western Europe strongly oriented towards Industry 4.0 and innovation
- RESEARCH AND INNOVATION: 1st in Italy for intramural expenditure in R&D per inhabitant
- INNOVATION ECOSYSTEM: with a unique High Technology Network integrated in Clusters and Technopoles
- BIG DATA VALLEY: a top world hub for supercomputers and data centres

A SUSTAINABLE REGION
More than 6,200 companies in green economy sectors

A COMPETITIVE AND INTERNATIONAL REGION
- ECONOMY: strong manufacturing sector with 25.1% of total employees, being 18.4% the Italian average and 15.4% the European one
- INTERNATIONALISATION: 1st Italian region for export per capita
- ATTRACTIVENESS: open region with strong incentives for new investments

A REGION OF EXCELLENCES
Global leader in industrial machinery (e.g. packaging) and ceramics, boasting the top world Motor and Food Valleys, growing more and more in Wellness and home of successful creative brands

INTRODUCTION

1 METROPOLITAN CITY
- BOLOGNA

8 PROVINCES:
- FERRARA
- FORLI-CESENA
- PARMA
- PIACENZA
- RAVENNA
- REGGIO EMILIA
- RIMINI

328 MUNICIPALITIES

POPULATION 4.5 MILLION INHABITANTS
Small and medium sized enterprises - SMEs - are the driving force of the economy with about 75% of the total regional employees, fostering an extraordinary spread of wealth across the entire regional territory. Emilia-Romagna is an Italian leading region in terms of per capita income, and for years now it has been classified as one of the richest regions in Europe.

Levels of employment higher than the national and European average

The Region’s development model ensures both economic competitiveness and social cohesion. It has successfully pursued job creation as its top economic priority: the unemployment rate in 2018 was 5.9%.

Emilia-Romagna
69.6%

Italy
58.5%

EU19
67.3%

EU28
68.6%

Higher level of social cohesion

Social cohesion is a strong regional asset with the percentage of the regional population at risk of poverty and social exclusion lower than national and European ones.

Risk of poverty or social exclusion (Source: Eurostat 2017)

Emilia-Romagna
17.2%

Italy
28.9%

EU28
22.4%

EU19
22.1%

Policies - Jobs Pact

Signed in 2015 by the Region with unions, companies, banks, local authorities, business groups, universities and not-for-profit organizations - enables a long term view to generate a multiplier effect of public funds supporting investments for a total amount of nearly €20 billion.

1st Region in Italy for the efficiency of the health system

Source: Demoskopika, 2018

Emilia-Romagna performs very well in the Better Life Index (BLI):

- Top among all Italian and OECD regions under several parameters: Income, Civic Engagement, Health, Safety
- Well positioned at national level on other parameters: Access to services (2/21), Housing (5/21), Education (7/21)

Source: OECD 2018
BEAUTY, CULTURE AND NATURAL RESOURCES

The huge and diversified cultural and natural heritage of Emilia-Romagna qualifies the region as one of the most beautiful in Italy and in the world, hosting Unesco sites, historical cities, mountains, beaches and widespread quality entertainment.

Emilia-Romagna region achieved a new record in tourist visits, which have increased steadily in the last years.

13 UNESCO HERITAGES, of which 4 World Heritage Sites:
- Ferrara and its Po Delta Park
- Modena
- Tuscan-Emilian Apennines
- Ravenna

TOURISTIC FLOWS (2018)
Source: Unioncamere Emilia-Romagna
- 13.7 MILLION ARRIVALS
  +7.0% THAN 2017
- 59.6 MILLION OVERNIGHT STAYS
  +4.7% THAN 2017

1st TOP EUROPEAN DESTINATION IN 2018
Source: Lonely Planet

NETWORK OF NATURAL PARKS
- 2 national parks
- 1 interregional park
- 14 regional parks
- 15 natural reserves

Museums
- 546

Archaeological and monumental sites
- 272

Sites of European Nature 2000 Network
- 158
The Emilia-Romagna region is a bridge: it is at the crossroads of the communication routes connecting Northern Europe with Adriatic and Mediterranean countries.

The regional logistics system for handling freight is one of the most advanced in Italy.

Bologna is a major road and railway junction between Northern and Central-Southern Italy.

The regional transport network covers the whole territory:

**TRANSPORT INFRASTRUCTURE**

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The regional transport network covers the whole territory:

**VIA EMILIA** crosses the region from southeast to northwest and is surrounded by a high concentration of businesses and logistics hubs

**3 STRATEGIC INTERNATIONAL AIRPORTS:** the intercontinental “Guglielmo Marconi” Airport of Bologna (the region’s main air transport hub), “Federico Fellini” Airport of Rimini, “Giuseppe Verdi” Airport of Parma

**MAIN FREIGHT VILLAGES:** Bologna and Parma (CEPIM)

**MAIN FREIGHT TERMINALS:** Piacenza, Marzaglia (Modena), Villa Selva (Forlì), Ravenna, Bologna S.Donato

**HIGH-SPEED TRAINS CONNECT THE REGION WITH MAJOR ITALIAN CITIES:**
From Bologna to: Turin - 2:27h, Milan - 1:00h, Florence - 34min, Rome - 1:54h, Naples - 3:15h

**THE PORT OF RAVENNA** is one of the top ports in the country

**DIGITAL INFRASTRUCTURE**

Digital development has been for over 20 years a regional policy priority. Emilia-Romagna is the first Italian region according to the Digital Economy and Society Index (DESI) including indicators on economy, governance, broadband coverage, mobility, innovation, quality of life, green economy. Source: Ernst&Young 2016

**CAAB** is leader for fruit and vegetable distribution in Italy, comprising warehouses for frozen and fresh goods, logistic platforms and offices. The area includes FICO, the world’s largest food park, covering an area of 100,000 sqm in Bologna.

**HOUSEHOLDS WITH BROADBAND ACCESS:**

Emilia-Romagna has a high broadband coverage due to a digital infrastructure that ensures a high level of connectivity throughout the entire territory.

88% 
Emilia-Romagna

87% 
EU15

83% 
Italy

Source: Eurostat 2018

**LEPIDA:** the broadband network for Emilia-Romagna’s public administrations provides high-speed connectivity throughout the entire region boosting efficient e-government services for citizens and companies.

The Digital Agenda of Emilia-Romagna 2015-2019 deals with digital citizenship rights according to four concrete axes of intervention:
- infrastructures
- data and services
- competences
- communities
EDUCATION

The university and training system is widespread all over the region providing high skilled human resources for the research and the production systems and attracting international talents.

7 UNIVERSITIES

- University “Alma Mater Studiorum” of Bologna, with campus also in Forlì, Cesena, Ravenna and Rimini, is the oldest in the western world and the first in Italy for international students
- University of Modena and Reggio Emilia
- University of Ferrara
- University of Parma
- Cattolica University of Piacenza
- Piacenza campus of “Politecnico di Milano”
- Johns Hopkins University - SAIS Europe

400 COURSES (Three-year and Masters degrees)

153 2nd LEVEL MASTER COURSES

126 SPECIALISATION COURSES

150,000 STUDENTS

A REGION OF KNOWLEDGE AND RESEARCH

At the heart of Emilia-Romagna innovation ecosystem there is a rich number of public and private actors who invest their resources and collaborate for research results exploitation, new knowledge development, the adoption of new technologies and innovation in all economic and social sectors.

Land of ancient and prestigious universities, the most important national research institutions, globally-leading large companies and specialised competitive small and medium enterprises, Emilia-Romagna has chosen to invest in research, innovation and skills to generate real impact in all production sectors, open up new market opportunities and create high-quality jobs.

Emilia-Romagna also attracts students and businesses from abroad in an innovative and vibrant ecosystem with consolidated partnerships and collaborations between companies and research organisations.

AN INTEGRATED EDUCATIONAL INFRASTRUCTURE

- 545 schools
- over 150 accredited training providers
- involvement of universities, research organisations and the economic system
- supported by annual investment of 120 million euros

FOUR PILLARS

1. Education and vocational training: issuing diploma with job-oriented three-year courses
2. Polytechnic network for technical and scientific skills: it includes 7 Higher Technical Institutes (HTI) providing 2-year post-diploma courses designed to train specialists
3. Higher education and research: specialised training, research grants, PhD scholarships and actions to support new innovative companies
4. Employment and skills: actions to foster the innovation, digitalisation, internationalisation and sustainability projects of companies, to support people in the transition from training to the labour market or between two different jobs and to update workers skills

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Research expenditure in Emilia-Romagna, including both the public and private sector, is the second highest in Italy and has increased steadily over the last years, with more than 37 thousand employees in the public and private research system (Istat, 2016). Research activity is carried out by universities and research centres as well as by a network of industrial research labs and dynamic companies, both corporates and small and medium caps. More than 9 hundred innovative startups complete the picture.

Emilia-Romagna ranks 1st in Italy for intramural expenditure in R&D per inhabitant

Source: Eurostat 2016 – Values in euro per inhabitant

The region boasts a high percentage of employees in high and medium-high technology sectors

Source: Eurostat 2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Share (%)</th>
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<tbody>
<tr>
<td>EMILIA-ROMAGNA</td>
<td>10.2%</td>
</tr>
<tr>
<td>ITALY</td>
<td>6.1%</td>
</tr>
<tr>
<td>EU28</td>
<td>5.8%</td>
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</tbody>
</table>
Regional innovation policy supports R&I activities carried out by enterprises, promotes the development of Industrial Research Laboratories and Innovation Centres mainly located in the Technopoles and organized in the High Technology Network, fosters the regional Clust-ERs along with innovative business ideas and initiatives.

**THE EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK:**
- **over 90 Industrial Research Labs and Innovation Centres**
- **10 TECHNOPOLES**
- **7 CLUST-ERs with 450 public and private entities involved**
- More than **20 INCUBATORS and STARTUP ACCELERATORS**
- **10 OPEN LABS FOR DIGITAL INNOVATION**

**ART-ER ATTRACTIVENESS RESEARCH TERRITORY**
(www.art-er.it)

ART-ER is the Emilia-Romagna Joint Stock Consortium - among the Emilia-Romagna Region, the six Universities, the Research centres CNR, ENEA, INFN, the regional Union of the Chambers of Commerce and other local stakeholders - fostering the region’s **sustainable growth** by developing **innovation and knowledge, attractiveness and internationalisation** of the region system. The Consortium is at the core of this vibrant innovation ecosystem, animating it through joint activities and open innovation actions, involving all regional stakeholders as well as coordinating and supporting the High Technology Network, the Clust-ERs and the Technopoles.

**THE EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK**
- **THE REGIONAL CLUST-ERs**
  (https://www.retealtatecnologia.it/en)
- **THE TECHNOPOLES AND THE EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK**
- **R2B RESEARCH TO BUSINESS**
  (www.rdueb.it)

**RESEARCH INSTITUTES IN EMILIA-ROMAGNA**
Along with the local Universities that make a major contribution with researchers working in technical and scientific fields, other important research institutes in the region are:
- **CNR - National Research Council**
- **ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development**
- **INFN - National Institute for Nuclear Physics**
- **INAF - National Institute for Astrophysics**
- **INGV - National Institute for Geophysics and Volcanology**
- **CINECA - the largest Italian computing centre**

**INNOVATION ECOSYSTEM**
**ART-ER**
**INNOVATION ECOSYSTEM**
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**ATTRACTIVENESS RESEARCH TERRITORY**
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Emilia-Romagna qualifies as an international Data Valley boasting top world supercomputers, cutting edge data centres and a wide ‘big data community’ with policies supporting new investments and a dynamic business environment.

The Big Data Technopole - Bologna Hub will be the international digital hub hosting HPC infrastructures, namely: world class pre-exascale HPC supercomputer that will be one of the three precursors to Exascale Supercomputer at European level, ECMWF data centre, the new CINECA - INFN complex, the Competence Center Industry 4.0 Bi-REX, the bio-banks of the Rizzoli Institute of Bologna, the Regional Agency for weather forecasts, environmental protection and energy ARPAE Emilia-Romagna, ENEA, as well as small and large companies.

**BIG DATA VALLEY**

**BIG DATA COMMUNITY IN FIGURES** (2013-2015)

- 70% of Italy’s national computing and storage capacity
- 1,791 researchers involved
- 230 foreign researchers hosted
- 94 international events organized
- 60 higher education initiatives including PhD courses, Laurea Magistrale Degrees, Masters, Summer Schools
- > 90% supercomputing resources for public research in Italy managed by big data association members
- 140 European funded projects - H2020, FP7, CEF
- > 2.1 BLN€ total costs of the projects
- 160 MLN€ EU funds

Emilia-Romagna moved from 21th to 5th position in the computing power world rankings.

• **EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS (ECMWF) DATA CENTRE**
  By 2020 Emilia-Romagna will host the Data Centre of the European Centre for Medium-Range Weather Forecasts (ECMWF) - an intergovernmental organisation supported by 34 states - which will be moved from Reading (UK) to Bologna. The regional Technopole won the European competition with other cities because of its "high-level services and logistics infrastructures" and offer of “important opportunities of technical and scientific synergies”.

• **BI-REX COMPETENCE CENTER**
  The Bi-REX - Big Data Innovation and Research Excellence is a Competence Center coordinated by the University of Bologna with about 60 stakeholders including five regional universities (Bologna, Ferrara, Modena-Roggio, Parma, La Cattolica), organizations part of the regional research system such as CINECA, CNR, ART-ER, IOR, INFN as well as companies among which IBM, Philip Morris, Siemens, Manz Ag and many other regional excellences.

• **BIG DATA ASSOCIATION**
  “Associazione Big Data” aggregates public organisations managing facilities and possessing skills and knowledge relating to big data, their applications and impact on the daily lives of citizens. More than 90% of supercomputing resources for public research in Italy are managed by association’s members.

• **SUPER COMPUTERS**
  EU chose the ‘Big Data Technopole - Bologna Hub’ as location of a new supercomputer to be called Leonardo worth 120 million euros, positioning the region among the world’s top computing hubs.

• **CINECA - INFN**
  INFN is the National Institute for Nuclear Physics. CINECA is a non profit Consortium comprising 67 Italian universities, 9 Italian Research Institutions, 3 Polyclinics and the Italian Ministry of Education. CINECA-INFN Data Centre is the largest Italian computing centre and one of the most important worldwide.

• **INTERNATIONAL FOUNDATION ON BIG DATA AND ARTIFICIAL INTELLIGENCE FOR HUMAN DEVELOPMENT**
  To further promote the development of this ecosystem at international level, the regional Government approved in June 2019 the new law for “Investments of the Emilia-Romagna Region in the field of Big Data, Artificial Intelligence, Meteorology and Climate Change”. As a next step, Emilia-Romagna Region is supporting the establishment of the International Foundation on Big Data and Artificial Intelligence for Human Development, aimed at becoming one of the major international scientific institutions to attract talents as well as public and private investments.
Emilia-Romagna has a strong presence of companies oriented towards sustainable business, that cover a wide range of sectors, with a presence in the main regional clusters. More than 6,200 companies have been identified as belonging to the green economy in 2019, including firms in traditional environmental sectors such as waste or water - that can be defined as “core green” - and also those ones that, regardless of the productive sector, act in a greener way and can be defined as “green business”.

The sustainable production and consumption are supported by the adoption of process and product certification tools with over 1,800 organic certifications and 772 Environmental Management System certifications (ISO14001) in 2018. Moreover, more than 28,000 regional companies invested in environmental products and technologies in the period 2014-17.

The Region promotes sustainable development, involving economic and social actors, thanks to sectoral plans:

- the Regional Energy Plan results in a 12% rate of energy from renewable sources and 22% of energy saving (2017)
- the Waste Management Regional Plan and the Regional Law to support circular economy led to 64.3% of separate collection in 2017 (+2.5% than 2016) and foster several initiatives aimed to recovery and reuse, such as municipal reuse centers
- the Green Public Procurement (GPP) Plan during the last 3 years (from 2016 to 2018) led to an increase by 60% of the green purchases by regional public administrations

The framework of regional sustainability is completed by the system of INTERNATIONAL THEMATIC TRADE FAIRS:

- KEY ENERGY - Sustainable Energy and Mobility (Rimini, www.keyenergy.it)
- REMTECH - Remediation Technologies (Ferrara, www.remtechexpo.com)
A COMPETITIVE AND INTERNATIONAL REGION

Emilia-Romagna is one of the most competitive Italian regions, due to an economic system that is increasingly active in international markets and featuring:

- a high rate of entrepreneurship (1 company each 11 inhabitants)
- a strong manufacturing sector (25.1% of total employees, being 18.4% the Italian average and 15.4% the European one)
- highest labour productivity in manufacturing sectors in Italy (2016 - Istat / Prometeia)
- a willingness to innovate (37.4k employees and 3.0 Bln of investment in R&D in 2016)

SOME TOP BRANDS IN EMILIA-ROMAGNA

ECONOMY

Emilia-Romagna % on the Italian total

- POPULATION 7.3% 2018
- N. OF MANUFACTURING FIRMS 8.9% STRONG MANUFACTURING SECTOR - 2018
- GDP 9.1% HIGH GDP PER CAPITA (+16% then EU average) - 2017
- R&D EXPENDITURE 13% INNOVATIVE ECOSYSTEM, 1st in Italy for intramural expenditure in R&D per inhabitant - 2014
- EXPORT 13.7% 1ST ITALIAN REGION EXPORT PER CAPITA - 2018
Foreign trade

Internationalisation firstly means trade with foreign markets to be increased also through production agreements and investment abroad. This is why Emilia-Romagna, with 19,600 exporting companies, is the leading Italian region for export value per capita and the second for total exports.

The regional companies are present at global level, with Europe, North America and Asia as main destination areas. All the regional key sectors contribute to international trade, with Mechanical Engineering as best performer being a cross-cutting cluster that develops process and product innovations that are essential for other value chains.

EXPORT, SOME REGIONAL SPECIALISATIONS WITH RESPECT TO THE NATIONAL TOTAL (2018)
- Tiles and ceramics: 94%
- Meat and meat-based products: about 39%
- About 1/4 of Italian exports of ‘agricultural machinery’ (29%), ‘other general purpose machinery’ (29%), ‘tubes, pipes, hollow profiles and related fittings’ (26%) and manufacture of dairy products (24%)
- About 1/5 of national exports in ‘wearing apparel, except fur apparel’ (22%), ‘motor vehicles’ (19%), ‘other special purpose machinery’ (21%) and ‘knitted and crocheted apparel’ (20%) come from Emilia-Romagna

IN EMILIA-ROMAGNA 7.8% OF THE NATIONAL COMPANIES EXPORT 13.7% OF THE ITALIAN TOTAL

A COMPETITIVE AND INTERNATIONAL REGION

INTERNATIONALISATION

Internationalisation, trade, external relations: the Emilia-Romagna economy is proud of its long tradition of openness to the world, being on the one hand the birthplace of well-known brands exported worldwide and attracting, on the other, big foreign multinationals to the Region. Over 1,500 regional companies control firms abroad in about 132 countries, from Germany and the US to Albania and Zambia.

EMILIA-ROMAGNA
HIGHLY EXPORT-ORIENTED PRODUCTION SYSTEM
Source: 2018, Istat-Coeweb - Data elaborated by ART-ER

A positive trend of export:
+79% OF REGIONAL EXPORT IN 10 YEARS (2009-2018)

63.4 billion euros export

36.4 billion euros import

FOREIGN TRADE EMILIA-ROMAGNA-WORLD BY KEY SECTOR

VALUES IN EURO, ISTAT-COEWEB 2018 ELABORATED BY ART-ER

MECHANICAL ENGINEERING
- Export: 15,646,006,183
- Import: 3,117,868,179

AGROFOOD
- Export: 7,711,940,451
- Import: 7,070,814,131

FASHION
- Export: 7,037,268,313
- Import: 3,832,344,691

HOUSING
- Export: 5,555,377,232
- Import: 1,567,395,796

CHEMISTRY AND PLASTIC PRODUCTS
- Export: 3,843,712,627
- Import: 3,809,254,122

HEALTH INDUSTRY
- Export: 3,060,601,251
- Import: 1,488,748,562

OTHER SECTORS
- Export: 2,100,247,743
- Import: 2,960,675,527

EMILIA-ROMAGNA GO GLOBAL
INTERNATIONALISATION AND ATTRACTIVENESS PROGRAMME

In 2018 Emilia-Romagna attended and organized 180 events aimed at regional internationalisation and attractiveness, with missions in the USA, UAE, Germany, China, South Africa, etc.

Since 2015 the Emilia-Romagna Region (through ART-ER) set a base in Silicon Valley to support startups in their internationalisation process and in their approach to the Silicon Valley (Mindset Program), also creating a desk available to companies.

https://www.emiliaromagnainsiliconvalley.it/en/
The Emilia-Romagna Trade Fair System is a highly attractive global hub for those who want to do business and expand their network. It is one of the most modern and advanced business platforms in Europe, hosting over 30 international trade exhibitions including events of global importance with an impressive number of visitors (about 2 million every year) and square meters of available exhibition space. The trade fairs calendar spans from the automotive to the building sector, from the biomedical to the food industry, from mechanical engineering to leisure time and tourism, also organizing trade fairs abroad (e.g. in China, United States, Japan, Russia). There are three main exhibition centres - Bologna, Rimini and Parma - out of a total of 9.

About 1,000 foreign companies have invested in Emilia-Romagna. In the last five years, foreign investments in the region showed a growth of +20% in terms of turnover and +10% as for employees.

FOREIGN COMPANIES THAT HAVE ALREADY INVESTED IN EMILIA-ROMAGNA INCLUDE:
Altana, Amada, Amazon, AVL, B.Braun, Baxter, Basf, Berluti/LVMH, Crown, Daimler, Dana, Dover, Eon Reality, Fresenius, Gea, Gowar Italia, Guilin, Havi, Ibm, Lovol Arbos, Manitou, Marini-Fayat, Medtronic, Mohawk, Philip Morris, Romaco, Schneider Electric, Segula, Siemens, TetraPak, TGK, Topcon, Torrecid, Toyota, Volkswagen, Weichai and many more.
A wider set of incentives is available from EU funds (2,500 million euros to Emilia-Romagna from 2014-2020) to implement the regional Smart Specialisation Strategy (S3) aiming at supporting research and innovation by connecting these activities to the production and the knowledge systems.

Many other opportunities derive from national instruments such as Development Contracts and Innovation Agreements. Starting from 2016, investments supported by the national agreements with regional co-financing are to create about 2,000 new jobs in Emilia-Romagna.

In order to cut red tape, the Region also offers a one-stop shop network assisting businesses by providing a single on-line procedure, managed by a centralised desk, to obtain authorisations and licences in the areas of health, safety, environmental protection, pollution and urban planning.
From Piacenza to Rimini, from food processing to automotive design and manufacturing, there are plenty of **world-class examples of specialisations** in the region: packaging machinery in Bologna and Parma; agricultural machines, automotive design and manufacturing, oil hydraulics and electro-medical equipment from Modena to Bologna; ceramics in Sassuolo and Imola; food storage and cold chain systems in Romagna; ship building in Ravenna and the other maritime provinces.

Emilia-Romagna has adopted a **Smart Specialisation Strategy** for the period 2014-2020 aiming at exploiting the competitive advantage of its areas of excellence by investing on research and innovation projects for the promotion of sustainable growth, jobs and wellbeing.
Companies in the mechanical industry in Emilia-Romagna together represent a cluster with high level of technological innovation, strongly oriented towards Industry 4.0, thanks to cutting-edge skills and industrial research with the support of the regional R&D network, universities and training institutes.

Mechanical engineering is the regional main cluster - spread all over the region - and supports all the other regional key sectors, especially Agrifood (e.g. agricultural machineries, food packaging); Housing (e.g. machinery for building and ceramics), Health Care (e.g. electro-medical equipment, packaging).


1,414 funded R&D PROJECTS

871 million euros of TOTAL INVESTMENT

295 million euros of PUBLIC FUNDS

674 new RESEARCHERS

REGIONAL EXCELLENCE
Advanced Mechanical Engineering
THE MAIN SPECIALISATIONS AND OUTSTANDING NICHES OF THE MECHANICAL CLUSTER ARE:

- sports cars and motorbikes, with famous brands (e.g. Ferrari, Lamborghini, Ducati, Maserati, Dallara, Pagani) and high level suppliers (e.g.: AVL, HPE Coxa, Magneti Marelli)
- packaging machinery/solutions (e.g. IMA, GD, Sacmi, Marchesini, Oem, Tetra Pak)
- industrial automation (e.g. Bonfiglioli, Rossi, Elettric80, Sir)
- hydraulics, turbines and pumps (e.g. Interpump)
- machinery, equipment and gears for food industry, ceramics, constructions, wood, energy production, electromedical as well as measuring, checking and surveying instruments (e.g. Cefla, Kohler, ArgoTractors, Termal Group, Begelli, Marposs, Metalcastello, Smeg, SCM Group, GVS, Bellco)
- other excellences such as boating (e.g. Ferretti) and wellness (e.g. Technogym)

In Emilia-Romagna there are 86 university programmes, 37 doctoral programmes and 26 master’s degree programmes concerning Industry 4.0. Degree courses in engineering are available in all the 5 public regional universities: Bologna, Modena and Reggio Emilia, Ferrara, Parma, Milan Polytechnic in Piacenza.
FOCUS: MOTOR INDUSTRY

For decades the automotive industry has represented one of the most important industrial sectors of the Emilia-Romagna production system. Brands like Ferrari, Maserati, Lamborghini, Ducati, Pagani and Dallara are just the top of a production chain that includes a high number of specialized suppliers, kept together by the search for absolute perfection.

EMPLOYEES
17,000

BILLION EUROS

EXPORT
374 LOCAL UNITS

5.8 BILLION EUROS

MUNER
Emilia-Romagna attracts the most motivated and prepared young students from abroad thanks also to the two international master’s degrees in Advanced Automotive Engineering and Advanced Automotive Electronic Engineering at the Motor Vehicle University of Emilia-Romagna (MUNER). MUNER groups together four regional universities - University of Bologna, University of Ferrara, University of Modena and Reggio Emilia, University of Parma - and the motor companies that represent the best of Made in Italy in the world: Automobili Lamborghini, Dallara, Ducati, Ferrari, Haas, HPE COXA, Magneti Marelli, Maserati and Toro Rosso.

https://motorvehicleuniversity.com/en/
The Emilia-Romagna agri-food system encompasses a unique heritage made of tradition and excellent quality, characterized by an approach strongly oriented towards research and innovation, environmental sustainability and food safety.

**QUALITY AND CULINARY TREASURES**

- The 44 regional PDO and PGI food products represent the most important production value of Italian registrations (about 40% of the national total) with 6,190 regional companies involved.
- The main PDOs and PGIs in terms of value are produced here: Parmigiano Reggiano DOP, Prosciutto di Parma DOP, Aceto Balsamico di Modena IGP, Mortadella Bologna IGP and Grana Padano DOP.
- 400 out of 5,000 national denominations of traditional agri-food products come from Emilia-Romagna.
- Enoteca Regionale Emilia-Romagna - association created by regional law for the promotion of wine (also PDO/PGI) in Italy and abroad.
- Food excellence is also nurtured through specific educational institutions, including: ALMA, top International School of Italian Cuisine in Colombo (Parma) training chefs, sommeliers, managers, etc.; Chef to Chef, association of 50 chefs aimed at promoting evolution and reputation of the regional cuisine; Casa Artusi, the very first centre of gastronomic culture to be established, devoted entirely to Italian home cookery, large number of hotels and catering high schools across the region (31).
- FICO, the world’s largest food park, covering an area of 100,000 sqm in Bologna.
ORGANIC FARMING

**155,942 HECTARES**
13% of the regional utilised agricultural area (UAA)

**6,284 ORGANIC COMPANIES**
In 2018 (+13.1% than 2017)

**5th ITALIAN REGION**
By number of organic companies (1st among the northern regions)

INTEGRATED AGRICULTURE (IP)

- Regional public brand “QC – Qualità Controllata”
  To minimize the use of synthetic chemicals and the consumption of resources

- IP leadership in fruit and vegetables sector
  With 90 single and associated agricultural farms (of which 13 for the industrial tomato)

- Industrial tomato
  2.9 million tons (+30% than 2016), of which 640 thousand marked QC

PRODUCER ORGANIZATIONS (PO)

With the support of the regional rural development program 2014-2020

- **23 PRODUCER ORGANIZATIONS IN 2016**
  With €500 million in turnover

- **11 VEGETABLE PRODUCTS**
  €227 million of turnover and 72,000 farms

- **11 ANIMAL PRODUCTS**
  €152 million of turnover and 721 farms

- **4 INTER-BRANCH ORGANIZATIONS:**
  Processed tomato, pork, pear, eggs, working also with other regions

24% OF MANUFACTURE OF DAIRY PRODUCTS
REGIONAL EXPORT ON THE NATIONAL TOTAL 2018

REGIONAL EXCELLENCES
Agriculture and Food

SUSTAINABLE AGRICULTURE AND VALUE CHAIN APPROACH

6,284 ORGANIC COMPANIES

- 94% of processed tomato in northern Italy (about 6% is organic)
- 2/3 of the regional potatoes
- 1/3 of regional durum wheat

ORGANIC FARMING

24% OF MANUFACTURE OF DAIRY PRODUCTS
REGIONAL EXPORT ON THE NATIONAL TOTAL 2018

REGIONAL EXCELLENCES
Agriculture and Food
FOOD SAFETY

- Food Safety is a core area of public health policy and is implemented through the surveillance of the origin of food, animal and vegetable products, from farm to fork.
- EFSA European Food Safety Authority is located in Parma, in the center of the regional Food Valley.
- The Regional Phytosanitary Service works closely with the Central Plant Protection Service and local stakeholders in drafting of specific dossiers (Pest Risk Analysis or PRA) which are legally required to ensure safe access from/to international markets.

<table>
<thead>
<tr>
<th>Main activities of the regional Phytosanitary service</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Territorial surveillance activities</td>
<td>Control of two border inspection posts and over than 3,000 phytosanitary inspections per year</td>
</tr>
<tr>
<td>Monitoring related to foreign activities</td>
<td>Over than 8,000 phytosanitary certificates for export</td>
</tr>
<tr>
<td>Phytosanitary measures for sustainable agriculture</td>
<td>250 bulletin - Phytosanitary Alert System</td>
</tr>
</tbody>
</table>

INTERNATIONAL TRADE FAIRS IN EMILIA-ROMAGNA

- **EIMA INTERNATIONAL**
  Agricultural Machinery
  Bologna, www.eima.it
- **CIBUS**
  International Food Fair
  Parma, www.cibus.it
- **CIBUS TEC**
  Exhibition of Technologies for Food Industries
  Parma, www.cibustec.it
- **SANA**
  Organic and natural products: food, health and environment
  Bologna, www.sana.it

INNOVATION

An Agricultural Knowledge System has been developed to coordinate agri-food production and research through an inter-sectoral approach along the whole value chain.


- 2,761 funded R&D PROJECTS
- 1,054 million euros of total investment
- 448 million euros of public funds
- 406 new researchers

REGIONAL RURAL DEVELOPMENT PROGRAM 2014-2020

- 1.2 billion euros of FUNDS in the period 2014-2020
- 90 million euros to the KNOWLEDGE SYSTEM of which 50 million to finance the Operational Groups – OG
- 141 OPERATIONAL GROUPS financed through the 16 Operation Types

SANA Organic and natural products: food, health and environment
Bologna, www.sana.it

EIMA INTERNATIONAL Agricultural Machinery
Bologna, www.eima.it

CIBUS International Food Fair
Parma, www.cibus.it

CIBUS TEC Exhibition of Technologies for Food Industries
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SANA Organic and natural products: food, health and environment
Bologna, www.sana.it
The regional companies in construction industry have become international leaders in terms of product quality and design innovation and are at the cutting-edge as regards research into materials and production technologies.

Exports of regional tiles and ceramics are worth more than 94% of the national total. The Italian ceramics industry is concentrated between the provinces of Modena and Reggio Emilia - with a higher concentration in the municipality of Sassuolo showing an annual export of 3.4 billion euro in 2017 – and also in Faenza (Ravenna) and Imola (Bologna).

The region is also home to the Italian companies operating in the production of machines and systems for the ceramics industry as well as in a series of related production areas, including earth moving machinery, cranes and hoisting equipment, and in the production of building material and shutters.

Production of high quality furniture and furnishings is another excellence with larger concentration in Forlì (upholstered furniture district), Rimini and Imola.
The health industry is a field of activity that is acquiring increasingly greater importance. The biomedical district in Mirandola, Modena province, is a good example of a highly competitive sector, with around 5,000 employees. The production of orthopaedic prosthetic products in the Bologna area is another regional excellence.

Emilia-Romagna is the 1st region in Italy for the efficiency of the health system, with a network of cutting edge University Hospitals. The pharmaceutical sector is also strong, with giants such as Chiesi, Acme or Alfasigma that have been operating in the territory for decades. Exports from the health industry sectors showed strong growth, in particular in the pharmaceutical cluster.

Worthwhile noting that the spa resorts spread across the territory and the resulting tourist industry are part of the so-called Wellness Valley linking health to quality of life, including also the presence of top global companies such as Technogym.

### Results of the Regional Smart Specialisation Strategy 2014-2020 (updated: May 2019)

- **347** funded R&D projects
- **175,09** million euros of total investment
- **99,08** million euros of public funds
- **292** new researchers

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**International Trade Fairs in Emilia-Romagna**

- **EXPOSANITÀ**
  Health and health care services
  Bologna, www.exposanita.it

- **PHARMINTERCH**
  Pharmaceutical and para-pharmaceutical industry
  Bologna, www.pharmintech.it

- **COSMOFARMA**
  Health, wellbeing and beauty products and services for pharmacies
  Bologna, www.cosmofarma.com

- **RIMINI WELLNESS**
  World of sport (sports and beauty equipment, clothing, footwear, sports medicine and nutrition, etc.)
  Rimini, www.rimininwellness.com

- **EXPONDENTAL**
  Dental sector
  Rimini, www.expodental.it
The fashion production chain - divided into textiles-clothing, footwear and accessories - is based on the presence of a large number of small companies either working for third parties or on niche productions, characterized by technical and manual skills of the highest quality. At the same time, there are also very well-known brands such as Max Mara, Liu Jo, Pinko, Twin-Set, Furla, Piquadro, which have production plants and design centres in Emilia-Romagna.

The Carpi district - in the province of Modena - is the symbol of this sector: specialised in knitwear and clothing in general, it is one of the industry’s leading centre at national level with 783 companies and 5,412 employees in 2017.

Cutting-edge footwear industry is concentrated in Romagna - in particular in the San Mauro Pascoli district, in the Forlì-Cesena province - but is also present in other parts of the region, with well known brands such as Baldinini, Giuseppe Zanotti, Casadei, Sergio Rossi, the French company Berluti part of LVMH group.

Trade and access to markets are also leading factors for the wealth of the sector. For example, YNAP - global leader in the luxury fashion e-commerce - started as Yoox from Emilia-Romagna region. Centergross - based in Bologna - is one of the main fashion trade hubs in the region, spread over an area of 500,000 sqm, it employs 6,000 people and consists of over 540 companies including 240 fashion brands with 60% of the district’s trade going abroad.
CULTURAL AND CREATIVE INDUSTRIES

The cultural and creative industries in the region play a key role in the development and quality of life of the local community. The production sectors involved cover cultural and artistic enterprises, the media and cultural industries, multimedia and ICT creative services, artistic hand-made products. In a more general sense, they also comprise the economics of creativity concerning high-tech innovative companies, the fashion industry, furniture and all other products connected with design.

The region also boasts a strong offer of cultural festivals ranging from classical and electronic music to theatre and movies. The region is also well-known at global level for excellences such as the Cineteca - Centre for audiovisual development and technological innovation with top skills in restoration and its ‘Cinema Ritrovato’ Festival.

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**REGIONAL EXCELLENCE**

**Cultural and Creative Industries**

**89 thousand employees**

**35 thousand local units**

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**INTERNATIONAL TRADE FAIRS IN EMILIA-ROMAGNA**

**ARTEFIERA**
International Contemporary Art
Bologna, www.artefiera.it

**BOLOGNA CHILDREN’S BOOK FAIR**
Children’s publishing industry
Bologna, www.bookfair.bolognafiere.it

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**RESULTS OF THE REGIONAL SMART SPECIALISATION STRATEGY 2014-2020**
(updated: May 2019)

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Invest in Emilia-Romagna is the contact point for foreign investors operated by the consortium ART-ER, Attractiveness Research Territory, providing a wide range of services free of charge:

**Support for incentives**
Support for completing the ‘Agreement for the Settlement and Development of Companies’ (Regional Law for Investment Promotion no. 14/2014).
Support for national incentives.

**Image building**
Tools and context analyses for investment promotion.
Pre-investment information and support for the business set-up process.

**Networking**
Local and international business networking.
Collaboration with actors and institutions at national, regional and local level.

**Support in location scouting**

**Aftercare**

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Contact:
Website: [www.investinemiliaromagna.eu](http://www.investinemiliaromagna.eu)
Mail: investinemiliaromagna@art-er.it

Social media:
- [www.linkedin.com/company/investinemiliaromagna](http://www.linkedin.com/company/investinemiliaromagna)
- #investinEmiliaRomagna