



Invest in MECHANICS in Emilia-Romagna

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The **mechanical cluster** in Emilia-Romagna is known not only as a leader on an international level, but also presents a cluster which is highly competitive and subdivided into a number of sectors and sub-sectors, noted for their globally important "prototypes" and for their numerous small and medium-sized enterprises, all highly specialized and leaders in their respective niches.

The **most important sectors** are: mechanics and industrial equipment, motor industry, hydraulics, agricultural machinery, and precision machining. A collection of highly specialized technical skills that together make up and attract a great deal of interest to our region.

Invest in High Technology Mechanics

Companies in the mechanical industry in Emilia-Romagna together represent a cluster which is not only at the forefront when it comes to technology but also focuses on innovation in order to maintain its position while competing in the global market. The research **laboratories** in the **High Technology Regional Network** are organised as part of the **Mechanics and Materials Thematic Platform** and specialize in strategic technological areas such as nanotechnology, mechatronics, design materials, automation and robotics etc. Innovative and dynamic research laboratories and leading companies make up the **HI-MECH Technological District**, which has been singled out by the Italian Ministry of Research due to the large concentration of knowledge and competence present in the region.

The cluster on an international level

The mechanical industry in our region is highly competitive on an international level. **Regional exports** from this cluster exceed 27 billion Euros and account for more than half our total regional exports. The goods and products are supplied to all the main markets globally some with brand names that have become synonymous with the prestige and quality of such goods from our region. The region hosts a particularly large range of **international trade fairs** which represent a meeting point for businesses and investors from all over the world.

Invest in local specialization

The mechanical industry is actually a cluster that is spread all over the region in quite a well-organized and blended way. The **main specializations** are: the motor industry, transport vehicles, agricultural machinery, hydraulics, turbines and pumps, industrial machinery, automation, biomedical and precision machining. In all of these sectors, **particularly outstanding niches** are: sports cars and motorbikes, robots and machine tools, machinery for packaging, the food industry, ceramics, construction, wood, energy production, electromedical as well as measuring, checking and surveying instruments.

LEADING FACTORS

- Export figures of 27.7 billion Euros in 2012, 14.6% of national exports of mechanics and 56.5% of exports from the region
- Brands such as Ferrari, Ducati and Lamborghini are synonymous with leadership and excellence at an international level and are supported by local networks and specialized suppliers
- Laboratories and research centres in the regional network organised as part of the thematic mechanics and materials platform
- More than 20 trade fairs that promote the different sectors of the cluster
- A cluster that goes across the board and links with other renowned clusters from the region (agro-food, ceramics, construction, biomedical, etc.).

SOME COMPANIES OF THE REGION





The mechanical cluster: its structure and its sectors

The **mechanical cluster** is divided into **three main phases: production, services and trade.**

MECHANICAL CLUSTER

Production

Metallurgy

Metal products

Electronics, optics, medical and measuring equipment

Electric domestic appliances and non-electric domestic appliances

Machinery and mechanical equipment

Motor vehicles

Other transport vehicles

Repair, maintenance and installation of machinery and equipment

Services

Renting and leasing of machinery, equipment and motor vehicles.

Services; Design and Engineering activities

Trade

Wholesale and retail trade

Companies and the number employed

The Mechanical Cluster – Local Units and Number Employed: absolute values and quotas of the totals in this regional cluster

Source: Asia Databank - 2010

Sector	Local Units (LU)	Quota LU in the cluster	Number employed	Quota of number employed in the cluster	Average dimension of Local Units
Metallurgy	408	0.9	9,168	2.8	22.5
Manufacture of fabricated metal products (except machinery and equipment)	7,818	16.9	62,170	18.9	8.0
Manufacture of computer, electronic and optical products; electromedical equipment, measuring appliances, watches and clocks.	906	2.0	13,971	4.2	15.4
Manufacture of Electric domestic appliances and non-electric domestic appliances	1,173	2.5	18,856	5.7	16.1
Manufacture of machinery and equipment n.e.c.	5,315	11.5	99,579	30.3	18.7
Manufacture of motor vehicles, trailers and semi-trailers	374	0.8	16,556	5.0	44.3
Manufacture of other transport equipment	296	0.6	6,194	1.9	20.9
Repair, maintenance and installation of machinery	4,496	9.7	18,082	5.5	4.0
Services (renting and leasing of machinery, equipment, motor vehicles, engineering activities, technical analysis)	7,707	16.7	14,103	4.3	1.8
Wholesale and retail trade and repair of motor vehicles and motorcycles	9,439	20.4	36,584	11.1	3.9
Wholesale trade, except of motor vehicles and motorcycles	8,312	18.0	33,853	10.3	4.1
TOTAL	46,244	100.0	329,116	100.0	7.1



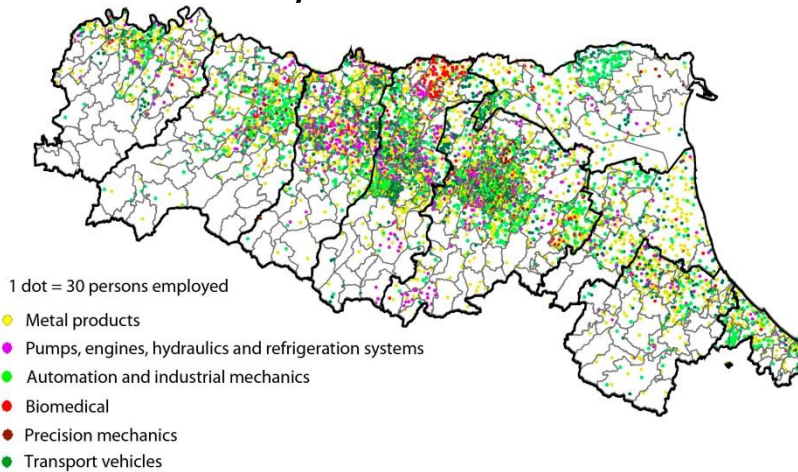
The regional mechanical cluster

Source: Asia Databank - 2010

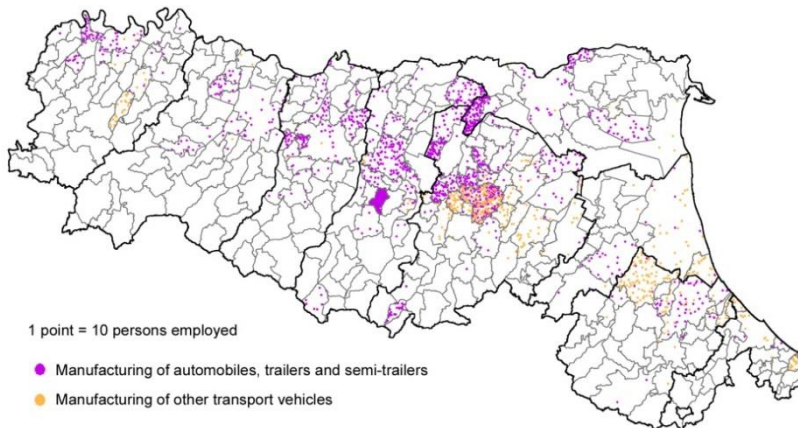
The mechanical cluster, unlike the other clusters in the Emilia-Romagna production system, goes across the board into other sectors and is consequently spread all over the region. An analysis of the sub-divisions shows high density productive areas for only some of these sectors.

Mechanical Industry

Mechanical cluster – Number employed in the main sectors of the mechanical industry



Mechanical cluster - Number employed in the Transport Vehicles sector



Concentrations of numbers employed in the region as shown in the maps:

Hydraulic components: the province of Reggio Emilia followed by Modena and Bologna (in particular Calderara di Reno). A high concentration in the Forli municipality too.

Lifting and handling machinery and equipment sector: the province of Modena, followed by Reggio Emilia and Bologna.

Agricultural machinery: the province of Reggio Emilia (municipalities of Fabbrico, San Martino in Rio, Reggio nell'Emilia), followed by Modena (in particular the capital town).

Machine tools: Bologna followed by Piacenza (the municipal capital town has the highest concentration of numbers employed), Modena and Reggio Emilia.

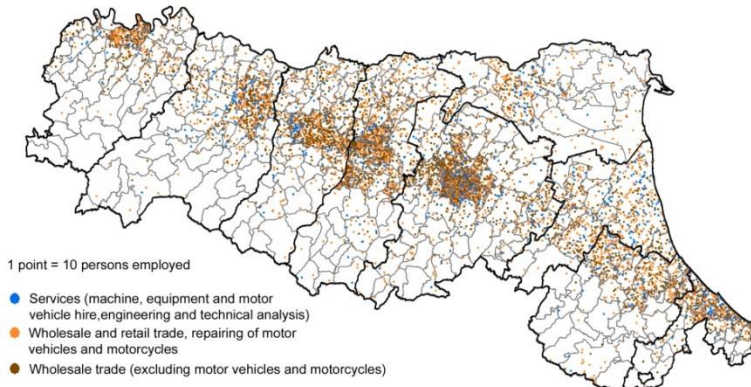
Machinery for the food industry: concentration in the province of Parma (in particular the municipal capital town), followed by Bologna, Modena and Reggio Emilia.

*For the **packaging sector** refer to the focus on the following pages.*

The **Transport vehicles** sector is linked to the motor industry and shows a high concentration of people employed in the provinces of Modena and Bologna.

Services

Mechanical cluster – Service sectors



The sectors involved in **Services** and **Wholesale trade** are spread all over the region, with a higher concentration along the Via Emilia axis.



The mechanical cluster on an international level

Exports

Source: Istat Coeweb Databank

In 2012 exports from the mechanical cluster in our region amounted to around 27.7 billion Euros, 14.6% of the national total. The different mechanical sectors cross over into many other clusters in the region which put together represent 56.5% of total exports from Emilia-Romagna.

Where we export to

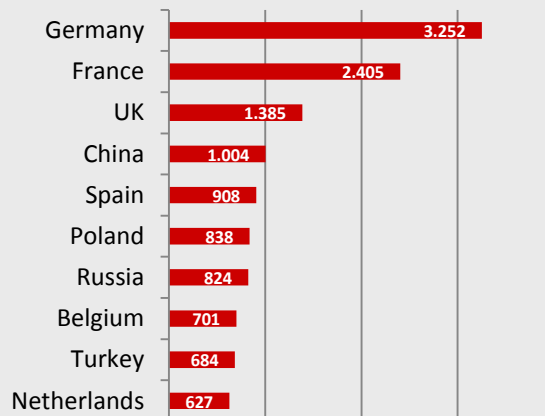
Percentage of total exports per destination – 2012

EU 27	North America	Asia	Other European countries	Central and South America	Middle East	North Africa	Other countries
48.2%	11.0%	10.3%	9.3%	6.0%	5.6%	3.0%	6.6%

We mainly export to Europe, however, export figures in absolute value terms to all the other main world areas are also worth noting. New developing countries – especially Russia, China, Turkey and Poland - show very high growth rates for Emilia-Romagna export.

The main EU countries we export to

Exports in 2012 (data in Million Euros)



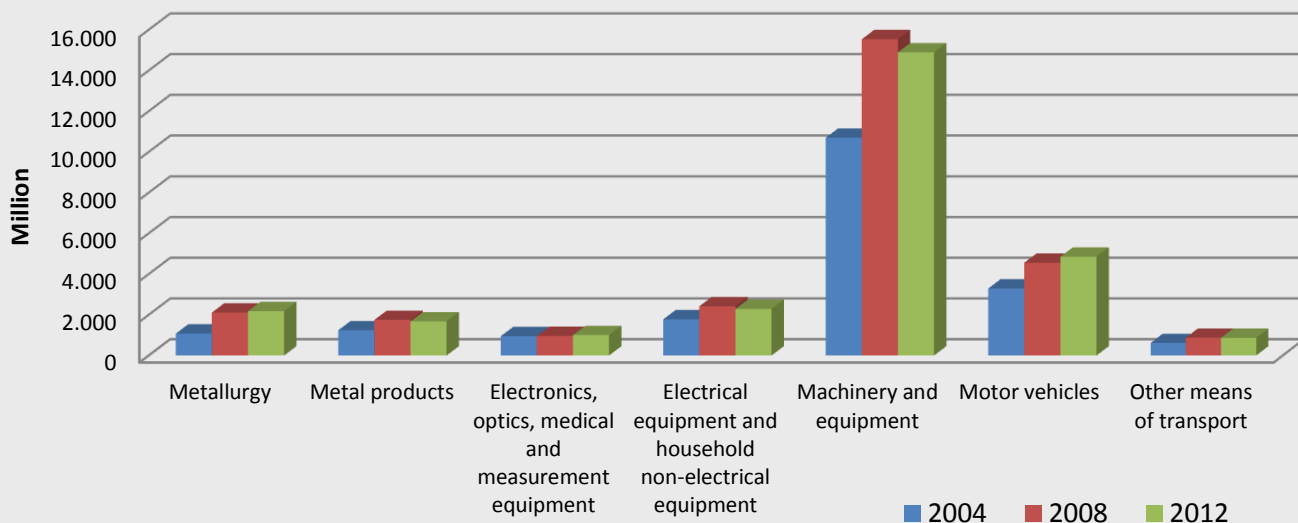
Export trends

Mechanical Cluster Export variations in %

2012-2008	-1,6%
2012-2004	41,4%
2008-2004	43,7%

The mechanical cluster represents the sectors of the economic regional system most affected by the international crisis in terms of export, especially in the 2008-09 period. Anyway, from 2010 there has been a gradual recovery and the long-term trends are positive.

Export trends in the Production and Manufacturing sectors. Source: Istat Coeweb



The mechanical cluster on an international level

International Trade Fairs

	MECSPE http://www.senaf.it/mecspe	Trade fair specializing in technologies for innovation , held at the Parma Trade Fair site.
	LAMIERA www.lamiere.net	International show of machines and equipment for the machining of metal held at the Bologna Trade Fair site.
	EIMA INTERNATIONAL www.eima.it	International Showcase of Agricultural Machinery held at the Bologna Trade Fair site.
	CIBUS TEC www.cibus.it	Cibus Tec – Trade fair of Technologies & Solutions for the Food Industry held at the Parma trade fair site.
	MACFRUT www.macfrut.com	International Exhibition of plants, technologies and services for the production, conditioning, marketing and transport of fruit and vegetables , held in Cesena (FC).
	SIBA Tech www.siba.piacenzaexpo.it	International salon for Raw materials, machinery and technology for the production of buttons and fashion accessories , held at the Piacenza Expo.
	TECNARGILLA www.tecnargilla.it	International salon of Technology and Supply to the Ceramic and Brick industry biennial salon at the Rimini Fair site.
	GEOFLUID www.geofluid.it	International exhibition of Technologies and Equipment for Prospecting, Extracting and Conveying Underground Fluids , held at the Piacenza Trade Fair site.
	H2O – Accadueo www.accadueo.com	International exhibition of technologies for treatment and distribution of drinking water and wastewater treatment , held in Ferrara.
	Packology www.packologyexpo.com	Exhibition of Technology for Packaging and Processing , held at the Rimini Trade Fair site.
	SPS-IPC-DRIVES www.sps-italia.net	Technologies for Electromechanical, Driving Systems and Components, Fair and Congress , held at Parma Trade Fair.
	PHARMINTECH www.pharmintech.it/	Exhibition for the Pharmaceutical, Nutraceutical and Personal Care Industry . Among the sectors exhibited: 'Processing and packaging machines for the pharmaceutical and parapharmaceutical industry'.
	MEDTEC ITALY medtec-italy.com	Specialized event for the medical device manufacturing industry, held at the Modena Trade Fair site.
AUTOMOTIVE SECTOR		
	AUTOPROMOTEC www.autopromotec.it	International Biennial Exhibition of Automotive Equipment and Aftermarket Products , held at the Bologna Trade Fair site.
	MOTORSHOW www.motorshow.it	International Exhibition of Automotive held at the Bologna Trade Fair site.
	MOTOR SPORT Expotech www.motorsportexpotech.it	International Exhibition and Conference for Innovative Materials, Technologies, Products and Services for the Motor Sport Industry held at the Modena Trade Fair site.
	MY SPECIAL CAR SHOW www.myspecialcar.it	The Special and Sports Car Exhibition held at the Rimini Trade Fair site.
	SALONE DEL CAMPER www.salonedelcamper.it	Salon for Campers, Caravans, Accessories, Routes and Destinations held at the Parma Trade Fair site.

Other trade fairs which involve companies from the various mechanical sectors are:

Sigep (www.sigep.it) Machinery for the ice cream industry
 R2B - Research To Business (www.rdueb.it)
 Saie (www.saie.bolognafiere.it) Machinery for the building industry

Sib (www.sibinternational.com) Technology for the Performance and Broadcasting world
 Food & Beverage (saporerimini.it) Machinery and Technology for the food industry
 Cosmoprof (www.cosmoprof.it) Section dedicated to packaging

**Top investors**

Some important foreign investors in the mechanical industry in Emilia-Romagna

Company	Investor	Country of Origin	Type of business
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Production and Manufacturing – Metal Products Division

IMPRESS SPA	ARDAGH GLASS HOLDINGS	Holland	Metal products
SICAM SRL	GRUPPO BOSCH	Germany	Machinery and mechanical equipment
MATTHEW INTERNATIONAL SPA/ CAGGIATI	MATTHEW INTERNATIONAL SPA	United States	Metal products

Production and Manufacturing – Pumps, Hydraulics and Refrigeration Systems Division

WITTUR SPA	WITTUR GMBH	Germany	Machinery and mechanical equipment
TYCO VALVES & CONTROLS ITALIA SRL	TYCO INTERNATIONAL INC.	Switzerland	Machinery and mechanical equipment

Production and Manufacturing – Automation and Industrial Mechanics Division

CPS COLOR EQUIPMENT SPA	CPS COLOR HOLDING	Holland	Machinery and mechanical equipment
TETRA PAK	TETRA PAK INTERNATIONAL SA	Sweden	Machinery and mechanical equipment
HARRIS CALORIFIC SRL	LINCOLN ELECTRIC HOLDINGS INC.	United States	Machinery and mechanical equipment

Production and Manufacturing – Transport Vehicles Division

DUCATI	AUDI	Germany	Motorcycles
MOTORI MINARELLI SRL	YAMAHA MOTOR CO. LTD	Japan	Ship and railway construction
TITAN ITALIA SPA	TITAN EUROPE PLC	United Kingdom	Machinery and mechanical equipment
LAMBORGHINI	VOLKSWAGEN	Germany	Cars
MANITOU COSTRUZIONI INDUSTRIALI SRL	MANITOU B.F.	France	Machinery and mechanical equipment

Production and Manufacturing – Precision Mechanics Division

BIFFI ITALIA SRL	TYCO INTERNATIONAL INC.	Switzerland	Instruments and precision mechanics equipment
C.I.A.P. - COSTRUZIONE ITALIANA APP. DI PRECISIONE SPA	HONDA MOTOR LTD	Japan	Gearboxes and motorcycle gears

Trade, hire, services and designing

WAGO ELETTRONICA SRL	WAGO AUSLANDSBETEILIGUNGS GMBH	Germany	Wholesale trade
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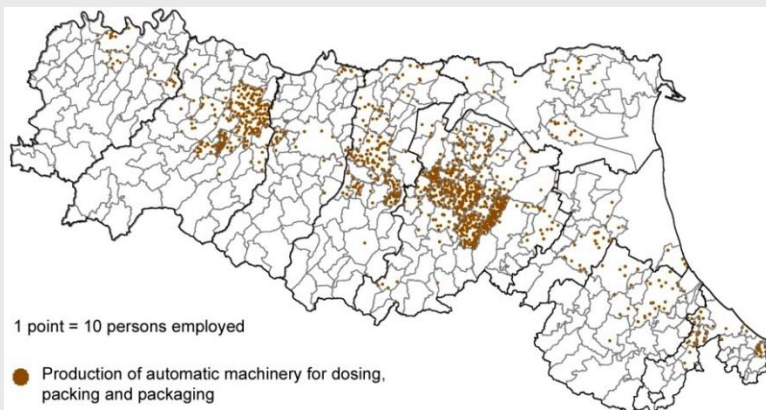
Focus: Packaging Division

The **packaging** division is an important production specialization in the regional mechanical cluster and numbers **597 local businesses with a total of 13,804 people employed** (Source: Asia, 2010).

This benchmark sector is composed of design, manufacturing and trade of machinery, plants, apparatus and equipment in general for packing, packaging and refilling, in addition to design services, labelling, distribution and sales.

The **highest concentration of people employed** is seen in the **province of Bologna**, followed by **Parma** and **Modena**. Other districts in the sector are also seen in **Reggio Emilia** and **Rimini**.

Mechanical cluster – Number Employed in the “**Production of automatic machinery for packaging**” sector (Source: DB Istat Asia, 2010)



Sales turnover of this division (source: Aida – Bureau Van Dijk)

Mechanical Cluster - Packaging Division	
Panel of 135 companies with a sales turnover > 900,000 Euros	
Variations in % of turnover	
2006-2008	+ 19.9%
2008-2010	+ 0.4%
2006-2010	+ 20.4%

There are **150 companies with a sales turnover of over 900,000 Euros and a total turnover of 3,480 million in 2010**). The sales turnover performance during the period analysed shows evident growth in the period 2006-08, followed by a duly expected downturn in the subsequent two-year period, 2008-2010, as a consequence of the widespread explosion of the global economic crisis. **The data shows a notably stable situation in terms of revenue**, demonstrating the resilience of the sector to the difficulties that affected the global markets.

Some leaders in the Packaging Industry

The following companies had the highest turnover in the Emilia-Romagna packaging sector in 2008. Many of them have foreign investors which confirms the profitability of Direct Foreign Investment in the region.

Company	Description
SACMI (SACMI LABELLING, SACMI FORNI, SACMI FILLING)	Produces: a complete range of automatic machinery for labelling glass, plastic and metal containers for the beverage, food, detergent, pharmaceutical and packaging sectors; sorting lines, packaging and palletizing for the ceramic industry; refilling machinery.
I.M.A. INDUSTRIA MACCHINE AUTOMATICHE S.P.A. (IMA SAFE, IMA FLAVOUR)	Produces: packaging solutions, mainly with IMA SAFE S.R.L. and IMA FLAVOUR S.R.L. for the Pharmaceutical & Nutraceutical, Cosmetic & Other, Tea & Coffee sectors.
G.D. SPA	Leading international manufacturer of machines to produce and package cigarettes (maker and packer).
MARCHESINI GROUP	Produces machines for: cosmetic labelling, phial labelling, flacons, thermoformers, wallets, cartoners, vertical type cartoners, Wrapping & Overwrapping, Case packing & Palletizing.
TETRA PAK PACKAGING SOLUTIONS S.P.A.	Produces: containers, treatment systems (for milk and dairy products drinks, cheese, ice cream, convenience foods), refilling machines, distribution systems, assistance.
SIDEL S.P.A.	Produces: tooling (Blow Molds and Personalization Parts for Blowers), dry preform decontamination, blowers, coating, fillers, rinsers, closing units, bottle washers, labellers, etc.
OCME - SRL	Company which specializes in the Beverage industry. It supplies complete production lines for: Beer, Mineral water, Soft drinks, Wine & liqueurs. It also focuses on FTC (Food, Toiletries and Chemicals) for which it supplies filling systems for viscous liquids, packaging and palletizing systems.
AETNA GROUP S.P.A.	Produces and sells on an international level wrapping machines for fully automatic stretch film packaging, shrink wrappers, shrink wrapping machines with film thrusting systems, wrap around case packaging, taping machines.

Facilities available to mechanical businesses in Emilia-Romagna

Research and Innovation

The Mechanics and Materials Platform

Guarantees research solutions in order to meet the requirements of the innovation sector and to increase the competitiveness of companies. www.aster.it

Laboratories**CIRI High Technology Mechanics and Materials**
www.mam.unibo.it

Interdepartmental Centre for Industrial Research at the University of Bologna which covers the high technology mechanics and materials sectors.

CIRI Aeronautica www.aeronautica.unibo.it

Interdepartmental Centre for Industrial Research at the University of Bologna which covers the following sectors: aerospace, urban mobility, energy systems, high technology mechanics and innovative materials, sensors, watercraft, means of surface transport.

INTERMECH - MO.RE www.intermech.unimore.it

Interdepartmental centre for applied research and services in high technology mechanics and automotives.

MIST E-R <http://nuke.laboratoriomister.it>

Construction of an integrated manufacturing platform, based on certified micro and nanotechnology.

MIUSP www.musp.it

Development of innovative solutions for machine tools and production systems.

MECH - LAV www.unife.it

Methodologies and solutions for application in industry and production systems.

T3 LAB www.t3lab.it

Consortium to provide support to companies regarding innovation, know-how, patents and highly qualified personnel.

TRACCIABILITÀ www.tracciabilita.enea.it

Research and experiments into the quality of emissions from plants and environmental and food safety.

Associations covering the sector

Associations for machine manufacturers and suppliers to the mechanical cluster with a branch in the region:

- **Acimac** www.acimac.it Machinery for ceramics;
- **Ucima** www.ucima.it Packaging and packing.

National associations:

- **Acimit** www.acimit.it Machinery for the textile industry;
- **Acimall** www.acimall.com Woodworking machinery manufacturers;
- **Assiot** www.assiot.it Gears and transmission elements;
- **Assocomplast** www.assocomplast.org Plastic materials and rubber;
- **Assofoodtech** www.assofoodtec.it Agro-food machinery;
- **Gimav** www.gimav.it Glass manufacturing;
- **Ucimu** www.ucimu.it Robots and automation;
- **Assomac** www.assomac.com Footwear, leather goods and tanning;
- **Unacoma** www.unacoma.it Agricultural machinery.

Universities

Degree courses in:

- Engineering: mechanical, electrical, electronic, automation, energy. At the **University of Bologna** www.unibo.it
- Engineering: mechanical, mechatronics, electronic, automotive. At the **University of Modena and Reggio Emilia** www.unimore.it
- Mechanical Engineering (Machinery and production systems; transport and logistics). At the **Politecnico of Milan, Piacenza branch** www.sede-piacenza.polimi.it
- Engineering: mechanical, electronic and computer, electronic and communication, computer and automation. At the **University of Ferrara** www.unife.it
- Engineering: civil, environment and territory, management, computer, electronic of telecommunications. At the **University of Parma** www.unipr.it

Masters in:

- Engineering: Hydraulic Fluid Power, automotive. At the **University of Modena and Reggio Emilia** www.unimore.it

For the full catalogue of Higher Education in the Emilia-Romagna Region: www.altiformazioneinrete.it

Professional training courses

Institutes/Training centres

- **Fondazione Aldini Valeriani** www.fav.it
- **IAL** Centre for automation and mechanics www.ialautomazione.it
- **ECIPAR** <http://www.eciparologna.it>
- **CSPMI** Centre for Services offered to Small and Medium-Sized Enterprises www.cspmi.it
- **IFOA** Vocational Training and Educational Institute for Companies in the field www.ifoait
- **FUTURA S.p.a.** www.cfp-futura.it
- **ENAIP** www.enaip.parma.it
- **CFP ALFA** www.alfacfp.com

Polytechnic Network – Higher education courses in:

- Course in new technologies regarding made in Italy – The mechanical and materials system held in Modena at the Istituto "Corni";
- Course in new technologies regarding made in Italy – The mechanical-automated industrial system held in Bologna at the Istituto "Aldini Valeriani - Siriani".

Further Education Institutes

Technological Sector - Mechanics, mechatronics and Energy
34 institutes in the region in all the provinces.

Invest in mechanics
in Emilia-Romagna

For further information:
www.investinemiliaromagna.eu
investinemiliaromagna@ervet.it