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FOUNDATION will provide a framework and roadmap for regions facing industrial closures, job losses and uncertainty, to develop economic resilience through collaboration.

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## ITALIAN REGIONAL ANALYSIS

### BUILDING REGIONAL RESILIENCE TO INDUSTRIAL STRUCTURAL CHANGE

Reggio Emilia - Italy

#### Italian Partner

Project Partner: Municipality of Reggio Emilia



#### Managing Authority

Municipality of Reggio Emilia

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## INTRODUCTION

FOUNDATION is an Interreg Europe funded SME Competitiveness project that brings together nine partners in a consortium led by Cork Institute of Technology from 1/08/2019 to 31/07/2023. Presently, across Europe, public bodies are pressed by an increasing need to provide preparatory support to the economic ecosystem in advance of the closure of anchor firms in their region which act as significant employers. The impacts of a closure of course go beyond direct employees and ripple, wave like throughout the regional services sector and economy. Management of such anticipated structural change requires proactive renewal of business approaches and policy supports. Regions are encouraged to introduce pilot projects based on their own strengths and to provide appropriate business supports for the re-alignment of the regional industrial base. This proactive approach by regional stakeholders is critical to building the resilience of these regions and enabling them to adapt to change.

The importance of SMEs and start-ups to the regional economy is widely recognised in terms of the provision of employment, contribution to GDP, driving innovation and supporting regional resilience. It is imperative that the relevant regional stakeholders keep informed, inspired and equipped to provide the appropriate SME and start-up supports, particularly in regions anticipating structural change.

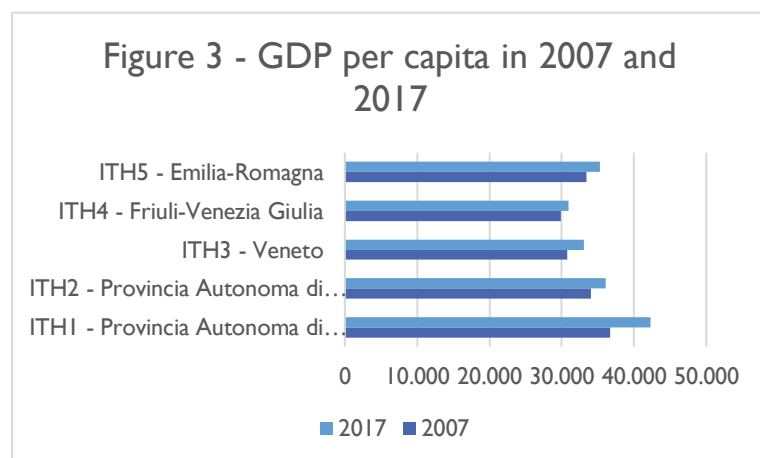
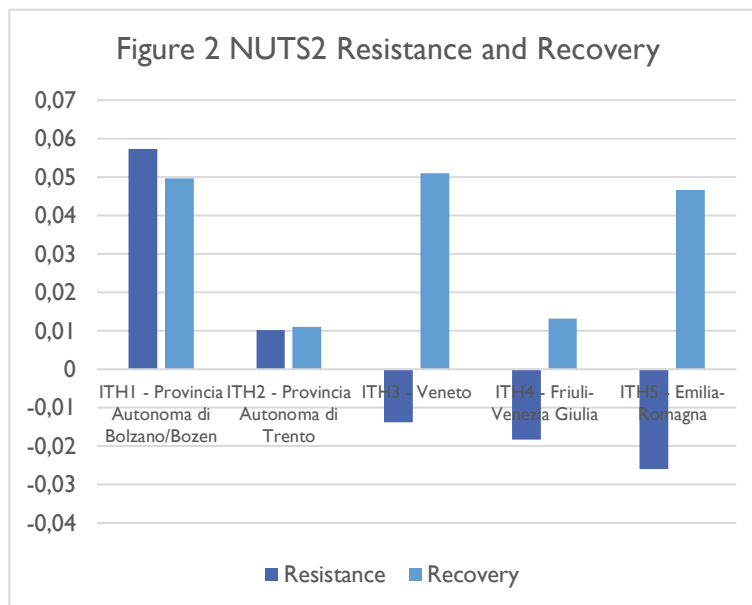
FOUNDATION links its project partners to develop Regional Action Plans and an overall Framework and Roadmap for Anticipated Structural Change. It is imperative that industry players, business support organisations and policy makers understand how their ecosystems work and when faced with shocks (firm closures) to collaboratively develop alternative growth and employment through supportive policies and programmes to boost SME competitiveness. Key project activities included the exchange of experience and learning through interregional events (4 workshops, 4 seminars and 9 study visits).

## FOUNDATION PROJECT PARTNERS



## ITALY (REGGIO EMILIA) – NUTS2 EMILIA-ROMAGNA

To provide insights into the impact of past shocks on this economy and its relative resistance and recovery following these shocks Figure 2 presents an analysis of the resilience of select Italian regions. We can observe that the Emilia-Romagna region resisted the impact of the 2008 economic shock relatively poorly compared to the national average (the 0 axis) but that it did exhibit a stronger than average recovery post shock.



The impact of this pattern of adhering close to the national average in resistance and recovery has resulted in the Murcia region seeing an increase in GDP per capita in 2017 relative to its 2007 value. GDP per capita in the region is approximately 123% of the national average.

The proportion of the workforce employed across sectors in the Emilia-Romagna region is very similar to that of the overall Italian economy. However, there are slightly more people employed in the industry sector of the economy with a lower proportion employed in public administration.

Figure 4 - Proportion of employment by sector

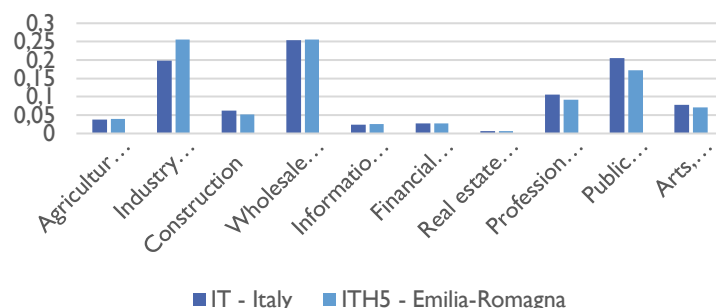
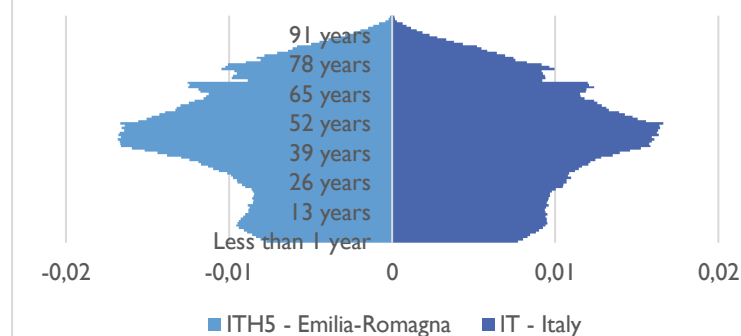


Figure 5 - Age profile of region



The age profile of the Emilia-Romagna region is similar to the national average, with the average age only being one years older than the national average of 44 years old. However, the region does display an aging demographic with a spike in the number of individuals aged around 40 to 45.

Regarding the engagement of the region in high-technology employment, Figure 6 compares the Emilia-Romagna region to the national average over the period 2008 to 2018. It can be noted that the region has tracked the national average relatively closely in most years in terms of the proportion of workers employed in high-technology sectors.

Figure 6 - Proportion employed in high-technology sectors

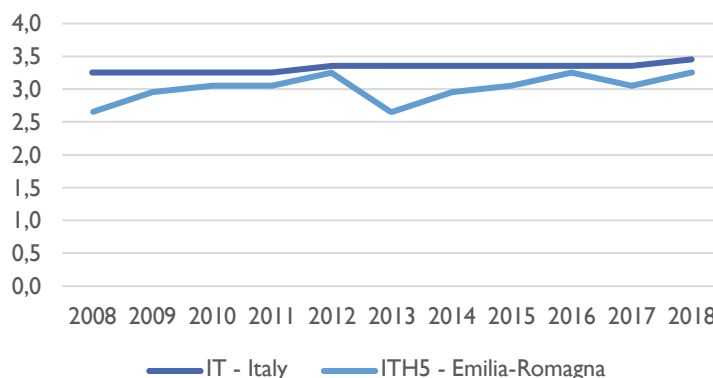


Table 1 below presents a brief comparison of the regions participating in this project. Significant variations can be observed across the regions with the Southern region of Ireland standing out with an exceptionally high level of GDP per capita and high-tech employment. While the Podkarpackie region of Poland has the lowest level of GDP per capita while the Vidurio ir vakaru Lietuvos regionas of Lithuania has the lowest level of high-tech employment as a proportion of employment.

Table 1: Comparison of Study Regions

Region	GDP - 2017	High Tech Emp % - 2018
<b>FI1D - Pohjois- ja Itä-Suomi</b>	33,800	4.10%
<b>UKD3 - Greater Manchester</b>	30,500	5.00%
<b>IE05 – Southern Region</b>	74,700	7.40%
<b>LT02 - Vidurio ir vakaru Lietuvos regionas</b>	12,400	1.50%
<b>PL82 - Podkarpackie</b>	8,500	2.10%
<b>HU22 - Nyugat-Dunántúl</b>	13,400	3.90%
<b>AT31 - Oberösterreich</b>	43,100	3.00%
<b>ITC2 - Valle d'Aosta/Vallée d'Aoste</b>	35,200	3.30%
<b>ES62 - Región de Murcia</b>	20,600	1.60%

## AN OVERVIEW OF THE PROVINCE OF REGGIO EMILIA

The Province of Reggio Emilia is one of the nine provinces of the Emilia-Romagna Region, located in central-northern Italy, in the heart of the country's most industrialized area. Reggio Emilia is one of the most prosperous economic areas of the country and is also categorized as one of the smartest cities in Italy, being a highly sustainable, resilient, accessible and inclusive territory. The city and its surroundings enjoy a high level of employment, thanks to a flourishing network of small and medium-sized firms.

**Figure 7 - The Province of Reggio Emilia**



Following the global economic crisis of 2008, Reggio Emilia has adopted a new strategy of economic development based on a knowledge economy, by leveraging on the distinctive skills of the territory (education, mechatronics, green economy, and agri-food). As a matter of fact, the main key sectors of its economy belong to the following areas of specialization: food and agriculture (with a product like the Parmigiano-Reggiano cheese, one of the gastronomical trademarks of the territory), mechanics and mechatronics (more than 200 firms make up the “Mechatronic District”, the crowning glory of this province), ceramics, electronic, textile and green economy are also particularly developed. The manufacturing industry is at the heart of the local economy, despite recent changes and the Globalization process.

Reggio Emilia has also seen a progressive growth of activities connected to media and the arts (from design to dance, from the performing arts to communication, and from advertising to

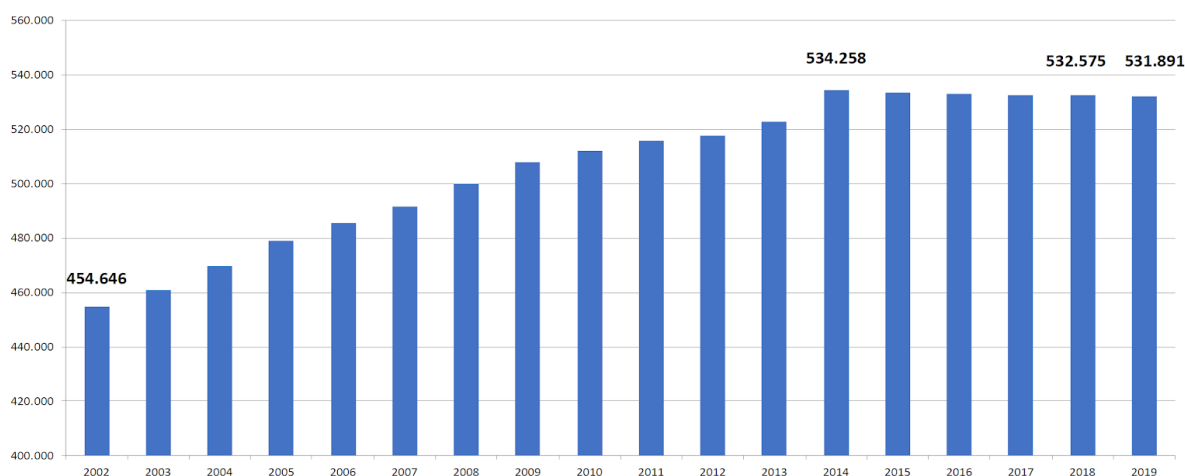
music). The city's framework is becoming increasingly one of a “creative district” specialized in the new media.

Reggio Emilia’s territory has been constantly evolving so as to adapt its development capacities, services, and industry to the changing local context. In order to actively respond to external economic shocks and, therefore, to strengthen the regional economic resilience, Reggio Emilia chose to focus on the attraction of knowledge, research, and innovation and on the exchange of talents, experiences and relationships by creating the Reggiane Innovation Park, a territorial hub for industrial research and technological transfer, that aims at catalyzing and connecting companies, research, competences, and investments so that it can boost innovative processes, sustainable economic growth and high standard of living.

## POPULATION AND DEMOGRAPHIC STATISTICS

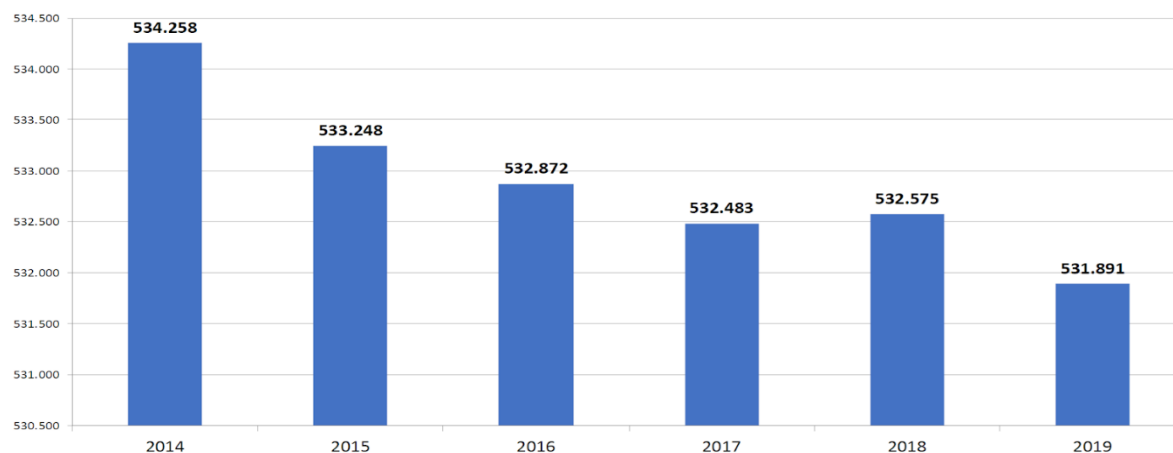
The Province of Reggio Emilia has an area of around 2,292 square kilometres counting 42 municipalities and, as of the end of 2019, it has about 531,751 inhabitants. In particular, foreign inhabitants are 65,546 and they represent 12.5% of the total population. The most significant ethnic groups are Moroccans (11.5%), Romanians (9.9%), and Albanians (9.7%). As shown in Figure 8, 2013 marked a turning point in the conditions of demographic attraction of the entire region and even more significantly of the Province of Reggio Emilia. According to the Italian National Institute of Statistics - ISTAT, the number of residents has considerably decreased in the period between 2014 and 2019. As a matter of fact, the population in 2014 reached 534,258 inhabitants, while 2,367 fewer residents in the area were registered in 2019 (Figure 9).

**Figure 8 - Resident population in the Province of Reggio Emilia between 2002 and 2019**



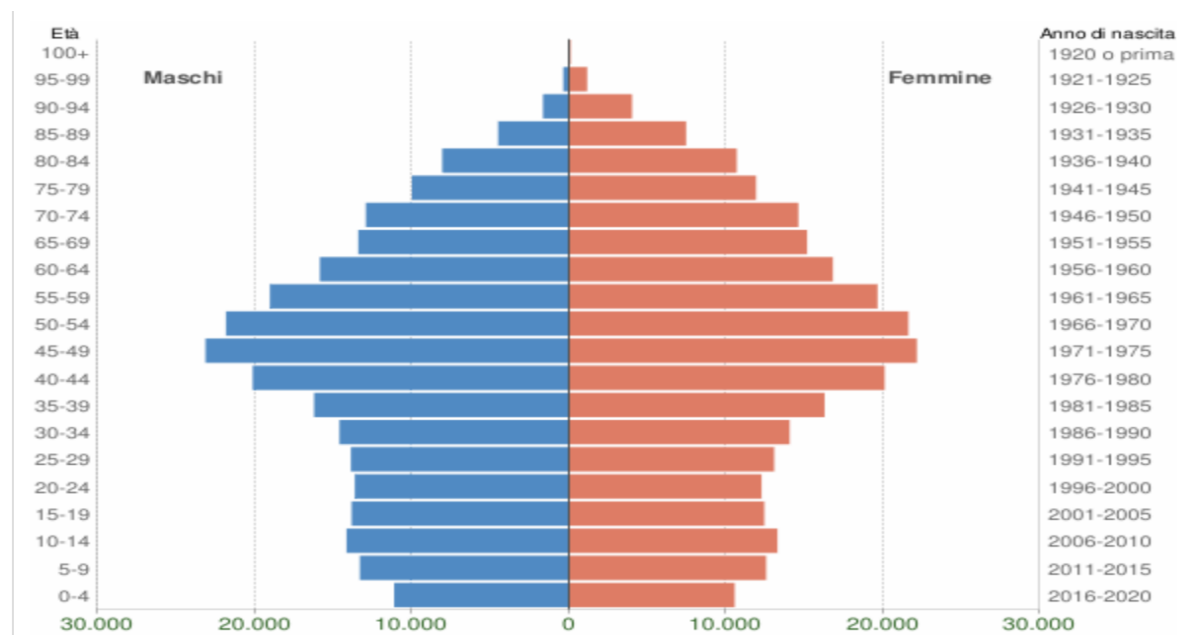


**Figure 9 - Resident population in the Province of Reggio Emilia between 2014 and 2019**



As far as the age-gender pyramid is concerned, the median age of the Reggio Emilia population is 44.3 years, confirming the tendency of the relatively old population structure in Italy. In particular, 49.20% of inhabitants are composed of men and 50.80% are composed of women. In 2019, about 14.2% of the population in Reggio Emilia fell into the 0 - 14 year category (male 38,605/ female 36,392), 9.8% into the 15 - 24 age group (male 27,468/ female 24,715), 40.9% into the 25 - 54 year category (male 109,838/ female 107,296), 13.4% into the 55 - 64 age cohort and 21.8% was over 65 years of age (Figure 10).

**Figure 10 - The Province of Reggio Emilia's age-gender pyramid at the end of 2019**



As shown in Table 2, over the past decade, a falling birth rate was recorded in Reggio Emilia as also in the rest of Italy. Data show that each year there were 1,900 fewer births, indeed.

The number of births registered in 2019 was 3,937, that is, roughly 7.4 children were estimated to be born per 1,000 inhabitants, about four infants less than in 2008. The province of Reggio Emilia was first in the Emilia-Romagna Region as births some years ago; today it is average. Concerning the mortality rate, in 2019 the number of deaths in Reggio Emilia was 5,455, reaching 10.3 deaths per 1,000 inhabitants. Finally, in 2019, there were 149.6 elderly people for every 100 young individuals, displaying the aging of the population.

**Table 2 - Ageing index, birth rate and mortality rate between 2008 and 2019 in the Province of Reggio Emilia**

<i>Year</i>	<i>Ageing index</i>	<i>Birth rate</i>	<i>Mortality rate</i>
2008	135.7	11.3	10.0
2009	132.8	11.1	10.1
2010	130.6	11.1	9.7
2011	128.6	10.6	9.4
2012	132.3	10.3	10.3
2013	131.8	9.7	10.0
2014	134.2	9.0	9.7
2015	137.2	9.0	10.4
2016	139.9	8.5	10.3
2017	142.3	8.0	10.2
2018	145.5	7.4	10.2
2019	149.6	7.4	10.3

## LOCAL ECONOMIC CONTEXT

The Province of Reggio Emilia is at the center of the Italian production system and is one of the main economic engines in Europe with its about 50,000 companies, an unemployment rate of 4.2% compared to the Italian total unemployment rate (10.6%), and an export propensity rate of 60%. Furthermore, Reggio Emilia's GDP in 2018 was 32,467 thousands euros returning to pre-crisis levels.

As mentioned above, Reggio Emilia's economic fabric can rely on four local distinctive competences:

1. **Agriculture and food:** Reggio Emilia is located at the heart of Italy's Food Valley and is the birthplace of traditional products that are celebrated all over the world, that is, Parmigiano Reggiano cheese, Lambrusco wine, balsamic vinegar, charcuterie, and meats. Moreover, it is also known for its farming and food industry, for manufacturing, processing, packaging, farming machinery, as well as sustainable farming processes and techniques;
2. **Mechatronics:** Reggio Emilia is at the forefront in the production of systems and components with a strong and intelligent application of electronics to mechanics. In particular, there is a concentration of firms that produce engines and hydraulic components, agricultural machinery, textile and wearing apparel, and chemical rubber and plastic products. The presence of mechatronics companies in Reggio Emilia led to the configuration of a Mechatronics Club, created in 2003 by a group of entrepreneurs from the Reggio Emilia Industrial Association. The competence of the territory, therefore, arises from the merger of the activities of excellence carried out by mechanical and electronic companies with the support of university research laboratory dedicated to these issues;
3. **Green Economy and sustainable development:** Reggio Emilia is a leader in environmental sustainability, focusing on separate waste collection, green areas per capita, and cycle lanes extent. The city is also a hub of research into renewable energy for farming, with business experiences in the production of bio-methane, biogas, as well as bio-building, waste management, and environmental accountability techniques. Finally, Reggio Emilia has high expertise in urban planning and urban regeneration, and sustainable buildings.
4. **Education:** the city of Reggio Emilia is an international landmark for educational policies thanks to the long-lasting experience gained by the strong network of nurseries and kindergartens and to an internationally acknowledged educational approach, *Reggio Children Approach*, which works deeply on children's creativity and curiosity. Education sector contributes to build and develop personal resilience starting from an early age.

Furthermore, the Emilia-Romagna Region provides a favorable environment for the establishment and the development of innovative start-ups. In the Province of Reggio Emilia, there are 90 innovative start-ups, of which 36% is specialized in the manufacturing industry (i.e. manufacture of machines and mechanics, manufacture of electric and electronic equipment), 36% is involved in specialized technical support, and research and development, 23% is engaged in the production of software and IT consulting, 3% is specialized in human services, and only 2% in "other services".

Finally, it should also be mentioned that another distinctive trait of Reggio Emilia's economy is the cooperative system, a key factor in the growth and in the cultural, social, and economic development in this area since the late XIX century. As shown in the *Osservatorio sulla*

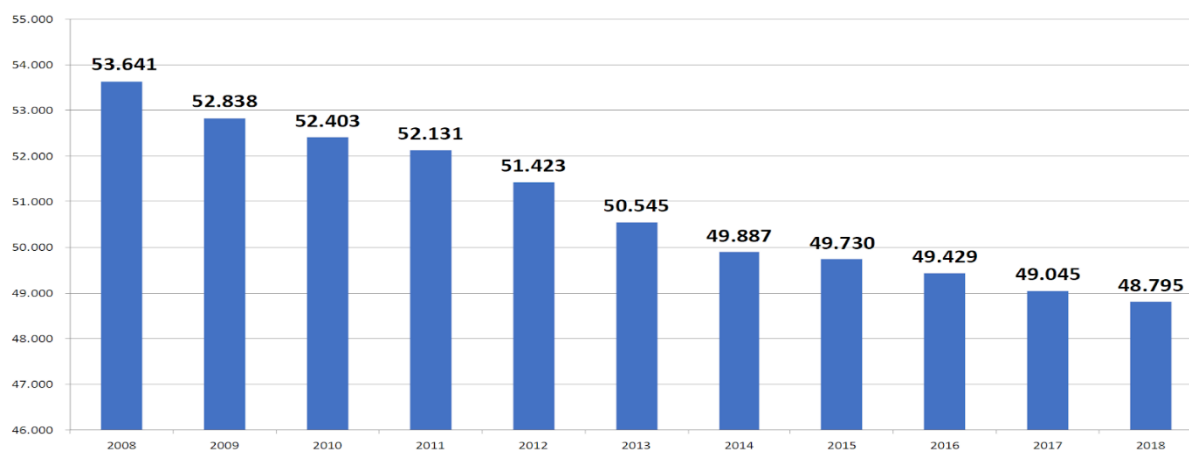
*Cooperazione dell'Emilia-Romagna* of 2018, Reggio Emilia is home to 645 local cooperative enterprises, employing about 45,022 people, out of a total of 5,006 cooperatives in the Emilia-Romagna Region. Some of these cooperatives work in any strategic industry, such as farming and food processing, retail, cleaning, construction of buildings and infrastructures, finance, farms, restaurants, winemaking, insurance. Within such a system, a key role is played by social cooperatives, which provide services for kindergartens and nurseries, for the care of elderly people, for social work, as well as for the inclusion of disabled or unprivileged people into work.

## BUSINESS DEMOGRAPHICS AND LABOR PRODUCTIVITY

Reggio Emilia, with a total of 48,795 local businesses registered in 2018, has always been the epitome of a powerful work ethic, of which the entrepreneurial fabric is a deeply-rooted embodiment, embracing the high value of the region's human and social capital. Reggio Emilia's industry is known not only for its high-quality products but also for the efficiency of its districts' organization and the companies' highly competitive edge. This fabric is created by the SMEs as well as by the major corporations, which are important global players and accredited international quality systems (i.e. Landi, Argo Tractors, Brevini, CIR, Unipeg, Max Mara).

Although in the past ten years the territory has lost 4,846 businesses of the 53,461 active companies in 2008 (Figure 11), the services sector is experiencing a 5.7% growth in the number of businesses, being 15,193 and representing 31.23% of total companies: in particular, sustained growth was recorded in the research areas (+ 7.9%), health and social assistance (+7.5%), management consultancy activities and professional activities (+ 4.8%). The construction sector is the second sector with the highest number of companies, being 10,873, followed by the trade sector with 9,975 enterprises.

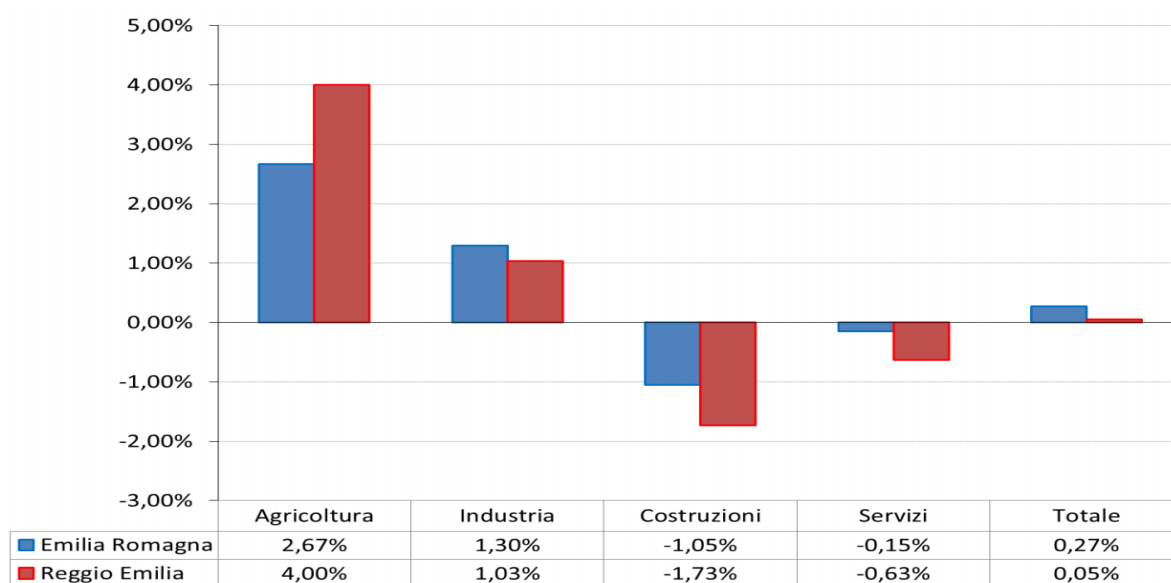
**Figure 11 - Number of enterprises in the Province of Reggio Emilia between 2008 and 2018**



Although the local business development is slightly and slowly declining, it is also interesting to notice that the number of foreign enterprises and women-run companies is increasing, while the number of businesses run by young people is decreasing. As of 2018, 14.9% of the overall number of Reggio Emilia's companies is represented by foreign businesses, 18.4% is represented by enterprises run by women, and only 8.71% is characterized by the presence of youth enterprises.

Between 2004 and 2018, labor productivity in the Province of Reggio Emilia has grown at an infinitesimal rate of 0.05% average per year against an increase of 0.44% recorded in the Emilia-Romagna Region. In comparison with 2008, the level of productivity of the territorial economy is now 1.7% higher, while productivity in the Region is 3.3% higher than the pre-crisis one. As shown in Figure 12, industrial productivity grows (+ 1.03%), as does the agricultural sector (+ 4%). However, the worst performances concern the tertiary sector (- 0.63%) and above all construction (-1.73%).

**Figure 12 - Productivity in the sectors of economic activity in the Province of Reggio Emilia between 2004 and 2017 (% variations)**



The effects of productivity and investment trends have a long-term effect on competitiveness on international markets which is crucial for the Province of Reggio Emilia. The total value of the revenues amounted to 10,722 billion euros in 2018, with a change of + 3.93% compared to the previous year, with a performance that was placed above the national one (+ 3.07%). Notably, it is significant to underline the fact that compared to 2008, a year that can be considered the watershed concerning the breaking of the economic crisis, the export propensity of Reggio Emilia went from 51.5% to 68%. Therefore, Reggio Emilia's economy confirms its peculiar dependence on exports, representing a strategic choice that has yielded

important results and that inserts the local economy in an increasingly inseparable way within international production and distribution networks.

## EMPLOYMENT AND UNEMPLOYMENT TRENDS

The macroeconomic trend of recent years confirms and strengthens the dominant role of the Emilia-Romagna economy within the national context. As a matter of fact, in 2018, the Emilia-Romagna Region recorded the second highest employment rate nationwide, with 69.6% of the population aged 15 to 64 years being employed. As displayed in Figure 13, Reggio Emilia's employment rate averaged 69.4%, making it one of the Region's most dynamic provinces. The number of people employed is 240,787, growing by 3,248 since 2017.

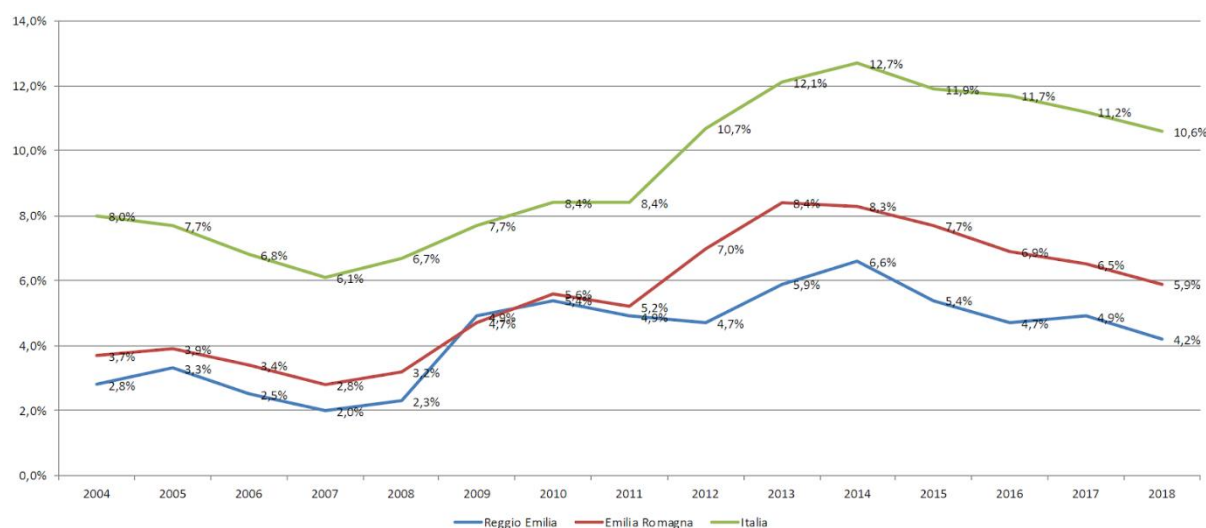
**Figure 13 - Employment rate at national, regional, and local level**

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Piacenza	66,1	65,6	65,8	64,8	64,4	64,4	66,3	69,4	69,1
Parma	68,4	68,1	68,6	68,3	68,5	67,2	68,7	69,3	70,3
<b>Reggio E</b>	<b>66,3</b>	<b>67,2</b>	<b>67,2</b>	<b>66,7</b>	<b>65,8</b>	<b>66,3</b>	<b>68,2</b>	<b>68,4</b>	<b>69,4</b>
Modena	66,2	67,6	69,0	67,1	65,1	65,9	68,8	69,1	69,0
Bologna	69,1	69,5	68,6	68,0	69,3	69,2	71,8	71,8	72,4
Ferrara	66,7	68,1	65,7	61,5	63,3	65,3	66,6	67,6	66,8
Ravenna	69,0	70,5	68,3	66,3	66,2	66,5	66,7	65,8	68,2
Forlì-Cesena	67,7	65,8	66,6	67,2	66,8	68,1	68,3	66,5	68,4
Rimini	64,0	64,7	63,6	60,9	61,4	62,9	62,9	63,3	68,2
<b>Emilia-Romagna</b>	<b>67,3</b>	<b>67,8</b>	<b>67,5</b>	<b>66,2</b>	<b>66,3</b>	<b>66,7</b>	<b>68,4</b>	<b>68,6</b>	<b>69,6</b>
<b>Lombardia</b>	<b>65,0</b>	<b>64,6</b>	<b>64,5</b>	<b>64,8</b>	<b>64,9</b>	<b>65,1</b>	<b>66,2</b>	<b>67,3</b>	<b>67,7</b>
<b>Veneto</b>	<b>64,4</b>	<b>64,9</b>	<b>64,9</b>	<b>63,1</b>	<b>63,7</b>	<b>63,6</b>	<b>64,7</b>	<b>66,0</b>	<b>66,6</b>
<b>Italia</b>	<b>56,8</b>	<b>56,8</b>	<b>56,6</b>	<b>55,5</b>	<b>55,7</b>	<b>56,3</b>	<b>57,3</b>	<b>58,0</b>	<b>58,5</b>

The overall unemployment rate was 4.2%, showing a decrease with respect to 2014, being 10,592 the number of people who were unemployed at the time of the survey. In the Region, Reggio Emilia is the territory with the lowest level of unemployment rate, followed by Parma and Forlì-Cesena.

Figure 14 reveals that Reggio Emilia's unemployment rate is almost two percentage points below the regional average (5.9%) and about six percentage points below the national average (10.6%). Nevertheless, it should be underlined that, as still in the rest of Europe, there is a high prevalence of unemployment among women: unemployed women represent 6.8% of the active female population, while the male unemployment rate is estimated at 2.1%, namely in 2018 only 104,889 women were in the labor force compared to 135,898 men.

**Figure 14 - Unemployment rate at national, regional and local level**



Although the Province of Reggio Emilia has achieved excellent results in terms of job creation, young people have to face labor mobility. In the local job market, 84% of workers are employed with temporary contracts, mainly in trade, tourism, as well as in agricultural activities.

By way of conclusion, it should also be noted that the number of non-participants in the labor market, aged 16 to 64, has decreased by 1,613 since 2017, being 93,596 the number of inactive people in 2018. Particularly, the share of young people aged 15 to 24 who are not in education, employment or training (NEET), by choice or due to the lack of opportunities, has decreased by 5.7% in the last years.

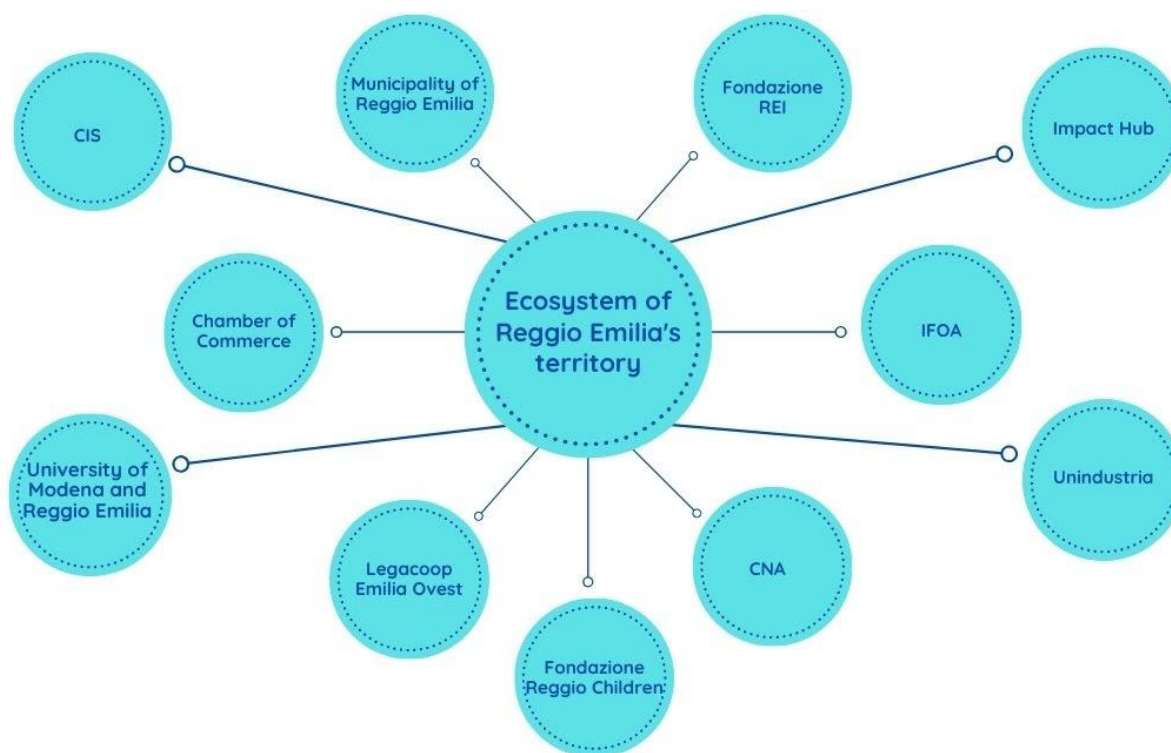
#### REGGIO EMILIA'S ECOSYSTEM: THE KEY PLAYERS INVOLVED

Reggio Emilia is commonly defined as a city of innovators by tradition. It is an industrious and inventive community with a natural predisposition for international relations and dialogue, being always ready to confront new markets and open to change and innovation. The Municipality of Reggio Emilia works closely with research centers, training institutions, business associations, local institutional players, private actors, and enterprises relying on the competencies and skills of all territorial stakeholders to maximize impacts and results.

Furthermore, innovation is a crucial ingredient to foster and strengthen territorial resilience. The key players of Reggio Emilia are deeply interconnected, and they constantly collaborate to support structural change and long-term economic renewal. Some of the main actors of Reggio Emilia's territory, that offer support to enterprises in case of economic crisis or to prevent a crisis, are the Chamber of Commerce, CIS, CNA, Fondazione REI, Fondazione Reggio Children, IFOA, Impact Hub, Legacoop Emilia Ovest, Municipality of Reggio Emilia,



Unindustria, and University of Modena and Reggio Emilia. Below is a brief description of each player and the tools/activities implemented to support the territorial ecosystem.



**Chambers of Commerce, Industry, Crafts and Agriculture** (abbreviated as CCIAA, and known as Chambers of Commerce) are local non-territorial public bodies with functional autonomy. Companies are obliged to join by law so that the membership fee they pay has a parafiscal character.

The mission of the Chambers of Commerce consists of economic promotion, the development of the business system, and the local economy, through a synthesis that reconciles the needs of all sectors, represented in its bodies (Council Chamber and Council). Each Chamber of Commerce finances its activities by the annual fee paid by each company registered in the Business Register, by secretarial fees paid by any subject for the issue of certifications relating to the contents of the registers, registers, and roles held by the Chambers of Commerce, income deriving from the management of activities and provision of services. In particular, CCIAA has developed the I.RE.NE project, which is a service that supports SMEs in managing critical commercial relations in times of Covid-19 pandemic. The main objective is to safeguard business continuity by preventing legal disputes and alternatively proposing negotiation solutions aimed at avoiding the deterioration of the contractual structures and irreversible operational and financial crises. Furthermore, the OCRI - Organismi di



Composizione delle Crisi di Impresa, that is, the corporate crisis settlement bodies of the territorial Chambers of Commerce, support the promotion of a new culture of prevention, anticipation, and management of crises, especially in times of emergency, within companies. This culture goes beyond the analysis of simple economic-financial data, offering also digital tools and knowledge necessary to monitor and consolidate the economic-financial, organizational, and managerial balance, and to foster relationships with credit and financial institutions.

**CIS** is the training and consultancy company of Unindustria Reggio Emilia that organizes, develops, and manages counseling and training activities for enterprises, and up-skilling for young people to facilitate their entrance to the labor market. CIS aims at providing innovative consultancy services and training of excellence to enhance the competitiveness of enterprises and the territory.

**CNA** (National Confederation of Crafts and Small and Medium Enterprises) is an entrepreneurial organization, founded as a free association between companies with the aim of representing, safeguarding, economically promoting, and providing services to businesses, operating in the sectors of manufacturing, construction, services, transport, trade, and tourism, small and medium-sized industries, and in general the business world and related associated forms, with particular reference to the craft sector; artisans, self-employment, professionals in their various expressions, entrepreneurs and pensioners. CNA has 20 Regional Associations, 106 Provincial Associations, and the Sectoral Associations.

In the event of a crisis, CNA brings into play a personalized checkup tool based on the characteristics of the enterprise, dimension, sector, area, market, and so on. Thereafter, it offers consulting services relating to market opportunities, process innovations in financial terms, and human resources, and legal support mainly concerning tax and labor law issues.

**Fondazione Reggio Children** (International Centre for the Defence and Promotion of the Rights and Potentials of All Children) is a mixed public-private company established in 1994 to manage the educational and cultural exchange initiatives for the national and international dissemination of “Reggio Emilia Approach” in the education field. The international acknowledgment and the collaboration with many countries have generated Reggio Children’s International Network (RCIN), a formal network now composed of organizations from 34 different countries of the world. Reggio Children cooperates with more than 110 countries in the implementation of its activities. Opened in 2006, the Loris Malaguzzi International Centre, the symbol of the Reggio Emilia Approach, is an engine of research and innovation. Its headquarters have become a worldwide reference point for pedagogy and training but also the local economy.

**Fondazione REI** is a hub aimed at facilitating the connection and communication between local and regional players on issues relating to innovation and technology transfer. In particular, it promotes the innovation processes of local companies. In a business relaunch project, it can support companies to:

- improve manufacturing processes;
- identify partners, laboratories, and “flagship” companies for product innovation projects that increase competitiveness;
- undertake courses of upskilling and reskilling of the staff, thanks to a collaboration with training centers.

Fondazione REI, together with its founders (Chamber of Commerce, Unindustria, IREn Smart Solutions, and STU Reggiane), collaborates with the Regional High Technology Network, being a hub aimed at facilitating the connection and communication between city players and regional players on issues relating to innovation and technology transfer. It can therefore contribute with specific actions to combat business crises and to carry out projects to improve and enable new processes and new opportunities both at the company and local level.

**IFOA** is a training institution and employment agency that aims at transmitting and enhancing professional skills, strengthening human capital, and boosting the competitiveness of businesses and the economic system. The Reggio Emilia ecosystem, that allows IFOA to detect needs and requirements, to plan and then carry out training activities for both companies and individuals, is composed of the Chamber of Commerce, the University of Modena and Reggio Emilia, secondary schools, social players, local institutions and associations, the Province of Reggio Emilia and the Emilia-Romagna Region, according to the projects, themes, and targets.

In the case of a corporate or sectoral crisis, IFOA offers several services and initiatives to support workers and SMEs:

- training projects for unemployed over-50s with the aim of supporting people at risk of exclusion from the labor market and in acquiring the knowledge and skills necessary for employability;
- training courses for companies that operate in the digital sector and in the manufacturing sector to prevent the slowdown of their competitiveness due to the lack of human resources with key technical and specialized competences for the company (courses on innovation, digital technologies and Industry 4.0, and production management in the mechanical field);
- courses financed by the Region following the 2012 earthquake that strongly affected part of the Emilia-Romagna Region, created to relaunch local businesses and rest the employability of those who had lost their jobs;
- project financed by the FAPI fund (small and medium-sized enterprise training fund) to help SMEs to train their employees on prevention practices in the workplace and on health and safety behaviors at home to prevent the spread of Covid-19;
- update of the IFOA training catalog in order to adapt its courses to the new health emergency due to Covid-19 to help employers and employees in the implementation of smart-working modalities concerning regulatory, organizational, technical, and behavioral aspects.

**Impact Hub Reggio Emilia** is a member of an international network of spaces and people where entrepreneurs, creatives, and professionals can access resources, be inspired by the work of others, develop innovative ideas and strengthen useful relationships, identifying new market opportunities. The members are entrepreneurs, social investors, freelancers, startupper, creatives, artists, consultants, innovators and young professionals. Impact Hub is the place where it is possible to work together to develop sustainable projects, solutions that respond to the needs of the territory, keeping the economy and society together, through the use of participatory methodologies and the constant contamination between different sectors.

**Legacoop Emilia Ovest** is the reference association of cooperatives in Reggio Emilia, Parma and Piacenza, that works to promote the development of the associated companies and the diffusion of cooperative principles and values. It brings together over 15 thousand cooperative enterprises, active in all sectors to create development, putting people and territory at the center. In order to achieve its objectives, Legacoop develops services and projects for cooperative enterprises and promotes cooperative culture, affirming its values and supporting its economic, social and civil role and its ability to respond to people's needs through its representative action. In particular, Legacoop supports the implementation of the *Workers BuyOut (WBO)*, an innovative national, regional and local instrument used whereby workers acquire ownership and control of a company that is facing closure. The WBO can be implemented not only in cases of corporate crisis or restructuring processes but also in the face of difficult generational changes in family businesses.

- *Company crisis*: a crisis usually leads to a guided liquidation procedure of the production facility. Workers decide to protect their job by investing their unemployment benefits and establishing a cooperative that could continue the activity with new strategic objectives and corporate governance.
- *Generational turnover*: in family-run businesses, the company is sold to its employees who have acquired specific competencies over years of employment rather than competing companies or multinationals.

Successful WBOs help to avoid unemployment and create new jobs, preserve wealth, professionalism, and skills, and maintain production units in the territory.

The **Municipality of Reggio Emilia** offers an online service, the SUAP online desk, a fundamental tool that facilitates the interaction between companies and public institutions by helping to handle the paperwork related to the opening and management of the business. Furthermore, the Municipality has created the *Research, Innovation and Internationalization Unit*, which is in charge of innovating the economic, social, and cultural model of Reggio Emilia's territory by focusing on the attraction of knowledge, research and innovation and the exchange of talents, experiences, and relationships. The Unit is located at the Reggiane Innovation Park, which represents a logistic-technological platform able to strengthen the collaboration among companies and industrial research, aiming at anticipating innovation.

The Park is, today, composed of 3 main infrastructures, where businesses gather specific skills for local production needs:

1. *Technopole*, equipped with mechatronics, energy, environmental, and agro-food platforms;
2. *Loris Malaguzzi International Centre*, as the main driving force for the national and international dissemination of “Reggio Emilia Approach” in the education field;
3. *Shed #18*, where several companies’ research centers are located, such as WeBranking (digital marketing), ASK (automotive), Studio Alfa (green economy), Bema Lab (robotics), Analisi (financial consulting), Grasselli (food processing machinery), and Palomar (film and animation production).

The on-going project of the Innovation Park aims at catalyzing and connecting research, competencies, and investments so that it can boost innovative processes, sustainable economic growth, and a high standard of living.

**Unindustria Reggio Emilia** is the main national association representing manufacturing and service companies in Italy, with a voluntary membership of more than 150,000 companies of all sizes, employing a total of 5,440,125 people. The association network breaks down into 219 associations (73 local associations, 14 regional representations, 15 sectoral federations, 88 trade associations, 10 sectoral representations, 10 international representations, 9 associate members). It offers several services for promotion and internationalization, for the start up and development of enterprises.

The **University of Modena and Reggio Emilia** is ranked among the top 8 medium-sized universities in Italy for its high level of research. With over 20,000 students and 300 international exchange agreements and cooperation programs, it is composed of 14 Departments and offers a wide range of degree programs at the undergraduate level, right up to doctoral studies in most disciplinary areas, from the humanities and social sciences to engineering and technology, and from physical and natural sciences to medicine and life sciences. The University has created a well-founded network of collaborations with the provincial and regional territory that connects companies, young people, and research centers. These partnerships are translated not only into training courses and internships but also into research and experimentation projects.

## INDUSTRIAL RESTRUCTURING

### ECONOMIC RESTRUCTURING: THE GRESLAB FACTORY CASE STUDY

**Greslab Soc. Coop.** is today a company that produces tiles for wall and floor for major Italian and European companies, using the latest digital technologies combined with the traditional systems. Greslab is a successful example of Workers BuyOut, carried out with the support of Legacoop Emilia Ovest.



Previously called **Ceramica Magica**, the company, founded in 1960, was used to produce glazed porcelain stoneware tiles for floors and to commercialize coating products. The company had two units in the Province of Reggio Emilia: the headquarters and production office in Scandiano, and the logistics center in Chiozza. The target market of Ceramica Magica was the residential sector of the United States, representing more than 50% of its turnover. Nevertheless, the real estate crisis that hit the US market in early 2006 deeply affected the value of the company's production, being further aggravated by the unfavorable exchange rate euro to dollar.

The company, faced with the decline in turnover on the US market and the fall in marginality partially due to the devaluation of the dollar, was unable to react. The main causes that did not allow the company to successfully recover were:

- *governance and corporate structure*: the company was managed jointly by several people, not always agreeing on corporate strategies. The commercial area prevailed in terms of strategies;

- *excessive fragmentation of production*: in order to meet the demands of the commercial sector, the company faced an excessive amount of investment in equipment and studies, research, and launch of new products. This scenario led to a disproportionate product fragmentation, resulting in the loss of production capacity itself, as well as excessive research and pre-industrialization costs;
- *management of company costs*: the factors indicated above, combined with the failure to increase sales prices, significantly reduced margins and did not allow for a recovery of what was lost on the American market;
- *debt/equity ratio*: the progressive worsening of this ratio led to unsustainable financial tension with a consequent excessive percentage incidence of financial charges on turnover.

In 2010, the company decided to undertake the Workers Buyout process in order to avoid bankruptcy, and save jobs as well as acquired competencies. Legacoop immediately set up a new business plan by analyzing the causes of the crisis and corrective measures to overcome them, the reference market, the possible repositioning, the conditions of investment and employment reorganization, and innovation needs. A new strategic formula, focused on the choice of becoming a pure “factory”, was proposed. Therefore, the commercial area was abandoned and the attention was put on the design, development and research of new products. The company started to focus uniquely on contract manufacturing by dialoguing directly with retailers, wholesalers, distribution chains, and final consumers with a global perspective. Furthermore, a proposal for purchasing business assets was designed: a lease contract with a purchase option was considered preferable because it allowed concentrating on the initial phase which consisted of recovering the customers and suppliers and consolidating. Each worker contributed to the social capital with a quota provided by their unemployment benefits for a total amount of € 418,000, while Legacoop Emilia Ovest contributed to the company’s share capital through:

- **Coopfund**: a mutual fund for development and promotion of cooperation of Legacoop, powered by the payment of 3% of the profits offered by the cooperatives and the residual assets of the cooperatives put into liquidation. The total amount of the funding was € 300,000 and, in 2016, it was increased by € 600,000 for another 7 years.
- **CFI fund**: the fund, set up by the Law Marcora 49/85, intervenes in the cooperative’s share capital (up to doubling the share subscribed by the workers) to be returned within 7-10 years and with long-term financing for investments. The total amount of the funding was € 300,000 and, in 2016, it was increased by € 150.000 for another 3 years.

Finally, other private companies helped to save the company, including PowerGas investing for an amount of € 300,000, Ceramiche Moma Spa for an amount of € 200,000, and XISyle Srl for an amount of € 100,000.



Another fundamental element to recovery was the optimization of available human resources by providing training programs to build new skills and competencies. In particular, Legacoop supported the development and enhancement of managerial skills, and the motivational spirit of the workers, who were no longer employees but members of a cooperative: the centrality and the responsibility of the shareholders have significantly increased company productivity, creating a more cohesive, stimulating and open to constructive dialogue working environment. The new company also heavily invested in innovation by promoting a corporate culture centered on change, evolution, and dynamism, and by investing in digital printing and new technological opportunities of the ceramic sector.

Besides Legacoop with a direction and coordination role and its financial tools, other actors were involved in the process:

- *Studio di Consulenza Labanti e Associati*, an external accountancy firm, provided administrative, accounting, and contractual support throughout the whole process;
- *Banca Etica* and *Unipol Banca*, credit institutions, supported the project by providing short, medium and long term credit lines useful for the development and the restart of the cooperative, both in terms of investments and the ordinary cycle of working capital;
- *Cooperfidi Italia*, a cooperative guarantor consortium, offered the necessary safeguards to credit institutions;
- *Trade unions* managed the transition of the workforce from the old company to the new one.

After 10 years of activity, Greslab has today doubled the number of employees in the company, going from 35 to over 80 employees. Likewise, turnover has undergone a significant expansion, passing from the initial 4 million to 16 million in 2019. In the meanwhile, thanks to the results achieved, the economic and financial balance reached, and the continuous investments in production, the cooperative members were able to first acquire the business unit and then to become property owners.

In conclusion, the WBO process was able to remedy the main problems of the previous company, namely indebtedness and excessive production costs compared to the produced revenues. The company structure has been completely reorganized, focusing on lower turnover but with a higher added value. This change would not have been possible in a company such as Ceramica Magica, whose financial condition was too compromised to be recovered. In this sense, the WBO allowed to create a new company, and thus to safeguard the majority of workers.

Matteo Pellegrini, Institutional Activities and Promotion Manager at Legacoop Emilia Ovest, believes that *“the WBO is an extraordinary experience of courage, determination and collective management. From a crisis situation, they contribute to safeguard jobs, protect the socio-economic fabric and guarantee opportunities for growth and development through a*

*business model based on the centrality of the person, widespread participation and economic democracy. We are convinced that future challenges, especially within the European countries, must be addressed through cooperation, sharing, and cross-contamination. The future is made of real and virtual bridges, not walls".*

## INDUSTRY IN TRANSITION – A PERFUME FACTORY CASE STUDY

A historic perfume company, whose name will not be revealed for privacy reasons, has undertaken the *Workers BuyOut* process in the summer of 2020.

Founded in 1946, the company has grown over years in size, design, skills, production, packaging, and marketing of perfumes, becoming one of the leading operators in the sector with a turnover of 56 million euros in 2018. The company was operating in the fragrance sector with integrated production, from the study and development of essences within the research laboratory, to the production and distribution of fragrances. Moreover, the business structure was based on the production and marketing of its brand and licensed products. In 2010, the company was acquired by an international player in the fragrance and cosmetic industry. In 2017, following the non-renewal of some prestigious licences, the company started a reorganization process focused on cost reduction. Under these circumstances, the voluntary liquidation of the company was declared due to a significant decrease in volumes and profitability. As a consequence, 32 employees out of 114 have decided to embark on the risky but full of opportunities path of WBO led by their acquired skills, know-how gained over years of activity, and the credibility gained on the market.

Legacoop Emilia Ovest has helped to establish a cooperative that would enhance the commitment and professionalism of its members by making them responsible for their future strategic choices. Furthermore, the rationale behind the industrial process likewise changed by choosing to focus on the production of perfumes, and not on the complex and expensive management of licences and the commercial network. It was decided to operate more as subcontractors by valuing the distinctive feature of the company, that is, the ability of transforming essences into perfumes. The enhancement of people, including through training courses, a constant attention to the technological evolution as well as the choice of top-level partners and suppliers represent the drivers to express the full potential of the project.

Legacoop, with its financial tools (Coopfond) and institutional tools (CFI) promoted, coordinated and managed the first incubation phases of the project. The other actors involved in the process are:

- *Studio di Consulenza Ranalli*, an external accountancy firm, has managed the voluntary liquidation of the previous company;
- *Credit institutions* are carrying out the negotiations for obtaining adequate credit lines to acquire property;



- *Trade unions* have helped to direct workers towards a cooperative model.

The Cooperative is now working to obtain the financial resources necessary to acquire property where the business is carried out, as well as negotiating the acquisition of the previous brand and the warehouse stocks useful for starting the business. Similarly, the cooperative with the support of Legacoop Emilia Ovest is working with the new license holders to stipulate processing contracts as third parties and start the production process as soon as possible.

The national responsible for industrial cooperatives Maurizio De Santis stated that *“in recent years, the WBO has gained increased public attention. Although an English acronym is used to refer to the phenomenon, it deeply represents the Italian centuries-old tradition of cooperatives. The fact that the social safety nets invested in the new companies are used as instruments of active labor policy and not just as a mere defense of income acquires a particular value. However, it is also the social dimension that makes the WBOs an original and particularly cohesive tool: cooperation by its very nature is inextricably linked to the territory, thus, the company’s heritage that is built remains an indivisible and intergenerational good”*.

#### SMES RESPONSE TO COVID-19: CASE STUDIES OF PRODUCTION RECONVERSION

When the pandemic began to spread throughout Italy, the request for a series of products to combat coronavirus began to increase exponentially, so much that production was unable to meet needs. From this problem arose the solidarity idea of many Italian companies to have their activity reconverted in the production of masks, lung respirators, disinfectant gels and other medical equipment and supplies, to be able to support the emergence of the Covid-19 virus.

In the territory of Reggio Emilia, this emergency has moved the **Nuova Sapi** company, which boasts over 40 years of experience in the field of medical and industrial cleaning, to find a solution to the lack of surgical masks. The company Nuova Sapi, located in Casalgrande in the Province of Reggio Emilia, has been working in the industrial cleaning and safety world since 1978, focusing on the constant research of new and innovative products to satisfy customer needs.

The company designed and prototyped, starting from scratch, the first example of a surgical mask made up of three layers of non-woven fabric. However, being unable to manage the entire supply chain necessary to industrialize the product by itself, Nuova Sapi turned to the referential association, that is, Unindustria Reggio Emilia, which promptly responded by networking several key actors, in particular, the Confindustria Emilia-Romagna, the Regional Healthcare, Municipality of Reggio Emilia and the Biomedical Technopole of Mirandola (Modena).

Immediately a meeting with the Health Department of the Emilia-Romagna Region was held to examine the product. A few hours later the coordinator of the working group of Confindustria regional for life sciences and reference figure in the Technopole of Mirandola was involved in a video call in order to define the procedures necessary for certification of the product. Subsequently, the team worked in close synergy to find qualified people and materials necessary to ensure a high daily production. The collaboration was then expanded to other stakeholders in Reggio Emilia who, thanks to the coordination of Mayor Luca Vecchi, have contributed to the success of the project.

In a few days the certification request was forwarded to the National Health Institute and a pre-production of 20,000 prototype specimens began to test the efficiency of the cutting and packaging production process, as well as the reliability of the supply system. Two days later the production of over 100,000 masks per day began with the aim of exceeding 150,000 daily units in a few days.

The aim of the project was to develop an industrial reconversion project that could benefit the territory of Reggio Emilia as well as the entire Emilia-Romagna Region.



Besides the idea of an industrial reconversion project, which was also implemented in many European SMEs over the last few months, it is important to underline some distinctive elements that distinguish this specific case study from others, that is:

- *Territorial ecosystem*: the realization of the project was made possible thanks to the collaboration of companies, local and regional administrations, the healthcare system, technopoles and trade associations;
- *Quality of materials*: the fabrics used were medical tested and, therefore, of excellent quality;
- *Production quantity*: the production of masks exceeded 150,000 units per day.

A similar story regards the Nannini company of Reggio Emilia that received a request for the supply of protective glasses by the Reggio Emilia command of the Brigade Fire, where personal protection materials were scarce. In order to respond to this new particular and urgent request, it was necessary to create a new design and technical evaluation phase, which went beyond the range of products so far made. Following the first contact with Unindustria Reggio Emilia and, subsequently, with the Regional Healthcare, it also became clear the need for face-covering visors. Hence, the precious collaboration with Raleri, a Bolognese company expert in the production of protective glasses for different areas of use, including sports and face shields.



Thanks to the technical contribution on the visors of the Bolognese partner and strong of Nannini's skills, a protective visor was designed and developed by Raleri in less than a week, and a model of protective glasses derived from a modular project, already existing in Nannini, was also produced. In mid-April, the second protective eyewear with higher productivity was made, and a mask-type protector was being studied in Raleri.

After a very rapid design phase and the creation of prototypes for approval and certification, the Nannini - Raleri partnership was able to supply 3,500 protective glasses per day, and 1,500 - 2,000 protective visors per day. In order to avoid a productive concentration and to allow individual laboratories or manufacturing companies interested in taking part in the project to provide support also on individual production phases, the production architecture, started in

the Nannini and Raleri factories, has involved other companies from other sectors and supply chains, creating a network of companies and key-actors.

The Mayor of Reggio Emilia, Luca Vecchi, declared to the press: *“A winning recipe made of resilience and innovation, typical characteristics of the people of Reggio Emilia. All this gives us hope and trust”,* and also *“an example of how collaboration is the best strategy in times of crisis”,* while the President of the Emilia-Romagna Region, Stefano Bonaccini, stated that *“as in the case of the 2012 earthquake, the Emilia region has demonstrated its ability to react and respond by itself, without waiting for external help”*.

## CONCLUSIONS – GOALS FOR POLICY LEARNING

The economic-production system in the territory of Reggio Emilia is mainly characterized by a wide variety of industry sectors, representing an element of resilience as it prevents the complete breakdown of the entire territorial economy in the event of economic crises, structural shocks, and/or company closures. Furthermore, the city presents a solid entrepreneurial culture, a high level of specialization, a large subcontracting network, and distinctive competencies that make the area particularly attractive. As we have observed in this study, the Reggio Emilia economic context is mainly composed of SMEs, which are usually considered to be the backbone of the European economy, providing a potential source for jobs and economic growth.

Nevertheless, the business fabric of Reggio Emilia shows some critical issues that must be taken into consideration:

- *the diffusion of innovation in the territory at the cross-sectoral level.* The diffusion of innovation, that would determine the principles of market commercialization and market success of new products and services, is often delayed due to the lack of a strong network between companies, research institutions, and economic actors. This is because enterprises tend to work individually and have a limited perspective, while collaboration between organizations would mean saving costs through sharing administrative expenses, expanding value propositions, improving efficiency, sharing skills and abilities, and spreading innovations;
- *the future competencies and market demands.* In the new digital era, the labor market is evolving and requiring new competencies and qualifications and, therefore, people need to constantly learn new skills to remain relevant in the workforce of the future and to help corporate renewal and growth;
- *the creation of new businesses with different needs from traditional SMEs in the area.* In particular, SMEs often maintain traditional business models focused on manufacture. Their “innovation model” remains informal and internal and, thus, local SMEs are usually very distant from the research academy and start-ups world. These



issues translate into a loss of competitiveness in the global market, gaps in digital transformation, and a lack of innovation and R&D.

Anticipating innovations represents a crucial element in building a resilient territory, especially through quadruple-helix collaborations. As a matter of fact, in order to effectively respond to these issues and the possible consequences related to them, the Municipality of Reggio Emilia with the support of the whole territory is developing a solid and resilient ecosystem based on three main pillars:

1. **the Reggiane Innovation Park as systemic innovation:** it is a model of a new smart and sustainable development, able to attract knowledge, research, and innovation but also talents, experiences, and relationships. The project represents a unique opportunity to anticipate future innovation pathways by combining city added values and socio-economic needs and trends to bridge the strategic and business aspects of human resource management. Knowledge and creativity determine the attractiveness and competitiveness of a territory and, therefore, its ability to recover from economic shocks. Particularly, attracting, retaining, and developing new talents means generating competitive advantages and targeted investments.
2. **the education value chain as people-centered innovation:** the city constantly develops relations with schools, ITS, Universities to build and enhance a culture of innovation by creating activities and projects to showcase real innovation practices, and to collaborate in education and training activities. Starting from early childhood education, the city constantly invests in education, training, and lifelong learning. In a changing economic environment and job market, gaining knowledge and learning new skills in key areas, such as digital transformation, leadership, and change management throughout your lifetime can benefit both individuals and companies. The impact of lifelong learning on employees means increased employability, internal mobility, improvement of personal and professional skills, and greater job satisfaction. As for a company, establishing a lifelong learning culture produces greater agility, increased productivity and competitiveness, and the ability to better capitalize on new technologies.
3. **the dialogue between start-ups and traditional companies as corporate innovation:** in Reggio Emilia's territory, few people are employed in start-ups and, therefore, these new realities cannot substitute traditional companies nor solve any crisis. Although start-up companies do not fill the gaps left by other critical issues, it is fundamental to promote their creation since the collaboration between start-ups and traditional businesses allows them to create induced work, access talent that cannot be absorbed and/or intercepted by traditional companies, reduce costs, and speed up time-scales. Accordingly, the start-up becomes an open innovation tool and an innovative business model for local companies. As a matter of fact, corporates can leverage the knowledge, research, and innovation of start-ups, while start-ups become a "research

and development department” outside the company. The Reggiane Innovation Park also represents a territorial platform of open innovation, where companies, research labs, and start-ups go beyond their businesses and research paths through the continuous exchange of ideas and experiences.

4. **the dissemination of innovation as widespread innovation:** in such a fragmented economic context, the SMEs might not be directly interconnected with the innovation key-players. By organizing workshops and creating opportunities for discussion, the city seeks to bring these two realities closer to each other so that the innovation adoption process is accelerated.

Better knowledge and future research are needed to develop and support local and community-based resilience strategy, integrated into wider regional and (inter)national contexts. As a matter of fact, amplifying resilience through people-centered innovation means unlocking the knowledge and expertise of citizens and stakeholders at all levels. Furthermore, shaping people’s attitude towards change and innovation allows them to be open and receptive to good opportunities and to acquire the ability to face new challenges.

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