

## GOOD PRACTICE

### 3S STRATEGY: THE INNOVATION PARK, INTERNATIONAL HUB FOR THE ATTRACTION OF INVESTMENTS, BUSINESSES AND TALENTS

**ORGANISATION:** Municipality of Reggio Emilia

**TOPIC:** Attraction of investment

#### TOPIC OF THE GOOD PRACTICE

The good practice illustrates how a city could increase its competitiveness at international level by relying on a multi-level project based on territorial distinctive competences, through the attraction of enterprises and talents, the development of a research system and the implementation of actions aimed at supporting an ecosystem of innovation and technology transfer.

#### DETAILED DESCRIPTION OF THE GOOD PRACTICE

To emerge and compete at the international level, Reggio Emilia chose to innovate its economic, social and cultural model by focusing on the attraction of knowledge, research and innovation and the exchange of talents, experiences and relationships.

The Northern Area of the city has been identified as the territorial dimension where to set up and develop a strategy aimed at transforming it into a place of research and knowledge production to **attract enterprises, researchers and investment**. This vision, by following logics and models of smart specialization strategy, focuses on research and innovation of specific territorial skills (education, mechatronics, agro-food, sustainable energy), which are driving forces for the innovation of other productive sectors and the efficient reconversion of existing industrial facilities.

For this reason, this area has become the core of the project for the construction of the Innovation Park, a logistics, technologic and services-related platform designed to support, enhance, and interconnect local production with two research centres representing the backbone of distinctive competencies:

- Reggio Emilia's Technopole, equipped with mechatronic, energy, environmental and agro-food platforms managed by the University of Modena and Reggio Emilia (UNIMORE) and the Research Centre for Animal Production (CRPA).
- Loris Malaguzzi International Centre, as Reggio Children's headquarter and the main driving force for the national and international dissemination of "Reggio Emilia Approach" in the education field.

The realisation of the Innovation Park represents a unique opportunity to implement a **systemic approach to industrial research and technology transfer**. Therefore, the Park will become a hub able to produce and disseminate knowledge, attract hi-tech and high-added-value enterprises and act as an incubator for start-ups and spin-offs companies; a place where businesses gather specific skills for local production needs through the development of synergistic research projects with Technopole's research centres, Loris Malaguzzi International Centre and, more generally, with the national and international innovation and research system. **The Innovation Park project is a multi-level project composed of several dimensions:**

- 1) Development of specific skills;
- 2) Construction of infrastructures for research and innovation;
- 3) Privileged accessibility;
- 4) Development of high-value-added services for enterprises;
- 5) Attraction and concentration of funding.

**1) Development of specific skills. Education:** Education is a sector that - thanks to the long-lasting and extraordinary experience gained by Reggio Emilia network of Infant-toddler Centres and Preschools and to an internationally acknowledged educational approach - contributes to the economic development and the international relations of the city.

“Reggio Emilia Approach” is an educational philosophy based on the idea that children have strong development potentials, as they learn in relation to others, and are entitled to the same rights as adults. 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 on the initiative of Loris Malaguzzi and the commitment of a group of local citizens, with the aim of managing the educational and cultural exchange initiatives that had been taking place for many years between the municipal early childhood institutions and a large number of international educators and researchers. This educational experience is not only defined as an approach to early childhood education but also as an important theory on learning and creativity with no temporal or geographical boundaries.

#### a) Networking

The international acknowledgement and the collaboration with many countries have generated a network covering more than 30 countries, thus facilitating a constant cultural confrontation. Moreover, Reggio Children cooperates with more than 110 countries in the implementation of its activities. Reggio Children’s International Network (RCIN) is a formal network now composed of organizations from 34 different countries of the world. It was established informally in 1994, when Reggio Children srl was born, and officially in 2006. The organizations and individuals part of the RCIN are in dialogue with the Reggio Emilia Approach since many years and have supported the promotion of the Reggio Emilia Approach in their own contexts through the organization of Study Groups to Reggio Emilia, organization of exhibitions realized by Reggio Children in their own countries, and professional development seminars and conferences held at national level. They also translated and distributed books and materials published by Reggio Children on the Reggio Emilia Approach. The Network is a sort of transnational project of Reggio Emilia educating community sustaining international dialogue and shared responsibilities, with the aim of supporting Reggio Children and Loris Malaguzzi International Centre (LMIC) identity and work.

#### b) Research

Opened in 2006, the LMIC, symbol of the Reggio Emilia Approach, is a real engine of research and innovation. Its headquarters have become a worldwide reference point for pedagogy and training but also for the economy.

LMIC belongs to the Municipality of Reggio Emilia and it is located in the town’s northern area dedicated to innovation and research. In LMIC, Reggio Children hosts exhibitions, ateliers, shows, conferences, seminars, Pause restaurant & cafeteria, a book & food shop.

Every year, the Centre hosts over 20 Study Groups/Professional Development initiatives, as well as Ateliers and workshops dedicated to educators, administrators, Schools Directors, artists, Universities, companies, high school teachers. These initiatives are held by educationalists and teachers of the infant toddler centres and preschools of the Municipality of Reggio Emilia. Learning and professional development can be viewed as lifelong knowledge-building processes. The same theories provide orientation in working with adults as well as children, with a strategy that gives priority to the collegial dimension based on exchange and interaction. An integral part of the professional development proposals of Reggio Children is the organization of programs specifically designed for enterprises, with courses tailored to the specific needs of companies and its executives. The uniqueness of each program is the result of an original design created in conjunction with the individual client and oriented by a number of keywords:

- interdisciplinary content;
- international orientation;

- team building/learning in groups and group learning;
- creativity;
- skills enhancement.

LMIC is also open to the public every day and counts approximately 110.000 visitors per year, being an attractive event for nearby cities as well as for international visitors. City Ateliers are organized on Sundays and are open to citizens but also to anyone wishing to experience and explore the Ateliers. LMIC hosts exhibitions of the projects developed in infant toddler centres and preschools of the Municipality of Reggio Emilia. Thanks to their pedagogical experience, educationalists and teachers from the infant toddler centres and preschools participate in seminars, conferences and professional development initiatives in more than 40 countries every year.

The exhibitions realized by Reggio Children, as well as the books and publications, are very meaningful tools for Professional Development and for the promotion of the Reggio Emilia Approach all over the world. The Exhibitions started travelling the world (translated into different languages) since 1981 with the first display at the Moderna Museet in Stockholm Sweden of the “The hundred languages of children” exhibition version. Book and publications are translated into 19 different languages and are distributed by the Networks part of the Reggio Children International Network as well as by bookshops and publishing houses in different parts of the world. The books are used in Universities, in Networks of conversations about the Reggio Emilia Approach, in Seminars and conferences and so on. Reggio Children has developed and continues to develop dialogues and exchanges on education with many contexts and countries of the world. This happens through the establishment of contacts with the offices of the Italian and foreigner Embassies and Cultural offices in the different countries.

The Italian Ministry of foreign affairs is developing a stronger relationship with the town of Reggio Emilia in order to strengthen the connections between Reggio Children and Italian Cultural Institutes all over the world. Educators from the infant toddler centres and preschools of Reggio Emilia and professionals of Reggio Children participate in Conferences, Seminars and workshops all over the world organized by public and private organizations, bringing the experience of the infant toddler centres and preschools and of the town of Reggio Emilia.

*Mechatronics, agro-food, energy / environment.* The distinctive skills related to mechatronics, agro-food and the green economy find an important point of reference in the research and technology-transfer activities of Reggio Emilia's Technopole. Created in 2013 to produce and disseminate knowledge, the Technopole's goal is to attract hi-tech and high-added-value enterprises and foster collaboration between research laboratories and companies, by transferring know-how and creating the network of relationships underlying the dissemination and creation of knowledge. It brings together four centres for advanced research and technology transfer related to the mechatronics, agribusiness and sustainable energy fields, managed by the University of Modena and Reggio Emilia (UNIMORE) and the Centre for Research and Animal Production (CRPA):

- Intermech-Mectron, for applied research and services in advanced mechanics, mechatronics and motoring sectors;
- En&Tech, for industrial research and technology transfer in the field of integrated technologies for sustainability in construction, efficient energy conversion, buildings' energy efficiency, lighting and home automation;
- Biogest Siteia, for research, improvement and promotion of biological agro-food resources;
- CRPA Lab, for industrial research in agro-food, environment and energy sectors.

Reggio Emilia has been investing in research on agriculture since 1972 with the creation of a Research Centre for Animal Production (CRPA), whose members are the Municipality, Chamber of Commerce and trade associations, among many others. CRPA deals with research and services aimed at promoting technical, economic and social development of animal production and sustainable agriculture sectors.

CRPA is an active member of international institutional associations and business networks operating in the agricultural sector and dealing with research, innovation, benchmarking and technical assistance, such as:

- EDF (dairy sector, 16 countries, EU);
- INTERPIG (pigs sector, 15 countries- EU, USA, CANADA);
- AGRIBENCHMARK BEEF (meat and cattle, 32 countries);
- IFCN - International (dairy sector, 52 countries);
- TFRN (Task Force on Reactive Nitrogen, EU, USA, CANADA).

Through the participation in international networks, CRPA aims at transferring knowledge, programmes and innovation at European and international level, by contributing to the creation of strategies and technical solutions to territorial problems. CRPA acts as an innovation hub and guarantees access to knowledge and to an international network of contacts to the local production system. Firms benefit from CRPA support in several ways: in overcoming entry barriers to international contexts (in terms of skills and transaction costs), preserving the distinctiveness of local productions, reducing costs and improving environmental sustainability and animal welfare.

**2) Construction of infrastructures for research and innovation Infrastructural interventions for the realization of the Innovation Park include:**

a) Warehouses 17 and 18 in the disused industrial area of the former Reggiane mechanical workshops, adjacent to the Technopole. The estimated amount for the architectural and functional requalification of Warehouse 17 is about € 7,9 million; while the total amount for Warehouse 18 intervention is € 15.7 million;

b) the creation of a new gateway to the Park through the upgrading and transformation of Piazzale Europa, the square in front of the Technopole, whose total amount is expected to be about € 4.765 million.

The Municipality identified the Urban Transformation Company "STU Reggiane spa" as the operational tool for such interventions. STU Reggiane s.p.a. is the public-private company established by the Municipality of Reggio Emilia and Iren (territorial multi-utility in the field of water, gas and waste management) in charge of the infrastructural development of the area near the former Reggiane mechanical workshops, with the aim of implementing the Innovation Park in both infrastructural and functional terms.

The end of works and the subsequent activation of the activities are planned by the end of 2018.

**a) Requalification of Warehouses 17 and 18.**

The specific scope of the Warehouse 18 intervention concerns a 20.411 square meters area, while the specific scope of the Warehouse 17 intervention regards a 9,673 square meters surface. The project involves the restoration and promotion of existing industrial structures, regarded as a valuable witness to the historical memory of the context, and their refurbishment as locations for research centres, start-ups and spin-off companies, new production realities coming from the province and surrounding areas and advanced services-related and cultural activities.

Such works will be realized according to criteria of environmental sustainability, flexibility and energy efficiency, and closely tailored to the needs of the companies that will be settled there. Moreover, photovoltaic panels will be added to eliminate the lighting management costs of common spaces. In addition, the regeneration of the surrounding areas will concern also the creation of integrated relationship and transit spaces. The project involves the construction of indoor gardens, as well as the organization of the buildings' external areas with relevant gardens. Working progress: the restructuring of Warehouses 17 and 18 is currently underway. The settlement of companies is expected to take place by the end of 2018. About 15 companies have already expressed interest in settling their activities in the Innovation Park.

b) New gateway to the Park - Piazzale Europa.

If nowadays Piazzale Europa is a mono-functional space designed as a car parking, in the future it will be the Innovation Park's communicative display and main gateway and, above all, a new multifunctional public space capable of improving the quality of the entire neighborhood. This requalification is aimed at recreating a strong connection between the city and the Reggiane Area and transforming the northern front of the adjacent train station, by improving the identity, acceptance, usability and safety of public spaces, as well as the connectivity of surrounding neighborhoods.

Piazzale Europa redevelopment project is based on some fundamental objectives:

- transforming the current car parking in a park, a quality public space in line with the context;
- establishing a system of connections that facilitates the access to the area, with different means of transport linking the district to the historic centre;
- integrating the Innovation Park, through the definition of some display structures to communicate the activities of the area and facilitate internal relations.

The specific scope of the requalification project regards a 37,247 square meters area. Working progress: works on the construction of the gateway to the Park began in April 2017 and will be completed by the end of 2018.

**3) Privileged accessibility.** Accessibility to the Innovation Park will be improved thanks to urban infrastructures, such as the new Mediopadana High-Speed Train Station realized in 2013 by the renowned architect Santiago Calatrava. Reggio Emilia is the only stop of the high-speed railway between Bologna and Milan, thus providing a quick and easy access to the most important Italian cities. Nowadays, Mediopadana station serves about 1 million users per year and is a unique example in the European panorama of the high-speed railway systems, for both its links with the adjacent highway and its collocation in a productive area rich in urban functions. In addition, the Park is linked to the city centre and the university campus through an efficient transportation system. The improvement of the connections between the Innovation Park and the main poles of the city (Old Town, central railway station and Mediopadana High-Speed train station) will be favoured by the following interventions:

- the reopening of an unused stretch of road (Ramazzini avenue) to allow a direct access to the "fulcrum" of the Innovation Park from the main arterial roads of the city.
- the extension of the pedestrian underpass of the central railway station to connect it directly with Piazzale Europa and the Innovation Park;
- the creation of a buffer zone to the north of the area where to establish a tramway line connecting the Old Town, the Reggiane area and the Mediopadana station.

**4) Development of high-value-added services for enterprises.** The development of the Innovation Park requires the active involvement of the business system, which should be offered research and technology transfer in line with the most modern market requirements; in parallel, the international promotion of the park is strategic for the attraction of resources as well as for setting up projects and collaborations with other countries.

Companies that will be settled in the Park will be offered:

- High-quality spaces, not only functional and innovative but also of great image for the company;
- presence of internationally renowned companies and leaders in research and innovation sectors;
- sharing and collaboration with specialized research centres;
- constant collaboration with university laboratories, research centres and internationalization services for the economic promotion of research results;

- possibility to benefit from the international relations of the actors settled in the area;
- preferential relations with the world of school and university.

Services will be provided by REI (Reggio Emilia Innovation), ASTER (regional hub of technology transfer), Unimore, E35 Foundation (agency for European and international promotion, participated by the Municipality and other local stakeholders), CRPA and the same companies settled in the area. These services will include:

- orientation on the services offered by the subjects settled in the areas;
- supporting in contracts and matchmaking activities;
- collecting and bringing out the enterprises' "demand";
- reducing the gap between research demand and offer; promoting the creation of an innovation services market.

**5) Attraction and concentration of funding.** The public resources for the realization of the Innovation Park amount to €30 million:

- €28 million are national funds (€10.9 million funded by the City National Plan and €17.8 million by the National Call for the urban requalification of the suburbs);
- €2 million funded through the Single Planning Document (DUP) of the Emilia-Romagna Region.

In addition, about €20 million come from private funds for a total investment in public-private partnership of over €50 million.

## ROLE OF ACTORS

The Innovation Park project is an example of a systemic project in which the main public actors, economic stakeholders, researchers and private actors work together. In fact, what enhances the competitiveness of a territory is the ability of its economic actors to cooperate on innovation projects, as provided by the example of the Silicon Valley.

Within the strategic framework defined by the Emilia-Romagna Region (Smart Specialization Strategy and implementation of the Regional Network of Technology Parks), the direction and the initial impetus came from the Municipality of Reggio Emilia.

The fundamental players that have embraced this operation are the most representative actors of the core competences of the city: Reggio Children, Iren and CRPA, Mechatronics Club of Unindustria Reggio Emilia.

Another important actor in the development of the Innovation Park project is the University of Modena and Reggio Emilia (UNIMORE) which settled in the area advanced research laboratories in the field of mechatronics, green building and agribusiness and hired several new researchers.

As the project represents an investment operation aimed at promoting the research and innovation component of the city, the regional entity ASTER and local entity REI (Reggio Emilia Innovation) have coordinated several activities and projects for the growth and development of the Park.

The development of the project, with the financing and the realisation of different infrastructural works, has encouraged the private world (particularly numerous local and international enterprises) to believe in the potential of the Innovation Park and invest in it.

## BENEFICIARIES

The Innovation Park is a project participated by all the territory with specific categories of beneficiaries, but it has also the ambition to raise the level of competitiveness and attractiveness of the entire city of Reggio Emilia.

This logistics and services-related platform is available to:

- highly innovative local companies;
- consultants providing technical or scientific expertise;
- R&D organizations or representatives of international companies willing to settle their businesses in Reggio Emilia's province or in surrounding areas;
- researchers and talents from all over the world who consider this area as a cutting-edge place of research in the education, mechatronics, agribusiness and sustainable energy fields;
- innovative start-ups companies with a high service potential;
- associations or foundations dealing with entrepreneurship and innovation or which can provide services to the companies settled in the area.

The goal is to provide the city with an innovation hub where companies can improve production processes, raise the level of technology and increase competitiveness. Those who enter the Innovation Park are facilitated in product development, transfer of knowledge and technologies and creation of business networks.

Specifically, the Innovation Park is a catalyst for research activities and technology transfer, as it provides a platform which is both material (offices and laboratories) and immaterial (professionalism and services), able to meet the needs of businesses located in an increasingly competitive international market.

#### CULTURAL ASPECTS: POSSIBLE KEY LEVERAGES FOR INTERNATIONALISATION PROCESSES

The realization of the Innovation Park is also an **operation of cultural, identity and historical memory recovery** in a district which was central to the economic and social development of the city as a whole.

The object of the intervention is, in fact, the former industrial area of Reggiane mechatronic workshops that, throughout the first half of the twentieth century, has been the core of Reggio Emilia's industrialization. A production centre that, thanks to the intelligence of the designers, work culture, specialized knowledge and 11,000 workers, became during 1940s the fourth Italian factory for employment and production.

For this reason, the restoration and re-signification interventions of these spaces represent also an intervention aimed at recovery the glorious past of what was the cradle of the industrial economy and technological innovation of Reggio Emilia with all its events and sacrifices, such as workers' struggle, liberation from the fascist regime, major projects in different economic fields and many others. Therefore, as this area has been the basis of industrial development of Reggio Emilia in the era of the economy of production, nowadays it assumes a new centrality by becoming the core of the new economic development of the city based on knowledge, research and innovation.

#### INNOVATION OF THE GOOD PRACTICE, POTENTIAL FOR IMPROVEMENT AND REPLICABILITY

**Innovation:** A first aspect concerns the fact that the urban and infrastructural development of the northern area of Reggio Emilia was designed according to research and development needs of the distinctive competences of the territory. "We could give birth to large shopping centres and realise an old-style urban operation based on ground rent. We chose a different model of redevelopment for Reggiane mechanic workshops, based on the economy of knowledge, thus preserving its identity, memory and historical vocation" (Luca Vecchi, Mayor of Reggio Emilia).

A second innovative aspect of the GP lies in the role of "entrepreneur" played by the Municipality of Reggio Emilia, which took the risks of countering the recessive economic situation by actively contributing to the recovery of its territory.

A final aspect concerns the issue of regeneration: with the end of the expansionist economic era, the goal becomes the redevelopment of existing areas to the benefit of neighborhoods, their residents and workers.

**Growth potential:** The important results achieved in terms of rehabilitation and regeneration (expansion of Loris Malaguzzi International Centre, the construction of the Technopole, the restructuring of Warehouses 17 and 18) are only some of the most ambitious and comprehensive projects for the development of the area. In this sense, the next step will be the renovation of other two Warehouses (15A and 15B, about 15,000 square meters surface) for which funds have already been identified.

The potential area of the Innovation Park is about 260,000 square meters, including several warehouses to be renovated yet. Therefore, there is a continuous need to attract investments, companies and research centres in order to become the largest technology park in Italy.

**Replicability:** Despite the specific territorial characteristics related to Reggio Emilia's socio-economic context, the project has the potential to become a model for the development of other local realities, as it addresses issues and challenges common to many regions in Europe:

- developing projects at the local level to promote distinctive capabilities by following the Smart Specialization Strategy (S3)
- redeveloping disused industrial areas by providing them with a new role for local economic development;
- sharing a strategic vision between the main public and private stakeholders of the city in order to gather human resources, investments and projects.

## EVIDENCE OF SUCCESS AND THE ASSESSMENT OF THE IMPACT AND RESULTS OF GOOD PRACTICE

**1. Acquisition of funding:** The Innovation Park project has attracted public and private resources amounting to approximately €50 million:

- €28 million funded by the state (€10.9 million funded by the City National Plan and €17.8 million by the National Call for the urban requalification of the suburbs);
- €2 million funded through the Single Planning Document (DUP) of the Emilia-Romagna region;
- €20 million of private funds (companies that have invested in the operation).

**2. Attracting talents and researchers:** Loris Malaguzzi International Centre is visited every year by thousands of high-skilled people coming from all over the world, through the participation in professional development initiatives (Study Groups) or through open visits and workshops. Annually, the International Centre hosts more than:

- 25 groups of vocational study focused on some target countries (eg. Sweden, Japan, USA, Israel, Germany, Spain, South America, etc.);
- 2 international study groups composed of 500-600 researchers and scholars from more than 40 countries;
- 5000/6000 people involved - teachers, professors, educators, individuals, artists, architects etc.

The research and technology transfer laboratories of CRPA and Unimore settled in Technopole engage more than 100 people among professors, researchers and PhD students, together with REI and ASTER professionals supporting start-up and spin-off companies.

**3. Businesses attraction:** Approximately 20 actors (including local and multinational highly innovative companies, higher education organizations and professional associations) have signed agreements for the installation of their R&D activities, or parts thereof, in the Innovation Park.



The agreements for the establishment of businesses cover the 80% of the total surface that will be renovated in the intervention of restructuring Warehouses 17 and 18. Renovated requalified during the Sheds 17 and 18 regeneration interventions.

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