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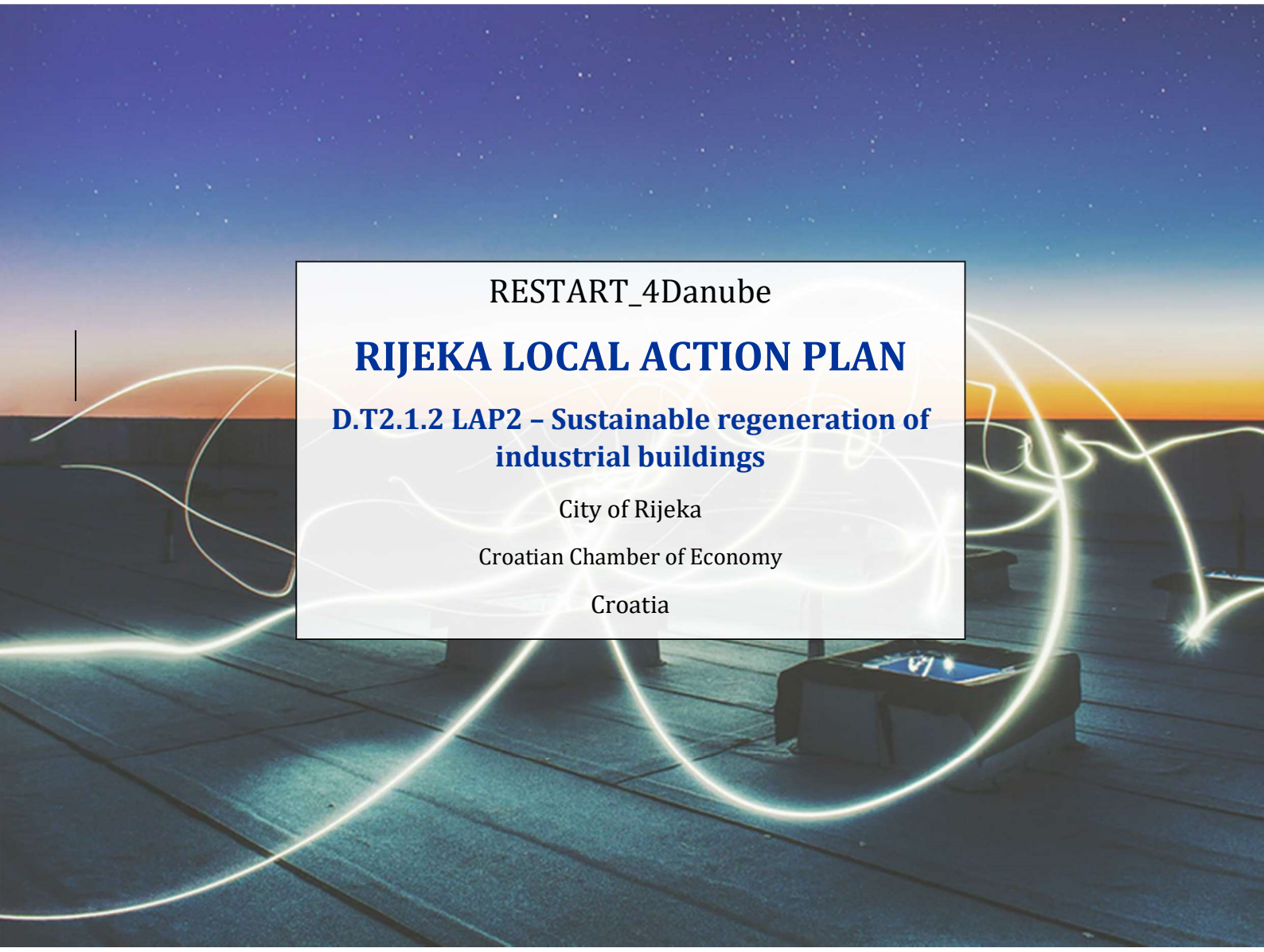
RESTART_4Danube



RESTART_4Danube

RIJEKA LOCAL ACTION PLAN

D.T2.1.2 LAP2 – Sustainable regeneration of industrial buildings

City of Rijeka

Croatian Chamber of Economy

Croatia

HGK 1852
CROATIAN CHAMBER OF ECONOMY

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1 PART I

1.1 General information

Project: RESTART_4Danube

Partner organization(s) concerned: City of Rijeka

Country: Republic of Croatia

NUTS2 region: HR03 Adriatic Croatia

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2 PART II

Background and Policy Context

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2.1 Background

City of Rijeka is the largest seaport in Croatia and administrative center of Primorsko-goranska County, with total of 128.624 inhabitants (2011) and the highest population density (2.923/km^2). Rijeka is located at the northern coast of Adriatic Sea and represents one of the 4 largest urban agglomerations in Croatia together with Zagreb, Split and Osijek. Throughout history Rijeka was known as an industrial and maritime center, and today Rijeka is recognized by new industries, education, culture and tourism.

City of Rijeka / source: tz-rijeka.hr

Today's growing industries in Rijeka are processing industry, trade, transport, construction, and professional, scientific and technical activities. The significant progress has been made in health services, creative sector and hospitality resulting with the improvement of tourist and entrepreneurial performance in Rijeka. Also, the local development driven by industry 4.0 and ICT is being encouraged in order to successfully adapt to the *new economy* model based on knowledge and innovation.

According to annual reports from national Financial agency (FINA) in the period from 2010 until 2019, the number of entrepreneurs in professional, scientific and technical fields has increased by 35%, total revenues by 71% and the number of employees by 26%. In the same period, the number of entrepreneurs in the field of hospitality and food service has increased by 118%, revenues by 105%, and the number of employees by 59%. The arts, entertainment and recreation also recorded very high growth rates: the number of entrepreneurs has

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increased by 87%, the number of employees by 295%, and the income rate has raised to 405%. The number of entrepreneurs in the information and communication industry has increased by 30%, employees by 29%, and revenues by 49%. These data are showing 2 trends in local economy: (1) creative industries are one of the most propulsive industries and one of the key factors of growth and development, and (2) Rijeka economy is changing towards knowledge-based society, new technologies and urban tourism.

During the pandemic year 2020 Croatian economy was significantly affected, with the GDP decline of 8,4%, and the impact of Covid-crises particularly hits arts, culture and tourism. General indicators of Rijeka economy in the year 2020 reveal that the number of employees has decreased by 3,5%, primarily thanks to the set of government pandemic measures to preserve jobs . The total income declined by 4,3% and net profit by 23,7%. At the same time investments into fixed assets increased by more than 33% in comparison with 2019. The total operating revenues of Rijeka's entrepreneurs in 2020 by areas of activity show that, compared to the previous year, the public sector and real estate industry grew the most. Entrepreneurs in all other sectors, except for the IT, experienced revenue decline.

As European Capital of Culture 2020, Rijeka continued the process of redefining its identity as a port city in the post-industrial era, emphasizing openness, inclusiveness and diversity as generators of new values. The ECoC 2020 project enabled Rijeka to significantly improve the scope and diversity of the city's cultural offer, expand access and participation in culture, strengthen the capacity of the cultural sector, and increase the international visibility and profile of the city and the region. Despite the fact that the pandemic situation dramatically reduced ECoC program and spill-over effects, the title permanently marked Rijeka at European cultural map.

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European Capital of Culture Rijeka 2020 Opening event / author: Josip Regović/Pixsell

Rijeka is educational and university center of western Croatia. Founded in 1973, the University of Rijeka has matured into the modern European university and center of excellence. With a total of 11 faculties and 4 departments, Rijeka University is research, science, and education-oriented university that supports social and economic development of Rijeka and wider region. The Polytechnic of Rijeka was founded in the year 1998 with the mission of training highly educated experts oriented towards practice. The Polytechnic offers various study programs in different expert fields, from transport, agriculture and agritourism to business, ICT and entrepreneurship. Additionally, study program is permanently improved with new specializations, and the example is the development of a new international educational program in the field of 'Internet of Things' (IoT).

University campus (part) / source: Riječka enciklopedija Fluminensia

For many years City of Rijeka has been investing efforts and resources in order to improve the existing significant capacities of business support infrastructure and to develop new ones. Rijeka Development Agency (RDA) Porin was founded in 1996 as a business incubator and support institution for the development of small and medium enterprises. Since 2004 it is operating as a development agency providing systematic support for startups and SMEs in Rijeka. Today RDA Porin is running Business Incubator for Service Activities Torpedo and Production Park Torpedo, providing incubation, acceleration, post-incubation and virtual incubation programs. Startup incubator, as integral part of City Department of Entrepreneurship, is providing a support for individuals and teams who want to start their own business. The interest of the users is very high (20 or more teams per each generation) and the program is constantly improving by new educations, mentors and supporting infrastructure. Center od competencies (CEKOM) for smart cities is an innovation cluster with the purpose of conducting research/projects and developing competencies in the field of application of smart technologies for smart cities. City of Rijeka-owned enterprise Smart RI d.o.o. was established as a carrier of CEKOM for smart cities, and its basic purpose is the integration and coordination of joint project activities of business entities and scientific institutions within the innovation cluster. Science and Technology Park of University of Rijeka STeP Ri was founded by University of Rijeka in August 2008 with the support of the City of Rijeka and Primorsko-goranska County. The purpose of STeP Ri is to encourage faster development of science and entrepreneurship through the synergy of scientific, technological and entrepreneurial potentials of the University and the region.

The process of urban regeneration and investment in supporting of cultural and creative industries (CCI) are highly connected in Rijeka. Old industrial spaces and other unused capacities are being refurbished in several capital projects, which will change the future of cultural offer and business environment in Rijeka. The most important of them are Art quarter Benčić, Production park Torpedo and Business Incubator Energana. Art quarter Benčić is

consisted of 4 renovated industrial buildings in the city center: Museum of Modern and Contemporary Art, City Museum, City Library and Children's House. The complex will be completely finished in 2022, serving to the citizens and visitors as a single-point of new experiences, creativity and knowledge. Production park Torpedo is business incubator for additive technologies, settled in restored industrial hall. It is equipped with high-end technology for 3D modeling, scanning and printing from polymers, sand and metal. Energana is future business incubator for creative technologies and IT industry, located in power station of Rijeka former paper factory. It will be focused on SMEs and startups from the fields of IT/AI/IoT, game development and photo/video production. In addition, 2 more projects are contributing to urban regeneration in the context of CCI: (1) the ship Galeb (official ship of former Yugoslav president Tito), still in process of repurposing into the museum, which will become a notable attraction in Rijeka touristic offer, and (2) RiHub center, a creative hub that gathers entrepreneurs, professionals, freelancers, artists, experts and future entrepreneurs in cross-sectoral collaboration and exchange.

Production park Torpedo hall / author: Nel Pavletić/Pixsell

Repurposing abandoned industrial heritage is a complex and expensive process, but it is resulting with the added value for entire urban ecosystem. The main issue in these project of urban regeneration is – how to ensure the sustainability. In other words, once the buildings are renovated, a new programs and activities must be implemented, and the resources for operational functioning must be provided. This 'soft' part is very challenging for local authorities. It is not only requiring financial support for the staff and maintenance, but also high-skilled human resources who will run these facilities in order to deliver new/added values to its beneficiaries. At the same time, programs and activities need to be aligned with the City of Rijeka strategic development documents, improving step-by-step the performance of local economy and contributing to the wellbeing in Rijeka.

The 'Plan of development of the city of Rijeka 2021-2027' is the new strategic document adopted in April 2021 by local authorities. Among 4 strategic goals, one is specifically addressing creative industries as a key factor of growth and development, as follows: "*To work*

in Rijeka 2030: University city for a new age, where advanced technologies and creative industry enrich the industrial heritage." It is clear that Rijeka future development and progress will be based both on advanced technologies and creative industry, and/or their synergy, within the framework of knowledge-based society.

In the deliverable Danubian baseline study, previously developed within DTP RESTART_4Danube (R4D) project, a main characteristics of the cultural and creative sector in 10 Danube countries were identified. The study reveals main issues CCI is facing with: lack of venture capital and finances, rigid bureaucracy, fear of failure, insufficient information, cross-sectoral collaboration, majority of small businesses concentrated in low and medium-tech sectors and not prone to innovation, brain drain, heterogeneity and fragmentation of CCI sector, low level of digital literacy and entrepreneurial skills, etc. To improve the potential of CCI, City of Rijeka already took some important actions. First, until 2023 business incubator for creative technologies and IT industry Energana will be in full function in revived industrial building of former paper factory. The vision is that Energana become an innovative hub, positioning itself as a center for the development and demonstration of products/services based on IT and creative industries. Furthermore, City of Rijeka has recently released Local Action Plan to Support Creative and Cultural Industries within Interreg Europe project ECoC-SME. It is consisted of 3 actions aimed at improvement of entrepreneurial skills and knowledge, experience exchange, inter- and cross-sectoral collaboration, and peer-to-peer support. It will also address governance model and management of RiHub center.

Accordingly, it is evident that urban regeneration process in Rijeka is based on 2 grounds: physical refurbishment of old industrial facilities (1) and its repurpose in benefit to local development objectives (2). As Rijeka future development relies on advanced technologies and creative industries, with an aim to encourage innovation, the promotion of these technologies among involved CCI actors is crucial. Entrepreneurs and professionals in CCI sector need to have an open access to new technologies and know-how in order to employ them into business and improve the outcomes and results. This is the starting point of Rijeka Local Action Plan 'Sustainable regeneration of industrial buildings', developed within the framework of RESTART_4Danube project. Rijeka LAP was created upon the discussion with local stakeholders and conclusions derived from project event 'Rijeka Policivil workshop' held in June 2021 in Production park Torpedo premises. The major baselines of Rijeka LAP can be summarized as follows:

1) Urban regeneration projects in Rijeka are in function of city strategic development. New infrastructure growing on sites of old industrial facilities contribute to the growth and development of the city and is aligned with high-level policy instruments.
2) Sustainability of refurbished spaces is ensured by specialized programs aiming on particular target. Adapted spaces and high-end equipment, as well as program support, need to be in full service of business and social performance.
3) Cutting-edge technologies need to be available to the innovators - startups and SMEs, as well as other types of support, such as education and mentoring.
4) Intention is to empower younger generations with knowledge and skills required by dynamic environment. Entrepreneurial mindset needs to be built from an early age, and encouraged during all stages of professional development and realization.

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Rijeka LAP is dedicated to co-creation of the new purposes of the refurbished facilities, which once in the past were profiling Rijeka as industry center. Nowdays, 2 new buildings – Production park Torpedo and Children's House, are fully equipped to implement programs aimed at introducing various target groups to the possibilities of the latest technologies, in order to support their creative potential. The goal is to acquire or improve knowledge/skills in the field of modern technologies, and use it as advantage in work, exchange and business in the field of CCI. Actions provided in this plan will particular focus additive technologies and its benefits to SMEs, startups, future entrepreneurs and engaged students, whose primarily interests are in CCI sector.

Children's House roof / source: Dječja kuća/Grad Rijeka

2.2 SWOT Analysis

Strengths	Weaknesses
• Growing ICT sector • Large number of SMEs and NGOs with increasing economic indicators • Well-developed City entrepreneurial/business infrastructure which is constantly improving and expanding • New and improved policies and services supporting entrepreneurs, startups and SMEs in Rijeka • Center of Competence for Smart Cities as a basis for further development and demonstration of smart solutions • European Capital of Culture 2020 title • High level of digitization of City services • University of Rijeka position in global rankings is improving every year • Willingness to continue digital transformation and adoption of new technologies • Tourism as significant generator of the demand in CCI sector • Further reconstruction and repurposing of old industrial and commercial facilities planned in the next period.	• Unfavorable situation of public finances (budget) in City of Rijeka • City capital investments are depending from EU funds financing • Insufficient 3-Helix cooperation as a basis for innovative economy • Poor entrepreneurial skills and knowledge as obstacle in starting and running business (not included into regular education system) • Fragmented CCI sector with no unified and comprehend development strategy. • Insufficient mapping and monitoring of CCI sector performance, both at national and local level • Institutional and infrastructural support to CCI is not sufficient • Unresolved property-related issues of old industrial facilities and areas • Rigid bureaucracy and administrative obstacles for investors, innovators, freelancers, startups and entrepreneurs.
Opportunities	**Threats**
• CCI recognized as one of the carriers of innovation and development at national level • Development and adoption of new industries based on technology, knowledge and innovation are encouraging local forces and actors. • Rijeka has an excellent geographical location and unpolluted environment • Good traffic connections (esp. roads) and new investments in railway • New working models (remote working and digital communication) will increase mobility of skilled	• Spatial and administrative borders of the city are limiting city expansion and development • Still present non-entrepreneurial mindset as a consequence of the past political and social system. • Unfavorable business climate due to inefficient legal system and high taxes • Demographic changes: population aging and emigration • COVID crises: reduced economic and social activity, rising inflation,

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professionals, as Rijeka is very attractive place for living. • Openness, tolerance and inclusiveness of resident population • Rise of interest for self-employment • Excellent results of the tourist season 2021 • ICT and gaming industry in general not hit by the COVID crises	deaths of enterprises, staff cuts. Cultural sector especially affected. • Brain drain: emigration of highly educated population and experts due to economic reasons • Lack of financial support from institutional level: weak funding opportunities and investment in new ventures and diversification • Poor railway connections

2.3 Policy context

Policy instrument addressed

Plan of development of the city of Rijeka 2021-2027

Impact and contribution of the action plan towards the improvement of policy instruments

The new vision of the city of Rijeka is *Rijeka 2030 - a smart, open and resilient city*. The strategic goals of the City of Rijeka until 2030, aimed at fulfilling the vision, are:

1. To live in Rijeka 2030: A city of diversity, in which a high quality of life arises from the cooperation of smart city administration and engaged citizens;
2. To work in Rijeka 2030: University city for a new age, where advanced technologies and creative industry enrich the industrial heritage;
3. Connecting Rijeka 2030: Multimodal transport hub with a sustainable and efficient transport system;
4. To preserve Rijeka 2030: A smart, green and clean city adapted to the needs of all citizens.

The Strategic Goal 2 is specifically addressing creative industries, within the 3 Specific Goals are listed:

1. Competitive economy and port in the age of new industries
2. Innovative Rijeka: encouraging research and knowledge-based industries
3. City of sustainable and innovative solutions in tourism.

The 2nd specific goal **Innovative Rijeka: encouraging research and knowledge-based industries** is dedicated to creative industries. It envisages Rijeka in 2030 as "a city of modern industries, creative, technologically innovative and green, which has a large number of highly educated citizens, uses and improves existing resources, encourages the development and introduction of new technologies and interoperability in the development of the city. Development is based on a sustainable economy, ensuring of quality, and stimulating content generated from creative industries." The achievement of this objective is connected with following activities/projects, that will be implemented in the next years:

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(1) **Development of city incubators network with an emphasis on creative technologies and IT industry.** Project 'Energana – business incubator for creative technologies and IT industry' will be implemented by 2023. It is planned to renovate over 2.700 m2 of usable space together with advanced specialized equipment, educational programs, network of mentors and other program activities in order to strengthen innovation potential of its users. The support will be provided in 3 main thematic areas: (1) IT, artificial intelligence (AI) and Internet of Things (IoT), (2) game development, and (3) photo and video production. Energana will primarily be intended for IT/CCI start-ups and SMEs in growth stage, who will be supported in the development of new products and services, networking, internationalization and funding.

(2) **Regional Smart City Hub: a city where technology is coming to life.** Center of competencies for the smart cities, led by R&D company Smart RI, will continue to implement smart city solutions and projects, affirming itself as a living lab for the application of innovative technology. Smart RI will promote such a concept in initiatives to attract investors, through cooperation with the Startup Incubator, Rijeka Development Agency Porin and other relevant institutions in the wider urban area.

Rijeka LAP 'Sustainable regeneration of industrial buildings' is directly contributing to practical implementation of additive technologies in creative industries, and thereby opening new possibilities for SMEs and startups to enhance their products and services, and to run innovations. The actions within the LAP can be easily transformed in the future, and provide wider range of education and demonstration programs, involving other advanced technologies and their positive impact on CCI.

3 PART III

ACTION PLAN

3.1 Local Action Plan

Action	Time Frame
3DITION workshop Basic education in 3D technology	January 2022- June 2022
RInovatoRI 3D 3D training for youngsters	January 2022- June 2022

Rijeka local action plan is developed under the main topic 'Sustainable regeneration of industrial buildings'. The idea behind this topic is to elaborate that the physical refurbishment of old and abandoned industrial places is just a part of the regeneration process, following by 'soft' activities – programs and events, which will make the renewed facilities sustainable and purposeful. In other words, physical reconstruction of old industrial spaces is just starting point: the key point is what purpose it need to obtain to contribute to the local development goals and remain sustainable.

In the last years City of Rijeka initiated capital investments, co-financed by EU funds, to repurpose abandoned industrial facilities, as previously explained. The new challenge is how to make them functional and useful places for its targeted beneficiaries, aligned with local development objectives. Rijeka LAP is providing 2 such actions, both derived from the conclusions of the **Policivil workshop**, a RESTART_4Danube project activity that gathered project partners, creative community and entrepreneurs. It revealed ideas, suggestions, and opinions for Rijeka LAP, resulting in guidelines and directions on how to strengthen entrepreneurship in CCI in Rijeka within refurbished and repurposed infrastructure. Participants agreed that the advanced technology should be available for present and future entrepreneurs, especially these coming from creative and IT sector. In addition, they emphasized that modern technology, such as 3D, should be introduced to children from the early age. This way, the society is preparing children and youngsters to be more prone to the new technologies and innovation and to express this openness later in initiating business ventures. Rijeka LAP is reflecting these standpoints, contributing to the targeted programs of refurbished industrial facilities, as well as its sustainability.

Both actions - **3DITION workshop** and **RInovatoRI 3D** will be hosted in the repurposed industrial buildings – Production park Torpedo and Children's House, aiming to become its regular activities, and therefore – strengthen its sustainability and deliver additional values to its target.

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3.1.1 Action I: 3DITION workshop: Education in 3D technology

3.1.1.1 Background

In order to establish and maintain the efficient environment enabling the economic growth, City of Rijeka, as well as Rijeka Development Agency 'Porin' (RDA Porin), initiated and implemented number of projects and activities involving local, national and international stakeholders from public, industry and R&D sector. One of the most important, which will certainly change the landscape of entrepreneurship in the city of Rijeka is **Production park Torpedo**. This project is not just aiming to facilitate the cross-sectoral collaboration, but also to co-create advanced ecosystem for sustainable development of local industry based on new technology and innovation, encouraging the production of innovative solutions and products with high-added value.

The improvement of business infrastructure is one of the main objectives within the city of Rijeka development with regards to the smart city concept and CCI. In these terms, Production park Torpedo is one of the key driver of local economy development. Production park Torpedo is a part of City of Rijeka advanced business infrastructure that is improving the competitiveness of local, regional and national SMEs, providing high-quality services for its users, based on 3D and additive technologies.

3D technology equipment / source: Production park Torpedo

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Production park Torpedo is settled in the ex-industrial hall, which was refurbished and repurposed within EU project 'Reconstruction and conversion of 'Hall 14' into technological and educational incubator for entrepreneurs'. Total project value of 3,07 mil € was funded by Operative program Competitiveness and Cohesion Croatia 2014-2020 (97%) and City of Rijeka (3%), and was finalized in January 2021.

The project activities included:

- Reconstruction of the former 'Hall 14' into the Production park Torpedo, with total net useful area of 1.557 m^2 with 21 functional spatial units.
- Procurement of highly sophisticated equipment: industrial 3D scanner and 3D printers (polymers, metal, sand), as well as the software systems for application of additive technology, computer modelling and reverse engineering.
- Establishment of new educational program for knowledge and skills transfer.

Production park Torpedo is enabling:

- Increase of the competitiveness of local SMEs
- Facilitation of new and innovative business initiatives
- Increase of the number of newly established companies and startups
- Increase of the survival rate of the newly established SMEs/startups
- Easier access to knowledge, information and high-added value service
- Economic growth and improvement of local business based on/supported by 3D technology (product optimization, improved design, reverse engineering, higher production rate/speed, lower consumption of raw materials, rapid prototyping)
- Faster commercialization of innovation resulting from international cooperation with experts and stakeholders.

Production park Torpedo (PpT) already incubates several entrepreneurs from the IT sector and creative industries, providing them with space, education, technology and consultancy in various fields. Rijeka Policivil workshop, a local R4D project event which gathered stakeholders and was hosted by PpT, revealed the main conclusion for LAP development: CCI should have access to modern technologies. In this regards, it is necessary to continue with 3D educations and enable the approach to expensive and high-end equipment/software for 3D modeling, scanning and printing, in order to incubate the ideas from the fields of IT and creative industries. In the terms of CCI, 3D technology could be especially applied in the fields of architecture, audio-visual arts, museum industry, design, media, applied arts and crafts, game development, visual arts etc.

3.1.1.2 Stakeholders

Name of Organization	Allocated Tasks
Production park Torpedo (RDA Porin)	Implementation
City of Rijeka	Organization

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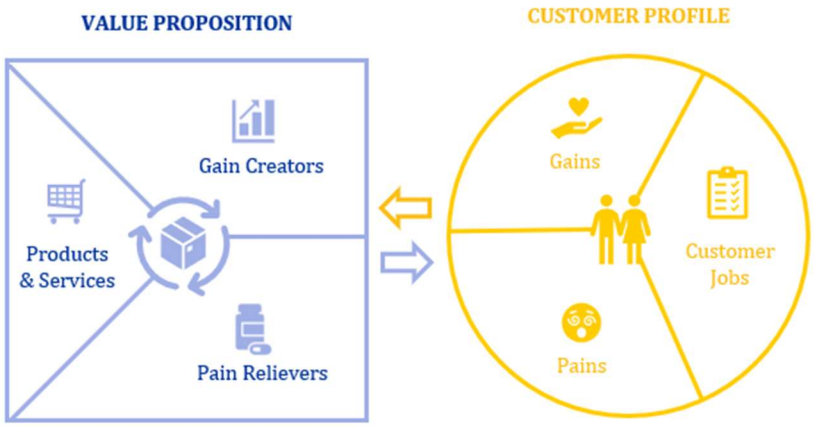
Croatian Chamber of Commerce	Dissemination

3.1.1.3 Value Proposition Canvas



CUSTOMER PROFILE: **SMEs, startups and future entrepreneurs in the field of CCI**	
Gains	• Free approach to expensive 3D industrial equipment, sophisticated knowledge and experts • Faster, improved or enabled production of the new products/services or prototypes
Pains	• Insufficient insight/knowledge level of 3D technology advantages • Expensive production of prototypes, samples, or pilot products, and inability to apply the process of reverse engineering
Customer Jobs	• Upgrade of business/production process by using advanced technologies (3D) • Improvement of digital skills

VALUE PROPOSITION **Basic education in 3D technology with demonstration of modeling, scanning and printing using high-end industrial equipment/machines and experts**	
Gain Creators	• Production park Torpedo as hosting institution of 3DITion workshop is delivering comprehend service based on 'one-stop-shop' concept • Support to design and produce prototypes, samples, or pilot products locally

Pain Relievers	• Open access to recent 3D technology possibilities • Lower costs of prototypes, samples, or pilot products and opportunity to use reverse engineering process
Products & Services	• Education and demonstration workshop with a product as a final outcome • Learning and practice with experts and skilled lecturers

3.1.1.4 Objectives

- To provide SMEs, startups and/or future entrepreneurs basic know-how in 3D technology and to enhance the level of their knowledge
- To demonstrate the entire process of production in 3D laboratories using equipment, software and expertise
- To inspire the participants to accept and apply the advantages of modern technologies
- To enable application of 3D technology advantages within the business process and practice
- To support the ideas and businesses which can rely at 3D technology
- To create a background and conditions for upcoming incubator Energana for creative technologies and IT industry

3.1.1.5 Activities

3DITion workshop will introduce the participants with basics of 3D technology and its advantages that may be used in everyday business and/or fully applied in production process. The workshop will also include a demonstration of the modeling, scanning and printing at high-end industrial equipment, and the final outcome will be a solid product. The examples of application of 3D will be provided, especially in the fields of CCIs. 3DITion workshop will be implemented following the next steps:

- Establishing of the working team: representatives of Production park Torpedo (PpT), City of Rijeka (Rijeka) and Croatian Chamber of Commerce (CCE).
- Defining targets, time/date of the workshop, promotional activities and evaluation list (Rijeka)
- Elaboration of the workshop program (PpT)
- Implementation of promotional activities and dissemination (CCE)
- Implementation of the workshop (PpT)
- Workshop evaluation: a questionnaire for the participants (Rijeka)
- Reporting (all stakeholders)

Potential risks

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This workshop cannot be held online, because it involves use of industrial technology (both hardware and software) for 3D modeling, scanning and printing, which is settled in the laboratories of PpT. In case of measures prohibiting live events due to covid, the workshop needs to be delayed until the more favorable situation. In this regards, the timeframe is broadly defined, entering the months when a better epidemiological situation is expected.

3.1.1.6 Timeframe

January 2022 – June 2022

3.1.1.7 Cost estimation and funding sources

3DITion workshop: 1.000 Eur
The costs include: organization (preparation activities, logistics, lecturer) and implementation of the workshop.

Source: DTP RESTART_4Danube project

3.1.2 Action II: RInovatoRI 3D: 3D training for youngsters

3.1.2.1 Background

Regular curriculum of Croatian primary education does not contain in sufficient scale the activities supporting the development of entrepreneurial skills of children. To bridge that gap, City of Rijeka launched 1st program for encouraging the development of entrepreneurial competencies of children in the year 2008, as a pilot project, along with municipality institution Youth Center Rijeka, who is responsible for implementation. In the year 2018 the program was improved and redesigned into new brand RInovatoRI. It consists of 3 main program sections: (1) Regular program: weekly workshops during school year with study visits, case studies, guest lecturers and field activities, (2) Weekend School of Entrepreneurship: 3-days workshops with trainers and external experts/mentors on specific topic in castle Stara Sušica with an aim to develop an innovative product prototype, (3) Summer RInnovation Lab: 3-week summer workshops and study visit around topical issue resulting with innovative ideas and solutions. Thematic focus of RInovatoRI program varies from STEAM topics (e.g. use of Artificial Intelligence, Smart technologies, Creative industries) to more common fields – SWOT analysis, business model canvas, social media, 4P etc. The program is also addressing actual issues, such as innovation in the times of pandemic, internet security, crowdfunding, business ethics, sustainability and innovative tourism. The program beneficiaries are pupils of higher grades of Rijeka elementary schools, age 11-14.

So far, 560+ children have participated in the program. In 2019 program RInovatoRI was declared the national winner of European Enterprise Promotion Award 2019 for Promoting the Entrepreneurial Spirit. In the beginning of 2021 program RInovatoRI was included as the example of the good practice within Interreg Europe program database. Weekend School of Entrepreneurship 2018 ‘Smart cities and Artificial Intelligence' has been awarded with the Charter for ‘Best action’ at national level, within initiative ‘Children friendly cities and municipalities’, organized by the Union of Societies ‘Our Children’ Croatia.

Program RInovatoRI provides to its young users’ basic knowledge for problem solving and creation of their own business/social innovation ideas. It enables a direct insight into entrepreneurial practice and learns how to develop a new product/service/concept based on identified needs and risks. The children are encouraged to work in a team, to think and act responsible and out-of-the-box, and to be more self-aware and self-confident. The program allows participants to meet the experts and new places, to get familiar with the latest digital tools and technology, to participate in the thematical events and to adopt entrepreneurial culture.

RInovatoRI visiting Croatian National Radio-Television / source: City of Rijeka

Children's House, the first building of its kind in Croatia, is located in the so called 'brick building' in Rijeka Art quarter Benčić, which was once a tobacco drying chamber, following its renovation. It is distinctive for the way in which it approaches the children and parents who are spending time there, as well as the areas and themes in which children are involved. Making animated movies in a movie studio, making video presentations, creating music in a music studio, playing and making video games, product design and 3D printing, cinema, library, storytelling theatre, interactive baby theatre, doll-making, therapeutic theatre and customized movie screenings for the children with disabilities, etc. are just some of the activities that the Children's House is offering in one place for children and their parents.

Children's House intends to teach children analytical and practical skills of understanding and applying the language of art. Its program will integrate many art forms - film, theater, literature, visual arts - and connect them with new media and technologies. The Children's House will support children in learn, shape and communicate contemporary ideas and culture. In addition, Children's House will make a special effort to connect with educational institutions, in the belief that quality education in culture is possible only in cooperation between the educational and cultural sectors.

As one of the main conclusions at Rijeka Policivil workshop is that the advanced technology needs to be introduced to the children from the early age, Action 2 is focused to bring 3D technology closer to the young users of already existing program RInovatoRI. 3D technology learning section will become an integrated part of RInovatoRI program, and will be held both in Children's House and Production park Torpedo.

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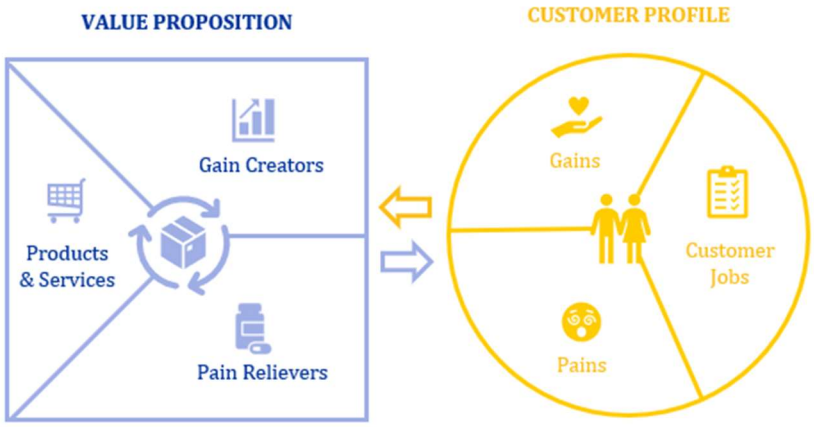
3.1.2.2 Stakeholders

Name of Organization	Allocated Tasks
Production park Torpedo (RDA Porin)	Implementation
Youth Center Rijeka	Organization and dissemination support
Children's House (Rijeka City Library)	Organization support
City of Rijeka	Implementation and dissemination
Croatian Chamber of Commerce	Dissemination

3.1.2.3 Value Proposition Canvas



CUSTOMER PROFILE **Children age 11-14**	
Gains	• Learning 3D technology basics and getting insight into its possibilities • Introduction to business incubator and production park concept
Pains	• Low interest/expectations – 'why do I need this?' • Above average interest/expectations – 'how can I get more?'
Customer Jobs	• Gaining the knowledge of advanced 3D technology which cannot be learned during the regular elementary school education • Removing the fears of using advanced technology and boosting children's self-belief as the crucial entrepreneurial/business skill

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VALUE PROPOSITION **3D training for youngsters: workshop and study visit**	
Gain Creators	• Organization of basic 3D workshop in Children's House with 3D printers and supporting system for classroom use • Organization of study visit to Production park Torpedo to feel the difference between school and industrial 3D technology potential
Pain Relievers	• Effectiveness of 3D workshop concept: it is including production of one useful item in short amount of time • Opportunity to visit Production park Torpedo: advanced dimension of 3D (reverse engineering, different printing materials, large items/less time etc.)
Products & Services	• 3D workshop adapted to children engaged into RInovatoRI program • Open access to most innovative 3D center in region with interactive visit and expert support

3.1.2.4 Objectives

- To provide basic knowledge of 3D technology adapted to their age
- To make pupils, participants of RInovatoRI program, aware of 3D technology potential that can be used in their future projects and professional life
- To demonstrate the entire process of production using 3D technology
- To introduce participants with the concept of incubators and technology parks
- To reduce and remove fears of using the modern technologies and advanced business infrastructure
- To inspire the students on new ventures, and to encourage them to embrace the new technologies in achieving their professional goals.

3.1.2.5 Activities

3D RInovatoRI is a new part of RInovatoRI program for development of entrepreneurial skills of children, age 11-14. This program section is fully dedicated to 3D technology, and is consisted of 2 parts:

1) 3D workshop in Children's House, led by a trained teacher. The workshop will demonstrate a process of 3D modeling and printing, using common 3D printer for classroom use.
2) Interactive visit to Production park Torpedo and introduction to industrial 3D technology, as well as concept of business incubator. The study visit will be hosted by representatives of Rijeka development agency Porin.

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The action will be implemented following the next steps:

1) Defining the date of the 3D workshop and study visit (City of Rijeka, RDA Porin/PpT, Youth center Rijeka, Children's House)
2) 3D workshop organization and implementation (RDA Porin, Youth center Rijeka, Children's House)
3) Study visit to Production park Torpedo (City of Rijeka, RDA Porin/PpT, Youth center Rijeka)
4) Documentation of the events (all stakeholders)
5) Dissemination of the events (all stakeholders)

Evaluation will be carried out among participants within satisfaction survey of the whole RInovatoRI program, at the very end of June 2022.

Potential risks

This action cannot be held in virtual environment. It requires physical access to 3D equipment (both hardware and software) and to Production park Torpedo premises. If the live events would be limited or prohibited due to Covid circumstances, the workshop and study visit will be held in a more favorable epidemiological situation. This is the reason why the timeframe is defined relatively broadly.

3.1.2.6 Timeframe

January 2022 – June 2022

3.1.2.7 Cost estimation and funding sources

RInovatoRI 3D workshop and study visit to Production park Torpedo: 500 Eur
The costs include: organization, lecturers and implementation.

Source: DTP RESTART_4Danube project

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