Interreg Europe
European Union | European Regional Development Fund

BUSINESS ECOSYSTEM FOR TRADITION AND INNOVATION

AREZZO INNOVAZIONE TUSCANY

action plan

sharing solutions
for better
regional policies

AREZZO INNOVAZIONE POLILAB

TRINNO

We started the TRINNO project in 2016, five European regions keen to work together towards a common aim: to promote regional competitiveness by improving policy instruments for business support systems that focus on applying digital innovation in the local economy.

3 years later, after numerous moment of exchange and learning, we are ready to share our regional Action Plans. Each region has a different plan, unique to their regional context and needs. But each Action Plan is the fruit of interregional policy learning in TRINNO and is a step towards better business support systems in our regions.

Photo by Diego PH on Unsplash.

TABLE OF CONTENTS

4 INTRODUCTION

7 PART I: GENERAL INFORMATION

7 PART II: POLICY CONTEXT

8 PART III: DETAILS OF THE ACTION ENVISAGED

8 need addressed

10 overview of the policy improvement that this action refers to

13 the background

16 specific sub-activities

21 players involved

24 risk and contingency plans

24 costs and funding sources

25 monitoring

28 letter of endorsement

INTRODUCTION

TRINNO project focuses in the competitiveness promotion in EU regions through improving policy instruments for business support ecosystems that focus on applying digital innovation and entrepreneurship as drivers to improve the local economy. During the project development, these two main concepts (business support ecosystems and digital innovation in traditional SMEs) have been discussed in relation to the partners' specific context, and have been used to frame the development of their Action Plans. For each region, the issue of digital innovation was approached in relation to the specific regional policy identified as target within the project. This introduction presents these two concepts, and how they have been applied to the TRINNO's context, followed by a brief overview of the inputs achieved during the project's phase 1.

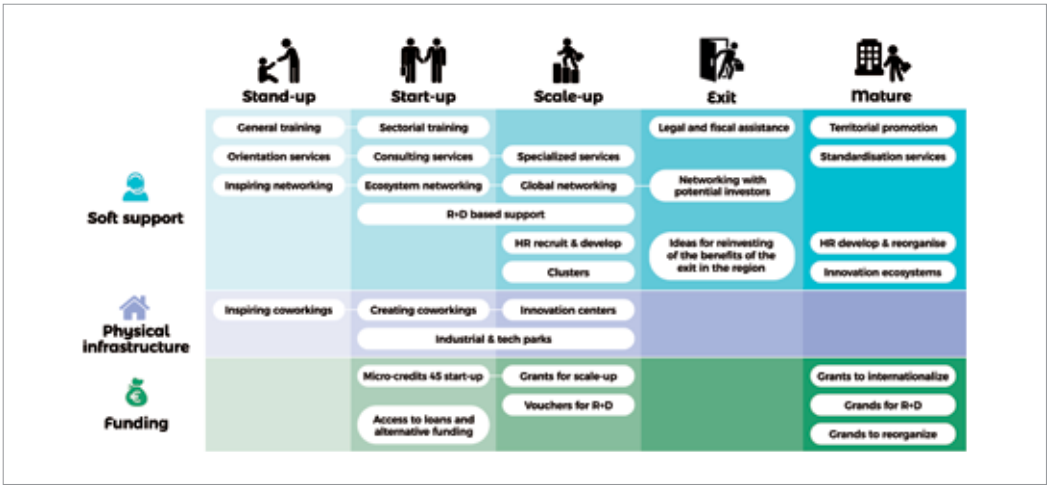
The last decades have witnessed the progressive generalization of innovation policies at the local level. The dissemination of concepts such as innovative ecosystems, territorial innovation systems or open innovation have led to a growing interest in the innovative capacity of the territories and their different components: companies, universities, technology centres, even population. The EU2020 strategy and its objectives sustainable growth, smart and inclusive, with the new funding period of ERDF 2014 2020, have only reinforced this trend, putting innovation at the centre of the European development model and the creation of wealth and employment.

It is common to hear among those dedicated to economic development policies mention the difficulty of bringing SMEs of mature and traditional sectors the need to innovate and the initiatives available to them from the public sector. Either they are not interested, or they do not know how to articulate their needs for the development of new products and services, making difficult their transition to innovation-based activities. TRINNO's partners are confronted with such challenges, in different activities linked to the traditional economy such as agri-food sector, crafts and jewellery sector and traditional SMEs in general, specifically linked to the need to promote business support systems that focus on applying digital innovation in the local economy.

TRINNO project, after review of main concepts linked to the business support ecosystem and a consultation to different stakeholders, developed a framework that addressed the different company needs, the stakeholders who should be engaged, the necessary elements to make the service a success and common challenges. Globally speaking, a complete and successful innovation ecosystem must include technology and knowledge transfer (TT/KT) from academia and industrial actors to other enterprises (particularly SMEs), no matter what is the phase in a company's life cycle. The, support will adapt to the company's phase:

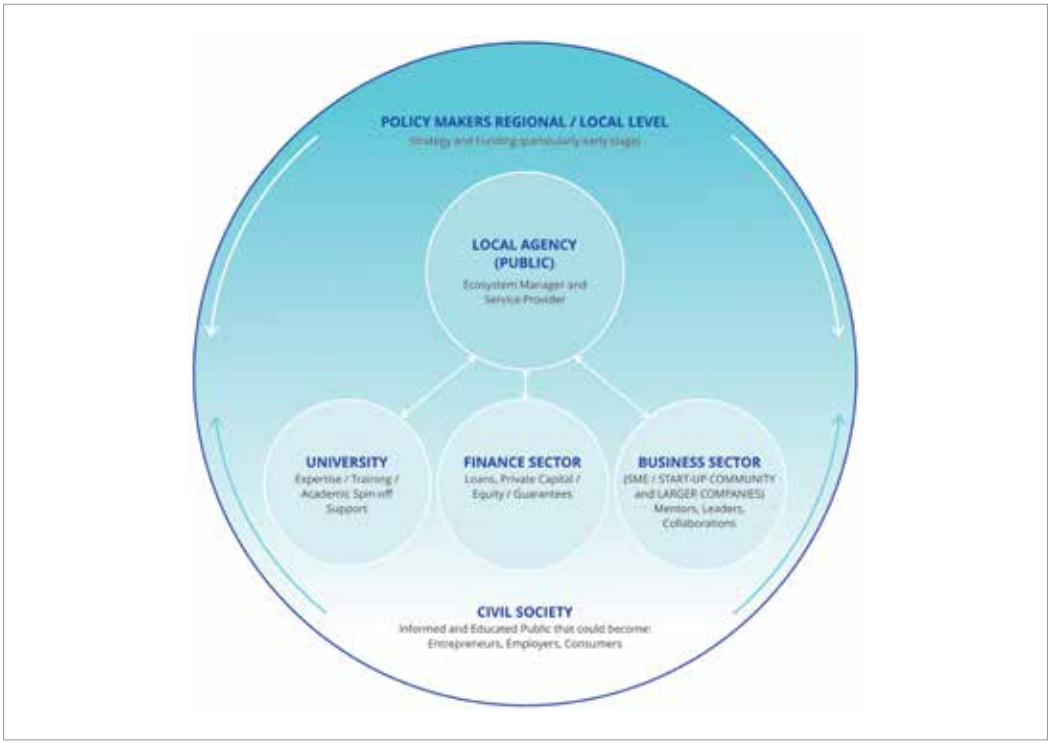
- Stand-up phase when individuals or groups are equipped with the entrepreneurial attitudes and skills to attempt the creation of new company.
- Start-up phase when resources are mobilised and regulatory requirements fulfilled to start a new company.
- Scale-up phase when successful companies expand business to new markets or in innovative ways.
- Exit phase when a business owner or an investor decides to cash out an investment made in the company.
- Mature phase when a company is well established (founded for a number of years), but requires support to continue to adapt and grow particularly in times of transition and decline.

The figure bellow summarises TRINNO's list of business support services to link digital innovation with tradition.



Business Support Ecosystem

In each stage, the support system must include all the agents of the triple helix, in order to be able to successfully implement the different services offered. The public administration should be the one with the coordinating role, adapting the roles of each agent to fulfil the services requirements. The figure bellow shows what TRINNO partners have produced as the ideal framework for a successful deployment of the business support services, creating a perfect ecosystem where all agents interact to fulfil the goal of promoting innovation (digitalisation) of traditional companies.



TRINNO's Perfect Ecosystem

During the first phase of the project, partners have identified sectors and digital innovation objectives they had, selecting also a diversity of Good Practices related to the project's topic. The goal was to provide with examples which partners could apply to their own context, with the needed adaptations. These two processes have been the basis for the elaboration of the "Dream Action Plan", in which partners described the ideal activities they would like to implement in their existing policy framework to address the challenge of digital transformation of traditional business.

Specifically, the identified, organised and listed services included in the Business Support Ecosystem (see figure 1), were used to find concrete tools to support digital innovation within the Policy Instruments addressed by the project, according to the sectors chosen by each partner. The goal was to identify which and how these identified services should be used to boost (and put directionality to) the digital innovation in TRINNO regions (i.e. training on digital skills; digital innovation specialized incubators; specific funds for digital start-ups, etc.).

After this process, partners completed their Dream Action Plan, which were discussed in the different ILE of the project. Each Action Plan is, therefore, the result of a thoughtful process of reflection and adaptation of the concepts used to the specific realities of each participating region and policy frameworks.

PART I: GENERAL INFORMATION

project
TRINNO

partner organisation
arezzo innovazione

country
Italy

nuts2 region
Tuscany

contact person
Sara Bonci
Perla Colzi

email address
sara.bonci@arezzoinnovazione.it
perla.colzi@arezzoinnovazione.it

phone number
+390575489663

PART II: POLICY CONTEXT

principle policy instrument addressed
Tuscany ERDF Regional Operational Programme 2014-2020

secondary policy instrument addressed
Tuscany ESF ROP 2014 – 2020, Axis A Employment and Axis C Education and Training

The policy instruments that the Action Plan aims to impact are both Investment for Growth and Jobs programmes.

PART III: DETAILS OF THE ACTION ENVISAGED

ACTION 1: ENHANCEMENT OF DIGITAL SERVICES FOR TRADITIONAL SMES

NEED ADDRESSED

Our aim is to understand how the existing policy instruments could enhance digitalisation of traditional SMES.

In line with the Tuscan Regional Strategy for Industry 4.0 (i4.0), this action aims to stimulate investments in innovation from craft businesses through the experimentation of new business models that facilitate contamination between traditional manufacturing and new digital technologies.

In 2016, Tuscany Region, in line with the European and National strategy, promoted the I4.0 Regional strategy. This strategy highlights the importance of engaging SMEs and supply chains in this new industrial revolution. For this purpose, the Region adopted an operative platform called INDUSTRIA 4.0, divided into different operative tools. Among these, there is the CANTIERI 4.0, which is an operative instrument that (among other things) make a tool kit available for the enterprises, with information and services which would be useful for evolution towards i4.0.

Tuscany Region supported TRINNO from the start, as it is in line with the I4.0 strategy and with the need to focus on SMEs. While the necessity to promote adoption of digital innovations within the regional economic fabric is clear, the regional government is also aware of the necessity to ensure that SMEs are not left behind or damaged by industrial modernisation. This is particularly clear in the traditional sectors (such as fashion and gold that characterise the province of Arezzo). To this end, the Region had identified the need to spread information towards enterprises and, at the same time, to get to know the entrepreneurial fabric from the point of view of new technologies.

In TRINNO, we have approached digital manufacturing, trying to understand and identify which services are suitable for the different life phases of a company in order to be functional and to facilitate, boost and strengthen digital manufacturing. We have come to the conclusion that it is essential to shift attention from technology to business models.

Industry 4.0 is not only a technological revolution, but also and above all, a business revolution and a new method to approach the market. For that reason, it is necessary to give life to coordinated actions that could shift the logic from product-centred business models to that of product-service models.

At a European level, the European Commission communication 19 April 2016 “Digitizing EU Industry: reaping the full benefits of the Digital Single Market”, suggested an evolutionary approach to the Industry 4.0 that includes intelligent products (digital inside), digital processes (factory automation) and new business models, qualified from the new digital technologies, such as Services Economy, Sharing Economy and Circular Economy. European research and innovation programmes, often accused to be too guided by technology and to have little sensitivity to the market (the “Valley of death” between research and market), have lately raised the necessity to be guided by business and to listen with extreme attention the market also in the more technical activities of development and production.

In this context, the reflection in Tuscany within the TRINNO project has taken into consideration the following:

- How could we support businesses to evolve towards services oriented models, maintaining the centrality of development processes and product manufacture?

- How could we conciliate very different business models and innovation models, like the ones of the manufacturing industry and the ICT industry in a new Product-Service concept?

In our territorial context, trying to imitate Californian start-up models does not make sense. The business fabric and model is artisanal. It is particularly compatible with the exploitation of some tangible and intangible assets of our country. In this context, digital could be an enabler for some start-ups and for the restart of crafts companies.

Considering data from the Tuscan economic manufacturing sector[1], the regional production system nowadays consists of over 353.700 active enterprises. The most popular sectors are “wholesale and retail trade; repair of vehicles and motorcycles” (25%), “engineering” (15%), “manufacturing activities” (13%) and “agriculture, forestry and fishing” (with 11% of the regional enterprises).

According to some studies[2], Tuscan enterprises, compared to others regions in terms of digitalisation, are still lagging behind. The tendency is also registered in some strategic sectors such as fashion, leather goods and the mechanical components. In fact, traditional enterprises that between 2017 and 2018 planned investments in new technologies stand at only 3.6% against 7.8% of Veneto and 6.4% of Piedmont. Even among enterprises that have adopted 4.0 solutions, many did not plan new interventions for the coming years.

The study also shows that most used technologies concern the conservation of data and production (robot, artificial intelligence, augmented reality). Among the 2395 enterprises interviewed, those more likely to innovate operate in the electric and chemical devices field; those less careful work in the food and fashion sectors. The most alarming fact concerns subcontractors: in Tuscany only 2.3% use new technologic instruments, meanwhile in Emilia Romagna almost 16%.

The numbers show that the problem of the poor dissemination of I4.0 technologies leads to poor comprehension of their advantages by the entrepreneurs. In Tuscany, family companies (71%) during the last years made new hires and entered new foreign markets, but they did not understand perfectly the benefits of the digital.

The poor attitude towards innovation is perceived also by the leadership figures, from where the twist for a change should start. As previously said, I4.0 is a process transition more than a product transition; the cultural factor has a significant relevance. Research shows that many business managers do have not a degree and they do not have the right competences to deal with the changes of our era.

This is the context in which our Action Plan was developed. It led to the identification some areas where we could make a difference: information, knowledge dissemination, renewal of skills. These are fundamental elements to comprehend the potentialities of new technologies and to put the enterprises in the condition of being able to drive the change.

[1] February 2019, THE REGIONAL PRODUCTION SYSTEM BASED ON 2018 DATA OF THE CHAMBERS OF COMMERCE, Regione Toscana, DG “Organisation and information system”

[2] Studies published by the research society MET for the MISE (Ministry of Economic Development)

OVERVIEW OF THE POLICY IMPROVEMENT THAT THIS ACTION REFERS TO

The Action Plan here proposed puts in relation the needs expressed from our traditional production system with the Tuscany Region objectives in an interregional key, enriched by the experiences compared with the others European realities involved in the project.

We have maintained the policy instrument selected at the beginning, which during these 3 years of the Phase 1 had to evolve itself to stay connected to the structural changes of the technologic innovation system. Moreover, we propose the addition of a new policy instrument (the European Social Fund Operational Programme) as part of a coordinated strategy to promote synergy between regional funding instruments. This is in line with the Regional Government's approach to bring together actors, funding schemes and initiatives.

Our action, in collaboration with the Tuscany Region, focuses on the implementation of the existing operative instruments available within the regional policy framework.

In particular our activity focused on the following funding tools within the ERDF ROP (Axis 1):

- Catalogue of advances Services for Tuscan SMEs, and related calls.
- Tools for the evaluation of the maturity level in terms of i4.0 of the company: first level survey, advanced level assessment survey and the technologic audit.

To these measures is linked the utilisation of ESF ROP Funding through:

- Vouchers for 4.0 training for company managers / free lancers.

Together with the Managing Authority, Arezzo Innovazione has defined three interrelated activities for the Action Plan to enhance digitalisation in traditional SMEs and has laid the foundation in Phase 1 for their implementation.

These three activities can be summarised as follows:

activity 1

Modification of the Catalogue of advances Services for Tuscan SMEs to insert the possibility to finance more digitally orientated support services (Typology of policy improvement: change to strategic focus).

The Catalogue of the qualified services, lists all the possible services for SMEs recognized as "advance and qualified to support the innovation processes and competitiveness in SMEs". Services are listed and codified together with the corresponding requirements of the service provider. The catalogue describes all services for which a company could submit applications for regional co-financing. About 40 services are split into three thematic areas: Initial support to innovation; Specialized consulting services; Services to support internationalization. Regularly published regional calls run alongside the catalogue. In recent years, it has been a functional, operative instrument that allows to support enterprises in first level and second level innovative paths. Indeed, it is listed as one of the TRINNO could practice and was a source of inspiration to other partners as a potential element of the business support ecosystem[3]. However, at the moment it is necessary to make a forced action to pull enterprises towards more digital services. An amendment already made during 2018 was to increase the intensity of help in some kind of services (more digital) or involvement of more qualified consultants. The aim now is to eliminate from the catalogue some more "traditional" services and to modify some others in an i4.0 point of view, for example evolving the Temporary manager service into the Digital temporary manager.

[3] *https://www.interregeurope.eu/policylearning/good-practices/item/1787/catalogue-of-advanced-and-qualified-services-for-tuscan-enterprises/*

activity 2

Re-direct Tuscan training demand and offer towards Industry 4.0 (especially in the province of Arezzo) (Typology of policy improvement: new projects).

This action is connected to the ESF ROP, but in the i4.0 theme. Every regional DG, and their funding instruments, have been engaged in the i4.0 strategy and platform. They have cooperated to develop cross-cutting actions. One of these is training: as previously said, in order to allow a cultural evolution to the enterprises it is necessary to train ad hoc figures and/or sustain the update of the existing ones, mainly in the strategic positions.

This activity will be followed under two interconnected aspects: training demand and offer towards Industry 4.0.

From the side of demand as Arezzo Innovazione will disseminate the opportunities related to voucher for i4.0 training during activities organized by Arezzo Innovazione both towards managers of SMEs, than towards free lancer or potential free lancers. These include, for example, young people that after school want to start with their own job). Among these could be participants from the ERASMUS+ project for the mobility of young students. Arezzo Innovazione manages mobility schemes and when the students come back, organises follow up events that can be used to engage with this on this Activity.

This activity will see the submission of new project proposals for vouchers to be awarded to free lancers or mangers in the Arezzo area, particularly interested in building their capacity to support traditional SMEs to embrace digital innovation. The capacity building should focus on supporting the free lancer to learn how to support traditional companies, particularly in the gold and fashion sectors, to change their business model (moving towards the product-service model), in order to move towards digitalisation.

From the offer side, Arezzo Innovazione we will collaborate with territorial training agencies in order to adapt the current training offer to the necessities raised by enterprises linked to i4.0. This could include the proposal of a joint course, also taking into account the fact that Arezzo Innovazione has available some laboratories and competences in the industrial modernization theme (as additive manufacturing, reverse engineering, IoT, smart product etc.).

The learnings from this Activity will be shared with the Regional Government Managing Authorities (ERDF and ESF), in order to increase their knowledge about the impact on the regional system. Moreover, cooperation will be promoted with the regional Technological District for the Fashion and Gold sector (Arezzo Innovazione is involved) to consider how our work can support their efforts.

activity 3

New projects funded through the calls open on the ERDF funding programme, linked to the Catalogue of advanced services and the Call for Technological Audits). (Typology of policy improvement: new projects).

Tuscany Region encourages enterprises to undertake a self-evaluation path, before going ahead with material investments in digitalisation. For this reason, it proposed a series of tools for self-evaluation and/or the business maturity level evaluation and in particular: first level survey; advanced level assessment survey; technological audit. Enterprises can request funding for these activities, either by themselves for basic services or with support from a digitalisation expert.

Until now, this call has not been particularly successful (31/05/17 – 1 application presented; 31/10/2018 – 2 applications presented. All were funded). It appears that the call is not currently meeting the needs of the enterprises or is insufficiently clear. Therefore, for this action Tuscany Region asked the three main universities of Tuscany (UNISI; UNIFI; UNIPI), to conduct territorial investigations to trace the supply chains. Thanks to the TRINNO project, they also asked Arezzo Innovazione to support UNISI in the definition of the gold-fashion supply chain that characterise our territory. Therefore, some direct interview and specific focus groups have been conducted and form a solid foundation for Activity 3.

In this activity, the newly trained people will support the Arezzo based enterprises to apply for this funding and to start their self-evaluation path. Subsequently, they will support them to apply for the updated Qualified Services (see Activity 1) to start to modify their business model and invest in digitalisation.

As with Activity 2, the learnings from this Activity will be shared with the Regional Government Managing Authorities (ERDF and ESF), in order to increase their knowledge about the impact on the regional system and to consider if the experience in Arezzo could also be encouraged in other sub-regional areas. Again, work with the regional Technological District for the Fashion and Gold sector will continue.

THE BACKGROUND

During the project, thanks to comparison with the other partners and local stakeholders, in particular the Managing Authority of the ERDF ROP, our initial proposal for improvement to the policy instrument has gradually evolved, become clearer and more relevant to our needs and to the kind of concrete activities that we can undertake in the next two years.

Our first draft of the Action Plan, was presented as a Dream Action Plan at the interregional meeting in October 2017 (Szeged, Hungary). Subsequently, two further drafts were presented at interregional meetings in April 2018 (Kamnik, 2018) and October 2018 (Carrick on Shannon, Ireland). Peer review feedback from partners on these occasions and most recent comparisons with the Managing Authority helped to better define the content of the Action Plan. It was initially based on two actions: Action 1. Enhancement of services related to stand up phase; Action 2. Creation of new business models for artisans/craft workshops. However, it emerged that there were some overlaps on the concrete activities. Therefore, we have opted to merge the two actions in a single action, defining it: Enhancement of Digital Services for Traditional SMEs. This is the first interregional input to the Action Plan: as series of interregional comparisons that helped us to define our scope and structure.

Concerning the content of the Action Plan, while experiences from all TRINNO regions have provided food for thought, the main source of inspiration comes from the experience of Barcelona. The Barcelona Innovation and Entrepreneurship Ecosystem[4] was the good practice from which TRINNO was born. Their experience represents a real business support ecosystem, where the various actors, policies and instruments work in synergy to provide a comprehensive system of support. The interregional learning process in Phase 1 helping us to learn about this experience can be summarized as follows:

[4] *https://www.interregeurope.eu/policylearning/good-practices/item/1491/barcelona-innovation-and-entrepreneurship-ecosystem/*

- Participation of Arezzo Innovazione and Tuscany Region (ERDF Managing Authority) in Interregional learning events:
- Kick-Off (Barcelona, 30-31 May 2016). Two-day event presenting the actors and the hubs of the business support ecosystem.
- Second meeting (Galway 18-19 October 2016). Two days event focused on presenting the business support ecosystem in Galway by visiting several hubs and on interregional exchange on ecosystems in other regions with invited speakers. This event included further presentations from Catalan representatives (Vic business and innovation support initiatives and the city ecosystem).

- Bilateral meeting: visit of Jordi Garcia Brustenga, representative of TRINNO Advisory Partner, University of Barcelona, (18-19 July 2017) in Tuscany. The visit included meetings with some regional stakeholders and with Tuscany Region. Exchange focused on learnings from the Catalonia / Barcelona RIS3 case study and on how to design innovation and entrepreneurship focused public policies.

- Participation of Arezzo Innovazione and Tuscany Region in Staff Exchange with Barcelona (17-19 September 2018), focusing on the Catalan system for supporting digital innovation. In each of the places visited, which represent a series of interlinked infrastructures supporting innovation in various sectors, participants had a chance to meet the people behind these initiatives. This helped to learn not only about the structures, but also about the skill sets required to make them a reality.

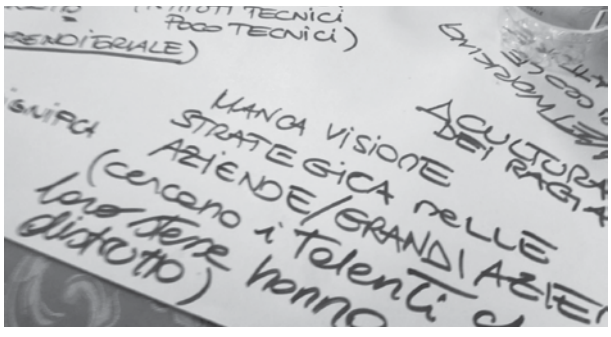
The knowledge exchanged as a result of this exchange process is huge. We can summarise here the main topics of attention for Tuscan staff that have led to our specific Action Plan focus:

- General insights about the Industry 4.0 approach of Catalonia with specific reference to: the adopted policy tools and instruments to interact and involve smaller/traditional firms, the role of the different actors of the ecosystem and the required professional competences, contents and models of training programmes for experts, specific tools to support the stand up phase;

- The Goierri case study in Basquian Country, with reference to the role of public policies supporting the emergence of strategic market niches oriented towards big firms challenges as a way to stimulate SMEs collaborative innovation;

- The Berguedà County experience, with reference to the “co-creativation agent” role to be played by local development organizations. This experience shows that the public sector could be connector and motivator of actors, through the idea of ecosystem, considering itself as part of the co-creation process of new activities that are beneficial for the territory.

- The experience of the Institute for Advanced Architecture of Catalonia, centre of research, education, production and outreach based in Barcelona, as an example of how to modernize the artisan traditional style and business model.



From these experiences, the following aspects emerged:

- The importance of a system that helps cooperation among the actors of the territory, sustaining the entrepreneur culture and the creation of a complete ecosystem (as in Berguedà). In our Action Plan, we intend to place the initial stepping stones towards this by: linking up funding tools and ensuring that actors in the territory (enterprises and intermediaries, such as the consultants receiving training vouchers) are capable of sustaining the new i4.0 culture.

- The sub regional scale in the translation of the RIS3. In our Action Plan, this is relevant to the Arezzo sub-regional scale, which is characterized by the traditional fashion and gold sectors, where our Activities 2 and 3 will be focused initially. Regional policy in Tuscany supports technological districts, including one on the fashion sector. Learnings from Activity 3 will feed into knowledge about the role of the districts in supporting sub-regional innovation.

- The different types of companies that need to be involved, as drivers or participants. The Barcelona experience shows this importance of having key driver companies that take forward innovation. If they start and show the potential for success, others may follow. These "others" include the members of the regional supply chain, who must be involved in the move towards digitalisation. Our Action Plan will start working with some of the key companies in Arezzo, seeing if they are willing to invest in digitalisation self-evaluation, planning and investment (Activity 3). These companies include members of the supply chain of huge fashion companies.

The regional learning process in Phase 1, designed to analyse the input from the above-described interregional learning, included meetings between Arezzo Innovazione and Regione Toscana (Production Sector – Director, sectors responsible for the i4.0 Strategy and the Cantiere 4.0 platform) and with the local stakeholder group during the project. These meetings shared the learnings from the TRINNO project and discussed how they could be applied at regional level. Further input to the project came from collaboration with the University of Siena, contracted by the Regional Government to work with companies on i4.0 (see description below).

SPECIFIC SUB-ACTIVITIES

BACKGROUND ACTIVITIES UNDERTAKEN AT REGIONAL LEVEL (NOT DIRECTLY UNDERTAKEN WITHIN TRINNO), IN ORDER TO CLARIFY THE STRATEGIC CONTEXT IN WHICH OUR ACTION PLAN OPERATES

jan 2017 - jan 2018 Publication of programmatic regional documents i4.0 regional strategy. Competences for digital economy: first address for i4.0 training (and follow up documents). This forms the policy context in which our Action Plan operates.

jan 2017 Creation of Industry 4.0 Platform http://industria40.regione.toscana.it/, where the regional strategies, opportunities and news for the industrial sector (enterprises), for training and for research are presented. Linked to this platform there is an operative Tool kit made available to enterprises called CANTIERI 4.0 www.cantieri40.it.

feb 2017 "Memorandum of understanding" among Universities, university schools, CNR - National research Centre, ITT (Italian Institute of Technology), Enea with the objective to guarantee accessibility to i4.0 technologies by companies.

from oct 2017 Publication of the first call "Support for the purchase of the Industry 4.0 audit".

oct 2018 Publication new call "Support to the SMEs for the purchase of services for the innovation".

SUB-ACTIVITIES ALREADY TAKEN TO DEVELOP THE ACTION PLAN IN PHASE 1 (RELEVANT TO ALL 3 ACTIVITIES), IN ADDITION TO THE INTERREGIONAL EXCHANGE DETAILED ABOVE. ACTIVITIES UNDERTAKEN DIRECTLY AS A RESULT OF THE TRINNO PROJECT.

mar 2017 - sep 2018 various meetings and events Stakeholder meetings (3° stakeholders meeting on 25th of October 2017, 4° stakeholders meeting 15/03/2018 - 5° stakeholders meeting on 1st of August 2018) and staff exchange (September 2018) where Tuscany Region was involved, used to discuss the results and possible change of the Catalogue of advanced services, in order to make it more apt to digitalisation process. Moreover, in order to strengthen the regional ecosystem of technological transfer and to facilitate the increase the number of applications regarding the more digital services, meetings included a focus on the idea to give additional benefit for the involvement of laboratories or public society counted in the i4.0 platform and the opportunity/necessity to provide further information across the territory about the opportunities link to digitalisation.

oct 2017 - mar 2018 Information and dissemination about opportunities to support and finance process towards i4.0 foreseen by Tuscany Region, including an event organised by Arezzo Innovazione related to activity of i4.0 opportunities in Arezzo province in collaboration with the Tuscan fashion district.

24 oct 2018 Attendance at the event Lab 4.0 organized by the university of Siena. The event was organised by University of Siena, in collaboration with Tuscany Region, to understand the i4.0 digital impact in the mechanic and mechatronic supply chain.

ongoing from end 2018 to 2019, assessments in jan 2019, focus groups in feb and mar 2019

Participation in the assessment activity developed by researchers from the University of Siena carried out in the province of Arezzo.

Tuscany Region contracted the University (funded by ERDF ROP) to study and rebuild the impact of i4.0 in strategic sectors of the Tuscan economy. The aim was to understand their level of i4.0 maturity. Tuscany Region, within the context of TRINNO, asked Arezzo Innovazione to work with the University in this context.

Researchers organized meetings single enterprises and support them to fill the survey in the i4.0 maturity assessment. Arezzo Innovazione collaborated with them in this research: suggesting enterprises, contacting them and participating in the meetings.

Two regional focus groups were organized (co-hosted by University Siena and Arezzo Innovazione), at the beginning of 2019, with enterprises from Arezzo in gold and fashion sector.

The results are being used provide intelligence to the Regional Government about exactly what kind of support the enterprises need.

26 feb 2019

Exchange with Tuscany Region in order to evolve the Catalogue towards a more digital characterization (bilateral meeting).

ACTIVITIES PLANNED FOR PHASE 2, TO ACHIEVE ACTION PLAN IMPLEMENTATION

activity 1

Modification of the Catalogue of advances Services for Tuscan SMEs to insert the possibility to finance more digitally orientated support services

apr 2019

Request to Tuscany region of data concerning the application received (in this call Tuscany Region have adopted a procedure to take open the call until resources are available).

apr - sep 2019

Collaboration with University of Siena to collect information gathered during focus group and single assessment activities, related to the technological impact of i4.0 in the fashion supply chain.

apr - sep 2019

Identification with Tuscany Region, based on the results of the intelligence collection process described above, of possible proposals for changes about the catalogue of services in the direction to make them more digital.

oct 2019

Report on activities to Tuscany Region, related to the above activities and providing recommendations for modifications to be made to services in the catalogue, in line with the move towards digital support.

sep 2019

Start of procedure for the modification of Catalogue by Tuscany Region, modifications will concern the actual ERDF ROP (2014-2020) considering that are still available resources. This includes the creation of a working group inside the department of Economic Development of Tuscany Region, which will define a set of new digital service or digitalisation of services already foreseen in the catalogue.

by the end of dec 2019

Adoption of regional resolution about modification of catalogue.

by the end of dec 2019

Publication of new call related to the Catalogue of advances Services for Tuscan SMEs.

activity 2

Re direct Tuscan training demand and offer towards Industry 4.0 (specifically in the province of Arezzo)

apr - dec 2019	Dissemination of opportunities related to voucher for i4.0 training during activities organized by Arezzo Innovazione in the frame of its innovation dissemination activities towards enterprises (inside the initiative links to technological laboratories available at Arezzo Innovazione).
apr - dec 2019	Dissemination of opportunities related to voucher for i4.0 training during activities organized by Arezzo Innovazione in the frame of its activity related to project Erasmus+. Arezzo Innovazione manages some project for the mobility of young students (Erasmus+), when the students come back, Arezzo Innovazione organizes follow up events. These students are some of the potential, future i4.0 experts. They could be trained in digital support skills and, as such, encouraged to remain in the province of Arezzo with new job opportunities related to business support. Follow up meetings from ERASMUS project are an occasion to inform them about the opportunities of voucher i4.0 and open them to requests coming from job world.
apr - jun 2019	Monitoring the training offer in the themes of Industry 4.0 related to territorial supply chain (fashion sector)
jun 2019 - dec 2020	Collaboration with territorial training agencies in order to adapt the current training offer to the necessities raised by enterprises linked to the i4.0 and proposition of common course, also taking into account the fact that Arezzo Innovazione has laboratories and competences in the industrial modernization theme (as additive manufacturing, reverse engineering, IoT, smart product etc.).
apr 2019 - mar 2020	To take charge by Arezzo Innovazione of applicants, who wish to receive additional info or submit request for receiving i4.0 voucher
apr 2019 - mar 2020	Submission of proposals from individuals applying for the i4.0 voucher (it is noted that this call is open all the time, with no specific deadline, as long as funding remains available.
apr 2019 - mar 2020	Monitoring of evaluation of the i4.0 voucher scheme, leading to eventual approval of the applications.
apr 2019 - mar 2020	Carrying out of training with voucher (depending on the results of the evaluation process and eventual approval).

NEW PROJECTS FUNDED THROUGH THE CALLS OPEN ON THE ERDF FUNDING PROGRAMME LINKED TO THE CATALOGUE OF SERVICES AND THE CALL FOR TECHNOLOGICAL AUDITS

apr - sep 2019	Dissemination of EXISTING opportunities for funding from the Regional Government, focused on the province of Arezzo. This will be achieved through focus groups and direct contact with enterprises about the opportunity to start the digitalisation process through these paths of self-evaluation-assessment and technological audits (the call is open from 03/04/2018 until are available resources, with monthly rankings).
jan - sep 2020*	Dissemination of NEW opportunities for funding from the Regional Government, focused on the province of Arezzo, following the modification of the Catalogue in Activity 1. As above, this will be undertaken through focus groups and direct contact with enterprises about the opportunity links to new catalogue of qualified services (* assuming that the timetable proposed by the Regional Government for catalogue modification is respected).
apr - jun 2019	Further training of Sara Bonci in order to directly develop the technological assessment (carried out by the academia researcher involved in this process) opportunity offered by Tuscany Region which will ask to academic referent to support Sara Bonci in this activity . Tuscany region in the contest of the agreement established with Tuscan university to map the level of Industry 4.0 for different supply chain offer to referent of Arezzo Innovazione (Sara Bonci) the opportunity to have a brief updating about the competences necessary to help SMEs in the I 4.0 pre-assessment.
jun 2019 - apr 2020	Establish specific accordance (letter of assignment between enterprise and Arezzo Innovazione) to define the terms for the presentation of proposal under the call for Technological audits.
jun 2019 - apr 2020	Elaboration of proposal by Arezzo Innovazione (15 days).
jun 2019 - apr 2020	Support by Arezzo innovazione to enterprise in the procedure to manage the proposal.
jun 2019 - sep 2020	Implementation of approved projects (6 months).
apr - sep 2020	Monitoring projects (6 months).
sep - dec 2020	Report about this activity to Tuscany Region.

Photo by Alfons Taekema on Unsplash.

PLAYERS INVOLVED

REGIONAL GOVERNMENT OF TUSCANY – DG PRODUCTION ACTIVITIES

As Managing Authority of the ERDF programme, DG in charge of the i4.0 Strategy and tools in Tuscany, this has been the key stakeholder since project outset (as described above) and will continue to be the key stakeholder in Phase 2. Tuscany region is responsible for any modifications that are made to the service catalogue (Activity 1 and 3) and for all the related calls and evaluation and funding of projects.

They have been involved in the development of this Action Plan and have endorsed its content. They will be consulted on each activity, through meetings and involvement in territorial animation activities undertaken with companies in Arezzo.

REGIONAL GOVERNMENT OF TUSCANY – DG TRAINING & EDUCATION

This DG is Managing Authority of the ESF programme in Tuscany. The move towards i4.0 in Tuscany encourages greater synergy between the ERDF and ESF funding. If companies are to become more digital, they also require capacity building to deal with digitalisation. This Action Plan encourages this kind of synergy, but merging improvements to the catalogue (ERDF funding) with new projects funded for training vouchers (ESF funding).

The DG will be consulted on the various stages of implementation related particularly to Activity 2.

UNIVERSITÀ DI SIENA

Arezzo Innovazione collaborated with this stakeholder in Phase 1, in terms of gathering relevant scientific knowledge and feedback on the on-going activities. Specifically, they collaborated for the organisation of assessment activities and focus group activities. This collaboration will continue in Phase 2.

SMEs and entrepreneurs in the gold / fashion sector in Arezzo, who could benefit from the regional calls including the technological audit.

SMEs have already been widely consulted in Phase 1, through the above-described focus groups organised by Arezzo Innovazione together with the University of Siena. Their needs in terms of i4.0 investment and development were used to inform Activity 1 and they are among the expected beneficiaries of new projects in Activity 3. Territorial animation activities will be organised to engage them and encourage them to take advantage of the regional funding opportunities.

REGIONAL TECHNOLOGICAL DISTRICT ON FASHION

Tuscany Fashion Cluster (OTIR2020 – TFC) was created by Tuscany Region, as one of 12 Technological Districts, to promote cooperation, research and development among enterprises in the fashion sector. “4.0 factories” is among its objectives.

The district coordinator will be involved in Action Plan activities, to define where the district can support them and where they can feed into district activities themselves. Arezzo Innovazione is involved in the district, so will participate in activities and organise individual meetings. The companies in the district are among those that can benefit from Activity 3 (see line above).

POTENTIAL 4.0 TRAINERS

All people who could participate and obtain voucher for I 4.0 training: students, free lancer, managers of SMEs. They will be involved in the various dissemination activities described in the Activities above and supported where they decide to apply for the vouchers (Activity 2).

NETWORK OF TRAINING AGENCIES IN AREZZO

Involved in Activity 2, as part of the move towards more digital training in the province of Arezzo. They will be mapped and then engaged in a participative process to provide joint training offer with Arezzo Innovazione.

RISK AND CONTINGENCY PLANS

risk in activity 1 (level of probability: medium)

Not satisfactory answer from territory regarding new version of catalogue qualified services

contingency plan To keep undertaking information, dissemination about opportunities related to Industry 4.0 towards enterprises, addressing in special way this activity towards enterprises which could assume a leading role.

risk in activity 2 (level of probability: medium)

Proliferation of training offer not properly in line with the objective of Tuscany region to support the creation or updating competence and of skills for the spread of i4.0

contingency plan Monitoring about the offer training course or master and promotion of specific course through the Industry 4.0 platform.

risk in activity 3 (level of probability: high)

Lack of comprehension about the importance of this type of activities and insufficient utilization of the financial measure

contingency plan Dissemination activity in the territory, involvement of key actors (trade associations) in the promotion of this type of instruments.

COSTS AND FUNDING SOURCES

budget available for activity 1 and 3

The Call for technological audit has a budget for the period 2014-2020 of 1.500.000 € for the manufacturing section. It provides capital contribution in the form of voucher, with the following levels of funding:

company size	*min eligible investment*	*max eligible investment*	*funding rate*	*project duration*
micro enterprise	5.000 €	7.500 €	60 %	6 months
small enterprise	5.000 €	12.500 €	50 %	6 months
medium enterprise	5.000 €	20.000 €	40 %	6 months

The call “Support for the purchase of innovation services“ is linked to the Catalogue of qualified services for the period 2014 - 2020. It has a budget of 4.600.000 € divided in 2.000.000 € for the manufacturing sector and 2.600.000 € for tourism, commerce and tertiary activities.

Tuscany Region has establish distribution of 4.040.000 € in 2019 and 560.000 € in 2020.

budget available for activity 2

The calls for training in i4.0 was launched on the 19th July 2018 and will remain open until resources end. It is possible to apply for individual training vouchers addressed to entrepreneurs and the freelancers.

The maximum voucher amount is 5.000 € for entrepreneurs and 3.000 € for freelancers.

MONITORING

indicator	**Number of new companies (startups) / existing enterprises that receive financial / non financial support**
target	250
means of verification	Extrapolation info from regional database could give us general indication about the capacity of public measure to give concrete answers to necessity of enterprises.
timing expected	2019-2020

indicator	**Number of enterprises that ask and receive financial support for digital services in the call "catalogue of qualified service" across Tuscany**
target	50
means of verification	Extrapolation info from regional database could give us some info: type of enterprises interested to these type of services, province of reference.
timing expected	Modification of catalogue of qualified services is foreseen in the second half of 2019, so we could have these type of data from 2020.

indicator	**Number of enterprises that ask and receive financial support for digital services in the call "catalogue of qualified service" in the province of Arezzo**
target	10
means of verification	Extrapolation of info from regional database could give us some: comparison between the regional territory and the specific territory of Arezzo province, in order to evaluate the results achieved through the activity of information/ dissemination/animation provided by Arezzo Innovazione.
timing expected	2020

indicator	**Total budget required in the call of "catalogue of qualified service" for services more digital across Tuscany**
target	500.000 €
means of verification	Extrapolation info from regional database could give us some info: type of enterprises interested to these type of services, province of reference.
timing expected	Modification of catalogue of qualified services is foreseen in the second half of 2019, so we could have these type of data from 2020.

indicator	**Total budget required in the call of "catalogue of qualified service" for services more digital in the province of Arezzo**
target	100.000 €
means of verification	Extrapolation info from regional database could give us some info: comparison between the regional territory and the specific territory of Arezzo province, in order to evaluate the results achieved through the activity of information/ dissemination/animation provided by Arezzo Innovazione.
timing expected	2020

indicator	**Number of managers or free-lance who apply for and receive voucher for I 4.0 training**
target	100
means of verification	Consultation of regional rankings.
timing expected	2019-2020

indicator	**Number of enterprises to apply for and receive financial support for the call technological audit in the regional territory**
target	50
means of verification	Consultation of regional rankings.
timing expected	2019-2020

indicator	**Number of enterprises to apply for and receive financial support for the call technological audit in the Province of Arezzo**
target	10
means of verification	Consultation of regional rankings extrapolating specific data for Arezzo's province in order to evaluate the role of promotion realized by Arezzo Innovazione.
timing expected	2019-2020

Photo by Adele Payman on Unsplash

LETTER OF ENDORSEMENT

REGIONE TOSCANA
Giunta Regionale

Direzione Attività produttive
Il direttore

Interreg Europe
European Union | European Regional Development Fund

TRINNO
Interreg Europe

Letter of endorsement from the organisation responsible for the policy instrument

Project acronym	TRINNO
Project title	Business ecosystem for TRadition and INNOvation
Name of the organisation (original) including department (if relevant)	Direzione Attività produttive Regione Toscana
Name of the organisation (English) including department (if relevant)	DG Economic Development Tuscany Region
Name of the policy instrument addressed (original)	POR FESR 2014 – 2020 Asse 3 - Promuovere la Competitività delle PMI Obiettivo specifico - Nascita e consolidamento delle Micro Piccole e medie imprese Azione specifica - 3.5.1 - Interventi di supporto alla nascita di nuove imprese sia attraverso incentivi diretti, sia attraverso l'offerta di servizi, sia attraverso interventi di micro-finanza
Name of the policy instrument addressed (English)	ERDF ROP 2014 – 2020 Axis 3 - Promoting SME Competitiveness Specific objective - birth and consolidation of new Sme Action 3.5.1 - Interventions to support the birth of new enterprises through direct incentives, by offering services , both through the provision of services and micro – finance
Name of partner(s) concerned in the application form (English)	Arezzo Innovation

We hereby confirm:

- that we were informed about the progress of the TRINNO project and participated actively in regional and interregional project activities during Phase 1;
- that the Action Plan of the TRINNO project is in line with our organisation's policy, in terms of support to SME Competitiveness and of support to digitalisation and Industry 4.0 in our regional enterprises,
- that we were consulted on the development of the TRINNO project Action Plan and that we endorse its content.

50132 Firenze, Via Luca Giordano 13
tel. 0039.055.438.3856
albino.caporale@regione.toscana.it
http://www.regione.toscana.it

It is noted that the Regional Government of Tuscany holds no legal or formal responsibility for the achievement or otherwise of the results detailed in the TRINNO Project Action Plan.

Name of signatory	Albino Caporale
Position of signatory	Director DG Economic Development Tuscany Region
Date	10/07/2019
Signature and institution stamp (if exists)	REGIONE TOSCANA

author
Arezzo Innovazione

concept
Development Centre of the Heart of Slovenia

design
zadruga.traparij z.o.o.

photos
All photos are provided by TRINNO partners (unless otherwise noted) and approved for reproduction in this action plan.

responsibility
The sole responsibility for the content of this action plan lies with the author. The European Commission is not responsible for any use that may be made of the information contained therein.

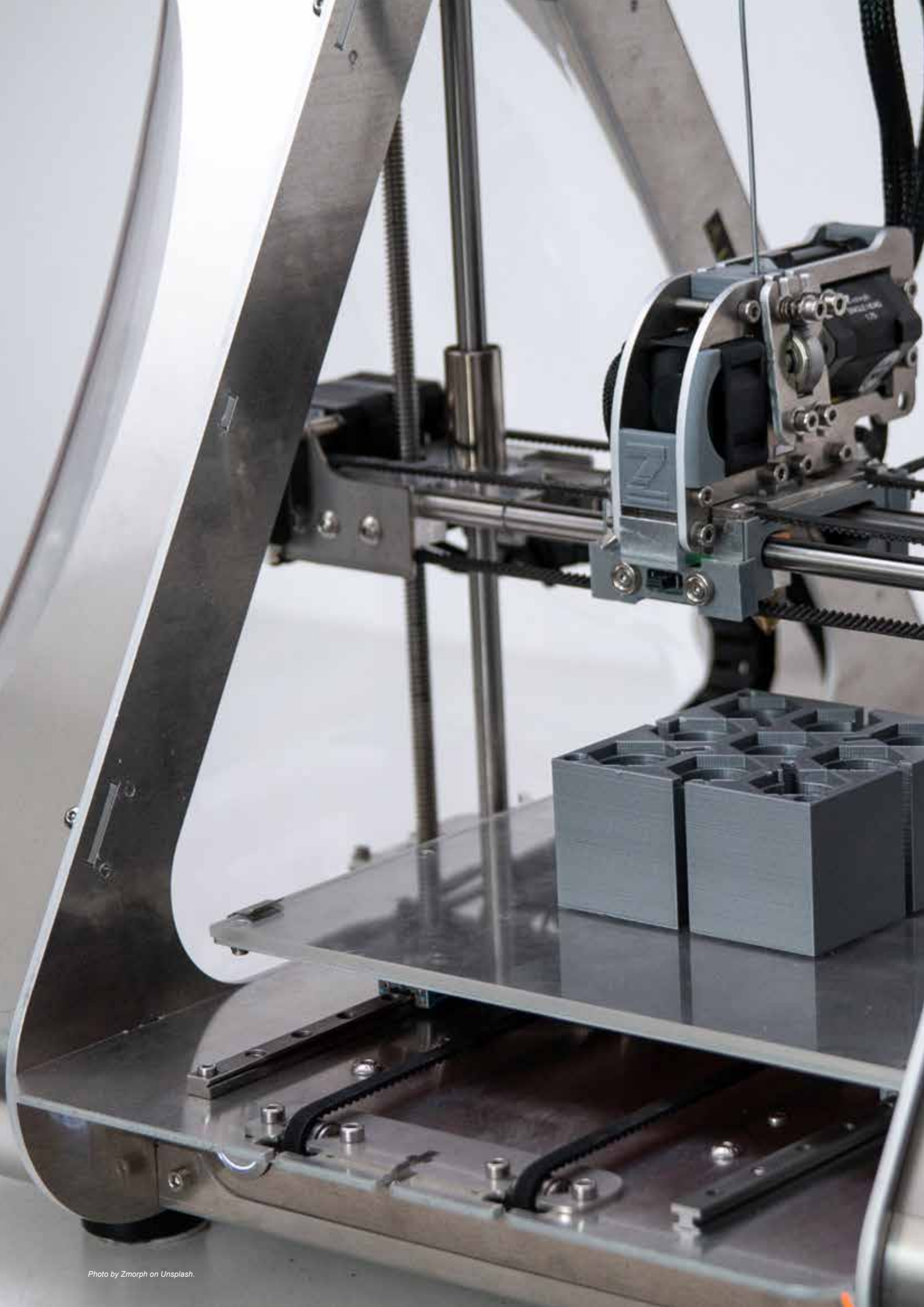


Photo by Zmorph on Unsplash.

AREZZO INNOVAZIONE POLILAB

eli attosecond

WestBIC

Northern & Western Regional Assembly

RAZVOJNI CENTER SRCA SLOVENIJE
DEVELOPMENT CENTRE OF THE HEART OF SLOVENIA

UNIVERSITAT DE BARCELONA

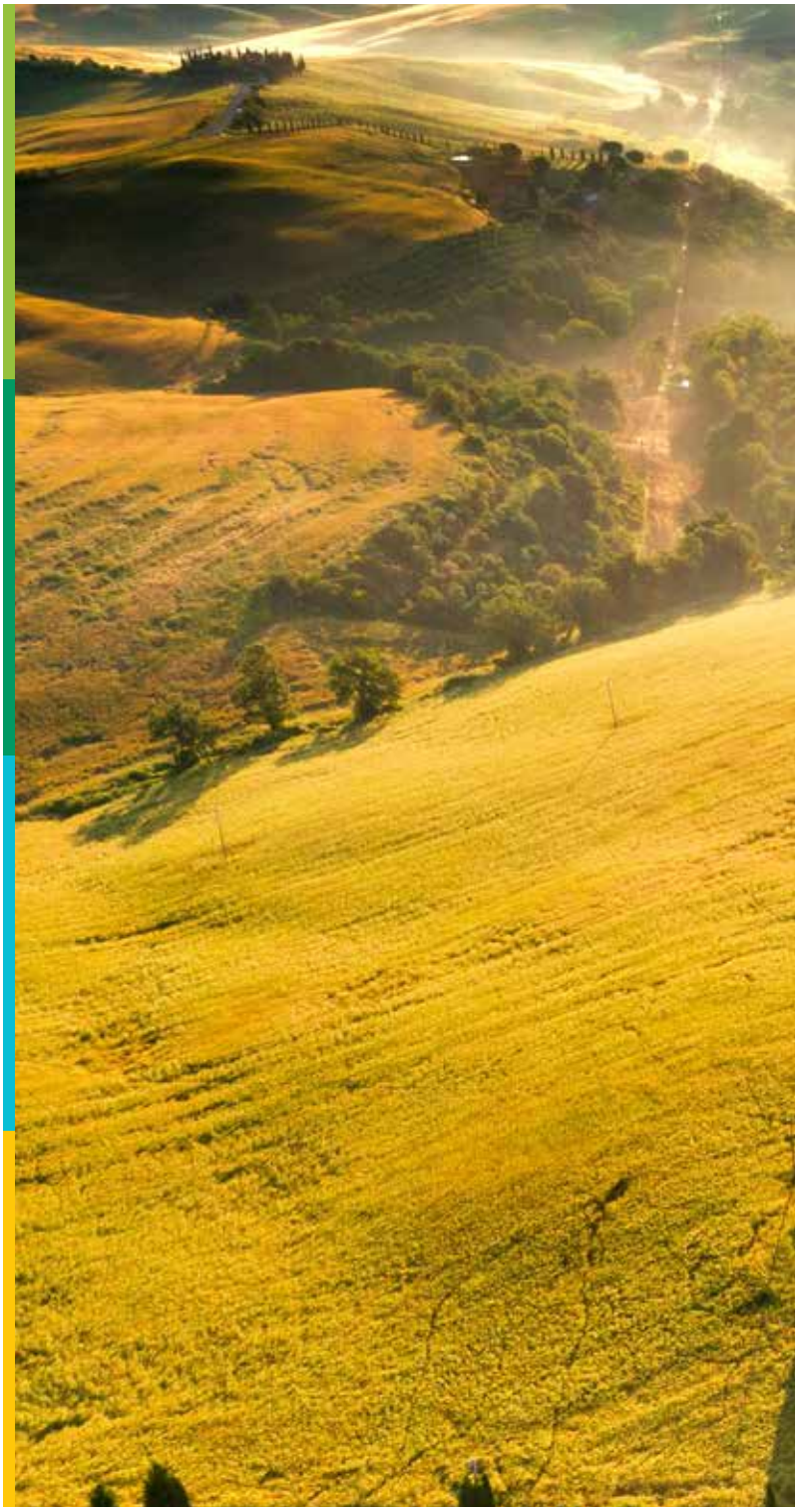


Photo by Reuben Teo on Unsplash.