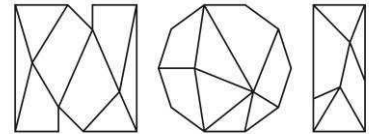


CLUSTERIX 2.0

Interreg Europe



European Union
European Regional
Development Fund



TECHPARK SÜDTIROL / ALTO ADIGE

ACTION PLAN

CLUSTERIX 2.0 NEW MODELS OF INNOVATION FOR STRATEGIC
CLUSTER PARTNERSHIPS

SOUTH TYROL - ITALY
NOI TECHPARK

Table of Content

PART I – GENERAL INFORMATION.....	3
PART II – POLICY CONTEXT.....	4
PART III – DETAILS OF THE ACTIONS ENVISAGED.....	6
ACTION 1: RAPID PROTOTYPING PROGRAM AT MAKERSPACE.....	6
ACTION 2: ADAPTATION OF COMPETENCE MAPPING FOR R&D COOPERATION BETWEEN RESEARCH INSTITUTIONS AND NOI TECHPARK.....	9
ANNEX – Synergies with Interreg Europe project.....	14

Part I – General information

Project: **CLUSTERIX 2.0 - New Models of Innovation for Strategic Cluster Partnerships**

Partner organization: **NOI AG / NOI S.p.A.**

Country: **Italy**

NUTS2 region: **NORD-EST**

Contact person: **Andreas Winkler**

Email address: **a.winkler@noi.bz.it**

Phone number: **+39 0471 066 688**

Part II – Policy context

The Action Plan aims to impact:

- Investment for Growth and Jobs programme**
- European Territorial Cooperation programme
- Other regional development policy instrument**

Name of the policy instrument addressed:

Regional Operational Programme Investment in Growth and Jobs ERDF 2014-2020, Priority axis 1 (RDI), Priority 1B, Measure 1.1.4 “Support to R&S cooperation actions for the development of new technologies, products and services”.

Brief description of policy instrument addressed

The objective of this policy instrument is to improve the cooperation between companies and R&D institutions. It intends to improve the cooperation attitude of the South Tyrolean businesses ecosystem which is for over 90% based on small and medium sized enterprises. It supports networking and collaboration of companies or between companies and research organizations especially in the domains of the region’s Innovation and Smart Specialization Strategy which requires better coordination among actors and new calls for proposals. The role of the innovation intermediaries (e.g. clusters) is to trigger these kinds of projects and connect the right partners.

Name of the additional policy instrument addressed:

Regional fund based on provincial law n. 14/2006.

Brief description of the additional policy instrument addressed

The regional fund based on the provincial law n. 14/2006 promotes innovation within companies and activities of research and collaboration with companies together with research institutions. Eligible for application are companies and research institutions.

The provincial law 2006 n. 14 was a first step in establishing a systematic R&I strategy in South Tyrol, creating the prerequisite for targeted multi-annual funding for scientific research, basic research and applied research. Since then the investments in research and development have increased steadily and the provincial Law 14/2006 is yet today the main instrument of the regional research & innovation policy.

The additional policy instrument addressed was not changed by CLUSTERIX 2.0 project. There are no new calls or governance mechanisms in implementing the additional policy instrument. However, it will finance new projects developed based on the learnings from CLUSTERIX 2.0 (Action 2).

The reason for including this additional policy instrument is because we consider the provincial law n. 14 very important, as this law is the base on which the ERDF policy instruments (as the one indicated as the original policy instrument) are written. In fact, the calls for proposals and the grants funded by ERDF axis 1 (Innovation and research) have as their basic rules the law 14/2006.

Influence of the CLUSTERIX 2.0 project on the policy instruments addressed:

Action 1 has positively influenced the governance of the policy instrument originally addressed (ERDF) by introducing a new service called “Rapid Prototyping” based on the learnings from PP7 Good Practice “Strategic Use of Design” in the service portfolio of PP2 at NOI Techpark. The first implementation of this new service was financed by the project DAVINCI, which was co-financed by the policy instrument originally addressed. Therefore, Action 1 contributed to a better implementation of the policy instrument addressed. The further implementation of the new service “Rapid prototyping” will be financed by vouchers provided by the regional fund based on the provincial law n. 14/2006. For this it will not be necessary to change the additional policy instrument, e.g. by introducing a new voucher scheme. However, action 1 positively influences the governance of this additional policy instrument addressed by better implementation resulting into better projects thanks to the new service.

Action 2 is the improvement of the service “Business Innovation Services” offered by PP2 NOI Techpark based on learnings from the intense exchange of experience in the CLUSTERIX 2.0 working group on Innovation Services for SMEs. The service will be supported by the regional fund based on the provincial law n. 14/2006. Therefore, Action 2 also positively influences to the better governance of this additional policy instrument.

Challenge / Starting point

South Tyrol has a very low number of R&D/GDP investments in the region (0.63%, well under the EU average). According to the recent statistics (2016), the cooperation rate of SME with Research institutions or education stakeholders is only 11.1%. Only 130 Businesses can be considered as innovation intensive companies and this number needs to be raised to 230 by 2023. 42.69% of the local businesses have worked with other entities (companies, consultants, subcontractors) before, but mainly for buying R&D-related services/products.

This situation shows a strong need to improve the regional innovation ecosystem. We need to offer to the SMEs a better environment to implement innovation. In this context the role of clusters is well highlighted in the ERDF Programme which thus envisages support to the cluster initiatives and projects as well as the launch of new clusters, networks and platforms aimed at improving cooperation among enterprises. Moreover, South Tyrol’s RIS3 promotes the development of new value chains and innovation concepts through cross-cluster cooperation and fertilization, above all through international cooperation.

IDM Südtirol – Alto Adige has transferred a branch of business pursuant to the resolution of the Provincial Council no. 893 of 11.09.2018 to the in-house company Business Location Südtirol – Alto Adige S.p.A. of the Autonomous Province of Bolzano, which as of 01.01.2019 has been renamed NOI S.p.A.

The transfer of the business branch has concerned several departments/ units for which NOI S.p.A. takes over the ownership of the existing contractual relationships and all rights and obligations. This also includes some projects with European co-financing, and ClusteriX 2.0 is one of them.

NOI S.p.A. is the operator of the NOI Techpark. In this function, it continuously develops the technology park. In addition, NOI S.p.A. offers companies, research institutions and start-ups located in the technology park, as well as external customers, various innovation and technology services on the five technology sectors of the NOI Techpark (Alpine Technologies, Automation, Food, Green Technologies and ICT), connects the business and research players with each other and is responsible for the community management.

In addition, we refer to the South Tyrolean Action Plans developed in another Interreg Europe project “INNOBRIDGE”. The South Tyrolean partners of the two Interreg Europe projects CLUSTERIX 2.0 and INNOBRIDGE joined forces and gathered all regional innovation support intermediaries in joint stakeholder meetings. Synergies with the INNOBRIDGE project to single actions can be found in the Annex document.

General Results Cluster Policy Benchmarking & Peer Review

The S3 of South Tyrol makes very strong reference to six clusters. As resulted from the Cluster Policy Peer Review and Benchmarking carried out in CLUSTERIX 2.0, all these clusters in South Tyrol receive two stars, meaning they are medium strong in terms of employment, productivity, specialisation and dynamics. They are backed by cluster managements having good capacities. The staffing of the cluster managements is appropriate, however since South Tyrol is following a combined approach cluster management / ecosystem management, that observation focus on cluster management only.

It became evident that South Tyrol is among the frontrunner group of European regions when it comes to the implementation of S3 through clusters by reaching a high overall score of 79,1, which is clearly above the average score of the comparative portfolio. South Tyrol makes very strong reference to cluster in the S3 with a very dedicated role and task description. The implementation is very systematic and consequent, characterised by a long-term sustainable approach. Being embedded in IDM Südtirol – and after the reorganization in 2019 in NOI Techpark - the cluster (ecosystems) managers have stable framework conditions with excellent access to other tools and programmes of regional development.

Evaluation and monitoring

So far, not much attention is given by South Tyrol on evaluation and monitoring. Currently standard indicators are applied. In the past a lot of efforts have been spent to continuously improve regional innovation strategies and S3 with significant success, but not based on a tailor-made evaluation and monitoring approach. Thus, the region is not able to measure the success or make evidence how making use of clusters for many years generated certain impact. A tailor-made and up-to-date evaluation and monitoring system would help South Tyrolean authorities and IDM/ NOI to showcase success stories related to its cluster-based regional development policy and to demonstrate its success. The evaluation and monitoring system should be applied, not to control rather than to measure “success”.

The Managing Authority of the Autonomous Province of Bolzano endorses the actions developed in CLUSTERIX 2.0.

Part III – Details of the actions envisaged

ACTION 1: Rapid Prototyping program at Makerspace

1. The background

During the project meeting in Billund, 5-7 September 2017, Region of Southern Denmark (P7) organized an in-depth workshop on its Good Practice “Strategic Use of Design”. The workshop was facilitated by the Design2Innovate Cluster (stakeholder of P7). We learned the details of the good practice “Strategic use of design” is about utilising methods and tools from the world of design systematically to create new business opportunities. This good practice has been published on the ClusterIX 2.0 project’s website and on the Interreg Europe Policy Learning Platform website.

The Danish cluster Design2innovate was established in 2010 in order to support companies by using design in a strategical way for developing new products and solutions and boost competitiveness. The results presented suggested companies using the innovation management methodology “design thinking” perform better than others. While reflecting on the good practice we understood this methodology could be adopted also to the reality of NOI Techpark, as the structure with the task of supporting SMEs in their journey to higher competitiveness and innovation.

We realized companies in South Tyrol, both start-ups and SMEs, could benefit from this methodology, in order to improve their products and services while using the services of Makerspace.

After the meeting in Billund, P2 NOI Techpark shared the learnings with Ecosystem managers and local stakeholders, discussing with them how this methodology could be implemented in the region. P2 NOI Techpark and stakeholders understood that this action could provide benefits for different target groups, and foster collaborations between companies and research institutions and universities as well. Thanks to the learnings from P7 Region Southern Denmark’s Good practice “Strategic Design Thinking”, P2 NOI Techpark analysed different methodologies on that topic and adapted then the Design Thinking methodology (as promoted in the Good Practice “Strategic Use of Design”) on the local framework. This action is a custom solution based on typical necessities of local SMEs.

2. Description of Action

The Makerspace elaborated in 2018 its business model and starting from October 2018 activated the service of Rapid Prototyping.

Rapid Prototyping is a workshop cycle to create a prototype in just five days. During this cycle of workshops, the participants will pass from the development of ideas for new products and services to the prototyping phase, passing through a phase of rapid selection and drafting of the business case.

Phases:

The workshop cycle lasts five days, spread over several weeks and consists of seven phases:

Step 1: Analysis of the company's needs

Meeting with experts, during which project objectives and specific requirements are defined. Based on this, the experts who will accompany the company during this workshop are selected.

Step 2: Understand and define

The creation of a customer-oriented product takes place after a precise market analysis and an in-depth knowledge of the problems and realities of the company's target group. The most important results are summarized and serve as a starting point for phase three.

Step 3: Creative Workshop

By applying creative design thinking methods, many different ideas are generated. Later all ideas are grouped and evaluated.

Step 4: Rapid Making

The most promising idea developed in phase three is developed as a prototype in the Maker Space (high-tech laboratory in the NOI Techpark).

Step 5: Rapid Business Planning

By applying the Business-Canvas model, a concept is generated to build a sustainable business model.

Step 6: Mini User Feedback

Test of the prototype with potential end customers, to get feedback on the prototype and the business model.

Step 7: Output

Preparation and delivery of a report on the results.

The advantages for companies using this service are:

- the possibility of developing new product or service ideas with the support of an interdisciplinary team of experts.
- the possibility of developing different variants of the same prototype (conceptual and functional) and verifying the technical feasibility.
- ability to develop a business model (Canvas), and receive initial advice on industrial property rights, as well as information on the potential eligibility for public financing of the project.
- the possibility of obtaining rapid tests for customers.
- The possibility of establishing important contacts with technological partners, test centres, suppliers, etc.

3. Players involved

- Makespace
- Lab & Performance Unit of NOI Techpark
- Ecosystems member companies
- External experts
- Tech-companies located at NOI Techpark
- IDM Südtirol – Alto Adige
- NOI Techpark stakeholders and partners
- Endorsement by the relevant policy makers: Autonomous Province of Bolzano – Department of Research, Innovation and University.

4. Timeframe

The 3rd call for proposal for ERDF projects (2017) has been adapted especially for the enlargement of the labs, many of them located at the NOI Techpark.

P2 (at that time IDM Südtirol – Alto Adige) presented and won an ERDF project “DAVINCI”, including a work package WP7 “Services for digital fabrication at Makerspace”. The Development of a detailed concept for DAVINCI WP7 started in September 2017.

At the same time, 5-7- September 2017, P2 participated in the CLUSTERIX 2.0 project meeting in Billund and learned about the good practice “Strategic Use of Design”. The learnings from that meeting, i.e. what are the benefits and how to implement the innovation management methodology design thinking, were utilized in the development of “Services for digital fabrication at Makerspace”.

The result is the “Rapid Innovation Prototype Service”, which will be implemented October 2018 – March 2020.

5. Costs

Costs for the Rapid Prototyping Service:

The cost per participant is € 5,000- (+ VAT). These costs are covered entirely by the ERDF project DAVINCI.

The project covers the expenses for 3 workshops and for this reason, P2 NOI Techpark will select a certain number of projects from interested parties.

6. Funding sources:

Currently these costs are covered entirely by the ERDF project DAVINCI.

The project covers the expenses for 3 workshops and for this reason, NOI Techpark will select a certain number of projects from interested parties. After that companies will use regional funds for covering such costs.

Funding for project: ERDF money of the DAVINCI project of the budget of Axis 1 (total budget of Axis 1 approximately 32 Million Euro). The allocated budget for those services is 15.000,00 Euro, from a total project budget of 200.000,00 Euro.

Funding for companies: Exceeded the maximum of 3 workshops covered by the ERDF project DAVINCI, companies can use special vouchers for the use of labs at NOI Techpark, covering 65% of total cost of the service.

7. Monitoring

The monitoring with specific ERDF indicators (output indicator: nr. of companies receiving support) will be carried out by the Autonomous Province of Bolzano, and specifically by the two departments involved in the financing, the Europe Department and the Department for Innovation, Research and University, which financed the ERDF project.

Moreover, the NOI Techpark will monitor the performance of the Makerspace and other labs with specific key indicators, which are in elaboration in these months.

ACTION 2: Adaptation of competence mapping for R&D cooperation between research institutions and NOI Techpark

1. The background

P2 NOI Techpark contributed the Good Practice “Business Innovation Services” to the interregional exchange of experience in CLUSTERIX 2.0. The GP describes a service offer of P2 for regional companies including analysis of companies’ business development potential based on their core competencies, connecting them to the right partners and initiating projects. An integral part of P2’s GP “Business Innovation Services” is *competencemapping*©. (This tool, aiming at identification, description and illustration of business skills and the systematic search for new applications and future markets beyond the core business, was transferred from Lower Austria to South Tyrol in the framework of the former Interreg IV C Project “ClusteriX” in 2015.)

With the interregional exchange of experience in the CLUSTERIX 2.0 project, P2 adapted the Business Innovation Services to the new reality of NOI Techpark. Thanks to learnings in the working group meetings, the competence mapping has a new approach: set-up and implement the right framework for exploring competences and resources of **research institutions** (as new target group) in addition to the target group of small and medium enterprises.

Throughout the entire course of CLUSTERIX 2.0, NOI Techpark has been able to discuss with project partners about the adaptation of the methodology of competence mapping from companies to research institutions and labs, who have different needs and challenges than companies.

In the case of research institutions and laboratories of NOI Techpark, they need to develop their own business model, in order to offer concrete services to companies and be able to evaluate both performance of the labs and the services offered to the companies.

Moreover, big attention is given to the adherence of the research topics to the local economy and in this way, labs can monetize their services, but also help companies in the process of increasing their R&D percentage.

Valuable inputs have been collected from the thematic Working Group Meeting in Győr, Hungary, in February 2018, where the topic of “Innovation Services for SMEs” has been discussed. During the working group we understood with project partners that is crucial to provide fast and flexible support to micro and small companies by helping them in the process of adapting quickly their business models to the market, especially nowadays, in the competitive global scale.

Discussion with partners highlighted the key role of cluster organisations and ecosystems in helping emerging industries in their innovation of processes and competences. This served as a source of inspiration for adapting the existing methodology of South Tyrol also to research laboratories and institutions.

In October 2018, P2 organized in Bolzano a specific 2 days Working Group meeting to discuss Business Innovation Services in depth together with project partners, their stakeholders, the Managing Authority of P2 and experts, in order to understand how to adapt this model to research institutions and to improve collaborations between enterprises and research centres.

After collecting positive comments from project partners and the Managing Authority, P2 NOI Techpark proceeded in developing a structured methodology for understanding and identifying different competences of research institutions and companies.

Despite the fact that there was no specific good practice from other CLUSTERIX 2.0 partners transferred to South Tyrol, the partners provided valuable feedback to Business Innovation Services developed by P2 NOI Techpark and inspired P2 to further develop their services. The approach has been discussed and developed during the various working group meetings mentioned above, taking in consideration all possible criteria to be evaluated in analysing the competences of research institutions.

2. Description of Action

With the learnings in CLUSTERIX 2.0 P2 NOI Techpark further developed its Business Innovation Services. It is structured as a workshop with different steps for the client and some preliminary aspects to be taken care of by the moderator. During those meetings participants will begin with the analysis of their business model in order to find out new resources to use in their business, and finish with communication of workshop results. **The new aspects P2 included as a result of the learnings are highlighted in bold letters:**

Preliminary aspects:

Step 1: Analysis workshops preparation

The moderator of the workshop will research and prepare for the workshop exploring all available information of the customer (SMEs or research institution), considering possible critical aspects.

Step 2: How to do research to identify innovation and business development potentials and initiatives.

In this process, thanks to the lessons learned, a research is carried out considering initiatives from different business and research networks, asking also – if applicable – to project partners' for their involvement.

The structure of the service:

Step 1: Business models analysis

Together with the workshop moderator key questions will be carried out in order to analyse the customer business model. Thanks to the learnings of the CLUSTERIX 2.0 project, particular attention is given when analysing the research institutes, especially for their double mission (academic and business). Inputs from partners highlighted the necessity to consider different aspects, involve different stakeholders (professors, faculties, etc.) and estimate different timeframes from a typical business analysis.

The results from the analysis will be communicated to the research institutions and discussed with them in order to find out and understand the customer priority.

Step 2: Competences, resources, skills analysis

Mapping of the customer competences, resources (physical, financial, personnel, etc.) and skills in order to find out the better combination of possibilities.

Step 3: Future “factors” analysis

Taking in consideration new market segments, macro trends, possible future market scenario are explored together with the customer.

Step 4: Communication of workshop results

Preparation and delivery of a report on the results.

One example of the implementation of this action is the Competence Mapping process of the laboratory of Eurac Research “terraXcube”, a research infrastructure at NOI Techpark that simulates the Earth’s most extreme climatic conditions to study their influence on humans, ecological processes and technologies. The process last from September 2018 to February 2019.

The Action aims to target 3 different beneficiaries: companies, research institutions and laboratories. The application can be adapted as well for other institutions, providing the possibility to initiate collaboration projects.

In this optic of improving the SMEs and research institutions innovation grade, NOI Techpark is also very much involved in the process of updating the RIS3 strategy, providing inputs to the regional stakeholders during the RIS3 working group meetings started in August 2018.

3. Players involved

- Ecosystems member companies
- External experts
- Tech-companies and start-ups located at NOI Techpark
- IDM Südtirol – Alto Adige
- NOI Techpark stakeholders and partners
- Research institutions: Eurac Academy, Free University of Bolzano, Laimburg, Fraunhofer Italia, CasaClima
- Endorsement by the relevant policy makers: Autonomous Province of Bolzano – Department of Research, Innovation and University.

4. Timeframe

- Development of concept: second half of 2018
- Rapid Innovation Prototype Service: October 2018 – December 2020

5. Costs

Eurac research paid directly the service from its own sources.

NOI Techpark foreseen to implement this action to all laboratories located in the park, initially with its own sources and eventually with the help of experts on specific demands. External costs will be paid directly by the beneficiary of the service.

6. Funding sources:

Originally the actions of the CLUSTERIX 2.0 project aimed to influence the ERDF calls of the Policy instrument addressed. Unfortunately, those calls have been written before the is was possible to clearly and directly influence the policy instrument with the CLUSTERIX 2.0 project, so there is no direct funding source that can be linked with the Policy Instruments.

Funding for companies: Companies and research institutions can apply for a regional fund, the provincial law n. 14/2006, that promotes innovation within companies and activities of research and collaboration with companies together with research institutions. The provincial law nr. 14/2006 is an existing instrument at a regional level with focus on promoting innovation and it's not connected with any other policy instrument. (See brief description of additional policy instrument addressed in Part II Policy Context).

7. Monitoring

The NOI Techpark will monitor the number of companies and research institutions that will use this service. The data will be collected with the monitoring system utilized at NOI Techpark with specific key indicators, which are in elaboration in these months.

Place, date: Bolzano, 18th October 2019

Name of the organisation: NOI Techpark

Name and function: Herbert Hofer

Director of Services Deputy CEO

Signature: 

Stamp of the organisation (if available):



NOI AG / S.p.A.

A. Volta-Straße / Via A. Volta, 13/A

39100 Bolzano

Reg. St.-Nr. / Part. IVA: IT02595720216

Name of the organisation: Managing Authority ERDF, Ufficio Integrazione Europea, Provincia Autonoma di Bolzano

Name and function: Peter Gamper

Director

~~Der Amtsdirektor - il direttore d'ufficio~~

Signature: 

Stamp of the organisation (if available):

ANNEX: Synergies with the Interreg Europe project INNOBRIDGE

Synergies related to ACTION 1: Rapid Prototyping program at Makerspace

Managing authorities involved as partners in the Interreg Europe Project “InnoBridge” also shared their learnings regarding the use of Fablab.

Moreover, the study visits and Interregional Learning workshops for InnoBridge project stressed out the importance represented by Fablab/ Makerspace as place where enterprises, research institutes, students and inventors come together.

The InnoBridge SWOT analysis highlighted the fostering of the cooperation between enterprises and research centre as a strength: its relevance is highly considered and therefore it is an aspect which will be further developed in South Tyrol. A Fablab/ Makerspace is an infrastructure of utmost importance for carrying out research and a meeting point for the collaboration between enterprises and research entities, whose ultimate output is the realisation of a prototype, an improvement or a new product or service.

All stakeholders were involved in a process to implement this methodology effectively.

Taking in consideration the inputs from the InnoBridge project, the ClusteriX 2.0 partner understood that this action could provide benefits for different target groups, and foster collaborations between companies and research institutions and universities as well. Thanks to the learnings from Region Southern Denmark’s Good practice “Strategic Design Thinking”, NOI Techpark analysed different methodologies on that topic and created a custom solution to implement as a service for SMEs.

Synergies related to ACTION 2: Adaptation of competence mapping for R&D cooperation between research institutions and NOI Techpark

From the InnoBridge SWOT analysis it emerged that R&D projects carried out in cooperation among enterprises and/ or between enterprises and research centres are positive both as strengths and opportunities.

Fostering the cooperation among enterprises and research centres with calls for proposal supporting R&D cooperation projects are considered as premises for creating better synergies between these subjects.

Increasing cooperation is also regarded as an opportunity for the local context. The so-called “integrated projects”, can increase the participation of the local university and research institutes. Furthermore, with the participation of research centres also the project management capacity of the enterprises can increase.