Interreg CENTRAL EUROPE
European Union
European Regional Development Fund

FabLabNet

CONCEPT FOR MENTORING PROGRAM

D.T2.2.1 Concept for Mentoring Program — Version 1

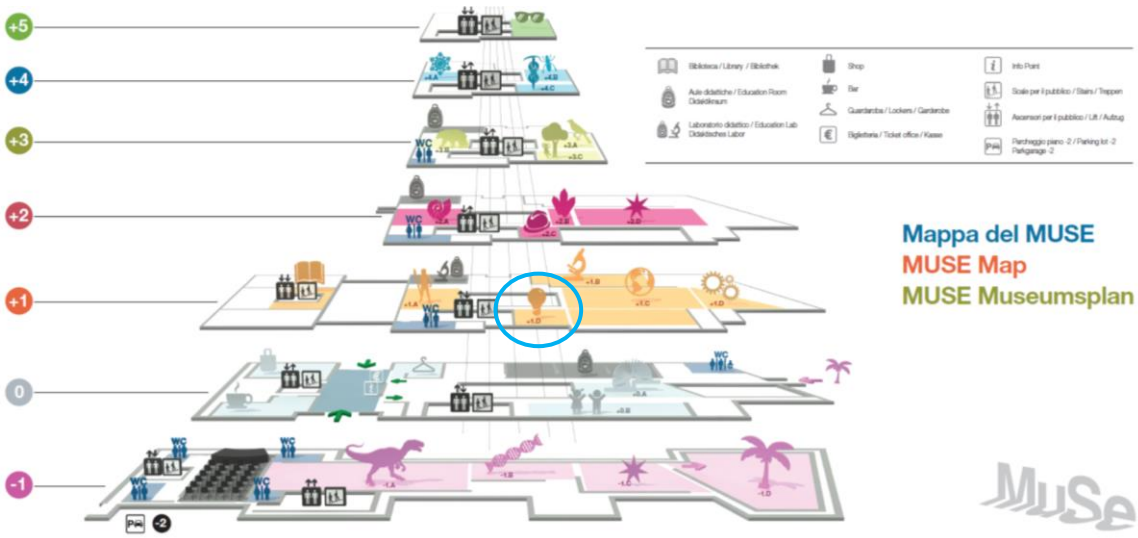
LP - MUSE — 06 2017

1. Introduction

The FabLab in the LP's Museum of science is situated on the core of the building as part of an open exhibition area. See the blue circle on the floor plan below. This FabLab is well equipped with high-tech and up-to-date tools and machines, however due to its physical limitation in the size of the space, the type and size of the machinery to use and also the type of activities to carry out it has restrictions to develop prototypes on spot. However, MUSE FabLab aim is to become a strong actor in the local innovation ecosystem- as it is stated in Innovation potential and specialization strategy (DT122) – whose role is to increase understanding of how technology could impact socio-economic situation of the Trento region, and therefore providing content tailored to a wide range of target groups. MUSE FabLab recognised that:

- it has to cooperate with a wide range of stakeholders to achieve this goal
- it has an important role in connecting high-tech/digitalization and the typical Italian traditional small businesses in order to assist in digital transformation of businesses and increase their productivity and effectiveness

The concept of the Mentoring Programme, a new FabLab service is therefore the result of the thorough analysis of the local situation, the local needs.



2. Pilot nr 1. overview

The Digital Transformation Camp is an experimental format of open innovation, a week of training with a focus on the development of digital transformation services. Designed by MUSE FabLab and Industrio Ventures, the LP's associated partner in the project, the initiative is funded by the Interreg Central Programme through the FabLabNet Project.

The Digital Transformation Camp aims to initiate a systemic process of digital transformation, through technical and entrepreneurial training, together with a prototyping workshop carried out in a way that the manufacturing infrastructure is made available by MUSE FabLab, PROM Facility and other manufacturing laboratories of the companies involved.These companies are chosen among the most representative of the Trentino territory and the four domains of the Smart Specialization Strategies. There is an high interest in involving SME for two main reason: the first one is their connection with the real business system, which can be an optimal case study for the participants. The second one is the establishment of a connection in between the FabLab, the SME and the Community, which is one of the major goal of the project, and it is preliminary for a future involvement in both Pilot Action 2 and other project/FabLab activities.The FabLab and the other manufacturing spaces become in this way the reference point for a community of people and enterprises which, along with participants and mentors, will focus on some of the challenges compared to the theme of Digital Transformation. These challenges may be related to the production, process, marketing phases. Examples can be: how to use a traditional hand-made copper pan on the modern induction stoves? How to dissociate the flue-related feelings to the honey marketing? How to associate it to gourmet-style *nouvelle cousine*? How to make easy and clean the use of honey through a nice and functional dispenser?

3. Mentoring Program

The Mentoring Program aims to help participants of the Digital Transformation Camp to bring ideas, generated by the analysis of the companies selected, into prototypes in the field of digitalization.

The Mentoring Program consists of 3 main phases: A process design module, a project development and prototyping module, a business design module. One initial phase, the introductory workshop and case history, and one final phase, the Final pitch, will enrich and complete the activities.

The Digital Transformation Camp will last for seven days, during which sessions of the Mentoring Program will alternate to brainstorming, frontal lectures, hands-on sessions, prototype development, design sketching, development business model. The Mentoring Program will range from related issues to the design of processes and services, to the grounding of new prototyping processes potential products that integrate craft and digital and rely on new ideative-productive processes able to activate transformative dynamics through digital technologies. At the end of the five days of focusing on project identification, there will be one business development session and a public pitch session.

The main goals of the Mentoring Program are:

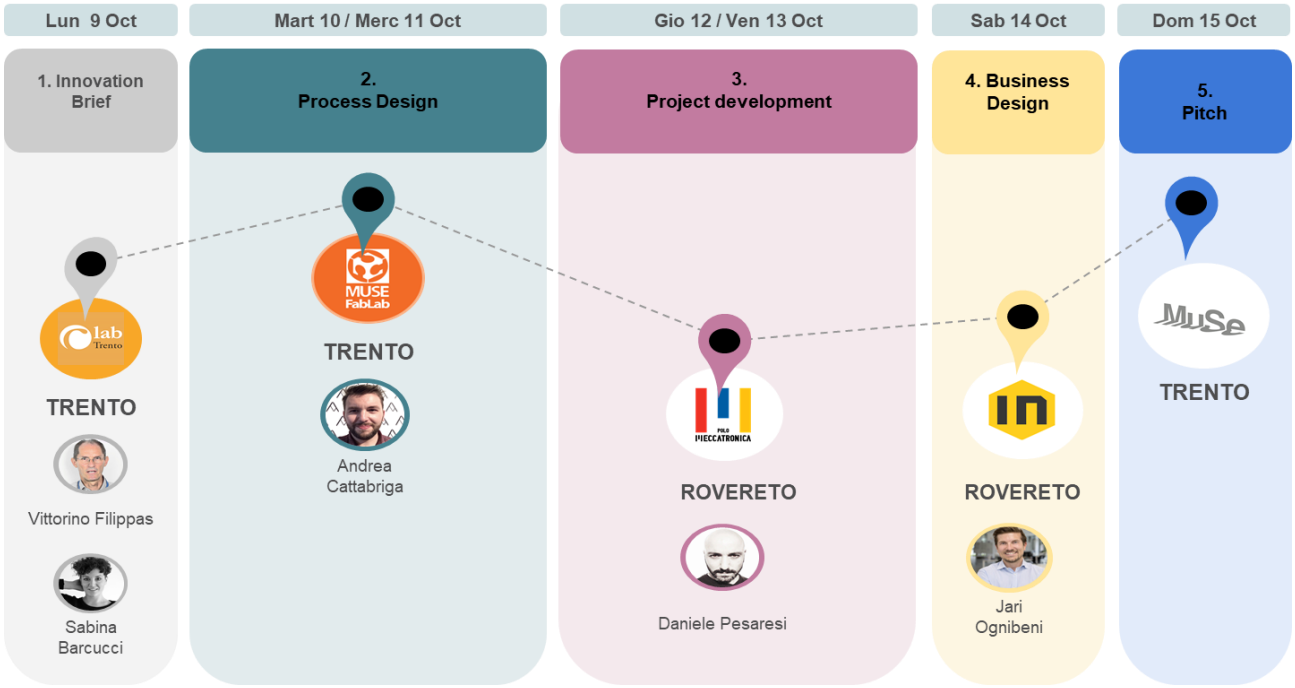
- To train people to become skilled in providing fablab-based services and products - able to address digital transformation processes - to manufacturing companies;
- Through an open innovation format, which is the process to get prototype-to-manufacturing product-service-based new business ideas accelerated through FabLabNet actions and through other local regional development pre-incubation and incubation programs;
- To be a preliminary phase of the Pilot 2: simulate - by practical and quantitative planning - the procedure, costs, business plan and steps of the actual manufacturing process based on the local

distributed infrastructure constituted by MUSE FabLab facility and the pilot partners facilities (among companies and other organizations) of the ideas developed during the Camp.

The Mentoring Program is divided in 5 phases:

1. Innovation Brief: An introductory keynote, held by a prominent personality of the international community of innovators, provides participants with a few basic notions on the ongoing digital transformation processes and their impact on the transformation chains. A brainstorming phase involving participants and companies, in which participants will define the challenges and topics for design. Multi-disciplinary design teams composed of the participants having knowledge/experience/qualification in design, technology and business development will be working together during the Digital Transformation Camp.
2. Process Design & Concept: The digital transformation process is accompanied by the assessment of technical and functional requirements, in view of the next phase of development and prototyping. Participants acquire knowledge and working methods that promote integration between knowledge and consideration, supporting development solutions that combine technology, craftsmanship and creativity.
3. Project Development & Prototyping: In the second part of the week the work focuses on the identification of the processes that lead to the development of the products and services needed to realize the process of change. This is done through the realization of prototypes and *design probes* within the real environments where transformation generates its impact.
4. Business Design: The economic model determines the economic sustainability of the solutions developed and their degree and ability to compete on a larger market and / or integrate in the production chain of the value of handicrafts. INDUSTRIO, associated partner in the project and a business developer expert, will help design teams in developing sustainability models and distribution with which to close prototype design.
5. Pitch: At the end of the work week, design teams will present the developed projects through a pitch. A jury will select the best projects for concreteness, innovation, functionality, marketability, novelty.

The Mentoring Program schematic:



4. Mentors

Mentors have been selected on CV basis, trying to respect the gender balance. They have been chosen among innovators and experts in their own domains, having in mind also the knowledge of the territory and the teaching/mentorship capabilities.

Daniele Pesaresi

Designer and creative director with 19 years of experience in companies like Frog, Italdesign Giugiaro, Design Group Italy and Flextronics with a deep knowledge of consumer electronics, bio-medical and automotive industries.

Andrea Cattabriga

Entrepreneur and Consultant on Innovation, Strategic Design and Innovation manufacturer, co-founder and chairman of Slow / d where he is coordinating of projects and research.

Jari Ognibeni

Investor, company builder and social entrepreneur, Jari is co-founder of INDUSTRY, the first hardware startup accelerator to the south of the Alps: a unique reality in its genus, which has played its part in revitalizing the manufacturing ecosystem of Trentino Alto Adige. In its first three years, Industrio has invested in 10 startups, realized two significant outflows and raised over € 2.5 million.

Sabina Barcucci

FabLab freelance expert and co-founder of MUSE FabLab, designs innovation labs and forms of open innovation that unite communities, businesses, technology, and research business development, through a creative approach and a strong vocation for the construction of large territorial relations apparatus via digital.

5. Practical informations & materials

Hours of mentorship, distribution of the mentoring sessions, salary, logistics…

List of equipment/resources needed for the Pilot…

The Mentoring program will be held in one intensive week. It will begin on Monday with lessons from 11AM to 6PM, continuing for the whole week up to Sunday with lessons from 9:30AM to 6PM.

The decision of making an intensive course was taken after evaluating the pros and cons of the two options: one intensive week or a 4 month long weekly afternoon sessions. The intensive week seemed to be more producting, helping the participants to focus on the course. It also has a practical reason, which is the travel cost optimization for both mentors and participants.

Each mentor, with the exclusion of the mentor related with the Associated Partner, received a salary ranging from about 400 to 800 € per die of lesson (8 hours), according to their previous experience.

Lessons will take place in the spaces of the Museum of Science in Trento, in its FabLab, and in the PROM and Industrio Facilities.

The participants to the Mentoring Program will have the complete access to the MUSE FabLab facility, together with the PROM and Industrio facilities.

Thus, a whole pool of prototyping equipment will be available for them:

- 3D printer
- CNC PCB mill
- Soldering stations and basic electronics
- Microcontrollers (Arduino, RaspberryPI)
- Laser cutter

Special tools were specifically acquired for the Pilot Actions:

- Sewing and embroidery machines (both for males and females, STEAM/gender balance)
- Arduino sewable Lilypad (both for males and females, STEAM/gender balance)
- Electronics and sensors
- ABS 3D printer
- 3D scanner
- Oscilloscope
- Other consumables
- Ebooks on basics electronics.

6. Participants of the Digital Transformation Camp

Description of the involved target(s) for the mentoring program, selections criteria…

Candidates were asked to answer a few questions on Digital Innovation and to link their Linkedin profiles (bio, or CV). Selection criteria (knowledge/innovative thought, digital skills, networking) were applied on the call for participants, thus allowing us grading these answers. A gender balance approach was also considered.
The participants were virtually grouped in 3 categories: the Hackers (high tech, engineers, programmers…), the hipsters (designers, creative persons, artists, communicators), hustlers (leaders, business oriented, managers). Any of the four real working teams was then constituted by persons belonging to each of these categories.

The community involved in the Digital Transformation Camp:

- Students community of Contamination Lab Trento, a University HUB devoted to business innovation
- Local Maker-community
- FabLab community from Milan, Modena, Turin and Cagliari
- University students community of Politecnico of Turin

7. Companies cooperating with MUSE FabLab supporting the mentoring program:

- Active local partners involved in the Digital Transformation Camp:
    a. KNOWLEDGE INSTITUTIONS:
    b. MUSE Science Museum
    c. University of Trento Contamination Lab - C-Lab
- PRE - INCUBATION AND INCUBATION:
    a. INDUSTRIO Venture / Hardware startup incubator
    b. The Regional Development Office / Trentino Sviluppo
- MANUFACTURING AND PROTOTYPING FACILITIES:
    a. MUSE FabLab
    b. PROM Facility (Trentino Sviluppo Facility)
    c. 3TEC Electronics / IoT production Partner company
    d. HSL / Additive Manufacturing Partner Company
    e. Navarini Rame / Copper manufacturer Partner Company