

PILOT ACTION EVALUATION

DT252 - PP10 - Partner Report on Pilot 2
FabLab 2 Industry (March/April 2018)

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1. Short overview of the Pilot Action

Start-ups face a long and difficult process when trying to transfer an idea into a product. Product ideas, innovative technology or services that can make a significant contribution in today's society often fail because of them. As an international coaching program "Fablab 2 Industry" wants to contribute in supporting great opportunities and help start-up ideas and prototypes develop into real ventures.

The participants were selected through an online National call for makers on the MakerSpace website in December 2017. We received nine applications from work groups, university teams and startups, and selected six teams that would get the opportunity to take part in the coaching program and make use of the MakerSpace workshop for four months. The program was finalized with the Fab Business events in Bratislava and Budapest in June and Tech Fest in Munich. These events gave the participants the opportunity for further coaching chances, as well as meeting executives, top venture capitalists and entrepreneurs.

1.1 Selected MakerSpace Teams

a) HelixAI

Helix AI optimizes the process of teaching the braille signs to sight impaired people by using Voice-User-Interfaces. Even an AmazonEcho can be sufficient to substitute a real person as a teacher. The AmazonEcho is connected with a BOX, which represents the HelixAI solution, and explains the letters to the person using it, also providing them with feedback.

b) Rapitag

Rapitag provides a smart anti-theft service, combining Retail 4.0 and a so called "rapitape". This works on the principle of AmazonGo, whereas it also secures theft-imposed goods and allows the customer to pay directly via an app, after which the security band on the product opens and the customer can self check-out without having to queue. Other possible operating ranges could be e-commerce and logistics.

c) WikiHouse

WikiHouse is the open source catalogue for building and designing a personal home, specialized in the area of "passive houses": energy efficient homes. WikiHouse is currently used in different parts of the world and is finding its way on the German market and opensource - movement. It brings knowledge, creativity and eco-friendliness together in one.



d) PEP Camera System

The first PEP Vision camera system contains 2 4K-Action cameras and a powerbank, which are to be placed in a completely closed plastic case in order to protect the system and to make it more customer-friendly. The capacity of the vision is a whole football field and makes the "computer vision" technology available to amateurs and upcoming professionals in football and other professional sport arts.

e) DIGIFIZ Mini

The DIGIFIZmini is a 4 digit LED display designed to fit inside the cover of unused openings in a Golf Mk2 dashboard. It has two data inputs. The primary input can be selected to be either an analog input supporting voltages and resistive sensors or a digital serial input. Using the serial input the DIGIFIZmini is able to display any data from your favorite aftermarket data acquisition systems, for example Tech Edge's WBo2, or Innovate's LC-2, wideband lambda controller. The secondary input is an analog voltage input used to control the symbol brightness.

f) EVOCASE

Evocase is a smart, individualized case, which makes it possible for the customer to purchase a case that suits one's own needs. It is built with a standard thermoformer and the inner parts are laser-cut. They put much effort into creating a positive social and environmental impact with their product and are offering many reuse and recycle options.



1.2 Areas of expertise

BUSINESS MODEL

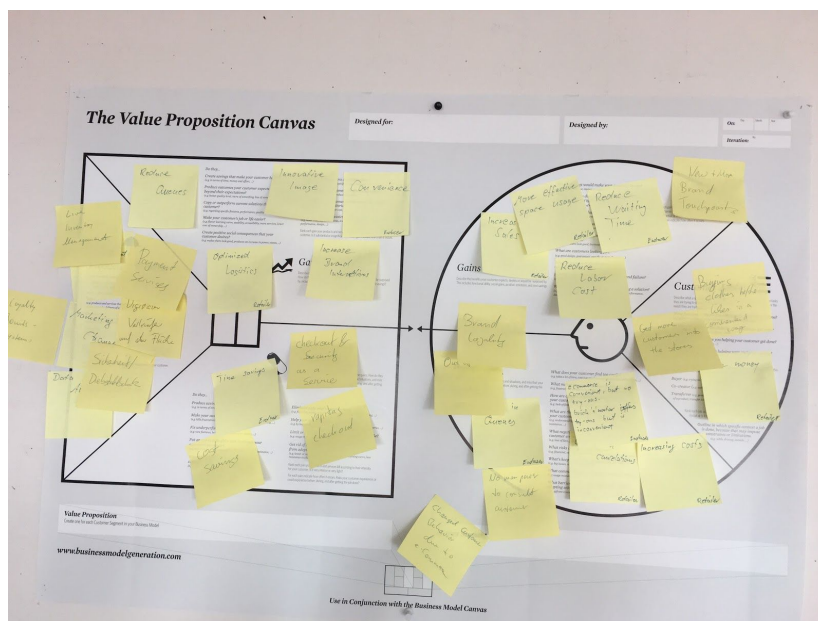
The coaches provided the participants with state-of-the-art tools to understand key development factors from idea to business, offering basic skills to govern the start of a business and its growth. The Business Model Canvas, which works in conjunction with the Value Proposition Canvas and other strategic management and execution tools, was introduced in order for the start-ups to describe, design, challenge and pilot their business models.

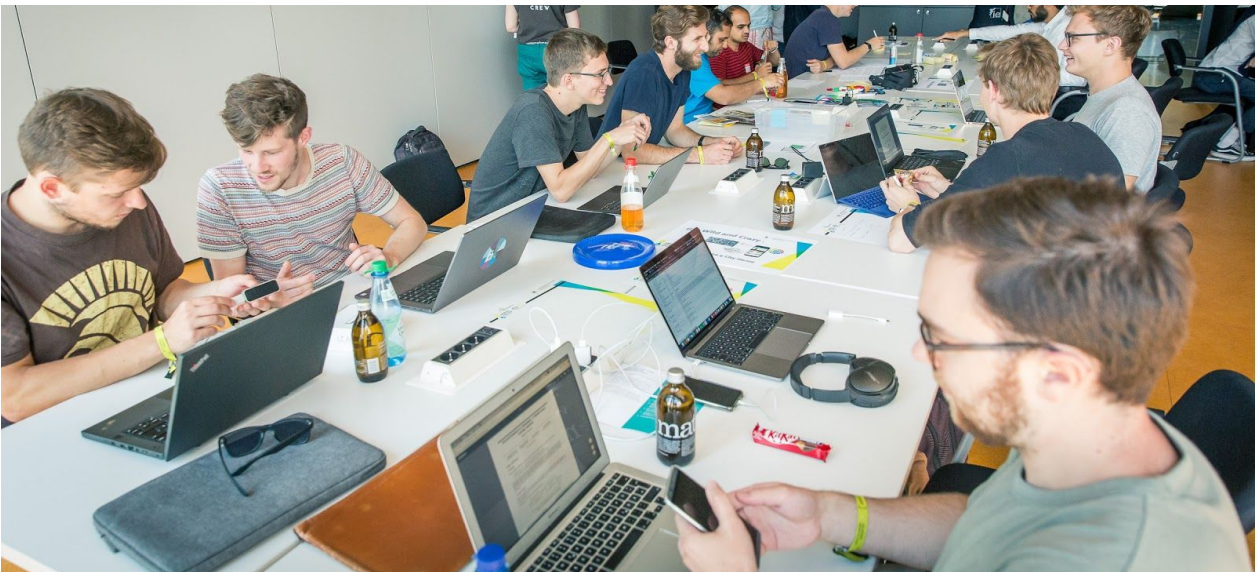
LEAN MANUFACTURING

The participants received techniques that enabled them to organize a production or manufacturing process more efficiently, effectively and profitably. Those improvement opportunities were finalized in various forms (manufacturing plans, team canvas, lean canvas, etc.).

PRODUCT DESIGN

Based on the start-ups manufacturing plans, the participants were coached in how to design user-centered, innovative products and product-service combinations based on a balance between the interest of users, business and other stakeholders. Through a design analysis the participants started to get more aware of the product components. By applying systematic state-of-the-art theories and methodologies, and by integrating user, technology and business aspects the participants were able to gain a better understanding of how to integrate all aspects in order to be a successful new product proposal.







2. Lessons learnt

2.1 MakerSpace lessons

The “Fablab 2 Industry” Pilot Action showed us the immense interest and need for fast, cheap and easy acceleration programs. We were able to extend our start-up “Hall of Fame” and develop deep relationships with the participants. With this being the first time for MakerSpace to set up a coaching program it served as a great pilot action for us in order to realize the learning opportunities and the demand for such programs.

<p>Stop Doing</p> <ul style="list-style-type: none"> ● give teams more time to find add ● marketing / recruiting through more channels ● possibility to pitch (personally, video, etc.) instead of formal application only
<p>Keep Doing</p> <ul style="list-style-type: none"> ● providing teams with MakerSpae infrastructure, skills, tools ● slack channel for communication
<p>Start Doing</p> <ul style="list-style-type: none"> ● better definition and communication of modules and according dates ● have online place for sharing and providing documents ● give start-ups more incentives and motivation to use MakerSpace facilities ● longer coaching period

2.2 lessons for participants

Through the pilot actions the participants were able to gain knowledge in different technologies, improve their product and get more structure into their concept. Especially the whole UnternehmerTUM network in which they could make interesting contacts and meet possible partners, sponsors and inspiring people, who shared their experiences. The participants were also thankful for having had the possibility to join TECHFEST, where they met many interesting people with similar background and were able to convince big companies of their products & ideas.



3. Outcomes

The participants have been able to use the knowledge of various mentors as well as the MakerSpace infrastructure (workshop, network, etc.). During the Pilot Action 2 coaching period the teams were strongly motivated and eager to learn new skills, methods, receive feedback, etc.

The coaching program introduced the participants to useful tools for the development of their idea and product:

- user centered design → balance between the interest of users, business and other stakeholders through integrating user, technology and business aspects into balanced product proposal methodology that puts the user at the center of the design.
- tools to understand the keys to development for the company, the basic skills to govern the start-up of a business and its growth
- skills for organizing an efficient, effective and profitable production and development process
- Analysis tools

4. Sustainability

The high demand for fast, cheap and easy acceleration programs among young and motivated teams, as well as their active participation during the coaching phase shows that this pilot, with all its learnings and feedbacks, should be further developed and implemented in a creative and innovative environment. With MakerSpace being part of the great UnternehmerTUM network it seems like there are already the right programs (ideas, venture capital, etc.) in place. Still it the feedback we have received calls for an easy-access program that gives the start-ups quick feedback and support.