

Roll out Strategy - PP10

D.T3.3.2 UnternehmerTUM MakerSpace GmbH

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1. Incorporation of innovative services and tools to your portfolio

1.1. Chapter 1 - Background

a) General

In 2015 our mother company UnternehmerTUM realized, Start Ups could build faster and more efficient prototypes, if they'd have their very own workshop - right next door. That's how UnternehmerTUM MakerSpace was opened as one of the first of his size - 1.500 m² workshop - with all the machines Start Ups might need for building their prototypes. With the help of different sponsoring partners and also over one million Euros of investment, the doors to MakerSpace opened for the very first time in June 2015. Not only with Lasercutters & three different types of 3D Printing, but also a fully equipped metal workshop, wood workshop, welding workshop, wet & powder coating, textile workshop, electronics lab and much more, we were able to proudly present our workshop to not only Start Ups, but also students, companies & of course private people.

Within the Interreg project FabLabNet, UnternehmerTUM MakerSpace GmbH had the opportunity to join a community of Fablabs and MakerSpaces all over Central Europe, to bring the Fablab community closer together and learn from each other. Especially the different tools provided by the FabLabNet organization, were very helpful to gain knowledge in our business.

b) Problem

One of the problems we first had was, that most of our customers were german speaking people and especially students. Being located in a international city like Munich, we wanted to get in closer touch with english speaking people and also support international schools. Besides the fact, that we didn't provide courses in English, schools usually don't own enough money to pay for the MakerSpace workshop, what we consider a very sad thing. In Bavaria many schools use outdated methods for teaching, so students barely have an idea of modern techniques like 3D printing or Lasercutting, to name only the basics. Those techniques would give them a real hands on feeling and help them get in touch with technology.



1.2. Chapter 2 - Goal and expected outcomes

a) Vision

The main vision of MakerSpace is to create a place where creativity and experience can make a perfect melting pot. A place, where an engineer who has decades of experience can work hand in hand with a first-semester student who just had an incredible idea, to create an innovative Start Up. With the many different options like different machines in the workshop, our diverse customer community, and big knowledge of all the people working here, we can provide an amazing mixture of options for all our customers. The close connection to Technical University Munich, but also big companies like BMW create an amazing mixture of innovation and knowledge. To realize this vision, we should not only get in touch with big companies and students, but also get our next generation ready and make sure, they get in touch with modern technologies.

b) Goal

Our goal is, to let everyone in our main target group, know about MakerSpace and provide tools for the target group to let their ideas become reality. Also we're trying to continue spreading the Maker Movement in Germany and Europe and help people get in touch with materials and how to use them. Within implementing the described tool, we hope to reach as many teachers as possible and help them use our techniques for their work at school.



1.3 Chapter 3 - Target groups

To get in touch with the next generation and also the international community in Munich our target group consists mainly of students and teachers from international schools in Munich, like Munich and Bavarian International School. With inviting the teachers to free courses at MakerSpace, we'll offer them a way to get in touch with our workshop and let them open up for all the possibilities here at MakerSpace.

After we already are in contact with some teachers at the schools, we decided to invite them to sign up for course vouchers. We organized some special courses in english language for different machines like 3D printing, laser cutting, wood work, metal work and electronics.

They could sign up through a google form within a fixed period. The Interreg organisation provided money to support groups with the vouchers, and pay for material and staff.

The teachers get free MakerSpace courses and access to our 1.500 m² workshop, that offers them all different types of machines and techniques like 3D printing, Laser cutting, Metal work, wood work, textiles and electronics.

Thanks to our Zeidler Foundation Scholarships all students from all schools all over Germany get free access to the MakerSpace workshop for six months and also one free course voucher. After we invited the teachers, we hope they'll also motivate their students to come work at MakerSpace.

1.4. Chapter 4 - Content of the action

We offer many of our machine courses in English language, so the teachers got the possibility of choosing from many different courses like:

- HO - 001: Wood Workshop for beginners
- LAS - 001: Lasercutting & Engraving for beginners
- TX - 001: Industrial Sewing Machines for beginners
- PRO - 001: 3D Printing for beginners (SLA)
- PRO - 003: 3D printing for beginners (FDM)
- MT - 001: Metal workshop for beginners

Each course takes 1.5 to 4 hours, regarding on the topic, and will be open for a max. of six people. Not only recipients of the ESOM vouchers will participate in those courses, but also other



customers of ours. After they completed the courses, they're allowed to use the machines themselves.

1.5 Chapter 5 - Timeline

Juli 2018: figuring out the actual idea, fixing the plan

August 2018: deciding who will be invited

September 2018: sending out the invitations & starting the google file
https://docs.google.com/forms/d/e/1FAIpQLScuhXNPXSQt_nPp0cljUfx4ovB5lRHI9rdDk1m5iuEAZ1ACDw/viewform

The FabLabNet partnership is proud to open the enrollment to its High Level Training "European School of Makers" (ESOM), an high profile set of courses specifically designed to share the capacities developed within the FabLabNet project to a wider public of professional, following the project philosophy of making Central Europe more competitive by unlocking the innovation capacity of Fab Labs.

You can apply to one course per person for free!

After three years of working together in capacity building through open innovation, MUSE FabLab (Italy), HappyLab (Austria), FabLab Budapest (Hungary), UnternehmerTUM MakerSpace GmbH (Germany), Vysoké učení technické, Brno (Czech Republic), Agencja Rozwoju Regionalnego S.A. Bielsko-Biala (Poland), RogLab (Slovenia), Centrum vedecko-technických informácií SR (Slovakia), and FabLab Hrvatska, udruga za promicanje digitalne fabrikacije (Croatia) are ready to share their best practices and experiences with professionals all over Europe in the field of Digital Fabrication, STEAM (Science, Technology, Arts, and Mathematics) Education, and Open Innovation.

Each course is based on a particular aspect that the FabLabNet developed in the course of the project, and will be appealing to different professionals in the field of digital fabrication (e.g. FabLab managers), STEAM Education (teachers of primary and secondary schools), and Open Innovation (researchers, inventors, artists and entrepreneurs).

Following the next steps, you can submit your official application to participate to the "FabLabNet European School of Makers" promoted by UnternehmerTUM MakerSpace as part of the FabLabNet European project High Level Training - European School of Makers.

We assure the collected information will be completely confidential according to the GDPR (EU) 2016/679.

The person in charge of data processing is the General Manager of the UnternehmerTUM MakerSpace GmbH Dr. Dirk Rossberg. The contact person to ask for any changes and / or deletion is info@maker-space.de.

Further information: <http://www.fablabnet.net/european-school-of-makers/>

* Erforderlich



December 2018: ending the sign up process & sending out vouchers to the people who signed up
January - June 2019: people choose their courses, sign up for them and participate

1.6 Chapter 6 - Budget

The budget is around 10.000,- € of which part comes from Interreg and part from MakerSpace. This budget will be split between the organization team & the education team that was teaching the classes. A part will also be used for buying material necessary for the courses.

1.7. Chapter 7 - Assessment of the environment

HE LPF UL	Strengths: <ul style="list-style-type: none"> - big network - employees and customers of international origin - very well equipped workshop - 	Opportunities: <ul style="list-style-type: none"> - next to TU Munich - Maker Movement is not so big in Germany, yet - attractive concept for companies
HA RM FU L	Weaknesses: <ul style="list-style-type: none"> - target group is too big - internal communication - 	Threats: <ul style="list-style-type: none"> - competitors are growing - lack of staff - lack of money
	INTERNAL	EXTERNAL



1.8 Chapter 8 - Advertisement

The target group will be encouraged with mostly e-mails. After we already were in contact with most of them, we don't have huge problems getting in touch. Hopefully the target group will start doing more projects in MakerSpace after they attended the courses.



3. Strategies to target policy makers to spread Fablabs nation-wide

3.1 Chapter 1 -Background

Because of our connection to UnternehmerTUM who strongly works together with different policy makers, we already got some attention by different politicians from all kinds of parties.

Attention is great, but we could still use some more support. Not only moneywise but also to spread the maker movement and get people to know about us.

After FabLabs are not only great for realizing your idea, but also to get people together and realize ideas that are great for the economy and environment, it would be great to get more politicians to MakerSpace.

3.2 Chapter 2 - Vision and mission statement

Supporting social projects, artists, schools and students with memberships & material and this way help people to get better knowledge in technical things.

3.3 Chapter 3 - Action

Through our participation in the Interreg Project we hope to get some more attention by public and politics towards MakerSpace and the work we are doing here. Besides the normal customer groups like private people and companies, we also support groups who might not be able to pay for the membership themselves. With the support of bigger companies and foundations like Zeidler, we are happy to provide free memberships for students from all over the world for at least six months.

In the beginning of 2019 we started working together with the Ministry of Culture in Munich to support local artists. The ministry and MakerSpace called out to different people applying with their art project and chose four winners. Each of the winners will get one month of free access to the workshop and 150,- € he / she can use for buying material or booking courses.



3.4 Chapter 4 - Stakeholders and target groups

As written above, the best partners for actions like this are the ministries for culture & arts. They are always looking out to support local artists and help them realize their ideas. We contacted the ministry for culture in Munich and told them we'd like to support some local artists and let them use MakerSpace. The first contact was in June 2018, so it took us a while, to realize the idea, but in December 2018 we finally made the call and posted in on the website of the city of Munich and also on MakerSpaces Facebook channel.





More than 50 artists applied and in March 2019 the final competition took place. A Jury of 5 people got to choose six artists to win MakerSpace memberships & courses. The artists will start using MakerSpace in May 2019 and we are looking forward to see what they are realizing in our place!

Asides that, we decided to support the BREAKOUT action. Students from universities all over Europe try to travel as far as possible with no money within 36 hours. Their goal is to raise money for different non profit organizations. This year they want to support a organization, that helps building schools in third world countries.



Worum gehts?

In 36 Stunden. Zu zweit. Ohne Geld. So weit weg wie möglich. Für einen guten Zweck.
Von 14. Juni 2019 9:00 Uhr bis 15. Juni 2019 21:00 Uhr

BreakOut ist eine Mischung aus Reiseabenteuer und Spendenmarathon. Einmal im Jahr gehen die Teilnehmer in Zweiertteams in München, Berlin und Köln an den Start. Sie haben 36 Stunden Zeit, so weit weg wie möglich zu reisen. Und dürfen dabei kein Geld für die Fortbewegung ausgeben. Auf dem Esel, Fahrrad, zu Fuß, im Auto, mit der Bahn oder im U-Boot reisen die Teams für den guten Zweck durch ganz Europa. Das Ganze basiert auf der Idee eines Spendenmarathons: Vor dem BreakOut sammeln die Teams Unterstützer, die dann für ihr Team pro gereistem Kilometer spenden. Teamunterstützer können Freunde, Verwandte und auch Unternehmen sein. Und damit die alle live bei den Abenteuern dabei sein können, teilen die Teams Fotos und Videos über die Break-Out App. Die Spenden gehen zu 100% an Zeltschule e.V. (2018 kamen knapp 70.000€ zusammen).

Organisiert wird der BreakOut von einem dynamischen Team aus rund 50 jungen Ehrenamtlichen. Anmelden kann sich jede Person über 18 im Zeitraum von 02. April 2019 bis 22. Mai 2019. [Hier gibts noch mehr Infos.](#)

MakerSpace is planning to support them with gym bags they might need on the road. Asides supporting a social thing, we also hope to get some more attention by politics and other people.



3.5 Chapter 5 -Policies targeted

It would make sense to choose national, or even regional policy makers, because they would be more interested in local topics, than EU policy makers.

There are no special policy papers I would choose for the action.

3.6 Chapter 6 - Recommendations

We recommend first looking at your close environment, to make connections to politics. Some members of your business might be already in contact with some politicians and can help you get in touch. If you support social projects, this will more likely keep an public eye on what you're doing.

3.7 Chapter 7 - Financial sustainability and resources

Luckily we'll be able to finance the operations with support of our own sponsors and members. After MakerSpace is a profit organisation, we have own capital to support social projects as well.