

# FabLab Management Platform (FMP)

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DT1.3.5 - Report on the FabLab  
Management Platform

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Version 1  
Jan 2018





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## 1. Introduction

The question about what everybody considers a „FabLab Management Platform“ has extensively been discussed in various meetings, Skype conference calls and mails and has resulted in two different viewpoints among the PPs. There have not been other deliverables in this project, up to this point, that have been discussed as often and intensely about its interpretation as DT1.3.5 (starting point at the Thematic Meeting in Budapest in March 2017).

1. based on the results of deliverable DT 1.3.4 „Exchange of used FabLab Management Practices and Tools“, the „FabLab Management Platform“ FMP ought to enable an advancement that will create true additional value for the FabLab owners. This interpretation has been supported by the results of DT 1.3.4 (as well as DT 1.3.1 and DT 1.4.4) which show that almost all FabLabs are using tools that are not considered as efficient or appropriate.
2. the second interpretation was focused on the advantage that could be created for FabLab users. In that context the „FabLab Management Platform“ FMP is rather considered as an informational and organizational online tool which would allow for Makers to internationally use the other PP's offerings or how international users could be connected. Ideas came up about creating a Maker-Pass or a Maker-Visa, like in the Coworking scene.

Based on the outcome of DT1.3.4 „Exchange on FabLab Management Practices and Tools“, DT1.3.1 „FabLab best Practices“, DT1.4.4 „SWOT Analysis“, as well as an analysis on existing tools (including a survey on what tools are currently used by the Project Partners), that we conducted as part of the DT1.3.5 deliverable, we found out that tools which are used by the partners for the management of FabLabs are not as sufficient as they could be. We identified typical tasks, which are common in every FabLab and Makerspace. We expect an enormous increase of efficiency by supporting the following tasks through using a tailored software solution:

- Member/Client Management & Member billing system
- Access / Door Control System (to let members in even outside the official opening hours)
- Machine access system (to ensure that only introduced members can use machines accordingly)
  - o Machine security control (e.g. to avoid fire in a laser cutter by ensuring that user keeps his eye on the machine)
- Machine Reservation System



- Event Management Support (like Newsletter tools - directly linked to the member database).

Together with the above listed improvement ideas, a FabLab Management system can benefit from a wide range of existing tools for ameliorating and enhancing the FabLab network:

- Sharing ideas and knowledge
- Discussing
- Working together and sharing documents
- Sharing relevant information and communication
- Promoting events and informing the wide audience
- Sharing relevant documents to the wide audience

## 2. Results of the survey

The survey shows that most of the participating FabLabs see potential for efficiency and management improvements through the implementation of a FabLab Management Tool.

**Could a "Member or Client Management Tool" be helpful FOR YOU and YOUR LAB to manage your members, their addresses, emails, account and other data?**

9 Antworten

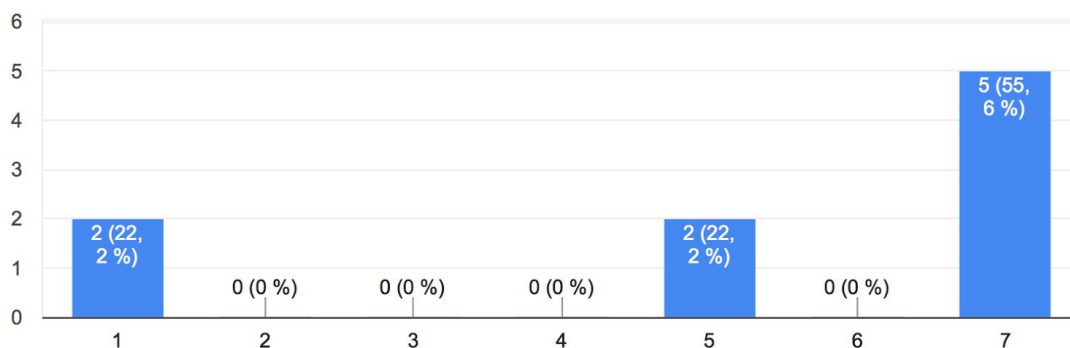
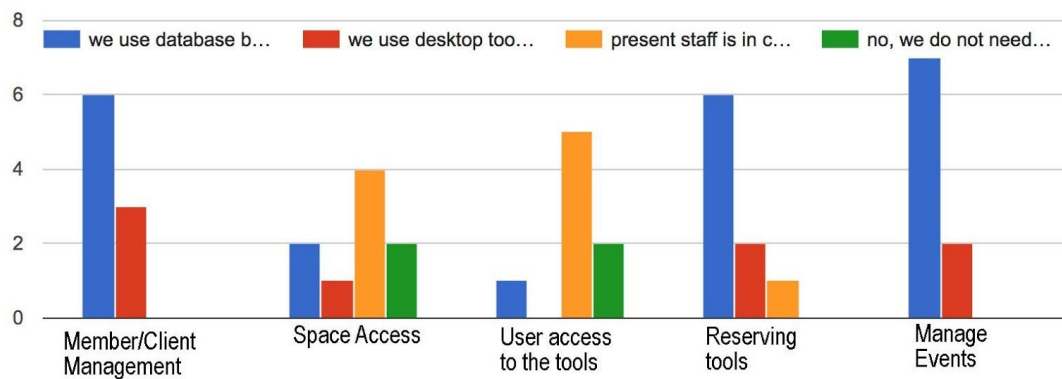


Figure 1: Member or Client Management Tool



### How do you handle the following tasks in your Lab today?



### Are you content with your actual solution for...

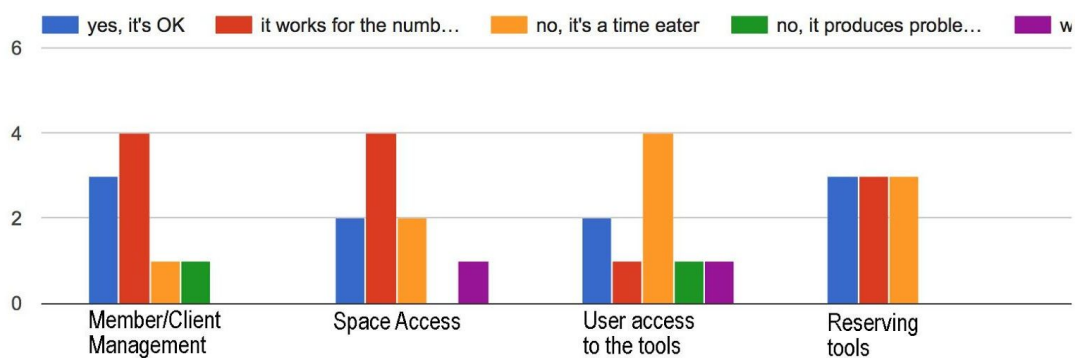


Figure 2: Current Management Tool Situation



## Clients

The survey showed that most of the participating spaces range between 100m<sup>2</sup> and 300m<sup>2</sup> with between 30 to 100 clients/ members. 5 of the participating FabLabs said that, on an average day, there are up to 10 visitors coming to look at their workshop premises. The average makerspace in this project has zero to 10 paying members per month, with one participating makerspace having up to 1.800 monthly paying customers.

### How big is your space in square meters?

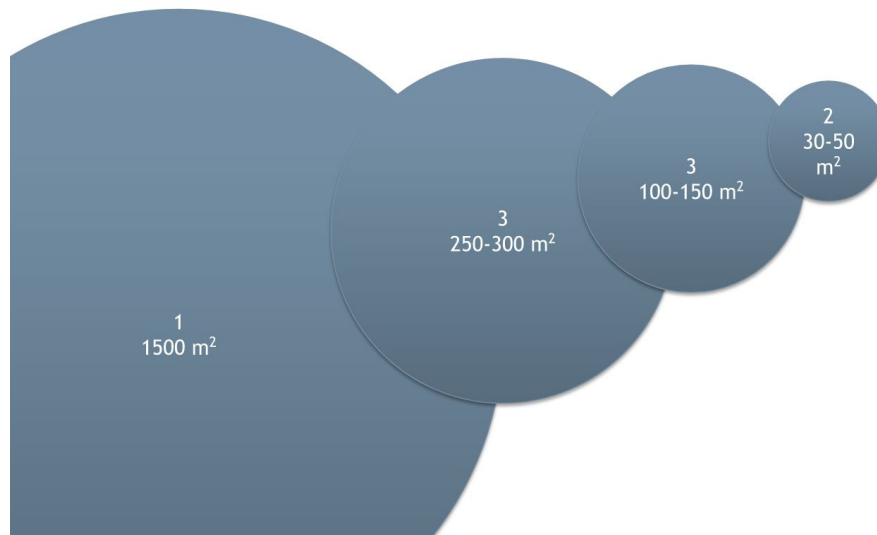


Figure 3: How big is your space in square meters?

### How many active user/ "clients"/ members has your FabLab?

"active" means users who come regularly to your Lab over a longer period of time.

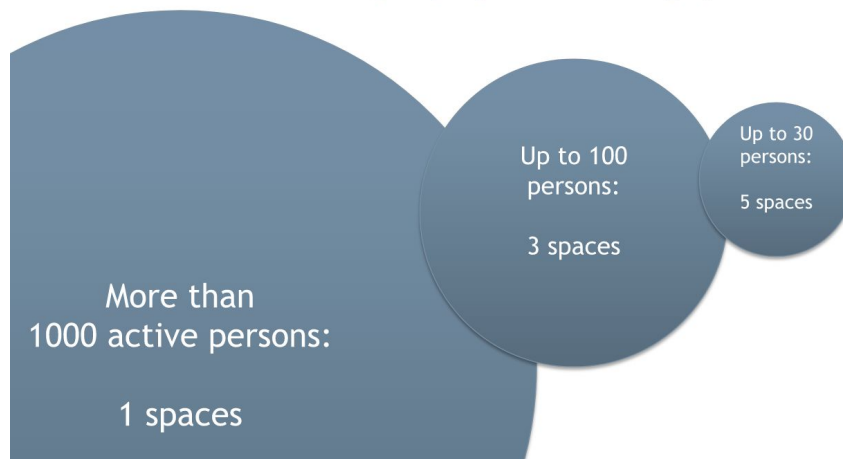


Figure 4: How many active users?



How many people are visiting your space on a “normal” - which means “average” - day?

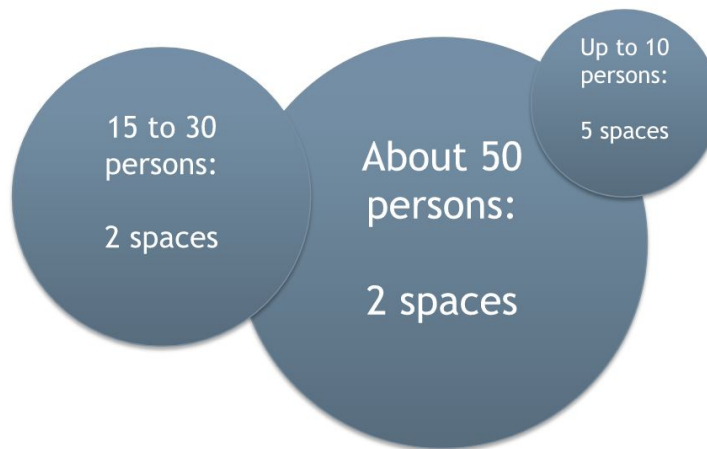


Figure 5: How many visitors?

How many monthly paying user/ "clients"/ members has your FabLab?

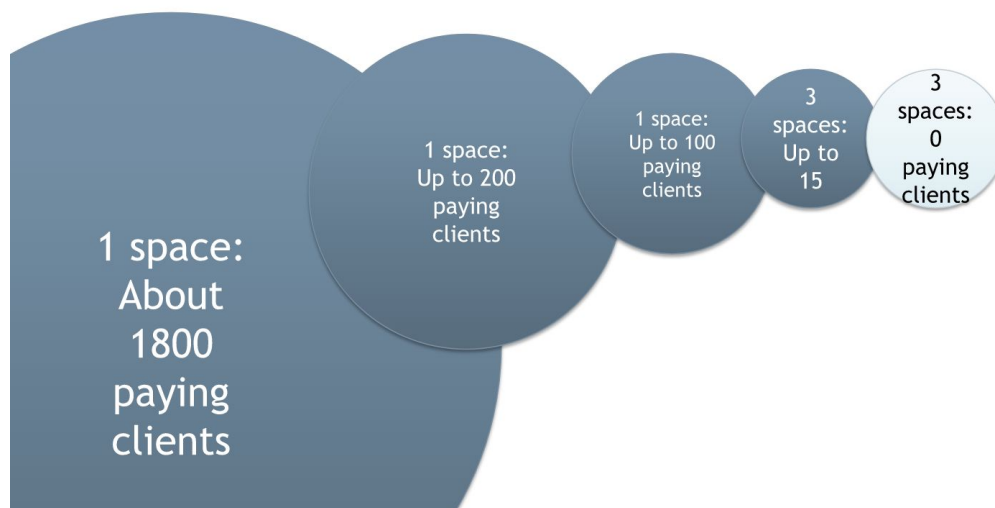


Figure 6: Clients. How many monthly paying customers?



## Door Policies

The next question was aimed at finding out the FabLabs/participating partner's security requirements towards the system. With the majority of the makerspaces being open to the general public it is important to be able to control access to the premises. There is also a need for the attribution of roles/ access authorizations due a diverse membership composition.

### “Door policies”

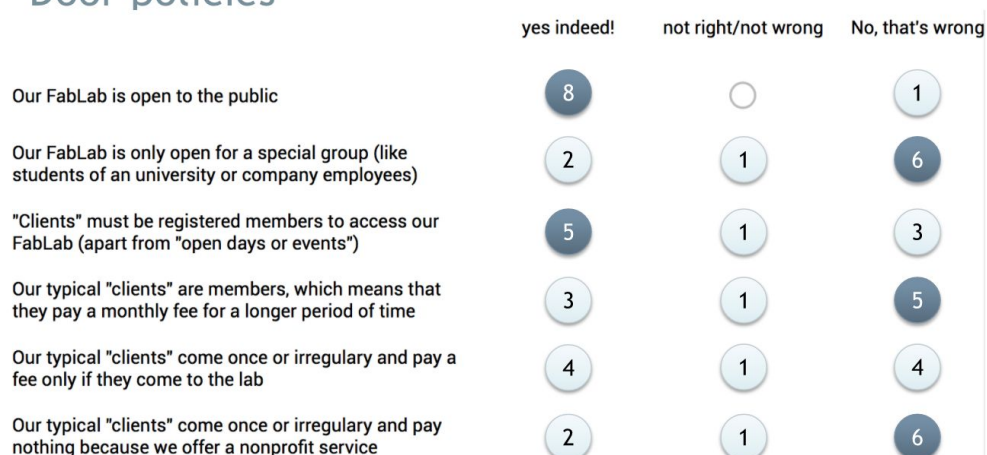


Figure 7: Door Policies

Could a "Door Control System" be helpful FOR YOU and YOUR LAB to give your members access to your space and give you information about who is/was in?

9 Antworten

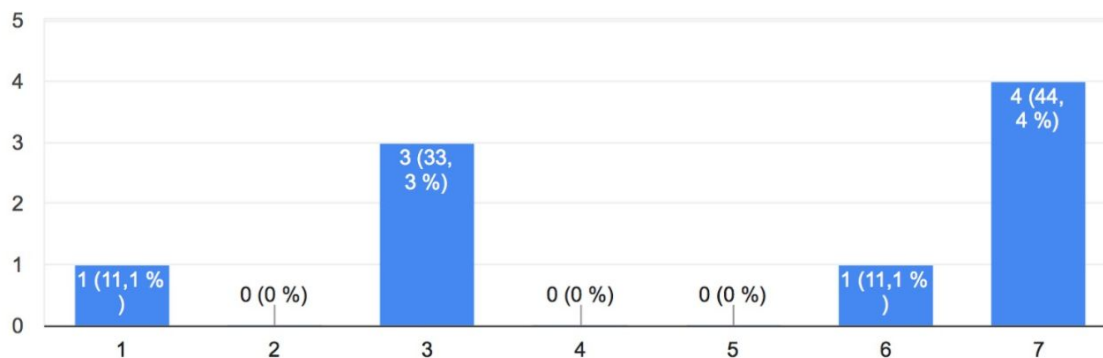


Figure 8: Door Control System

## Accessibility & Openness

There is a need for “supervision”/ staff members to be around the members for assistance/ machine handling/ etc. Most of the participating FabLabs require preceding foundation courses in



## “Accessibility & Openness”

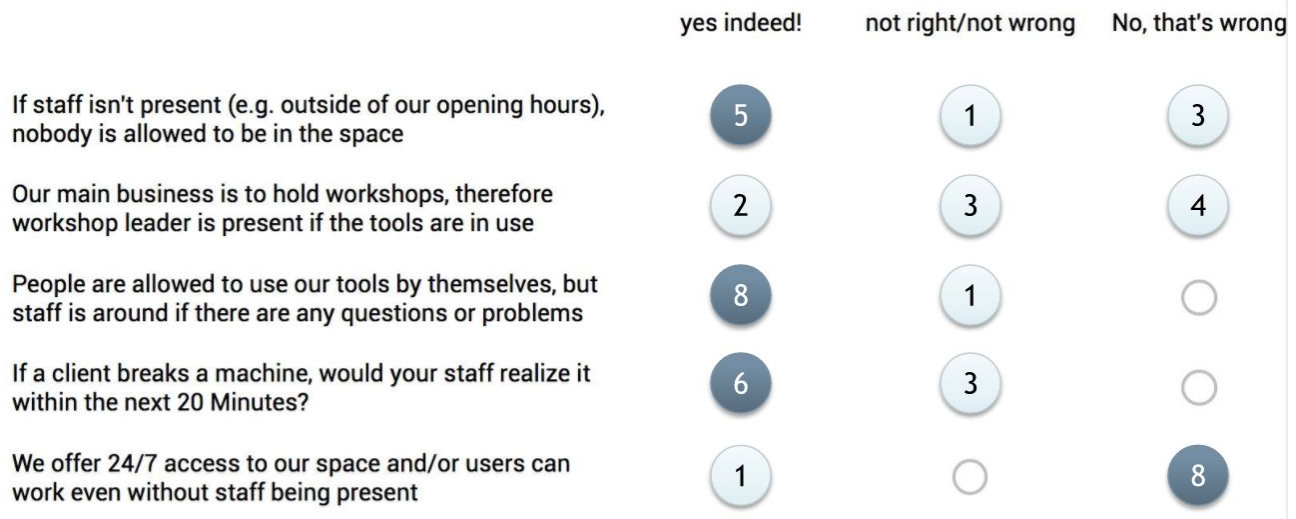


Figure 9: Accessibility and Openness

## Use of machines

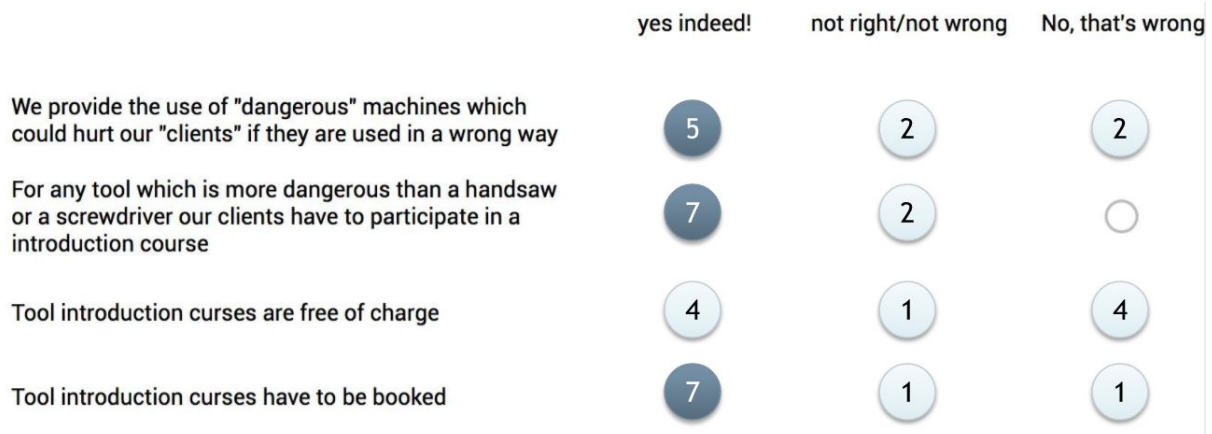


Figure 10: Use of machines



Could a "Machine Access Software" be helpful FOR YOU and YOUR LAB to make sure that only persons who are familiar with a specific machine can use it?

9 Antworten

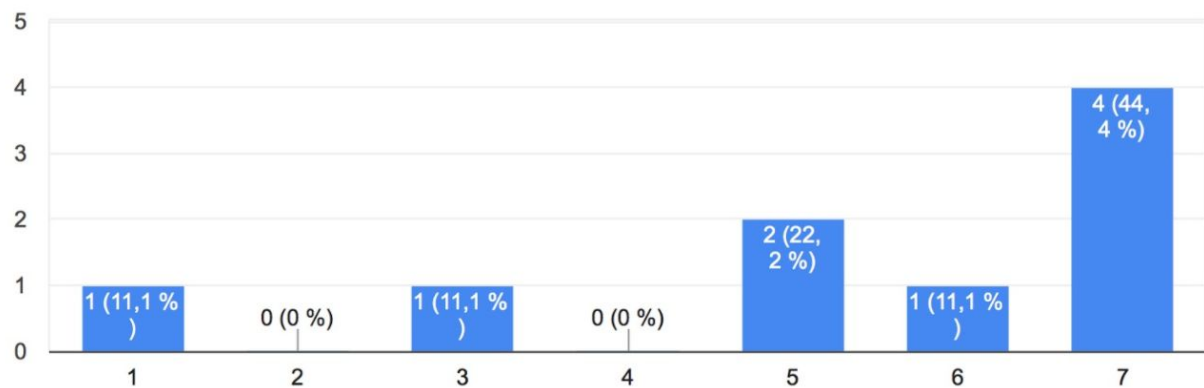


Figure 11: Machine Access Software

Could a "Machine Reservating Software" be helpful FOR YOU and YOUR LAB to inform your users when a machine is free to use to avoid "traffic jams" and unhappy users?

9 Antworten

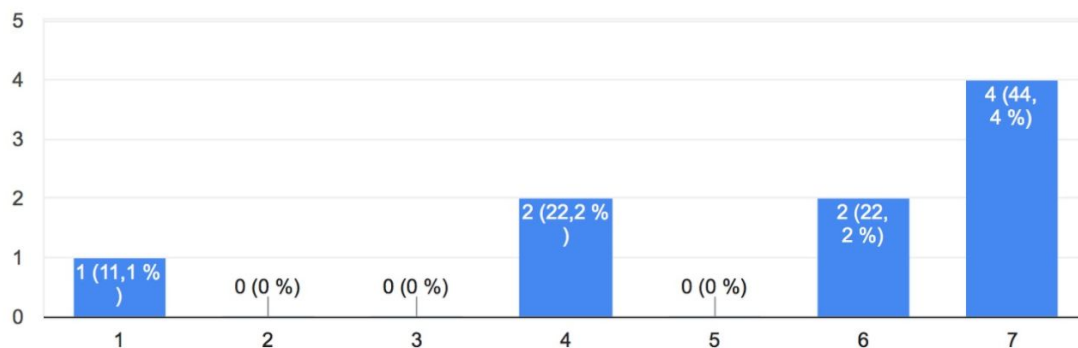


Figure 12: Machine Reservation Software

### Events and Community Building

The survey shows that FabLabs consider events an important means of recruiting and bringing together their community. Most of the participants see an assisting role in an "Event Reservation Software" in order to better organize those events.



## Community Building

	yes indeed!	not right/not wrong	No, that's wrong
Do you know at any time, who is in your space?	7	2	0
Fostering our local "Lab-Community" is very important to us	8	1	0
Events are very important to us to find new "clients"/members/users	7	2	0

Figure 13: Community Building

Could an "Event Reservating Software" be helpful FOR YOU and YOUR LAB, which helps you to keeping on track of who will come to your event or lesson?

9 Antworten

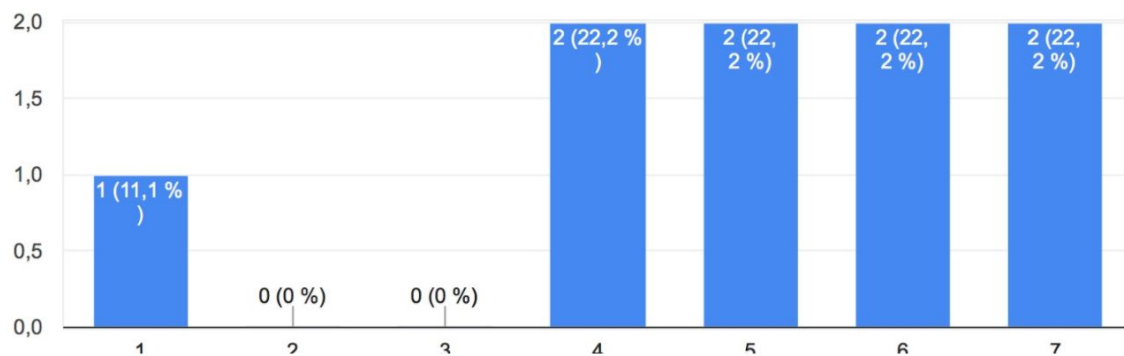


Figure 14: Event Reservation Software



## How good do the features of Fabman fit your needs?

9 Antworten

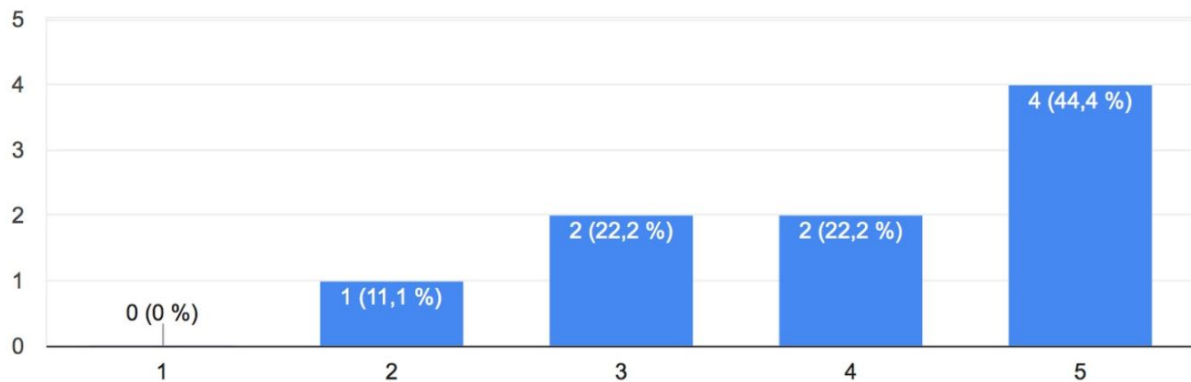


Figure 15: Fabman

All PP FabLabs will intensively participate in a year-long process to gather and exchange knowledge and experience in connection with the Fabman solution.

## 3.Available tools

### 99 Useful Tools for Makerspaces, Fablabs & Coworkingspaces

Coworking and Fablab Management Systems			
1	Cobot	<a href="https://www.cobot.me/">https://www.cobot.me/</a>	Full Service solution for Coworking spaces
2	Copass	<a href="https://copass.org/">https://copass.org/</a>	Coworking Pass - Many space community
3	Deskttime	<a href="https://deskttime.com/">https://deskttime.com/</a>	Time tracking solution / Productivity analyser
4	Fabman	<a href="http://www.fabman.io/">http://www.fabman.io/</a>	Full Service solution for FabLabs and Makerspaces
5	HappyDesk / WUN	<a href="https://www.happydesk.com/">https://www.happydesk.com/</a>	Coworking intermediary USA
6	LiquidSpace	<a href="https://liquidspace.com/">https://liquidspace.com/</a>	Coworking intermediary USA
7	NadineProject	<a href="http://nadineproject.org/">http://nadineproject.org/</a>	web application to help manage membes in a coworking space
8	NearDesk	<a href="https://www.neardesk.com/">https://www.neardesk.com/</a>	Coworking intermediary UK
9	Nexodus	<a href="http://coworking.nexodus.com/en">http://coworking.nexodus.com/en</a>	Full Service solution for Coworking spaces
10	MindBody	<a href="https://www.mindbodyonline.com/">https://www.mindbodyonline.com/</a>	Full Service solution for any businesses
11	Office R&D	<a href="https://officernd.com/">https://officernd.com/</a>	Full Service solution for Coworking spaces
12	ShareDesk	<a href="https://www.sharedesk.net/">https://www.sharedesk.net/</a>	Coworking intermediary Worldwide
13	Skedda	<a href="https://www.skedda.com/">https://www.skedda.com/</a>	Free Venue Booking
14	WildApricot	<a href="https://www.wildapricot.com/">https://www.wildapricot.com/</a>	Member Management Software
15	YouCanBook.me	<a href="https://youcanbook.me/">https://youcanbook.me/</a>	Online scheduling / online booking
16	Zoho	<a href="https://www.zoho.eu/">https://www.zoho.eu/</a>	Full Service solution for any businesses

Figure 16: 99 Useful Tools Excel List

With the development of a tailored software solution for this project being too extensive the focus has been shifted to already existing management tools. There has been extensive research on existing tools that were compiled in the following list, which shows an extract of useful tools for makerspace, FabLabs and co-working spaces. This was presented to the partners at the Thematic Partner Meeting in Bratislava in September, 2017.

The research (Excel list) in combination with the survey results show that there is a great variety



In order to find the best possible solution for the deliverable there was a tender offer started for the month of November. The tender was not looking for the development of a new software solution, but an already existing solution that could be adapted to our requirements fast and easy.

The objective of the tender was the provision of a „FabLab Management System“ through the contractor that will help with the management of the FabLabs, MakerSpaces, their community and their machine parks. The main partner for the contractor to test will be UnternehmerTUM MakerSpace in Garching near Munich/ Germany. Testing will include around 500 members and around 40 machines (currently: 38). The testing intensity will vary with other partners of the project. It should be possible for the other partners to, in addition to the general provision of the software solution, manage at least one machine/device with it. For more information see document “Public Tender for FMP - English”.



## 4. Concept of the FabLabNet Management Platform

Discussions, research and the survey results show that the application of a combined/ modular management tool-set seems to be fitting the requirements by the FabLab participants. The modular approach will consist of a combination of various reinforced “best-practices” by the participating FabLabs and the implementation of Fabman as an external software solution for machine access, maintenance, etc.

This said, the concept of the FabLabNet Management Platform is schematized in the following table. The Platform is modular with each FL being able to participate in the parts/modules they are interested in.

	Tool	Commercial name	Purpose	Target	Cost (€/year/ partner)
<input checked="" type="checkbox"/>	Web-based FabLab door and machine interlocks, reservation and billing system	FabMan	Member Management, billing, Lab & Machine booking, access & Security	FL members	400 to 2000
<input checked="" type="checkbox"/>	Online repository on repair, hack, fix, mod, coding	Instructables, GitHub, IFixit	Sharing ideas and knowledge	Wide public & FLN network	0 to 30
<input checked="" type="checkbox"/>	Conference call software	Skype	Discussing and planning	FLN network	0 to 50
<input checked="" type="checkbox"/>	Online workspace and cloud-based archive	GDrive suite	Working together and sharing documents	FLN network	0 to 25 or more
<input checked="" type="checkbox"/>	Online PM software	Asana	Working together and sharing deadlines, tasks	FLN network	0 to 1000 or more
<input checked="" type="checkbox"/>	Newsletter	Mailchimp	Sharing relevant information	Wide public & FLN network	0 to 200



<input checked="" type="checkbox"/>	Mailing list	Googlegroup	Sharing relevant information and communication	FLN network	0
<input checked="" type="checkbox"/>	Social Media	Facebook, YouTube, Instagram, Twitter	Promoting events and informing	Wide public & FLN network	0
<input checked="" type="checkbox"/>	Online depository website	FLN library	Sharing relevant documents	Wide public & FLN network	0
<input checked="" type="checkbox"/>	Low cost accomodation exchange	home exchange / guest2guest	Human mobility	FabLab staff (mentors)	0
<input checked="" type="checkbox"/>	Low cost accomodation exchange	workaway wwoofing vulca.eu	Human mobility	FabLab users	0
<input checked="" type="checkbox"/>	Chat channel	Mattermost, Slack	Fast information exchange, community involvement	FLN network	0 to 600
<input checked="" type="checkbox"/>	Trading tool/Counting /motivating exchanges	<i>new</i>	FabCoin: own crypto value or Smart Contract - blockchain technology	FLN network	0

Figure 17: FabLabNet Modular Management Platform