



Best Practice: Prototyping Service at Innovation Space







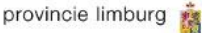
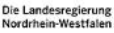

Best practice implemented at Eindhoven University of Technology

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The best practice Captured in a Business Model Canvas

 <h2 style="text-align: center;">Best Practice: Prototyping</h2>				
<p>Key resources /activities:</p> <ul style="list-style-type: none"> ▪ Assembly halls ▪ Prototyping workshops ▪ Knowledge and how-to support 	<p>Critical success factors:</p> <ul style="list-style-type: none"> ▪ Providing tools not found in other departments ▪ Interdisciplinary approach ▪ Collaborations with companies ▪ Collaboration with EPC (experience on experimental research set-ups) 	<p>Value proposition:</p> <ul style="list-style-type: none"> ▪ Students <ul style="list-style-type: none"> ○ Space ○ Equipment and tools ○ Workshops ○ Advice and support ○ Know-how ▪ Teachers <ul style="list-style-type: none"> ○ Support for courses ○ Space and lecture rooms 	<p>Customer management</p> <ul style="list-style-type: none"> ▪ Teachers and courses ▪ Website ▪ Social media ▪ Intro week ▪ Open days ▪ Prototyping activities 	<p>Target group:</p> <ul style="list-style-type: none"> ▪ Students BSc and MSc <ul style="list-style-type: none"> ○ Innovation Space courses ○ Student teams ○ TU/e ○ Other institutions
<p>Costs 5 Employees</p> <ul style="list-style-type: none"> • 1 Lead • 2 Technical coordinators • 2 Office managers • Assistants 			<p>Revenues Budget from TU/e</p>	
       				
<p>Case selected from Innovation Space – Eindhoven University of Technology</p>				

The Value Proposition

Practical description

The prototyping services are part of the TU/e Innovation Space. TU/e innovation Space is the center of expertise for challenge-based learning and student entrepreneurship at TU/e, a learning hub for education innovation and an open community where students, researchers, industry, and societal organizations can exchange knowledge and develop responsible solutions to real world-challenges.

To support student and teacher in achieving this mission, a wide range of prototyping support is available at TU/e Innovation. They provide students with unique and diverse equipment and techniques appropriate for interdisciplinary education. The facilities were established by identifying needs for courses and challenges and by considering what other departments lack. As such, they help the students to work on prototypes without having to invest in materials themselves.

Anik Jacobsen Co-founder of CU/p: innoSpace is an awesome place for open-minded innovators and students who want to become such. I received a lot of support from the community and staff to start my own project and not be afraid of challenges. The space itself invites for creative working sessions and provides a lot of prototyping opportunities. Of course, the network to like-minded students, staff and stakeholders was wonderful and the vivid exchange always sparked new ideas.

The Target Group

The initiative is aimed towards students at the Eindhoven university of technology either BSc or MSc, less frequently PhD. Students from other institutions of the region are also included however there is a clear priority which is as follows:

- Students following innovation space courses
- Students from innovation space student teams
- Students from TU/e
- Students from other institutions

The need for prototyping and idea testing support is the highest in the validation stage. This makes perfect sense as this is the stage where student entrepreneurs seek validation for the solution they have developed, not only from a technical point, but also product-market fit. Figure 1 confirms this. Subsequently figure 2 demonstrates that prototyping / idea testing is the second most desired support in the validation stage by entrepreneurial students (according to a survey among 200 entrepreneurial students).

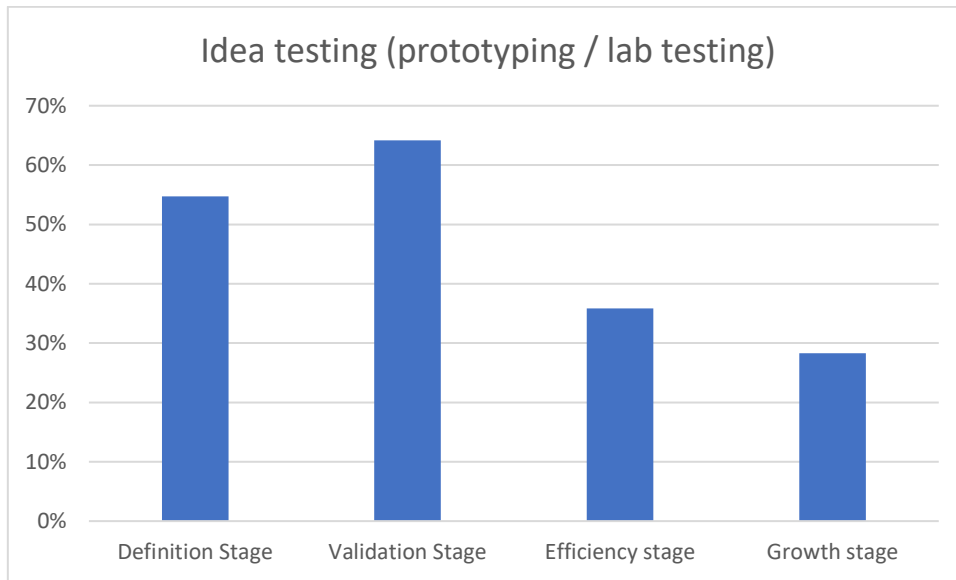


Figure 1: Desire for prototyping / idea testing support over the different development stages.

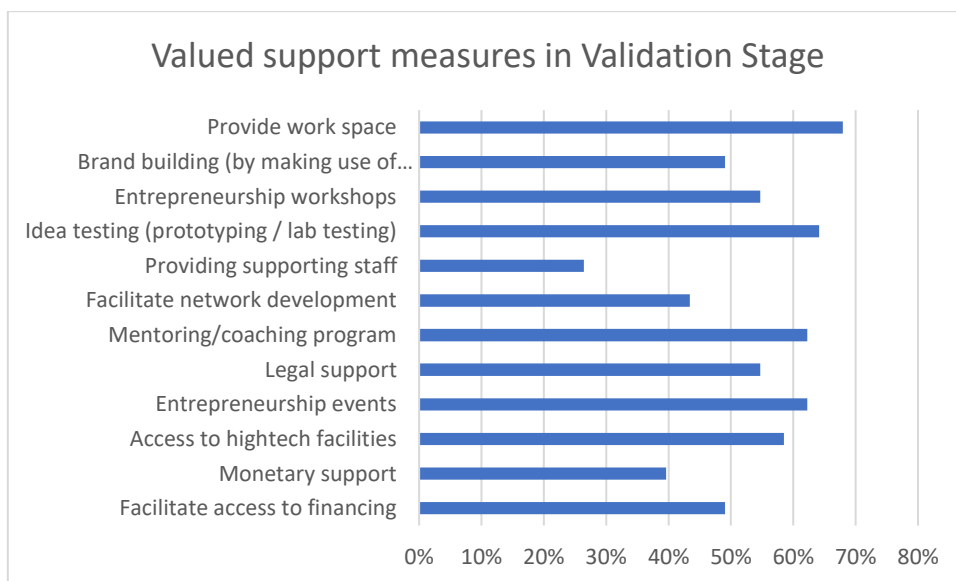


Figure 2: Desire for different support measures in the Validation stage

How to Reach the Target Group

In order to reach students, innovation space promotes its prototyping facilities through teachers and courses taking place on other departments, prototyping activities as well as during the Open Days and the annual intro week when many prospective students visit the university. On the digital side there is an info-sheet available, a website, social media channels and a newsletter.

Project teams, part of the innovation space, get occasional visits from technical coordinators in order to be kept up to date with the available offering and also, they are reached electronically through email and slack.

Organizing for Delivery of the Value Proposition

The innovation space offers prototyping facilities which include the office, building, technical facilities and support. Furthermore, it offers workshops and aims to set up collaborations with third parties

TU/e Innovation Space collaborates closely with other research groups and departments from the university as well as the Equipment and Prototype Center. The collaboration with the Equipment and Prototype is particularly relevant and they already had a huge amount experience in developing prototypes for scientific experiments. Besides various collaborations within the TU/e, TU/e Innovation Space also collaborates with educational organizations from the region such as SUMMA College and external companies.

The success of TU/e Innovation Space lies in the interdisciplinary approach that has shaped their offerings. The equipment and tools provided are selected based on what other departments lack and on the observed collective needs. This creates a an offering that can't be found anywhere else and that can be widely used.

The prototyping / idea testing support is organized in three clusters:

- Two assembly halls are available to the students to support their prototyping: The heavy assembly hall is used for courses and temporary experimental settings, 3D printing, soldering and testing components as well as PCB boards. Access to the heavy assembly hall is highly regulated. This is in contrast to the light assembly hall which is freely available when not used for education purposes. This is the place to be to work on your proof of concept with basic tools which can be collected at the service desk.
- TU/e Innovation Space provides students with possibility to work on prototypes with support of experienced staff in dedicated workshop rooms. Three workshops are available: mechanical workshop (to build mechanical prototypes using different types of materials and machines such as sawing, milling, lathing, welding), modelling workshop (here students can shape their prototypes and give it a finishing touch by making use of tools for laminating, spray painting, sanding, grinding), clean workshop (casting silicone and electrical battery storage)
- Dedicated personnel is available to assist the student with their expertise knowledge and how-to support

The financial Side

The main costs include the personnel needed to facilitate this, the resources cluster and the assistants, prototyping machines, tools and supplies. Costs are covered by internal TU/e budgets as well as public money from grants and subsidies.

More information

The websites:

<https://www.tue.nl/en/tue-campus/tue-innovation-space/about/facilities/>

<https://www.tue.nl/en/our-university/about-the-university/support-services/equipment-and-prototype-center/>

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