Cookbook:
ideation tools to create successful (smart city) ventures

IRIS
Utrecht

Utrecht Mobility Challenge

Abstract

A challenge is a short-term and intensive innovation process in which participants are put into (diverse) teams, informed about a certain topic and/or problem question, and asked to come up with a suitable solution. In this case, the participants were students from Utrecht University (UU), the Utrecht University of Applied Sciences Utrecht (HU), and the ROC Utrecht (vocational education). The challenge was organized by an 'alliance' of Utrecht-based organizations: municipality of Utrecht, Economic Board Utrecht (EBU), and the before mentioned educational institutions. During the challenge the teams were guided by practitioners and experts to ensure relevance. In this case, the topic was mobility in the city of Utrecht. As the city becomes more congested, especially during commute-hours, teams were asked to think about new and smart solutions. As a conclusion to the process, teams pitched their ideas to a jury, who could choose multiple winners. Winning teams got the opportunity to work with relevant stakeholders and companies to put their idea into practice. In some cases, students also received study credits for their participation.

Dish:
challenge,
6M preparation + 4D event

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The Ingredient List

- **Time**

  Preparation (6 months)

  Challenge (4 days):
  - Problem sketch: 1 day - 14 November
  - Official team-work days : 3 days – 15, 21, 22, November
  - Presentation and announcement winner: 1 day – 22 November

- **Resources**

  Types of organizations involved
  - Stakeholders (judges, feedback, data, problem statement)
    - Municipality of Utrecht
    - Utrecht Province
    - Educational institutions (UU, HU, ROC)
    - Rijkswaterstaat
    - Practitioners (Sweco, Ideate, Fundamentals, INFO)
  - Funders
    - Educational institutions (UU, HU, ROC)
    - Municipality of Utrecht
    - Economic board Utrecht
    - Relevant companies

  Types of roles involved (mentors, organizing team, experts, etc.)
  - Organizing team
  - Judges for selection of ideas
  - Mentors for guiding the teams
  - Experts and practitioners for lectures

  Location(s)
  - Locations for lectures and training (preferably at relevant stakeholder)
  - Location for team meetings
  - Location for final

The Preparation Method

● Preparation (= Planning)

The Utrecht Challenge Alliance (UCA) is a partnership between the municipality of Utrecht, EBU, Utrecht University, the Utrecht University of Applied Sciences, and ROC Utrecht. It aims to facilitate finding innovative local solutions to societal problems, by combining the knowledge of students, professionals, and citizens. UCA's main focus is the organization of challenges. Furthermore, it is linked to IRIS through the participation of both Utrecht University and the municipality of Utrecht.

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The UCA team specializes in organizing said challenges. The head of organization has in total been in charge of 8 similar challenges. First, the team is in contact with possible interested (local) companies and stakeholders; organizations with a problem they want a fresh outlook on. In this case, a salient topic was decided to be mobility in Utrecht. This phase usually starts round half a year before the eventual challenge takes place.

Compared to the eventual date of the challenge, preparation started even earlier on this occasion. On the original dates a mobility convention was taking place, making it incredibly difficult to find a jury and lecturers – thus the challenge was moved to a later date.

Upon deciding a subject, the 6 months are first filled with finding interested stakeholders and shaping the challenge. After publicly announcing the challenge, the next few weeks were spent on gathering participants as well as a lot of work behind the screens – but as noted, work already started beforehand. Participants are recruited through a multitude of manners – mainly through word-by-mouth promotion from knowledgeable teachers to students which are perceived as potentially interested. In some cases (ROC) students receive ECTS for their participation. Other channels of promotion are social media and their website – but their main method of recruiting participants is the word-to-mouth from participating or interested academics to their students.

Most of the organization is then put into the actual work-days. These require lectures, locations, and mentors to guide the teams. In this case the problem statement was the congested infrastructure of Utrecht; teams were asked to come up with new and creative solutions for this problem. The problem statement is formalized but not as strict as in other recipes; the team is urged to think out-of-the-box.

- **Serving instructions (= Event)**

There were 35 applicants, in the end forming 7 teams. The teams are formed by balancing the diversity of the participants, to optimize their output. Students were diverse in their educational backgrounds, both in level and direction. Some examples of studies represented are data driven design, smart sustainable cities, social geography, and civil engineering. Diversity is promoted as more theoretically versed (e.g. university) students often have great theoretical knowledge, but fail to identify practical obstacles. More practically versed (e.g. ROC) students may be well-equipped to understand what works, but could use theoretical guidance. Different fields may similarly provide different insights. Thus, groups are formed such that students' skills are complementary.

For the mobility challenge, the challenge spanned four full workdays, once including work until after dinner (the third day). The first day consisted of a problem introduction, team formation and introduction, and an initial brainstorm. The second day started with a keynote lecture on the future of mobility, further providing information on the problem at hand. Teams were then asked to draft a few preliminary solutions they found promising, after which a meeting with experts followed (providing them feedback). A multitude of locations for these days was provided by Rijkswaterstaat, in their Utrecht office.

Then, after a break of six days, the challenge continued with the third day This day consisted out of another lecture providing insights on how to incite behavioral change. The rest of the day, until the evening, was used by the teams to pick one concept, after which they fully develop and test it. At the end of the workday their final draft was pitched to experts and mentors, after which they spent the evening finalizing their concept. The last day consisted out of a final test with feedback, the preparation of a pitch, after which it concluded with the pitches and the announcement of the winners.

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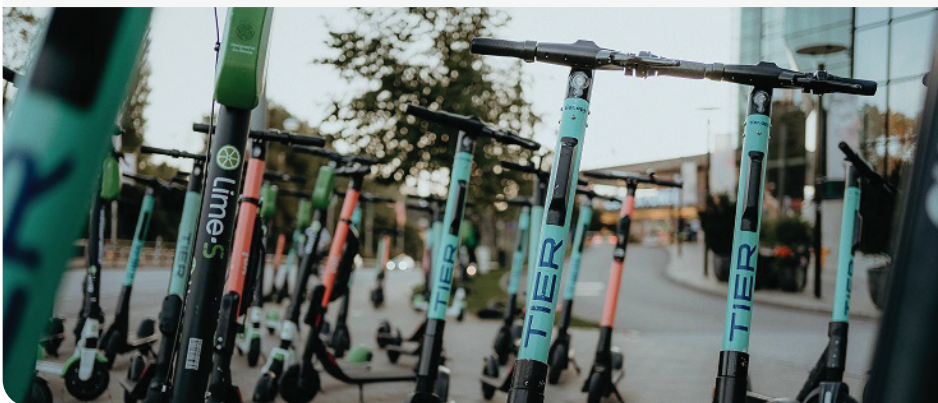
In this case, expert lectures were provided by Sweco and Ideate. The 6 jury members were announced on the fourth day, consisting out of employees of relevant stakeholders, in this case being employees from the municipality of Utrecht, EBU, Rijkswaterstaat, Sweco, Vodafone, Ziggo, and Ideate. The judgement procedure is relatively informal. Jury members are a part of the stakeholders providing the original problem statement. As such, they are not given strict guidelines, but urged to pick the winner; the team with the most feasible solution. In this case, the jury considered three different ideas as feasible; granting three winners.

Making sure there is sufficient follow up with the ideas is often difficult. As such, UCA provided winners with a second meeting, with a set-up similar to the show Dragons' Den. In this session, the teams are urged to further develop their idea and pitch it once more to the stakeholders, who then can decide to take on the project if they deem it sufficiently relevant and feasible.

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• Review (= Evaluation)

Together with UCA we have evaluated the Challenge. Furthermore, we drew lessons from their extensive review of previous challenges:

- ▶ Diversity in approaches helps create very refreshing ideas;

- ▶ Short-term and intensive approach helps maximize cooperation and generating new ideas;

- ▶ Out-of-the-box is a double-edged sword; it can give very refreshing ideas but similarly draw solutions which are not considered for a reason;

- ▶ Practitioners and stakeholders are very willing to get involved with the organization of a challenge;

- ▶ Ensuring the ideas are further worked with is difficult, but a set follow-up may help;

- ▶ The organization of an ideal challenge (with relevant locations and lectures) is logistically demanding, especially if the expertise is not in-house;

- ▶ Allowing all students to apply at times caused a language barrier: in this manner both international (non-Dutch speaking) students and Dutch students who less often require English could apply, making it at times difficult for either group to follow the other language or communicate amongst each other;

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