

CO-CREATION FOR POSITIVE IMPACT



innovators in sustainability



INTRODUCTION

Co-creation is at the heart of how Enviu ideates, develops, and markets its solutions for social and environmental issues.

At Enviu we work to create positive impact, we do this by developing sustainable - environmental & social - innovations and by bringing them to the market. We work together with a large group of young entrepreneurial people, senior executives, corporate partners and universities to co-create innovative businesses. Examples of these businesses are the Sustainable Dance Club, Open-Source House, Our Mobile Generation, and Brains x Change.

For Enviu, co-creation is an ongoing learning process that has already led to remarkable results.

With this handbook we aim to share our experience with those aiming to involve a variety of actors for the development of solutions for complex issues. You can share your experience and download the digital version of this guide at www.cocreationguide.com

We hope you enjoy it, and get motivated to start your own co-creation process for positive impact!

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enviu.org

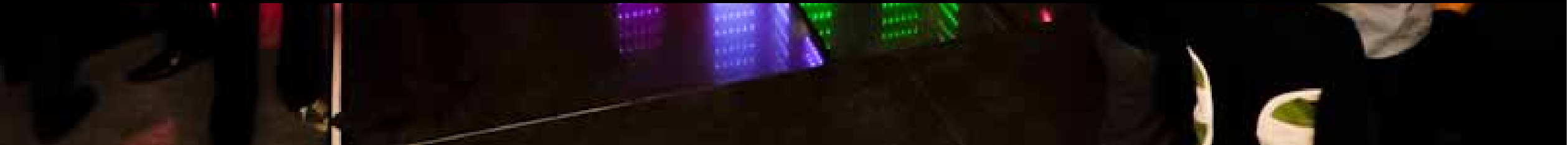
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COLOPHON:

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1. WHAT IS CO-CREATION?



WHAT IS CO-CREATION?

The way entrepreneurs, companies, governments, and other organizations identify opportunities, and develop solutions is evolving. Traditionally, organizations took a top-down approach to product and service development. This is based on the fact that organizations think they know the needs of end users. Today, organizations of all sorts are increasingly involving users and other relevant stakeholders in the design process, co-creating products and services that better serve users' needs.

In this handbook we focus on co-creation for positive impact: how to involve users and other stakeholders on the identification of problems, and development of innovative solutions that create social and/or environmental value while remaining economically sustainable. When using deep understanding and insight into what motivates and drives people's behavior in practice solutions for sustainability will be more effective.

CO-CREATION REFERS TO THE INVOLVEMENT OF THE COMMUNITY IN VALUE CREATION, THROUGH PERSONAL ENGAGEMENT

Co-creation for positive impact is a partnership between users, citizens, designers, business developers, private companies, non-profit organizations, and all relevant stakeholders to achieve a valued outcome that improves the quality of life of people, the natural environment, and the economic baseline. The interplay between these two such partnerships empower users to contribute more of their own resources - time, will power, expertise and effort - and have greater control over service decisions and resources.

Creating new solutions with people, not for them, can help drive innovation that creates positive impact. By focusing on users' own experiences and resources, co-creation can help identify truly valuable solutions. Private and public organizations should embrace co-creation to deliver products and services that fit user needs.

Co-creation has been developing mainly within private enterprise, and it is only in the last five to ten years that other sorts of organizational forms are also applying these principles and methods in their own context. In this handbook, the experiences of Enviu since 2004 are presented. Enviu has primarily relied on input from external stakeholders to identify, design, and develop innovations such as the Sustainable Dance Floor, the Hybrid Tuktuk, and the Open-Source House, that create environmental, social, and economic value.



CO-CREATING WITH PEOPLE OFFERS ADVANTAGES:

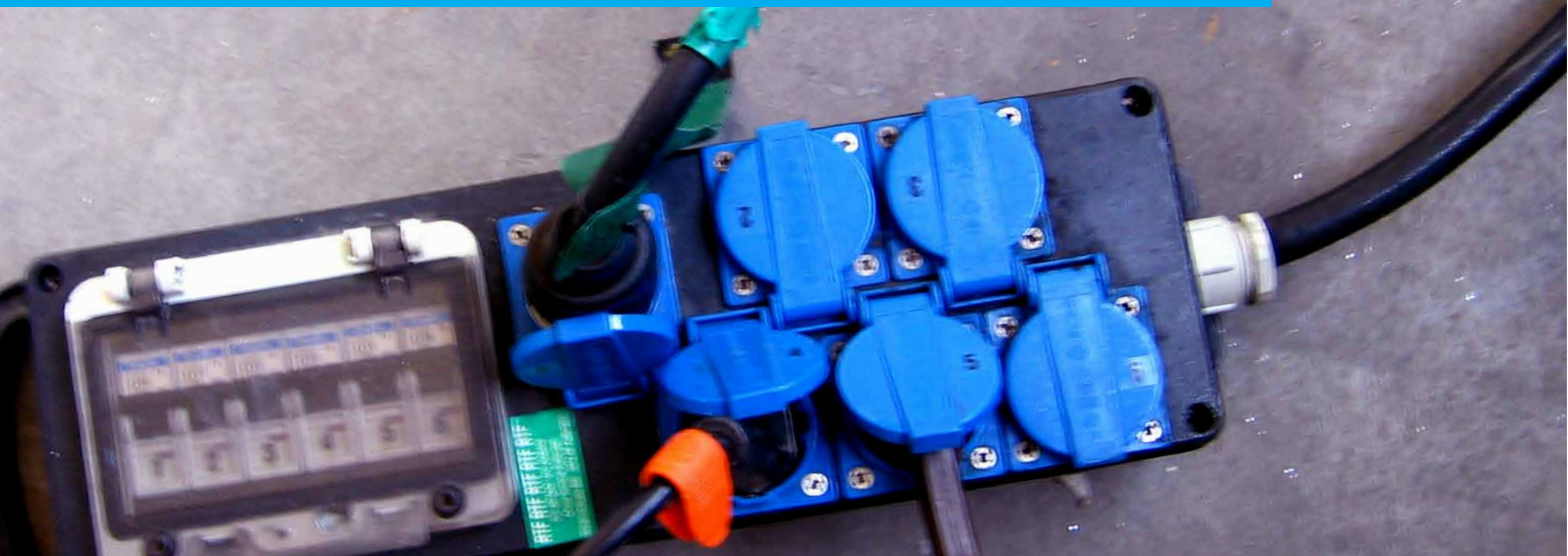
- ◆ It connects organizations with an outside-in perspective on current practices, opens organizations' eyes to the experience of their users and stakeholders, and promotes creativity;
- ◆ It helps to see how services could be made more valuable to people, while utilizing people's own networks, knowledge and other resources. This can enable co-production of services with citizens and business, reducing costs in the process (although cost reduction should not be the primary driver) and increasing sales and turnover;
- ◆ It builds on rapid, design-driven ideation, visualization, prototyping and testing of new solutions, essentially de-risking the innovation process.
- ◆ Through involving the potential end-users in the co-creation process you will create a certain commitment and understanding around the project or solution you are developing. End-users and stakeholders feel more connected, and take a positive stand towards the solution. As such they become "co-owners of.." instead of "clients of.."

NOTE

The term co-creation is often used fairly synonymously with related ideas such as open innovation, co-production, collaborative innovation, customer-led innovation and so on. The line between these concepts is pretty thin, mainly due to the similarities in the core process: all of these concepts rely on the involvement of stakeholders from outside the organization for the development of fresh and innovative solutions. Moreover, the main difference between co-creation and stakeholder involvement or more traditional brainstorm sessions is on the level of engagement from involved parties. Co-creation is typically practiced from early stages of ideation, to solution development and actual implementation.



2. CO-CREATING, WITH WHOM?





CO-CREATING, WITH WHOM?

Co-creation is an inclusive process aiming to involve problem owner, specialists, technical people, business people, and others that might be far from the issue to be solved.

Traditionally, the group of people with a “stake” or interest on a matter is known as “stakeholders”. At Enviu we think in terms of “community”: a group of people that actively participates in solving specific issues, contributing time, skills and or expertise.

The community is still a group of people around a common interest, but in this case the interest is in solving a situation that will have a greater impact on the community as a whole, rather than driven by individual interest – “i.e. what do I get out of this?”. People may not always have a direct ‘stake’ in solving a problem but nevertheless want to contribute to creating positive impact.

Enviu relies on a community of entrepreneurs, young professionals, corporate partners, universities, and senior executives that are tightly involved in the co-creation process of solutions for sustainability issues.

***A COMMUNITY OF PASSIONATE PEOPLE AROUND
A COMMON INTEREST IS A PRE-REQUISITE
TO CO-CREATE SOLUTIONS WITH POSITIVE IMPACT***

Experience has shown that the most valuable asset for co-creating solutions with a positive impact is to involve those that are passionate about the subject. Before starting a co-creation process, spend time building a community of people sharing a common interest to solve a specific matter.



3. WHY CO-CREATION FOR POSITIVE IMPACT?





Times have changed; major problems can no longer be solved by single parties like governments, companies, or academic experts, nor a limited number of people within these organizations. Today, citizens, consumers, and users are taking part in the development of those solutions. People are empowered to make changes that affect their community – local or global – and create positive impact. What are needed are platforms and facilitators to catalyze people's passion and ideas into real solutions that create impact. By this process, the whole will also become larger than the sum of the parts: the interaction in the community will lead to other (better) solutions than if a few people develop them in isolation.

Co-creation for positive impact gives the opportunity to people concerned with current major sustainability issues to be involved in the development of solutions that lead to an improvement of someone's quality of life, while diminishing environmental impact, and creating business value.

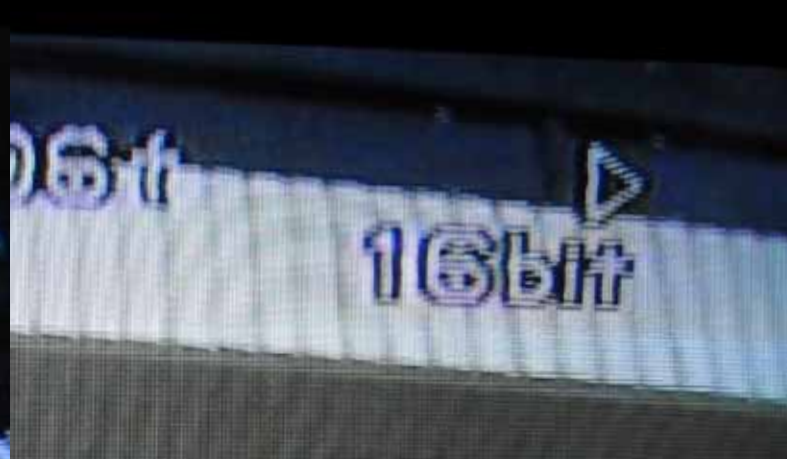
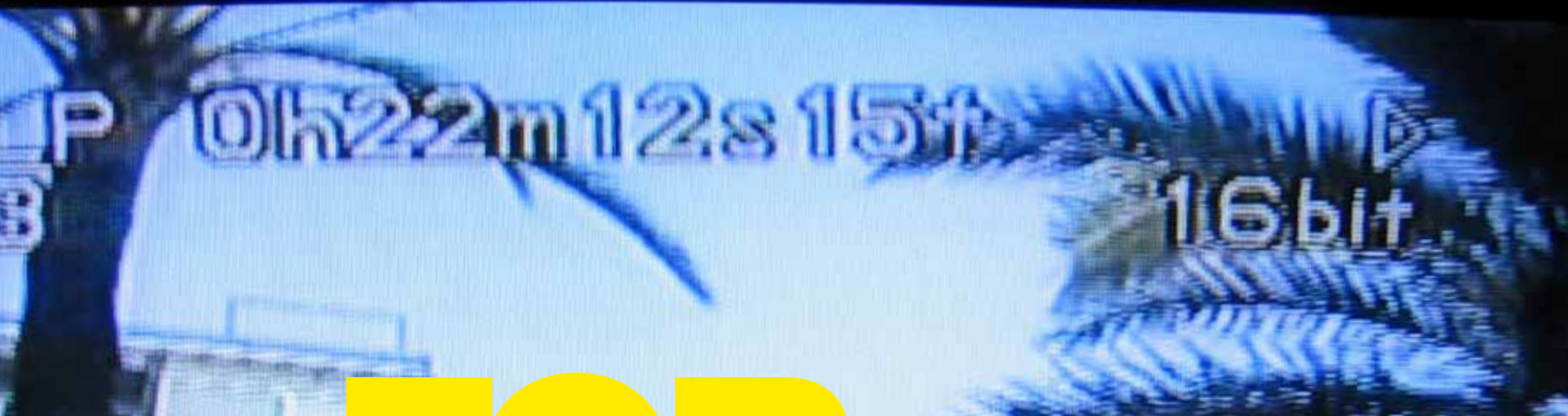
A high-angle, wide shot of a massive crowd of people, mostly shirtless, filling a dark space. The crowd is dense and extends far into the background, creating a sense of scale and energy. The lighting is low, with some highlights on the people's skin, suggesting a nighttime event like a concert or festival.

4. FOR WHO IS THIS HANDBOOK?

FOR WHO?

Enviu has been aiming to create social, environmental and economic impact since 2004; long enough to have learned some lessons. We would like to share with others such lessons, and invite you to join us and start your own co-creation process; get some passionate friends and start contributing to make this planet a better place!

This handbook is intended for anyone passionate enough to make a difference, including entrepreneurs, business organizations, and public institutions.



5. CO-CREATION SOLUTIONS FOR POSITIVE IMPACT: THE PROCESS



CO-CREATING SOLUTIONS FOR POSITIVE IMPACT; THE PROCESS

In practical terms, co-creation means the involvement of people in the development of solutions that match the needs of the final users and stakeholders. This might be a process that typically takes one year from the definition of problem statement, to the development of a solution that is ready to be launched as a test version.

At Enviu, the co-creation process aims to involve both experts on specific issues and non-experts. However, the intensity of interaction and participation as well as the methods of how they are involved varies depending on the stage of the process, the goals of the project, and other variables. In early stages, a broader group of individuals is invited to join the process. As ideas start to be defined and more specific input is required, experts on the subject are involved more heavily.

PRINCIPLES OF CO-CREATION

Co-creation requires one to have an open mindset and to accept that it is a learning process. What follows is a list that might help you develop that mindset:

1. Create through collaboration
2. Co-ownership of problem and solution
3. See everything as an experiment
4. Challenge the status quo
5. Put people first
6. Be concrete
7. Visualize
8. Iterate

There is no single method in the process of co-creation, every organization develops and adapts existing methodologies to their needs and uses available techniques. What follows here is the process that Enviu has been using to develop innovative products and services like the [Sustainable Dance Club](#), [Hybrid Tuktuk](#), and the [Open-Source House](#). Section 6 describes these solutions in detail.



GROUND RULES

In order to develop a successful process, there are some important ground rules to keep in mind:

- ♦ Carefully design the process, At the beginning make to clarify who is involved, when (in which part of the process) they should be involved, how they will contribute, and what the expected outcome is;
- ♦ Be transparent with regards to the process. Explain why different stakeholders are involved, how they will contribute to the process and what will happen with the results and outcome;
- ♦ Manage expectations carefully. If exactly what will happen with the results is not yet clear explain this at the beginning. Do not promise things that you might not be able to deliver;
- ♦ Goals, participants and incentives should be aligned. For example, if the goal is to increase creativity, then openness is key and incentives should not be monetary, but rather social recognition. As the project progresses and goals and objectives become more specific, more concrete or tangible incentives may be required.
- ♦ Be open-minded. Create room to be flexible and do things in a different way than initially expected;
- ♦ Create ownership among the people and parties you involve in the co-creation process;
- ♦ Make a plan for how to effectively manage working with bureaucracy so that the process is not hindered by politics.

THE CO-CREATION PROCESS:

1. TRENDWATCHING: WHAT'S HAPPENING AROUND US?

2. DEFINE THE PROBLEM: CRAFT AN INSIGHTFUL AND ACTIONABLE PROBLEM STATEMENT;

3. BUILD EMPATHY: UNDERSTAND AND INVOLVE THE END-USER TO DISCOVER INSIGHTS THAT CREATE THE OPPORTUNITY TO INNOVATE. REFRAME THE PROBLEM IF NEEDED;

4. IDEATE: DEVELOP POTENTIAL SOLUTIONS WITH USERS AND STAKEHOLDERS;

5. PROTOTYPE: BUILD TO THINK. SKETCHING FIRST, BUILDING LATER;

6. TEST, REFINE AND ITERATE: SOLICIT FEEDBACK FROM AND TO USERS, STAKEHOLDERS, AND THE VALUE-CHAIN;

7. CONCEPT DEVELOPMENT: CHECKING FEASIBILITY

8. BUSINESS DEVELOPMENT: ENSURING FINANCING AND SEARCHING FOR AN ENTREPRENEUR

9. START-UP: MARKET LAUNCH

IN THE FOLLOWING SECTIONS WE DESCRIBE THIS PROCESS IN MORE DETAIL.
FOR ILLUSTRATION OF THE PROCESS, THE SUSTAINABLE DANCE CLUB IS USED AS AN EXAMPLE.

A man with a beard is looking through binoculars. The image is partially obscured by a large, bold, red text overlay that reads '5.1 TREND WATCHING'. The background is a solid yellow color.

5.1 TREND WATCHING

WHAT'S HAPPENING AROUND US?

Co-creation starts by identifying opportunities for improvement and value creation. This can be done by yourself, or by already involving users and stakeholders. If you aim to create a solution yourself, it is a good idea to create a trend-watching unit within your organization. This unit should constantly search for trends on user and stakeholder behavior. Fortunately, there are already organizations which do this type of work and share the information publicly. Some examples are the websites Trendwatching, Springwise, PSFK, and others, which are constantly identifying opportunities within the consumer market. At the moment, Enviu has a dedicated trendwatching unit, which researches developments of possible relevance to environmental, social, and business value. The team captures these insights to create a more concrete direction for solution development.

Moreover, valuable insights usually come from those individuals and organizations close to you. Setting up direct communication channels with your users and community is a good way to get direct input on those issues where you can have an influence. This may be done by hosting dedicated sessions with the community, creating an online platform where users can report areas of improvement, or by other means of soliciting feedback and ideas.

Enviu set up regular meetings with the community to identify opportunities in which it could have impact. In those meetings, a facilitator managed the session and a variety of backgrounds, personalities, and expertise were mixed to increase the potential for opportunities.

In the case of the Sustainable Dance Club desk and field research were combined with creative sessions with stakeholders in the clubbing industry and demonstrated that there was great potential to reduce the environmental impact of dance clubs. Participants of these sessions included experts, students, and entrepreneurs.



5.2 DEFINE THE PROBLEM

CRAFT AN INSIGHTFUL AND ACTIONABLE PROBLEM STATEMENT

Whether coming from sessions with users and stakeholders, trend watching activities, fieldwork, or direct user suggestions, potential areas of action are collected, identified and properly documented. This leads to prioritization of potential areas of improvement. Only those that fulfill certain criteria are selected for further development. Every organization needs to define its own set of criteria based on principles, goals and values of the organization. To do this, the organization might ask: what it is that we want to achieve? This question should be defined, or redefined with stakeholders that are key to the solution.

In the case of Enviu, we aim to develop solutions that create environmental, social, and economic impact. For this, Enviu has developed the following selection criteria:

- ◆ Clear solution for a sustainability issue: what problem will be solved? How big is that problem, for instance how many people does it affect?;
- ◆ Innovative: at some level, the solution should represent innovation. Note that this does not have to be a new technology, but rather a combination of new and existing elements that together form a new solution;
- ◆ Clear business model: Enviu is interested in solutions that not only create environmental and social value, but also economic value. In fact, we only work on solutions that are self-sufficient in the long term by means of creating and capturing value;
- ◆ Scalable: the solution should be able to accommodate growth;
- ◆ Potential to inspire others to get involved: it is our goal to get young people inspired and involved in our projects or (even better) starting their own entrepreneurial venture for positive impact.

Such criteria help to define the area of action and the problem statement.

In order to formulate a good problem statement, try to develop a question that starts with: “How can we....”. That way you formulate an open question that is actionable. For instance, in the case of the Sustainable Dance Club, Enviu defined the problem statement as: how can we make the clubbing industry and dance club experience more sustainable?

5.3 GAIN EMPATHY

Once the problem and scope has been clearly defined, it is time to not only understand the problem in detail but to gain empathy from a user and community perspective. To support this process, several techniques are available. First and foremost, one might start by doing desk research and understand what is already known about the problem, who is working on it, what kind of solutions are available, and why those attempts have or haven't succeeded. Consider redefining your question if necessary: what is the real issue addressed?

It is important to understand how the problem is perceived from a user or beneficiary perspective. Through observation, following the user on their regular activities through the identified problem area, and involving him/her in the process will help you achieve this goal.

A User Empathy Map is a tool to help synthesize observations and draw out unexpected insights. The tool helps develop a discussion about the needs of a user. The discussion will be centered on what has been observed, and what can be inferred about these user groups' beliefs and emotions. Create a four-quadrant layout on paper or a whiteboard. Populate the map by taking note of the following four traits of your user or stakeholder as you review your notes, audio, and video from your fieldwork:

1. What does the user say and do? What are some quotes and defining words your user said? What actions and behaviors did you notice? Attitude in public, appearance, behavior towards others;
2. What does the user think and feel? What does this tell you about his or her beliefs? What emotions might your subject be feeling? What really counts, major preoccupations, worries, and aspirations;
3. What does the user see? Environment, friends, colleagues, and from what the market offers;
4. What does the user hear? What do friends say, what does a boss say, what do influencers say?

Results of this exercise help you gain empathy and a better understanding of the final user, and the system around him/her.

In the case of the Sustainable Dance Club, it was clear that clubbers - users of a dance club - were willing to "party in a sustainable manner" as long as this did not jeopardize the clubbing experience - "I want to be green, but will not sacrifice any of the fun of clubbing". Therefore, these user insights had to be taken into account when developing solutions for this problem that would be applicable on the long term.

5.4 IDEATE: DEVELOP POTENTIAL SOLUTIONS WITH USERS AND THE COMMUNITY

An exciting step of the co-creation process is ideation. Here, insights from the previous steps are aggregated with the aim to develop potential solutions to the identified problems. In this process, one has to develop settings where any idea that is suggested is acknowledged and taken into account. When aiming to develop innovative solutions, there should be no limits set at the start of the process. Moreover, this phase represents a good opportunity to engage and involve the final user, as well as relevant members of the community related to the problem.

For this process, a great variety of tools and techniques are available. In this handbook we describe those that have proven to be useful at Enviu, including: brainstorming, events, online platforms, and workshops.

- BRAINSTORMING

Brainstorming is a very efficient way to generate a large number of potential solutions for your problem, and to do it in a focused manner. Here, final users and relevant community members are invited for a session that might last few hours (3-4h) or an entire day. A good mix of characters and expertise is recommended, including a few “outsiders”, or those who can provide a non-biased perspective of the problem. A group of 8 -12 people is ideal for an effective brainstorm, but if coordinated well you can also bring larger groups together – the first brainstorm for the SDC was with 80 people.

Typically, a professional and experienced facilitator would be in charge of moderating the session, which includes building an agenda and keeping track of timing. Brainstorm sessions aimed at developing ideas usually have the following format:

1. **Introduction to the program: agenda, timing, brainstorm rules or guidelines;**
2. **Contextual immersion: understanding the problem to be solved;**
3. **Inspiration cases: similar examples that can provide inspiration;**
4. **Ideation: work in groups to develop solutions, with possible cross-pollination between groups;**
5. **Presentation of results; public presentation to the rest of the group, and collection of feedback and insights from others.**

- EVENTS

A less formal way of involving end users and the community is based on events where participants are invited to contribute with their insights. Here, a larger group of participants might be involved, and the setting is developed around a social event rather than a work-related activity. The advantage is that a larger number of people can be involved in the project, increasing the chances of co-creating with relevant members of the community. Moreover, events provide a good balance between the goal of developing ideas and creating a sense of inclusion. Enviu has organized kick-off and final events to either launch a project or generate media attention around the outcome of a specific project. For such events Enviu would aim at inviting a large group of people, create room for a keynote speaker, and provide entertainment, such as music. Such events also create a fun atmosphere, which is in fact an important part of the mindset: rather than a task it becomes an experience people want to get involved in.

- ONLINE PLATFORMS

Technology is a good ally on the co-creation process. Traditionally, one might only involve those physically closer to you when aiming to ideate solutions for specific problems. Today, technology and the Internet make it possible for almost anyone to contribute in this process. A good example of how technology can help in the co-creation process is by the use of social media tools; highly accessible to the public and designed for social interaction. The advantage of using social media in the co-creation processes is that it allows the involvement of a large number of users/community at a relatively low cost. Most people are familiar with social media platforms like LinkedIn, Facebook, Twitter, or YouTube. However, like any other medium, social media requires of a well-designed strategy, and accurate implementation to be useful for your goals.

At Enviu, online platforms play a very relevant role on every single project where we aim to involve users and the community. For instance, at the Open-Source House, the online platform connected over 3,000 architects from 45 countries to develop architectural solutions based on eight sustainability principles. Even after the project was over architects and other interested people were still joining the platform, which led to more ideas and knowledge being generated and used by even more people. Today, Enviu has learned from previous experiences and has developed its own co-creation online platform specifically designed for the management of idea generation and community involvement. A first version of this platform is already in use at Our Mobile Generation and Brains X change. Other commercial solutions are also available for this purpose. A collection of these resources is listed in section 6.3.

WORKSHOP

Online platforms allow people located remotely to participate in the co-creation of ideas. Moreover, the output generated in online platforms may be supported by workshops where people get to meet face to face and interact on a more personal basis. On-line and off-line parts of the process, in general, can strengthen the process and lead to even better results. Off-line events also tend to increase commitment from process participants.

Enviu has designed and facilitated many workshops to co-create innovative solutions that create positive impact. Here we provide a short overview of the different steps for this specific process, which is divided in three stages, including: defining the problem together with the community, creating awareness, and ideating and developing solutions.

During the ideation process of the Sustainable Dance Club, a very large number of ideas were generated. From those, some forty were selected due to their potential to create an impact, and radically improve a club's environmental performance. Some were clearly realizable; some gave the impression that it would require hard work. The latter were the most interesting and innovative ones, like the Sustainable Dance Floor that generates energy when people dance. To further explore its potential, prototypes are necessary.

STEP 1: DEFINE AND REDEFINE THE PROBLEM WITH THE COMMUNITY

Understand and formulate the problem as indicated by the problem owner. What does he/ she want to achieve? Then let your community redefine the problem from their point of view. Optional: formulate sub-questions. The main goal of the session is to identify a mutually shared problem statement that is recognized by the problem owner and the community.

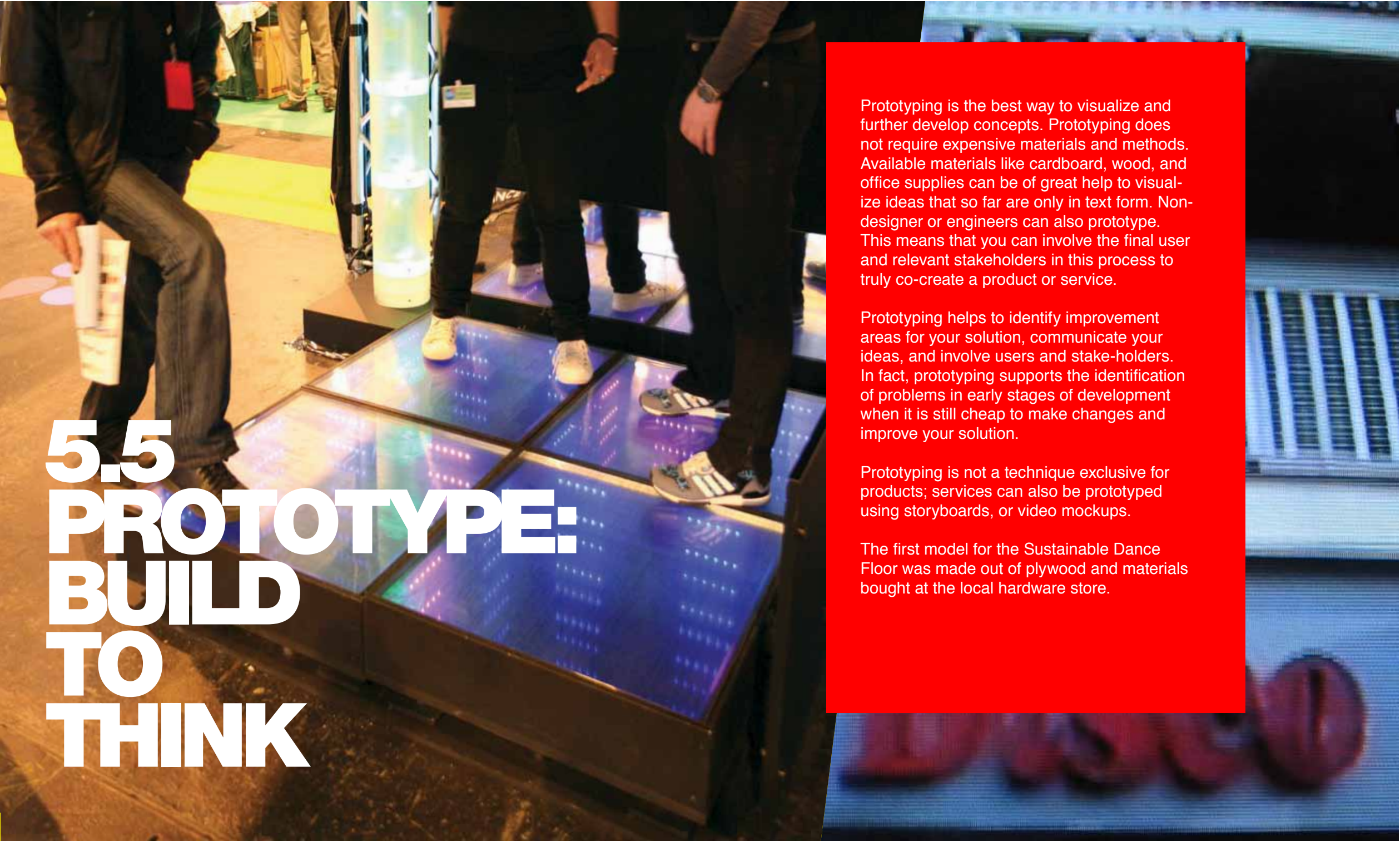
STEP 2: AWARENESS

After the first session, create room to let the new information sink in by giving participants a period of 1 to 2 weeks to reflect on what happened during the first session. When there is time, you can give participants a small assignment of reading or researching more about the subject you are trying to tackle. The main goal of allotting this time is to allow participants to prepare for the next session.

STEP 3: DEVELOP SOLUTIONS AND CONCEPTS

The main goal of the session is to develop a future solution to the problem statement in an ideal situation: financial, practical and technical feasibility is not yet taken into account.

- ◆ The participants are split up into different groups (make a good division of different stakeholders).
- ◆ The groups each take place at a different table.
- ◆ Each table has a chairman.
- ◆ The group generates concepts, ideas and solutions to the sub-questions. All groups work on the same sub-question.
- ◆ After each round, the group switches tables. At the new table the chairman gives a short summary of what the previous group discussed. Keeping this mind, the group starts to work on the next sub-question.
- ◆ After all sub-questions have been discussed the ideas from each table are harvested and shared (plenary) with the group.



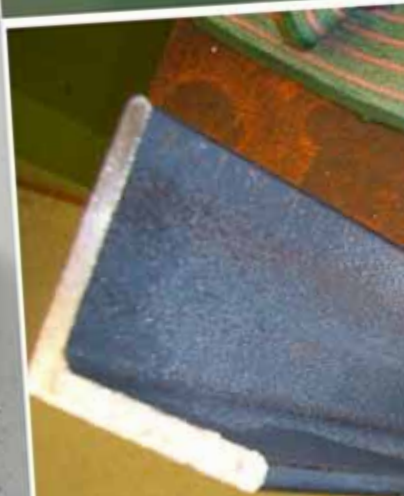
5.5 PROTOTYPE: BUILD TO THINK

Prototyping is the best way to visualize and further develop concepts. Prototyping does not require expensive materials and methods. Available materials like cardboard, wood, and office supplies can be of great help to visualize ideas that so far are only in text form. Non-designer or engineers can also prototype. This means that you can involve the final user and relevant stakeholders in this process to truly co-create a product or service.

Prototyping helps to identify improvement areas for your solution, communicate your ideas, and involve users and stakeholders. In fact, prototyping supports the identification of problems in early stages of development when it is still cheap to make changes and improve your solution.

Prototyping is not a technique exclusive for products; services can also be prototyped using storyboards, or video mockups.

The first model for the Sustainable Dance Floor was made out of plywood and materials bought at the local hardware store.



5.6 TEST, REFINE AND ITERATE

Prototypes, mockups, and early designs of products and services help to test solutions. During this phase, insights from the user are very important to refine and improve the design.

Typically, the first idea on a solution will not see the light later on the market. Several iterations are necessary to find a concept that really adapts to the needs of the final user. However, iteration cannot take forever. Define a date when a solution is not further developed, and stick to it. There will be time to develop an improved version for the solution. In fact, testing on the real market is a way of continuing with the co-creation process, since you might receive feedback from the real users and stakeholders in real life situations that help improve the solutions.

The first version of the Sustainable Dance Floor available for commercialization was hand-made, very costly, and provided little energy output. However, several customers helped improve the model with their insights. Today, a second version is available, is designed for industrial production, is much more cost-efficient, and doubled energy generation.



5.7 CONCEPT DEVELOPMENT

1. ENRICHMENT:

the idea, which fulfills the criteria as defined in 5.2 and that has been co-created with the community and experts, it is further elaborated based on the prototype build and feedback from users. In that the idea is of technical nature, some more detailed research is done regarding technical limitations and specifications to be taken into account when aiming to produce it on a certain scale. For this, the involvement of industrial designers and manufacturers is crucial. In case of a service-based solution, then specialists are involved during the enrichment, like lawyers, financial advisors, or others;

2. BUSINESS MODEL:

the goal here is to develop solutions that are self-sustainable and that aside of social and environmental value, also create economic value. A business model is a representation of how this value is created, for whom, and how some of it is captured. Business developers can support in this task of identifying mechanisms to create and capture value. Sometimes is by selling products and/or services, others might be more complex and less direct;

3. FEASIBILITY STUDY:

to evaluate the potential for the idea to be further developed. This includes technical, business, and legal considerations. The feasibility study wraps-up all relevant aspects worked out so far; it is the basis that will define if the project has a go, or no-go. Sometimes an idea might seem very interesting, but not feasible from a technical perspective, or challenging to keep in the long-term due to lack of business model.

4. PRE-START PLAN:

this is developed once previous steps have been completed. It includes all remaining aspects necessary to bring the solution to the market, including how to reduce risks that might be identified on the feasibility plan, strategy to attract investment, entrepreneur's profile as well as how and where to scout for him/her, and planning to launch the solution as a startup.



5.8 PRE-START

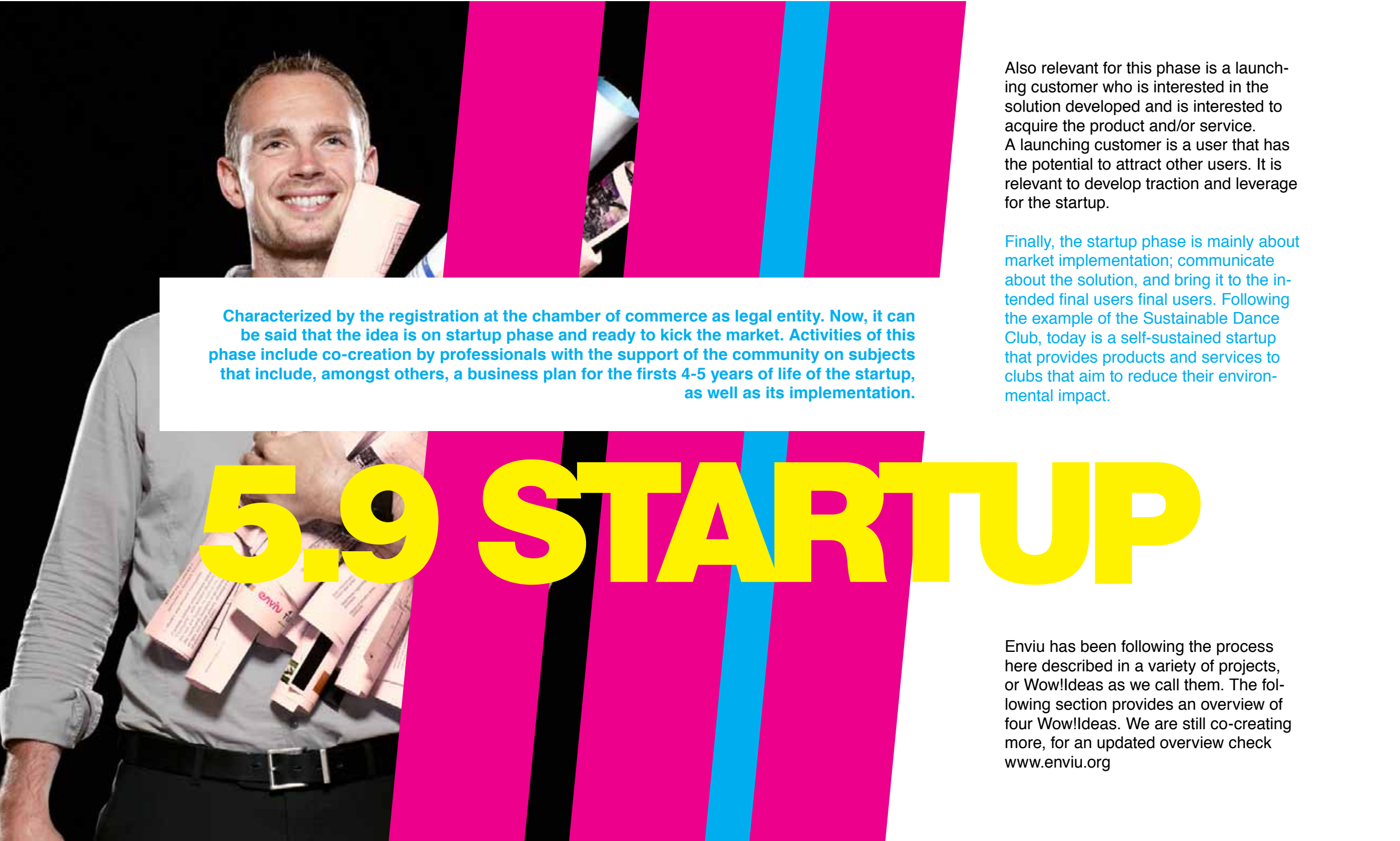
The phase right before launching a solution is known as pre-start; a crucial step focusing on searching initial investment and the person that will be at the driving seat of the startup.

Initial investment to launch a solution the market may vary depending on the solution, although typically one might need to calculate how much money is required to be able to run a startup during the first year to the third year. Sources to approach when in search for initial investment may include formal and informal investors, loans from banks, and public sources like subsidies and innovation grants.

Moreover, if co-creating a solution you might be interested to search for initial funding through crowdfunding platforms and initiatives. Some players in this field include ClearlySo, Kickstarter, and 40Billion.

While in search of financial investment, you might also look for the person that will be in charge of bringing the solution to the market, and make it a success. Is in this phase that an entrepreneur might need to be defined. Ideally, this will be an experienced entrepreneur, even when his/her experience is in other areas, and will compromise to be on the lead for during the firsts 3 to 5 years. This role might be complemented with a team that including a responsible or communication, and an expert for technical issues.

At this point all necessary elements might be in place to launch the solution to the market in form of startup, including; a proven solution, business model, feasibility plan, initial investment, and an entrepreneur and/or team. The solution is ready to be launched in the form of a startup.



Characterized by the registration at the chamber of commerce as legal entity. Now, it can be said that the idea is on startup phase and ready to kick the market. Activities of this phase include co-creation by professionals with the support of the community on subjects that include, amongst others, a business plan for the firsts 4-5 years of life of the startup, as well as its implementation.

5.9 STARTUP

Also relevant for this phase is a launching customer who is interested in the solution developed and is interested to acquire the product and/or service. A launching customer is a user that has the potential to attract other users. It is relevant to develop traction and leverage for the startup.

Finally, the startup phase is mainly about market implementation; communicate about the solution, and bring it to the intended final users. Following the example of the Sustainable Dance Club, today is a self-sustained startup that provides products and services to clubs that aim to reduce their environmental impact.

Enviu has been following the process here described in a variety of projects, or Wow!Ideas as we call them. The following section provides an overview of four Wow!Ideas. We are still co-creating more, for an updated overview check www.enviu.org

6. EXAMPLES OF CO- CREATION

This section briefly described Enviu's WOW! Projects to date including how co-creation was used in each of them.

ENVIU WOW! IDEAS

- ◆ SUSTAINABLE DANCE CLUB
- ◆ HYBRID TUKTUK
- ◆ OPEN-SOURCE HOUSE
- ◆ OUR MOBILE GENERATION



Sustainable Dance Club

The Sustainable Dance Club (SDC) is changing the future of clubbing. Combining a creative approach with innovative technologies, SDC is enabling clubs and festivals all over the world to become more sustainable and inventive. By showcasing innovative solutions, SDC wants to inspire a generation of young people to lead a more sustainable and fulfilling lifestyle.

One night in 2005, a group of Enviu volunteers and crew went out after a day of work and realized that it was not possible to party on a sustainable manner. That was the trigger of a project that turned out to be bigger than anticipated. In fact, some desk and field research showed the enormous potential to reduce a club's environmental impact regarding water and energy consumption, as well as waste generation.

Enviu teamed up with Döll architects and together started a process where key players of the clubbing value-chain were mixed with various experts: users, club owners, architects, cultural promoters, and specialists, including industrial designers and engineers. The briefing was so engaging, that many people wanted to join. Over 200 people and organizations became involved in a series of brainstorming and workshops on how to develop innovative solutions that would help clubs from all over the world reduce their environmental impact. Out of this ideation process some forty technical solutions were selected for further development, some of them combining existing solutions available from the market.

Other solutions were suggested but were not yet in the marketplace, and many people claimed these ideas were not feasible. The Sustainable Dance Floor is one such idea, a product that generates energy as dancers enjoy the music.

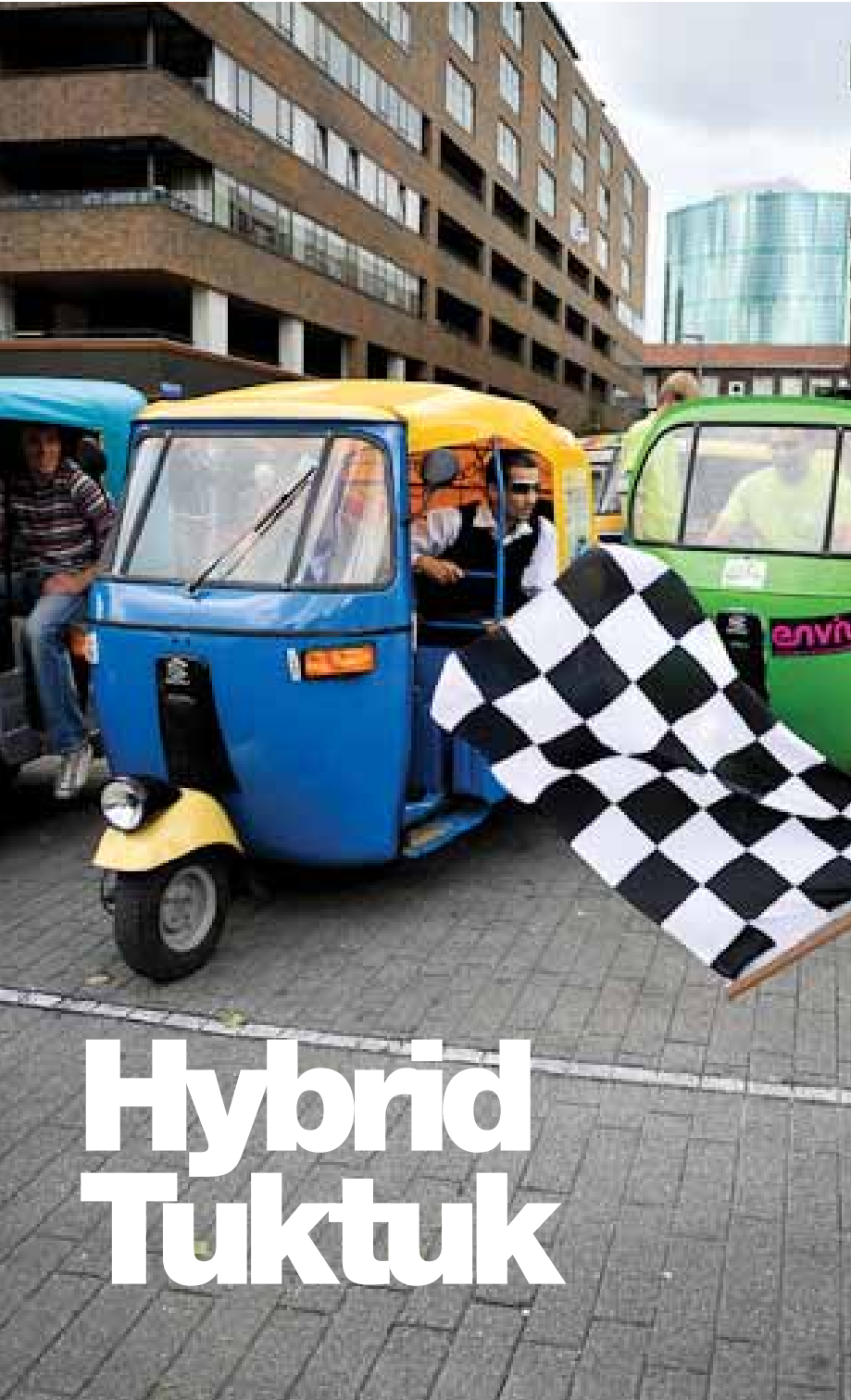
For the realization of such challenging innovation, Enviu brought together a team of experts from Delft Technical University, Eindhoven University, and Studio Roosegaarde, each team bringing its own expertise.

In this case, co-creation took place mainly in offline meetings and workshops. First, volunteers and students were brought together with club-owners and architects. Later in the process, other specialists joined and refined the ideas elaborated during the first phase.

For the Sustainable Dance Club, the main challenge was to fulfill expectations. The concept was made public in 2006 during a party in Rotterdam and its novel approach to integrating sustainable new products into business captured the imagination of a worldwide audience. Emails and calls were coming from all over the world asking for the SDC. It became clear that there was a need for innovative solutions that exploited the fun and engaging side of sustainability.

In 2007 a company was launched offering three main services: consultancy, events and SDC elements. Today, SDC offers sustainable club solutions, providing creative and cost-effective alternatives to integral components of a club or festival, and to the business itself. The three main product areas are consultancy, SDC elements and Events. The range of services can be tailored to specific needs, whether that be a fully integrated solution or the using of a single SDC element. The Sustainable Dance Club is an initiative of Enviu and Doll architects. SDC has become an independent organization in which Enviu holds a stock.





On a trip to India in 2007, Enviu's founder, Stef van Dongen noticed the poor air quality in large cities and wondered if something could be done in that regard. Amongst the different sources of CO2 typically found in a city, transportation is a large contributor. In fact, in India there are millions of 20- to 30-year old auto-rickshaws with very inefficient combustion engines. Auto-rickshaws are three-wheel vehicles typically offering taxi services, also known as a Tuk Tuk in other part of South-East Asia.

It became clear then that an opportunity existed to make auto-rickshaws more fuel-efficient and therefore reducing the CO2 emissions produced by them. Therefore, and inspired by the success of the Toyota Prius, Enviu decided to launch an engaging and challenging problem statement: 1,000,000 auto-rickshaws let's make them hybrid!

By engaging with the end-users of auto-rickshaws (the drivers), the Enviu team learned about the harsh working conditions that this business typically involves. Among others, most of the income generated is used to pay for fuel, leaving some \$2 to \$3 per day as profit. This finding made the original problem statement even more interesting: reduction of fuel consumption has a direct implication on CO2 emissions, and on the income and quality of life of the drivers.

To solve these problems, Enviu launched an international design competition named the Hybrid Auto rickshaw Battle. There, students from seven different technical universities from The Netherlands and India were challenged to design the most efficient, easy to implement and affordable upgrade kit for existing auto rickshaws. By means of these upgrade kits, existing rickshaws would become both cleaner and more fuel-efficient. Hereby, significantly reducing the negative environmental impact and increase the income potential for the rickshaw drivers, providing them with means to improve the quality of life of their families.

The Hybrid Autorickshaw Battle covered a period of 18 months, during which seven student teams, mobility experts, and auto-rickshaw driver's union, local Indian organizations, designers, and volunteers were involved. Indian 2-stroke rickshaws were shipped to the Netherlands for the competition and the Indian teams received their 4-stroke vehicle. All teams went through six phases of development and met each other during the final race event in Chennai, India (July 2009). HAN University (2-stroke class) and SRM University (4-stroke class) came out of the competition as the winners.

Upon finishing the competition part, Enviu has partnered with Indian entrepreneur Ramesh Prabhu to develop a start-up company in India - Three Wheels United. The goal of this company is to create social and environmental impact in the auto rickshaw driver community, while increasing their financial power to make the changes to achieve this. TWU has therefore developed a business model around three pillars: financial services, advertising and clean technology. By offering fair loans and advertising income to rickshaw drivers, TWU aims to create better and more sustainable income for the drivers. The installing of clean technology will further increase the income potential and also decrease the environmental footprint of the rickshaw ecosystem.

threewheelsunited.com

Open-Source House

Sustainability is gaining acceptance in the field of architecture, especially in western countries where most sustainability initiatives are taking place. A good example is the rise of the LEEDS certification system. However, there are plenty of opportunities to improve housing in other parts of the world, as architect Vincent van der Meulen and Enviu realized.

The Open-Source House (OS-House) started when Vincent van der Meulen (a Dutch Architect) was traveling through Africa and identified the immense need for housing. He started thinking on solutions that could tackle the issues of rapid urbanization and inefficient construction methods found in such areas.

As an architect, Vincent developed 8 design principles, which stimulate affordability, sustainability and flexibility as a way to solve some of those needs. Together with Enviu they co-created Open Source House, which aims to provide knowledge and designs on sustainable and affordable housing in an open source way, so they become widely available.

In order to understand the user and its context, the OS-House team did extensive field research identifying specific needs and cultural behavior related to housing. Based on social-economic figures and existing relationships with different agents, Ghana was identified and selected for the roll-out of the first project. The problem owner (end-user) of this project is people with steady incomes who don't have access to the housing market, and therefore are forced to live in slums. The program requirements for the final designs and solutions were directly co-developed with those users, according to their needs.

From the early stages, Enviu invited a variety of stakeholders and members of the community to join forces and help develop solutions, both from the technical-architectural perspective, and a business development perspective. The co-creation process involved end-users, research students in Ghana, local experts from Ghana and housing experts from low-income countries, universities, 3,100 architects, local authorities, sponsors, local banks, developers, constructors, and entrepreneurs, among others.

The output of the OS-House is a rich platform hosting 247 architectural solutions made freely available to use to anyone interested in building a house. This was possible thanks to the co-creation process, which benefited the project with the knowledge and creativity of experts, end-users and architects from 45 countries that together designed sustainable and affordable housing solutions. Architects participated on the platform both as individuals and as teams.

The OS-House is the first Enviu project where an online platform was used for the needs of Enviu's co-creation process. During this first version of the platform the managing team learned many lessons. For example, the project would have benefited more if each team participating would have involved local architects from Ghana.

Today, the OS-House winning concepts are implemented in Ghana and a company has been founded to scale up the provision of affordable and sustainable housing. Meanwhile, all designs submitted to the competition are available on-line for use and further development.

os-house.org



OUR MOBILE GENERATION

Our Mobile Generation (OMG) wants to inspire mobile phone users to come up with sustainable solutions and ideas that lead to a more sustainable telecommunications industry.

Here, the opportunity came from the observation of the growing number of cell-phones owned per user and their rapid rate of renewal. Further research indicated that already in 2007, over one billion cell-phones were bought globally, and by the time of writing this guide (2011) most of them were already electronic waste.

Cell phones are not only a burden for the environment, but also a tool for social and individual empowerment. With 4 billion phones around the world this represents huge potential. For this reason, OMG is not only targeting the development of more sustainable handsets from a hardware perspective, but also to the development of applications that support sustainable practices.

For this project, the online platform developed by Enviu was used to manage the co-creation process, receive ideas and connect with the community. The community was formed by organizations in phone recycling, app developers, students, universities, sponsors, and the developers of the platform who were receiving input as the project evolved.

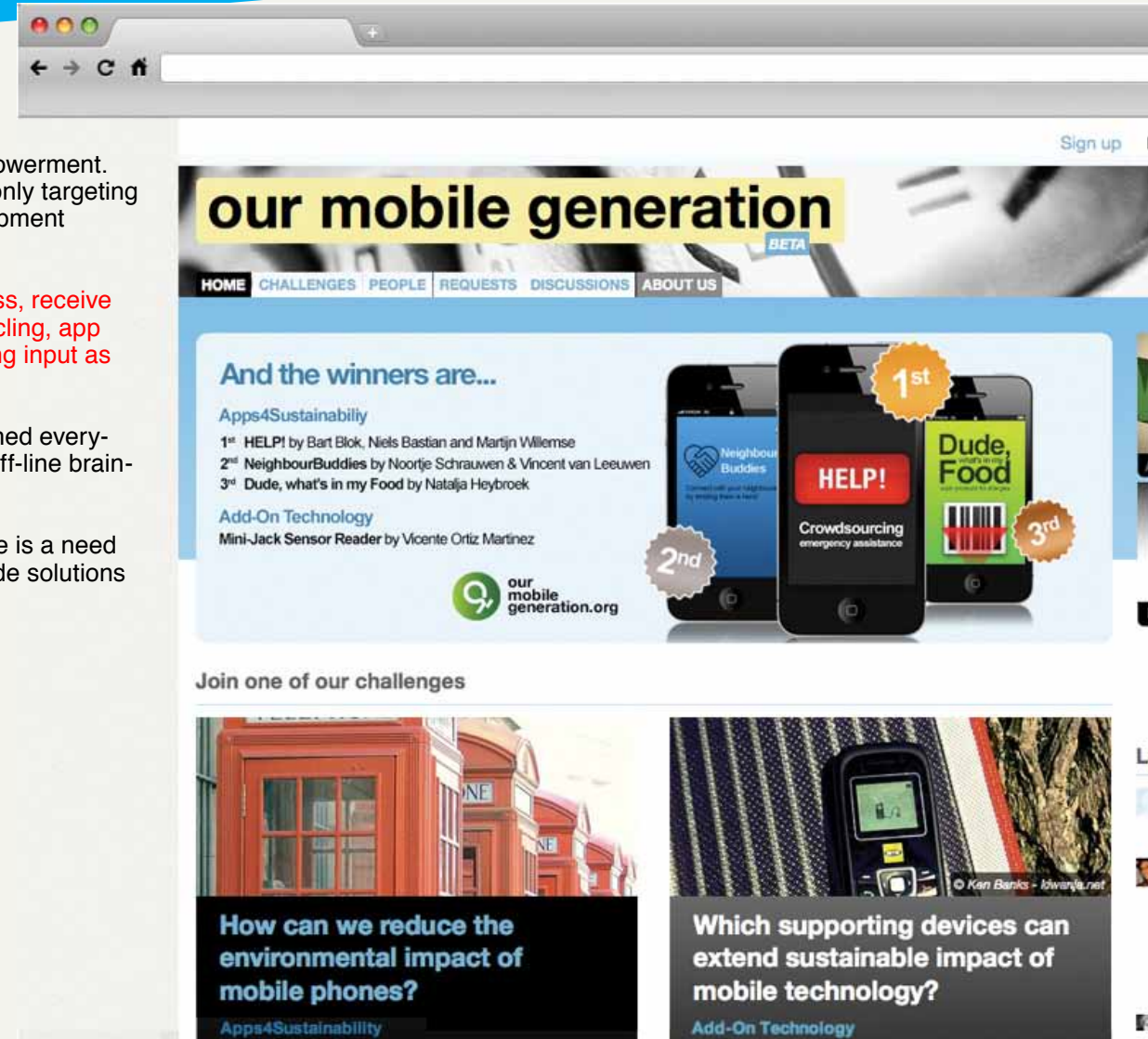
The difference with previous co-creation projects (i.e. the OS-House) is that here participants enriched everyone else's ideas by commenting and contributing with additions. This process was supported with off-line brainstorm sessions where new ideas were created and again applied on the platform.

A lesson learned from this project was that when aiming to solve an issue through co-creation, there is a need to focus on one problem and to define the requirements. Here, Enviu asked the community to provide solutions for several challenges, which ended up limiting the creativity of the participants. Those included:

- ◆ Solutions for a more sustainable phone / handset
- ◆ Sustainability applications, both for developed and developing countries
- ◆ Add-on technologies for mobiles to add functions that stimulate sustainability impact
- ◆ Innovative business models that affect the value chain of the industry

As a spin-off, Enviu started a new WOW! Project to develop the winning smartphone app and get it to the market. This Help! App is now being co-created by Enviu, the Dutch Police, Vodafone and Dutch emergency services 112. It will be launched in the Apple AppStore in Q4 2011. In addition, the project aims to serve as a source of inspiration for the telecommunications industry, to whom the outcomes have been presented. Finally, the platform, project-blog and social media pages provide inspirational information for all who are interested.

ourmobilegeneration.org



6.2 OTHER ENVIU CO-CREATION PROJECTS

NATUURMONUMENTEN

Natuurmonumenten, an environmental NGO managing natural areas in the Netherlands asked Enviu to assist in the development of ways to create economic value while managing nature reserves. For this, Enviu asked young people from its network and the users of natural sites to support in this process and provide ideas. Two sessions were designed at a natural site so participants would be immersed in the context for which a solution was going to be developed. The result was the development of four potential products that Natuurmonumenten could further develop. More information for this project is available [here](http://natuurmonumenten.nl).

natuurmonumenten.nl

INNOVATIE PLATFORM

The Innovation Platform, a platform initiated by the previous Dutch government to stimulate innovation in Holland asked Enviu to mobilize its community to provide input from the younger, entrepreneurial generation. The goal of this project was to involve younger generations in the development of new ways to strengthen the competitiveness of The Netherlands. Enviu involved a large group of young people using social media. Ideas developed included the launching of the Ministry for Innovation and integration of sustainability in high school curricula. These and other ideas were further strengthened in both physical and online meeting meetings and sessions. A delegation of the participants then participated in a vision development session of the Innovation Platform itself. Results of this project were included in a vision document developed by the Innovation Platform, which was very pleased with the results.

innovatieplatform.nl

6.3 CO-CREATING ONLINE PLATFORMS

INNOCENTIVE

InnoCentive is an “open innovation” company that takes research and development problems in a broad range of domains such as engineering, computer science, math, chemistry, life sciences, physical sciences and business and frame them as “challenge problems” for anyone to solve them. It gives cash awards for the best solutions to solvers who meet the challenge criteria.

innocentive.com

BRIGHTIDEA

Brightidea’s one-of-a-kind ‘Facebook-style’ platform allows Global 2000 businesses to monitor the social process of innovation from concept to cash.

brightidea.com

MYOO CREATE

Now in beta, UK-based Myoo Create (“Myoo” is short for “me” and “you”) aims to help organizations put the crowds to work solving environmental and social challenges. Organizations begin by signing up with the site and posting a challenge they’d like to see solved; they also offer a specific prize for the best solution.

The Myoo Create community then brainstorms and submits solutions to the challenge, which then become available for evaluation, voting and feedback from other participants on the site. The process varies with each contest, but generally there’s one prize for the crowd favorite, while the ultimate winner is selected with the input of expert judges. Organizations involved so far include Levi Strauss & Co. and National Geographic.

myoocreate.com

ONE BILLION MINDS

One Billion Minds is a prize-led innovation platform that connects problem-solving scholars with solution-seeking companies and non-profits. Launched in late 2009 by Sanjukt K. Saha in Kolkata and London, One Billion Minds challenges student and alumni crowds from universities worldwide to come up with innovative solutions to real-world problems. Prizes from the participating corporations include cash, professional recognition, and opportunities to interview for full-time or internship positions.

onebillionminds.com

APPS FOR DEMOCRACY

Apps for Democracy shows that governments can certainly use these principles as well. Washington DC makes data available on-line and ask citizen’s help to improve the quality of the data and in the process suggest improvements of the meaning behind the data. The output of the first edition of Apps for Democracy – 2009- yielded 47 web, iPhone and Facebook apps in 30 days - a \$2,300,000 value to the city at a cost of \$50,000.

appsfordemocracy.org

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Co-creation is an approach to develop products, services and solutions. Co-creation as a method has lots of potential: aiming to engage final users and the community in the process to come up with solutions that create positive impact. In this handbook we presented the basic elements of that approach, as they are practiced at Enviu, and provided some initial resources to make it happen in practice within your organization.

We would like to invite you to either join us in some of our projects, or start developing solutions yourself in your local community. If you do so, please let us know, we would love to hear about it and help, whenever possible.

Now, go out there and make some positive impact!

LET'S GET STARTED!

COCREATIONGUIDE.COM

This is a first version of the Co-creation for Positive Impact. We are looking forward your feedback, input, recommendations and examples so we can co-create next versions together.



8. RESOURCES

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- ◆ Manichinelli, Openp2pdesign.org_1.1. 2008 <http://www.openp2pdesign.org>
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Enviu's vision is to inspire and involve young entrepreneurial people to co-create on profitable solutions for environmental and social issues.

Enviu.org