1 Interviews

1.1 Der Fragebogen

Der Fragebogen ist in Zusammenarbeit mit Tobias Löhr und seiner Studienarbeit "Open source car development" entstanden.

1. What was the initial starting point for the project / company? Who was the initiator? Who are the main founders of the project?
2. When was it started? Where is it mainly located?
3. What is the objective of the project? What are the realised results in autumn of 2011?
4. What is the nature of the project (non-profit / for-profit)? How is the project funded at this moment?
5. What is the main difference between your project / company and others? What makes your project special more successful than other projects?
6. How are you going to distribute your concept / cars to the customer?
7. Why are you not counting on an internal engineering force, but rather on a community?
8. Do you take statistics of your contributors? How many people contribute to the project? Where are the contributors from? What are their level of education?
9. What is the benefit to the community and the single contributor? Why do you expect people to help a for-profit company in their unpaid free time?
10. What does the community contribute? (design / prototyping /...)
11. Is your community a source of innovative concepts? Of what kind are the innovative contributions (product- / process- / business model-innovations)?
12. How are the contributions evaluated? How do you decide which technology / development should become part of the project? How are innovative contributions favored in the evaluation process?

13. How do you decide on which components to make or buy? Up to which granularity / complexity are you going to produce parts by yourself? Where do you find possible suppliers for the realization of your project?
14. Is the community engaged in prototyping (virtual / real world)?
15. Does a dedicated online platform exist? What are the most important features? What are the challenges of creating such a platform?
16. What information are common to the community? Do you use open software / open file formats?
17. How are the tasks broadcasted to the community?
18. How is the granularity for the tasks defined?
19. What are the managerial challenges now and in the future?
20. Which license is used? What are the basic license principles?

1.2 Answers Open source ecology

The interview was held with Nikolay Georgiev on 6th of October 2011. Nikolay is currently in charge of the OSE project in Europe.

1. **What was the initial starting point for the project / company?**
   Who was the initiator?
   Who are the main founder of the project?

   Marcin Jakubowski (Vgl. Mohammadi (2011)):

   > "Open Source Ecology (OSE) was started to contribute to a global commons of open source information — with a particular focus on the tools of production. I started OSE in my last year of my PhD program, as a response informed by what I perceived to be a general societal lack of true collaboration and openness, which I saw even in academia. I noticed that even academia was turning into branches of proprietary corporate research and development, as opposed to the original mission of culturing open knowledge toward the benefit of everybody."

2. **When was it started?**
   Where is it mainly located?

   (Vgl. Open Source Ecology (2011a)):

   > In the Kansas City area, Missouri – where the experiment began in 2006.

   The exact location is 39.863124,-94.376017 (GPS).

3. **What is the objective of the project?**
   What are the realised results in autumn 2011?

   Objective (Vgl. Open Source Ecology (2011a)):

   > "Our vision is a world where every community has access to an open source Fab Lab which can produce all the things that one currently finds at a Walmart cost-effectively, quickly, on-demand from local resources. We envision these Labs being self-replicating and multiplying like rabbits. This would be a giant leap for distributive economics – where resource constraints no longer apply. People would then have a chance to shift a significant portion of their energy to interests beyond mere survival. The end state is super-skilled workers, free of control

> from remote power centers, as people in communities regain their power to thrive without strings attached to their happiness. The scope of production should include everything from food to fuels and energy to semiconductors and metals."

Results:
We have final prototypes of the PowerCube, Tractor, Soil Pulverizer and CEB Press. Prototypes of the Dimensional Sawmill, Microtractor, Universal Rotor, Drill Press, Backhoe and designs of Multimachine, Industrial Robot and Steam Engine are also available.

4. **What is the nature of the project (non-profit / for-profit)?**
   How is the project funded at this moment?

   OSE is non-profit, for-benefit Project.

   Funding:
   Funding is done through "True fans" a kind of crowd funding. Donations are also accepted. From providing every month a certain amount of money to onetime payments in all ranges are all welcome. A different source of funding is obtained from selling products. The tools that are produced by people volunteering on-site and can then be sold with a revenue, which is used for future funding. We are also asking for support from foundations, like the Kauffman Foundation Grant.

5. **What is the main difference between your project and others?**
   What makes your project special more successful than other projects?

   - Core values on which the GVCS is build and OSE is founded: see the OSE_Specifications
   - Proving the practicality of these values with the current status of the project.
   - Integration of all aspects of life into one community - technological, ecological, economical and social.
   - All this leading to the creation of a local economy which can be easily deployed around the world.

6. **How are you going to distribute your concept?**

   There are several ways of distributing our concept. We rely on word of mouth recommendation and the internet. Another way to promote concepts will be trainings, where

future trainers and builders will be educated. Also through creating flexible manufacturing facilities world-wide, using global designs, we will try to distribute our concepts.

7. **Why are you not counting on an internal engineering force, but rather on a community?**

   OSE is open to everybody, therefore everybody is welcome. We think the more people there are, the easier it is to share ideas and the costs for these. This is not so easy for small or medium companies, as it is for a big community.

8. **Do you take statistics of your contributors?**
   How many people contribute to the project?
   Where are the contributors from?
   What are their level of education?

   There is not enough time to keep keep up all the statistics. But some statistics are provided through the wiki. There are hundreds to thousands who contribute worldwide and in the last months 5-10 people have worked on-site at the project. The main part of the contributor are from the USA, due to the current location. Currently there are 408 True fans (3.Oktober.2011) and the core team consists of more than 7 people. The level of education is ranged between high school, university, engineers to work experienced.

9. **What is the benefit to the community and the single contributor?**

   For the community and the contributors there are several benefits. Shared economically significant designs will not only contribute the OSE project, but the general welfare and of course future generations. The single contributor, through the process of contributing, will get experience in designing prototyping and documenting open source hardware. As one of the main concepts is the localized production it will drastically reduce the cost for produced goods.

10. **What does the community contribute? (design / prototyping /...)**

    There are several things that the community contributes to. Design, prototyping, documentation, technical support, finance, knowledge, resource and organizational development are all part of these contributions.

11. **Is your community a source of innovative concepts?**
    Of what kind are the innovative contributions (product- / process- / business

model-innovations)?

Yes, the innovative concepts are found in products and also business model. Actually the whole open source collaboration process is an innovative concept by itself.

12. **How are contributions evaluated?**
    How do you decide which technology / development should become part of the project?
    How are innovative contributions favored in the evaluation process?

    The contributions are very simply evaluated, through their current practicality. These contributions are evaluated through a metric score system. This system contains 42 questions of significance for example the economic significance, scalability, is it environment friendly, can the product be produced and used locally etc. Innovative contributions are favored in that sense, that they are accepted and implemented, in case it is possible.

13. **How do you decide on which components to make or buy?**
    Up to which granularity / complexity are you going to produce parts by yourself?
    Where do you find possible suppliers for the realization of your project?

    If it is possible with the current resources, one should make it. If not, then buy it. Later, after a production capacity has been established, products should be build on-site. It is tried to start as early as possible in the production chain. That means, we start from melting scrap metal to extracting aluminium and continue from there on. Supply can and should be found nearby but also can be bought from the Internet. Therefore future project locations should be located close to scrap yard or similar facilities to easily obtain these materials.

14. **Is the community engaged in prototyping (virtual / real world)?**

    Yes, the community is engaged in virtual (CAD) and real world prototyping. There are already completely functional prototypes, like lifetrac, power cube, CEB Press, etc.

15. **Does a dedicated online platform exist?**
    What are the most important features?
    What are the challenges of creating such a platform?

No, currently only a mediawiki exists. The most important feature of such a platform should be the easiness of contributing. Challenging are the actual human resources. It can be conceptualized and done, but just it is not a high priority at the moment. We are focused on the technical side, not software.

16. **What information are common to the community?**
Do you use open software / open file formats?

All GVCS designs are common to the community. Informations are broadcasted through various channels, vlog, blog, mediawiki and twitter. A lot of software that is beeing used is open, Linux, Dia, FreeCAD, Blender, Drupal, MediaWiki, Vanilla Forums, LimeSurvey to only state a few. Some people in the community are even thinking about creating their own OSE Linux build, that contains all the necessary tools and libraries (Vgl. Open Source Ecology (2011b)).

17. **How are the tasks broadcasted to the community?**

The tasks, same as general information, are broadcasted through the blog, our vlog and emails.

18. **How is the granularity for the tasks defined?**

Tasks are defined from very abstract models to very concrete tasks. A specific task can be implementing a certain feature like a micro funding proposal or changing the website. An abstract task can be the raising of enough funding for the OSE in Europe. Meaning only the outcome is decided, but not the route that leads there.

19. **What are the managerial challenges now and in the future?**

Finding people to support the project. There is a need for people who support us on-site and remotely. Financial help would be of tremendous help too.

20. **Which license is used?**
What are the basic license principles?

All contributions to Open Source Ecology are considered to be released under a dual license, unless specified differently. This includes the GNU Free Documentation License 1.2 and CreativeCommons by-sa3.0. These licenses are strongly enforced and so anybody that

is not willing to be mercilessly redistributed with the full source at will, is recommended to not contribute to the OSE project.

(Vgl. Open Source Ecology (2011a)):

> "Our technologies are open source in the traditional sense of open access to published blueprints ("source code") for the technologies. The OSE definition also includes an open business model – namely, that we share the business model openly by documenting fabrication economics and ergonomics, sourcing information, economic analysis, and other details which help others to replicate a profitable enterprise."

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