



Presentations of week 3 @ Science Centre Delft

Evaluations of:

Emiel Stöver, Etiënne van Winkel, Jordi Ganés Puig, Tamara Ribbers and Jesse Eppink

Docent: Caroline Nevejan

Content

Emiel Stöver.....	2
Etiënne van Winkel.....	4
Jordi Granés Puig.....	5
Tamara Ribbers.....	6
Jesse Eppink.....	10

Emiel Stöver

Standardization organization - Innovation more than a process,

The following I have said in the presentation:

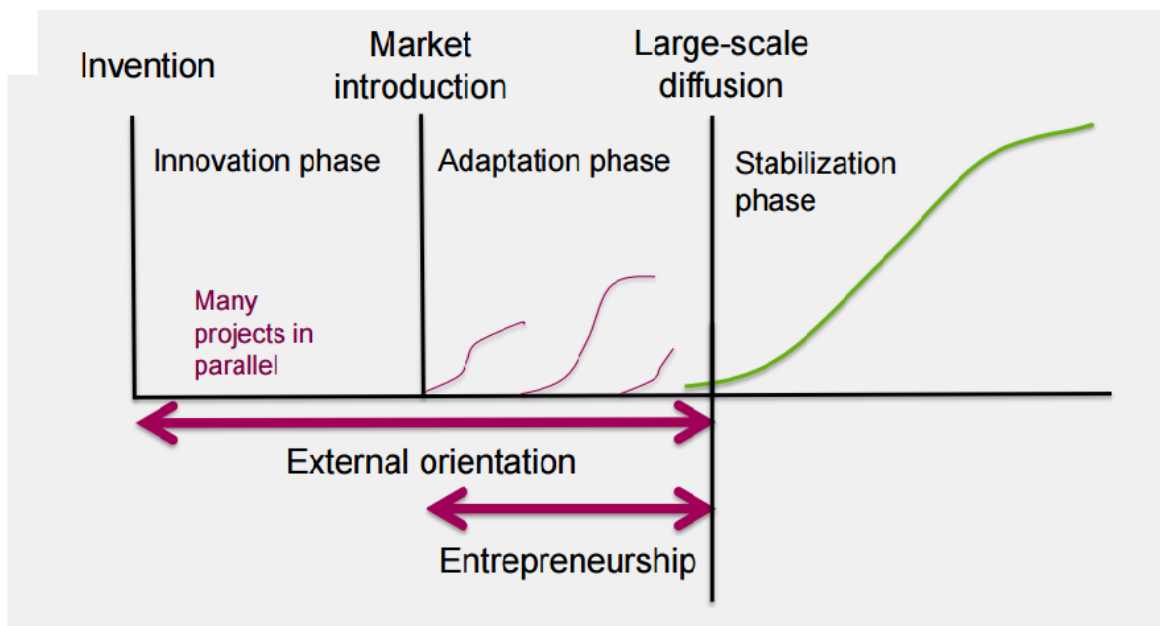
There are two perspectives the first one sees the innovation process more as a project and the other does not see the innovation process as one new product development project. The process is more complex than has been portrayed by the first perspective. This increase in complexity comes forth from four different aspects:

1. Technology and product development proceed in parallel. This means that there is an interaction between these two elements. A product can be developed, but it will show flaws in its design. This means that technology needs to be developed further.
2. Many companies and or networks of companies compete with each other by working in parallel on technology and product development. Innovation can be seen as an interlinked process of separated project, because many companies might work on a similar product and with similar technologies but need their designs.
3. The product cannot be just introduced, there is a lack of complementary products in the market. Sometimes a product needs infrastructure. If this is missing that it might not function or it might not be able to produce it on a large scale. It sometimes happens that the market is not ready for a new product, for example the television.
4. Sometimes the scientific principles become clear after the introduction of a product. This can be seen with airplanes. People flew with them, but years after their introduction we understood the scientific principles behind flight.

So these are four different aspects that distinct the innovation more than a simple process that can easily be managed. Management of these processes can even be described as difficult.

Innovation and diffusion take place in different phases (also see figure 1.):

- Firstly the innovation phase. It can take a couple of years to turn an innovation into a product.
- Secondly the adaption phase. After an introduction of an innovation in a market small scale diffusion in the nice markets can be observed.
- Thirdly the stabilization phase. This is where the product finds its place in the market and not that much innovation needs to take place to radically change the product.



As has been described by Tamara there are different types of management that have to do with innovations. But on top of the R&D-, marketing- and project management you need two more things:

- Companies need to orientate more externally. As a company you need to be aware which products already exist and if they can be complementary to your own product.
- Entrepreneurial competences are required to develop a market. The adaption phase is the difficult phase, you need some entrepreneurial skill to succeed here.

The following I have done in the preparation of the presentation:

- Came up with the idea to go to the Science Centre, and formulated broadly what our presentation should look like (this has been strengthened and professionalised by the others).
- Made an appointment with the Science Centre to look if we want to go there.
- Made an appointment and reserved a room at the Science Centre.
- Made sure that Alexander Lockhorst was at the presentation as well and could be part of the jury.
- I did some minor explanatory parts at the presentation itself next to my own part.
- Formulated and presented the material provided in the top section of this document.

These are my statements about the process:

- I think the collaboration went well, we did know from each other what who was going to do.
- Everybody was on the same page on how we wanted to give form to our presentation.
- The quality was good, I think most people liked the Science Centre and what we told them about it. Especially the link with the course material and the innovations in the museum was good. This gives practical knowledge in an otherwise more theory based form of knowledge.
- It is rather difficult to get together when you're a group of busy students that live in three different cities, but I think we managed quite well and spend our hours preparing in a good way.

The time I put into this presentation would be approximately 15 hours.

Etiënne van Winkel

Church - Emotions, values & decision-making and Individual & collective responsibility

Slide1:

Emotions are neglected in conventional approaches to risk assessment,

Causing debates to get stuck

Slide1:

When the debate runs stuck, often two parties clash: Experts vs Public

Debates about new technologies:

-Emotions are being neglected in risk management

-Debates get stuck between:

Experts: ignore emotions and values

Public: follow emotions based on irrational got feelings

Slide2:

Moral emotions and risk

Emotions aren't irrational; Emotions can be a source of moral and practical rationality

emotions are a source of ethical insight

Underlying values can be:

fear: afraid of unforeseen events

sympathy: scared for an unfair distribution of power/wealth

indignation: afraid of loss of public morals

enthusiasm: accepted by public, because it is seen as beneficial for well-being

Slide3:

Emotional deliberation

In emotional deliberation both technological knowledge and public emotions are combined to produce a responsible innovation. That way room is created for technical expertise, but also for emotional and moral concerns.

Slide4:

Reflection on risk

This should bring experts and the common man back on equal footing, so that polarization in debates won't occur.

That is important to open way for a genuine dialogue in risk assessment.

Slide5:

Responsibility

Now, this brings us back to individual and collective responsibility.

As during the debate, the individual responsibility of the expert is transferred on to the common people,

thus creating a bigger feeling of collective responsibility.

“Agreement leads to a transfer

from individual responsibility

to a feeling of collective responsibility”

Evaluation

I have experienced a good working relation with the rest of the group. Before we started dividing the theory we had already met a couple of times, including the visit to the Science Centre. As much fun as we had while exploring this museum, as prosper was our collaboration, so that I can't really pinpoint any specific difficulties, besides the common struggles of putting up a good orchestra. All in all I feel that everyone of the group was heard and involved in the end. This is probably what led to the great interaction with our colleagues for whom we had to present. They have given us solely positive feedback, and many even wished that the orchestra would have taken more time.

Caroline remarked to me that she loved the way I represented the Catholic Church, including witty remarks and emphasized gestures, which was a great compliment.

Working hours:

It is hard to give a precise estimate of working hours as I didn't keep up a log. Since I have done a lot of work during the group meetings, I would exclude those hours and only look at the time spent on preparing the presentation at home, I probably didn't spend more than 4 hours working over it.

Jordi Granés Puig

Environmentalist – Incremental and Radical innovation

Evaluation

- I think the collaboration was good, as it use to happen everyone took different roles but anyone took a negative one.

- We were not much productive working together, probably because of the group size. I know that is difficult to manage because less people per group means more groups and there are no more weeks to do the presentations. As a constructive criticism, I don't know how but it would be better to have 4-5 persons per group, not 5-6.

- The presentation went really well, some of us were quite nervous but the whole group was enthusiastic with the presentation and I think we transmitted that to the public.

- As an exchange student and the only non-dutch speaker of the whole class, I appreciate the effort that people did to speak English in every moment, even during the breaks or group e-mails.

- I think that we were lucky to do our presentation on the last weeks because we had enough time to know each other and have a more fluid communication. I think that difference can be appreciated if we compare the first presentations with the last ones.

Tamara Ribbers

Investor- Innovation as a project

For the presentation, I had to prepare the part 'innovation as a project'. So I created slides for this and I prepared what I was going to say. I also had to talk and dress like an investor, because that was my role. I wanted the things we made to look nice, so I created the 'creative workshop' and the 'price' in Illustrator, which can be seen in the figures 1,2 and 3 below.

First thing we did after we had the idea of going to the Sciencecentre, Jesse, Emile, Etiënne, Jordi and I went to the museum to look what we could do there and we talked with Alexander, the head of the Sciencecentre, who told us about innovations. Emiel was the one who kept contact with Alexander. We were all excited to do our presentation At the Sciencecentre. Unfortunately, some problems occurred when Niekie was added to the group. Since no one of us had her contact information, we couldn't contact her to go to the museum.

Tuesday the 22nd of September Jesse and I went to the meeting with Caroline to talk about the presentation, I wrote everything down and send it to the other group members. In the week before the presentation, the 25th of September, Jesse, Niekie, Etiënne, Jordi and I had a meeting to arrange everything for the presentation. We worked 3 hours on the presentation and we divided the tasks. Unfortunately Emiel wasn't here, which he didn't say on beforehand, what I thought was strange.

At Monday the 28th of September we all must give each other our presentation about our part. Unfortunately, some people within the group didn't finish their part, which was a result of a lack in communication. During this meeting, we didn't worked together nicely. Niekie wanted to change the plan which we worked on the Friday before for 3 hours, what provoked a conversation. She was a bit aggressive and wanted to put her ideas through, this scared some of us. Because I said that we had no time to change it, we moved on. Also some problems with dividing tasks occurred, but has been solved at the end of the meeting.

The presentation at the 30th of September went good. Everyone prepared his or her part well, everything was planned well and the students were enthusiastic. I think each group member did the same amount of work.

CREATIVE WORKSHOP

LET'S GENERATE NEW KNOWLEDGE TOGETHER

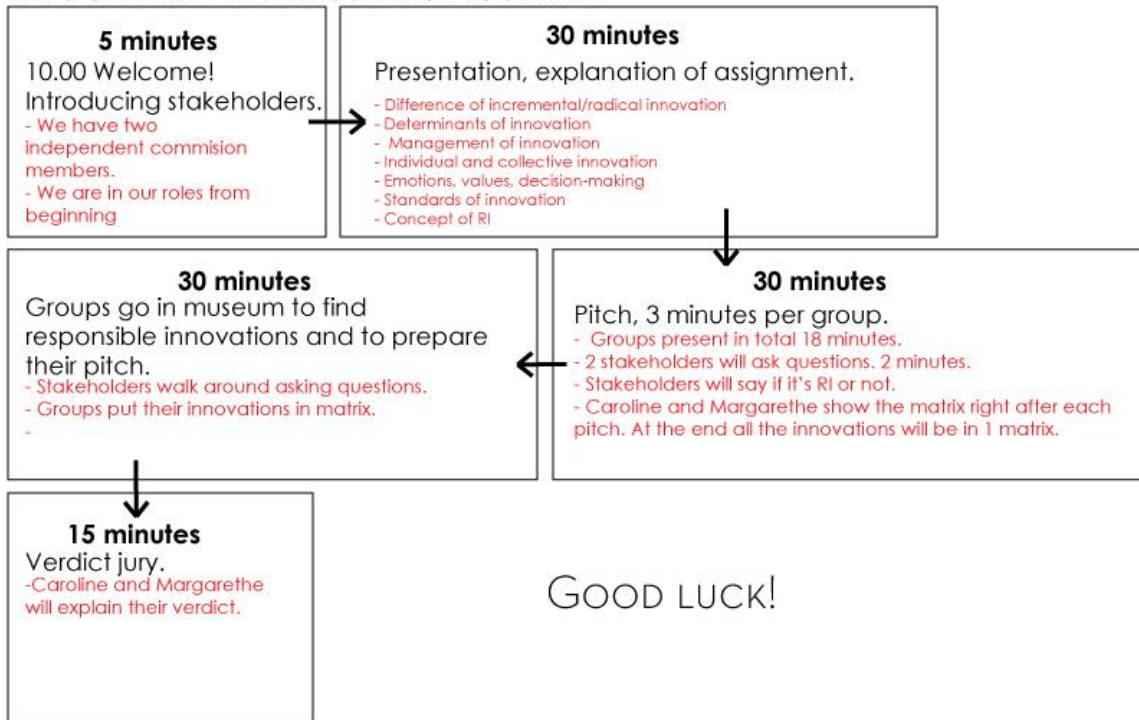


Figure 1: 'Draaiboek' for the group

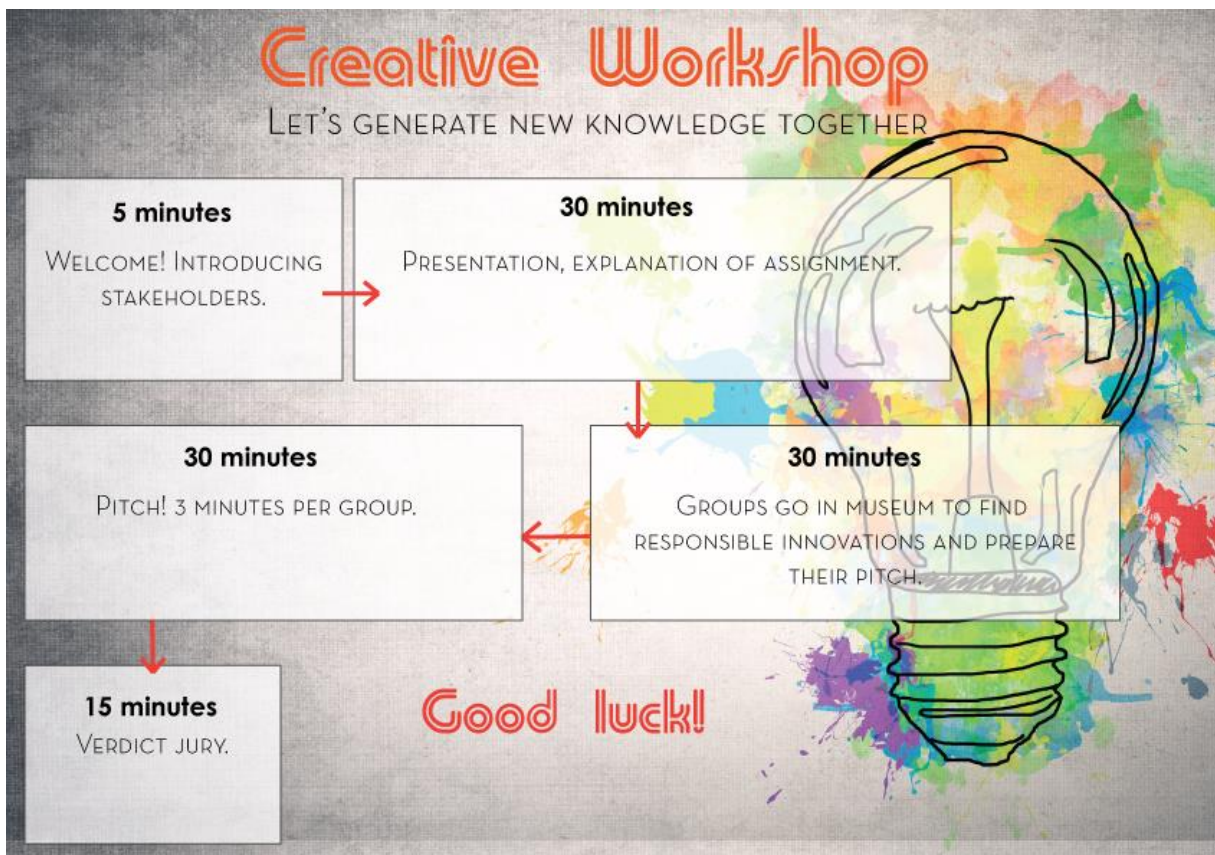


Figure 2: Creative workshop for the students



Figure 3: price

This is what I said during the presentation:

I am the one who invests in your innovative product. My vision is, money must role. But before you can convince me about your product, a marketing introduction plan must be made which will lead to diffusion.

How do you do this? How do you lead the process of innovation. We have two methods which can be used in the management of innovation, I think the people who watched the MOOC all know them. The one I'm explaining right now is called: innovation as a project. This means that the process can be seen as a new product developing project.

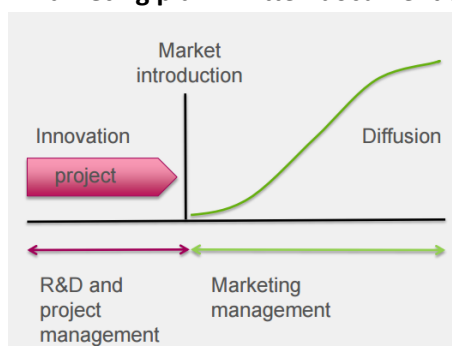
This method consists out of two things:

- R&D

Covers activities such as basic [research](#), technology development, advanced development, concept development, new product development, process development, [prototyping](#) etc.

- Marketing management

Is really broad. Various analyses and the strategic marketing program should be summarized in a **marketing plan**: written document detailing the current situation with respect to customers, competitors, external environment, providing guidelines for objectives, marketing actions, and resource allocations over the planning period for either an existing or a proposed

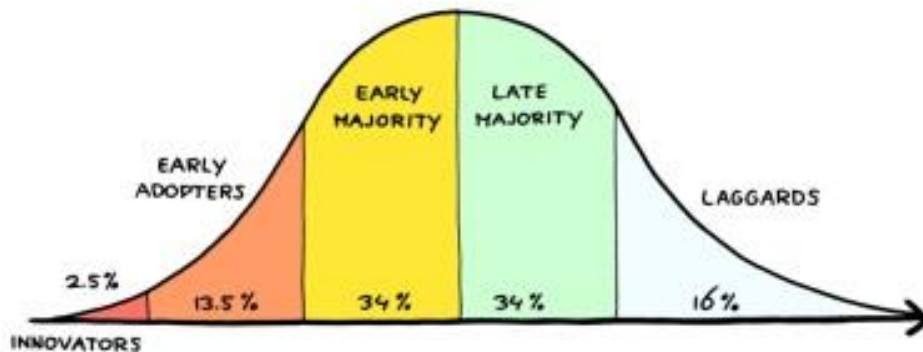


product or service.

Marketing and R&D can be involved in an innovation process in a variety of ways. They can form a true partnership, with each sharing equally in the process. Alternatively, one can play a leading role and the other a supporting role. At the extreme opposite, the process could be the private domain of either Marketing or R&D with the other playing little or no role in it.

Diffusion of Innovation

Theory by Everett Rogers, developed in 1960.



Innovators: First who wants the products, likely to be receptive to new ideas, tend to have high incomes.

Early adopters: Are often opinion leaders, serve as vital to members of the early majority group (due to their social proximity) and participate more in community organizations than do later adopters. Strong grow in selling.

Early majority: First big group of buyers. These individuals display less leadership than early adopters, tend to be active in community affairs, do not like to take unnecessary risks, and want to be sure a product is successful before they buy it.

Late majority: They adopt the product because they are forced to do so for either economic or social reasons. Participate in community activities less than the previous groups and only rarely assume a leadership role. Selling rate is decreasing.

Laggards: Participate less in community matters. In some cases, their adoption of a product is so late it has already been replaced by another new product.

Mullins, W., & Walker, O.C.(2009). *Marketing Management – A Strategic Decision-Making Approach*.

So I dare you to convince me why I must invest in your product.

Jesse Eppink

Government - Economic determinants of technological innovations

Evaluation

In my opinion, working in the group was generally quite nice. In the end we were all happy with the result. There has been some friction, but I enjoyed working with everyone.

We could have worked more efficiently, if we would have made decisions on the outline of the whole project earlier. The determination of the outline of the lecture has been very time-consuming, leaving us little time left for the completion of the project.

Tamara and Emile had a great attitude. They have been most pro-active in the beginning.

It was a pity that Emile could not be there at the meeting where she shaped the presentation, but it was a nice chance for others (including me) to show some more initiative.

Niekie has been very enthusiastic, but should sometimes restrain this enthusiasm in order to not end up in complete chaos.

As said before, the determination of the outline and planning has been very time-consuming and was finished rather late. After the meeting between Caroline, Margarida, Tamara and me, I became very targeted towards the final shape of the lecture. We took all possibilities into consideration and listened to everyone's ideas and ended up with a really nice format.

However, the next meeting Niekie did not understand the outline and planning anymore, and came up with her own ideas. When I blocked this (since we did not have much time left and we did already discuss all possibilities before) and got the support of the whole group, she felt disadvantaged. Obviously, this was never my intention. I found her attitude at that point a bit childish, but luckily I did manage to keep the peace.

When having the final meeting before the presentation, I thought that we had decided to all fully prepare our part of the presentation. Where some of us had done this, others did not. This is not just caused by their laziness, but turned out to be a result of poor communication from my side. The format outline and planning eventually turned out to be just great. The course material has been presented very well. I especially liked the feeling that was put in the presentation by Étienne. Niekie was quite resourceful. She brought the camera, the instant-printer and even thought of the sticky stuff in order to glue the pictures in the matrix. The instruction she did on the game, was rather vague and caused a lot of confusion. It turned out that I was the only one wearing a very special outfit, and therefore I felt quite overdressed. Fortunately, Caroline and the group showed their appreciation.

Finally, I fully agree with the mail containing the reaction on Niekie's evaluation.

This is what I said during the presentation

Hello, my name is Jesse Eppink and today I will be the representative of the Dutch government. By the end of the day I will judge you on the presentation of your innovation, but first I will provide you some information about the determinants of innovation. I must say that this presentation will not be the most interactive one, since I decided to keep it short, in order to have enough time left to explore this beautiful museum. Nevertheless, there will be some time left at the end to ask me your questions.

Innovations in the past have often been an invention of single people. To scale up the production of innovations however, it is necessary to put a number of creative people together in an organization. Examples as universities, science centers and companies nowadays stimulate and scale up innovations. Still, many studies show that the chance of translating a new original idea into a successful commercial product is less than 0.1 percent. This is also the reason why investors as Tamara Ribbers here, are very critical on potential investments and the quality of the innovation should be outstanding in order to become a success. However, the chance of an innovation is not only determined by the quality of the innovation itself. Moreover, it is also discussed by the organization of the innovating firm itself and environmental factors. Being a representative of the government, I will not discuss the firm itself, but I will discuss two environmental factors, namely: the technical and the economic environment.

The technical environment consists of the industrial sector to which the firm belongs. In cellphone industries for instance, you have to develop more quickly than in rather slow ones such the perfume industry. The second determining factor, the economic environment, or market structure, has influence in two opposing ways, of which the subject is both competition. Firstly it was stated, that opposition enforces innovation in order to stay ahead of the competitors. On the contrary, big firms may have that many resources to be able to be involved in uncertain innovations without immediately going bankrupt after innovation failures. Concluded can be that the perfect environment for innovators can come in different shapes. The government also has its influence on the economic environment, on which I will spend the next part of my talk.

To protect inventors that have succeeded in innovating, the government can protect them with so called patents. The original inventor gets protection for twenty years during which his innovation is not allowed to be produced or sold by someone else unless the original inventor is financially compensated through so-called licenses. This provides the possibility to earn back the development costs and in this way encourages innovation.

This is not the only influence my government has and even long-term monopolies exist. An example of a prevention of monopolies by my Dutch government is the rule that there may not be more than 2 gas stations of the same company within a range of 25 kilometers. This however, is one of the few examples of active government law-making against monopolization. Maybe even more interesting, is the creation of monopolies by my government itself. It has created a monopoly that allows various gambling practices only to happen in casinos of the firm Holland Casino, of which we ourselves are the owner. This way we as a government, can control the practices and gain some money. Another interesting case of a monopoly created by the Dutch government, is that in the past TPG post (now

renamed TNT) was the only company allowed to deliver mail lighter than 50 grams. The withdraw of this rule in 2009 shows that the role of our government also changes in time.

Another change in the environment of innovations is that the last twenty-five years technological innovations have become increasingly complex, fast changing and much more international than before. As a consequence, innovating has become harder and more costly than before. You will also face this problem, when competing with the other groups in pitching your chosen innovation at the end of this course. I would like to wish you good luck with that and I would now like to give the word to Etienne van Winkel, which is an active member of the church and will provide you a small presentation on emotions, values & decision-making.

This is what I created

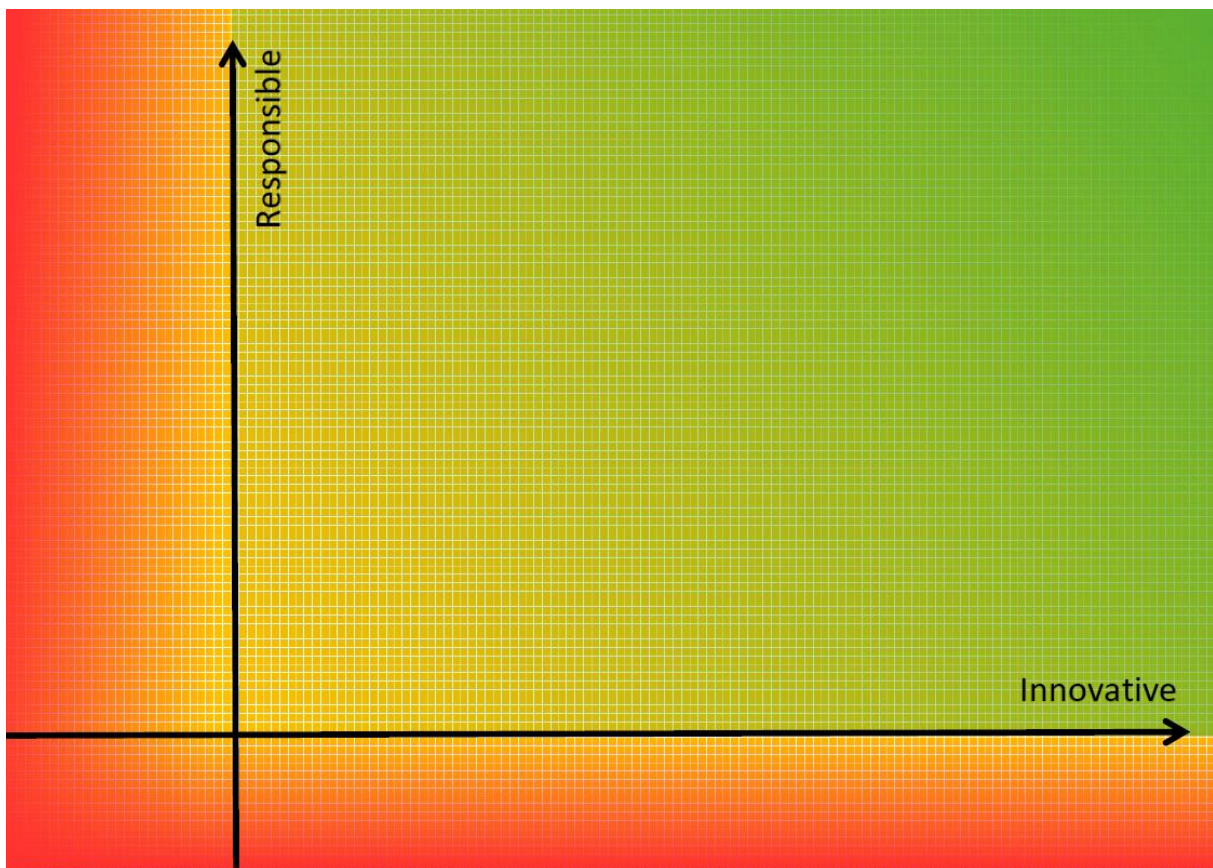


Figure 4: Matrix created by Jesse

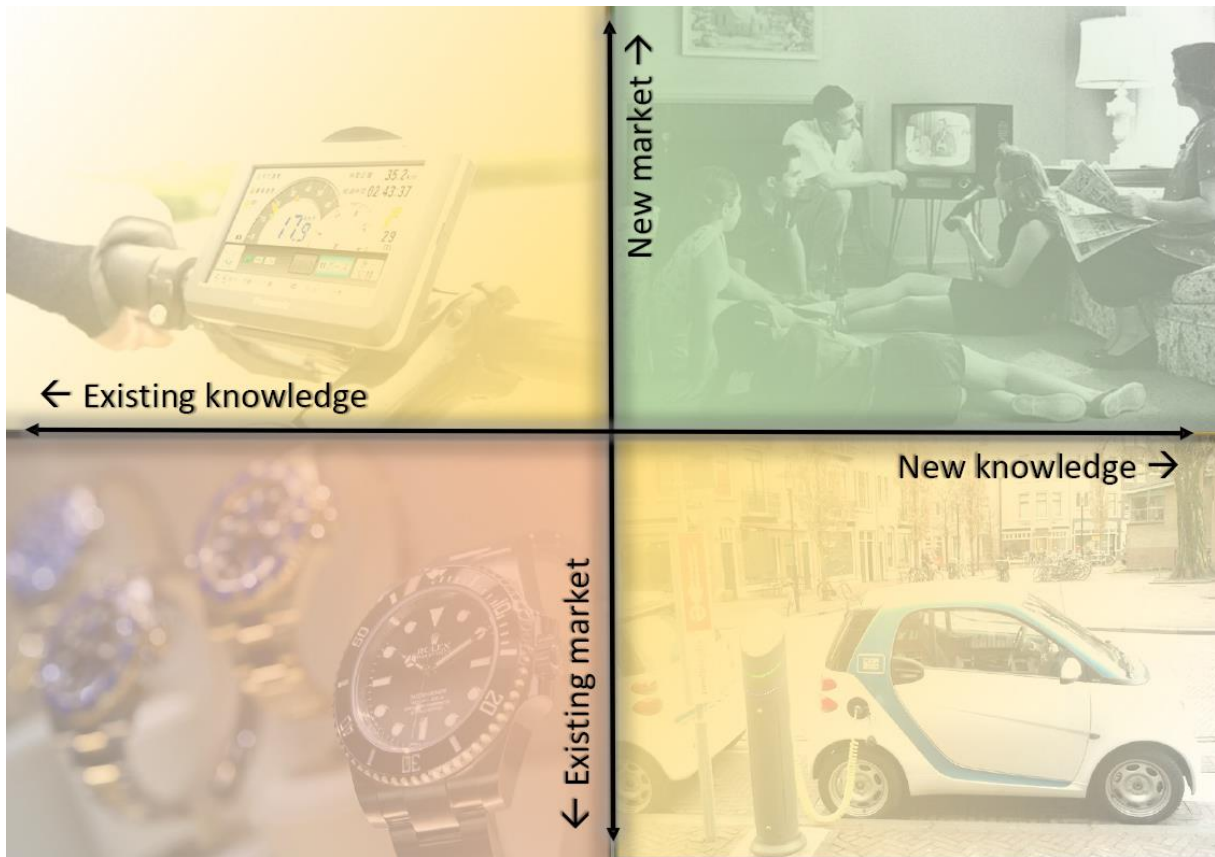


Figure 5: Matrix created by Jesse

I wrote a column after our meeting with Alex Lokhorst from the TU Delft Science Center.

<http://tudelft.gingerresearch.net/page/9354/innovating-to-innovate>