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Bas

van Straaten Eindhoven University of Technology (Netherlands)

Bas van Straaten is a multi-disciplinary designer with a strong interest for the business behind design. Driven by his broad skillset and open-minded approach, he is able to connect the many dots across different design fields, resulting in unexpected technological innovations and ideas.

http://basvanstraaten.com

Alexandra Auer Eindhoven University of Technology (Netherlands)

Alex is a third year Industrial Design Bachelor student at the Technical University of Eindhoven. While she like to wrap her head around all kinds of designs, her main work area is social design with great emphasis on communication, culture, and cross-cultural communication. Using a people-centered approach, research and knowledge, she develops physical or digital concepts to benefit social causes.

http://alexandraauer.eu

Seiji Bernabela

Eindhoven University of Technology (Netherlands)

Seiji is an industrial designer and interaction designer currently studying at the University of Technology in Eindhoven. He defines himself as an adaptative, independant and positive person eager to learn and discover, with strong communication skills.

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Veronica Della Morte Salzburg University of Applied Sciences

Veronica is a positive, active and sociable person. She likes trying to understand people feelings and behaviours, and she thinks this is a fundamental part in her profession: she sees design as a mean to improve people's lives, so it cannot but go hand in hand with people. Curiosity, creativity and determination are also qualities that always lead in her way of doing.

Pere Albert Marin Peiro Salzburg University of Applied Sciences

Pere is an Industrial Designer from Spain currently doing a Madter in Design and Product Management in Salzburg. He considers himself a hard and dedicated worker. He love starting new challenges and he gives each project all his best. He sees design as a tool to convert an idea into a product and for him there is no better feeling than bringing ideas to life through creation.

DESIGNER DESCRIPTION



Name: Bas van Straaten

Internship dates: 24/07/2018 - 31/07/2018

Current study: BsC. Industrial Design (2015 - 2018)

Brief of the designer profile:

Bas van Straaten is an Eindhoven based business designer. Currently working at the Dutch Innovation Studio OWOW, his organised passion for technology, design and entrepreneurship allows him to connect many dots across different fields within the company. He thrives on calculated and analytical processes and possesses a proactive and entrepreneurial mindset. Enjoys the never ending quest of striving for perfection.

COMPANY DESCRIPTION

Name: Industrias BETER

Sector: Beauty Accessories

Description: BETER is a company based in Barcelona, founded in 1936 and run by the third generation of the family. Over a period of 80 years they became experts in personal care, extended their product range and consolidated the brand, making it stronger and better known to consumers. [2]

BETER distributes their products extensively in perfumeries, mass market and pharmacies worldwide.

Department: Marketing



Image 1: In 2010, BETER's product 'La Pinzette" was a finalist for the Vogue Innovation Award. My task was to redesign this product and make it relevant again.



Image 2: BETER's aim is to be present in all the daily beauty care ritual of women. Since they get up, until they go to sleep.

PROJECTS CARRIED OUT

General data on the internship agreement: 24/07/2018

The main task of my internship at Industrias BETER, was redesigning 'La Pinzette', an innovative eyebrow plucking toolkit, brought to market around the year of 2010. This product consists out of a tweezer with light and a mirror, all stored in a compact traveling casing.



Image 3: La Pinzette

Since its original release date, La Pinzette has been sold in many coutries around the world, however, after sustaining for many years in a very competive and 'lowest price' driven market, the products is now becoming outdated, this being reflected in sales numbers as well.

After an initial meeting with the CEO and Product Manager Marketing, it became clear to my that I had to (re)design a product similar to La Pinzette, making it more relevant for todays' market. Not having any experience with eyebrow plucking or using tweezers for this particular task, my first step in the process was to gather as much information about this topic as possible, trying to **understand** the user, market, existing products and possible constrains on this project.

Since I already had an existing product to work with (la Pinzette), it seemed best to me to observe and interview existing customers using this product in their daily life, trying to find pain points or new areas for innovation. However, due to the steep language barrier which would occur when talking with existing customer, and the fact that these were hard to gather in a short timespan, I decided to restrain my attempts to understand from real users oberservations and interviews, to only interviewing employees of BETER about eyebrow plucking in general.

In total, I interviewed six employees about how they experienced eyebrow plucking, why they did it and what aspects they found important in the process. During this sessions, I learned a lot about the specific tools they preffered and used, and gathered a lot of insights which were used later in the design process. Apart from interviewing people about eyebrow plucking in general, I was interested in learning more about what real customers of La Pinzette thought about the product. By reading reviews of the product on sites like amazon.com and other e-commerce websites, I was able to distill some insights about the light, mirror and overall use of the product: In general, it could be said that people loved the small footprint of the product, allowing them to carry it around in their purse. Next to that, (most) people were fan of the extra light source in the product, but the specific placement of the light inside the tweezer caused some problems for some (casting shadows, blinded eyes, etc.). The last area of complaints was about the mirror: many people stated that this mirror was too small and they would prefer a magnifying miror, a comment which I also often heard during the interviews and the initial briefing of this project.

Gathered with insights, I moved into the next phase of the process, namely the first **ideation phase**, which proved to be rather difficult and (relatively) rather slow. In hindsight, I believe this was caused by two factors:

- 1. Lack of working in a team: Being used to working in teams during (at least) the ideation phase, I struggled quite a bit to come up with lot's of ideas, receiving quick feedback and building upon thoughts or ideas from others.
- 2. Limited accesibility of resources: Wheares I normally make use of physical prototyping (3D printing, handson prototyping) to 'brainstorm' about ideas or visualizing my thoughts, I now was limited to using copypaper or my computer brainstorm about ideas.

Nevertheless, I was able to prevent myself from getting

completely stuck, by pushing myself forward and relying heavily on finding inspiration (Pinterest.com, lemanoosh.com, competitors' websites, etc.) to base my ideas upon and make up for the lack of not having a team to brainstorm with. Next to that, I also expanded the space I was working in from 'redesiging La Pinzette' to 'innovation in eyebrow plucking' in order to give myself some more space to come with ideas.

After the first week of working for BETER, I came up with a variety of early stage ideas and product directions which were presented to the CEO and Product Manager Marketing in a short meeting. After the presentation, it was decided to continue working in an 'emotional design' direction, taking inspiration from products designed by Alessi [1].



Image 4: Alessi's famous playful designs

Based on this decision, I continued thinking for a couple of days of ideas which fitted in this category. After working out four concepts in Adobe Illustrator – all incorperating the functions of the original La Pinzette – these were again presented to the CEO. Altought some ideas were favoured, it was suggested to take a step back in the process and try to explore the idea of a mirror with a foldable handle, allowing it to be recessed in the base of the product.

Again, after a few more days of brainstorming and working out new ideas, I presented the new concepts to the CEO alongside the people of the Marketing department. Here, it was decided to continue developping two concepts: the mirror with a foldable handle, in which a tweezer could be stored as well (image 5), and a round object where the mirror would come upwards by interacting with the mirror, increasing the light intensity of the LED ring next to mirror.







Image 6: Initial concept for mirror who's light would increase in intensity when interacting with the mirror.

In the next weeks, I set out to create a physical prototype of both concepts. Starting with the 'foldable handle' concept, my first priority was to figure out how to create the mechanism that would the handle to recess into the base of the product. After trail and error – going through several iterations of making CAD models spread out over a couple of days – I finally landed on a mechanism that allowed the handle to rotate in such a way it did not impact the design in an aesthetically unpleasing manner, which was the case with earlier iterations.



Image 7: The mechanism, allowing the handle to fold and recess into the base, while adapting to the aesthetic design specifications created earlier

With the mechanism out of the way, it was time to finish the rest of the design, adding light to the product and a place to store the tweezer. For the light, it was decided to create strip of LED around the mirror, who's intensity could be controlled with a simple slide knob on the handle. Next to this knob, the tweezer could also be placed inside a cavity in the handle.



Image 8: The final design of the 'foldable handle' concept.

After finalizing the CAD model, it was time to verify whether it would actually work in 'real life' as well. With some help from one of the other students from the DECS internship program, I managed to make a 3D printed model at his internship company, Sokotech [source]. It took a couple of tries and iterations, but at the end of the day we created a beatiful 3D printed model, even with a working mechanism. To create the illusion of the mirror and LED ring, I used some alluminium tape and paper, giving it the desired look.



Image 9: Fully 3D printed version of the CAD model, with place for the tweezer inside the handle.



Image 10: The rotating mechanism in working.

Now that the first concept was 'finalized' and made tangible, it was time to focus on the second concept, the round object where the mirror would come upwards by interacting with the mirror, thus increasing the light intensity. However, after going through the concept a bit more in depth, I quickly came to realization that the mechanism I had in mind would not be feasible without making the overall casing too thick, something that is quite important when creating products meant to be stored in a purse.

Still liking the idea of increasing the light intensity of the LED ring around the mirror by interacting with the whole product itself, rather than just a simple knob, I explored some different ideas. One of them was to use a fully rotatable ring mounted around the body of product, not only allowing it to control the intensity of the LED ring, but also to form a cover for the tweezer which was stored inside the product. On the next page some pictures are included for clarifycation.



Image 11: By twisting the lower ring, the light intensity of the LED ring changes.



Image 12: Inside the product, a tweezer can be stored in a cavity. When turning the ring, the tweezer can be taken out when the holes match up.

Once this design was created, I made a CAD model, taking the electronics, batteries and magnifying mirror in mind as well. Again, This model was then 3D printed at Sokotech, and some small LED lights and batteries were put in by me, both of which worked perfect (until the night before the presentation of course...)



Image 13: The interior of the product, showcasing the LEDs.

During monday of the last week of my internship, both ideas were presented to the CEO and the marketing team, were it was decided to try to produce both products and bring them to market. In the next couple days, a report with all design specifications to be sent to the manufacturers was created by me, as well as finalizing a nice colourscheme for the products.

Other Assignments

Apart from working on the redesign of La Pinzette, I occasionally worked on some smaller design assignments in between. One of these assignments, was redoing the layout of 8 product packaging that were ready to be printed at one of BETER's manufactures. Althought most of the design was already carried out by the internal designer, they were some layout issues I had to fix while adapting the design to the right packaging sizes.

Another tasks was creating a new social media video for U Tweezers, a new product BETER is releasing into the market. Here, I created the concept for the video, which I was meant to film and edit afterwards. However, the deeper I got involved in the La Pinzette redesign process, the less time to work on this project, eventually leading me to not being able to film the video anymore.

The last assignment I worked on was to design a backdrop for an event in Portugal, where a new model of the year would be chosen. Based on the material and info that was provided to me, I gave myself 2 hours to come up with some low fedility ideas in sketch before sending it to the responsible person and the CEO. After a week or so, I got feedback from both person and we continued with the idea that was first on their minds. Usage of a photo and a checkerboard. After this feedback, I finalized and perfected the design and made it ready to be printed.



Image 14: Final render of the mirror with rotatable ring.



Image 15: One of the colour explorations made during the last few days of the internship

DESIGN PROCESS ANALYSIS

Design Process

Since their is no real, nor no formal design process at BETER, I decided to interview one person from the marketing department about how new products are generally launched inside the company.

The main steps that came forward were:

1. Inspire

New ideas for different product categories come from a variety of sources, inside and outside the company. As I understood, most new product ideas come from existing manufacturers or from the staff visiting product fairs in China. Next to that, once in a while, new ideas come from customers or employees.

2. Picking a product

The next step is to decide on which product(s) to launch in the next catalogue. How this is done? After everyone comes back from a fair to Spain, the CEO and the members of the marketing department have a general meeting in which the ideas and products are discussed. As I understood, the final decisions are based on 'personal experience' and gut feeling of certain people.

3. Production

Once the products are chosen, contact is being made with the manufacturers asking if they can either private label the product or produce a new product, but often not completely from scratch. Packaging is created and a marketing strategy is made internally by BETER's team.

4. 'Validation'

Once the products are ordered, the packaging is created, either in China (manufacturer) or Spain and a first batch is distributed to an initial seller base consisting out of ~1000 shops, depending on the product line the product is being created for.

5. Scaling up

If this initial batch turns out to be successful, more units are ordered and the sales department sells them to potential customers. If the test run turns out to be a flop, the product will likely get killed or end up at the shelves in one of BETER's warehouses.

Remarks

As one might observe from the above-mentioned process, is that almost all new products stem from sources outside the company, and the market validation of those products only happens very late in the process. This became also evident while interning at BETER for the last 5 weeks and interviewing a couple of employees.

As one staff member told me, a lot of products in the beauty market are derivatives of each other or copycats. If they go to a fair in China for inspiration, all the products are exactly the same, apart from some different colours or logo's. That's why in this market, it is extremely important to create a strong brand and have a good selection of products of which the target audience really identifies with and buys.

Another often heard remark, was that there were a lot of products which ended up on the shelves of the warehouses, because these products were based on 'market trends as perceived by the employees and management staff', but the speed of delivery or assumptions did not match with the actual demands of the market. Something that could be easily prevented by early-on product validation I would say.

Lastly, the lack of a formalized process in order to select winning products worries me (and some employees I interviewed) a lot. Wouldn't it be much better to have a formalized process, taking user data and market research into consideration, in order to pick new products, rather than solely relying on assumptions and opinions of certain people inside the company?



Your results

Here you have the results regarding your creative profile. The value of each creative competence is determined by the values of two different creative dimensions of design practice.

For more information you can check:

www.decsproject.net/cdt

3.5 / 5		3 / 5		3.5 / 5		4.25 / 5	
Innovation		Research		Leadership		Autonomy	
3 / 5	4 / 5	<mark>3</mark> / 5	3 / 5	4.5 / 5	2.5 / 5	4.5 / 5	4 / 5
Originality	Realization	Search for information	Experimentation	Strategic vision	Coaching	Self- management	Initiative
2.25 / 5		2 / 5		4 / 5		2.25 / 5	
Social and ecological sensitivity		Oral communication		Critical Thinking		Teamwork	
1.5 / 5	3 / 5	1.5 / 5	2.5 / 5	4 / 5	4 / 5	2 / 5	2.5 / 5
Awareness	Compromise	Planning	Charisma	Questioning	Improvement proposition	Delegation	Tolerance
2.5 / 5		4 / 5					
Aesthetic Sensibility		Learning					
4 / 5	1/5	3.5 / 5	4.5 / 5				
Appreciation	Criteria	Curiosity	Knowledge				



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CONSIDERATION ABOUT COMPETENCIES

Personal reflection on the creative competences put into practice during the residencies (based on the results obtained in the CDT).

1. Learning

(Curiosity + Knowledge internalization)

Looking back at my internship, and specifically the assigments I had to work on, I feel this competence played a very important role in getting to the final outcome of both products. Even before starting my studies at Industrial Design, I always had the urge to figure out how things work (curious mind) and an 'I can figure this out' attitude. In my opinion, this was also reflected during my internship, where I had to learn a lot of new stuff in order to come up with a successful design, both around the topic of eyebrow plucking and product design in general, since I never had really created a non-technical physical product from scratch.

2. Aesthetic sensitivity

(Aesthetic appreciation + Aesthetic Criteria)

Looking at the results on this competence in the CDT and the final designs I have created, I believe the outcomes match pretty well. Although I have a strong appreciation of aesthetics of design (look and feel), I do not always back up my design decisions with solid arguments, or make decisions solely based on aesthetics, in terms of putting form before function, rather than the more used 'form follows function' approach.

When creating the two products for the La Pinzette redesign, I feel there were two different ways of designing at play. For the mirror with the fold-able handle, the final aesthetics came forward from a functional ground: It had to have a fold-able mirror, house a tweezer inside there and have light. The final design was the result of meeting those rather hard to achieve criteria.

However, when designing the rotatable mirror, the final result was more a results of my aesthetic sensibility. The functional part of the design was easier to comply with, but in the beginning I struggled a lot with making it a beautifully designed object with proper interaction as well. After I had made a few iterations of the design based on functional needs, I realised this was not the way to go for this product and changed my approach by putting aesthetics (form and interaction) as a main driver for the design. This led me to the final design, of which I believe the functional part of the design still has some flaws as a result of giving more importance to the aesthetics of the design.

3. Teamwork

(Delegation + Tolerance)

During my internship, this competence was not really put into practice, since I was the only one working on the assignments, as a result of my being the only product designer in the company. On several occasions, I had short feedback session with the CEO and supervisor, but I was never able to delegate work or work cooperative on something, unfortunately.

4. Critical thinking

(Questioning + Improvement proposition)

For me, critical thinking can be described as 'thinking before doing', challenging existing assumptions and believing that all things can be improved. I feel this competence was mainly at play during the initial phase of the assignment, where I did research about the existing product and challenged existing beliefs of the employees and the CEO about why certain things were done in certain ways.

After this initial phase, I feel I entered somewhat of a execution mentality, where I continued working on the project without stopping every now and then to reflect, and check whether I was still on the right path. This is something what I will take with me to my next projects/ businesses/ (freelance) jobs, where I will reflect on a weekly basis about my goals, work, projects etc.

5) Oral communication

(Planning + Charisma)

Normally I don't feel very comfortable when presenting my ideas (preparing is fine though) as I'm a quite introverted person, but during the DECS internship I felt this went much better than usual. Whenever I had to present something, I prepared a simple, but nice pitch deck with the work I had done in the previous days/ weeks and the presentations itself were very relaxed. Still, I believe there is a lot of improvement for me on the charisma aspect of this competence.

6. Social and ecological sensitivity

(Awareness + Compromise)

The capability to reflect upon the social and ecological aftermath of a project. It refers to both the interest and respect for others and the capacity to act in consequence creating responsible and ethically sustainable projects.

Although there is certainly an interest for the ecological sensitivity for me, there's a big lack of social awareness in the way I design. (Or at least: the projects I have worked on so far in my life, did not pose a big change in social aspects). Although I do think about the impact a product would have on the world, I generally look at individual outcomes, rather than at the outcomes for society as a whole.

During this project though, the ecological aspects came in to play and formed an internal conflict every now and then in the design process. I'll give an example: The mirrors I had to design were meant to target women who would bring them along in their purse for traveling purposes. When discussing this with the team, there was an ongoing discussion of whether this meant that the mirror side of the product had to be protected in some way, which I did agree upon. However, when designing the 2 products, it turned out that having some sort of protection over the mirror was less desirable due to aesthetic reasons. As a results, the mirror still had to be protected with some sort of bag, enlarging the ecological footprint due to extra materials etc. That caused somewhat of an internal conflict for me: I believe it does not make sense to me to design something for in a purse, but which then also still has to have an additional bag to protect it. In that way, one could say the designs had failed.

All in all, I think I can say there is definitely an interest for this competence (mainly ecological), but it's not top priority for me when designing.

7. Autonomy

(Self-management + Initiative)

It refers to the individual capability to manage and organize work in an autonomous way as well as to personal initiative when modifying a project.

Since I was mostly working on my own during the internship, I felt this competency was at great play in Barcelona and executed correctly. I felt very autonomous in the work I did, not having to fall back on/ question the existing employees all the time.

8. Leadership

(Strategic vision + Coaching)

In my opinion, strategic vision or approach rely ties together with the critical thinking competence, in the way that one must first think (challenging assumptions, data-driven validations, etc.) about something before executing upon it. In that way, I believe the strategic vision aspect (e.g. I actually looked over sales numbers to look for opportunities etc.) of this competence was somewhat at play during my internship, but second aspect, coaching, was sadly not of relevance at BETER, since I was performing this assignment on my own.

9. Research

(Search for information + Experimentation)

In the beginning of the project I did quite some research on existing products and market trends, trying to get a grasp of what it really is I'm working on and in order to understand existing problems/ restrictions. Next to that, I had several interviews with several employees in the company about one of there existing products (which I was meant to redesign), something which I not often do in my design process. Since most products I designed in the past where self-serving or were future based, I generally skip the phase of user-research, because I rather work from within my own vision. What changed my mind about during this design process, was the fact that I did not know anything about the topic and the fact that I had an existing product to work with. In this light, it seemed most sense to my interview existing 'users' in order to get insights and understand their current usage and view of the product, rather than creating a vision about a product(space) I knew nothing about.

During my internship at BETER, I felt quite restricted in the playground I had to experiment during the design process. Usually, when I'm in the Netherlands, I have quite a lot of tools at my disposal to design. Think of a laser-cutters, 3D printers, workshop studio, but also the more simple stuff like cardboard and paper to experiment. I believe if I had those tools at my disposal, the ideas I came up with would have been much more diverse and the final design would have been created faster.

10. Innovation

(Originality + Realization)

Let me first say that I don't believe in the concept of 'originality'. I'm a big believer that everything I've created is a culmination of things I've seen, liked and re-purposed in some sort of way. Seeing a million things a day that my brain captures, is what influences my design style/preference, and it would be impossible for me to reference when and where I have seen these design inspirations.

So, instead of trying to be all 'original' with my work, I find it much more important that I get the job done. This means that I much rather look at – and learn from – existing products/ services with a proven track-record and copy certain elements of these products, instead of locking myself up in a room trying to come up with all 'original' ideas. This was also the case during my assignments during the internship at BETER.

Looking at the realization aspect of this competence, I come to the same conclusion as the experimentation aspect in the research competence: Although I do have a lot of experience with rapid prototyping and digital manufacturing tools, I did not have the resources to fully use these skills in Barcelona.

DESIGN TOOLS

In this section I describe a variety of recommendations to the company BETER, in order to optimize their processes, competencies and company culture. These recommendations are based on my personal views and impressions gathered during my 5 (short) week internship at BETER and are in no way meant to provide the management team with a full, conclusive evaluation of the company.

Starting with the reason why I was brought to the company, let's talk first about product innovation: the creation and introduction of new products which are unique and novel in the beauty accessories marketspace. What I think is important to talk about here, is how a company like BETER can use innovation as a competitive advantage, and, even more importantly, how to set up a process that actually allows for repeatable product innovation. I'll go more in depth about using innovation as a competitive advantage in the next section – Branding and Positioning – so let's first focus on how to manage product innovation inside a company from a designer's perspective.

Although there a many ways of innovation (e.g. stealing competitor's ideas, design competitions or relying on new products from manufacturers), I will focus here on building a product innovation process from within the company itself, allowing ideas to be patentable and being used as a competitive advantage. What we really aim for is a process which allows for the creation of NEW products that become best-sellers, possible elevating BETER to become a market leader. So how to do this?

Well, it starts with having the right ideas: Ideas that fulfil latent needs of users or solve existing problems. I won't go to deep into generating product innovation ideas in this report, since I believe BETER is capable of coming up with a variety of ways on how to generate new ideas (hence, you could even google 'how to innovate' and a list of 21 good ideas come up), but one interesting paper I would like to mention about this topic, which could be highly relevant for BETER, is a paper by Norman & Verganti about the difference between radical and incremental innovation.

In short, this paper explains how some company are able to come up with truly innovative ideas, completely changing the meaning of a market-space and becoming best-selling products. From the paper I quote: "Every radical innovation was done without design research, without careful analysis of a person's or even a society's needs. The list of such innovations starts out long before design research existed with such technologies as indoor plumbing, electric lighting in homes, the automobile and airplane, radio and television. But even today, radical innovations such as Facebook's and Twitter's development of social networks have come about simply because their inventors thought they were interesting things to try. "

What Norman and Verganti are saying here, is that most radical innovations come forth out of vision-based ideas, rather than classic (human-centered) design methods, often taught at design school and what most designers are good at. So, instead of analysing current products and current human needs, one works on products/ services from a standpoint of how the world could or should be in the future (hence, vision/ future driven design).

I really urge you to read the paper (I can send it to you if you let me know), not only because it gives a good overview of how design can be used for innovation at company, but more so because I believe BETER has the resources, network and financial aid to implement a form of 'radical innovation' in their new product release process, possible allowing BETER to become a market leader and changing the market space of beauty accessories, if done correctly.

Next to radical innovation, the paper also mentions 'incremental innovation', better know as humancentrered design, a method often used by designers to optimize products and raise them to their maximum potential by interviewing customers and improving the products accordingly. While this method (likely) won't result in radical innovation, the implementation of this process would be better suited to a matured company like BETER. My recommendation here would be to hire a few designers (at least 2, maybe with some extra interns: designers are really team players..) that work together with the marketing department in order to come up with new products. Apart from the ideation and creation of NEW products, designers could really work together with the marketing and sales team in order to VALIDATE products before they hit the market in a fast and low-cost way, essentially giving the management team a good overview of which products will sell, but more importantly, which won't. I can image nothing is worse than finding out that a batch of 50.000 items won't sell and having it collect dust in the warehouse for the coming years. Something that could have been prevented easily in most cases.

This is also my biggest critique on BETER's new product release process: The (/ my perceived) lack of early-on product validation through a systematized process. My advice on this topic would be to formalize your decision making process for which new products should be released, especially be relying on verified consumer data gathered of product validation tests. I feel like BETER is in the luxury position that almost every product will become a success, but this has more to do with the size of the brand, rather than the quality or relevance of the products that are being released. There are several simple processes of early-on product validation (without even having to hire new designers), of which I'm happily to discuss some one time.

Branding and Positioning

The next topic I would shortly like to talk about is branding and the act of positioning: That what people think of your company and how to influence this by altering/ designing certain touch-points.

The idea of brand has been around for centuries, so why is it so important right now and I do think it's super relevant for BETER? Because as a society we have moved away from an economy of mass production to an economy of mass customization with increased purchasing choices (A consumer could buy the same brush at 4 different company, hence they all come from the same factory somewhere in china..). We as customers have become information rich, but time poor. No longer does the old method of judging products – by comparing features and benefits - work. Instead, today we base our buying choices more on symbolic attributes. What does the product look like? Where is it sold? What kind of other people buy it? Which 'tribe' will I be joining if I buy it? What are other people saying about it? And lastly, who makes it? Because if I like and can trust the maker, people can buy it now and worry about it later. Try to remember the last time you bought something: did you really buy it because it had the best features and

benefits of all products out there, or because you liked and trusted the brand?

The reason I am telling you this, is because during my internship I got the hunch that BETER's brand is not performing at it's best, thus leaving a lot of value on the table. One of the leading brand consultancy firms in the world, Interbrand (also responsible of the Santander bank brand), routinely publishes a list of the top 100 global brands by valuation. Number one is Coca-Cola with a brand worth of nearly €70 billion, accounting for more than 60% of its total market capital. This means that without the strong brand behind Coca-Cola, the company would only be worth €50 billion instead of €120 billion! That's a huge difference! What do you think the brand value of BETER would be currently?

Not only does having a charismatic and good brand increase the market cap of a company, it also allows you to become a number one or two market leader. And history has shown that it pays handsomely to be number one in a market segment: first, because of higher margins, and secondly, because the risk of commoditization is lower [3].

Although there are more nuances to this, the basic six steps to building strong and charismatic brands that out above the competition are as follow [3]: differentiate, collaborate, validate, innovate and cultivate. Funny how the term innovation is coming back in here, isn't it? Yet, I would even dare to argue that releasing a truly radical innovation idea into the market, wouldn't be possible without having a strong brand and one that's aligned to do so, but that's something for another time.

In short, I would really urge you to (re)consider whether the brand of BETER is performing at its best and where there is room for improvement. A simple, but effective assignment you could do to test this is what I call the 'one-liner' test. It is based on the fact that people only have a limited capacity to mentally store a couple brands for every category in the market. Let's say I ask you to think of the first few brands that come to mind when talking about phones: You might say Apple, Samsung and Nokia, because they have a strong brand (heritage). However, even a better exercise would be to turn the question around: Instead of asking someone to list three brands for a specific market niche, ask your someone to explain what your brand stands for. For example, when you ask someone about what Mercedes stand for, one might say: Quality German cars, for Porsche: German

sport cars. For Tweezerman: High-quality tweezers. Now, what would your friends/ family/ foes/ employees/ customers say when asking this same question for BETER? When there are too much differentiated answers, or the answers are not in line with what you want BETER to stand for, well... you know there's some work to be done...

On Company Culture

The last topic, but certainly not the least important, I want to talk about is company culture: The personality of company, defining the beliefs and behaviours that determine how the employees work and interact.

What I noticed when working at BETER, was how different the working atmosphere felt from what I'm used to in the Netherlands: where I normally work in very open and dynamic environments where collaboration, play & fun and suggestions for improvement are encouraged, working at BETER was totally different and felt very outdated and traditional. Rather than a collective group of humans trying to reach the same goal or vision, it felt like BETER is operating with different tribes of people (sales, marketing, legal) with all there own goals, resulting in a lot of gossiping and miscommunication. This is not something I only noticed myself, it was also mentioned a lot when interviewing some of the employees.

I'm no expert in company culture, but I would suggest taking some simple steps in order to improve company culture, starting by simply asking your employees for their opinion and listening to them. (This whole topic about company culture also ties back to building a strong brand: how can you build an innovative market leading company, if the working environment and company culture are not setup to promote this?!)

For example, at the innovation studio I work for in the Netherlands, called <u>OWOW</u>, we have bi-monthly sessions in which the founders ask the following things to EACH employee individually:

1. What do think you do well within BETER?

2. What do you think you could still improve on? (When they can't/ won't answer this question, this is a big red flag for company culture)

3. What do you hope to achieve in the next two months? Where would you like to grow? How can we (the company) help you with this (training, more responsibility, online courses, etc.)?

4. Same for BETER; what goes well within the company?5. And what can improve for sure?

6. And last but not least, what should we do for our next

team activity (in order to unify the team)?

This super simple activity, which doesn't take a lot of time nor money, gives us beyond effective results: people actually get the feeling they are valued and listened to, boosting the morale and trust towards the employer.

In short, these are the three topics that came most forward to me during my stay at BETER. I would really urge you to take away some learning lessons from the things I've written, not only because I believe there is a lot room for improvement, but more so because I heard similar opinions from different employees while interviewing them. Keep on learning, keep on evolving and keep on staying on top, because remember: What got you here today, won't get you there tomorrow.

Good reads that can help the company move forwards: On (Product) Innovation

The Art of Innovation - Tom Kelley (Read this book if you want to learn how world's biggest innovation consultancy manages to drive innovation)
Incremental and Radical Innovation - Donald A. Norman and Roberto Verganti (ask me for it, I'll send you the paper)

- Innovating Through Design - Roberto Verganti - Hacking Growth: How Today's Fastest-Growing Companies Drive Breakout Success - Sean Ellis (this book describes a framework/ process on how to introduce innovation and change in a very scientific and quick way, without not having to immediately change the whole company structure you've build during the last 80 years. Super interesting and effective, if you're willing to adapt)

- Frame Innovation: Create New Thinking by Design -Kees Dorst (2015)

- Change By Design: How Design Thinking Transforms Organizations and Inspires Innovation - Tim Brown (2009)

On Company Culture

- Tribes: We need you to lead us - Seth Godin

- Ego is the Enemy: The Fight to Master Our Greatest

Opponent - Ryan Holiday

- Delivering Happiness: A Path To Profits, Passion And Purpose - Tony Hsieh

On Brand Positioning

- ZAG: The #1 Strategy of High-Performance Brands -Marty Neumeier

- Positioning: The Battle for Your Mind - Al Ries and Jack Trout

DESIGNER DESCRIPTION



Name: Alexandra Auer

Intership dates: 09. July 2018 - 14. September 2018

Current studies: Graduated from B.Sc. Industrial Design at the TU Eindhoven

Brief of the designer profile: (Social Designer / Design for social impact) I use design to evoke conversation and interaction in specific (public) spaces, with a focus on inter-cultural communication and acceptance. While relying on a strategic, open-minded research approach during the concept development, the designed object varies from posters to installations, from digital to analogue. Leaving the design outcome open during the process allows the concepts to perfectly suite the unique location, user and time.

COMPANY DESCRIPTION

Name: Domestic Data Streamers (DDS)

Sector: Creative Sector

Description: DDS is an agency, which creates new ways of communicating through interactive, data-based storytelling.

Department: Strategy & Concept development







PROJECTS CARRIED OUT

General data on the internship agreement

Being part of the strategy and concept department, my role was to brainstorm ideas and create strategic concepts based on companies' briefs.

Throughout the 8 week internship I worked on many different projects. Usually it was my task to create strategic concepts. The biggest projects include concepts for SEAT and Cisco which are described below. But my work varied and I also helped to setup a workshop for example, did ethnographic research on a festival and contributed to the product design of a new DDS concept. Towards the second half of the internship my tasks focused less on marketing strategy and included more user experience design of different activations, as in the examples below.

SEAT is opening Casa SEAT, a multidisciplinary space, in Barcelona. The project was about creating an interactive and inviting element in the entrance of the building, which also links the brand closer to the city. We designed an installation, which represents the dynamic and ever-surprising environment of Barcelona. Transforming it into a video sculpture that moves with the user and responds to the different realities that are part of Barcelona, such as the beat or the sound of the city.

Cisco is hosting their annual Cisco Live! event in Barcelona, for which DDS was asked to curate several data-driven activations. My task was to brainstorm and workout different ideas, which highlight the big network of people who power Cisco. This included for example the online experience (live stream) or an interactive timeline, among many other concepts.



DESIGN PROCESS ANALYSIS

Design Process





Your results

Here you have the results regarding your creative profile. The value of each creative competence is determined by the values of two different creative dimensions of design practice.

For more information you can check:

www.decsproject.net/cdt

3 / 5		3.25 / 5		4.5 / 5	4.5 / 5		3.5 / 5	
Innovatio	n	Research	1	Leadership)	Autonomy	,	
3.5 / 5	2.5 / 5	3.5 / 5	<mark>3</mark> / 5	4.5 / 5	4.5 / 5	4 / 5	3 / 5	
Originality	Realization	Search for information	Experimentation	Strategic vision	Coaching	Self- management	Initiative	
3.75 / 5		3.25 / 5		3.25 / 5		<u>2.5 / 5</u>		
Social and sensitivity	d ecological	Oral com	munication	Critical Thi	nking	Teamwork	K	
4 / 5	3.5 / 5	2.5 / 5	4 / 5	<mark>3</mark> / 5	3.5 / 5	2.5 / 5	2.5 / 5	
Awareness	Compromise	Planning	Charisma	Questioning	Improvement proposition	Delegation	Tolerance	
3.25 / 5		4 / 5						
Aesthetic Sensibility		Learning						
2.5/5	4 / 5	4 / 5	4 / 5					
Appreciation	Criteria	Curiosity	Knowledge					



Co-funded by the Creative Europe Programme of the European Union

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CONSIDERATION ABOUT COMPETENCIES

Working in the professional environment, other than the university, required me to adapt to a new situation and new environment. The work pace is a lot faster and more practical than what I was used to, which forced me to quickly apply the new things I learned everyday. And working in a country abroad; the things I had to learn and wanted to learn went a lot further than work or design. Looking back, I think my curiosity in culture helped me a lot to understand my new environment, to adapt and eventually to enjoy it. This also matches the result I obtained for the learning competency.

Most of the work I have done during my internship was in teams, which required good communication and collaboration. As previously mentioned, there were cultural differences, which made this more difficult for me than I expected. One was, of course, the language. Though my company had no problem speaking English, I think it would have made it a lot easier for me to communicate and integrate if I knew Spanish. Another difference was the way I received feedback. I'm used to a very direct approach, simply pointing out what is good, bad and what has to change. I realized fast that in Spain, people put feedback more softly, which is nice because you feel more appreciated, but on the other hand it was extremely difficult for me to understand what my coworkers expect from me. While I think this also negatively affected my own oral-communication skills, it did improve my teamwork competency since I was forced to listen carefully and understand before I could respond. This experience made me aware of how fast I used to form an opinion before and I want to be more careful with that in the future.

At DDS new projects come in and need a response quickly. This didn't allow the concept department to brainstorm long (or at all) about possible ideas. At the university, the concept generation was one of the longest steps in the design process. Therefore, generating concepts in a couple hours was extremely difficult for me. And while I learned to be a lot more practical, for example taking time and budget into account (which already kills most ideas), I think the innovation competency was neglected (more about this later).

As a conclusion, I believe my internship touched all of the CDT competencies. Some, that I usually felt comfortable in, were pushed to the focus and I had to re-evaluate my behaviour. Others, which I like put a lot of focus on, such as aesthetics, innovation, research and social sensitivity played a smaller role. Of course they were not forgotten, since they all contribute to a successful concept, but in the initial idea generation phase they often played a smaller role.

DESIGN TOOLS

Domestic Data Streamers is a very young, open-minded and creative agency. Most of their employees are designers or come from other disciplines in the creative field. The company applies many creative techniques and often takes a step back to reflect and re-evaluates their work process. This makes it very difficult for me to suggest further design tools, if anything I learned more techniques and initiatives from them.

I previously mentioned, that I believe the innovation competency comes too short. While working on concepts it sometimes seemed to me, like the brainstorming process has been optimized to a point, where a final idea is generated fast but out of the box ideas are overseen. I am aware that, other than at university, there is time and especially money involved and long brainstorming does not necessarily cover bills. Nevertheless, I would recommend bigger brainstorming sessions, where constraints and practicalities are forgotten, if there is time. During my study I learned that especially brainstorming with people from different departments can bring extremely valuable inputs. I think it would be interesting to, for example, include research and development in such sessions for a broader perspective and new possibilities. And knowing the open DDS environment I am certain the company would find a way to turn such sessions into a fun event.

DESIGNER DESCRIPTION



Image 5 - Profile Picture Photo by Paul Wijsen

Name: S.G.A. Bernabela Intership dates: 09-07-2018 / 21-08-2018 Current studies: Industrial Design BSc graduate at University of Technology Eindhoven

Me growing up in a carefree surrounding where I've always feit supported hos helped me become the enthusiastic persen I om today. When an opportunity crises that sparks my interest I will grasp it with both hands, while sometimes it might turn out to be a bit over my head. 1 enjoy werking with ethers and like to get personally involved. 1 like to coach and help people or teams to set a course and move forward. 1 om also very able to werk autonomously and on my own, although sometimes becomes astray due to my "can-do" mentality. 1 om able to quickly adept to changing situations, but I om less streng in making sure every detail is attended to if I have to moderate them all. Almost all my projects so far, and favourite electives, involved interaction design. Therefore my strongest field of design is interaction design. 1 om strengthened in creating concepts and prototypes for tangible and digital interaction, however less so in the final technica! execution. As I learned more about research and research through design I became a designer that likes to ground his decisions in empirica! or literature research. A designer who likes to build his idees. This makes them easier to discuss and evaluate by myself, by my peers or potential users. 1 prefer to werk with the end user as the central point in the process and create the best experience for them.

Our society is transforming rapidly and is heavily influenced by technology. We start to build our identity and personality around a digital version of ourselves. We have our mobile phones always at hand to be connected to the world at any time. We strive to werk as efficiently as possible. Goals should be reached fast and the rood to it should be as smooth as possible, even if that leads to a less optimal outcome: the short-term goal or result, that might be less satisfying, is preferred over the solutions that may need more time but might bring greater results.

1 hope to see a future where we value experience as much as we value money. Where we value the rood to the goals as much as the result itself. Be it in small things such as our designed artefacts or in our greater achievements in life. A future where we become more connected to the world around us rather than our digital existence. 1 hope we decrease the importance of how we look online. While increasing the importance of our personal and physical relationships and interactions with people and the world around us. This is my interpretation of the werk done on phenomenology. Experience touches a wide range of aspects of being human.

1 do not see a future where we make less use of the flexibility of our electronic devices. As Van Campenhout describes I want to balance the benefits of the digital world and our physical world. 1 hope to create designs that have an interesting, fun or pleasant interaction or experience. Designs that do a little more than just being efficient at helping people achieve their goals. 1 want to create designs that can excite all aspects of being human.

COMPANY DESCRIPTION

Name: Hospital Clinic Barcelona

Sector: Healthcare

Department: Bio Medical Engineering

Description: The Hospital Clinic Barcelona is a public hospital in Barcelona, Spain and is connected to the University of Barcelona. They are the second highest rated hospital in Spain regarding healthcare services and highest ranking in regards to scientific publications.

They have one "smart ICU" which is used as an innovation sandbox. The equipment is state of the art and any innovations the hospital makes, are first tested in this ICU. The Department of Biomedical Engineering, which in practice exists of one in-house engineer who works with personnel of different departments and institutes, develops and tests systems in this ICU. As it is a hospital they have to deal with many regulations and bureaucratic arrangements before they make any disruptive changes. However, on some occasions, if the head doctor gives approval, less intrusive trials are implemented and tested. However, before the findings of such trails are publicised, they still have to go through all the protocols of other relevant authorities.



Image 1 - Smart ICU Photo with courtesy of Hospital Clinic Barcelona



Image 2 - Conculting with chiefs Photo by Alexandra Auer

PROJECTS CARRIED OUT

The central topic of all activities performed was hand hygiene. The world health organisation created a policy of when healthcare workers should clean their hands. However, compliance is very low all over the world. The hospital asked to investigate how we can improve this. Their smart ICU is equipped with TVscreens and iPads. They requested to show messages of some sort to remind the staff to clean their hands.

Before going to Barcelona I read most of the documents I was provided. In the first week, I continued reading and observed the nurses during their work. My inability to speak Spanish and their low mastery of English made it hard to ask questions. Later it turned out some of the staff was uncomfortable with me being there but never expressed this to me directly, perhaps due to communicative barriers. I looked for opportunities for the content of the messages. I noticed that it might be hard to time the messages correctly and tried to investigate this. I conducted a survey with the help of my colleague (who spoke Spanish) to learn more about the behaviour of the medical staff. It turned out timing messages for specific tasks was impossible with current technologies. Therefore I created more general messages and created a draft of when best to show which messages. I advised the hospital to test this and inquire feedback from the staff. Halfway the internship I presented my work to several chiefs of the nurses. They were pleased with the result and pointed out possibilities for improvement. I continued working on them and eventually presented my work to the department chief who approved my work.

Currently, when a staff member enters the ICU, statistics on his compliance are shown on the TVs. I noted that this could be improved and drafted a dashboard that could be implemented in the future. Some technical aspects had to be overcome before it was applicable, which were part of why I advised on not showing any statistics until those were solved. Most of the work was done digitally using Adobe Illustrator and only processes like wireframes and the workflow of the company were drafted on a whiteboard.



Image 3 - Making wireframes Photo by Seiji Bernabela



Image 4 - Hand Hygiene Caracters Illustration by Seiji Bernabela

DESIGN PROCESS ANALYSIS





Your results

Here you have the results regarding your creative profile. The value of each creative competence is determined by the values of two different creative dimensions of design practice.

For more information you can check:

www.decsproject.net/cdt

	3 / 5 Innovation		<mark>3</mark> / 5 Research		4 / 5 Leadership		3.25 / 5 Autonomy	
'ne	3.5 / 5	2.5 / 5	2 / 5	4 / 5	<mark>3</mark> / 5	<mark>5</mark> / 5	3.5 / 5	<mark>3</mark> / 5
ce /0	Originality	Realization	Search for information	Experimentation	Strategic vision	Coaching	Self- management	Initiative
	2.5 / 5		3.75 / 5		<u>3.5 / 5</u>		3.5 / 5	
	Social and ecological sensitivity		Oral communication		Critical Thinking		Teamwork	
	2 / 5	<mark>3</mark> / 5	<mark>3</mark> / 5	4.5 / 5	<mark>3</mark> / 5	4 / 5	4 / 5	<mark>3</mark> / 5
	Awareness	Compromise	Planning	Charisma	Questioning	Improvement proposition	Delegation	Tolerance
	2.75 / 5 Aesthetic Sensibility		3.75 / 5 Learning					
	2.5 / 5	<mark>3</mark> / 5	3.5 / 5	4 / 5				
	Appreciation	Criteria	Curiosity	Knowledge internalization				



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CONSIDERATION ABOUT COMPETENCIES

What was very interesting for me, was that this was the first time where I would be the "lead designer". My colleague had a Biomedical Engineering background, whilst normally I am surrounded by designing peers. This resulted in less critical feedback to me then I am used to. This made it extra crucial that I stayed critical to my own work. In some sense, I feel I succeeded in this. For example, I wanted to make a final iteration to make sure everything was as nice as it could be in the available time. On the other hand, I feel my process was quite linear.

I am not yet uncertain if I define this as good or bad. The brief was quite closed and the "client" was more than satisfied with the work I delivered, deeming the linear process as good. However, I am thought that a design process ought to be explorative.

The relatively closed brief, short duration of the internship and me being the only designer. Gave me the feeling that I did not necessarily learn much new design skills. I did become much better in using Adobe Indesign and making illustrations (also due to a side project I picked up in Barcelona). Next to that, what I learned is very implicit. Mostly in the field of communication and teamwork.

During my whole bachelor career, I never did any activities outside the university, including my internship. It was very interesting to work for the Hospital because I had to communicate and work with people from other disciplines and cultures. Explaining my way of thinking and acting to "nondesigners" is probably what taught me most. This includes my presenting skills. I believe I am very capable of presenting my work prepared or even when I have to improvise. However, most of the time my audience has the same level of mastery in the language I speak (Dutch or English). In Spain, this was not the case. I needed help from my colleague to present my work or ask questions to inform myself of the design context. In many cases, I felt the information I received or spoke, was much less than my translator heard or explained. This forced me to ask extra questions so that I felt that I had extracted all the information from the encounter.

Overall, I did not feel I learned many new things. Rather, I practised hard skills I already had and as described I trained my soft skills.

DESIGN TOOLS

I believe that the department I worked for had a strong process in regards to designing and innovation. They start and end with evaluation meetings to address which project will be picked up. When a project starts, different feedback and iteration loops are in place. All people involved in engineering give feedback to each other and first make tests version on a test server. If that works, it gets deployed in the field.

They are less skilled in actively inquiring feedback after implementation. Most of the feedback of the end users (e.g. nurses) reaches the development department trough informal chat. During my stay, I showed how they could use tools as interviews and surveys to systematically inquire feedback of end users and not only from presentations to chiefs.

What also may help is using a focus group that consists of different types of professions and use paper mockups, storyboards or other visuals to gain feedback before many hours are put into coding for example. They could make different versions to assess. The hospital prioritizes functionality over "beauty". However, I feel that what they mean by beauty, can also be a part of usability. What information or controls are important to show and which can be left out? Is it relevant at the time it is shown? Where should it be shown, reflecting on this critically can make their interfaces less cluttered and thus make them more "beautiful"?

Photo references

Auer, A. (2018, August). Consulting with chiefs [Photograph] Smart ICU [Photograph]. (n.d.). Hospital Clinic Barcelona. Wijsen, P. (2018). Chocolade promo foto [Photograph].

Making wireframes [Personal photograph taken in Barcelona]. (2018, August). Hand hygiene characters [Illustration made in Barcelona].(2018,August).

DESIGNER DESCRIPTION



Name: Veronica Della Morte

Intership dates: 23 July - 21 September 2018

Current studies: Product Service System Design MSc, Politecnico di Milano

Brief of the designer profile: July 2016 I graduated with full marks in Product Design at Politecnico di Milano. After that, I decided to continue my studies and to expand my field of competences from Product to Service. I am very satisfied about this choice, because now in my projects I feel I have the holistic overview I was missing and a much broader vision for my future. Since I was in high school I had the aspiration of solving social issues, and I saw Product Design as a way to make our world a better place; then I realised how much more it can do from a Service Design perspective. Over time I developed some graphic design skills so I also started working occasionally as a freelance graphic designer. I spent the last semester of my two-years MSc on Erasmus at the Fachhochschule Salzburg, deepening my Graphic and Communication Design experience.

Another thing I consider important to point out, is that I am really into team work: I learnt how to deal with group dynamics, how to build on others' ideas and how to favour the creation of a pleasant working environment. I enjoy international, multi-disciplinary environments, as I find it enriching both at a human and professional level.

To conclude, I'm a very flexible person, that learns quickly when dealing with something new. I can work autonomously, adapting myself to different roles – from leader to assigned task solver. I am also very determined and I always try my very best in everything I do and to make the most of it.

COMPANY DESCRIPTION

Name: Médicins Sans Frontières OCBA

Sector: Humanitarian NGO

Description: Médecins Sans Frontières (MSF), or Doctors Without Borders, is a non-profit, self-governed, member-based organisation. It provides medical assistance to people affected by conflict, epidemics, disasters, or who are excluded from healthcare services. As a worldwide movement, it involves more than 42,000 people and operates in more than 70 countries.

Other than providing direct medical care, MSF is committed to bearing witness to the plight of the people it assists. All actions are guided by medical ethics and the principles of Impartiality, Independence and Neutrality; this means, among other things, that 95% of its whole income comes from donors and collaborators.

MSF OCBA (Operational Center Barcelona Athens) is one of the five MSF Operational Centres, which are coordinating a network of supporting offices and satellite organisations.

Department: General Management and HR.

During the two-months internship I was mostly supporting the Innovation & Transformation Lead, that is directly responding to the OCBA General Director and so it is not part of a specific Department. Occasionally, I supported some projects of the HR Department as well.




PROJECTS CARRIED OUT

General data on the internship agreement

Innovation is an integral part of MSF's DNA and is present in everything that MSF OCBA does, in the headquarter as well as in the field. However, the rapid growth rate of field operations, the increased organizational scale and the changing landscape of the sector requires MSF to invest to be able to face costantly new challenges and keep up with emerging opportunities. Therefore, OCBA developed an innovation strategy, to deliver a coherent guidance to its staff and to enable them to solve problems with creative solutions.

As an intern supporting the Innovation and Transformation Lead, I was involved in various tasks related to creating and promoting a design/innovation capacity in the house, such as: research; creation of tools and guidelines; supporting project managers and their teams in the ongoing product/service design processes; preparation and coordination of design and development workshops.

Furthermore, since the beginning of the internship, I agreed with the Innovation and Transformation Lead that I could have started working on my Master Thesis with the full support of MSF staff, and we will keep working together for the next months, since they're interested in the research and its outcomes as well.





MSF exhibit for Healthio 2018

Healthio is a fair happening from 16th to 18th October at Fira Barcelona; companies, professionals and patients will meet there to learn, try out, and experience the latest innovations in the Healthcare ecosystem. This year MSF OCBA will has been invited to join the event and to present some of their innovations. My task was to select some relevant projects and then design MSF exhibit within one of their white field tents. Once the visitors' journey concept was approved, I developed a path through four main thematic areas, and designed all the graphic/digital materials for the exhibit.

Tembo Learning & Development app UX

Tembo team in HR Department is designing a learning and development system that will provide MSF staff with different kind of knowledge and capabilities. This solution includes both physical and digital touchpoints, and I was specifically asked to join part of the team in designing the app information architecture, interface and user experience. After a first collective workshop, I went on working together with a developer and one of the Project Managers.

Patient Satisfaction Survey & Guidelines

After learning how to use KoboToolbox— a suite of tools for field humanitarian data collection— I adapted an existing patient satisfaction survey for a new mission and created a set of guidelines for those who have to conduct the survey and analyse the collected data.









DESIGN PROCESS ANALYSIS

Design Process

Analysis of the phases of the usual process in the company: discover, define, develop, evaluate and communicate (see page 5).





CONSIDERATION ABOUT COMPETENCIES

Personal reflection on the creative competences put into practice during the residencies (based on the results obtained in the CDT).

In order to reflect on the use of the creative skills identified by DECS Project, I used the same radar graph resulting from the Creative Decoding Tool, that shows a self-evaluation of my design competences. With the blue line I tried to visually represent how much I needed to apply and/or train a certain skill in order to carry out my tasks.

My perception is that I had to invest a lot of time in understanding how the organisation is structured and how it works, in order to better encounter their needs with my proposals. The process was slow and took so long, first of all because of the great complexity of the organization; furthermore, not being provided by MSF, was always quite spontaneous, occurred whenever I needed to access a specific information. This involved both Learning and Investigation.

Such skills I had to apply also in the projects I developed while being there, especially for Healthio exhibit. I had to learn about all MSF OCBA innovative projects, and select the most suitable one, then design the whole exhibit on my own. Being it the first time for me to design an exhibition, I started by researching references and case studies.

Other competences that—according to me—MSF particularly appreciated, were the Aesthetic Sensitivity and the Critical Thinking. Especially working on the guidelines, on the Tembo app interface, and some presentations, I had to make aesthetic choices in order to organise, and represent the information in the clearest way. Moreover, many times I was asked to look at an already existing solution with my "fresh eyes", to express an opinion, and to give suggestions in order to improve it. In this sense, my approach can be considered quite innovative from the side of the organisation, even if I would say I could apply my Innovation skills more in terms of finding feasible solutions rather than very original ones.

I did not have so much chances to apply Leadership and Teamwork competences, since most of the time I was working alone—even if with recurrent feedback from my supervisors. This of course does not mean I did not need to strategically organize my work, that included the planning of meetings, reviews, and the work of the people that will set up the exhibit, for example. On the other side, by working individually, I feel like I strengthened my Autonomy.

I have to say that, even if I had to present the exhibit concept to a commitee in charge of the approval, as well as to explain the new concept for Tembo app interface during a workshop, I did not feel like I had to push my Oral Communication that much.

DESIGN TOOLS

Design tools recommended by the designer to the company to optimize their processes and competences.

During my two-months internship I observed and learnt a bit about how MSF OCBA staff work. What I felt is that there is generally a lack of **visual thinking and communication**, which I think can actually make processes faster and much more easily understandable for everybody. Mapping, clustering, and other visual ways of create, organize and communicate information could be very useful.

Even if the current design process at OCBA is similar for many aspects to the Design Process model provided by ELISAVA, an often missing aspect in the first two phases is the **cross-fertilization** (importing and mixing ideas from different departments, units and job families). As I understood, many times solutions are carried out by a single department, while cross-fertilization could bring greater knowledge and experience, new insights and perspectives, and so would allow to work faster and with a more user-centric approach.

Workshops and hackathons could facilitate cross-fertilization, perhaps even with non-MSF participants, whose fresh and impartial point of view could bring added value.

Finally, another thing I did not found was the **fast prototyping** aspect that is typical of a design process, and that allows testing and adapting a solution several time, in a very short period. As I got to know, MSF usually prefers to develop MVPs, and to pilot them in the Missions. Fast prototyping could be a cheaper and faster way to test solutions before actually developing them. An example could be the Tembo application mock up I realised on InVision: a quick but effective tool to evaluate an idea. Thanks to the prototype, that took a very little time to realize, it was easier to ask to the external provider for an opinion on actual feasibility and for a cost estimation.

DESIGNER DESCRIPTION



Name: Pere Albert Marin Peiro

Intership dates: 01/08/2018 - 30/09/2018

Current studies: M.A. Design & Produktmanagement

Brief of the designer profile:

I am an Industrial Design graduate in Valencia (Spain) currently based in Salzburg (Austria) as a Master student, I see myself in the role of a problem solver.

Design Thinking is the base of my work. I am flexible, quick to pick up new skills and eager to learn from others.

I have had the experience of living, learning, working in different fields of design with companies like Mirlans (Spain), Interactive Pioneers (Germany), FH salzburg (Austria) and now in Sokotech (Spain).

Fields I worked on:

- Product design: Conception, 3D Modeling, Prototyping and Development.
- Web Design: Wireframing, Layouting, Html and Css Coding, UX and UI.
- Graphic Design: Logos, Flyers, App Layouting and Social Media Manager.

COMPANY DESCRIPTION

Name: Soko Digital, S.L.

Sector: Services: Event organisation and education.

Description: The purpose of SokoTech is to extend the use and understanding of technology, science, engineering, art and mathematics among society as a whole, without taking into account age, level of knowledge, status, capacities or gender.

SokoTech wants to provide, with adhoc initiatives, access to the knowledge and skills necessary to adapt to a constantly changing world through the use of the most advanced technologies. We want to promote transversal and adapted learning to all ages, in a way that allows boys, girls, young people and adults, beginners or experts, to address the types of challenges and situations that they will find in the real environment and prepare them for the occupations of the 21st century.

Department: Graphic design and Web development.





PROJECTS CARRIED OUT

General data on the internship agreement

Conception, redesign and development of the new Sokotech website.

Tasks to be done for this project:

- Briefing: understand the will, goals, philosophy, and the work of the company to write a proper briefing of the project.

- Wireframing: making the concept of the website with the UX and rough content.

- Layouting: Create the interface of the website taking care of the details, focusing on the CI of the company and creating a new image for the website, keeping the important elements of Sokotech.

- Coding: development of the website passing from the graphics to the html, css and js code.

-QA: At the end the quality assurance is needed to make sure everything work properly in all platforms.

Of course after each of the Tasks or process part of the project we had a Feedback Session with the Team, for seeing if the project was in the right way.





DESIGN PROCESS ANALYSIS

Design Process

They don't really have a structured design process they do know what is it and they do have a process but is not really easy to analyze.

They work as fast as possible, because they have a lot of work and the budgets are normally quite adjusted, so they don't have time to research or conceptualize deep, they just have to act and work. There are not really weeklys or dailys, they just discuss while working.

during years of event management they know how to do it but, the Time management is usually difficult, so sometimes, they have at the end some stress.

If I have to say which is the Design process of Soko Tech I would say, that is a 3 steps process:

Brainstorming
Ideation
Creation





CONSIDERATION ABOUT COMPETENCIES

1. Learning

I did learn so much in this project, my task at the beginning was to understand the company to be able to communicate it externally through a website. Layouting wasn't something new for me, but after the layouting, I realized, that coding was a part of the project and I hadn't a big experience with html, css and javascript, but now after the redesign of the website, I feel much more comfortable coding a web just with a text editor.

2. Aesthetic sensitivity

I gave my best to redesign the web, giving to the aesthetics a big weight. For me aesthetics is never something arbitrary, since 2 years I always try use mathematics to create good looking products or graphics, using the golden proportion together with the Fibonacci sequence. They extract all those theories from the nature. For a human being, nature is always aesthetically perfect. The color combination I use is normally taken from the nature as well.

3. Teamwork

I have learnt during this project how to interact and work together with different roles of the company: The CEO gave me the information I needed for the project (Briefing) and the text content of the website. The designer and I work together on the development of the website, he also provide the picture content.

4. Critical thinking

I tried as far as I could to think critical and explain that, having more services in a business is not always the best solution, sometimes is better to have a couple of them and to be experts of those. I also tried to give ideas for the improvement of some services, like for the Fablab they have.

5. Oral communication

Also here I collect some experiences at Soko: how to present, what to say, how to organize a presentation. But there are still some aspects to improve, like preparing the presentation a bit properlier, not just what to say but in which platform,...

6. Social and ecological sensitivity

They were thinking to make their courses open source, something surprising and really cool, cause you can teach people, that there is a huge alternative to paid services, like computer programs, operative systems, ...

7. Autonomy

At the beginning I was alone at Soko with the CEO, she was even quite busy so I had to work alone and keep pushing to finish the whole concept and layouts, fortunately that was the coolest part of the project and was easier to carry out.

8. Leadership

I discover in this internship how difficult is the management of a project, not just make the list of tasks but organizing everything, the most difficult part was to motivate the people to work on the project to release it on time.

9. Research

The research was quite important for this project. At the beginning for learning deeply the philosophy of the company, what they do, ... Then to inspire myself with some moodboards for the design of the webpage and the most important research was during the development, because I hadn't enough experience.

10. Innovation

We didn't create nothing new by this project, but working on it we had several ideas to use different the space of Sokotech, those ideas were the only innovation of the project.

DESIGN TOOLS

Wirefeaming

Way to conceptualize a website or app service at the structural level. A wireframe is commonly used to lay out content and functionality on a page which takes into account user needs and user journeys. Wireframes are used early in the development process to establish the basic structure of a page before visual design and content is added. It could be used for more than just webs or apps, eben an event could be conceptualized using a wireframe.

Affinity diagram

Business tool used to organize ideas and data. normally made by a team and with post it, notes or something similar.

Styleguide

Set of standards for the writing and design of documents, either for general use or for a specific publication, organization, or field. It is quite useful for keeping always the same Corporative image that helps the user to understand better the brand and the company.

User Scenarios

The fictitious story of a user's accomplishing an action or goal via a product. It focuses on a user's motivations, and documents the process by which the user might use a design. User scenarios help designers understand what motivates users when they interact with a design – a useful consideration for ideation and usability testing.

Moodboard

A type of collage consisting of images, text, and samples of objects in a composition. It can be based upon a set topic or can be any material chosen at random. A mood board can be used to give a general idea of a topic, or to show how different something is from the modern day. They may be physical or digital.

SALZBURG



Partner

Architekten Scheicher.



Partner KHODAI

Alba Eiriz

L111Z ELISAVA Barcelona School of Design and Engineering

Alba Eiriz is a young designer currently studying her thrid year of the Degree in Graphic Design at the Elisava University School of Design and Engineering.

Defines herself as a holistic, creative, passionate and committed global student, who is eager to learn more about other design related fields and obtain a wider view.

Hector

Lezaun ELISAVA Barcelona School of Design and Engineering

Hector Lezaun is an Industrial Design student currently studying in Elisava University School of Design and Engineering. He defines himself as curious, adventurous and creative. Simplivity in forms and attetion to details also define him. Hector is a multidiscilinary designer with a strong interest for industral design, design for the habitat, graphic design, branding and packaging.



Partner

Javier Cerracedo

ELISAVA Barcelona School of Design and Engineering

Javier Carracedo is a product Designer. He's an active and curious person with an opened mind. As a designer, he find the right balance between a functional design and an aesthetically pleasing design as well. In addition, he loves music, cinema and art.



Partner





Partner VITALION

Thomas van de Moosdijk Eindhoven University of

Technology (Netherlands)

As a designer, Thomas van de Moosdijk find himself very much interested in the way we tangibily interact with technology. As this is a very broad field, he is interested in a specific partof tangible interaction: the influence of tangible interaction on creativity; focused on music creation. For a few years, he has been making music electronically on his laptop, but he founds that turning virtual knobs with a mouse hampered his creativity. Therefore, he would like to use both hands and think physically. For instance, he has been working on a prototype of a midi controller which has all of the knobs of a specific virtual instrument, which are mapped to their virtual counterparts.

Art Selbach Eindhoven University of Technology (Netherlands)

Art Selbach is an Interaction and Industrial Designer currently as a master student in Industrial Design at the University of Technology of Eindhoven. He believes that nowadays the interaction from user to device is most of the time a one-way interaction.

http://selbach-art.businesscatalyst.com

DESIGNER DESCRIPTION



Name: Alba Eiriz Martínez

Intership dates: From 09th of July to 04th of August, and from 20th of August to 15th of September.

Current studies: GDIS at Elisava, in the mention of Graphic.

Brief of the designer profile: Alba Eiriz, is a young designer currently studying her fourth year of the Degree in Graphic Design at the Elisava University School of Design and Engineering.

Defines herself as a holistic, creative, passionate and committed global design student, who is eager to learn more about other design related fields and obtain a wider view.

Able to work as part of a team, and take responsibility on individual tasks. Used to work under pressure, always on time and able to multi-tasking. Can deal as well with administrative and management duties competently.

Received a holistic education combined science and arts, which encourage to develop our Multiple Intelligences through group work.

COMPANY DESCRIPTION

Name: Architekten Scheicher

Sector: Architecture

Description: Architekten Scheicher is one of the companies that Scheicher family has. All companies are located in the same building in Adnet. I've been working in Architekten Scheicher and RIOF, which is a furniture company. Both business have Georg Scheicher, who was in charge of me, as at least one of the managers.

Both companies take into account in their projects the fact of reducing the emission of CO2 to the maximum they can, both during the construction process and later during the use.

Department: Graphic design





PROJECTS CARRIED OUT

Description and assessment of the different activities, tasks and projects carried out by the student.

I have developed two main tasks during my stay; the design of the new web-page of RIOF, and a book with the compilation of its architecture. I have also done secondary tasks such as selecting the color palette for your their new RIOF furniture or editing photographs.

In relation to the web-page of RIOF, I started by making a benchmark of the names used by other furniture companies in the sector and how they organize their products, while at the same time I looked for references of aesthetics, according to what they were aiming to be, and their key concepts.

Next I organized all the services they had on the web architecture, and discarded information that I considered unnecessary from the previous web, since in my opinion they had an excess of information.

Then I started to make the first sketches and designs. And I used invision to visualize them and receive feedback.

I edited images with a colored background, and made, at Georg's request, as many tests as possible, experimenting during the process, without losing sight of the costumer persona. Finally, after three weeks of experimentation, the proposal that was interesting to both of us was selected and developed.

However, the problem was that in first terms we agreed that my role in this project was to carry out the design of the website through the Sketch program, which entailed the role of a programmer in the project. However, the company had another idea in mind, since they wanted a website that was easily editable, like Jimdo. So I learned how to use cargocollective and as far as possible adapted the design that I had carried out in sketch, within the parameters of that program.

In relation to the Architekten Scheicher's book, I started by selecting the projects that I considered more interesting from their archive. So I made a list of those projects that I considered most relevant to put in common with Georg, and that he added or discarded projects, depending on what he considered relevant.

Next, I selected the most interesting photos of each project, from the archive. I selected the size of the book, the typography and reticle. Next I worked on the photographic composition, and the way the text would be displayed in each chapter.



DESIGN PROCESS ANALYSIS

Analysis of the phases of the usual process in the company: discover, define, develop, evaluate and communicate (see page 5).

Those who work in the study have one or several projects that they work on, and they go over daily or every two or three days with the bosses. The bosses divide the projects that they work on, and so the revision of the projects.

If any of them have doubts, they work as a team and help each other a lot. The atmosphere is very friendly and faborable, they make jokes and worry that they are all comfortable.

Next, the analysis of the phases of the company process is going to be about the process that I have carried out in the company.

- Research: analyze, positioning, search for information, costumer persona, benchmark, best practices.
- Verificate: If we are in the same line of work, communicate
- Define: conceptualize, generate ideas, experiment
- Evaluate: select the idea we want to formalize, communicate
- Develop: formalize
- Communicate: evaluate, present, show

Graph that explains the Creative Process of the Company as the following example.



CONSIDERATION ABOUT COMPETENCIES

Personal reflection on the creative competences put into practice during the residencies (based on the results obtained in the CDT).

I consider that this experience has given me a lot of autonomy when working, since I was the only one within the graphic design department in the company. This has given me the capability to put into practice all the knowledge learned in Elisava, it has given me the opportunity to experiment, and in case of not knowing how to do something, try to be resolutive through learning new programs. I have made decisions directly related to the aesthetics, as I did selected and edited all the pictures that would appear both, in the book of Architekten Scheicher and in the webpage of RIOF.

The competence that in my opinion lack the most is the teamwork one, as most of the projects I had to do it alone. On the other hand I had to work with a partner in order to choose the cromatic gama of the furniture.

I did put into practice the critical thinking at least on the website project, since all my choices were justified by a previous research on the web architecture, as well as in the names used by other companies in the sector to name certain aspects, by the costumer persona stipulated, and the brand positioning of the company, to be able to then design taking into account these factors, which made me question those aesthetic factors that the company was initially looking for.

I have also developed the oral communication skill, since I needed to be clear and attractive in my speech when transmitting the message, for them to understand my approach and what I was doing, always trying to speak with a visual imput for them to visualize the idea.

I did thought about the ecological aspect of the project, since it is a great importance factor in Architekten Scheicher as it has been commented previously in the company description, therefore I considered that it should be reflected in the book that compiles its projects. That's why I decided to look at how I could reduce the carbon footprint in the book production. Therefore, regardless of whether it was not directly visible, I wanted it to be a responsible and ethically sustainable project.

DESIGN TOOLS

Design tools recommended by the designer to the company to optimize their processes and competencies.

In order to optimize their processes and competences, I do recommend that they take into account a series of issues that I consider relevant so that the work flows much better within the company.

First of all I think that they should improve in the briefing, since the indications could be more clear from the beginning. That would help to advance in the work, without needing to go back every time an issue arises that has not been commented from the beginning. It is worth mentioning that it is possible that some of this is due to language, since they communicated with me in English.

On the other hand, I think on some moments there was a lack of communication between bosses, one thought that I was doing something totally different from what I was told to do. This may be due to the fact that since they each have different projects, they do not necessarily share everything they do.

I don't think I can recommend more in relation to their work dynamics, since I do not know their work processes when designing a house, as they are organized different that I was.

DESIGNER DESCRIPTION



Name: Hector Lezaun Pegenaute

Intership dates: 13/07/2018-19/09/2018

Current studies: Master in Concept and Product Development (Elisava) Graduate

Brief of the designer profile: Curious, adventurous and creative. Simplicity in forms and attention to detail mark me as designer. I catch the new trends without forgeting the roots. And the most important, the function.

My profile is oriented to product design, more specifically my dream field is the sports equipment design. I have experience in design studio and in-company design in the vending sector. However, I also have experience in graphic design, branding and illustration.

COMPANY DESCRIPTION

Name: Khodai Hand Made Carpets

Sector: Furniture Accesories Carpets

Description: Familly business. Store and Online Shop of "hand made" carpets and kilims.

- CEO Valiollah Khodai (Father)

- Marketing and Product design Pujan Khodai (Son)
- Orders and Logistics management (Mother).
- Cleaning, maintenance and repair of carpets and store Dea
- Maintenance assistant Walied
- Design intern Manuel (Second year student in Industrial Design at the University of Salzburg)

- Design Intern Anna (Second year student in Industrial Design at the University of Salzburg)

Department: Product/Graphic Design





PROJECTS CARRIED OUT

General data on the internship agreement

Description and assessment of the different activities, taks and projects carried out by the student.

Upon my arrival in Salzburg, Pujan presents me the company, who would be my boss and who decides the work I will do during the two months of practice.

With special emphasis emphasizes that "this is not going to be a kindergarden" and that the projects we will carry out in the company are real and will be carried out in the medium-short term. Something that excites any designer.

Then Pujan tells me the project in which I was going to work, the complete development of a new company, Khodai Studio, which will try to stand out from the old Khodai Hand Made Carpets, to go to an audience more aimed at design and to colaborate with big design brands.

For this we will have to design things like the new brand, web or catalog, or the new range of products, based on the knowledge of the sector that Pujan and Valiollah accumulate and the development of a marketing plan that Pujan says he has made during the two months prior to my arrival and continues doing.

To start with my new tasks, we would start with the carpets, Manuel and Anna teach me the basic aspects of carpets, and the design process they follow in the company to design new concepts. (developed in the following section). The next day Pujan will teach me more in depth aspects of production, qualities, materials, etc. that make up the different types of carpets. They also provide me the general research documents on competitors, diferent styles and types of carpets made by the other two interns the two weeks previous to my arrival, to update me.

From this moment, during the next two weeks, the three interns will each individually carry out between 10 and 20 new concepts of new carpets, always on one of the styles previously chosen by Pujan.

During the next two days, I tried to work in a more analytical and collaborative way although the result required graphically at the end of the day turned out to be the same for me and for my colleagues and the added level of research and concept were ignored.



Carpet PS Render



I was asked to design the logo for the new company, after presenting some proposals which where dismissed I had an interview with Pujan to try to obtain the values that define the new brand and some references to consider.

With the conclusions of this interview, I made a series of mindmaps and trends research according to the values we had considered most representative for the brand.

Then we continue with the experimentation and sketches to arrive at the design concepts of the logo. When we are in this phase, on August 3 the holidays arrive, so we would continue, on August 20.

In the return, we continue to work on the concepts during the next 2 weeks, until we have 2 proposals that we believe that achieve the objective and represent the brand values. These two proposals are simply 2 logos, so there would still miss a brand book detailing the use and way of using and applying the logos, I emphasize it but it is not considered important.

During these two weeks, sporadically 4 days for approximately 5 hours a day the interns, the maintenance staff and I also carried out logistics tasks packing and palletizing a lot of carpets and cushions.

From here my task changes and I will design carpets again, to my surprise, when I start designing carpets again, the other two fellows will start designing the logo, a job that I thought was already done. When I expressed my surprise and discomfort for this situation and for the low efficiency, organization and collaboration of the work done to the other interns, they previously communicate this to Pujan and he explains that he also wants to give the opportunity to them. And emphasize that carpet design is not rocket science.

From this moment to the end I worked on the design of carpets, more specifically "Scandinavian" style kilims. Some days the other two fellows also had this task therefore the presentations at the end of the day were done all at once.

DESIGN PROCESS ANALYSIS

Design Process

Analysis of the phases of the usual process in the company: discover, define, develop, evaluate and communicate (see page 5).

Graph that explains the Creative Process of the Company as the following example.

Carpets Design Process in Khodai Hand Made Carpets



this phases are normaly done each day for 10 to 20 concepts during the definition of the new carpets design (this is the only phases that I saw or worked on during my internship)

CONSIDERATION ABOUT COMPETENCIES

Personal reflection on the creative competences put into practice during the residencies (based on the results obtained in the CDT).

In conclusion, the experience has been somewhat frustrating, however this has made the competencies put into practice different from those on a normal work team in a design studio or company.

In general, the work has been developed individually so those skills related to teamwork have not been as present. Autonomy has been maybe the most developed competence.

After each day of work we made a presentation that was judged in a very sensory and not very objective way. Therefore I had to reinforce my aesthetic sensibility to adapt it to what the bosses demanded.

It is clear that I do not agree with the methodology followed by the company for the lack of collaboration and organization which in my opinion makes the work to be carried out in a very inefficient way.

This type of conclusions have developed my critical thinking during the practices, some were personal conclusions and others communicated to the company.

DESIGN TOOLS

Design tools recommended by the designer to the company to optimize their processes and competencies.

There is several aspects and tools that I would recomend the company to optimize or change.

- Interns:

In my opinion, three interns are too many for such a small company, I think that there is not enough work and the strategy to hide this by the company has been to make work individually to each intern in each project to then choose the best job of each one. This indirectly creates a constant sense of competition.

Another relevant aspect is the inequality in terms of remuneration, my two colleagues received a salary while I did not, despite the difference at the level of studies and previous experience.

- Workspace:

The workplace was established in the warehouse and repair shop. This leads to constant distractions and changes.

The rest of equipment, stationery, blackboards, printer, scanner, projector was adequate, but I missed a computer, so I did not have to use my own.

- Design process:

In my opinion the most necessary and urgent change, this represents in itself a project adapted to the company. Therefore I will not present a proposal but some changes and aspects to add to the process followed until now. Quality instead of quantity, the current work system is based on individual work and the subsequent selection of the best works of each designer. In my opinion, teamwork is essential in a design team.

A work developed in a team enhances the belonging to the company and the welfare of the workers.

For this system change, I think it is vital to increase the effort dedicated to the research and definition of the value proposal of the products and collections to be designed.

Next I also believe that constant experimentation and prototyping is important, at a basic level in the beginning and more precise in the evolution of concepts. A change from an almost 100% digital work until now to one that in addition to digital tools also use prototyping and experimentation with materials and tecniques.

DESIGNER DESCRIPTION



Name: Javier Carracedo Siesto

Intership dates: 16/07/2018 - 20/09/2018

Current studies: Master's degree in Product Design and Development

Brief of the designer profile:

During the finalization of my architecture degree (UAX), I began my professional career as a designer with an internship in *ninetonine*, a design company of children's furniture.

After finishing the degree (2011), I did a master's degree in automotive design in Valencia (UPV) and work as a intern at the SEAT design center in Martorell (2013).

For three years I have worked at Simplicity Works, a company that develops and researches new production systems, performing tasks of design, development, product and mold modeling as well as production control.

Between 2017 and 2018 I made the master's degree about concept and product development at Elisava, taking part in different workshops. One of them, the Decoding European Creative Skills.

COMPANY DESCRIPTION

Name: Spirit Design

Sector: Brand and Product Design - Innovation Consultant Agency

Description: Based on Vienna, Austria, Spirit Design is an internationally leading strategic design company. It was born in 2006 and right now is run by Georg Wagner (CEO). It has a subsidary in Brazil since 2013.

Its specialities are innovation and branding. Its main sectors are mobility, ICT (information and communication technologies), energy and manufacturing. The team is comprised by more than 10 people, with some external consultants.

Department: Product Design Department

















PROJECTS CARRIED OUT

The work that was developed during the intership was focus on product desing, taking part in three different projects:

- Roof Top Window: Ebespächer Project

Ebespächer, a roof top window maker, asked for a new product design and develop. A new roop top product with new characteristics.

The work accoplished was a market study about the brand, their competitors, the users and the new technologies.

At the begining, a long study about the brand was made, about their products, the clients, the aesthetics aspects and the brand desing.

Them, the best competitors were briefly described, their products and also their brand desing. All the different products from the competitors and the new concept had been set up in a comparative graph between appearance, quality and costs.

At the end the users and the technologies were described and put them in value with key words.

VELUX

Produkt)

-





Eberspächer - Designentwicklung KKM

VELUX

Product Design

- Mat4Rail (WP8) - Innovative Driver's Desk Project

Mat4Rail is an European Union Project about the train of the future. Several companies are taking part of it, and it's divided in different topics or packages. Spirit Design is developing the WP8 (work package 8): Innovative Driver's Desk. The work done was:

- Clustering of Ideas: Mindmap of all the different ideas from de ideation process, clustered in different topics or elements that take part both on the driver desk and in the room.

- Presentation: A presentation was completed showing a resume of all the work done during the ideation and the conceptualization phases.

- Graphic Visualization: some graphic design was made to help to understand the decision matrix about technologies, development, pros and cons of the different concepts.

- Deliverable Report: At the end of each fase, a resume report has to be done in order to show the progress and the steps done.

- C.A.D. & Video: As the end of the conceptualization phase, the two selected concepts were roughly modeled in order to help partners and advisors to discuss about them. Also, a short video was made with the C.A.D. data as part of the deliverables.










- Smart City Consulting Project

As part of the culsunting work, some research about future cities was made.

The main task was to find and analyse were the data for future analysis could be got, which one are the different tools, services and companies that can provided it and find different companies that are working right now as big data consultants.





DESIGN PROCESS ANALYSIS

Design Process

Manuel Fröschl, chief product designer at Spirit Design, made a deep analysis of their design process, showing four different main stages:

- Kick off
- Ideation Design
- Definition Design
- Implementation

Spirit Design Product Design Process



Manuel Fröschl Product Designer

Design Process II

In the other hand, Spirit Design has a design process graph that is shown to the different clients in each presentation. It divides the design process in two stages:

- Design of Vision
- Vision to Live



Spirit Design - Two-stage Methodology: Design of Vision - Vision to Live



CONSIDERATION ABOUT COMPETENCIES

As a product designer at Spirit Design and thanks to the projects and tasks that were entrusted to me, I was able to put into practice almost all my competences.

I had to work in group, but for a month I was the only product designer, so I also had autonomy at work and I needed to self-manage my time and tasks.

I took part at research phases as well as development ones.

I had to make graphic presentations as well as oral presentations and I had to develop different reports and clustering works of the previous work already done.

And I also had to develop some value proposals showing my critical thinking and my reflections about different topics.

DESIGN TOOLS

After my short time working in Spirit Design as a product designer there are some recommendations that can be shared:

- Creative Process: Ideation

I did not take part at any ideation process, but I had to resume all the work done in Mat4Rail project. In my point of view, it would be helpful to use more ideation tools at the ideation phases in order to get more inputs, ideas and concepts.

- Presentations

Spirit Design keep using (in my point of view) an old fashion design presentations with low graphic value and with some strict rules in the different slides. Also, they keep using powerpoint to do them. It will be helpful to use other software with better features like InDesign (also it will be faster to work with it).

- Graphic work

Sometimes, the graphic representation of the different concepts, ideas or graphs were a little bit poor. It would be very grateful to be able to spend more time and effort at the representation phase to help to show in a proper way all the work done.

DESIGNER DESCRIPTION



Name: Thomas van de Moosdijk

Intership dates: 09-07-2018 - 23-08-2018

Current studies: Industrial design - Master M1.2

Brief of the designer profile: As a designer, I am interested in ways that technology can augment the creative skills of someone, with a special focus on the expression of- and coping with emotion through music. For example, I like to create music as a way to deal with experiences I have had during a day. Whenever I get home and I have had a rough day, I make music that suits the corresponding emotions. Likewise, when I've had a really good day, playing music that reflects those emotions work well to give a place to everything that has happened during that day or a previous period.

When I'm not designing for this specific subject, my earlier education in psychology has taught me the value of getting honest insights from the target audience as a basis for designing and which aspects in a design should be emphasised during future iterations.

COMPANY DESCRIPTION

Name: Johannes Scherr Design

Sector: Design

Description: Johannes Scherr design focusses on design in the fields of product, mobility, furniture, packaging and industrial design.

The firm stays competitive through a fast design process and the ability to do high quality in-house prototyping, which makes sure that the design is well suited to the demands of the client.





PROJECTS CARRIED OUT

My work as an intern consisted of being a part of the company, from doing exploratory work, to sketching, making 2D and 3D designs and helping out wherever necessary. In the following pages, I will give an overview of the projects that I participated in, as well as highlight my work during the internship.

These projects are the following:

- 1 FH Joanneum
- 1 Aspöck
- 2 Arri
- 3 Poma
- 4 Belassi
- 5 Europa game
- 6 Tree lamp





FH Joanneum - Workshop on design

In the first week of my internship, I was asked to give a design workshop to children of employees of the FH Joanneum, aged 8 to 13 years old. The worshop revolved around a redesign of the world cup trophee.

The workshop consisted of a short introduction on the topic of the world cup trophee, after which the children formed groups to make a mindmap. The biggest challenge in this stage was letting htem use their imagination and not think of why something would not work. Afterwards, they used the 635 brainwriting method to generate ideas and expand on those of others.

One of my goals for the internship was to learn to speak and read/write German as well as possible. Therefore, I spoke mostly German during the workshop, supplementing with English or a translation by one of the group leaders when needed.

Competencies used:

- -Oral communication
- -Autonomy
- -Research
- -Critical thinking





Final mindmap and outcomes

Template for 635 sketching

Worklight

The second week revolved around creating an industrial worklight to be mounted on an industrial vehicle. Having not done a bachelor in industrial design but in applied psychology, doing research in a design firm was different than I had anticipated. I noticed that it was quick and the (rough) designs were the main part of an iteration. Because I did not have a lot of experience with sketching, I tried to do that for a day, after I went into Solidworks to create the design that I had in mind. I think this worked out well, since I was able to control the process to a very detailed level this way and I was less burdened with the mistakes that I made since I could just undo them. I feel like this may grant me some sort of false security, since I think comitting to an action is also a big part of designing products, not overthinking everything all the time. The modelling and research was done by me, while the rendering was done by my employer.

Competencies used: -Learning -Aesthetic sensitivity -Autonomy

-Research









Finished design





Wireless compact unit

This client wanted the design of one of their products to be updated to differentiate from similar products on the market. To facilitate this, I did research into similar products that fit the directions that my employer wanted the design to go into, which I characterised on several points. From thereon, I made sketches which highlighted several design features, such as a clear dividing line between the grip and the body, rounded features and different kinds of knobs. Again, without having gone through the bachelor in ID, for me this project was aimed at finding ways to communicate my ideas through sketching and getting a clear understanding of sketching in general. I did not do the modelling or rendering in this project. While I feel like I only touched the basics of sketching, I do feel that I have gained enough insight from reading books regarding sketching, looking at colleagues and referencing old designs, that I can see the limits and uses of sketching. I can also communicate and make well-informed decisions regarding sketching based on these insights.

Competencies used:

- -Learning
- -Aesthetic sensitivity
- -Autonomy
- -Research
- -Critical thinking











Sketches

Research

Cable car technicians' interface

For me this project was aimed at getting to know 2d- and interface design better. My employer was approached by a client to redesign the interface of the application that their technichians use when servicing cable cars. Based of examples of previous work by my employer, I created the interface shown below. I could use the programming-specific knowledge that I gained during the master at the TU/e to extract the iconset, font and other details that I otherwise had to recreate by hand, from the website of the client. What this project has taught me is how to search for specifics in an existing design and see what makes them unique. Afterwards, translate them into a new design which rejuvinates and updates a familiar design. I am taught to think very differently in my current studies. Clients for instace want to take several steps towards a somewhat new direciton and they don't want to go in a 180° direction. This was also one of the few projects where I worked extensively with someone else, as opposed to mainly by myself.

Competencies used:

- -Learning -Aesthetic sensitivity
- -Teamwork -Autonomy
- -Research



Final design, logos omitted

Hybrid paddleboat

My employer designed a line of jetskis for a manufacturer in the past, after which they commissioned a hybrid paddleboat. My job was to do research into existing paddleboats which also have a propulsion system, as well as looking at vehicles of similar shape as what my employer envisioned. A lot of my time on this project has been spent sketching. As can be seen, these sketches are of lower quality than the sketches I did for the wireless compact unit. This was because the level of support for sketching during that project was higher than during this one, meaning that I was mostly on my own during this period. I eventually chose to create a mockup in Modo, using the skills that I have learned in the tree lamp project, which is shown later on.



Research process

Sketches

Europe game

A client had designed this game in-house, but as it was a rough draft, the graphics needed to be created so they could be scaled. The map you see below is created by me from scratch, using the knowledge and skills that I gained in earlier projects, notably the technicians' interface.

Competencies used: -Aesthetic sensitivity -Autonomy



Sketch

Tree lamp

For this project, my main goal was to try polygonal modelling in Modo, as opposed to parametric modelling in Solidworks. As reference I used 3D tree models and used sculp tools to shape into the lamp shape. I also created two lamp shades from scratch, because after watching a lot of tutorials and reading the manual of modo, it became clear that polygonal modelling is often done from scratch.

In this case, the defining stage of the design project was skipped. While the modelling was done by me, the renderings were made by my empoyer.

Competencies used: -Learning -Aesthetic sensitivity -Autonomy -Oral communication







3 Designs, rendered

DESIGN PROCESS ANALYSIS

Design Process

Like stated before, the firm is characterised by a fast design process. This means that, ideally, there is more time spent on designing the product itself than scaffolding the design and research and doing desk research, so it is comparable to the Design Counsil 2013 approach. Therefore, I will define the process in the firm based on that approach.

Discover: The direction of the design was always set by either the client or my employer. Clients usually had a direction that they wanted the design to go in, or they had general requirements. Based on this, key features were identified and the internet was used to find examples of these features and similar designs.

Define: After this, sketches were normally made which highlighted different aforementioned aspects. While the user was taken into account, it took a back seat to the easthetics of the design. Depending on the project or the designer, a 3D model or physical prototype could be made during this phase.

Develop: In the case of a 3D model, my employer would create renderings, like can be seen throughout this document. If a psysical mockup was needed, it would be 3D printed or cut out of wood using a cnc router. If in the previous stage, a sketch was defined, a 3D model would be made and renedered.

Deliver: The finished design would be presented to the client by my employer and if need be, changes were made.



Your results

Here you have the results regarding your creative profile. The value of each creative competence is determined by the values of two different creative dimensions of design practice.

For more information you can check:

www.decsproject.net/cdt

3 / 5 Innovation		4 / 5 Research		3 / 5 Leadership		3.25 / 5 Autonomy	
Originality	Realization	Search for information	Experimentation	Strategic vision	Coaching	Self- management	Initiative
3.75 / 5		3.5 / 5		4.25 / 5		2.5 / 5	
Social and ecological sensitivity		Oral communication		Critical Thinking		Teamwork	
4.5 / 5	3 / 5	3 / 5	4 / 5	4.5 / 5	4/5	3 / 5	2/5
Awareness	Compromise	Planning	Charisma	Questioning	Improvement proposition	Delegation	Tolerance
4 / 5		5 / 5					
Aesthetic Sensibility		Learning					
4/5	4 / 5	5 / 5	5 / 5				
Appreciation	Criteria	Curiosity	Knowledge				



Co-funded by the Creative Europe Programme of the European Union

TU/e Technische Universiteit Eindhoven University of Technology FH Salzburg

CONSIDERATION ABOUT COMPETENCIES

When looking at the spider diagram of the previous page, there are several things that stand out. My main goal was to learn as much as possible during my internship. This can be easily explained by the fact that this also shows in the graph. While I feel like I have learned a lot, I initially thought I would somewhat master skills better than I did. This is because of two reasons. The most obvious one being that I underestimated the skills that were used in the design firm. The second one being that I often relied on learning things myself. For instance, I used the reference guide and manual that came with Solidworks, Modo and Rhino, along with making liberal use of google and youtube to get a basic understanding of what those tools entail and how I should use them. This also shows in my autonomy score. What is remarkable however is my lowest scoring scale, that of teamwork. I often flourished when working with others and I think the sketching that I did alongside someone who was a lot more experienced than I was really shows in my work (that of the wireless compact unit). I can also see that teamwork entails more than the two categories that it's divided into (delegation and tolerance).

Overall, I feel like I have used the leadership and innovation competencies the least. This is because I never took on the role of leader, but I did coach my colleagues if there were any in that day. I could have made more use of skills that sit under the innovation competency, but those took a backseat to gaining as much understanding and knowledge about everything that matters in a design firm, from the way that files are organised to talking to clients and more hands-on skills like sketching, modelling and model making. Like I have stated before: I haven't learned how to sketch or model to be considered an expert, but I have learned what the uses and limits are for each tool, how to create an informed opinion about them and maybe most imporantly, how to have effective communication with others with regards to the skills and tools that I have been exposed to during this internship.

I have found this experience to be highly formative, enjoyable and incredibly educational. It showed me what I can expect from working in a design firm which is mainly focussed on the design itself, where I am more focussed on reasearch of- and through design. It has also taught me valuable lessons about what it is like to live abroad, albeit for a short time. These insights and understanding will influence the work that I do in Eindhoven and thus be of a direct influence on my future as an Industrial Designer.

DESIGN TOOLS

Of the tools that I have been exposed to that suit this chapter, two come to mind. The first one is that of knowing how to use speed to your advantage. What I mean by this, is that the design firm works in very fast cycles, which means that a project will rather last a week than a month. This caused me to see the importance of making a choice, as opposed to having such a long research phase that it leads to diminishing returns. From a business perspective this also makes sense, since working faster means having to bill fewer hours, which results in being able to position oneself competitively in the market. The other tool that I have used is that of the cnc router. My employer already makes extended use of a cnc router at the university that he teaches at, but did not have the opportunity to set one up in his own workshop. I took it upon myself to set up and calibrate the machine and prove its functionality by using it in a project where several identical cuts needed to be made. I see myself as a designer, but I can't trust my hands to do what my head wants. The cnc router really gave me a solution to this problem. I can see that for some projects, this is not a tool that is to be used often, but I prefer its accuracy and speed over my formgiving skills. This results in me being able to be a more well rounded designer by filling in the gaps in experience that I do not (yet) have.

COMPANY DESCRIPTION

Name: Vitalion

Sector:

Description:

Vitalion is a small aquaponics company in Vienna, Austria. It both designs and creates the systems within the company. Within the aquaponics sector it focusses on a more aesthetic approach, where the system acts as a visual piece or room divider within the company.

Department: Industrial Design



PROJECTS CARRIED OUT

My main focus within the internship was to provide Vitalion with 3d renderings and models of the different pieces within the aquaponics system. As the company just finished the design of a new model, my main task was to seperate the model into seperate pieces which needed to be production ready. In addition the different 3d models of the current product were not created by the company itself, rather it was owned by the company which also produces the parts. As the costs were rising my task was also to recreate the current 3d models. So Vitalion could freely choose between different production companies rather then being stuck to one.

Due to my background in industral design I also helped with ideating about future steps that the company could take.

During my internship I noticed the importance of experiencing the product, although the company provided different information like a website, and brochures it did not capture the feeling and experience within these media. As I noticed this, I tried to improve this aspect of the design process as this could make the potential customers much more enthousiastic. The way this was done was by changing the brochures aestethics and by making a product movie, which tries to capture the product as a system but also the visual looks and feelings you get when working next to the system.



DESIGNER DESCRIPTION



Name: Art Selbach

Intership dates: 07-06-2018 till 20-08-2018

Current studies: Msc Industrial Design

Brief of the designer profile:

Art Selbach is an Interaction and Industrial Designer currently a master student in Industrial Design at the University of Technology Eindhoven. He believes that nowadays the interaction from user to device is most of the time a one-way interaction. https://selbach-art.businesscatalyst.com





value of each creative competence is determined by the values of two

different creative dimensions of

For more information you can

www.decsproject.net/cdt

design practice.

check:

ELISAVA Barcelona School of Design and Engineering

4.5 / 5

Originality

3.25 / 5

3.5 / 5

Awareness

3.25 / 5

2.5 / 5

Appre ciation

4/5

Social and ecological sensitivity

Aesthetic Sensibility

3/5

4/5

Criteria

Comp ro mise

Realization

3.5/5

Search for information

3.75 / 5

3.5 / 5

Planning

4.5 / 5

Learning

4.5 / 5

Curiosity

Oral communication

3.5/5

4/5

Charisma

4.5 / 5

Knowledge internalization

Experimentation

TU/e Technische Universiteit Eindhoven University of Technology FH Salzburg

4.5 / 5

4.5 / 5

Improvement proposition

Strategic vision Coaching

Critical Thinking

4.25 / 5

Questioning

4/5

4/5

Self-management

Teamwork

3.5 / 5

3.5/5

Delegation

3.5/5

Initiative

3.5 / 5

Tolerance

CONSIDERATION ABOUT COMPETENCIES

During my work at Vitalion, which mostly consisted of making 3d models. I noticed the importance of explaining the vlaue of your pdocut to your customers. Currently that was not done in a really experienceable way. The product that Vitalion offers is a pretty big structure (2 meters in length and height). Where it might be easy to visualize for customers when a company is selling an e.g. improved product/small device. This product is very new and customers do not really have an idea how it could look like when they are talking about it. Due to my critical thinking skills I was able to define the biggest opportunity area's wihin the current company structure. Which were on the one side getting the information to your potential customers, and on the other side make the system more flexible as the current system is mostly meant for big open spaces in large companies.

I started ideating on my own about potential systems that could be made in such a way that it is more flexible. Due to my experience in industrial design at the TU/e and my prvious projects. I was able to design a modular aquaponics system. In which a customer could build his own system. Where the current system is 2 meters straight, and maybe does not fit in a small space, the modular system could for example also be placed in a corner with the use of corner pieces. I think my constant search for innovation and my eagerness to always keep improving. Helped my a lot in, first to start thinking critically about the current product where after I tried to tackle the found problems with several design concepts.

During my internship I mainly worked alone or with the owner of the company. By working alone it is important to analyse your work constantly as there is no other person reflecting with you. Although I believe that I am a good team player, autonomy is crucial when working seperately. Because I did not have a lot of experience in working alone I believe that I improved a lot on this aspect. Where in the beginning I found it hard to set deadlines and reflect upon my work, I later took the control and started to work in a more pro-active way and look for different design opportunities regarding other topics of the company (as discussed earlier).

DESIGN TOOLS

In my opinion currently, Vitalion is to focussed on the technical aspects of the design. Although this is a major part of the design, I feel like it is very important to have a more user-centered design process. I think some focus group meetings could be very usefull, where they discuss the benefits and/or the possible directions the company could go to. As of now the main focus is to get the product to work as good as possible, while the current product already works quite well, the main focus is still to keep improving the details. I believe when switching between a user-centered approach you could gain more information about the user needs, and at the same time based on that make changes in your product instead of only making technical optimisations.

EINDHOVEN



Partner
EindhovenAirport

Roger Zambrano ELISAVA Barcelona School of Design and Engineering

Roger Zambrano is a freelance Industrial Designer living in Barcelona, Spain. He believe in data-based design and use research tecniques and rapid prototyping tools as key decision-making drivers for the coception of feasible, coherent and disruptive design solutions that meet the needs of brands, consumers and manufacturing processes.

http://basvanstraaten.com



Partner





Partner STUDIO **TAST**

Ana

Fortuny ELISAVA Barcelona School of Design and Engineering

Ana Fortuny is a Space Designer who studied at Elisava School of Design in Barcelona. Creativity and intuition are reflected in her effectiveness and confidence about all of her projects. Nonconformity is the characteristic that makes her outstanding through hard work and perfeccionism. Capable to work by own or as part of a grouo. She considers that photography, painting, drawing and sculpture help to see the world form another point of view, and to develop new scripts and dialogues with the aim of improving the world.

Eva

Bajková Salzburg University of Applied Sciences

Eva Bajková is an Industrial Design student originally from Brno University of Technology but currently she is studying at Fachhochschule Salzburg. Her original focus is on design, whic is all about the pretty and functional things. But her background is mostly technical, where she learned analytical and critical thinking and also how to be patient. Generally, she loves to face problemas and come up with new creative solutions both as a designer or technician.



Partner
EindhovenAirport

Nicola Ritter Salzburg University of Applied Sciences

Nicola studied Architecture at MSA (Münster School of Architecture) where she discovered her passion for design. After finishing her BA in Architecture she coursed a Master of Design and Product management in Salzburg at the University of Applied Sciences.



Partner



Tanja Kammler Salzburg University of Applied Sciences

Tanja Kammler is a 23 years old designer based in Salzburg, surrounded by her favorite landscape, the mountains. She got a BA degree in Fashion and Design management at AMD Munich in 2017. Currently, she's doing a master degree in Design and Product management at FH Salzburg. She is cheerful soul, open minded and passionated about everything that glitters.

DESIGNER DESCRIPTION



The Eindhoven Airport plans to double its traffic on the upcoming years, if no actions are taken, such an increment can negatively impact the passenger experience and therefore the "Always Easy" consumer-facing model of the company.

Name:

Róger Daniel Zambrano Diaz.

Internship Dates:

September 01 to October 30.

Current Studies:

University Degree in Industrial Design (Universidad de Los Andes, Mérida - Venezuela)

Certificate Degree in Social Design and Innovation (Universidad Católica Andrés Bello, Caracas - Venezuela)

Master's Degree in Communication Strategies and Art Direction (ELISAVA, Barcelona - Spain)

Master's Degree in Cognitive Systems and Interactive Media (Universitat Pompeu Fabra, Barcelona - Spain)

Designer Profile:

Roger Zambrano is a freelance Industrial Designer based in Barcelona who believes in data-based design and use research techniques and rapid prototyping tools as key decision-making drivers for the conception of feasible, coherent and disruptive design solutions that meet the needs of brands, consumers and manufacturing processes.

COMPANY DESCRIPTION

Name: Eindhoven Airport.

Sector: Airtravel Industry.

Description: According to its strategic vision, Eindhoven Airport is expanding to 43K flight movements and 6MM passengers in 2019. Eindhoven Airport aims for a broad portfolio of destinations spread over Europe. The growth projections on the airport traffic aim to up to 12MM passengers in 2020, a passenger projection that is directly dependant to the increment of the landing and departure slots offered by the airport.

In preparation for such a rapid growth of passenger traffic on the upcoming years and supported by the strategic vision of the future of the airport centered on four key topics: commercial exploitation, operational excellence, innovation and technology, the Eindhoven Airport is open to explore new approaches that maintain and enhance each one of the elements that influence the operational excellence of the airport and that secure its sustainable development as a central element in the future perspective of the region.

Department: Research and Development, tutored by Ivar van der Smaal, head of the innovation team at Eindhoven Airport.





PROJECTS CARRIED OUT

General data on the internship agreement

The Eindhoven Airport plans to double its traffic on the upcoming years, if no actions are taken, such an increment can negatively impact the passenger experience and therefore the "Always Easy" consumer-facing model of the company.

As a result of the initial research phase, the solution chosen to handle in an efficient way the exponentialy increasing number of passengers transiting through the terminal was the design of a small, portable device to be kept by passengers while on the terminal. The smart device, uses state of the art technology to constantly communicate with a centralized system monitoring the state of the terminal. Using an RGB display and just like a restaurant virtual queue system, the token would communicate to the passengers the best time to navigate through the security barriers at the terminal. This way, the terminal would have a constant flow of passengers through its barriers instead of peaks of traffic, causing big lines and long waits thus directly impacting consumer's experience.

In order to generate a valuable proposal for the Eindhoven Airport, the design work outlined by this document presents a design solution aligned with the future vision of air-travel proposed by NEXXT, an initiative created by IATA to shape the future of the airtravel industry.



DESIGN PROCESS ANALYSIS

Design Process

At the Eindhoven Airport, the innovation innitiaves are primarily given by direct insights of the personal of the terminal. Boarding coordinators or floor managers, constantly in contact with passengers and the every-day operations of the terminal bring observations to concurrent monthly meetings held at the innovation center of the terminal, these insights are evaluated and taken into account for future projects. In some cases, because of the size of the terminal and openess to innovative solutions airlines test new initiatives at the Eindhoven Airport. Behaviour-changing solutions like the now worldwide implemented automatic baggage drop-off were initially tested at terminals like the Eindhoven Airport.



CONSIDERATION ABOUT COMPETENCIES

As shown in the graph, the general personal appretiation of the competencies was not too far away from what was perceived by colegues while working on a design project. Oral communication and deep focus on research and understanding of the problem were the main strong points while social and aesthetic sensitivity were on the down side, the latter being the most important aspect to correct during the intership. Another key aspec,t part of the design competencies that shaped the general development of the design process was critical thinking, in my personal case, critical thinking is mainly influenced by the results of the many prototypes constantly produced during the evaluation and development phases of the project. Constant iterations to test and evaluate every single feature of the device were the main cornerstone of the decision-making process of this system.

One of the challenges faced during the internship that tangencialy touches the competencies is "Work in group" mainly because the two members of the groups working for the Eindhoven Airport were not during the same time at the internship, this out of phase schedule caused a complete disconnection and unalignment of the common goals and expectations of the client, mainly because a basic miscommunication during the initials phases of the project that could be corrected if the schedules of both interns would have coincided.

DESIGN TOOLS

As a Designer, I belive in the use of rapid prototyping as the main argument for practical decision making during the design process. This is why, backed by the prototyping lab at the Technical University of Eindhoven a continuous learning and prototyping methodology was adopted during the development of the project.

The constant protototyping served not only to fine tune the industrial design of the token created to solve the design problem presented by the client but also to develop a small prototype of the complete architecture to be used by the terminal in the case of a real implementation of the project.

High-end 3D printers were used to produce more than 10 tokens that fed from an algorithm that simulated different passengers and their traveling details. These details were filtered into a constantly updating priority boarding list stored on a cloud service, the list managed and controlled the information of the passengers and resulted in a color coded communication that was transmited thanks to the RGB LED's of the device. The prototype for the token enclosure was modeled from scratch using Rhino 3D, the electronics used for the token prototype were the Adafruit's feather microcontroller family. The language used to control the whole environment was Python and its microcotroller variation, Micropython.

Besides the smart device development, and responding to a need brought out by the client at the initial stages, another smart system was developed in parallel to control the flow of passengers through the terminal. A computer vision system, prototyped on a Raspberry Pi 3 was programmed to count passengers using a Neural Network trained to respond to the lighting conditions of the Eindhoven Terminal.


DESIGNER DESCRIPTION



Name: Ana Fortuny Casablancas

Intership dates: 27/07/2018 - 27/09/2018

Current studies: Last course in Elisava of a four year bachelor degree in Sapce design

Brief of the designer profile:

PERSONAL STATEMENT

Creativity and intuition are reflected in my effectiveness and confidence about my projects. My nonconformity is the characteristic that makes me outstanding through hard work and perfectionism. Capable to work by own or as part of a group. Competent in administrative duties, design programs and clients skills.

WORK EXPERIENCE Hi studio Freelance (June 2017 - Present) Barcelona

Developing several graphic, space and product design proposals for potential clients as a useful experience for my early days as a design studio.

AWARDS AND/OR ACHIEVEMENTS Altran Hostess Mobile World Congress 2018 Barcelona

The nature of this project meant that I had to collaborate and use my organisational, communication and research skills.

COMPANY DESCRIPTION

Name: Effenaar

Sector: Entertainment / Culture (Concert hall)

Description:

The Effenaar is a pop venue located in the heart of Eindhoven, that offers the representation of any kind of cultural expression such as music or dancing.

The Netherlands has had such a great music culture all over the years and the Effenaar was one of the keys. It was founded in 1971 under the name of "Open Youth Center" in an abandoned "Van den Briel & Verster" linen factory, where bands played as a way of expressing themselves. The Effennar was a revolution instrument for new generations to come through. This is why controversial bands such as "Sex pistols" have played there.

The years passed, and there was an actual need to reconstruct the building and give other uses to it. The Dutch architectonic office MVRDV designed and planned a really artistic concept to define the new building structure that was rewarded many times.

The building hosts 2 music halls. When there is a sold out event for the big hall the capacity is 1250 people and for the second stage it is 350 guests. The building has also a restaurant part with a kitchen, areas for VIP guests, offices and plenty of space for the performing artists, such as dressing rooms, bars etc. The maximum capacity allowed in the building during a festival is 1700 visitors.

Nowadays the Effenaar is one of the largest and most important pop venue in the country, that offers a wide variety of concerts and events such as festivals, escape rooms, pub quiz etc.

This company bases its succeed in team work. Many people working in differents departments in order to arrange and give to the public the best possible experience. As their company policy believes in new talents, they cooperate with students and interns from differents fields and backgrounds.

Department: Architecture and design.











PROJECTS CARRIED OUT

General data on the internship agreement

The pop music venue the Effenaar nowadays hosts many plans and activities.

The building itself, designed by the Dutch architectonic studio MVRDV in 2002, presents an outstanding innovative architecture approach. Based on the space requirements, it creates simple cubic forms that combines not only function but also other elements such as colors, that defines the character of the whole building.

Despite of all the creative approach that it was made, the building and its current organization is incapable to suit properly all the necessities needed for the venues. In order to solve these issues they have already made some structural changes in the building.

One of the biggest changes was the creation of a smoking area on the second floor. Another initiative to try to make the space more pleasant for users, was the cooperation with the well known Dutch graphic designer Johan Moorman, who created the graphic patterns applied in the Effenaar's interiors.

Even though all of these procedements were made with the best intentions, there are still problems that need to be solved. The task we were ask for as DECS interns at the Effenaar, was to create and present different creative, suitable and useful solutions for the venue.

All of the internship investigation, work and proposals should enable them to search for the best option and solve most of their problems or even all of them.

The problems the Effenaar is facing nowadays and the ones we have been asked to solve are the next ones:

1. The lack of the toilets for the big hall.

The distribution of the toilets does not suits the requirements that changes based on the event. The lack is mostly of the ladies toilets, but some of the programs are mainly visited by men and the problem then shifts.

2. Access to the restaurant.

Due to the cause that the existing structure of the building separates the music halls from the restaurant, people are not able to easily access the restaurant and leave the building right after the concert. Based on this they would like to build the second floor in the restaurant as a connection between these two areas. 3. Prohibition of smoking inside.

In the few years the smoking inside will be forbidden in the Netherlands. So the smoking area created few years ago will not have any use. This brings many other problems to solve such as creating a new place for smokers, control them, give another use to the existing smoking area,... etc.

4. Redesign the function and proposal utilities for the second floor area.

The flow is disconnected, people will collapse the entrances,... There are many aspect in terms of utility of the space that are need to be thought and redistributed in order to help to built an insightful experience for not only the users but also for the Effenaar experience.

Our main purpose with the internship, and what we were asked for, was to look after all of these problems and try to fix them in unique ways. They did not want a finished design, but many options, many studies of the current situation, optimization of the space and different solutions, that they could rely on to ask for more budget to the government and of course, get inspired for a future final design to apply in a next years.

At the beginning of our internship we did not have a clue about what was our assignment.

It was at the first meeting with the director of the Effenaar, Jos Feijen, when we were briefly introduced to the environment and the main problems that the Effenaar is facing nowadays. We were given the plans of the building, and also the presentations developed previously during the DECS workshop.

Despite all these facts, the brief was still not clear: we did not have an idea what was our main purpose and what way of action we should take or develop.

Because we did not have an specific objective or problem to solve, plus the briefing was way too much open we started our project through research. This helped us to set some constraints and start to structurate our design process.

The research was as important as it was to understand how the space interacts with the users. This is why we took part of some events that the venue hosted, such as a pop concert and a "escape room", in order to understand the atmosphere and all the current disposition and utility problems existing while the building is used.

All of the different presentations and feedbacks we received, helped us to define, day after day, not only the way we should work but also the right track we should follow, which turned out to shift constantly.

After having our first ideas and making the very first brainstorming besides developing great adaptation skills we started to define our design more into detail, by creating moodboards and composing our first materials and color proposals, supported by simple 3D models and visualisations.

After one month we had our first presentation with Effenaar's director. We pointed out the current organization and space problems, the constraints we would like to keep, the first idea of the style it could be applied... We set some objective agreements with him.

Thanks to the feedback we received plus the new information he gave us, we came to the conclusion that our very first proposals were not realistic, and we should rethink our design.

In two weeks time we were ask to do a mid-point presentation where all of our work developed was introduced to the Efeennar's stuff. The proposals were received in great enthusiasm, and we got encouraged and inspired with everyone's point of view.

After this, we decided to develop and work only in the proposal and concept that we believed it was the one with the best commitment. All of the work developed in the following weeks, and the feedback we received during these, were mainly focused on the possibility that would suit better the Effenaar in the future. This is why we were not ask to develop a finish and unique design but many options.

The final result, and all of the work we developed during the internship was more about the whole process, alternatives and possible options that could solve the actual needs. Also our work would help them not only to get inspired, but also to ask for more budget rather than creating final and finished space design.

As we were told at the very beginning, our design will never be applied, but it will help them to open up their minds and know what they can and what they cannot do in the space. Overall, it was a insightful period of time where we learned how do develop ourselves as designers in another professional field.



From Van Gogh to Picasso Cultural art degree Utrech, The Neatherlands August 2017

Attended a different museum of modern art per day and studied the materials, preservation and development of modern art works.

Suit Adobe: La mesa del diseñador Program certificate Barcelona August 2016

Autocat 2D 3D Certificate Program certificate Sabadell, Barcelona June 2016

Catalan First Prize in Literature Catholic literature award Terrassa, Barcelona June 2013

Microssoft Word, Exel and PowerPoint Program Certificate Barcelona October 2011

"The Outward Bound Trust " award Scotland, and Manchester, Great Britain 2015 and 2016

Create representative communities, trough respect. Brought myself to my physical and mental limits in orderto work in life with values like compassion or integrity, by being accountable for decisions and actions.

Charity activities Improve spirit of respect and generosity in service to others All over the world 2015 - present

SKILLS Adobe Photoshop, Adobe Indesign, Adobe Illustrator, Autocad 2D Autocad 3D, Arduin, MoovieMaker, Sketch Up, Rhin, Microssoft Word, Exel, PowerPoint, C++.

LANGUAGUES Spanish (native) Catalan (native) English (CAE) French (A1)



CONSIDERATION ABOUT COMPETENCIES

This internship experience have been an insightful opportunity where I gained valuable knowledge about assisting a team in devising and implementing strategies to communicate and develop projects. I also enhanced coordinating and delegating skills and liaised with customers, always maintaining very high standards in design and creativity.

During my residency I was able to work on own initiative and also as part of a group, opportunity were both parts had a mutual enrichment. At the ends, because of tolerance and also because of the autonomy we were given (perhaps way to much) we believe we got the most ingenious, practical and useful results. This was because of our commitment to have a great initiative and self-management of the the time from the very start in order to get what we been asked for.

Target-driven, I have put into practice my sketching and program skills which not only have helped me to communicate with the clients, but also to strength the conceptualization of my proposals, innovating through the final resolution and originality.

With a proactive attitude learning new softwares and upskilling existing, I been cultivating abilities to generate highly compelling designs with a sensitive eye for the smallest details during this two month period. Motivation and curiosity helped me to experimentate and search for different procediments making me able to internalize the new knowledge given and learned.

I can confidently tell you how significantly I have strengthened my capability to work in a fast-paced environment with frequent priority shifts.

I look forward to learn from all of the future upcoming professional opportunity as much as I did during this internship, in order to develop all of these skills further and to the fullest.

DESIGN TOOLS

At the beginning of our internship we did not have a clue about what was our assignment.

It was at the first meeting with the director of the Effenaar, Jos Feijen, when we were briefly introduced to the environment and the main problems that the Effenaar is facing nowadays.

We were given the plans of the building, and also the presentations developed previously during the DECS workshop. Despite all these facts, the brief was still not clear: we did not have an idea what was our main purpose and what way of action we should take or develop.

Because we did not have an specific objective or problem to solve, plus the briefing was way too much open we started our project through research. This helped us to set some constraints and start to structurate our design process.

The research was as important as it was to understand how the space interacts with the users. This is why we took part of some events that the venue hosted, such as a pop concert and a "escape room", in order to understand the atmosphere and all the current disposition and utility problems existing while the building is used.

All of the different presentations and feedbacks we received, helped us to define, day after day, not only the way we should work but also the right track we should follow, which turned out to shift constantly.

After having our first ideas and making the very first brainstorming besides developing great adaptation skills we started to define our design more into detail, by creating moodboards and composing our first materials and color proposals, supported by simple 3D models and visualisations.

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DESIGNER DESCRIPTION



Name: Eva Bajková

Intership dates: 16.7.2018 - 7.9.2018

Current studies: Industrial Design, Brno University of Technology

Brief of the designer profile:

Education - University 2017-2018 SALZBURG UNIVERSITY OF APPLIED SCIENCES Product design and Management - Erasmus exchange year - master studies

2013-2017 BRNO UNIVERSITY OF TECHNOLOGY Industrial Design - bachelor degree Physics and Nanotechnology

Experience

MAUTING S.R.O. 3D modeling and technical drawing assistant

Company projects

SCHOCK - designer - design of a sink COOPH - art director - design of a photography equipment HAHN Kunststoffe - product manager - market research RORA MOTION - technician - design of an exibition car ARP RACING PARTS - designer - design of a motorbike rear set

Skills

3D MODELING AND RENDERING Rhinoceros | SolidWorks| KeyShot | 3DS Max

2D GRAPHICS Illustrator | Photoshop | AutoCAD

COMPANY DESCRIPTION

Name: Studio Tast

Sector: Design / Education

Description: Studio Tast consists of a young multidisciplinary design team, specialized on the cutting edge of technology, design and education. They bridge the gap between existing learning materials and future possibilities.

Studio Tast is specialising on the intersection between technology, design and people. They create an inspiring learning environment fitting the perception of current and future generations in a continuously changing society.

Department: Design Develompment





PROJECTS CARRIED OUT

My work at Studio Tast consisted of one main project and other smaller side projects and tasks.

Main Project

Redesign of a Goed Wijzer, which is an educational tool for children in the 7-9 age group in primary education focusing on clock reading. Goed Wijzer offers students the opportunity to learn independently within the classroom, using new technologies and embodied learning. It consists of a tablet application that is controlled by the physical Goed Wijzer clock and accessories.

My task was to do a redesign of the whole form and ideate and discover new opportunities for tangible interactions and tasks. The product would not only be used for clock reading, but for multiple mathematical operations.

Side Projects

Helping with visualizing current projects of Studio Tast for social media and website. My work consisted of 3D modeling, rendering, and photography.



My design process started with introduction and familiarisation with the project itself. As I written above, my task was to do a redesign of a Goed Wijzer which is an educational tool for children in the 7-9 age group that focuses on clock reading. The new design supposed to be multifunctional that allows new possibilities of learning mathematical assignments focused on tangible interaction with the product and its parts. Goed Wijzer is also connected to the app where children can read the tasks and interact with it.

I was also given a prototype from a previous intern whose task was to solve the technicalities of the product. With exploring different possibilities of the prototype I also tried to research all the necessary information that was fundamental for my further work. I was learning about study techniques and the importance of different tangible interactions with an educational product.

With some knowledge about the problem, I created a set of moodboards that supposed to help me with the design process. I focused on a description of a shape, material, and textures. After characterization of a theme and mood, I started with the first iterations of the proposal. I sketched, 3D modeled and rendered initial ideas and thoughts. During my ideation phase, I had a consultation with a learning expert who helped me to understand how the studying process works and what are the fundamental aspects of it.



Besides the aesthetic and interactive side of the product, I was also trying to solve some technical problems. Throughout my process, I had a great support from the studio members who helped me with any inconveniences regarding the ideation, design, technic or any other problems.



My further design process consisted mainly of iterating first ideas and implementing new ones and solving feasible and usage problems. I was going back and forth and trying to find a suitable version that would fit most of the requirements.

The final proposal I have created was based on multifunctionality and intuitive manipulation. The design is achieved with hexagonal geometry that allows multiple base connection (children can cooperate) and variability with different inlays for assignments (clock, fraction, percentage reading). The product consists of two parts - base and lid. My intention was to make a lid that is easily removed, folded and does not take much space and could be also used as an interactive component for the assignments.

Another significant part of the whole design is a material usage. My suggestion was to use a recycled plastic (combination with wood) for the base production. Not only it is a more sustainable option but it also creates a unique look that could be interesting for the children.



After finalizing the design I focused on making a prototype which was meant to show the whole form, its size and how it feels when used. I spent time creating a data for the laser cutter and 3D printer and collecting all the necessary materials.

The final part of the whole process was a presentation in front of the studio members where I introduced my design and explained all the functions and why I created them.







CONSIDERATION ABOUT COMPETENCIES

From my personal results from a spider diagram, one of my weakest competencies is a team work and overall tolerance. Therefore during my internship, I tried to communicate and discuss my proposals with my colleagues and consider their advices and then I tried to implement them in my own work. I have learned to listen to different opinions and trust others abilities which are usually better than mine in many aspects.

Regarding other competencies, it is hard for me to objectively say if they are appropriate. In my opinion, they are changing depending on the type of project, team composition, and the overall situation. But what I have really understood during my stay in Studio Tast is an importance of self-reflection - how to recognize my weaknesses and tried to work on them and improve them and also how to learn from my own mistake.

DESIGN TOOLS

My recommendation, for optimization of the process I was involved in, would be to focus the attention of multidisciplinary people on one project.

I took over a project from the previous intern and came up with a solution from my point of view, but the proposal was different and not very connected to the work that had been done before. It was hard to pass on the information, thoughts and the whole process from one person to another. Therefore, if we worked on the project together I think the final proposal would be in higher performance and shorter time. In my opinion teamwork, in this case, would increase the efficiency, value and the whole performance.

DESIGNER DESCRIPTION



Name: Nicola Ritter

Internship dates: 01.08.18 - 30.09.18

Current studies: Master Design and Productmanagement

Brief of the designer profile:

While studying Architecture at msa - münster school of architecture (University of Applied Sciences, FH Münster) the passion for design was discovered. After finishing the Bachelor of Arts in Architecture in Münster, Germany, the Master of Design and Productmanagement in Salzburg at the University of Applied Sciences, FH Salzburg was started.

The great interest in other cultures and languages was also a motivation for participating in this project, as well as the further development of creative skills and personal reflection.

COMPANY DESCRIPTION

Name:

Eindhoven Airport

Sector:

Public Transportation

Description:

The Eindhoven Airport is the second largest airport in the Netherlands, well behind Schipol Amsterdam and is used by both civilian and military traffic. It mostly serves for short-distance flights and low-budget airlines, approaching regular and seasonal destinations. The busiest routes are all inside Europe.

In 2017, Eindhoven Airport served 5.7 million passengers - a number, that will increase significantly during the upcoming years. At the moment, there is set a maximum of departing flights during one hour of seven with an average of 160 passengers per airplane. During the peaks in the morning, around midday and afternoon, approximately 12 flights depart within two hours. Especially around the peaks a high potential of queuing is detected - something that can be worked on.

Department:

Innovation Management





PROJECTS CARRIED OUT

Innovation for boarding and check in process experience at Airport Eindhoven

In the coming 8 years, a doubling of passenger amount is expected at Airport Eindhoven. For this, the boarding experience needs reconsidering. As a reason for this, the problem, that occured in July 2018 at two other Airports, can be mentioned. There has been a boarding stop at both Munich and Frankfurt airports. In both cases, the reason for this was that people entered the security area uncontrolled. In Munich, more than 200 flights were cancelled and around 60 flights were delayed. The security area had to be closed for about two hours. How could something like this happen? Obviously too much goes wrong during the check in process. To prevent the Eindhoven Airport from situations like that - while the number of passengers is increasing a lot - it is absolutely necessary to develop something for simplifying the boarding process.

With the two initial explorations of the DECS creative challenge at TU/e in mind, a further research confirms and verifies the needs.

In the first step, the different passenger groups and their needs are examined. Based on the discoveries of the initial explorations, theses groups will be frequently flyers, non-frequently flyers, business flyers and holiday flyers. It is to be noted, that groups can diffuse. For getting a rather realistic view of passenger groups, a subdivision was made (see diagram 1). There are for example holiday flyer, who are rather frequently flyer or non-frequently flyer, while business flyer are rather expected to be frequently flyer in general. It is important, to divide into "passengers with luggage" and "passengers without luggage", because observations showed, that the baggage control of the security check



takes significantly longer, if there is no checked-in baggage (mainly because of fluids regulations). The division in these passenger groups helped to create "personas", which were used to animate the problem. All the different groups were characterized and their needs and doubts were defined as well as their "personal time frames". The time frames are divided in 1. arriving, 2. baggage check in (for those passengers who do so), 3. time in entrance hall (= time before security check), 4. security check, 5. time after security check (= time in safety area) and 6. boarding to simplify the mapping.

An "interactive map" (see screenshot: image 1) was animated as an experimental study, to get a deeper understanding about passengers streams at the airport. It shows the different personas in different colours, how they move at the airport, referring to their different time frames. Problem nodes arise in the touchpoints of high stress level and big amount of passengers.

The information about their percentage distribution together with the definition of their stress levels leeds to the stresslevel x timeframes diagram (diagram 2, see next page), in which the amount of passengers is overlayed with their stresslevel (thickness of bars visualize amount of passengers of the beforehand explained passenger types. The color legend can be found in the previous diagram) and so it shows the mentioned problem nodes.

Another research showed, that independent from the passenger type, passengers tend to have the same doubts. Even a frequently-flyer doubts about missing his flight. The most-named doubts are visualized in the "map of doubts" (diagram 3, see next page). Doubts leed to an increasing stress level and should therefore be prevented.



image 1_screenshot







diagram 3_ map of doubts

Research work led to the fact, that the innovation to be designed has to deal with the behaviour of the passenger (see diagram 4 "key values"), which is also the opinion of the client, as the security steps at the airport can not be changed easily - at least not for now. The check in / boarding process contains dedicated, non-changeable steps, which have to be followed, means, that the steps themselves can not be changed, but especially the time spent in between.

The task is, to simplify the boarding and check in process. As there is no possibility to really change the steps, "simplifying" is seen as reducing the stress level and the wasted time waiting in queues. This might be reached by a better organization and coordination at the airport, referring to the individual needs of different flight types.

To work on the behaviour of the passengers can on one hand mean, to result in a "piece of mind" of the passenger, to reduce the stress level, or on the other hand, to organise the passenger groups in a better way, so that the mass of people staying in the same space is reduced.

However, it is to say, that there are these two options seen to improve the boarding experience. In the best case, the innovation will cover both.

To summarize the previous findings, the key values are the followings:

- queue balancing
- categorization of passengers
- guiding and information before queuing
- coordination through individualization
- improve the piece of mind of passengers
- influence the behavior of passengers in a positive way



diagram 4_ key values

As a first idea, a coordination - system was considered.

For better coordination of people it is necessary to give them easy-understandable visual hints, f.ex. using colors.

The dedicated color shows the path to lead to the correct waiting line at security check. Giving different passengers different colors basing on their flight type could help to sort them properly. If people are better organized, the waiting lines are probably not that messy. Depending on the percentage distribution there are more lines for holiday traveller (they need more time but also have more time than a business traveller for example).

A "(color-based) guidance system" might be developed. In a next step, it was thought about giving more information/advices to the passengers using interactive screens, built in the floor, and e.g. let them now, that even if Starbucks in the entrance hall is crowded, there is another Starbucks in safety area, which has seats left (as an example). It will be supported by colors - similar to a traffic light system (see example in diagram 5 "colorguidingsystem"). After a meeting with the client, the concept was changed and a device was developed, instead of thinking on changes of the airport. Following the client, a similar solution with traffic light system was already tested at the security check and didn't work as the passengers just ignored it.

Another brainstorm lead to the concept for a device, which can be executed in different ways, like it is explained in the following page.

As general outcome of the research part, it is to say, that the amount of passengers needs to be organized to prevent lines/waiting times to have a better experience at the airport. Furthermore, breaking the whole boarding process down in separate steps, makes it easy to adapt the findings/the device to different situations.



In order to prevent long queues, the human behavior has to be influenced in a positive way. Passengers tend to queue as soon as there is a queue. Especially in stressful situations - like security check or boarding - it is, regarding to a doubling of passenger numbers in the upcoming years, crucial to lead to a better organization of passenger streams.

The approach is to develop a device, which helps to process passengers in blocks, to cause an even passenger stream and to flatten the stressful peaks.

1. E-Paper Boardingpass (see sketch 1)

The boarding pass is replaced by an e-paper, which gives real-time information. It shows e.g. "37 minutes left for relaxing in the entrance hall". The given information is precise and the wording in a way, that it is trustful and calming for the user ("translated" to what is actually meant; e.g. "stay in entrance hall" instead of "until proceed to security check").

It has to be tested, if the text is readable.

A problem would be, that these passengers who use online check-in will not go to the counter to get an e-paper boarding pass.

2. Add-on for boarding pass (see sketch 1 + 2)

A small device, that can be clipped on the boarding pass. It can be grabbed from a dispenser after scanning the boarding pass and shows the different steps of the airport experience: Arrival at airport; baggage drop-off; security check; ...; boarding. The steps have a little "check box", which will be lighted in the adequate color, showing, which step needs to be done at which time, of course basing on the departing time. This information gives the passenger an overview about the whole process and helps him to calm down.



These devices will be charged inside the dispenser and are disposable for these passengers, who want one.

3. "simplified Pieper" for queue balancing (see following sketches) Small device, that can be collected by choice at a dispenser by scanning the boarding pass. It can be worn like a wristwatch. It only shows "no light" or "green light". To take into account, that e.g. families travel with more persons and only use one device, the booking reference will be scanned, so the system recognizes, how many people are connected to one device, which is important for the calculation of the queue balancing. The calculation bases of course on the departing time of the passenger as well as on the density of airport areas. Cameras will feed the system with density information, so the system knows more or less, how many people are around, to make a rather precise calculation. It then sends always around 15 persons to security check, so that there is just a really short queue. To do so, the lines at security check need to be divided into "line for people without device" = "normal line" and "organized line" for people with device. Only people with activated green light at their "simplified pieper" are allowed to pass through organized line. People are obligated to act following the organizing system. The division of the lines serves as motivation to use the device. In peaks, there will be a long queue at "normal line" and an appropriate queue at "organized line". If less people use it, the "normal line" will cause a longer queue, which encourages passengers to use "simplified pieper", so they don't have to wait in a queue for a long time but can take the "organized (fast) track". To reach this scenario, it is important to communicate properly the difference between normal and organized line and how to be able to use the organized line. There is no division in different flight types



implemented yet. It has to be figured out, which flight type is most suitable for the device (also for testing). The device is charged inside the dispenser and will have enough power for up to 3 hours, so it can be used for different steps of the boarding process, e.g. also for boarding.

Prototypes of the concepts will be built and tested and further developed by Roger Zambrano, who is continuing this project.



Design Process

After a first meeting with the client, who gave the design brief, a research took place. This first research lead to an experimental study to get a deeper understanding of the real "problem situation". With the study, the problem itself was defined as well as possible solutions. A first concept was thought through, which was presented to the client. Then a second, quick research phase took place to reflect the client's feedback. Further concepts were developed, that now need to be tested before they will be communicated.





CONSIDERATION ABOUT COMPETENCIES

1. Learning (Curiosity + Knowledge internalization)

I found definitely curiosity with me, but less knowledge internalization. I did learn a lot, but I didn't apply all of the new experiences directly to the project.

2. Aesthetic sensitivity (Aesthetic appreciation + Aesthetic Criteria)

Following the CDT results, I considered myself as an asthetic person beforehand. During the project I actually realized the lack of asthetic sensitivity. Aesthetics were not my priority at all.

3. Teamwork (Delegation + Tolerance)

I didn't think about myself to be a good teamworker, but I made another experience while actually working in a team. Delegation of work as well as tolerance worked out pretty well, what was for me quite unexpected beforehand.

4. Critical thinking (Questioning + Improvement proposition)

After the workshop I consider this to be my best competence, at least the "questioning" part. A solution starts where there is the right question.

5. Oral communication (Planning + Charisma)

In this case, I hit my own perception. I still do not think I am good in oral communication. I really have problems with organizing and preparing the information I want to transmit, which ends up in a quite messy pitch.

6. Social and ecological sensitivity (Awarness + Compromise)

I do consider myself as completely social and ecological aware. But as the project showed me, I do not implement it necessarly in any given project.

7. Autonomy (Self-management + Initiative)

Both before and after the project I see myself as a autonomous person, capable to manage work by my own and with initiative to modify a project

8. Leadership (Stretegic vision + Coaching)

To motivate colleagues during the project is something I really like to do. There might be a lack of strategic vision.

9. Research (Search for information + Experimentation)

In the project I worked mainly in the research part and my competencies seem to be like shown in the CDT results.

10. Innovation (Originality + Realization)

The lack of innovation like shown in the CDT results is indeed noticeable, especially when it comes to materlialize ideas. So the lack is rather found in the "realization" dimension, than in the "originality" dimension.

DESIGN TOOLS

Design tools recommended by the designer to the company to optimize their processes and competencies

Teamwork

Recommendation of working closer together, to have a proper connection of different design and non-design parts. Ideas can grow much faster if more people are involved in a proper way.

Design process with loops & Reconsideration process

Instead of having a linear process, a circular process is recommended. Design processes need loops, to take the information which is received during the process into account, even if the first prototype/design failed.

Evaluation & Reflection

To go a step further then the previous point:

The client talked about an experiment they already did at the airport, but it didn't work out. Learning competencies, like apply new knowledge in further projects, can make the process of searching for innovations more efficient. A reflection of the "why" (why didn't it work out?) can lead to a deeper understanding of the problem. The already mentioned loop of design process with failures/previous experiences leads to innovation.

DESIGNER DESCRIPTION



Name: Marek Vávra

Intership dates: 27.7.2018 - 27.9.2018

Current studies: Industrial Design, Brno University of Technology

Brief of the designer profile:

1. Education

2018 -

BRNO UNIVERSITY OF TECHNOLOGY Industrial Design - master's degree

- 2014 2018 BRNO UNIVERSITY OF TECHNOLOGY Industrial Design - bachelor's degree
- 2. Experience
- 2017 Internship Expodesign Junior designer
- 2017 Internship KUBIKDESIGN designer
- 2010 Cooperation with architecture studio Archicon s.r.o.

3. Achievements

2017 Best interior design - ENDEKA

2016 Young Package - TOP 40

4. Skills 3D modelling and renderings Rhinoceros | Sketchup | 3DS Max | Alias Autostudio | Keyshot

2D graphic Ilustrator | Affinity Designer | Photoshop | Pixelmator | Autocad
COMPANY DESCRIPTION

Name: Effenaar

Sector: Entertainment / Culture (Concert hall)

Description:

The Effenaar is a pop venue located in the heart of Eindhoven, that offers the representation of any kind of cultural expression such as music or dancing.

The Netherlands has had such a great music culture all over the years and the Effenaar was one of the keys. It was founded in 1971 under the name of "Open Youth Center" in an abandoned "Van den Briel & Verster" linen factory, where bands played as a way of expressing themselves. The Effennar was a revolution instrument for new generations to come through. This is why controversial bands such as "Sex pistols" have played there.

The years passed, and there was an actual need to reconstruct the building and give other uses to it. The Dutch architectonic office MVRDV designed and planned a really artistic concept to define the new building structure that was rewarded many times.

The building hosts 2 music halls. When there is a sold out event for the big hall the capacity is 1250 people and for the second stage it is 350 guests. The building has also a restaurant part with a kitchen, areas for VIP guests, offices and plenty of space for the performing artists, such as dressing rooms, bars etc. The maximum capacity allowed in the building during a festival is 1700 visitors.

Nowadays the Effenaar is one of the largest and most important pop venue in the country, that offers a wide variety of concerts and events such as festivals, escape rooms, pub quiz etc.

This company bases its succeed in team work. Many people working in differents departments in order to arrange and give to the public the best possible experience. As their company policy believes in new talents, they cooperate with students and interns from differents fields and backgrounds.

Department: Architecture and design



PROJECTS CARRIED OUT

The pop music venue the Effenaar nowadays hosts many plans and activities. The building itself, designed by the Dutch architectonic studio MVRDV in 2002, presents an outstanding innovative architecture approach. Based on the space requirements, it creates simple cubic forms that combines not only function but also other elements such as colors, that defines the character of the whole building.

Despite of all the creative approach that it was made, the building and its current organization is incapable to suit properly all the necessities needed for the venues. In order to solve these issues they have already made some structural changes in the building. One of the biggest changes was the creation of a smoking area on the second floor. Another initiative to try to make the space more pleasant for users, was the cooperation with the well known Dutch graphic designer Johan Moorman, who created the graphic patterns applied in the Effenaar's interiors.

Even though all of these procedements were made with the best intentions, there are still problems that need to be solved. The task we were ask for as DECS interns at the Effenaar, was to create and present different creative, suitable and useful solutions for the venue. All of the internship investigation, work and proposals should enable them to search for the best option and solve most of their problems or even all of them.

The problems the Effenaar is facing nowadays and the ones we have been asked to solve are the next ones:

1. The lack of the toilets for the big hall.

The distribution of the toilets does not suits the requirements that changes based on the event. The lack is mostly of the ladies toilets, but some of the programs are mainly visited by men and the problem then shifts.

2. Access to the restaurant.

Due to the cause that the existing structure of the building separates the music halls from the restaurant, people are not able to easily access the restaurant and leave the building right after the concert. Based on this they would like to build the second floor in the restaurant as a connection between these two areas.

3. Prohibition of smoking inside.

In the few years the smoking inside will be forbidden in the Netherlands. So the smoking area created few years ago will not have any use. This brings many other problems to solve such as creating a new place for smokers, control them, give another use to the existing smoking area,... etc.

4. Redesign the function and proposal utilities for the second floor area. The flow is disconnected, people will collapse the entrances etc. There are many aspect in terms of utility of the space that are need to be thought and redistributed in order to help to built an insightful experience for not only the users but also for the Effenaar experience. Our main purpose with the internship, and what we were asked for, was to look after all of these problems and try to fix them in unique ways. They did not want a finished design, but many options, many studies of the current situation, optimization of the space and different solutions, that they could rely on to ask for more budget to the government and of course, get inspired for a future final design to apply in a next years.





DESIGN PROCESS ANALYSIS

At the beginning of our internship we did not have a clue about what was our assignment. It was at the first meeting with the director of the Effenaar, Jos Feijen, when we were briefly introduced to the environment and the main problems that the Effenaar is facing nowadays. We were given the plans of the building, and also the presentations developed previously during the DECS workshop. Despite all these facts, the brief was still not clear: we did not have an idea what was our main purpose and what way of action we should take or develop.

Because we did not have an specific objective or problem to solve, plus the briefing was way too much open we started our project through research. This helped us to set some constraints and start to structurate our design process.

The research was as important as it was to understand how the space interacts with the users. This is why we took part of some events that the venue hosted, such as a pop concert and a "escape room", in order to understand the atmosphere and all the current disposition and utility problems existing while the building is used.

All of the different presentations and feedbacks we received, helped us to define, day after day, not only the way we should work but also the right track we should follow, which turned out to shift constantly.

After having our first ideas and making the very first brainstorming besides developing great adaptation skills we started to define our design more into detail, by creating moodboards and composing our first materials and color proposals, supported by simple 3D models and visualisations.

After one month we had our first presentation with Effenaar's director. We pointed out the current organization and space problems, the constraints we would like to keep, the first idea of the style it could be applied... We set some objective agreements with him.

Thanks to the feedback we received plus the new information he gave us, we came to the conclusion that our very first proposals were not realistic, and we should rethink our design.

In two weeks time we were ask to do a mid-point presentation where all of our work developed was introduced to the Efeennar's stuff. The proposals were received in great enthusiasm, and we got encouraged and inspired with everyone's point of view.

After this, we decided to develop and work only in the proposal and concept that we believed it was the one with the best commitment. All of the work developed in the following weeks, and the feedback we received during these, were mainly focused on the possibility that would suit better the Effenaar in the future. This is why we were not ask to develop a finish and unique design but many options.

The final result, and all of the work we developed during the internship was more about the whole process, alternatives and possible options that could solve the actual needs. Also our work would help them not only to get inspired, but also to ask for more budget rather than creating final and finished space design. As we were told at the very beginning, our design will never be applied, but it will help them to open up their minds and know what they can and what they cannot do in the space. Overall, it was a insightful period of time when we learned how do develop ourselves as designers in another professional field.





CONSIDERATION ABOUT COMPETENCIES

The Effenaar's task referred primarily to architectural knowledge that was for student of industrial design and interior design quite complicated. Due to this the learning became one of the most important competences during the whole process and the exploring for the project was extremely enriching. The task was connected with the venue that has really strong and significant style and character. The necessity of defining the style of the concert hall became one of the main parts of the whole project. Our design had to fit these aesthetic criteria and had to be approved by the client.

One of many reasons why I consider this internship as a very good experience is the teamwork. Ana and I, we have different specializations, we are from different parts of Europe and we have different temperaments. Due to this the communication was sometimes very complicated but the whole process was extremely enriching for both of us at the same time.

The design process was mainly about creating new proposals based on the old solutions. Critical thinking and questing how to improve the current situation and develop newer better proposals, was one of the key competencies that I used in this internship. Subsequent presentations of our work that consisted of many possibilities required great preparation and structure. Presenting our work as one design process in understandable way for the receivers with different backgrounds and interests was for me one of the most complicated parts.

For this project the social aspects were extremely important. Concert venue Effenaar has guests from different backgrounds with different interests and even members of the Efeenaar's stuff have different requirements based on their backgrounds. It was necessary to take it in account and create proposal that would fit the variety of all the people.

Due to the frequent meetings with the client it was necessary to have the work well managed and organized to be able to fulfil their requirements. The leadership in our group was changing all the time. It was sometimes really hard to find the enthusiasm and motivations for the work, mainly due to the fact that they told us at the very beginning that our proposal will never be applied.

This task closely related to architecture required really proper research from my side. But on the other hand this not really good knowledge of architecture background helped us to come up with first original solutions that became the base of our final realistic proposals.

DESIGN TOOLS

As a concert hall, it does have many different departments that work as a team, but in an administrative, efficient, and in terms of optimization ways. This is due to the cause that even though all of their work is based on offering to a public the performance of an artistic bands, all of the procedurements that allow this to happen, need to be efficient and extremely well organized. But let's keep in mind that it's not a design company.

This is why they are willing to be enriched with new talents from differents fields and backgrounds, but these initiatives are still far away to be reflected on their main working procedements.

It was a hard project to deal with, because we never had a clear briefing. We did not know what our project or purpose was at all, and also they were not clear about what they were looking for.

We would like to recommend some design tools, but we are afraid, due to the character of company, this makes no sense.

Communication should be improved, in order to develop more enrichment project in the future from the very start.



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