

SOCIAL COHESION DESIGN

Design for the Gillisbuurt in Delft



STREET FURNITURE IN CORPORATION WITH
GHM ECLATEC

DAVID MOONEY & LENNAERT KEMPERS

PREFACE

In this report the Design-assignment for the course Social Cohesion Design is explained. The way is dealt with the assignment, research-approaches and the results are reported. The report is ordained by the order of phases in the i-3 methodology.

The Designers

Our team consists of Lennaert Kempers and David Mooney, We are full time students studying industrial design in TU Delft. David is on exchange from University of Limerick in Ireland studying product design and technology, he enjoys walking his dog and watching football he also likes to paint in his spare time. Lennaert is studying industrial design engineering Full time in TU Delft and plays rugby with src thor. For this assignment we formed the design-agency '015-Design'. This name and the logo helps us to uniformly communicate to the outside world. This logo also enables us to share our vision.



Technische Universiteit Delft



UNIVERSITY of LIMERICK

OLLSCOIL LUIMNIGH

The assignment

In this assignment a community integrated product system needs to be developed for the Gillisbuurt. The Gillisbuurt is a neighbourhood in Delft, The Netherlands which is underprivileged and needs special attention and coordination to improve the quality of life and the social cohesion. Our Main goal is to improve the social cohesion and face to face contact in the neighbourhood. To establish this, the i-3 methodology is used which involves:

Investigation: which involves visiting the neighbourhood, gathering information on the area and also meeting with representatives of the different parties involved to ascertain their needs and listen to any problems they highlight as this will help us in our research. This phase is a very important step in understanding the needs of the community and what we see will influence our future design and approach to the area concerned

Integration: in this stage we envisage sub-scenarios with possible solutions to the problems we have found in the i-1 phase and will represent the key areas which we found a need for improvement. We will then develop a main scenario and concepts from those combined sub-scenarios.

Implantation: in this phase we take our main concept and develop it further through branding and promotion. We then develop prototypes and discuss with the possible parties involved in the future of our design for social cohesion to realise our plan for the area.

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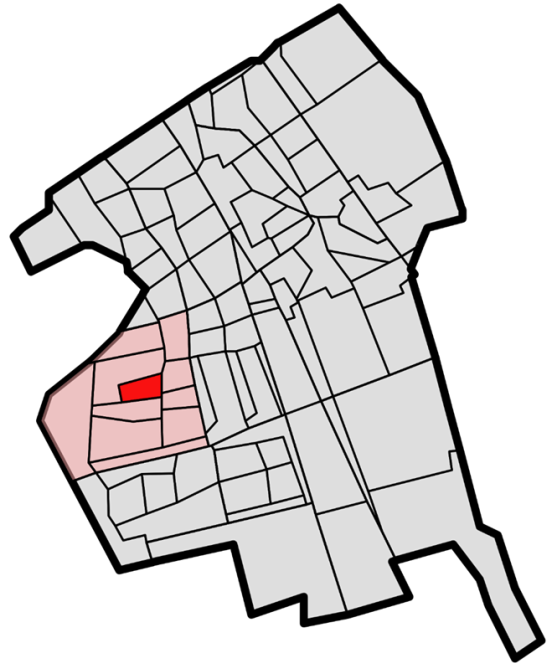
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I-1 PHASE

Part of this phase is about defining the setting and its elements. Furthermore sub-scenarios are created to get direction for the design assignment. The letters 'E1', 'E2' and 'T' refer to Element1, Element2 and the future technology that will be used for the design. T: street furniture made of cast iron in any colour E2: the neighbourhood and park outside of the apartment blocks

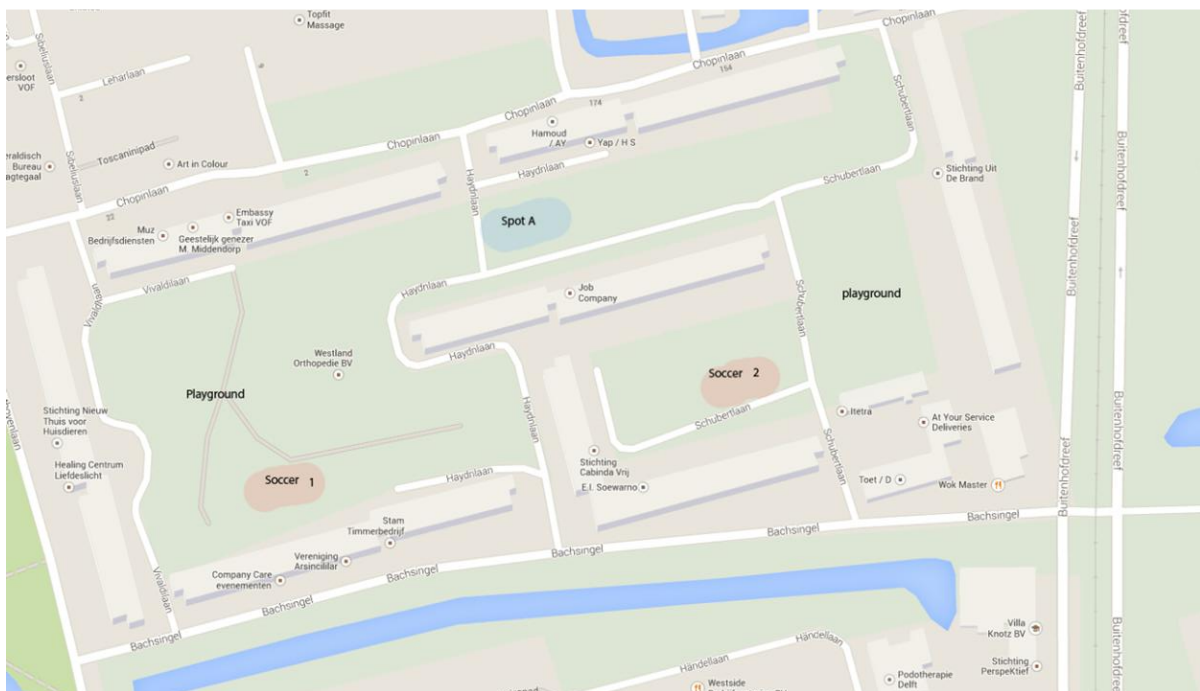
The Gillisbuurt

E1: Gillisbuurt in the Buitenhof district of Delft, the Netherlands. Pictured to the right. the pink area is the Buitenhof and the red area is the Gillisbuurt neighbourhood. there is 68% immigration in the area and very high unemployment compared to other areas in Delft.



In the map beneath the neighbourhood is shown with some points of possible interest marked with a colour. Because we are in an early stage in the project we did not choose a particular spot. It is also possible to change locations around as we will be designing street furniture.

- Wijk 25 Buitenhof
- Buurt 03 Gillisbuurt



Visual field research in the Gillisbuurt

To get in touch with the neighbourhood a visual research is done.

On the 12th of February we went on our first visit to the neighbourhood of the Gillisbuurt to see the area and get a feel for what it was like around midday. It was fair to say that it was very quiet with no apparent communication between the neighbours as they were going about their business. We also observed unused sports equipment and sand pits which were falling into disrepair. We took many photos of the area and some key areas which we believed needed attention.

On our second visit we arrived at five in the evening and there was still no change, no apparent communication between neighbours and children just hurrying inside without a backwards glance. Even though there were more people around it still didn't feel like a community. We were later informed that there is community gardening plots in the area however we did not see any in the area or even people going there together. This gave us a greater sense of the low amounts of communication amongst everyone. When we were there, even though it was not raining and was a nice day.



All the residents live in flats. Every flat has a different colour door, but what all the doors envision is a locked down place.



Flooding is a major problem in the area with many of the green areas and walkways unpassable.



These are some of the images we took of key areas that we feel need improvement and were currently underused by the neighbourhood such as this playground which is one of many which were underused and were unappealing to children



These were representative of most of the apartment blocks in the area and appeared uninviting with closed blinds and bolted doors



In the neighborhood some old trees are modified into artworks. This one has a bench. Problem is though that the surroundings are flooded and no clean path towards it is available.



The football pitches had concrete blocks for benches which weren't great and were too low down to be used. The bin has graffiti on it, which is a sign of disorder.

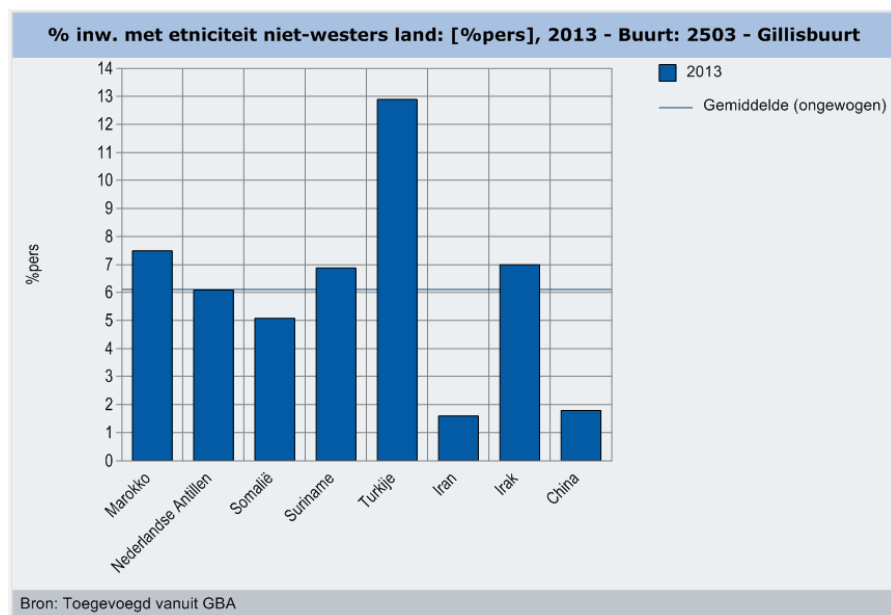


Statistics of the Gillisbuurt

These were some of the statistics we gathered through desk research, online and through official government websites

- More than 13309 citizens per km² in 2001
- Less than 14000euro income on average
- 51% non-western immigrants in 2001 but is now over 70%
- Region delft has nearly 100000 citizens at the moment
- The Gillisbuurt had 1595 citizens in 2013
- Housing value (WOZ) 133,000 in Gillisbuurt in comparison to 263,000 euro average in the Netherlands

In the figure beneath the majority of the population of the Gillisbuurt is shown. This shows just how many nationalities there are and that the turkish community has close to twice the percentage to the next largest group which is Morrocan and Iraqies. Therefore they travelled from warmer climates with very different languages and religions to that of native dutch people.



Colour Research

For this majority a little research is done on colors and street furniture. The research is shown beneath. Further research is required. In the neighborhood already lot of projects are running such as the one in the picture beneath. Furthermore pictures are shown on the following pages which give an expression of the neighborhood. And it can clearly be seen that there are marked differences between the Netherlands and these countries not just in climate but also in the use of patterns and colours in outdoor areas and public spaces. This is something we could investigate further in our designs. Markets and meeting up outside is a big thing in these countries also and offers a real sense of community and friendship.



Visit to the mosque

On Friday the 14th of february we visited a local mosque in the buitenhof area where we were given a talk with the youth and a volunteer at the mosque we obtained a lot of information on important social and economic problems which they have witnessed first hand and had to find ways of dealing with them. They achieved this through setting up places in the mosque for the youth to meet in the evenings to get them off the street and give them something to do such as football or go karting. However not everyone goes to the mosque and their funding and influence only stretches so far there are far more nationalities in the area who need help. The communtiy leader gave us information on the differences between Holland and back where many immigrants came from, back home there is a greater sense of community, that there is less freedom to move around in Holland and nobody really talks and everyone keeps to themselves with no real sense of community as people immediatley try to move on to a better area as it is seen as a bad area in delft. Older men are seen as mentors to the youth to try to discourage them to join gangs and get involved in crime, however this is working less and less at the moment and there is a real need for things to improve Many people in the area are reluctant to get involved in community events as they have their own problems and are preoccupied by them This is a major issue which needs to change.

Visiting the mosque gave us a very valuable insight into the cultural differences present in the area and will hopefully give us a greater knowledge and a more well-rounded approach towards our design for greater social cohesion in the Gillisbuurt.

Visit of social worker and council official on Monday of week 2

On Monday of week 2 we were visited by a social worker Peter Van Lopik who works with members of the community on any problems they may such as mediation and to help get funding for community projects.

We were also visited by a council official Heleen van der Linden on that day as well and she outlined how much has changed in the area and she also gave us some facts about the neighbourhood. They provided us with some very interesting information, such as the popularity and possible expansion of the community garden and the fact that there is a jury in place of local residents for community projects such as these shows that there is a willingness by residents to change and improve the neighbourhood. There is still a lot of support needed though for the community. They simply do not have the resources or energy to reach every nationality living in the Gillisbuurt. There are volunteer jobs to give people a step up towards employment however there is always a language barrier and sometimes it doesn't work out very well This is useful for us to know at this stage as language is a big problem there.

There are regular patrols by the police which gives people a sense of security and peace of mind, the neighbourhood is a lot safer after the crackdown on gangs hanging around the area, it is steadily

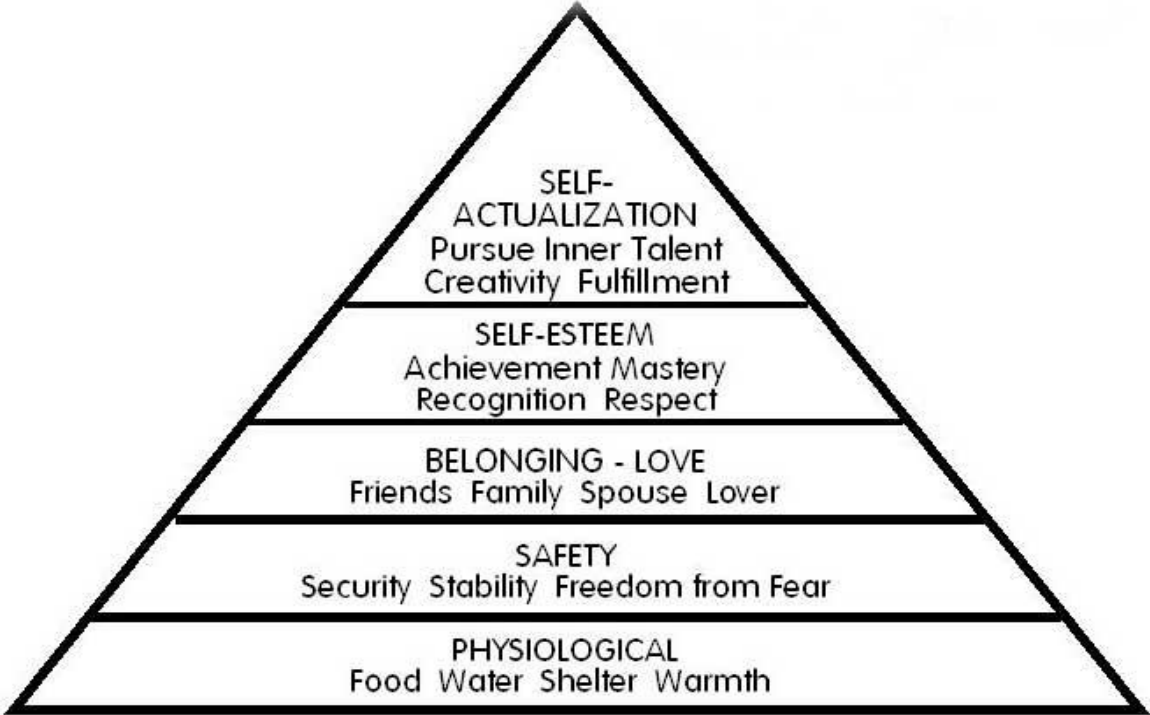
getting a lot better. The youth centre had to be reorganized after it was being used to organize illegal activities and selling drugs.

We learned a lot from this talk as to the situation concerning the residents of different nationalities and how there is very little communication with some less well known nationalities in the area, due to a language barrier which pushes them to the edge of the community. We also learned some of the good work that they achieved so far such as getting rid of some of the gangs in the area thus making it safer in the evenings.

Visit of Woonbron social housing

On Wednesday we received a visit from Jan van of the social housing corporation Woonbron he gave us more information about the area and told us what it is like there such as the fact that nobody goes outside there's no real shopping no sense of community especially on queens day everyone leaves and it is empty showing the lack of real community togetherness. The girls in the neighbourhood never appear to play outside. Obviously in winter the weather is bad so everyone stays inside with no social interaction between anyone, nobody even says hello social. The Maslow pyramid pictured below was alluded to by Jan van and he described how it can be used to measure the level of living of the neighbourhood and how they are probably only at the safety level and some of them may not even be at that level yet.

This meeting gave us a good insight from someone who is in the neighbourhood a lot and has a very unique insight into life there. He is on the frontline and has a lot of information on the tendencies of the different groups and some of the interactions and tensions he has witnessed.



Report on the company visit



Our company is GHM Eclatec a street furniture company founded in 1860 in Sommevoire France by mr. Duravell, with a foundry in the area since around 1160, they initially design and manufactured street furniture for Paris and have many famous designs such as the champs elysee poles and the Wilhelm fountain, these are very classical French designs as is a lot of their range. They are trying to move away from French style and move into more of a Dutch style, to capture a wider market and improve their company image in the future, as can be seen on their website which shows off some of their newer products with no mention or images of their classical French style ranges.

On Monday the 10th of February, our team of David Mooney and Lennaert Kempers met up with the client GHM Eclatec for the first time to discuss the project and the area involved. GHM Eclatec is a public furniture company who manufacture a wide variety of public furniture for towns and cities throughout Europe they have been manufacturing since 1866 in their factory in Sommevoire, France. They started off as a family company supplying Paris with many of its distinctive lighting poles and fountains such as the champs-elysee light poles and the fountain which is very ornate. They now supply street furniture throughout the world and have clients in the middle-east and Asia now. We were given the brief of street furniture to enable social cohesion in the Gillisbuurt district of Delft, which has high rates of unemployment and crime with a very diverse population of over forty different nationalities and differing religious beliefs.

The representative of GHM Eclatec Marcel Mastenbroek gave us information on the company and what they do which is mainly street furniture in the French style for the European market and the materials that they use which is mainly cast iron and steel. He gave us parameters for our designs contact information and brochures containing the products that they are currently selling. He was also very excited to be involved in a good cause to bring the community together.

We also discussed the possibility of traveling to their factory in France to see how they manufacture their products, this gave us a greater insight into the industry. We found this very exciting and thought that it would be of value for us to do. We arranged further meetings with the client at a later date to discuss our designs and findings of our research and where we go from there.

On the 19th of February we met with Martin van Stigt Thans of GHM Eclatec and updated them on our progress they also gave us some more information on the company and any extra information which we required as to our project. He also asked us about budgetary constraints and went through

some ideas that we had and gave us advice as to how it would be made. He was very happy for us to utilise more colours in our designs to better represent the diversity of the area. We also further discussed plans to visit their factory in Sommevoire France in the coming weeks which should give us more insights into how a factory like this works and where our product will be made.

On the 27th of February we visited the factory in Sommevoire France and saw many of the manufacturing processes they used and how long they have been in business. We were given a tour of the factory floor and were shown how the iron was forged. Although we had to stand well back we saw them pour the molten metal into the moulds which were clamped down hard so to keep the proper shape and to stop the metal expanding too much.

The pouring of iron in a mould.



The Iron moulds with sand-shapes in it.



Sub-scenarios

At first a list of many scenarios are made up. Then a selection took place as is shown on the next page. These sub-scenarios were formed from the research in the i-1 phase and what problems we are trying to solve from this research.

1. Marti goes outside to discuss current events with Phil
2. Monica wants to find information on events in her local area
3. Charlie takes his daughter to play outside in a safe multicultural environment
4. Mark goes to the community market to catch up on local news and to purchase fresh vegetables
5. 70 year old Samir meets up with local boys on the the weekends and gives them advice on the problems they are facing
6. Kyra goes to her local community centre to play with her new friends
7. Yusuf and Jacob meet up and discuss what they have in common despite their differing nationalities.
8. Paul and Marti meet up for their weekly board-game
9. Paula and kym go somewhere to relax after a long day of hard work in their community gardens
10. Jacob has a problem with his neighbour and goes to the mediation area to get help
11. Jasmine goes to meet up with Paula again after finally meeting up with her neighbour properly for the first time
12. Going to the neighbour to get some sweet sugar
13. Anya goes on weekly grocery shop for her elderly neighbours
14. Phil works out with his friend in the park while its sunny
15. Mahmed and Yusuf go to the mosque together after meeting and talking outside their houses

Out of these 15 scenarios 6 useful scenarios are taken as all the elements we wanted were in these 6 sub-scenarios.

1. Monica goes to the info board in the central area as she needs someone to fix her kitchen table.
2. On the weekends the 70 year old Samir meets up with local boys at the meeting place with the cast-iron benches and gives them advice on the problems they are facing.
3. Ahmet goes to the community market to catch up on local news and to purchase fresh vegetables.
4. Paul and Marti meet up for their weekly board-game at the tables in the corner.
5. Jasmin goes to meet up with Paula again after finally meeting up with her neighbour properly for the first time. They became acquainted because for each willing citizen in the neighbourhood of the Gillis there is written down a personal motto on the board in the park.
6. After dawn Henry is having a walk through the park to meet up with his friend. By the message of the streetlights he knows where to find him. The streetlights also give him a sense of safety when he's on his way.

I-2 PHASE

In this phase the sub-scenarios are combined and checked on potential. A main scenario is formed and with that input concepts are created.

The sub-scenario matrix tool

With this tool the sub-scenarios are combined and a main scenario is generated. after all we did not really utilise this tool as we already had an idea of what we wanted to do and this was just showing us what we already knew.

	INFO BOARD	ADVICE	MARKET	BOARD GAME	PERSONAL SLOGAN
INFO BOARD					
ADVICE					
MARKET					
BOARD GAME					
PERSONAL SLOGAN					
		SCENARIO			
		scenario			
		MOTIVATION			
		motivation			

Q-board research

To get further insights about the residents of the Gillisbuurt and to help choosing a design-direction the Q-Methodology is used. For this research 9 statements are used. The way they are placed on the board points out if the participant fully agrees (+2 points), agrees (+1 point), is neutral (0 points), disagrees (-1 point) or fully disagrees (-2 points). The statements are written in Dutch because most of the people from the Gillis neighbourhood are speaking it.

Nr	Statements	Score
1	Ik zou elke keer naar de markt gaan als er een markt was.	+6
2	Ik ben geïnteresseerd in andere culturen.	+3
3	Ik spreek het liefst mijn eigen taal.	+3
4	Als de zon schijnt eet ik altijd buiten.	+2
5	Ik weet goed welke activiteiten er zijn in de Gillisbuurt.	0
6	Ik speel graag backgammon, schaken en dammen.	-2
7	Ik kom ook nog buiten als het al donker is.	-2
8	Er hoeft niks in mijn buurt te veranderen, het is een prima buurt hier.	-5
9	Ik ga altijd alleen naar de moestuin/groentetuin.	-5

Some remarks need to be made, because during the research the participants talk a lot and give more information than the board does. For each statement some comments if needed:

- Some of the participants already go to a nearby market.
- They all seem at least to know the games from within the family.
- If one has a dog one goes outside even though its dark, but the rest agrees that it is not save at night.
- None of the participants had a vegetable-garden.

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Furthermore it's important to see the diversity of the participants therefore the participants are described. A great diversity gives a better overview of the neighbourhood.

1. An Italian man walking his dog around the age of 50 yrs. He lived for about 39 years in the neighbourhood already and did complain a lot about the flooded parks.
2. An older couple on their way to the forest. They disliked the neighbourhood and its residents. In their opinion the neighbourhood stinks because of al these foreigners.
3. A young Muslim man around the age of 30 years.
4. A disabled older woman around the age of 50. She in particular complained about the accessibility of the neighbourhood by wheelchair/mobility scooter.
5. A young Turkish man around the age of 20's hanging around with his friends at his car. He was joking that the police was a problem in the neighbourhood. He also was not the studying kind of type.
6. A middle aged Dutch woman who was walking her dogs. She in particular didn't believe the neighbourhood could change. Al the attempts in the past didn't work out eighter, as she said.

Meeting with psychology and sociology students from Leiden and Utrecht

On the 24th of February we met up with sociology and psychology students to discuss the social effects of our concepts and how we would go about creating the best way of encouraging social cohesion. These meetings were very helpful as they had a lot of knowledge in the area of human interaction. We quickly realised which concepts worked better and which concepts wouldn't through our discussions. Every two weeks we meet with 6 students studying both sociology and psychology. We are also in contact with them via email if we have any questions surrounding our concepts and or field research which we are doing as they said they could give us guidance on questionnaires or how we go about approaching them. As we are designers we really need help with some of the more psychological and social aspects around our design and how it could improve life in the area. They would have a greater knowledge on social issues in this kind of neighbourhood as we don't nearly have enough time or expertise in this kind of research.

Meeting with animation students from the Kooning institute

We are also working with animation students Josephine Bergmann and Bess Krairat from the Kooning institute on an animation explaining the 3 I methodology. We met up with them twice already to go through what it means and the type of animation we wanted for our final presentation in April. We are in contact with them through email and facebook if they have any questions for us or if we need them to include anything else in the animation.

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Cwi delft womens group

On Wednesday the 26th of February we received a lecture from CWI Delft where 3 women, Sabiya, Janice and Dolshot from the neighbourhood gave us more information on the different community projects that there were for women. We discussed some of our concepts with them and they gave us advice as to how feasible these concepts were or if there was anything already like it in the area. They discussed one of their projects which encouraged older women to take up exercise as it was becoming a real issue and they said that it was starting to prove a success.

We felt that this meeting was very beneficial for us to see the issues and get feedback on some of our concepts from their point of view and how it may fit into their current projects.

Han block biologist

On the 24th of February we met with Han block a former biologist turned psychologist. He gave us a lecture on evolutionary psychology and how human interaction has evolved from apes to

humans. He told us that it is all about cooperation and trust and if you don't have these everything will fall apart. Large groups are bad and harder to control than smaller more intimate groups of people. He discussed the pack mentality and how this hasn't changed. He also said that it is all about having your own personal identity and that he is against globalisation and that smaller associations were better organised and understood peoples needs far better.

B Volker psychologist Utrecht

Monday the 10th of March we met up with professor B Volker of University of Utrecht. She gave a lecture on "Lost communities" in Holland and how Neighbourhood relationships are weak with little to no trust. However the decline in the community is un-confirmed in the Netherlands. Neighbours will help out with small household jobs but don't really have a personal relationship with their neighbours. Often the relation conditions are wrong

- You have to meet (opportunities to meet)
- There has to be social capital
- Mutual dependency
- Alternatives

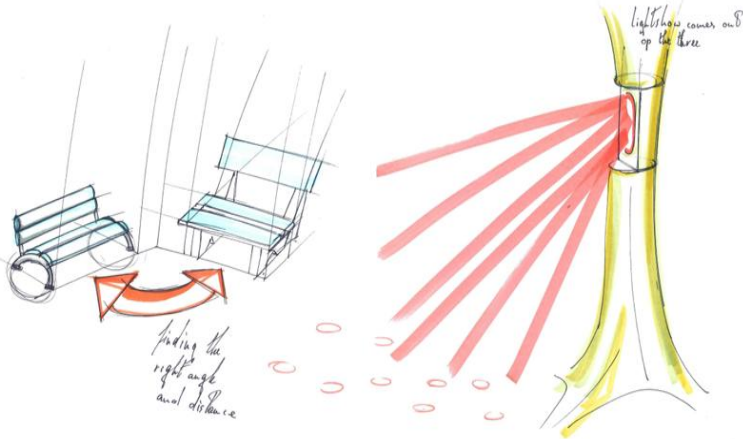
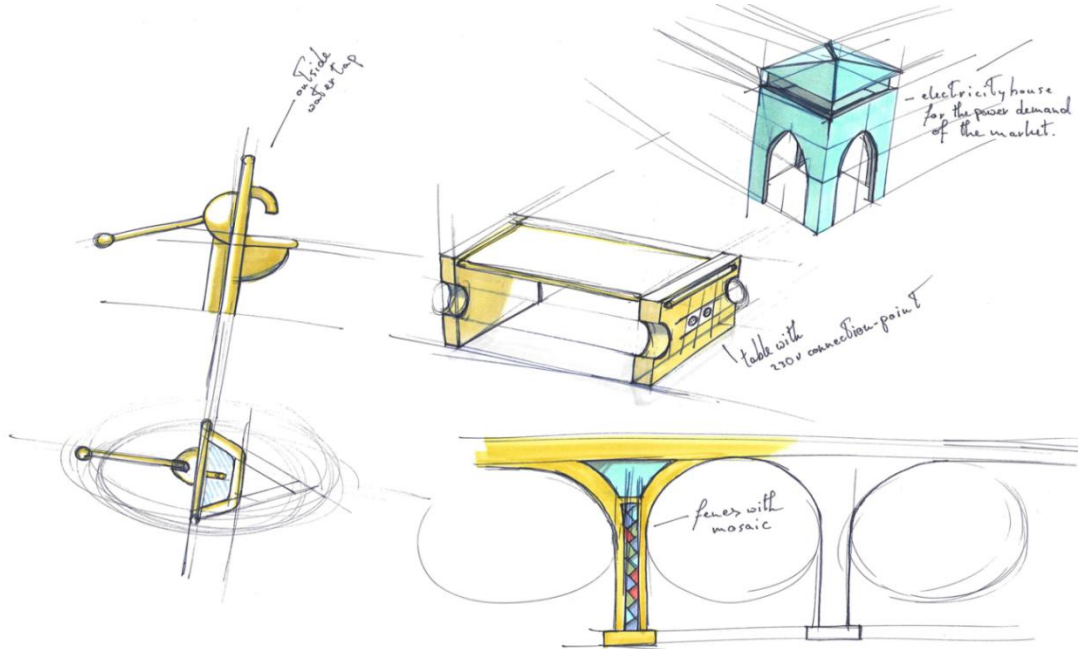
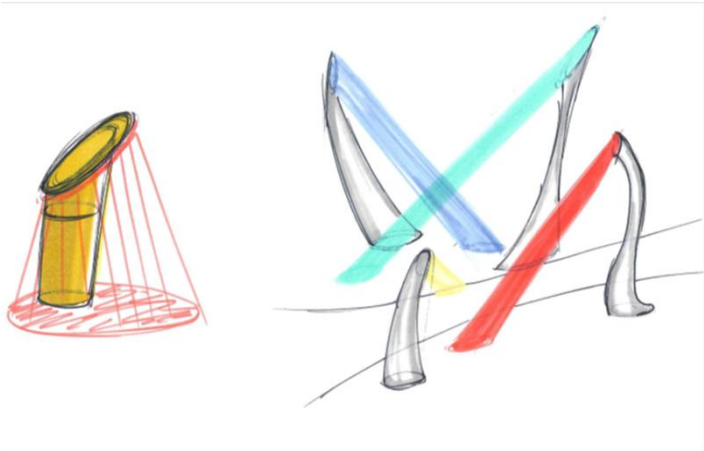
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People need to want to stay in the area for there to be a sense of community. Do they not care about the area? This is why collective efficacy is very important to the success of any social projects .

Collective efficacy: is the shared belief that residents would intervene for the common good.

Concepts

We now had enough to generate concepts and make a start on



Harris profile

Market	-2	-1	+1	+2
Face to face				
Prototypability				
Cost effective				

lights	-2	-2	+1	+2
Face to face				
Prototypability				
Cost effective				

water pump	-2	-1	+1	+2
Face to face				
Prototypability				
Cost effective				
Info boards	-2	-1	+1	+2
Face to face				
Prototypability				
Cost effective				

Social seating	-2	-1	+1	+2
Face to face				
Prototypability				
Cost effective				

From these results it is quite clear that the best concept is the market, as it the best to encourage face to face contact. Relatively easy to prototype and can prove to be quite cost effective in the long term as it is used to sell items so will provide an income for the seller. The social seat and the water pump aren't very cost effective and will be hard to install and maintain. The information board would be easy to prototype however it doesn't score high on the face to face contact side of thing as people will look at it and move on.

Final scenario

“Wilhelm walks with Mahmet to the evening market to get some fresh vegetables and to catch up on any news around the neighbourhood”

We chose this final scenario as we felt through our Q board research and Harris profile that this was the best way to go with our design for social cohesion. The local residents we spoke to seemed quite interested in a market and felt that it would encourage people to meet up and maybe find out about other things happening. We also felt that it may even give a chance of employment to local residents. This is the quickest and easiest way for social interaction and cohesion in the area.

Final concept

Our final concept is an evening market which will encourage residents to leave their houses in the evenings and have face to face contact with their neighbours. We believe this is a valid solution through our research and discussions with the experts and our q board interviews with local residents. This will solve many issues currently affecting the neighbourhood, such as

- Safety at night
- Lack of meeting areas
- No real face to face contact
- No shops in the area
- unemployment

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Safety at night: currently it is unsafe at night and residents fear going out alone without a dog or someone with them as it isn't well lit and there are gangs roaming around

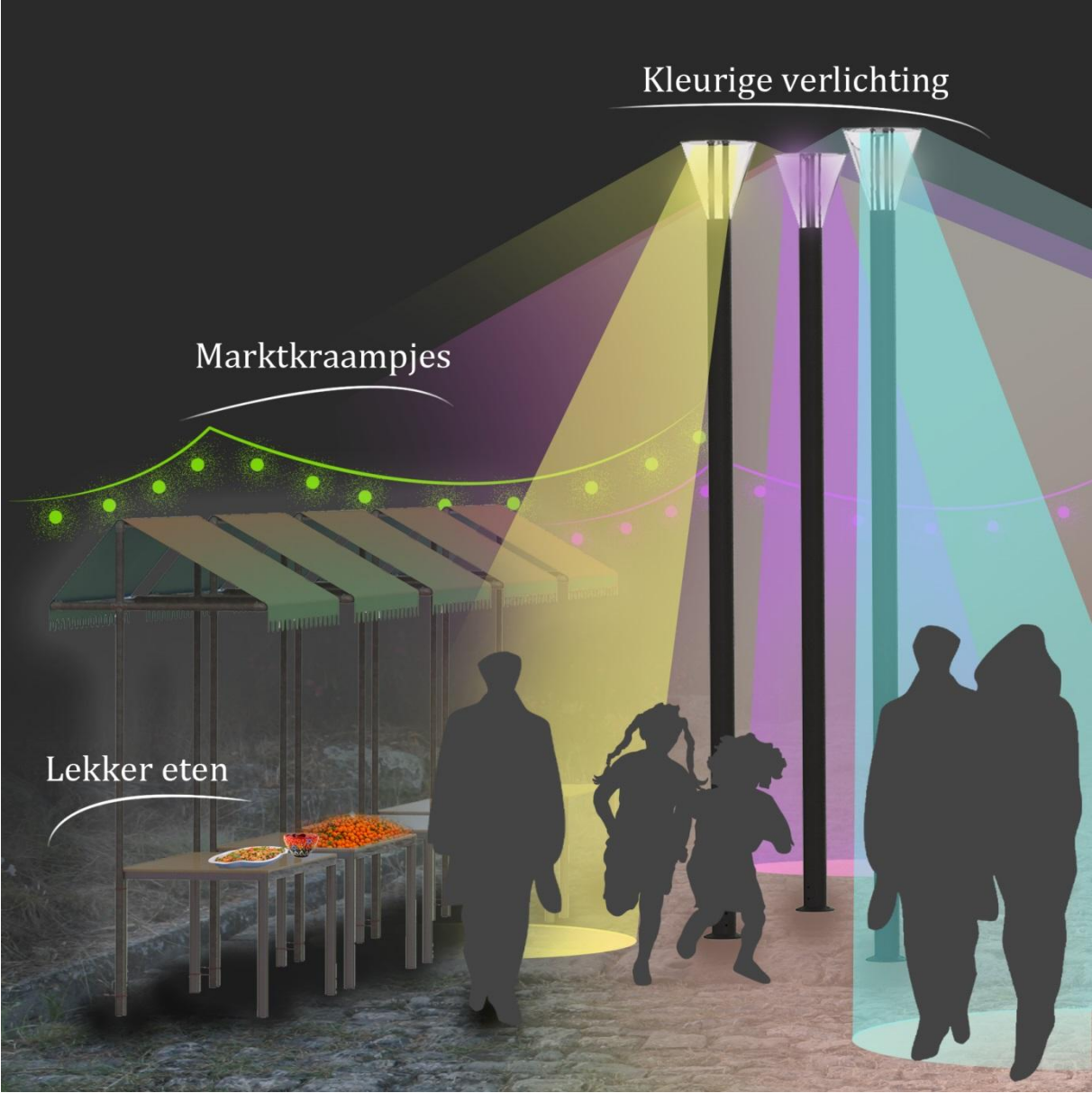
Lack of meeting areas: there are currently no areas for residents to meet up aside from playgrounds or benches which don't really have much social capital for residents to use

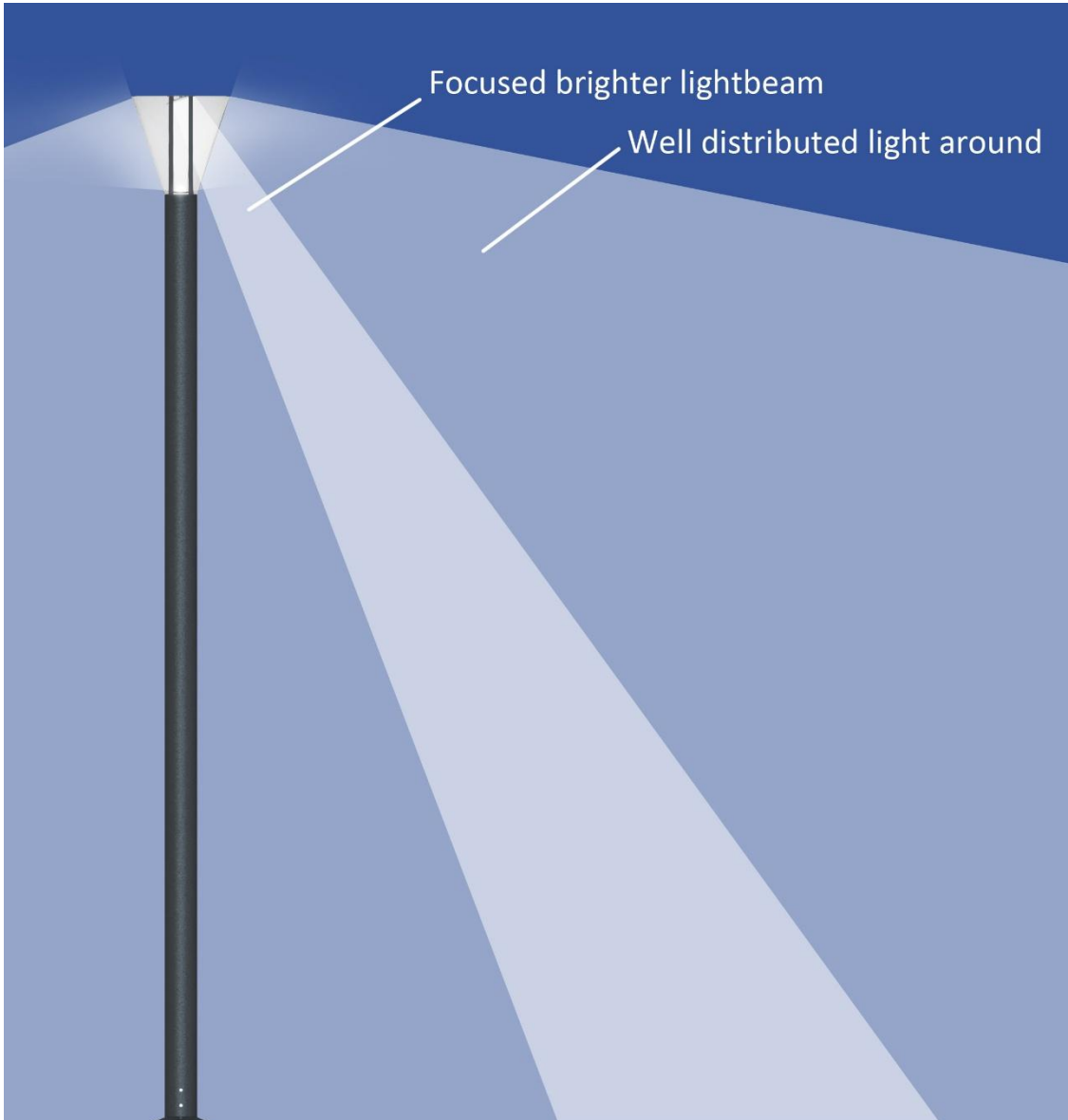
No real face to face contact: due to the lack of meeting areas face to face contact outside of necessity is virtually non-existent

No shops in the area: the only shop we saw was a hair salon and the nearest shopping centre is one tram stop away

Unemployment: through our research we have found out that unemployment is very high and any chance of experience or employment is the first step to creating a better community

**Technical drawings can be found in the appendix.*





Léas Solais

A combination of normal street lighting and a focused beam

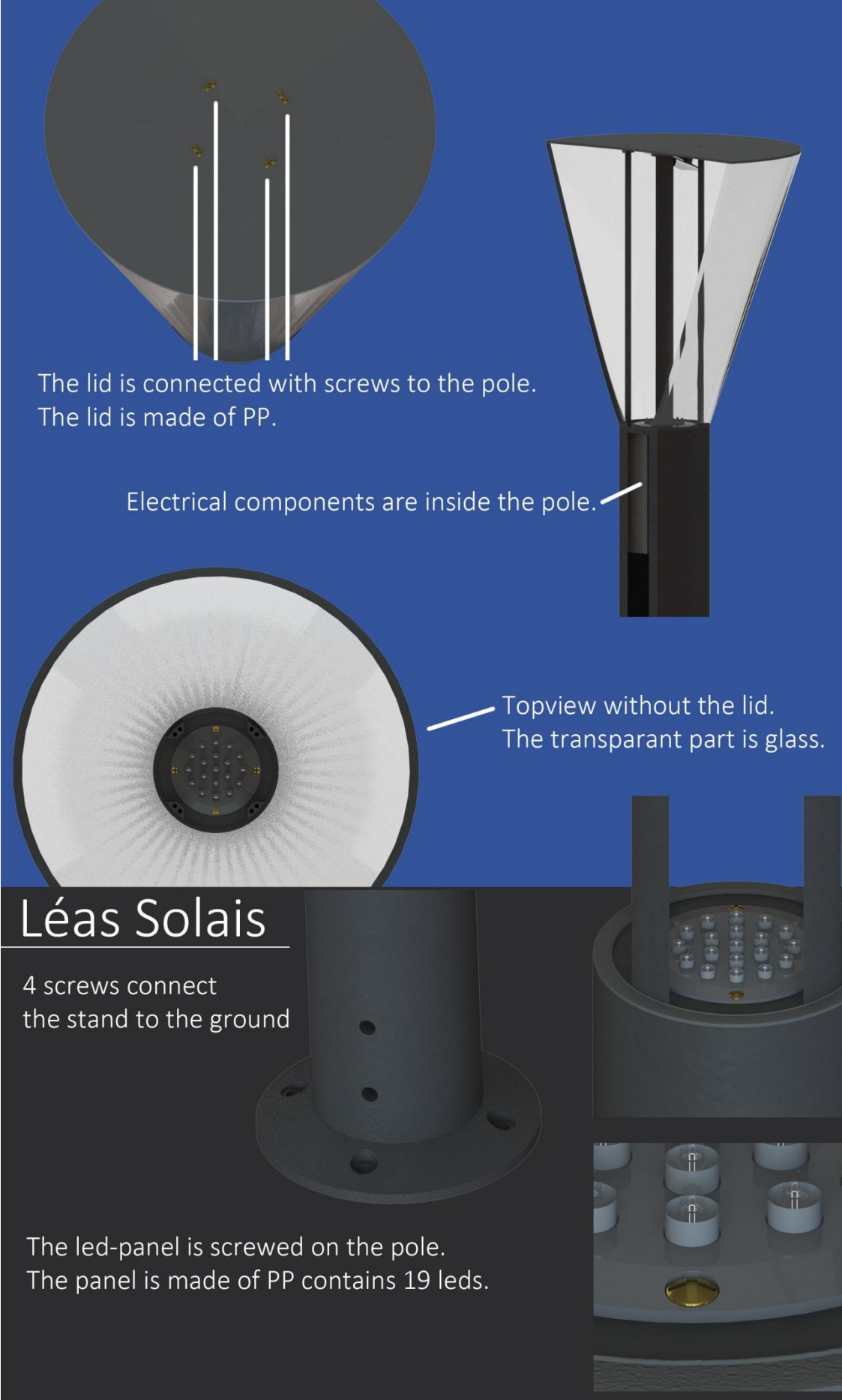
Two different modes:

1. Normal white/yellow light
2. 6 colours



	R 57 G 177 B 255 C 61 M 18 Y 0 K 0
	R 220 G 92 B 98 C 9 M 78 Y 55 K 1
	R 111 G 64 B 204 C 70 M 79 Y 0 K 0
	R 100 G 209 B 106 C 59 M 0 Y 79 K 0
	R 57 G 254 B 203 C 52 M 0 Y 37 K 0
	R 254 G 59 B 244 C 22 M 77 Y 0 K 0

6 different colours changing every 5 minutes



The lid is connected with screws to the pole.
The lid is made of PP.

Electrical components are inside the pole.

Topview without the lid.
The transparent part is glass.

Léas Solais

4 screws connect
the stand to the ground

The led-panel is screwed on the pole.
The panel is made of PP contains 19 leds.

Final product, possible layouts for consideration

Circle

Access from each side. The market is the central point. No need to enter the environment, because accessible from the outside. The middle forms a central point from which it works out to each side with the same intensity.

Oval

Access from each side. The market is the central point. No need to enter the environment, because accessible from the outside.

There is a difference of distance to the central point outwards. There might be not a central point but several points.

Square & Triangle

Accessible from each side. The centre is in the very middle. A lot of corners might force people to pass each other there, but it also creates opportunity to enter the market. Each side can be used for different purposes.

The Square though provides more room behind the stands for the salesman to do their work.

Corner

Two different sides pointing in different directions. The corner is the central point, but might be avoided because people are forced to pass each other which might feel uncomfortable. The two sides can be used for different purposes, but it might also shift the groups into two.

Access from the inside

People find each other inside. Entering might be hard, but once in, it is a more save environment 'controlled' by the salesmen's. If the inner place is too small, people are forced in each other's personal space, which might decrease the amount of visitors

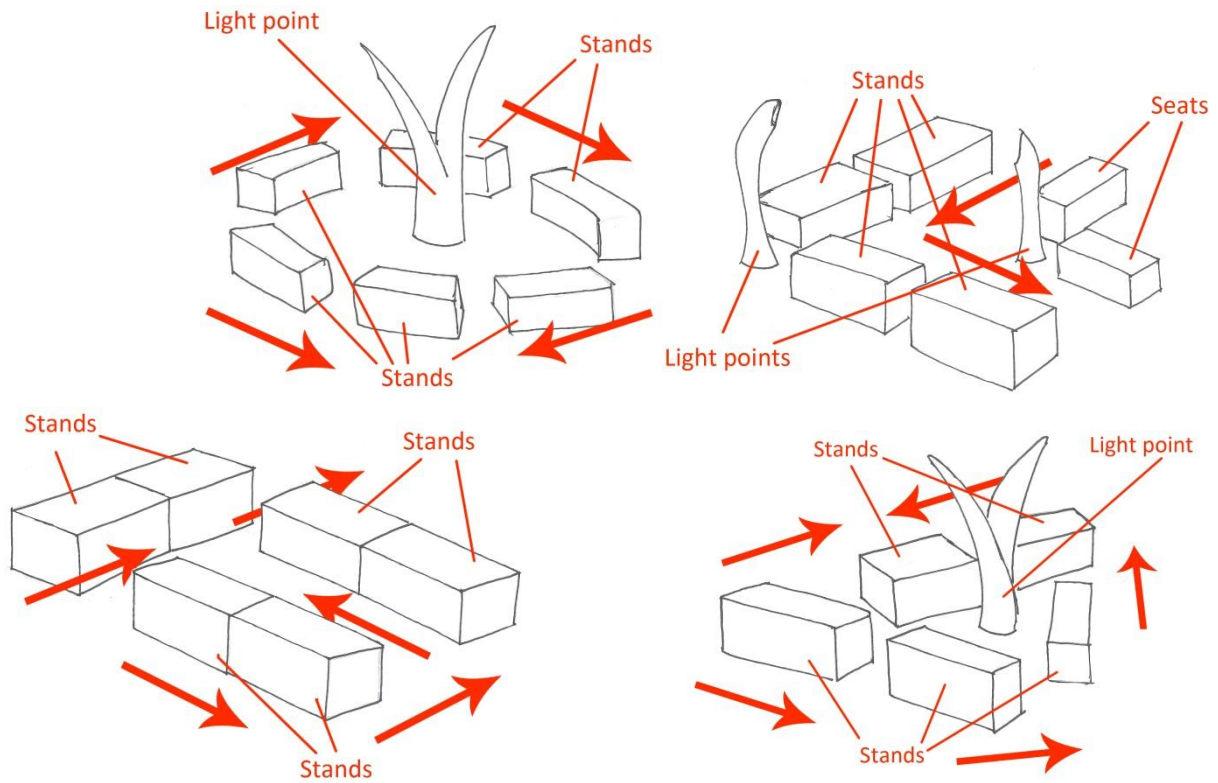
Square & Triangle

Corners can be used as entrance points, if not, the corners are where people might get 'stuck' in the crowd.

Corner

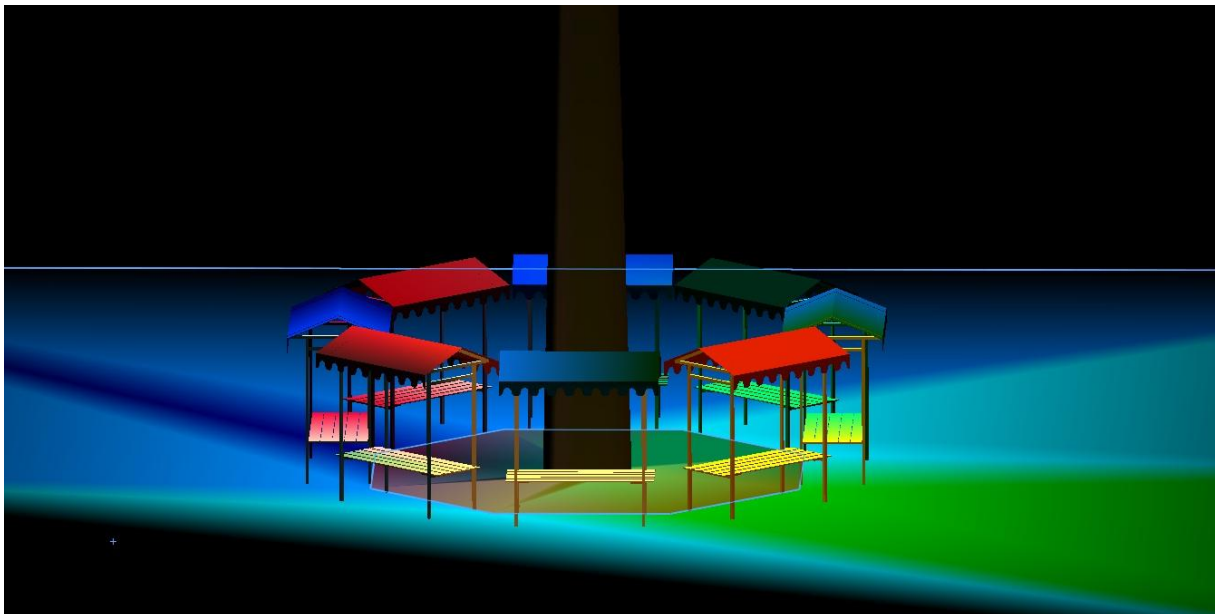
Accessible from two sides, but the stands working only in a limited directions.

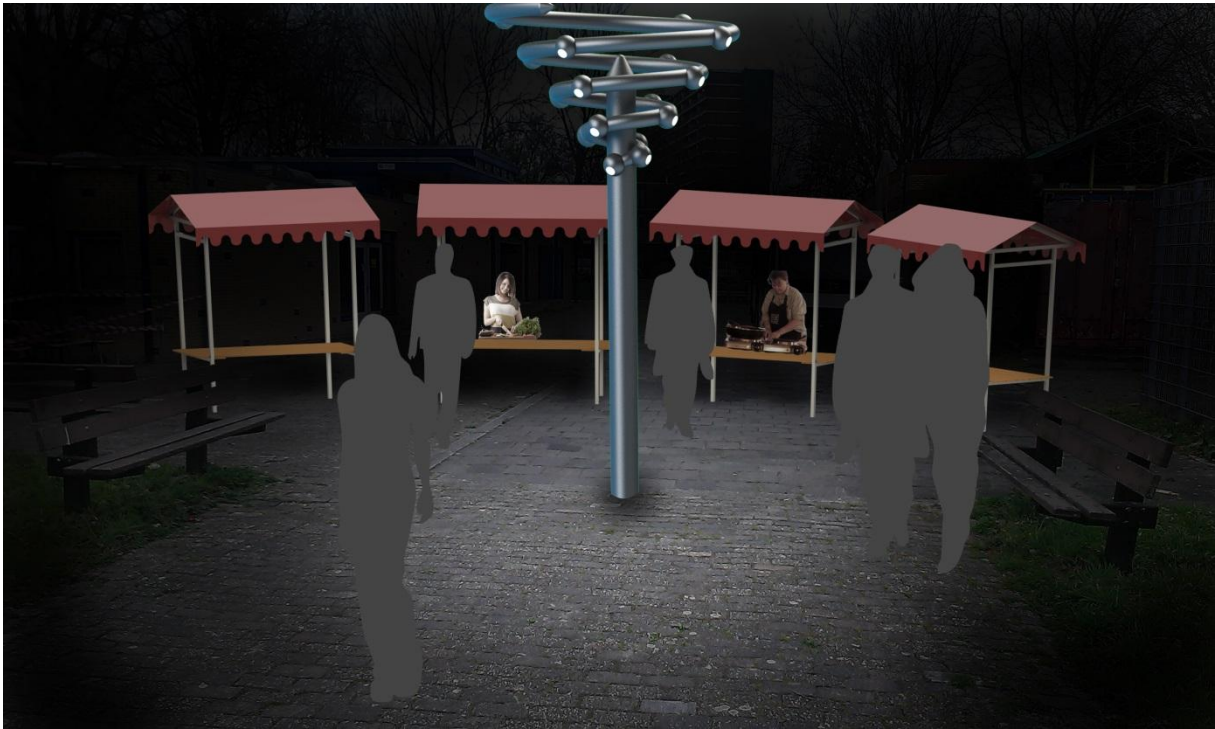
Conclusion: the best layout is the semi-circle layout as it gets the greatest amount of people to visit the market and they can get around each other without forced interaction or tension it will also be easier for the traders as there will be nobody at their backs.



Initial concept renders of the market idea and possible orientation

These are the final renders of the evening market area. In the end we went with a circular configuration which would encourage everyone to move around it and see everything. There will also be projected lighting around the market which makes the area safer for everyone.







This last one was for the possible product range for the company to accompany the market.

I-3 PHASE IMPLANTATION

For Branding and promotion purposes for the company, the light is now called “Leas Solais”. The market will have its own main slogan and theme and will go under the slogan “for the people, by the people”. We will first cover the promotion for the light pole and move on to our plan for the market, in this section

Aims

For the market we aim to get local volunteers to hand out flyers and put up posters in buildings showing dates and times for the market as well as what will be sold and possibly could include pricing. We will also utilise word of mouth promotion as that is currently the main way for local residents to get information. We found this through our q board research interviews and from the Ardemia meeting.

We aim to get the residents involved through meetings and application to work at the market which will be achieved through Ardemia's local knowledge and expertise in the area. They will also get the people doing cooking courses to sell food at the market to improve their skills and give them experience in the catering side of cooking which may help them in the future.

The emphasis will be on the evening market as the social tool to enable more face to face contact and cohesion. The light pole is the product we will design for the area but our main plan and idea is for the evening market and that is what we will promote and coordinate with local community groups. We feel that the market will be welcomed and used by local residents

Our branding plan for the light pole will eventually be part of a range of products known as the Solas range. Right now we are focusing on the light pole which will be called the “Solas leas” which is Irish for light-beam this would be branded professionally for cities and municipalities so will be advertised by the company through their brochures.

Promotion

Our promotion plan involves handing out flyers around the community as well as through word of mouth which could prove effective in encouraging more interaction among the residents of the Gillisbuurt and a general buzz of excitement about the market it is also far cheaper than having an advertisement in the Delftse post which is for all of delft and we are only looking to get Gillisbuurt residents to attend this evening community market. The flyers and posters will be distributed around the apartment blocks, the community centre and mosque with a clear indication as to times and location as well as what is being sold and who will be there. We will use volunteers to promote the market all around the Buitenhof to encourage professional traders to join in and also give their expertise to residents who will have stalls selling food and drinks as well as other items which may even be seasonal depending on what's available to the residents. The residents could even incorporate the community garden, in the produce that they sell.

The brand we envisage for the market is one of colour and community cohesion as can be seen in our poster and flyer below. The emphasis is on the lighting and the fact that it will be a place to wander around safely and to be able to buy some food and sit on the bench to talk to your friend and enjoy the atmosphere of the market. As there will be different coloured lighting we will have an emphasis on the colour. This can be seen in our slogan below.

Our slogan is “for the people by the people” we chose this as it is a place for the people in the area and will be run by the people in the area the 4 is a symbol which will stand out from the rest of the sentence.

The product poster





Our poster for the market follows the theme of our slogan and contains dates and times as well as the location and what is on offer to them there. This is the poster which will be distributed around the area. The emphasis is on the lights and shows a colourful spectacle for the area.



“De Avondmarkt”
*Een avondmarkt voor iedereen,
met kookkunsten uit de buurt!*

Waar?
In de tuin van Ardemia

Wanneer?
*30-06 27-07 24-08
06-07 03-08 31-08
13-07 10-08
20-07 17-08*

Vrijdag

For the people, by the people

The poster features a black background with decorative string lights. The top string has yellow and red lights, and the bottom string has blue lights. In the center, there are white silhouettes of two children running. The text is arranged in a clean, modern layout with a mix of bold sans-serif and elegant serif fonts.

Implantation and realisation plan for the coordination team

Below is a case study we compiled using the Ardemia as an example of a community group which could be involved in such a project in the future.

The Evening market will be run by the Ardemia, as they have experience, space and facilities to organise this event on their grounds. The location is surrounded by a fence and community garden, so it is safe for children to run around and will be well lit by GHM Eclatec lighting poles we designed which will be placed in the centre of the market with the possibility of adding benches providing a very community atmosphere in the neighbourhood. The Ardemia is also well known in the neighbourhood and everyone knows where it is making it easier to get people to go to it. The market will be run once a week in the evening from 7pm to 10pm. There will be a local resident who is in charge of setting up every week and who will mediate in any disputes or problems which occur during the time the market is on he or she will report to the Ardemia committee.

Through our Q board research and discussions with the Ardemia it is clear that a market is wanted by the residents and can be run relatively easily. The market will be entirely volunteer run and volunteers will register with the Ardemia and pay five euros for the year to be a member and any profits will be used to help fund future projects in the area. These profits would be given to the Ardemia at the end of the year to use. There will be monthly meetings to review the success of the market and what else may be needed or what has to be cut from the market.

The volunteers at the stalls will receive a budget each week for food and drinks to sell at the market this will give greater budgetary control to the Ardemia helping them to record a profit. The full budget can be seen in the next section.

Pilot plan will run for 1 year and will be assessed after that point to see if it is still viable in the future. From what we have budgeted for it would appear to be profitable and financially viable in its current state with clear evidence from our research that it would be used by the local residents and an estimation from Ardemia that over 70 people would attend per week.

Schedule

To get the project started, the schedule beneath explains when the market will be held. The period of Ramadan should be considered. In that period the market should be later and a pilot needs to point out if enough people than show up. As can be seen the pilot starts at the end of May until the end of August.

Month	Year	2Do
April	2014	Nothing scheduled
May	2014	18May having the flyers and posters distributed
		30May Startoff the first eveningmarket (if the weather is ok)
June	2014	Every Friday eveningmarket (if the weather approves)
July	2014	Every Friday eveningmarket (if the weather approves)
August	2014	Every Friday eveningmarket (if the weather approves)
May	2015	Halfway May having the flyers and posters distributed
		Start-off last weekend of May or the earliest of June
June	2015	Every Friday eveningmarket (if the weather approves)
July	2015	Every Friday eveningmarket (if the weather approves)
August	2015	Every Friday eveningmarket (if the weather approves)

Every week the market is going on, several activities should be undertaken. The schedule beneath shows the activities, that come along with it.

Weekly Activities
Buy food and drinks etc.
Build up the stands and cooking facilities
Do the cooking
Selling the food
Selling drinks
Selling fabrics / clothes / 2nd hand stuf (done by professional salesman)
(live music)
Cleanup
Breakdown stands
Income and expenditure

Solidworks Model and Engineering elaborate on the look and feel

Our design drawings can be seen below and contain sizes and materials. The company we are working with mainly uses cast iron and stainless steel and we used cast iron in our final design as well as different coloured LED lights which will be implanted at the top of the light pole and will shine different colours every few minutes. GHM Eclatec has experience with LED lights as they are used a lot in their light poles so they will know how these mechanisms will work. The same layout for the market has been kept and the light poles will be situated in the centre bolted to concrete which will be at least 2 feet in the ground. The lights will project all around the market area.

The colours of the lights were chosen after speaking with psychology students and reflect the type of mood we are looking to create for the market which is a peaceful, relaxed and safe atmosphere to encourage them to be more at ease with the people around them. We found that their knowledge actually gave us a lot of help as we didn't really know which colours would work at first or even the importance of colours to the moods of people and how they interact with their environment.

The light poles we designed are 4 metres in height. There will be 4 poles as this is enough to present a nice atmosphere and will sufficiently light up the area which can get quite dark at times.

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Market stands

The Ardemia also asked us to look into market stands that they could make themselves as this would be cheaper than renting them every week. We came up with a simple design using steel pipes and linoleum covers which can be purchased in any hardware store for a relatively cheap price and no more than one days labour. The design can be seen below, and can be connected to tables that they already have there.

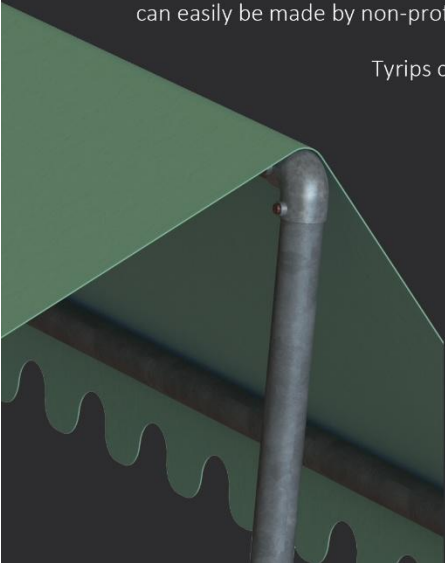
On the next page the product poster is shown.



Market Stand

A market stand to connect to a table. The simple design can easily be made by non-professionals

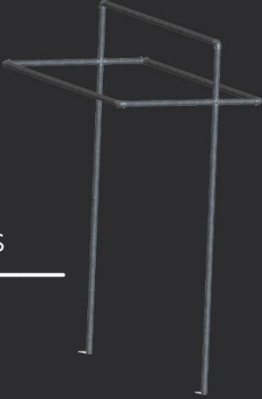
Tyrips connect the stand to the table



The basic elements

A pipe-framework

Plastic topping



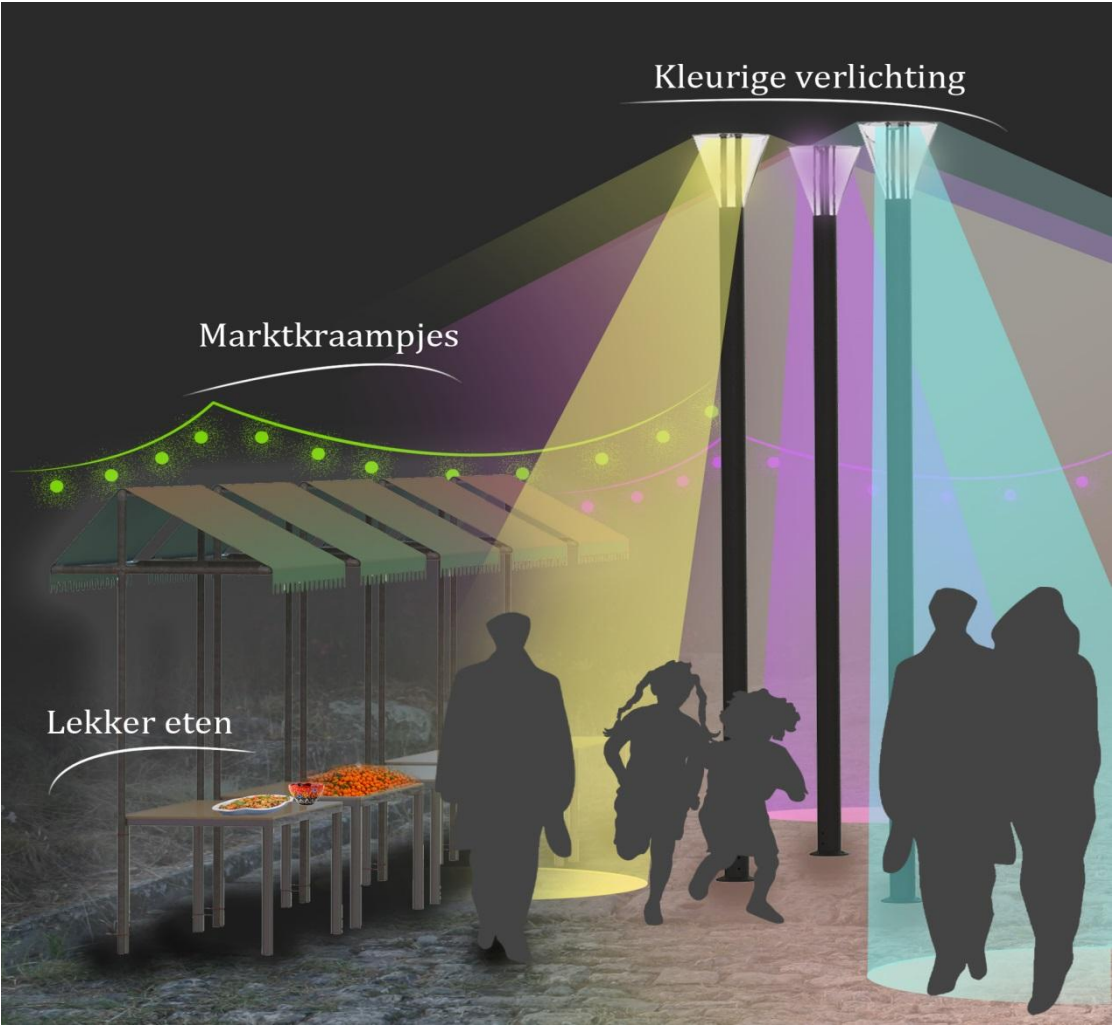
Budget plan for one year

Our budget plan was organised after discussions with all sides including the company GHM Eclatec and the Ardemia community organisation. We have been conservative with our numbers for visitors to the market, even so there is still a profit recorded after 20 weeks. This budget is based on the 5000euro budget we were given for the project. This is over the course of one year weather permitting and based on volunteers working there for free.

The budget can be seen on the next page. Prices were compared using alibaba.com as well as through information the company and Ardemia gave us. These results are achieved if we use the companies cost estimation for our original light pole however this will probably change as this is completely unfeasible at its current amount.

Cost estimate Time	Pieces					
	1	2	3	4	5	6
Pool						
(Cast iron)	€ 300.00	€ 600.00	€ 900.00	€ 1,200.00	€ 1,500.00	€ 1,800.00
Materials & production						
100 (Time*price)	€ 8,000.00	€ 8,000.00	€ 8,000.00	€ 8,000.00	€ 8,000.00	€ 8,000.00
Developing costs						
Stand						
(Cast iron)	€ 100.00	€ 200.00	€ 300.00	€ 400.00	€ 500.00	€ 600.00
Materials & production						
50 (Time*price)	€ 4,000.00	€ 4,000.00	€ 4,000.00	€ 4,000.00	€ 4,000.00	€ 4,000.00
Developing costs						
Glass						
(Glass)	€ 100.00	€ 200.00	€ 300.00	€ 400.00	€ 500.00	€ 600.00
Materials & production						
60 (Time*price)	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00
Developing costs						
Light system						
(multiple)	€ 250.00	€ 500.00	€ 750.00	€ 1,000.00	€ 1,250.00	€ 1,500.00
Materials & production						
250 (Time*price)	€ 20,000.00	€ 20,000.00	€ 20,000.00	€ 20,000.00	€ 20,000.00	€ 20,000.00
Developing costs						
Lid						
(PP)	€ 500.00	€ 1,000.00	€ 1,500.00	€ 2,000.00	€ 2,500.00	€ 3,000.00
Materials & production						
60 (Time*price)	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00	€ 4,800.00
Developing costs						
Transport	€ 200.00	€ 200.00	€ 200.00	€ 200.00	€ 200.00	€ 200.00
Installation	€ 200.00	€ 200.00	€ 200.00	€ 200.00	€ 200.00	€ 200.00
Total	€ 43,250.00	€ 44,500.00	€ 45,750.00	€ 47,000.00	€ 48,250.00	€ 49,500.00

Final 3D renders



Conclusion

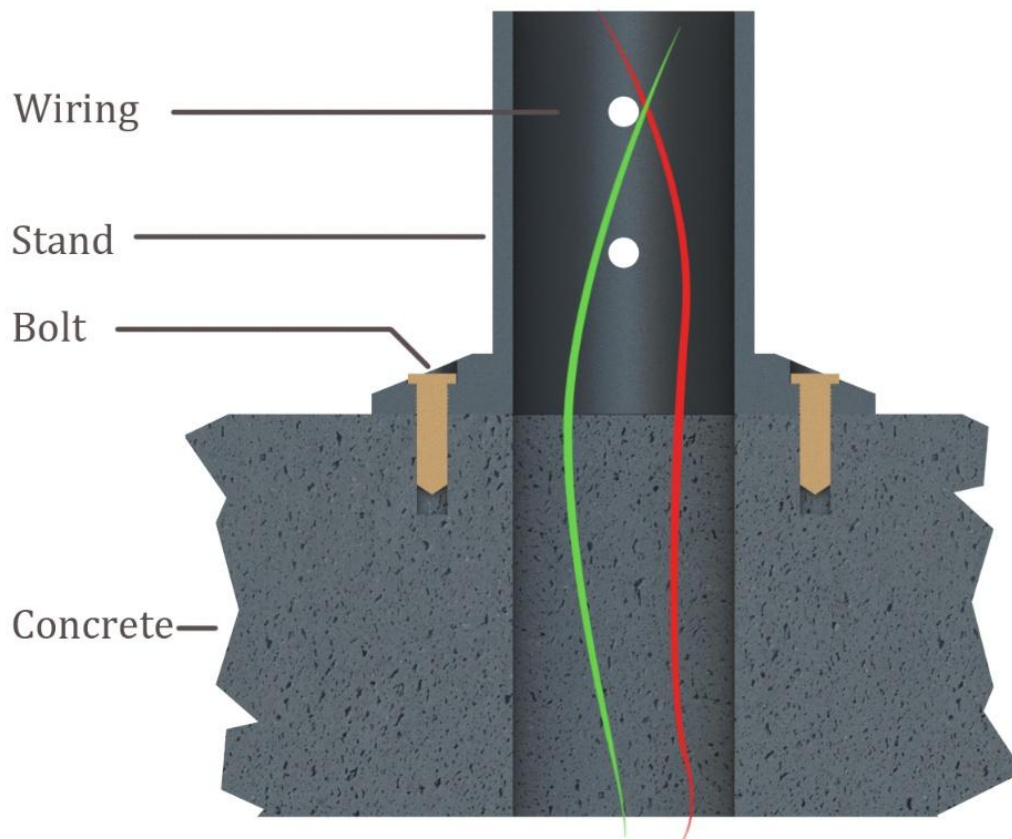
Thank you for reading our report on our solution to increase social cohesion in the Gillisbuurt area of the Buitenhof. Hopefully our plan will be realised to aid the community in the future and that the market will be a success for all parties involved in its enterprise.

APPENDIX

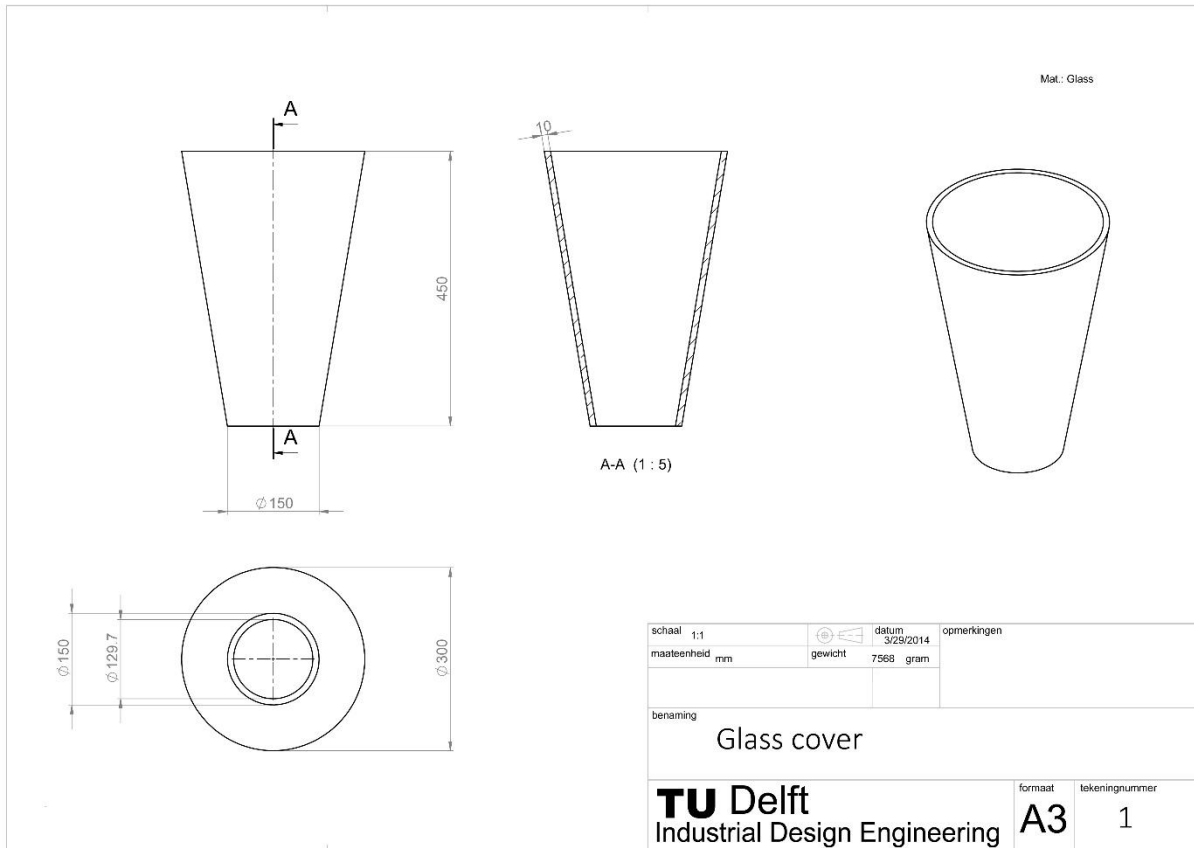
A : Connection to the ground.

Connection to the ground: via 4 bolts into concrete which will be at least 2 feet deep as the pole is 4 metres tall.

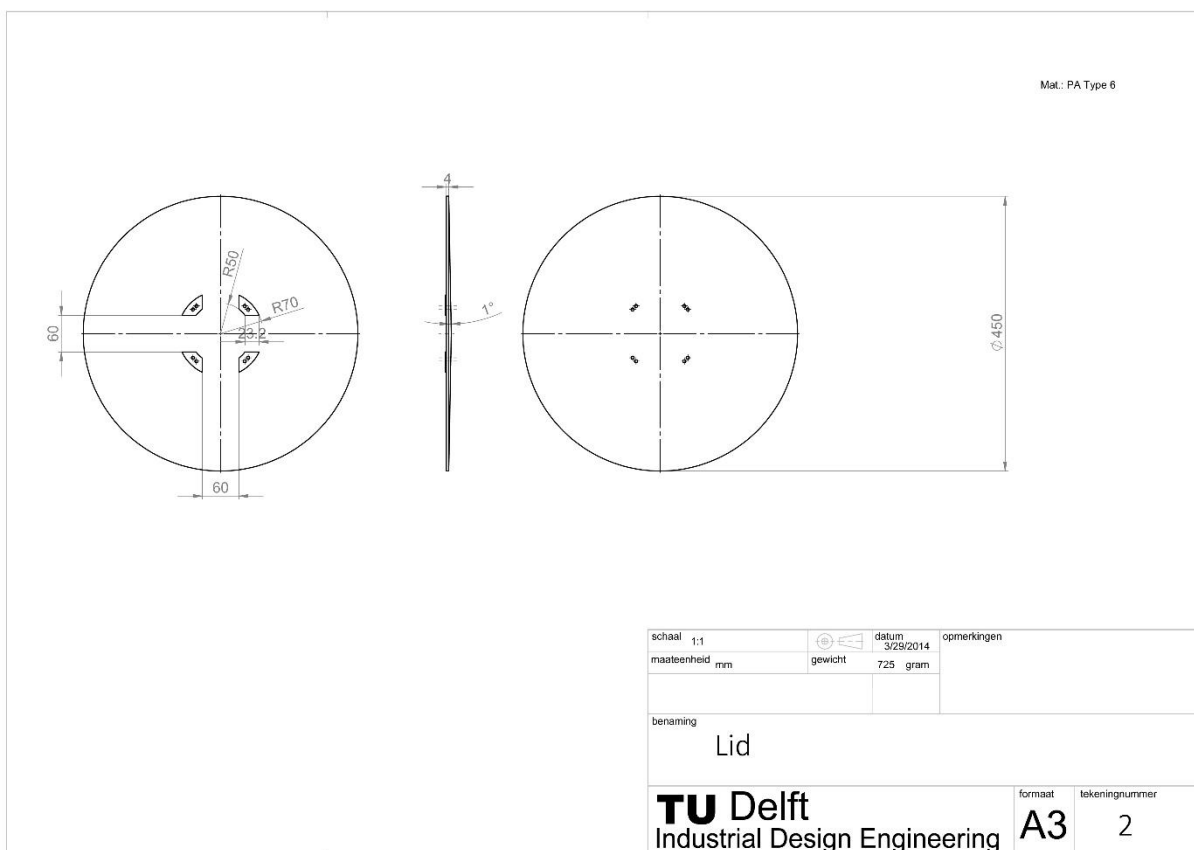
4 bolts connect the stand to the ground

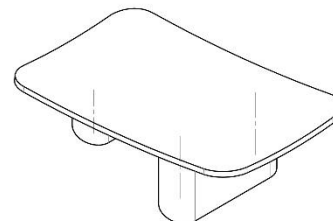
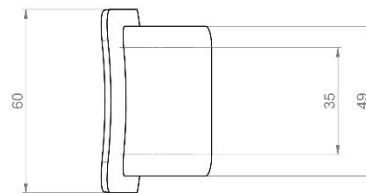
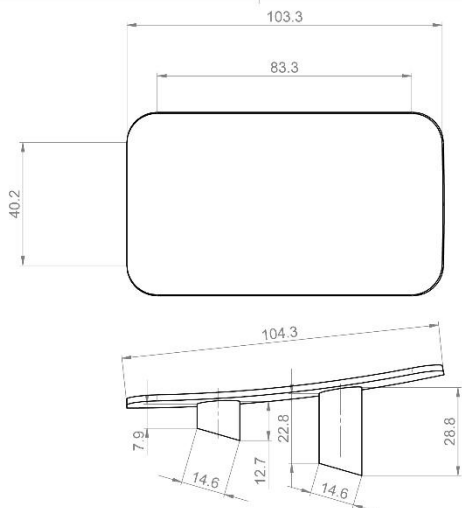


B : Technical drawings



45

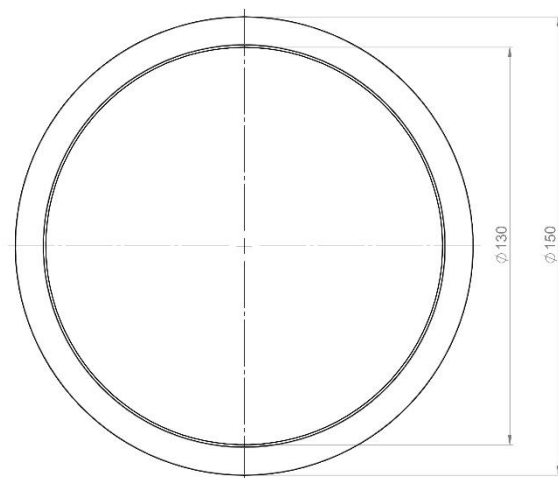




schaal	1:1	datum	3/29/2014	opmerkingen
maateenheid	mm	gewicht	0 gram	The Actual design of the reflector should be adjusted in such a way that it can well reflect a beam at the right spot. This drawing therefor is mainly to locate the element and give an idea of its size.

benaming
Reflector

TU Delft Industrial Design Engineering	formaat	tekeningnummer
	A3	3

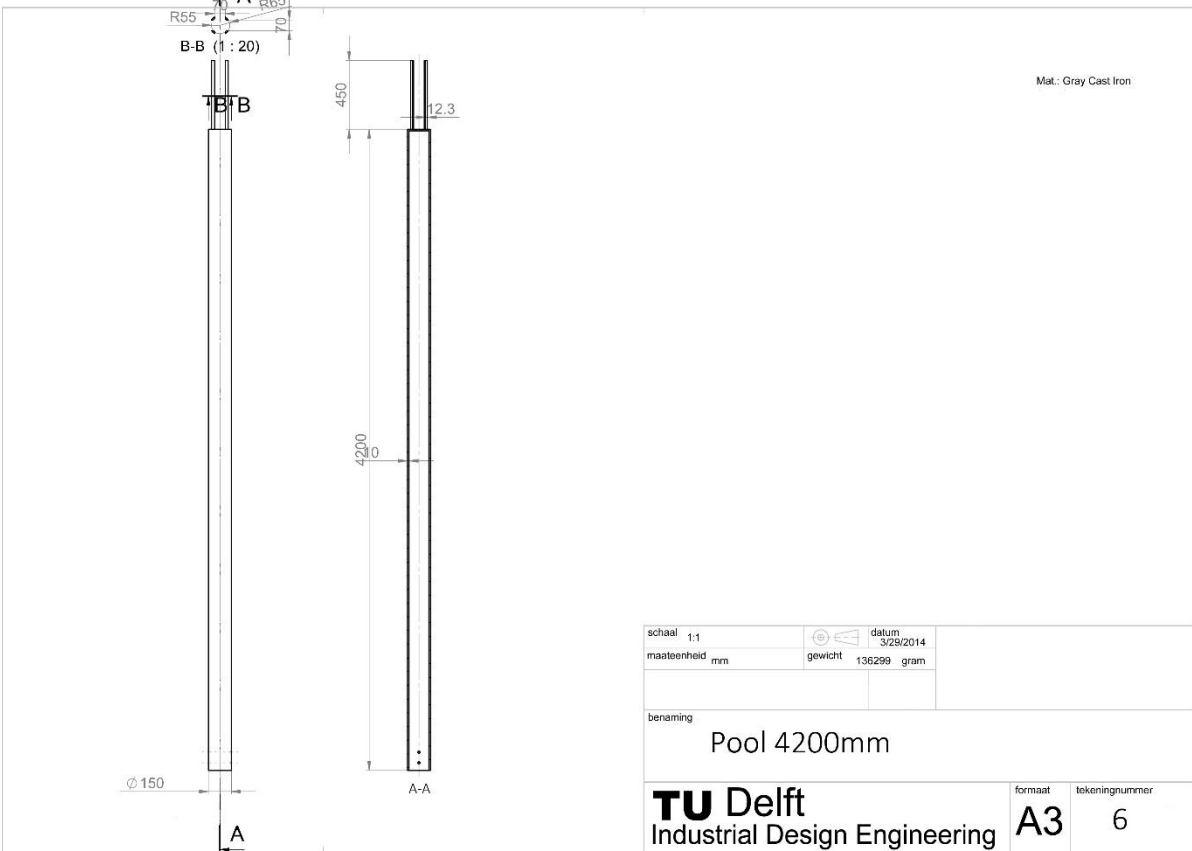
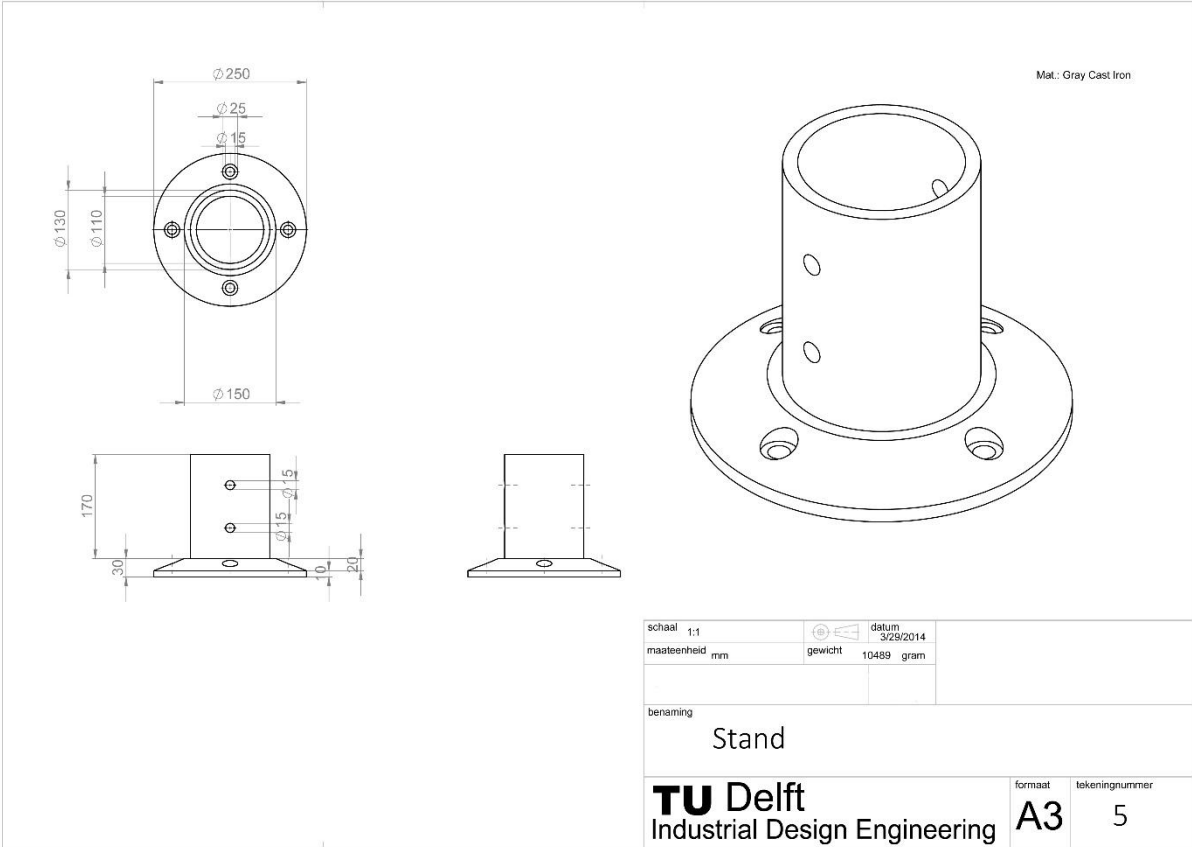


Mat.: Rubber

schaal	1:1	datum	3/29/2014
maateenheid	mm	gewicht	9 gram

benaming
Issolation strip

TU Delft Industrial Design Engineering	formaat	tekeningnummer
	A3	4



C : Exploded view of the upper part

