#HALO
Stimulating pro-environmental disposal behaviour
Industrial Design Engineering,
Delft University of Technology
Stevinweg 1, 2628 CN Delft, Netherlands
Tel: +31 (0)15 278 9111
Website: http://tudelft.nl

Project chair: Prof. Timo de Rijk
Contact: T.R.deRijk@tudelft.nl
Project mentor: Ir. Erik Jepma
Contact: E.J.Jepma@tudelft.nl

Brigitte Aarts
Oranjeplein 53, 2515 LJ Den Haag,
Netherlands Tel: +31 6 13043500
Industry: Industrial design engineering

Special thanks:
As an extreme sport lover, I believe I created a close connection for nature. For me this feeling of being connected to nature leads to a desire to care for this world and a willingness to contribute to more environmentally sustainable habits. The waste problem the world is currently facing is of high influence on how we experience practicing the sports we love so much. I suppose like all other extreme sportsmen and nature lovers, we know it’s so much more enjoyable to ski on a mountain with champagne powder snow and it’s so much more fun to kite-surf in a clear blue sea with a beautiful pearl white beach without anything disposed by mankind that’s ruining this experience. Nature is our playground, and not only for the extreme sportsman but for everybody. We should treat the earth with more respect, not only to protect nature but for ourselves.

Finding out that the Red Bull can is the most found litter in the Dutch environment left me puzzled. Is the sportsman responsible for the Red Bull littering in nature or is a different group causing this problem?

This master thesis I will explore the problems of litter and the world of Red Bull to answer these questions.

Have fun reading!

Brightly
This thesis presents the conceptual design process of a new intervention to stimulate pro-environmental disposal behaviour.

Littering is a growing problem in the world. Research shows that the brand which is found most between the litter in the Netherlands is Red Bull. Although many interventions have been applied to try to change the behaviour of litterers in the Netherlands, the littering behaviour of the Red Bull consumer remains a problem.

This thesis concentrates on the question how the Red Bull consumer can be stimulated to dispose their can in an environmental friendly way.

Different studies have been conducted within a cultural and social design approach. This is done in order to identify the different elements that influence the consumption and disposal of the Red Bull energy drink within the Dutch culture.

From the analysis it appeared that (at the moment of purchasing a Red Bull can) as good as every Dutch consumer has the intention to dispose the can in an environmental friendly way, but the problem is that they do not always act according to this intention.

From these insights the aim emerged to strengthen the attitude of the Red Bull consumer towards the social norm of appropriate disposal behaviour.

The final proposed concept Halo motivates users to behave according to their intended behaviour. At the moment of purchase the Red Bull consumer is offered to choose between the Halo edition, a limited edition with a golden wrap on top of the can, and the original edition. By choosing the Halo edition he or she promises to himself to dispose the empty can in an environmental friendly way. In this design the golden wrap is the mark that represents the good behaviour. The golden wrap not only reminds the user during the consumption to keep his promise. By choosing a remarkable packaging this person is also able to propagate this intended behaviour to his social environment.

To communicate the concept and explain the function of the new design, a movie is presented on the vending machine or fridge.

The understandability of the concept has been tested among different levels of education, who positively responded to both the new appearance and the idea behind the concept.

Finally, the feedback from users and experts are used to evaluate and reflect on the introduced concept. Further recommendations are made to optimize the user experience of the initiated concept.
Litter consists of waste products, mostly aluminium beverage containers, cardboard, and plastic packaging, disposed in an improper way and on an inappropriate location. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.

In the first part of this master thesis the problem definition and design brief are explored and formulated. In addition to the approach, research methods and design process are explained. This will form the base for the total research into the subject.
1.1 Severity of the problem

Littering is a growing global problem that has a big impact on the world. Littering is a habit of throwing away or leaving behind trash in public spaces, like streets or in nature, instead of using the trash bins provided. In a recent study Jambeck et al. (2015) discovered that the 192 global coastal countries produce 275 million tonnes of garbage annually, of which 2 - 5 percent flows into the oceans as litter. This is an amount of 8 - 12.4 million tonnes of trash flowing into the ocean per year. Jambeck argues that if we continue our behaviour this amount will be tenfold in the year 2025.

The Netherlands is one of these coastal countries, and here 50,000 tonnes of litter are cleaned from the streets every year. To gain insight in what the biggest sources are of this litter, the Dutch government collects data about the exact composition. The outcomes of this research (KplusV (2015)) are illustrated in Figure 1. This figure expresses that the biggest source of the litter of packaging, 73%. The biggest part of this subcategory consists of aluminium beverage cans with a percentage of 8%.

1.2 Brands in litter

Trash Hunters is an application, created by the Plastic Soup Foundation, that collects data about litter in the Netherlands. With the outcome of their measurements, their ambition is to mobilize brands to take responsibility for the post-consumption of the product. According to their research, the brand most found was Red Bull with 3063 of the total of 16715 empty aluminium cans, secondly Heineken with 1951 cans and third Coca Cola with 1868 cans (Figure 1 & Figure 2).

1.3 Impact of litter

Globally litter has a big impact on the environment. If litter ends up in the ocean (described in 1.0) or in nature, it can have the following consequences:

1. Contamination of land and waterways
2. Death of animals who mistake litter as food
3. Reduction of virgin materials
4. Visual impact on natural and built environment

Litter is in the top three irritations of the Dutch people. For the aluminium can in particular: cleaning these cans costs the Dutch government 10 - 14 million euro annually.
1.4 Interventions

To resolve these litter problems, action and good collaboration is required between governments, organizations, and individuals (Figure 3). Tromp (2013) argues that it is often considered that solving such problems is largely a governmental task, yet in the end individuals play a crucial role in both realizing and counteracting all of these problems. In this case a good disposal behaviour of the Dutch consumer can prevent high cleaning costs and irritation of the Dutch inhabitant.

But how can this behaviour be changed? In democracies like the Netherlands, governments try to use laws and regulations to set boundaries. They can change policies, subsidize institutions, and simply call for action, but it appears difficult to mobilize people to actually change their behaviour (Gerritsen & Van der Noort, 2004; Rijnja, Seydel, & Zuure, 2009).

1.5 Brands taking responsibility

Apparently, the government has already taken action, but until now they have difficulties changing the behaviour of the Dutch consumer. Different studies argue that social responsibility should not be expected from governmental actions but can be perceived as an opportunity for companies to play a part in this topic. But why should a brand take responsibility for the behaviour of their consumers? Roper and Parker et al. (2006) argue that companies with a strong and recognizable brand, can be damaged by the negative publicity their consumers create. Furthermore the report Predictions for the Luxury Industry: Sustainability and Innovation, (2016) state that sustainability and social responsibility are no longer ‘nice-to-haves’ for brands, they are now requirements. Social responsibility should be perceived as an opportunity rather than as damage control.

“Every company should do something good for the society, you take from society, you’re part of it, and you should give something back. If all companies think like this we could generate a lot of attention for good causes. For me it’s not the question anymore if you should do it or not. You simply have to do it.”

ID & T co-founder Dunkin Stutterheim

Since Red Bull is the soda brand most found between the litter in the Netherlands, this brand is selected for a case study on how to influence consumers behaviour from an organizational perspective.
In this chapter the problem is defined, the assignment, approach and methods of the research are explained.

2.1 Problem definition

Litter is a growing problem in the world. A habit of thoughtlessly throwing away trash in public places instead of using the garbage bins or waste-paper baskets provided. Even though there are many interventions in the Netherlands, apparently most people continue to do it. The aluminium can of the brand Red Bull is most found between the litter in the Netherlands.

Why is it that aluminium cans and especially Red Bull as a brand is most found as litter in the Netherlands? What is it in the Dutch culture that leads to this specific behaviour of a Red Bull consumer?

2.2 Assignment

The assignment of this project is to design a product or service which will stimulate sustainable behaviour of the Red Bull consumer. For this project that means a design concept to stimulate sustainable consumption.

The assignment focuses on the values and cultural behaviour of the Red Bull consumers. Why these people currently use their products, what their attitude is towards littering and the environment, and how to propose a system or service in order to reduce the Red Bull litter in their immediate environment.
2.3 Process

To answer the question above the following sub-questions are formulated:

1. What elements influence consumer behaviour?
2. How can behaviour be changed?
3. What are the brand characteristics of Red Bull?
4. Who are Red Bull's consumers and why do they behave the way they do?

The first step in the process will be a literature review to analyse consumer behaviour in general. Understanding the elements that influence the consumer forms a base for the extensive analysis of Red Bull consumers. In addition several theories about behavioral change will be explored in order to gain a deeper understanding how the condition can be improved.

The following phase will be a detailed analysis of the brand Red Bull. This is of great importance to understand the brand’s image and experience since the design should fit the image of the brand. This leads to a consumer research wherein the system of shared beliefs, values, customs and behaviours of the Red Bull users will be explored in order to get a deeper understanding of the user which will be designed for.

The findings of the analysis will be brought together in the synthesis. The combined insights result in a revised design goal and design guidelines. In section D several ideas and concepts with a focus on facilitating sustainable behaviour are explained. According to the design guidelines one concept has been chosen. The details of the concept de-scripted in Final Concept.

To examine different expected interactions, the final prototype has been tested with the user group.

The results of this user reaction will be evaluated in the final phase.

Figure 4 Visualisation of the process
YOU CANNOT SOLVE PROBLEMS WITH THE SAME REASON THEY WERE CREATED

2.4 Approach
The basis of this project lies in a user centred design approach. In such a project, prospective end-users are given a central role in the design process. When including users in the design process better insights into future use situations can be generated to design products and services that meet the user’s need.

Thorough research has been done into the domain of consumer behaviour through the field of social design and cultural design. Social design is used as an inspiration to analyse how to change behaviour and cultural design as an inspiration to analyse a specific subculture (Red Bull user). With this in mind, this project aims to generate knowledge how to stimulate a positive behaviour change in post consumption behaviour for this specific user.

Social Design
In the field of social design, design thinking is applied to social issues. In this process, designers aim to transform problematic social and public situations into better and more desirable ones. In this project the social design research of Dr. Ir. N. Tromp is used as guideline and scientific interpretation of the problem. Her research is concerned with how products and services can help us act in ways that benefit society. With a focus on influencing people’s concerns through design, to stimulate a change in behaviour.

Cultural design
In the field of Cultural design, design thinking is applied to analyse objects as a cultural artefact. In this process, designers aim to analyse objects through the eye of cultural analysis. Du Gay et al. (1997) argue that it should be explored how a product is represented, what social identities are associated with it, how it’s produced and consumed and what mechanism regulates its distribution and use. These five processes together form the “circuit of culture” and can be used as a tool to analyse a cultural artefact. This way of analysing an object is used as an inspiration to find out why the object is used the way it is used in the current society. This in order to get a deeper understanding of the current cultural context of the consumer and it’s behaviour.

Red Bull
Red Bull, the analysed company, is a globally well-known energy drink. Its drink is famous because of their smart marketing strategies. Red Bull is a company that is constantly innovating. Since marketing is their core business a more comprehensive analysis is done into the method of marketing techniques.

Marketing
Marketing is the communication between a company and the consumer audience that aims to increase the value of the company and its products in the public mind. Ross (2011) argues that the purpose of marketing is to induce behavioural change in the receptive audience. The techniques used in marketing include choosing target markets through market analysis and market segmentation, as well as understanding methods of influence on the consumer behaviour. Especially the methods of influence on the consumer behaviour will be emphasized in this project since it has a user centred design approach.
2.5 Method

In order to reach a broad understanding of the current context around Red Bull consumption, an exploration of the production and consumption was essential. Several sources are helpful during this exploration, including scientific articles, literature, discussions with experts, interviews, observations, media and visiting congresses.

Scientific articles
In order to understand consumer behaviour and how consumer behaviour can be influenced, a variety of scientific articles were consulted. Articles that handled topics like consumer concerns, consumer behaviour and litter behaviour were intensively studied.

Books
The book Doing Cultural Studies (1997) has been an inspiration to analyse the Red Bull can from a cultural perspective.

Observations and small talks
1. A small study on locations where Red Bull litter was found was conducted. Pictures taken of empty Red Bull cans found as litter gave insights of the contextual use of this specific energy drink (Figure 2 on page 14).
2. Observations and small talks at Red Bull Events gave an impression of different subcultures that represent the Red Bull consumer (Figure 5).
3. Observations of distribution points of Red Bull gave a better understanding of the context of use. (Figure 6).

Interviews and discussions
1. People were interviewed who just purchased a can of Red Bull in “to go” stores.
2. Sportsmen were interviewed.
3. A visit to a high school in de Schilderswijk Den Haag leaded to discussions with potential target groups.

All interviews focused on consumer motives, disposal behaviour and barriers that prevents consumers to act sustainably.

Discussing the domain of behaviour change, litter, Red Bull and marketing with several experts of different topics, resulted in valuable insights and in the direction of further research and elimination of several research directions.

Below some of the consulted professionals are listed along with their expertise and covered topics.

Jelmer de Wind – coordinator at RTL
Topics - Discussions about possibilities of social media to improve social behaviour.

Silke Nauta & Wouter Posthoorn - Ex employees Red Bull
Topics - Red Bull brand image, marketing strategy, perspective on possible sustainable projects for Red Bull

Paul Schurink - Sustainability consultant festivals
Topics - Waste management at festivals, how festivals currently solve litter problems.

Anna Oosterling - Social media strategist
Topics - Social media

Rik Heanen - Marketing Kite-board company Lieuwe

Field research
Dutch national litter prevention convention
This convention was especially focussed on how to prevent litter as multiplicity and discussed different types of interventions such as pilots with rewards deposits, sustainable packaging in relation to litter, waste management of litter at events and city clean ups.

Seminar of Kennisinstituut voor verduurzaming van verpakkingen
This institute organises events wherein different branches, like NGOs and world known brands discuss about the possibilities of using more sustainable packaging for fast moving consumer goods.

Reports
Reports of the aluminium can business and sustainability reports of global brands were studied.
Litter consist out of waste products, mostly aluminium beverage containers, cardboard and plastic packaging, disposed in an improper way and on an inappropriate location. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.

In the second part of this master thesis a more comprehensive literature research is undertaken to gain a broader understanding of consumer behaviour in general.
To design a product or service that facilitates behavioral change, first the current consumers behavior needed to be analysed. The personal attitudes of an individual, appearance of the object, the environment and the social environment are all examples of elements that can influence behavior of the consumer. Not only the buying behaviour of the consumer, but also the use and disposal behaviour of the consumer. In this section the influences of consumer behaviour on pro-environmental behaviour according to Kollmuss et al. (2002) will be explained wherein some of these different factors will be highlighted, which are emphasised further in the research process.

### 3.1 Internal Factors

**Psychological:**
Motivation is the reason for behaviour, which is shaped by intensity and direction. Wherein barriers can suppress certain behaviour, these barriers are explained in Blakes model on Figure 8 on page 29. According to Kollmuss et al. (2002) attitudes are defined as the enduring positive or negative feeling about some person, object or issue. Environmental attitudes have been found to have a very small impact on environmental behaviour. This is unexpected because we are likely to assume that people live according to their values.

**Personal Education:** The level of education also plays a considerable role in shaping a person’s behaviour. A person with a high level of education may have a stronger pro-environmental attitude.

**Life-cycle:** A person’s life cycle may influence the way people behave, a youngster has different values compared to a grown up.

### 3.2 External factors

**Environmental influence**
Environmental influence can be political, economical or technological. A political influence can be for example placing more trash bins. Asking for a deposit can be an economical influence and changing the package material can be a called technological influence.

**Social:**
Different social factors influence the way people behave. Peer pressure can be an example for people to throw away their trash on the street. While on the other hand drinking Red Bull can have an effect on how people think they belong to a certain group. These social factors will be analyzed to get a deeper understanding of the user to design an outcome that fits.

**Cultural:**
Cultural factors play a very important role in shaping people’s behaviour. Cultural elements like drinking from a can while walking, cycling or on the move are habits, belief or attitudes that are firmly fixed or established and difficult to change.

**Product appearance**
The product appearance may strongly influence the way people interact with a product.

**Marketing**
The influence of the product and marketing techniques Red Bull has on its consumers will be analyzed. Once we know what affects the consumer this can lead to an opportunity to design for.

These elements will be used as a guideline for the analysis.
Different internal and external elements influence consumer behaviour. Not every consumer of Red Bull is currently disposing their trash in a pro-environmental way. What are current motives for consumers to behave like they do now? And what methods can be used to influence behaviour and stimulate pro-environmental behaviour according to the literature? Several theories of social psychological research on sustainable behaviour are discussed. This in order to explore different guidelines that designers can use to positively influence pro-environmental behaviour and strengthen attitudes to act according to the social norm.

### 4.1 Pro-environmental behaviour model

Agyeman and Kollmuss (2002) argue different pro-environmental behaviour models. Their research shows that in most cases, increased knowledge and awareness doesn’t directly lead to pro-environmental behaviour (Figure 8). With environmental knowledge the attitude of a person is likely to change, but as Blake (2015) argues, even when people have a pro-environmental attitude, different barriers influence the eventual action. Blake (2015) divided these barriers in individual, responsible and practical influences.

- **Individual barriers**: These barriers can be laziness, lack of interest, or convenience. A person may know he should not litter, but may be too lazy to walk to a trash bin. These barriers are especially influential for people who do not have a strong environmental concern.
- **Responsibility**: In this case people don’t have the feeling that they can influence the situation. A person may litter in public spaces far from his home, but will not litter in his own property.
- **Practically**: Constitutional constraints can prevent people from acting pro-environmentally regardless of their attitudes or intentions. Like lack of time, money, information or encouragement. A person may have the intention not to litter, but when no waste facilities are in his surrounding he might still do it.

### 4.2 Planned behaviour model

Azjen (1991) explains his vision on attitudes and behaviour in the Planned Behaviour Model (Figure 9). He argues that social norm, perceived behavioral control and a person’s attitude influence the intention of a behaviour. He concludes that if the behavioral intention is strengthened it is more likely that a person will act according to either his attitude, norms or perceived behavioral control.

If the intended behaviour is strengthened a person may overcome different barriers. So, how can a behavioral intention be strengthened?
4.3 Design principles to strengthen behavioural intention

Various principles were found by Peeters (2014) that stimulate consistent behaviour and motivate behaviour.

Making a pre-commitment (Written, orally or behavioral) This is most effective when it is done in front of other people.

Addressing self-identity Evoke a sense of pride for showing the desired behaviour.

Strengthen the association between the attitude and the corresponding behaviour Make the link between sustainability and litter behaviour more salient.

Activate or strengthen attitudes (In this case towards social norm or environmental attitude) Physical experiences are more effective than verbal interventions.

Make the desired behavior easy to perform.

Create ‘decision points’ Make it necessary for people to consciously make a decision before engaging in a behaviour. This wakes people up from their automatic pilot.

Several methods can be used when designing an intervention that aims for actual change in behaviour like persuasion, nudging and economic incentives.

Petty et al. (1986) discusses in the elaboration likelihood model of persuasion different ways of persuasion.

This model is a general theory of attitude change and shown in Figure 10. A person can either be high or low involved with a brand. Where a low involved consumer may be influenced by cues and simple messages, a high involved person may be influenced by arguments.

Economic incentives can be a deposit system where people are rewarded with money if they return their plastic bottles.

Examples of nudging are motivational fees, visual marks (on the product or in store) placement of products, small rewards and showing social norms.

4.4 Models that aim for actual behaviour change

Antonides (2013) discuss several strategies to show or activate social norms (Figure 11).

Internalisation.
Following norms of groups is a way to keep the shared reality and show the identity of the group. People feel respected through others whose opinions they appreciate.

Consensus and support The presence of other group members amplifies normative behaviour. For example, if people behave according the norm and dispose their trash in a trash bin, it would be more likely that other people can be activated by following this example.

Frequent activation Norms are acknowledged if they are activated frequently. If there are strong associations between a situation and behaviour, the thought about these situations strengthen the accompanied behaviour.

4.5 Conclusion

Several theories were explored to understand what elements influence behaviour and what methods or principles can be used to change this behaviour. Depending on the barriers or elements that have the most influence on the current behaviour, different design strategies should be used to change the actual behaviour. Some barriers can be overcome through persuasion, nudging or economic incentives. While behavioral intention can be strengthened by several other discussed principles. Subsequently it is important to know for what kind of consumer to design in order to use the right persuasive strategy.

Either way depending on the outcome of the user research, the most promising principles and methods should be used to find an outcome that fits the design goal.
Litter consists of waste products, mostly aluminium beverage containers, cardboard and plastic packaging, disposed in an improper way and on an inappropriate location. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.

This part of the report focuses on the analysis of the brand, the culture and rituals around drinking from an aluminium can and the research about what elements influence the behaviour of the targeted consumer. Every chapter ends with a conclusion of the most important insights.
Ask any person about Red Bull, and it is likely that they know the brand. They may never even have tasted it, but Red Bull has become inscribed in our informal social knowledge, the ‘what everybody knows about the world. Du Gay et al. (1997) argue that this taken-for-granted knowledge is an essential element in what is called culture. Red Bull is not only part of our culture, it has a culture on its own. In the following section the brand is analyzed to understand Red Bull’s culture. This is important since the design should fit the brand image.

5.1 History
In 1985 Dietrich Mateschitz, a former marketing manager for Procter & Gamble, was on one of his business trips through Asia. He discovered a popular energy drink called “Krating Daeng” (Red Bull in Thai) that contained caffeine and taurine and thought it was a good idea to introduce it to the European market.

5.2 Product & packaging
Between 1984 and 1986, Mateschitz asked a team of professional marketers to develop the product and marketing concept. After extensive research into the consumer market, they selected the aluminium can as product packaging. The highly innovative renewable aluminium can was just introduced to the market and the selection of the can perfectly fitted in the “on the go” lifestyle at that moment in the Western civilization. The high convenience of the can allows a person to drink Red Bull at any place and any moment they want.

The can of Red Bull was designed differently than the normal cans at that time. Red Bull came in a 250 ml can, this “slim, sexy and powerful” look gave them the opportunity to differentiate from other soda brands and to enter the energy drink sector as a pioneer. In addition to the aluminium can, Red Bull developed several other packagings and the company was forced to use these when they ran out of aluminium cans. The sales of the product declined right away, which was the reason to stick to the aluminium can. Nowadays, this aluminium can with its silver, blue, red and yellow colors can be seen as an artefact.

5.3 Product portfolio
Red Bull didn’t expand their core products outside energy drinks. They only expanded their energy drink portfolio into different tastes. Figure 12 shows an overview of the core products of Red Bull. The packaging of the zero sugar and total zero editions have the same lay-out but differ in color. This lay-out is supposed to represent the original taste. The new editions are entirely different in lay-out of packaging. At the launch of this product line, this resulted in confusion for the consumer. Ex Red Bull employee Silke Nauta on this topic: “It was hard to convince everybody that this was still a product of Red Bull.”

Next to the new flavors, Red Bull also has special edition packaging lay-outs of the ‘original taste’ cans, as can be seen in Figure 13. These special editions are either linked to special events, famous athletes or special artists.
5.4 Marketing tactics
Red Bull's core product is an energy drink, but it is marketed more as an ideology. Dietrich Mateschitz saw the power of sport as an industry for accessing the identified target markets and engaging with them actively. The strategy of capitalizing on the growth of extreme sports (illustrated in Figure 14) helped Red Bull to grow into one of the world's top selling beverages.

Due to other smart marketing tactics like their promotion team, or their famous cartoon advertisement 'Red Bull gives you Wings', consumers now associate the drink with energy and adrenaline. This allows them to target not just the extreme sport fan but all consumers who want to fulfill their extreme desires. Red Bull became an invitation to live an active and performance-oriented lifestyle.

5.5 Target group
Red Bull did not define a specific demographic or psycho-graphics segment as its target market. The company sought to reach a broad range of consumers based on their need for energy. These consumers are divided into five categories: "students, drivers, clubbers, business people and sports people."

5.6 Brand identity
The Kapferer model (1992) is used to describe the prism of brand identity and visualizes the key elements of the brand (Figure 15).

5.7 Social responsibility
Nature plays a very important role in the branding of Red Bull. Their newest focus, Red Bull media house, is a collection of pictures and videos from all over the world. Nature is a playground for the athletes and photographers that makes these pictures possible. On the contrary, the wrong disposal of their product causes environmental problems. The focus of their brand is not about sustainability but Red Bull is definitely aware of their impact on the environment and already involved in some sustainable practices.

Reduction of using materials in the production of the can
Red Bull on its website: The cans are 60% lighter than they were a couple of years ago, saving a lot of resources. Cans are also 100% recyclable and the transport of cans costs less energy than the transport of plastic or glass bottles because of their shape.

Draw attention to environmental sustainability with self organized event.
In the initiative Art of the Can the crowd participating in the competition were required to design art out of the aluminium of Red Bull cans, stimulating the consumer to reuse the can (Figure 16).

5.8 Conclusion
Red Bull became world-renowned for their energy drink, this is caused by their smart marketing tactics. People associate the drink with energy and extreme sports. Their current products are energy drinks in a 100% recyclable aluminium can. This can has become an artefact, people associate this can with their experience of the brand. Currently Red Bull is involved in some sustainable practices, these initiatives show that Red Bull is active in improving the social and environmental consequences of their activities. Unfortunately, littering behaviour of their Dutch consumers is still a problem and their current efforts focus on short time initiatives constrained to a specific location.

A big opportunity to influence pro-environmental behaviour of the Dutch consumer lies in a different approach than their current activities. To be able to find the best approach, the culture or rituals among drinking energy drinks from an aluminium can need to be analyzed. These are explained in the following section, specifically focused on Red Bull in this case.
Every drink is consumed in a different way and has its own drinking culture. If we think of wine it is most likely that a specifically shaped glass occurs in our mind and we associate this with social happenings in evenings. Or if we think of coffee it’s served in a cup and accompanies our breakfast. These associations can be seen as “rituals” that are related to specific type of drinks. The rituals that are connected to energy drinks are analysed in the next section, since the “rituals” of drinking energy drinks affect the distribution locations context of use and the context of disposal. Analysing the cultural meaning of the object will lead to an understanding of how people use an object and will creates insights that leads to final requirements of the design.

6.1 Ice-cold consumption
Red Bull wants the optimal circumstances for the consumer to drink the product. Ice Cold it tastes the best. Therefore Red Bull can often be found in fridges and vending machines as can be seen in Figure 17. These fridges are found in places such as gas stations, supermarkets, train stations, public places but also at sport clubs and other recreational places.

6.2 Influence of energy drinks on social aspects (Energy drinks vs. other Soft-drinks)
Different than other soda drinks, energy drinks were introduced to the market as functional drinks. This phenomenon led to a different drinking “ritual” compared to other canned soda drinks. For example Coca cola has many different social aspects of drinking. Sitting on the terrace, the canned drink is poured into a glass with ice cubes and is seen as an refreshment. This is different from energy drinks which are used to generate an extra boost in performance. This can be in any situation and most of the time the energy drinks are consumed before these performances take place. People consume the beverage in this case on the go, as can be seen in Figure 18.

6.3 Canned consumption (plastic bottle vs. aluminium)
Packaging gives the consumer the freedom to satisfy their needs and desires at every time and every moment they need. Especially when people are ‘on the go’. The aluminium can is a single use packaging (Figure 19) unlike plastic bottles that come with lids. When a can is opened it cannot be closed again. The energy drink should be consumed immediately, and cannot be stored in a bag halfway consumption; the sticky leftovers could leak into the bag or pocket.

6.4 Context of disposal
A Whatsapp group was created wherein people could share pictures of found Red Bull litter to analyze the context of disposal (Appendix A). Also the pictures founded with the Trash-hunter application (www.Trashhunters.com) where analyzed. Wherein was found that the context of wrong disposal occurs mostly along the side of the street. A small selection of found locations is earlier illustrated in Figure 2 and again in Figure 20.

6.5 Conclusion
Tracking the context of the problematic can lead to some interesting insights. These cans are commonly sold from fridges at places where people make a small stop to purchase a drink, like gas stations, kiosks, supermarkets and sodas automatics. One important aspect of the consumption of the Red Bull can is that it is a single-use-product that is mostly consumed on the go. This leads the context of the disposal behaviour to be, mostly along streets.
In the following paragraph the defined consumer is analyzed. Knowing the values and shared beliefs of the consumer leads to a better understanding where to design for. The following questions arise: How do the different target groups differ from each other? As earlier explained in the Brand analysis Red Bull says their target group cannot be defined by a specific demographic or psycho graphic segment and divides its consumers into five categories:

- Students
- Drivers
- Clubbers
- Business people
- Sports people.

Out of these target groups the clubbers and the business people, were not researched. After all these people are in closed environments like clubs and organizations. These environments are eliminated from this research since in these environments the organizations are responsible for the peoples behaviour.

To find out what their reasons for behaviour are, a more thorough analysis is done to identify the most important elements of influence per user group.

7.1 Methods of research per user group

Different methods where used to create an impression about the different target groups.

- **Student** (APPENDIX B)
  - To get an impression of the student 11 Persons who bought a can of Red Bull were interrupted and interviewed at AH station next to In Holland (high school).

- **Sportsman** (APPENDIX C)
  - In this report the sponsored sportsman of Red Bull is selected as sportsman group. Discussions with different sportsmen, opinion leaders and research on social media and internet led to an impression of the behaviour of the Red Bull consumer, the sponsored sportsman.

- **Driver**
  - Observations at gas stations and discussions about this topic led to an impression of the Red Bull consumer, “the driver”.

Analyzing and structuring the answers of the interviews resulted in a list of insights about the different elements that influence the consumers during purchasing, context of use and disposal behaviour (APPENDIX D).

The interviews discussions and observations focused on the parts described in the picture beneath.

The users descriptions in the following section are based on the outcomes of these researches. The most interesting quotes and insights of the user groups are visualized per element explained in Figure 21.

![Figure 21. Analyzed influences of the Red Bull consumer.](image-url)
7.2 Description student

The life of a student exists of work, studying, partying and a big social life (real life and social media). All the ingredients for a speed up lifestyle. They think they need Red Bull, it immediately satisfies their needs when being exhausted. They buy Red Bull because they swear it tastes the best and is the most effective. Drinking Red Bull is seen as cool in their culture. And since they are sensitive about what their friends think about them, they buy this brand. They mostly know the brand from its slogan ‘Red Bull gives you wings’ and buy the can at the supermarket or ‘on the go’ stores. They associate the drink with energy and adrenaline and not per-se with extreme sports. The student thinks this is cool, but don’t practice extreme sports themselves and therefore don’t identify to the brands image. At school they learn about the environmental problems and are highly aware about the effects that litter can cause. Littering is not accepted in their culture but they admit that they still do litter every now and then. Arguments like ‘I don’t want to hold the empty can for that long,’ ‘if he does it I do the same’ and ‘others clean it for me anyway’ are examples of motives to litter.

7.3 Description extreme sportsman

Red Bull searches for people who are outstanding in what they do, people who are an example for the society. If it’s a vlogger or an extreme sportsman, Red Bull targets all of them who have a high media potential. When they collaborate with Red Bull they do have a lot of advantages to grow in their sports and perform at their best. They wear Red Bull clothes and picture themselves together with the can on Instagram. For both stakeholders it is a good thing to create more media exposure. The extreme sportsmen are in search for the best places to practice their sports and are therefore highly involved with the protection of the environment. Brymer (2009) argues that extreme sportsman have a close connection to nature. Even though they do have a close connection to nature sometimes they do litter. Because of all the adrenaline pumping through their body they sometimes don’t behave according to their values and actually do litter.
7.4 Description driver

The driver is constantly on the road. During long trips he needs instant and effective energy to stay awake while driving. At gas stations most of the time the shelves and fridges are full of Red Bull cans. Therefore this drink is highly attractive for a driver to get this as a source of fast energy. They sometimes litter the can out of their car. This is because the can is not reclosable. The sticky drink can leak in their car and they don’t want their own closed environment to get dirty. If they do not behave pro-environmental they either dispose it right away out of their window while driving or they dump it on the street while parking.

7.5 Conclusion

Touch points

• Packaging

The different user groups are familiar with different touch points. A sportsman may be totally involved with Red Bull Instagram while a student may go to Red Bull events and yet another student knows Red Bull from their promo activities. But all consumers are involved with the final touch point; the packaging.

• Red Bull gives you wings

All the asked respondents knew the marketing slogan “Red Bull gives you Wings” and the product itself.

Important choice attributes when buying Red Bull

• Marketing

While some of the consumers argue that they drink Red Bull because it is the most effective and the taste is the best. Others may choose it because of the richness of the product in the store. These arguments implicate that different marketing strategies work for different consumers and they are all highly effective.

• Social need

Some consumers drink Red Bull because their friends drink it and some extreme sportsmen drink it to gain more popularity. Implying a need for social attention. People want to belong to a group and drinking Red Bull satisfies this need for consumers.

Motives and context of littering

• Different barriers

While a student may litter because their friends do it. A driver litters because he doesn’t want his personal environment to get dirty. This implies that every user has different barriers to litter.

• Different context of use, same context of littering

Different users have different contexts of use, but the same context to litter. A driver may litter out of his car while a student may litter while walking. But all places are public places.

Attitude towards environment and littering

• Environmental attitude doesn’t directly lead to better waste disposal

Most of the asked consumers knew about the current problems in the environment. But even people that had a better environmental knowledge admitted littering.

• Dutch social norm not to litter

All of the interviews and discussion with different consumer groups led to the insight that everybody has an attitude towards littering. And knows it’s not accepted in The Netherlands.
Litter consists of waste products, mostly aluminium beverage containers, cardboard, and plastic packaging, disposed in an improper way and in an inappropriate location. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.

This section combines the insights gained from the analysis. These insights lead to a revised design goal and an interaction vision. At last these insights result in design guidelines that form the base for the conceptualization phase.
The most interesting insights that are explored in the analysis are clustered together in this section.

8.1 Combined insights

**Personal insights**
- Consumers are generally low involved with the brand Red Bull
  Consumer research shows that Red Bull is not only used as an energy drink for better performance by sportsmen, but also by persons not involved in sports at all. Students, drivers, and other persons with a busy lifestyle drink Red Bull to stay alert and awake. Even though everybody knew about Red Bull being involved with extreme sports, most of the users associated the drink with energy and adrenaline, not per-se with extreme sports. This implies a low involved user.

- Some lack of environmental knowledge
  The extreme sportsmen are more involved with the environment compared to drivers or students. This environmental knowledge leads to a pro-environmental attitude. But as discussed at Figure 8 on page 29 an environmental attitude doesn’t directly lead to pro-environmental behaviour.

**Psychological insights**
- Personal short terms concerns (barriers) can lead to disposal behaviour.
  A conflict exists within the person between personal short term concerns and their intention to behave according to the social norm. The Planned behaviour model suggests to strengthen intended behaviour to overcome most barriers and not to design for one barrier in particular.

**Social insights**
- Express themselves (social environment)
  The can is used as a cultural artefact for a person to express that they belong to a group. Drinking Red Bull is seen as ‘cool’ and therefore gives a certain ‘social’ status to a person.

**Cultural insights**
- Social Norm
  Almost everybody in The Netherlands is aware that littering is a bad behaviour and not socially accepted.

**Environment**
- Influences like placing more trash bins is a governmental task that cannot be changed by Red Bull. This is location bounded and would not have enough impact to influence all of the consumers.
Marketing insights

- Research implies that the Red Bull consumer is not immune for marketing.
  Consumers stated that Red Bull is the most effective energy drink and that the taste is the best compared to the other drinks. This implies that the Red Bull consumer is sensitive for the marketing strategy of Red Bull.
- Off all marketing slogans ‘Red Bull gives you wings’ is the best known by all the identified user groups.
- Touch points (Figure 25)
  The most known / used touch points of the consumer are: packaging, fridges and shelves.
- Red Bull has a unique brand experience
  Red Bull is associated with the words: Energy, extreme and innovative.

Packaging insights

- The aluminium packaging enables long conservation.
- The blue and silver print represents the original taste of Red Bull.
- A can is easy to carry in a bag and easy to drink while on the go.
- Once the can is opened it should be consumed immediately.
- The packaging of the aluminium can has a long history and it’s now at the point that it’s 100% recyclable.
- It’s difficult to change the package design. Red Bull already changed the package design several times but as a result the sales declined.
The insights from the analysis phase form the base of the revised design goal. This design goal offers a direction wherein initial ideas will be made and concepts developed.

The main objective of the design goal is to let the person act according to the social norm of not littering. The main focus should not be on reducing a specific influence that evokes a certain undesired behaviour, but on strengthening the values and attitude towards this desired behaviour.

“Create consistency in appropriate disposal behaviour of the Red Bull consumer”
“Strengthen the attitude of the Red Bull consumer towards the social norm of appropriate disposal behaviour”
In addition to the design goal, an interaction vision is presented. The interaction vision is used to communicate the intended interaction qualities of the future product.

The metaphor (picture) of the HALO embodies the interaction required to evoke this attitude strengthening and doing good for society.

10.1 Interaction vision
The most important interaction is that the person should feel proud about his behaviour. Red Bull already gives a person a boost in his personal feelings (Red Bull gives you Wingssss). Elaborated on this feeling the product should evoke the feeling of doing good for society. And therefore feel good about himself. This is expressed in Figure 26. The Halo expresses the doing good, in addition to the wings the consumer imaginatively gets through drinking Red Bull.

10.2 Interaction qualities
Red Bull experience qualities
The qualities of the tone of voice of communication by Red Bull should be personal, cool and unique. Furthermore, the interaction on a personal/social level should make the user feel recognized, respected and confident about his behaviour and be able to propagate / radiate this attitude.

General needs of consumer
The interaction should give the user a sense of control about their own behaviour/attitude in order to evoke satisfaction when the desired behaviour is achieved.

These qualities should all stimulate a person to overcome the barriers of influence. (Such as being lazy, no trash bins in the environment, or the analysed social influences)
In order to translate this design focus, the generated insights and the interaction vision into a product and a user experience, a set of design guidelines is formulated. These guidelines are used to evaluate the product ideas on their completeness regarding the most relevant research findings, designer insights and help to evaluate the final design. A set of 11 guidelines is created and clustered into three groups which together form the important brand experiences, user experiences and impact within the context of proper disposal of the Red Bull can.

11.1 RED BULL From the company’s side, it is important that the outcome of the project can be implemented in the current market.

- **Trustworthy (brand analysis)**
  The concept should fit the brand experience and the brand personality. This in order to create trustworthiness for the consumer since it is going to be linked to a social responsible image.

- **Distinctive advantage (innovation)**
  The concept should give a distinctive advantage to the brand, since everything they do is highly innovative.

- **Product properties**
  The product should keep the current shape and material. Additionally, the brand silver and blue layout should still be highly recognizable.

11.2 THE USER: In this case, the concept has to strengthen the attitude of the user to act according the social norm of not littering

- **Address general needs**
  The concept should elaborate on the feeling of being part of the Red Bull culture and being cool.

- **Positive association with disposal behaviour**
  The product should elaborate on boosting the GOOD attitudes a person has. (We know what’s good for us but we just don’t do it) to overcome barriers. This is based on the elaboration likelihood model.

- **Control**
  The concept should make the user feel in control over his behaviour in order to overcome the barriers.

- **User engagement**
  The concept should engage the user within the conscious decision to dispose the Red Bull can in a pro-environmental way.

- **User vs. Society**
  The concept should emphasize the meaningful role of the user in society.

11.3 CONCEPT IMPACT:

- **Large scale impact**
  The concept should fit the low involved consumer, enable to reach as many people as possible and strengthen the intended behaviour.

- **Long term impact**
  The concept should have the potential to change unsustainable habits into more favourable ones in the long term.

- **Context**
  The concept should fit the Dutch consumer, but be scalable to other countries as well.
The conceptualization phase forms the passage from the research analysis towards the design process. It shows the different ways of approaching the design goal and translating the interaction vision to the context of proper disposal behaviour of the Red Bull consumer.

A brainstorm was set up (APPENDIX E) and idea ting throughout the project leaded to different design opportunities. Ideas were combined into concepts, of which an overview can be found in APPENDIX F. The five most promising directions are explained in the following section:

12.1 Concept 1
This concept focuses on the moment of purchasing and the moment of disposal. The concept exists of a social media campaign. In this concept consumers are dared to film their most creative way of the Red Bull can disposal. At the moment of purchasing the consumer is confronted with the fact that they can win something with the right disposal of the can. This will strengthen the association between the attitude object and the desired corresponding behaviour. Which is the right disposal of the can.

Participation in this project will stimulate sustainable consumption behaviour. The examples on social media about correct disposal will not only impact the person itself but by sharing this on social media it aims to have a larger impact.

12.2 Concept 2
In this concept people should collect a number of empty cans and bring them to the Red Bull Recycling hub. This can be a transportable pop up store that can be located at several locations throughout The Netherlands, or even globally. At this pop up store, the empty cans are melted and moulded into new products. This educates the consumer about the possibilities and importance of recycling aluminium.

This concept focuses on the moment after consuming a Red Bull can. Another way to create consistency in proper waste disposal is to strengthen a person’s attitude towards sustainability. Education about the process of making and recycling aluminium is one way to achieve this. Yet, this must go beyond theory and embrace a physical recycling presence since physical experiences are more effective than verbal interventions.

The new product will be a gadget for the consumer. This gadget should be something that the person carries with him for example a key-chain or protection for his phone. In this way the consumer will constantly be reminded about the importance of recycling.
12.3 Concept 3
This concept focuses on the communication of the packaging. At the moment of purchase people have the possibility to choose between a special edition and the original can. Buying the new edition of Red Bull makes the consumer “promise” that he will dispose this can in an environmentally responsible way. This concept is based on the concept of the Green camping where people have the freedom of choice in being sustainable or not. (APPENDIX F)

At the moment of purchase a decision point is created which will wake them up from the automatic consuming pilot (Theory earlier described in page 30). Most of the cans of Red Bull are consumed immediately after purchase. By the time the consumer has to dispose the can he will be remembered through the special packaging that he should act pro-environmentally.

Not only chooses this consumer to behave sustainable, he is also able to radiate this towards his social environment. The special edition shows his conscious decision in pro-environmental behaviour. This not only results in a positive brand experience, it also emphasizes on the meaningful role of the user in the society.

12.4 Concept 4
In this concept an interactive installation will educate the consumers about the life-cycle of the can. The process is visualized from the moment bauxite is mined (virgin material for aluminium) until the moment after consumption.

The idea is that the consumer is able to interact in this experience roadmap. Like the second concept this must go beyond theory and embrace a physical experience since these are more effective than verbal interventions. This concept focuses on strengthening the pro-environmental attitude of a consumer. It is expected that if a user’s attitude towards the environment is positively strengthened he will be more likely to act pro-environmentally.

12.5 Concept 5
Urban camouflage. This concept is based on persuasive design in a reverse psychological way. In this concept the print of the can is the context wherein the can is littered. For example, the wall, the street or grass.

At the moment people do litter, the can disappears in the environment and it should put consumers to wonder whether the can belongs there or not. At this moment, the user should become conscious about the wrong behaviour, pick it up and throw it in the bin.
13.1 Concept selection

The five concepts were evaluated with the design goal, interaction vision and design guidelines in mind (Harris profile APPENDIX G). This concept choice was discussed and made through discussions with Red Bull expert Silke Nauta and mentor Erik Jepma. All concepts have the potential to stimulate sustainable disposal behaviour. However, the combination of a limited edition (3) and the social media campaign (1) was seen as the most promising.

Although concepts (2) and (4) have a high potential to change a person’s attitude towards waste disposal. As discussed Figure 7 on page 27, environmental knowledge alone doesn’t directly lead to pro-environmental behaviour. Besides, these concepts are restricted to a certain location, which might have negative influence on the impact of these concepts.

To reach the most Red Bull consumers the new edition has a high potential. Since the persuasive concept (5) focuses more on the negative attitude of the consumer, while it is important to focus on the good attitude of the consumer, the change to a cool limited edition what focuses on the status the Red Bull consumer is searching for, this concept is selected. Using a change in the layout of the packaging has an innovative approach to effectuate a sustainable impact.

The freedom of choice to act sustainably is very promising to stimulate better behaviour in the long term. The concept (1) with the social media campaign will have a strong additive value. The focus on the right disposal behaviour emphasizes how people can be activated to act according the social norm earlier explained in Figure 11 on page 31. Therefore these two concepts will be combined.

The chosen concept should fit in a marketing strategy of the brand. In the following chapter the detailing of the concept is explained. Many design iterations had to be made on this concept to further optimise the concept. In the following chapter the different elements of the marketing strategy are explored and different touch points and design decisions are explained per element of the product launch strategy of Red Bull.
Litter consists of waste products, mostly aluminium beverage containers, cardboard and plastic packaging, disposed in an improper way and on inappropriate locations. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.

After the selection of the final concept, a lot had to be explored to find the best fitting design of the can, combined with a marketing strategy to communicate the function of the product. In this section, the idea behind the final concept is explained, combined with the design decisions made per selected element of the campaign.
In this paragraph the idea behind the final concept is explained.

14.1 Explanation of the concept

Red Bull Halo is designed in order to motivate Red Bull consumers to dispose their empty Red Bull can in an environmentally friendly way. The consumer has the ability to choose between different versions of the original taste of Red Bull in the store. The golden wrap is a mark that represents the promise to dispose the can in an environmentally friendly way.

The main component of the final design is the layout of the packaging. The function of the design can be compared with the logo of Pink Ribbon (Figure 33). In the Pink Ribbon case the logo/design is a statement where people can express their donation to breast cancer research. Using this product enables them to express their beliefs about donating for charity to other people.

In the Halo concept people make a statement about their own behaviour. Buying this version of Red Bull makes them unofficially promise that they take care of the environment and throw their can in the trash-can. Carrying this special edition enables them to express their belief of behaving in a sustainable manner.

This design can lead to a new movement of people who are consciously dealing with their post-consumption packaging and be able to radiate this towards the rest of the world.

This not only results in a positive brand experience, it also emphasizes the meaningful role of the user in society. With just a small mark people are reminded by their packaging of doing good for the society and can therefore be an example to other people.

14.2 Selected touch points of communications

In this concept the selected touch points of communication are:

1. The print of the can
2. Fridge and adverts
3. Marketing campaign

The different touch points are used in every part of the marketing campaign. The following section gives an overview of the elements of the marketing campaign. In these chapters different design decisions are explained per element.

Important note: Due to the decision motivation theory (“freedom of choice”) the original can has to be in the same fridge.
Marketing is a very important part of the strategy of Red Bull. This is their communication tool about the information of the new product. The new edition will be launched according to the marketing strategy of Red Bull that is explored through a discussion with Silke Nauta (Appendix H) and social media strategist Anna Oosterling.

The overview on the right shows the different elements in the marketing campaign that need to be designed. The elements are combined with the analyzed requirements to launch a product. In the following paragraphs each element is further detailed.

15.1 Marketing campaign

Message
- Idea behind the concept / message
  The communication of the story is explained through the name of the product and different taglines and slogans. The name and taglines need to be simple and explicit about the product. (Red Bull marketing analysis) and focussed on the low involved consumer.

Appearance can
- The lay out of the can has to fit the idea behind the concept and look “cool”.
- The new lay out of the can should not deviate too much from the original can.
- The used animations should all be in the same style and fit the brand image.

Appearance video and advertisement
- Video and poster lay out
  The earlier described appearance of the can and taglines and slogans together should form the lay out of the advertisement.
  The video should explain the idea of the concept and clearly the new function of the design.

Touch points (on-and offline)
- Fridges / vending machines and social media
  Fridges and social media are chosen touch points of communication with the user.
In this section the different decisions regarding the communication of the concept are discussed. Based on earlier explored requirements the design decisions were made to fit the brand image.

16.1 Name: HALO
First, the service idea needs to get a new name. The name HALO serves the product well. New title shows the focus and is an metaphor for the interaction vision. In addition to the “Wings” a person gets by drinking Red Bull, HALO represents the “doing good for society” (social design).

16.2 Slogan:
SAME ENERGY, SAME TASTE, LESS WASTE
To emphasize the concept a small brainstorm was held to create matching slogans (APPENDIX I). Above mentioned slogan was chosen since it fitted the best in the marketing strategy of Red Bull. As Red Bull has it’s slogan. It should be; simple, explain the function of the product, and communicate the same energy. (APPENDIX H)

YOU CANNOT PREDICT THE FUTURE BUT YOU CAN CREATE IT
This slogan was found in a Red Bull presentation and fitted the concept. When people make the decision to dispose the can in an environmental friendly way this will have consequences for the future. This slogan is chosen to strengthen the communication of the concept.

SAVE THE DAY, THROW ME AWAY
A small and catchy tagline was needed on the design of the can. “Save the day throw me away” was initiated through a brainstorm and chosen for the simplicity and catchiness of the slogan.

The tone of the messages are all based on the theory of the Elaboration Likelihood Model. Figure 10 on page 30.
The appearance of the can is an important communication tool of the idea behind the concept. Different studies were done in order to make the best overall design that could communicate the idea behind the concept. The final design decisions about the different elements are covered in this paragraph.

17.1 Print
A small research was done to create the best fitting print for the concept. Different prints were designed that could be linked to trash disposal and nature and some different patterns were created to give the can a special look while keeping the original layout (APPENDIX J). Different Red Bull consumers were selected to give their opinion about the prints. Prints linked to trash communicated too negatively but on the other hand prints of natural textures were referred to natural ingredients. None of them really fitted the concept.

Golden wrap
Looking at the bigger picture of the concept, a design was needed that could fit on every can. A simple sign like pink ribbon (explained earlier in Figure 33 on page 67) should be designed that could communicate the story and link with the name. Also the “sign” should be adjustable to every edition of the energy drink.

Since the name of the product has the name HALO, a link to the name was the most promising fit for the concept. It resulted in a golden wrap on top of the can (Figure 40). A small study was done to decide the height of the wrap (APPENDIX H). The wrap on top of the can is a representation of a “HALO.”

Research patterns
A small study was done to different patterns to make the can exclusive. Different designers gave their opinion of the lay out. The low poly print was the most preferred (APPENDIX J).

17.2 Golden lip
One of the possibilities to make the can extra exclusive is to change the colour of the lip (bron) in the user test it appeared that people “collect” the lips (Appendix B). In addition to the golden wrap the lid will be gold. An extra incentive for people to collect the lips and reminder of their environmental friendly behaviour.

17.3 Links #redbullHALO
@ and # are links to social media pages. To communicate the social media campaign on the back of the can and on top of the golden strip the link is communicated and is visualised in Figure 41 on page 75.

17.4 Final appearance packaging
The combination of both concepts resulted in the final design of the packaging Figure 40 on page 74 and Figure 41 on page 75 (APPENDIX H)
Figure 40. Final appearance front

Figure 41. Final appearance back
Adverts and videos are chosen as communication tools for the concept. In this chapter is explained why these communication tools and their appearances are chosen.

18.1 Appearance Advertisement
The slogans match the font of Red Bull. To make the link to HALO more explicit, a halo is drawn above the can. (Figure 42). This HALO matches the style of the animations in the movie (Figure 43 on page 78). A sketchy and simple style was chosen as the best match with the graffiti background.

Figure 42: Final appearance advertisement
18.2 Design elements movie

Since the design of the can is not enough to communicate the idea of the concept, an additional movie had to be designed as a separate communication tool. The following design decisions were made to fit the brand’s image.

Messages and slogans

The messages and slogans that communicate the concept explained on page 73 are used in the movie.

By adding the words: **BY CHOOSING THIS EDITION I PROMISE TO THROW IT IN A BIN** the concept is explicitly communicated. Without this communication the concept was less clear.

Communicate function of design

The golden wrap should be linked to pro-environmental waste disposal. Therefore it was important to highlight the moment of disposal. Chosen was to highlight the trash-can with an animated over layer to make it more explicit. Expected was that this would stay in the memory of the user.

Actor

To make the user more attracted to the movie the actor was carefully selected. To make the moment of disposal “cool” a well known person was asked to play in the movie. The person in the movie is Juvat Westendorp, famous from So You Think You can Dance, GTST (a Dutch soap serie) and different Dutch movies. He was able to do a cool dance to make the play among the Red Bull cans intriguing.

Location

Research was done to find the fitting locations that would fit the brand (APPENDIX I). The half pipe underneath the Amsterdamse brug was selected. The background is chosen since it has a connection with extreme sports.
The earlier described message, the physical appearance of the can and the marketing campaign need different touchpoints to reach the consumer. The fridge and vending machines, advertisements are selected as offline touchpoints, social media is the selected online touchpoint. Both on and offline touchpoints are visualised with a small explanation why these are selected.

19.1 Offline Fridge and vending machines
In the analysis it was assumed that people who buy Red Bull from the fridge are more likely to consume it immediately after purchasing. Consequently the fridge or vending machine is selected as touch point for communication. Nowadays movies on displays and fridges are used to market products and explain the function of the product. The concept will be explained through a video on the display of a vending machine or fridge (Page 82 and 83).

19.2 Advertisement
The advertisement (page 81) will be shown offline on billboards, busstops, instore advertisement. The movie and advertisement will be shown online on different social media channels like: YouTube, Facebook, Instagram, Snapchat and on television.

19.3 Social media campaign (competition)
In line with the extreme sports of Red Bull and the way they dare people they dare people to step out of their comfort zone a competition is created. The challenge is to throw away the HALO can in the most creative way and upload it on social media. The use of social media is a very important way of communication in the current society. Therefore Instagram (an online mobile photo/video sharing service) will be used. In this way not only the people of Red Bull will be able to judge the most inspiring move, but everybody who knows about the campaign will be able to see others and be inspired by others. As Antonides (2013) argues social norms are amplified when other group members act according the desired behaviour. Instagram and Facebook will be the medium to share this with the world #redbullHALO
The following storyboard (Figure 47) describes the customer journey of the concept. In each of the phases (buy, use, dispose) the different desired interactions with the product are highlighted and visualized.
Litter consists of waste products, mostly aluminium beverage containers, cardboard, and plastic packaging, disposed in an improper way and in an inappropriate location. Littering is a horrible habit of thoughtlessly throwing away or leaving trash lying around in public spaces instead of using the garbage bins or wastepaper baskets provided. Littering has been an issue for a long time now and has a big impact on the world.
In order to add the last details to the final prototype and the movie of the final design, some iterations and tests were performed. The main function of the concept, to reduce Red Bull littering, could not be tested since this required implementation of the whole concept. So the final prototype, a picture of the rendered version of the can in combination with the final movie, was tested through a user study.

Qualitative research was done to test the understanding of the concept and if the desired interactions could be achieved. An expert review was done in order to test the potential of the implementation of this concept into the Dutch market.

21.1 User test
The user test focused on the understanding of the concept. This test was carried out by means of an interview based on:

- A movie presented on an iPad (Figure 48).
- The design of the can presented as a real model (Figure 49).
- A rendered version of the 3d model (Figure 50).

The movie was shown and thereafter several questions where asked (Appendix J). Highly-educated people are expected to have a high level of knowledge about sustainability and to have a positive attitude towards sustainability. In order to create a fair representation of the end consumer the concept was tested at persons with different levels of education: Haagse Hogeschool (Figure 51), Piet Mondriaan college and TU Delft. Only students who carried a can of Red Bull were interviewed.

21.2 Evaluation Goals
The evaluation of the concept focussed on the following aspects:

Packaging
- Evaluate what the user thinks of the appearance.
- Evaluate if the user understands it is not about a new taste.

Movie
- Evaluate if the user understands the movie.

Overall concept
- Evaluate if the user understands the link between the golden wrap and waste disposal.
- Evaluate if the user would prefer this can above the regular can if he had the choice.
- Evaluate if the person is willing to act consequently according this planned behaviour.
- Evaluate if the concept fits the brand image.

21.3 Expert review
Discussions were held with the following experts in order to evaluate the potential success of the concept:
Silke Nauta (former Red Bull employee)
Rik Heanen (brand marketeer at Lieuwe Kite-boards)
Anna Oosterling (social media strategist)

The analysis of the user test and the expert interviews resulted in a list of insights. These will be explained in the following section.
22.1 Concept test insights

Design of the can
- The analysed users understood that the taste was the original taste.
- Most participants pointed out that they preferred the design of the can over the original layout.
- Gold is a status symbol for the low educated consumer.

Design of the movie
- English text is not understandable for every Dutch consumer.
- There is no reference to the Instagram competition.
- After explaining the concept everybody implicated that they understood the link between the golden wrap and waste disposal. Partly because of the movie.

Overall concept insights
- The results of the interviews implicated that most of the participants would choose the new version and were positive about selecting this version of the can above the original.
- Although some of the participants pointed out to know that Red Bull is currently involved in some sustainable practices, not everybody thought this concept is a good fit with the brand image. On the contrary some participants implicated that it would fit the image since Red Bull is involved with extreme sports.

22.2 Expert review

Critical discussions led to insights of the potential of the marketing campaign:
- Every expert saw the potential that it could really work with some adjustments.
- Most experts doubted if the Red Bull consumer is prepared to join the Instagram competition campaign and pointed out this might be more interesting for a younger target group.
- Everywhere where Red Bull is sold should be a movie about the concept to make the communication clear about the concept. On vending machines is not a problem, but even though iPads can be placed everywhere this is an idealistic idea.

Currently the ingredients of energy drinks are taken into doubt by the media and other relevant agencies. This has a negative influence on the brand. People should not question that the ingredients of the drinks are unhealthy and next to that also they cause the most litter. Looking critically the campaign can either break or take flight with this concept.
22.3 Recommendations

Design of the movie
- An extra movie should be made with Dutch text. (Figure 52)
- Refer to the Instagram competition (Figure 52).
- A famous person should play in the video and more explicitly explain the idea behind the concept.
- Adding the picture of an angel with wings and a Halo could clarify the total concept.

Instore communication
When there’s no iPad or movie to show the explicit text, a banner as visualised in Figure 53 should be placed on the Red Bull shelf.

Design of the can
- Keep the golden wrap, but optionally change the pattern on the blue area of the layout.
- The current design can be printed with EYERIS, Ball’s patented laser technology (http://www.ball.com/na/solutions/markets-capabilities/capabilities/printing-graphics) This adds costs to the current design. In Figure 55, an optional redesign is made with a simplified version of the print with only 6 colours used. This print only looks a lot like an earlier design. Recommended is to let a special Artist design a cool new pattern for the can.

Marketing Campaign
- Only the basic elements of the marketing campaign are discussed in this project. A marketing team should be on this project to complete the campaign.

User test
- As explained before, understanding of the concept is of key importance. Whether this experience can be achieved for all users by a new design of the movie and a new layout of the can needs to be tested.
- The next step for this concept design would be to make a prototype version of the visualised/imagined design and test the usability of the concept in a real life environment.

Measure exact litter composition
- When the concept is finalised and implemented the government should take measurements or the Application of the Trash Hunters needs to be applied in order to evaluate if the concept really affects the Dutch consumer and generates less litter.
# Discussion & Reflection

The purpose of this chapter is to validate the research to the concept HALO: a design to stimulate pro-environmental disposal behaviour. This master thesis has several limitations. Limitations can have a negative influence on the final results. But they can also serve as an incentive for further research into this topic.

## 23.1 Discussion

### Validation of the design goal

The assignment was to stimulate pro-environmental disposal behaviour, and specifically to reduce the Red Bull litter in the Dutch environment. Through the selected user test and evaluation, these results or explanations cannot be measured until the product is implemented into the Dutch market.

### No direct information from the studied company

First of all, the entire study was not performed at Red Bull itself. This can have either positive or negative influences. No data was retrieved from Red Bull itself. Information about the company was gathered from public sources. Different sources of data could have helped in gathering more reliable and valuable information.

On the other hand, this offered many changes to go out in the field and discover off-site perspectives. This gave insights in the topic from total different points of view and added a lot of value to the result of this study.

### Validation of the user research

The number and diversity of participants questioned about the final concept is limited. Although the test was done in different levels of education, the participants may not be representative for the divers consumer group Red Bull has. More tests should be done at a more divers group of Red Bull consumers to increase the reliability and validity of the research.

### No direct feedback from the company itself

Big questions arise like: "Would Red Bull really want to integrate this concept into its product portfolio?" The concept itself is very promising as it provides for an innovative new approach to solve a part of the litter problem. Therefore, this new idea/approach could really be a fit to the Red Bull image. The concept is not yet communicated to the company itself. Without a pitch it is still a guess if they would implement it in their product portfolio.

### Interpretation of designer

Since the target market of Red Bull and especially the litterers are very hard to define most of the design decisions were based on predictions of the reaction of the users. These predictions were mostly based on combined insights of literature background, discussions with experts and earlier findings.

### Interview results

Another limitation of the research approach were the results of interviewing. Participants were asked for their own imagination and predict on how they would behave. Since the answers represent their attitudes but not directly show their behaviour, this might not represent reality. This can influence this study negatively. However, through the use of realistic visualizations of product and move the responses of the people where stimulated as honest as possible.

## 23.2 Conclusion

The goal of this project was to design a product or service that would stimulate sustainable behaviour of the Red Bull consumer. For this project, that means a design concept to stimulate sustainable consumption. By offering a total concept, the design of the new can and an accompanied marketing implementation "plan" this provided a realistic impression of the envisioned user scenario.

The concept to let the consumers make a pro-environmental decision at the moment of purchase, offers the consumer a "freedom of choice" and a good feeling. With some changes in the final detailing of the concept and a complete additional marketing campaign, this concept has a high potential to actually change littering behaviour of the Red Bull consumer.
# ALL GREAT ACHIEVEMENTS REQUIRE TIME

24.1 Reflection

**Learnings within the context of the project**

I am really excited about my final concept of the project. First of all I really wanted to challenge myself and come up with a solution to stimulate people to dispose their trash in an environmentally friendly way. The process was a real challenge to me, since behaviour is very hard to change and litter is one of the biggest world problems. I am convinced that my solution might actually have a chance to work. In my master direction “Design for interaction” the focus is usually on the needs of the user. Due to the different approaches: cultural design, social design and the world of marketing I learned that it is really important to not only look at the users’ needs, but like Nynke Tromp says (page 19): “It’s all about the interaction between governments, organisations and individuals. Wherein every different culture could positively influence interactions.”

**No company**

Starting this assignment I had some troubles connecting my graduation supervisors and the company (PSF). Together with my supervisors I decided to continue with the proposed assignment without a company. It could be an opportunity to find my own way in the process without any requirements or influence from a company. This gave me the freedom to interpretate the project in my own way and I believe I would not have come up with this final concept when I would have worked with a company.

**Working alone**

Due to working alone I learned that I function way better in a team, wherein a constant flow of feedback on functioning is provided. Also the ability to split tasks in a team will be an advantage for me in my future career. Working with a company, on the other hand, brings me more supporting connections, the possibility to work in a team and to be inspired by others.

**Additional skills**

I touched upon many other skills than just designing. Adding a social media campaign, shooting a movie and many other experiences made me learn about other working fields.

**Believe in my own capacities**

During this project I learned to keep trust in myself. Learned that I have the ability to collect knowledge on my own powers. To accelerate the process and structure chaos, it could help me to eliminate ideas that float around in my head. And after eliminating these ideas, thoughts or concepts, don’t look back, this takes to much energy.

**Writing v.s. creative process**

The writing process creates structure and scientific substantiation. What is necessary in a process like this. On this other hand, it holds back the creative process. This is the most challenging part of the design process. For me doing outdoor/extrem sports is very important to be able to separate these two important elements. During upcoming projects I should invest more time next to the project to keep this in balance.

In the end I think it’s awesome that I combined both of my passions, extreme sports and sustainability, into my graduation project. I did not only learn about myself, but I learned a lot about the topic. Working without a company was a real challenge, but I’m very proud of my achievement. Also I’m very happy with all the lovely people in my surrounding who supported me through all of my struggles and dealing with the least fun version of me. Thanks to all of my friends, family and teachers for always believing in me. So now it’s time to get away from my computer and to get back on my kite, ski’s and Rock and Roll into this world!


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