

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !



family name Muurling
 initials LJ given name Lidewij
 student number 4861027
 street & no. _____
 zipcode & city _____
 country _____
 phone _____
 email _____

Your master programme (only select the options that apply to you):

IDE master(s): IPD Dfl SPD

2nd non-IDE master: _____

individual programme: - - (give date of approval)

honours programme: Honours Programme Master

specialisation / annotation: Medisign

Tech. in Sustainable Design

Entrepreneurship

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair Ruth Mugge dept. / section: DOS MCR
 ** mentor Giulia Granato dept. / section: DOS MCR
 2nd mentor _____
 organisation: _____
 city: _____ country: _____

comments (optional) Both team members work in the same department, but are experts in different important parts of the project. Dr. Mugge is an expert in design interventions, where Dr. Granato is an expert on habits.

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..



Second mentor only applies in case the assignment is hosted by an external organisation.



Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair Ruth Mugge date 20 - 09 - 2023

signature ge

Digitally signed by Ruth Mugge
Date: 2023.09.20 09:49:17 +02'00'

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: 33 EC

YES all 1st year master courses passed

Of which, taking the conditional requirements into account, can be part of the exam programme 30 EC

NO missing 1st year master courses are:

List of electives obtained before the third semester without approval of the BoE

name Robin den Braber date 27 - 09 - 2023

signature Robin den Braber

Digitaal ondertekend door Robin den Braber
Datum: 2023.09.27 09:35:17 +02'00'

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name Monique von Morgen date 27 - 09 - 2023

signature Monique von Morgen

Digitally signed by Monique von Morgen
Date: 2023.09.27 11:24:10 +02'00'

Disrupting the habit of unsustainable overconsumption through design project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 07 - 09 - 2023 05 - 03 - 2024 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

People mostly operate through habits and routines. While these are useful in some instances, they can also keep us from change and can be the cause of unsustainable behaviour. Design can play a big part in disrupting these habits and making consumers think about what would be a more sustainable choice. This project focusses on consumer behaviour and disrupting these unsustainable routines. It looks for ways to create more sustainable habits and create an opportunity for change. To specify the project more, I chose to focus on the habit of overconsumption and trying to reduce that. I want to trigger a cognitive process in consumers that makes them think about whether a purchase is actually a good idea before going through with it.

The project is being executed as part of the Circular Design Lab at the Industrial Design Engineering faculty of the TU Delft. They are therefore the main stakeholders, as the outcome of this research can contribute to their knowledge on innovation in design for the circular economy.

Next to that, the most important stakeholders are the consumers. In this project it is essential to understand how design can impact their choices and habits. The objective of the whole project is getting an understanding of what consumers' responses are to design interventions and therefore understanding their needs and preferences is crucial for the project's success.

Finally, important stakeholders are government agencies and policymakers, and NGOs working in the fields of sustainability. They can use the outcomes of the project to help in campaigns to make consumers more conscious of their choices.

The main opportunity identified is that the conversation around sustainable choices and overconsumption (see problem definition) is currently quite ongoing. There is a lot of research being done on behaviour that is bad for the environment, but research on how to fix this behaviour is less present, especially with the focus on overconsumption. The main limitation is that most companies probably do not want to include the results of this research in their business strategies, as they rely on people consuming a lot.

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introduction (continued): space for images



image / figure 1: Overconsumption visualised (by Kim Baschet)



image / figure 2: Facts on overconsumption in the US (by Simmons Swaps)

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

The world is in an environmental crisis and part of it is due to overconsumption. A lot of people tend to buy whatever they want, even if the purchase is based on just a small moment of desire instead of a longterm necessity. This causes people to buy things they do not need, causing demand, and therefore supply, to grow. Companies produce things that are not really necessary, wasting resources and creating waste.

In the 90's the Dutch government ran a campaign with the slogan "Een beter milieu begint bij jezelf", which means "A better environment starts with yourself". Recently, it has become more and more clear that this is not exactly true; it is the whole economic system that needs to change. Big cooperations acting unsustainably makes it hard or impossible for consumers to choose a more sustainable option. Stimulating consumers to make better choices will eventually lead companies to go along with these choices. For example; if consumers start consuming less, companies will produce less.

Therefore, in this project I want to research how you could make consumers stop and think about whether a purchase is necessary before buying it through triggering a cognitive process through design and with that disrupting their automatic behaviour. Understanding high consumption and, through that, reducing it can make significant contributions to reducing environmental decline (Garcia et al., 2021), which is why it is useful to determine the role of design in this particular problem area, to help future designers when they are designing solutions to reduce overconsumption.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

I will design an experiment testing a theory-based behaviour intervention to see whether and how it is effective. I will start by researching what kinds of interventions are out there and choose one to test how consumers will react to different forms of it by measuring (among others) their purchasing intention.

I will try to answer the research question: "How can design trigger a stop and re-think process to disrupt consumer's automatic behaviour to overconsume by making them reflect on their purchase choices?", in which I will design and test the intervention. There is a lot of research being done on how to influence consumers' purchasing behaviour (like on how it is very effective to combine both en- and discouraging messages (Kronrod et al., 2023)) and even on the habit of overconsumption (with e.g. De Graaf et al. comparing it to an epidemic (2014)). However, there is a significant knowledge gap on how to influence the overconsuming behaviour and, more specifically, how to reduce it.

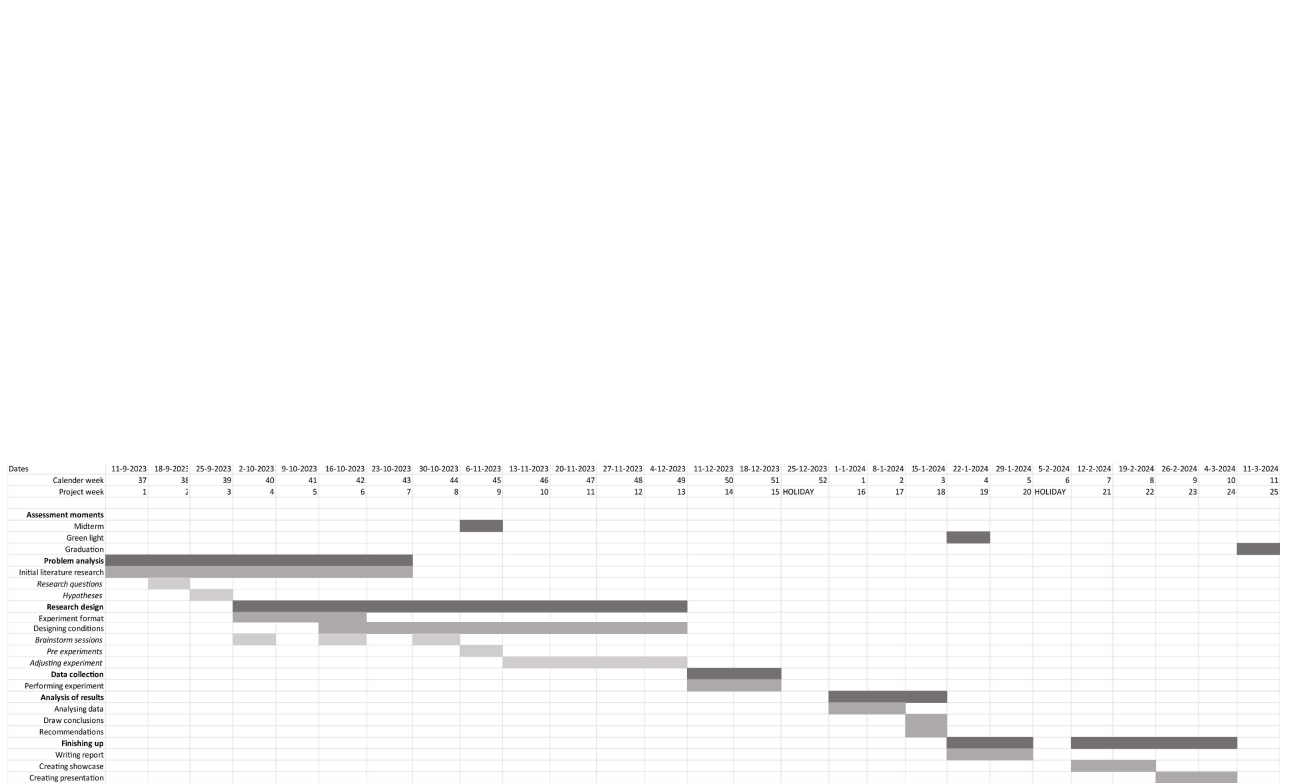
There are a lot of different kinds of possible interventions (e.g. giving explicit information, implicitly discouraging unsustainable purchasing behaviour or displaying an environmental warning before completing a purchase). I will start by researching these and coming up with a theory based intervention myself. Afterwards I will design different conditions for that intervention (e.g. differing in the amount of information displayed or in how it is shown), which I will then test in an experimental study. In this study I will measure a range of consumer responses, such as intention to purchase, product engagement, number of items chosen, etc. after being subjected to the intervention, for example through the buying intention scale by Yoo & Donthu (2001), like it was used by Pelet and Papadopoulou (2012).

I expect to find out whether the chosen intervention is effective in reducing overconsumption, which will have theoretical and practical implications for both designers and marketeers.

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 7 - 9 - 2023 5 - 3 - 2024 end date



I will work on this project parttime, for four days a week. I will start of by doing initial literature research, from which I will form my research questions and corresponding hypotheses. After about three weeks I will start working on the research design (while still continuing my literature research), which will take up most of the time of the project. I will first spend time on setting up the experiment format, and then on designing the conditions. I will do a pretest of these conditions to exclude unwanted factors and afterwards adjust the experiment accordingly. During this setup phase, I added in several brainstorm sessions to get ideas for the experiment. After the experiment design is finished I will spend two weekson data collection through performing the experiment. Next, I will analyse this data statistically through SPSS, draw conclusions and write recommendations. Lastly, I planned time to finish all the deliverables for the project; writing the report, creating the showcase and preparing the presentation. Of course, especially the report writing, this is also done throughout the other parts of the project.

I planned two breaks during the project; one between Christmas and New Year's and one in the TU Delft break in February. The midterm assessment will take place between the 6th and 10th of November, the green light meeting in the last week of January and graduation will be in the first week of March.

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

I responded to the assignment that dr. Granato put up because I have developed a passion for Strategic Product Design and its potential to create positive change in the world over the past two years. My goal is to make people's daily life more sustainable through the products that I create and making sustainable options more appealing to consumers.

In addition, consumer behaviour has also been one of the topics in design that has consistently captivated my interest throughout my studies. Ever since "Mens en product" in the first year of the bachelor, I have found this subject intriguing, which is why I liked the idea of doing my master thesis on it.

My ambitions for this project are as follows:

- I want to demonstrate my competence in consumer research and with that acquire more in depth skills in statistics, as until now I have only learned about that in theory.
- I want to broaden my knowledge on consumer behaviour and, more specifically, on how to influence it.
- I want to prove my knowledge on branding and how you can convey a message to your consumer, next to learning how to most effectively do this in a sustainability context.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

Sources:

- Garcia, A. C., Ambrose, A., Hawkins, A., & Parkes, S. (2021). <https://doi.org/10.1016/j.erss.2021.102241>
- Pelet, J., & Papadopoulou, P. (2012). <https://doi.org/10.1057/ejis.2012.17>
- Yoo, B., & Donthu, N. (2001). [https://doi.org/10.1016/s0148-2963\(99\)00098-3](https://doi.org/10.1016/s0148-2963(99)00098-3)