# Appendix H: Project brief

DESIGN FOR our future

TU Delft

## IDE Master Graduation Project

### Project team, procedural checks and Personal Project Brief

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

- Student defines the team, what the student is going to do/deliver and how that will come about
- Chair of the supervisory team signs, to formally approve the project's setup / Project brief
- SSC E&SA (Shared Service Centre, Education & Student Affairs) report on the student's registration and study progress
- IDE's Board of Examiners confirms the proposed supervisory team on their eligibility, and whether the student is allowed to start the Graduation Project

**STUDENT DATA & MASTER PROGRAMME**
Complete all fields and indicate which master(s) you are in

| | | | |
|---|---|---|---|
| Family name | Trap | 6968 | IDE master(s) IPD ☐ Dfl ✔ SPD ☐ |
| Initials | MJ | | 2nd non-IDE master |
| Given name | Mitchel | | Individual programme (date of approval) |
| Student number | [redacted] | | Medisign ☐ |
| | | | HPM ☐ |

**SUPERVISORY TEAM**
Fill in he required information of supervisory team members. If applicable, company mentor is added as 2nd mentor

| | | | |
|---|---|---|---|
| Chair | Hiemstra - Van Mastrigt, S. | dept./section | DOS/RMCB |
| mentor | Kraaijeveld, P. | dept./section | SDE |
| 2nd mentor | [redacted] | | |
| client: | Advier | | |
| city: | Delft | country: | The Netherlands |
| optional comments | | | |

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

! Chair should request the IDE Board of Examiners for approval when a non-IDE mentor is proposed. Include CV and motivation letter.

! 2nd mentor only applies when a client is involved.

**APPROVAL OF CHAIR on PROJECT PROPOSAL / PROJECT BRIEF** -> to be filled in **by the Chair** of the supervisory team

Sign for approval (Chair)

Suzanne Hiemstra-van Mastrigt — Digitally signed by Suzanne Hiemstra-van Mastrigt Date: 2024.01.29 16:20:18 +01'00'

Name S. Hiemstra-van Mastrigt Date 29 Jan 2024 Signature

**CHECK ON STUDY PROGRESS**
To be filled in **by SSC E&SA** (Shared Service Centre, 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 | | EC |
| Of which, taking conditional requirements into account, can be part of the exam programme | | EC |

| | | |
|---|---|---|
| ★ | YES | all 1st year master courses passed |
| ☐ | NO | missing 1st year courses |

Comments:

Sign for approval (SSC E&SA)

Robin den Braber — Digitaal ondertekend door Robin den Braber Datum: 2024.01.31 08:14:58 +01'00'

Name Robin den Braber Date 31 jan 2024 Signature

**APPROVAL OF BOARD OF EXAMINERS IDE on SUPERVISORY TEAM** -> to be checked and filled in by IDE's Board of Examiners

Does the composition of the Supervisory Team comply with regulations?

| | | |
|---|---|---|
| YES | ★ | Supervisory Team approved |
| NO | ☐ | Supervisory Team not approved |

Comments:

Based on study progress, students is ...

| | |
|---|---|
| ★ | **ALLOWED** to start the graduation project |
| ☐ | **NOT** allowed to start the graduation project |

Comments:

Sign for approval (BoEx)

Monique von Morgen — Digitally signed by Monique von Morgen Date: 2024.01.31 13:34:14 +01'00'

Name Monique von Morgen Date 31 Jan 2024 Signature

DESIGN FOR our future

TU Delft

## Personal Project Brief – IDE Master Graduation Project

Name student Mitchel Trap Student number [redacted]

**PROJECT TITLE, INTRODUCTION, PROBLEM DEFINITION and ASSIGNMENT**
Complete all fields, keep information clear, specific and concise

Project title: Designing (for) a car redundant city in the year 2040

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

**Introduction**

*Describe the context of your project here; What is the domain in which your project takes place? Who are the main stakeholders and what interests are at stake? Describe the opportunities (and limitations) in this domain to better serve the stakeholder interests. (max 250 words)*

The possibilities for a city of the future are endless. Nobody knows what a city will look like in the future, but we can predict certain elements. The educated guesses are based on developing technologies, trends, climate change, and above all: needs. People change over time and their behavior. We as people always want a form of comfort and invent newer ways to achieve this comfort.

What I am trying to say: Is that a city of the future will serve its citizens and their futuristic needs. A city will have to adapt over time and so will its structure. Where we needed lots of gas stations when everybody used a car running on gas, we now need more electric chargers. Where supermarkets needed lots of parking spaces, we now need a system for home delivery of your groceries.

The mobility within the city will change over time, how people move from place A to B. For instance, a 15-minute city will ask for less demand from its mobility policy. Or looking from a sustainable point of view; more shared mobility will be needed within the city of the future. And privately owned cars will become obsolete because of better mobility alternatives.

Knowing this we can look forward and think about the city of the future. What are its innovations and will it solve the problems we face nowadays? By looking into this futuristic city we can apply such knowledge to the present.

→ *space available for images / figures on next page*

*introduction (continued): space for images*

image / figure 1

image / figure 2

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## Personal Project Brief – IDE Master Graduation Project

**Problem Definition**

*What problem do you want to solve in the context described in the introduction, and within the available time frame of 100 working days? (= Master Graduation Project of 30 EC). What opportunities do you see to create added value for the described stakeholders? Substantiate your choice.*
*(max 200 words)*

A city in 2040 will have a different mobility policy because it will adapt to the citizens' wants and needs. We do not know how a city in 2040 will operate and certainly not how its mobility will work. If the car gets obsolete within the city a perfect mobility alternative will be needed. Or the other way around; a perfect alternative is presented that makes the car obsolete.

What does such an alternative look like? How will people use it and is it realistic? How can we make the alternative more appealing to car owners? When the citizens accept such an alternative in the form of a shared vehicle service system, what happens with all the available space from obsolete parking spaces?

What does a city in 2040 look like where cars are obsolete? By asking this question I will sketch a city where suitable alternatives are presented for privately owned cars within the city. When applying this possible solution to the present, all the pain points will be highlighted. These pain points will define the problem and will ask for a solution.

**Assignment**

*This is the most important part of the project brief because it will give a clear direction of what you are heading for. Formulate an assignment to yourself regarding what you expect to deliver as result at the end of your project. (1 sentence) As you graduate as an industrial design engineer, your assignment will start with a verb (Design/Investigate/Validate/Create), and you may use the green text format:*

Describe a future vision to empower a car-obsolete city for citizens in the year 2040.

*Then explain your project approach to carrying out your graduation project and what research and design methods you plan to use to generate your design solution (max 150 words)*

My project will start with a future study. Sketching a city in the year 2040 with all its technology and developments. How the citizens will operate within this city and how all their needs and wants will be fulfilled. Making a customer journey map on why people will move from certain places and how this journey will look like. This sketched city will be an ideal city where the privately owned car is obsolete, because of its good alternatives. Literature research and the expertise of Advier will be conducted when sketching this future vision.

This future vision will determine three significant pain points in comparison to the present city. One of these three pain points will be chosen based on its biggest potential improvement. This pain point will be explored and researched to fit a suitable solution. This solution will be validated by the user and in its suitable environment.

At the end of the project, I will deliver a future study of a city in 2040. This future study will contain a discovered problem and/or a big opportunity. This opportunity will be based in a city where cars have become obsolete.

**Project planning and key moments**

*To make visible how you plan to spend your time, you must make a planning for the full project. You are advised to use a Gantt chart format to show the different phases of your project, deliverables you have in mind, meetings and in-between deadlines. Keep in mind that all activities should fit within the given run time of 100 working days. Your planning should include a **kick-off meeting**, **mid-term evaluation meeting**, **green light meeting** and **graduation ceremony**. 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 course activities).*

*Make sure to attach the full plan to this project brief.*
*The four key moment dates must be filled in below*

| | |
|---|---|
| Kick off meeting | 19 Dec 2023 |
| Mid-term evaluation | 12 Mar 2024 |
| Green light meeting | 14 May 2024 |
| Graduation ceremony | 11 Jun 2024 |

*In exceptional cases (part of) the Graduation Project may need to be scheduled part-time. Indicate here if such applies to your project*

| | |
|---|---|
| Part of project scheduled part-time | |
| For how many project weeks | |
| Number of project days per week | |

Comments:

**Motivation and personal ambitions**

*Explain why you wish to start this project, what competencies you want to prove or develop (e.g. competencies acquired in your MSc programme, electives, extra-curricular activities or other).*

*Optionally, describe whether you have some personal learning ambitions which you explicitly want to address in this project, on top of the learning objectives of the Graduation Project itself. You might think of e.g. acquiring in depth knowledge on a specific subject, broadening your competencies or experimenting with a specific tool or methodology. Personal learning ambitions are limited to a maximum number of five.*
*(200 words max)*

I am very motivated to start this graduation project. After finishing all my courses for my bachelor's and master I am eager to finish this big final project and apply all my gathered knowledge.

I like moving wheels, but never really got the chance to work on a project in mobility. Advier seems to be the perfect fit to combine innovative ideas within a more conscious world. Co-operating with an external company such as Advier gives me new experiences and extra motivation to deliver a useful and insightful project.

I did not do an internship so I am very excited to start working in a professional work environment. Learning new skills by operating within a team, but also developing my skills as a designer within a professional team. Further, develop the skills to communicate with the target group and discuss the problem in their language. My in-development drawing skills will help me present a possible solution or communicate with the target group. My overall communication will be tested by dealing with an external company and its wishes. Lastly, my planning skills will be put to the test for planning 100 days of graduating and dealing with setbacks that require flexible planning. But overall I am excited to start a project where I need to interact with the user on the field and spend as little time behind my laptop as needed.

# Appendix I: Project brief Planning