

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 van Kampen
 initials D.J.A. given name Demi
 student number 4452054
 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: _____ (give date of approval)

individual programme: _____

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 Dr. ir. Armagan Albayrak dept. / section: HCD - AED
 ** mentor Dr. ir. Niko Vegt dept. / section: HCD - DA
 2nd mentor Dr. Petra Kok
 organisation: Reinier de Graaf Gasthuis
 city: Delft country: The Netherlands

comments (optional) Ir. Marleen van Rijckevorsel (from Reinier de Graaf Gasthuis) will also be involved in this project.

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 Dr. ir. Armagan Albayrak date - - signature _____

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: ____ EC

YES all 1st year master courses passed

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

NO missing 1st year master courses are:

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

name _____ date - - signature _____

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 _____ date - - signature _____

A Design approach to achieve successful adoption of GoMedFlow 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 01 - 09 - 2023 18 - 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, ...).

Context: Digitalization has become essential to our society. With the widespread use of smart devices, digital platforms, and other similar technologies, it is practically impossible to avoid digitalization. It is this digitalization and the progress that has been made in the last few years that provide opportunities for healthcare. Not only can the efficiency of healthcare be improved by using digital tools, but the quality and safety as well (Jimenes, et al, 2020). In theory, the benefits of digitalization seem promising, but the adoption of digital tools is still sub-par. Digital opportunities are often not in line with care processes, resulting in resistance from healthcare professionals (Kok, et. al., 2023). Digital implementations should be “fit for purpose” if we want healthcare professionals to adopt them (Catwell & Sheikh, 2009). Marleen van Rijckevorsel created the digital concept tool GoMedFlow during her graduation project (Van Rijckevorsel, 2022). GoMedFlow is a workflow optimizer that focuses on accelerating digitalization by providing a visual overview of a specific care path. Within this overview, opportunities for digitalization and useful digital tools are presented. Healthcare professionals can learn about these tools, provide feedback, and suggest new tools. This feedback is also available for the management layer of the hospital. They can for example react to the feedback and make sure digital tools that are in high demand will be implemented. However, explorative research is still needed to determine how the GoMedFlow concept tool can be implemented successfully (Kok, et. al., 2023).

Stakeholders: Within the scope of this project, I will mainly focus on healthcare professionals of the outpatient clinic of the Reinier de Graaf Gasthuis, which are the stakeholders in the inner circle (figure 1). This group of healthcare professionals can be divided into two different groups: motivated and unmotivated to use digital tools. Both groups will be taken into account during this project since they both have different insights on the use of GoMedFlow. Moreover, I want to involve the management of the hospital as well since smooth communication between the management and healthcare professionals may also play a role in the implementation of digital tools in care processes.

Opportunities: The opportunity of this project is to improve the GoMedFlow concept tool in a way that the needs and wishes of the healthcare professionals are taken into account. Another opportunity is to provide healthcare professionals and organizational employees with an easy-to-use communication tool, which should optimize the implementation of digital tools.

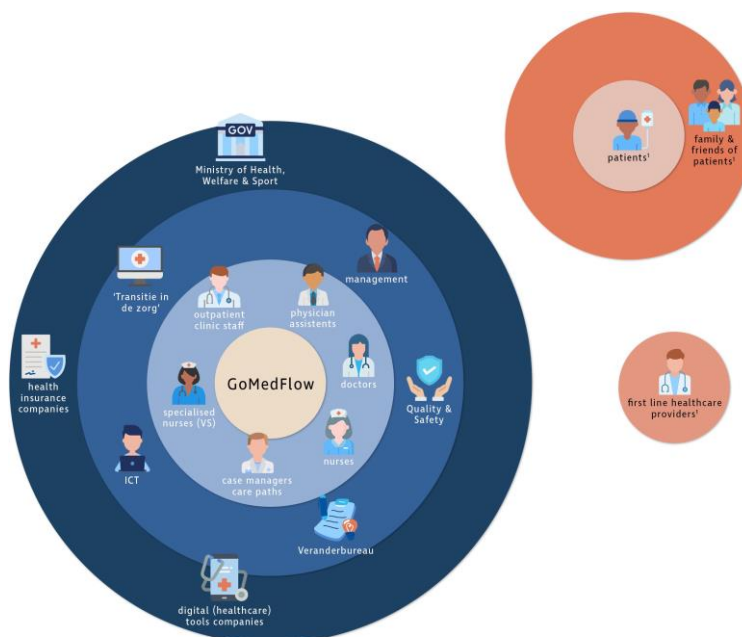
Limitations: Healthcare professionals have tight time schedules. Involving them in research can therefore be a challenge. Also, their perspective toward digitalization can play a role in participating in this project.

- Catwell L, Sheikh A (2009, August 18) Evaluating eHealth Interventions: The Need for Continuous Systemic Evaluation. PLoS Med 6(8): e1000126. <https://doi.org/10.1371/journal.pmed.1000126>
- Jimenez, G., Spinazze, P., Matchar, D., Koh Choon Huat, G., van der Kleij, R. M. J. J., Chavannes, N. H., & Car, J. (2020, August 27). Digital Health Competencies for Primary Healthcare Professionals: A scoping review. International Journal of Medical Informatics, 143, 104260. <https://doi.org/10.1016/j.ijmedinf.2020.104260>
- Kok, P., van Rijckevorsel, M., Albayrak, A., Bodewes, H., (2023). Graduation project description: Digitaliseringskansen benutten: kwalitatief onderzoek naar de adoptie van een digitale tool in de zorg.
- Van Rijckevorsel, M. (2022, September 23). GoMedFlow: Moving towards a smart hospital: Journey mapping as a facilitator for the digital transformation of healthcare. TU Delft Repository. <http://resolver.tudelft.nl/uuid:15276044-7c41-4233-98ae-f3021a44f5df>

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Personal Project Brief - IDE Master Graduation

introduction (continued): space for images



¹ These stakeholders are not currently involved, but it is intended to involve them in the future.

image / figure 1: Draft version of the stakeholder map.

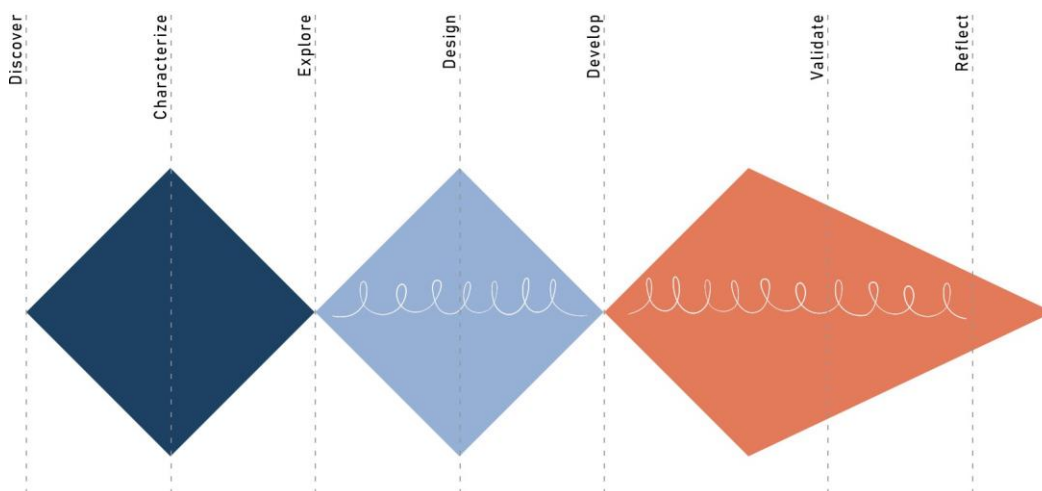


image / figure 2: Overview of the different fases of the planning and approach.

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.

Healthcare professionals are resistant to the use of digital tools because the tools are mostly not in line with their care processes. GoMedFlow should therefore be a tool where healthcare professionals get better insights into their care processes and can share their experiences about existing digital tools. Communication with the organizational employees should be improved as well to make sure relevant tools can be implemented in their daily workflow.

Questions arising within this topic can be divided into three main categories:

Motivation towards digitalization:

- What do healthcare professionals mean by digital tools?
- Why are healthcare professionals resistant to the use of digital tools?
- What will motivate healthcare professionals to adopt the GoMedFlow concept tool?

Participation:

- How can we ensure healthcare professionals are willing to provide feedback on existing digital tools, suggest new tools, and reject irrelevant tools?

Communication:

- In what way does smooth communication between healthcare professionals and organizational employees contribute to the adoption of digital tools?
- How can we ensure smooth communication between healthcare professionals and organizational employees?

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.

With this follow-up graduation project, I would like to turn GoMedFlow into a user-friendly tool that stimulates digitalization within the Reinier de Graaf Gasthuis. Since digital tools should not only be adopted by the healthcare professionals but also within the hospital itself, smooth communication between healthcare professionals and organizational employees is needed to implement, adjust, and improve digital tools in care processes.

Using context mapping, I want to research the drive of healthcare professionals and what motivates them to start using GoMedFlow. To stimulate a smooth adoption of relevant digital tools, I would like to use co-creation as a tool to improve communication between healthcare professionals and organizational employees. I would like to research if co-creation in this case can be part of the GoMedFlow tool and can improve the cooperation between healthcare professionals and organizational employees. Besides these two methods, journey mapping will be used to create a complete and clear overview of the care processes, digital possibilities, and communication tools within the GoMedFlow concept tool. The end result of this project will therefore be a working digital prototype of the optimized GoMedFlow concept tool to demonstrate the new and/or improved features.

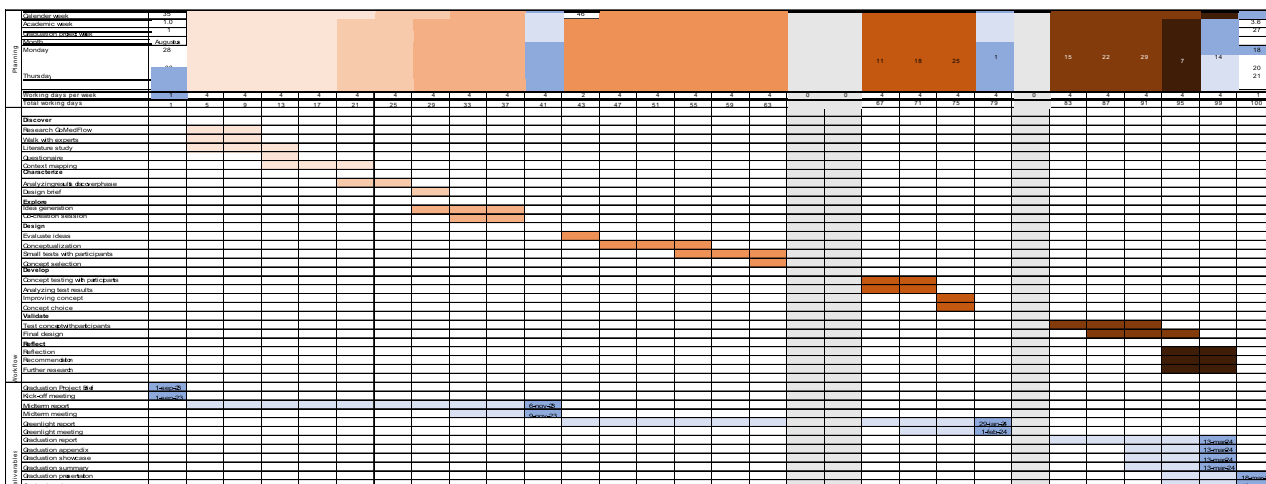
PLANNING AND APPROACH **

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 1 - 9 - 2023

18 - 3 - 2024

end date



The planning is based on the Zendesk triple-diamond model. Within the first diamond, research will be done (discover) and the results will lead to a design brief (characterize). The second diamond consists of idea generation (explore), which will result in concepts (design). Within the last diamond, the concepts will be tested and the analysis will lead to a final concept (develop). This concept will be tested again and turned into a final design (validate). The project will be closed off with a reflection phase.

I choose to work four days a week on my graduation project, so I can still work one day a week as a student assistant. The open weeks 11, 21, and 26 are for finalizing the deadlines and having some room for adjustments or iterations during the project. After big deadlines, I will take some days off to rest. After the midterm deadline, I will therefore take a long weekend off. The week after the green light is the TU holiday, which I will use to take some time off. Next to that, I will also have a two-week holiday with Christmas, to spend time with family and friends.

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.

As long as I can remember I have had an interest in the medical field. I love to talk with my friends who are medical professionals about their experiences and amazing stories. Being able to help the people who need it the most inspires me. Combining this with design allows me to talk with everyone involved in the situation to get their personal stories, find their underlying problems, and help them in the best way possible.

During my studies, I noticed that all electives with a medical topic sparked my interest. Looking back, these electives have a few things in common:

1. The problems were solved based on the personal stories of the stakeholders. By collecting the personal experiences of the stakeholders, underlying problems can be found and used to come up with a solution.
2. The results were often based on a behavioral-changing solution.
3. The projects were often about communication design. Providing the user with new information in an engaging way or elaborating on existing knowledge in a way the user would better understand the information.
4. The topics of the electives were current and relevant problems that needed to be solved. The outcomes were therefore (almost) ready to implement as soon as the project was finished.

I noticed that I enjoyed projects that involved these four topics and I would love to explore these topics even further during my graduation project.

To collect the personal stories and experiences of all stakeholders I would like to use context mapping as a method. I already used this method before, but I would like to know if I can professionally use this without the guidance of a course explaining everything you need to do.

In addition, I would like to learn more about behavioral change. By changing the behavior of a target group, one can inspire people to change their routines positively. Sometimes a little intrinsic motivation is needed in order to convince a group something can be done more effectively. I would like to explore how to change the behavior of the user in a way that is more comfortable.

Furthermore, I believe communication design also plays a big role in this project and goes hand in hand with behavioral change. If people are well informed, they are more likely to be convinced to change their behavior and try something new. Therefore, I like to learn more about different forms of communication (visual, text, etc.) and how to use them in perfect balance.

I would like to implement all of the aforementioned learning steps into a project that is relevant and could be used in the future. I believe the Reinier de Graaf Gasthuis project covers all topics mentioned above.

FINAL COMMENTS

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