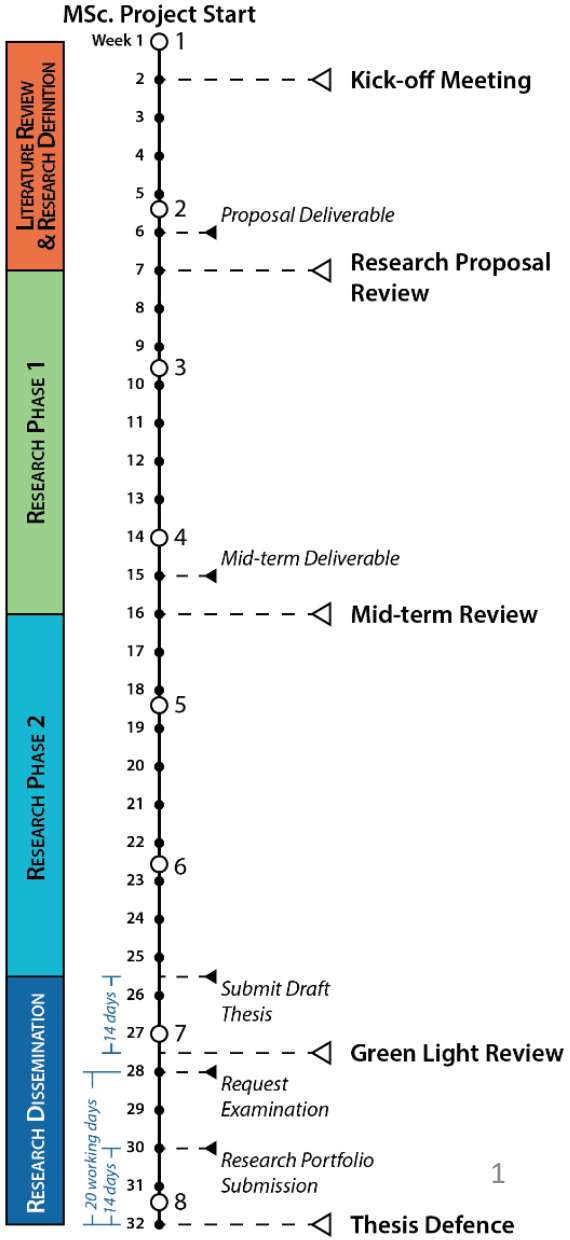
Support Slide: AE Master Thesis Timeline approved September 2021 (Part I)

AE Master Thesis: 45 ECTS (32 weeks or ~ 7 months)

Thesis Phases and Milestone Meetings

To aid in the planning and organization of the MSc thesis process, a generic timeline (right) with major research phases with their associated Milestone Meeting in which a continuation decision for the student is made. It should be noted that, with the exception of the lead times shown in blue during the Research Dissemination Phase, the times shown in the timeline are not definitive. Depending on the nature of and constraints on the research and the personal and professional situation of the student, dates may vary for different theses, but should be discussed and agreed upon during the Kickoff Meeting. The agreements should also include the need for additional training to overcome professional limitations. The four phases are described as follows:

- **Literature Review & Research Definition (*6 weeks*)**: This phases is dedicated to the process of reviewing literature to refine the research question(s) for the thesis, define hypotheses for the research question, and define the research activities that will be undertaken to evaluate the hypotheses.
- **Research Phase 1 & 2 (*20 weeks*)**: These two phases encompass the execution of the research activities outlined in the Literature Review & Research Definition phase. It is divided into two phases in order to highlight the presence of the Midterm Review which is elaborated on later in this document.
- **Research Dissemination (*6 weeks*)**: During this phase, accessibility to the data and outcomes of your research should be ensured. This includes completion of the thesis writing process, placement of all relevant research data and models in accessible repositories, and completion of any necessary supplementary documentation for your research work not present in the thesis.



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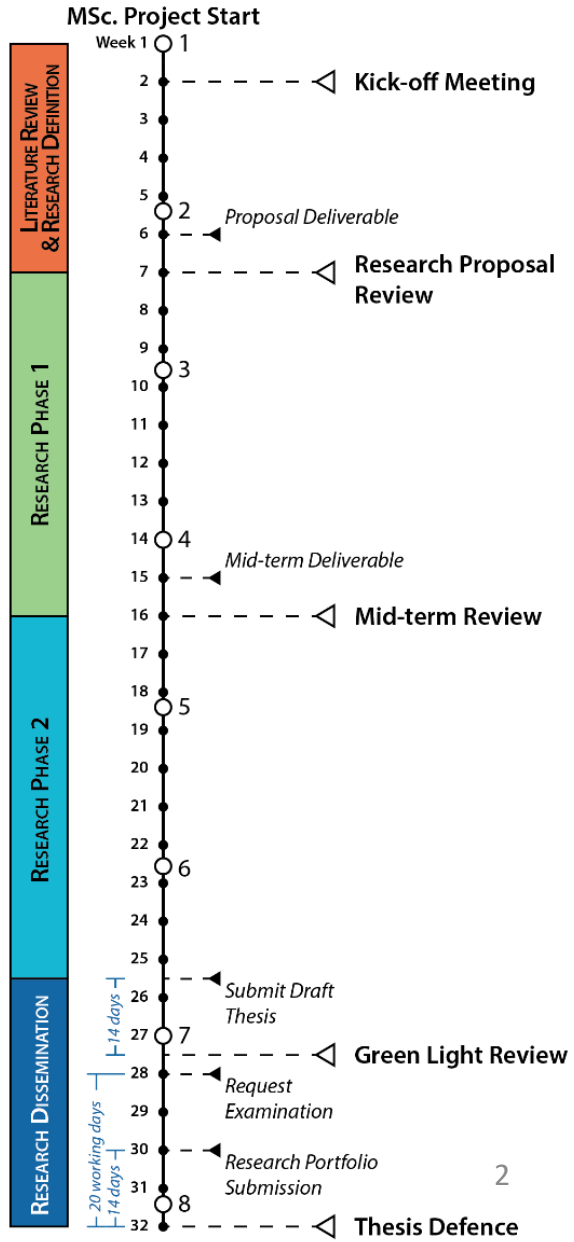
The milestone meetings correspond to a series of formal meetings the student must have with their supervisor where progress is reviewed, feedback is provided to the student, and a decision for continuation of the thesis is made. As a result, there will be a formal deliverable the students must prepare for each of these meetings (discussed later in this document). For each of these meetings, the supervisor will be looking to see if the following questions are addressed:

- **Kick-off Meeting**: Is the topic of research the student will undertake clear to the student? What are the expectations of the student in terms of timeframe for completing the thesis? What are the expectations/agreements for supervision during the thesis (ie: frequency of meetings, etc.)?
- **Research Proposal Review**: Does the student have a sufficient grasp on the relevant state-of-the-art for their research topic? Does the student have a SMART (Specific, Measurable, Achievable, Realistic, Timely) research question(s)? Has the student formulated reasonable and informed hypotheses for the research question(s)? Has the student devised a practical/achievable set of research activities to assess the hypotheses given time and resource constraints? Has the student broken down the research activities into a plan, including scheduling of research activities and key milestones and deliverables?
- **Mid-term Review**: Has the student successfully collected research data from some of their research tasks? Has the student critically analysed/reflected on what the results mean in relation to their research question(s)/hypotheses? What are the preliminary conclusions of the research based on Phase 1 results? Is the student on schedule with respect to their original plan? If not, what is their updated plan for completing the research? Does the student have an outline for their thesis? What writing has already been completed?
- **Green Light Review**: Does the student have a complete draft of the thesis? Does the thesis adequately document the research activities in a manner that they could be replicated by another researcher? Are the research results presented in a manner that they can be independently interpreted by the reader? Are the research question(s) and hypotheses critically discussed in the context of the literature state-of-the-art and the newly obtained results from the research? Would the thesis in its current state be defendable as is (requirement for the green light)?
- **Thesis Defence**: Is the thesis uploaded into the TU Library Repository? Has all relevant research data and models been stored in accessible repositories? Has all relevant documentation been generated and stored with the data and models?



Milestone Meeting with a continuation decision
Deliverable
Week
Month