Requirements for Master project at MS in Technology management program MSTM2

The goal of this document is to highlight the requirements to the project and describe the work process.

The is major approach to final project at MS in Technology Management course where participants develop and realize (at least partialy) a technologically driven business project. The project could be an answer to the question: **What (additional) technological product/service your company can provide to client?** **Your project should have technological component or be technology based and you have eto show awarenes and ability to apply methods of technology management in your diploma.**

Academic Board of the program finds important that participatns both generate and develop the idea as well as start its execution. We also expect that participatns will demonstrate higher, more visionary level of thinking while working and presenting the project.

All projects are “student driven” – that is to say, students manage the project and student “do the work”. It is, in this sense, your project. The mark you obtain at the end of the project reflects how well you did in managing the project, in planning and undertaking the work required, in producing the final report, in making the oral presentation to the Academic Board and the client (representative of the company you are doing project for.

**Project can be done individually only.**

# General requirements

Master’s project should be practical work engaging stakeholders from Business and Academic side. Final project is a great opportunity to use all knowledge you have gained during the program, use them in systematic practical way and organize them for yourself.

All reports and presentations are expected on English.

**Benefits and expectations while working on your own project**:

Benefits:

* you can work on a project important and useful to you personally or your company (especially if company is covering cost of your studies)
* the project can become a first step to something bigger
* practice in aligning technologies and business

**Expectations: The project must have well defined goals and Business-related KPI’s e.g. revenue/profit, growth, market share. Project should also have strong technological part. We expect scalable projects.**

The diploma must contain information on :

* Problem statement
* Organizational growth and business development
* Market share and market strategy
* Technology management function in the project
  + Technology based competitive advantage: technology strategy (a logic or role of technology in organization),
  + [technology forecasting](http://en.wikipedia.org/wiki/Technology_forecasting) (identification of possible relevant technologies for the organization, possibly through [technology scouting](http://en.wikipedia.org/wiki/Technology_scouting)),
  + [technology roadmap](http://en.wikipedia.org/wiki/Technology_roadmap) (mapping technologies to business and market needs), and
  + technology project portfolio ( a set of projects under development) and technology portfolio (a set of technologies in use).
  + Continuous development of technology is valuable as long as there is a value for the customer and therefore the technology management function in an organization should be able to argue when to invest on technology development and when to withdraw
* Business model and finance

During work on the project participants are expected d use the knowledge and skills provided at the program at the best.

# Role of Academic Board:

Participants are ought to discuss their idea with Academic Board and present it during one of the modules to Academic Board. The main goal is to get feedback and understand possible challenges and pitfalls of the idea.

Second step is to find at least one Sponsor among Faculty members and/or Academic Board members who will agree and has competence to help as mentor on the topic of the project

Academic board will estimate progress student demonstrate doing his/her project work according to milestones.

# Process requirements

Milestones:

* Present idea of the project to Academic Board
* Fill out project card – Terms of Reference (additional document)
* Find at least one sponsor among Faculty Members and/or Academic Board members who is eager and capable of mentoring on the chosen topic
* Reporting on progress according to progress policy – communicated by LvBS staff on regular basis
  + Project report should be discussed with Sponsor
  + Draft version presentation
  + Preparing final report
  + Final report presentation
* Diploma graduation and promotion to alumni
* Diplomas presentation for next groups as case with engagement to solution searching for resolving current problems.

# Stakeholders requirements

At least 1 Sponsor from Faculty and/or Academic Board

# Student requirements

To start working on a project the program participant must have not more than 3 courses to be finished (meaning failed according to schedule)

Participants are expected to have all courses (core and electives) successfully completed before final presentation.

# Progress policy:

Suggested Work plan

|  |  |  |  |
| --- | --- | --- | --- |
| Stage | Key Activities | Weeks | Start - End  End |
| 1 Preparation | Idea presentation for Academic Board. Important to cover:   * How project fits your personal or company strategy? * How Feasible is it? * Is it really Viable? * Can it be done in time?   Finalizing Terms of Reference. Get signatures. | 4 | September 2015 (during the module)  By October 1st |
| 2 Planning and Execution | Chapter 1: Brief project idea. Company and project background. What problem/customer need you are solving? Value Proposition. Are there benefits in the customers’ mind defferent from, and superior in some way, better, faster, cheaper or whatever, to what’s currently offered by other solutions? **WHAT?** | 2 | October |
| Chapter 2: Customer Segment. Who are the customers? How large is the customer segment? What is their “pain”? How do they express it currently? How are they solving their “pain” currently? **WHO?** | 6 | October - November |
| Chapter 3: Operating Model. What resources and capabilities are needed to capture this opportunity? – People, Processes, and Technologies. What types of processes need to be set up in terms of developing this opportunity? **HOW?** | 4 | January |
| Chapter 4. Technological requirements. **HOW?** | 4 | February |
| Chapter 4: Design of the Business Model. Financial Logic. Why are we doing this? How will the opportunity realize revenues? How can proposed solution be priced? What costs will be incurred in delivering this solution to the customer? What types of financial investments will be needed? How long will it take for these investments to pay back? **WHY?** | 2 | March |
| Chapter 5: Verification and Validation of the designed business model What evidence do you have that customers will buy what you propose? | 6 | March – April |
| LvBS & experts | Project Report and Preliminary Defense | 4 | April - May |
| 3 Finalizing | Chapter 6: Conclusions, recommendations, further steps | 1 | May |
| 4 Defense | Preparation final presentation for defense   * DDL for uploading final papers: TBC | 1 | May |
| LvBS & experts | Papers reading –10 days  Final defense |  | June |

**Project Report**

Project Report should be done in proper structural manner. It should contain all required chapters. One of most important parts are conclusions, recommendations and further steps.

Expected length – 25-30 pages including front page, plus additions (should contain supporting materials)

**Thesis Evaluation Form**

The table below gives the thesis assessment form. The main elements of evaluation are quality of work, performance during thesis, quality of thesis report and quality of oral presentation and defense. The final grade can be arrived at by averaging out the partial grades allocated by each member of the thesis evaluation committee.

|  |  |  |  |
| --- | --- | --- | --- |
| **Quality of work**  **25%** | **Performance during thesis**  **25%** | **Quality of Thesis Report**  **25%** | **Oral presentation and defense to committee**  **25%** |
| Volume/Magnitude of work | Ability to formulate problem | Quality of report | Clarity/lucidity of presentation |
| Relevance/Importance of work | Ability to find solution | Organization and structure | Coherence of presentation |
| Novelty/Originality of work | Practical methodologies applied | Clarity and readability of report | Quality of presentation material |
| Student’s Contribution – in case of team project | Creativity displayed | Coherence of content and continuity | Focus and relevance of presentation |
| Grasp of subject and problem | Interaction with peers and superiors | Language – formulation, style, grammar…etc | Ability to understand questions from audience and provide suitable answer |
| Quality of implementation | Achievement of goals and milestones following a schedule | Conclusions and recommendations |  |
|  | Critical attitude | Quality of argumentation and conclusions |  |

References

The following Masters Thesis Evaluation Guides from other universities were consulted and used In the preparation of this document.

[1] Graduate School of International Relations, International University of Japan,

<http://www.iuj.ac.jp/gsir/thesis/evaluation.html>

[2] TU Eindhoven,

<http://w3.tm.tue.nl/uploads/media/Manual_graduating_HTI_TP_def__eng__01.pdf>

[3] Universiteit Utrecht,

<http://www.uu.nl/uupublish/education/studentdesk/references/mastersthesis/42894main.html>

[4] Smith College, Massachusetts, USA,

<http://www.smith.edu/library/research/masters.htm#introduction>

[5]Michigan State University, USA, <http://grad.msu.edu/format.htm>