



GEBERIT



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How to do your thesis at the Chair of POM



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SALON DE THÉ



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LÄSSER
Swiss Embroidery Machines



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Cartier

IfM | MANAGEMENT TECHNOLOGY POLICY

ETH zürich

DMTEC

Introduction to the Chair of POM

Vision

We conduct empirical and innovative Production and Operations Management (POM) research with high relevance. Our purpose is to deliver research that matters and teaching that inspires with the determination of developing better operations in industry and society.

What is POM?

Production and Operations Management (POM) is at the heart of any business. It is concerned with the productivity of technology, people, and processes. POM covers the business processes that transform input into output and deliver products and services to customers. POM is a generic research field. It is not only important in the manufacturing sector; even pure finance firms, professional service firms, media organizations, not-for-profit organizations, and public service companies are dependent on their operational capabilities.

Focus areas

Global operations



Operational excellence



Sustainable manufacturing



Smart manufacturing



Examples of past theses

Global operations

ETH zürich Chair of Production and Operations Management

Daniel Hamana
MTEC MAS
Fall 2018



Assessment of Manufacturing Technologies Standardization across a Global Manufacturing Network

Co-Supervisor: Oliver Fläschner 

ETH zürich Chair of Production and Operations Management

Anna Saur
MTEC MSc
Spring 2019



SCM in the Global Apparel Industry

Co-Supervisor: Oliver Fläschner 

ETH zürich Chair of Production and Operations Management

Georgios Papadopoulos
MTEC MSc
Spring 2017



Supply Chain Segmentation for spare parts: A case study for Hilti Business Unit Diamond Systems

Co-Supervisor: Omid Maghazei 

Operational excellence

ETH zürich Chair of Production and Operations Management

Audrey Kessler
MTEC MSc
Spring 2018



Market-demand based optimization of the manufacturing strategy in the luxury watch industry

Co-Supervisor: Dr. Maricela Arellano 

ETH zürich Chair of Production and Operations Management

Christoph Zürcher
MTEC MAS
Fall 2018




Improving the Improvement Process - What we can learn from analyzing PDCA Data


Co-Supervisor: Rafael Lorenz 

ETH zürich Chair of Production and Operations Management

Luzius Bäckert
MTEC MSc
Spring 2018



How to transform companies towards high agility?

Co-Supervisor: Rafael Lorenz 

Smart manufacturing

ETH zürich Chair of Production and Operations Management

Matthias Steinmann
MTEC MAS
Spring 2018



Possible applications of wired drones to increase safety measures on railway construction sites

Co-Supervisor: Omid Maghazei 

ETH zürich Chair of Production and Operations Management

Jürg Käser
MTEC MSc
Fall 2019



Using advanced analytics to improve project planning in engineer to order industries

Co-Supervisor: Julian Senoner 

ETH zürich Chair of Production and Operations Management

Christine Sieber
MTEC MAS
Autumn 2018



Beschaffungslogistik und Warenflüsse in der Molkereindustrie

Co-Supervisor: Sophie Fenner 

Thesis organization

Introduction

The Chair of POM welcomes applications for Master's theses from both MSc MTEC and MAS MTEC students in POM-related topics. In exceptional cases, we also supervise students from MAVT.

Prerequisites

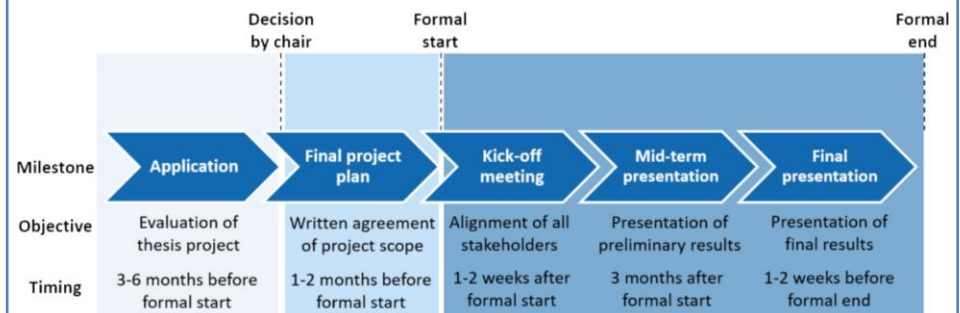
In order to conduct scientifically robust POM research, all our students must write their thesis in cooperation with industrial partners. Moreover, students writing a thesis at the Chair of POM must have passed our core course (preferably with good performance, i.e., Grade 5.0-6.0):

363-0445-00 Production and Operations Management

Additionally, we highly recommend students to have methodological training such as:

363-0305-00 Empirical Methods in Management

Timeline



Application process

Do you have a research topic and an industrial partner?

YES

Apply for the standard thesis track

Once you have defined your research topic and found an industrial partner that supports your idea, please contact our thesis coordinator. Your application should contain a ½-page thesis proposal (see next page), a short motivation statement, your CV, and your transcript of records.

NO

Are you interested in an open thesis opportunity on our website

YES

Apply for an open thesis opportunity

If you are interested in an open thesis opportunity on our website, please contact our thesis coordinator. Your application should contain a short motivation statement, your CV, and your transcript of records.

NO

Apply for a thesis within the chair's research

If you have not been able to identify a research topic you can directly ask our scientific staff for thesis opportunities within their research domain (see research profiles in "scientific staff" section; page 7 & 8).

Content of thesis proposal

Contact

Once you have identified a potential topic and an industrial partner, please send the following documents to our thesis coordinator:

- A short motivation statement
- CV and your transcript of records
- A ½-page thesis proposal (for more details, see below)

Thesis proposal

The ½ -page thesis proposal should answer the following questions:

Industrial partner: Which organization supports your idea?

Relevance: Why does your research matter?

Research question: What is your research question?

Contact: Who is your contact person?

Timeline: When do you want to start your thesis?

Method: Quantitative or qualitative?

Literature: Which literature will you build on (give 1-2 examples)?

Thesis coordinator

Contact

Alexander Albers
thesis-pom@ethz.ch

Website

pom.ethz.ch/education/theses

Scientific staff

Alexander Albers

PhD Candidate
Nationality: German



Research area: Data in manufacturing

Jannick Fiedler

PhD Candidate
Nationality: German



Research area: Digital technologies on the shop floor

Clemens Gróf

PhD Candidate
Nationality: Austrian



Research area: Lean maintenance, repair, and overhaul operations

Wan Ri Ho

PhD Candidate
Nationality: Malaysian



Research area: Manufacturing repurposing for pandemic response

Daniel Kwasnitschka

PhD Candidate
Nationality: German



Research area: Digitalization of manufacturing operations

Qixuan Zhang

PhD Candidate
Nationality: Chinese



Research area: Generative AI in Production and Operations Management

Matthias Bickel

PhD Candidate
Nationality: German



Research area: Smart manufacturing

Jasmina Müller

Postdoc
Nationality: German



Research area: Sustainable manufacturing

Scientific staff cont. & FAQ

Oliver von Dzengelevski

Postdoc

Nationality: German



Research area: Global production networks

Torbjørn Netland

Professor and

Head of POM Chair

Nationality: Norwegian



FAQ

I am not a student at ETH Zürich; can I write my thesis at the Chair of POM?

- Unfortunately, we currently do not supervise external students.

How and when do I get in contact with potential industrial partners?

- We encourage students to be proactive and in our experience companies are open to host ETH students. Often it is helpful to attend career fairs or to search for open internship positions in operations departments and to ask the HR contact person for thesis opportunities.
- We recommend getting in touch with companies around 6 months before the planned starting date.

How do I know whether my research topic is relevant?

- On our website, you can find a list of past theses that can serve as an orientation. If you have support by your industrial partner, you can also propose more than one thesis topic in your ½-page research proposal.

Will I be paid for writing my thesis at a company?

- ETH does not allow students to be paid for their thesis. However, fixed cost (e.g., commuting cost) can be covered by the industrial partner.

Can I work next to my thesis in another company?

- This is not possible since Master's theses at ETH are written on a full-time basis (with exception MAS part-time theses). Please see [gainful employment regulations](#).

Where will I be located during my thesis?

- Unless otherwise agreed, our students work at the company premises during normal working hours (5 days per week). This allows students to get a better understanding of the empirical research setting.

Can I write my thesis outside Switzerland?

- Yes, we have had students writing their thesis abroad (e.g., in India or Norway).

Will I be provided with templates for my thesis?

- Yes, we will provide you with a "POM thesis startup package".