

Master's Thesis Kickoff

Assessment of Business Capabilities Based on Enterprise Application Architecture Complexity

August 1st, 2016

Fatih Yilmaz

Supervisor: Pouya Aleatrati-Khosroshahi, M.Sc.
Prof. Dr. Florian Matthes

Software Engineering for Business Information Systems (sebis)
Department of Informatics
Technische Universität München, Germany

www.matthes.in.tum.de



**BUSINESS
CAPABILITIES**



**RESEARCH
QUESTIONS**



**RESEARCH
APPROACH**



PROJECT PLAN



**BUSINESS
CAPABILITIES**



**RESEARCH
QUESTIONS**



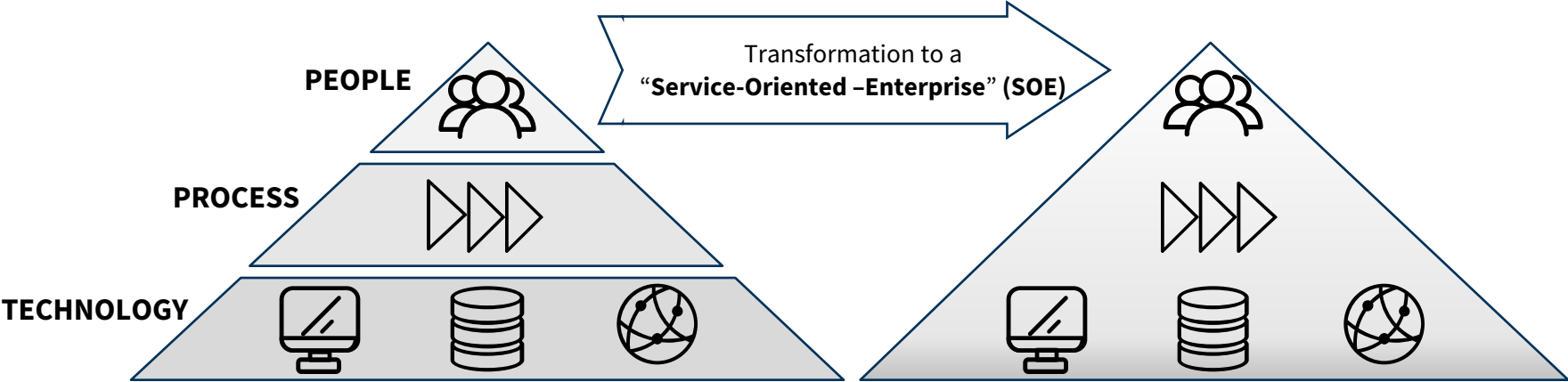
**RESEARCH
APPROACH**



PROJECT PLAN

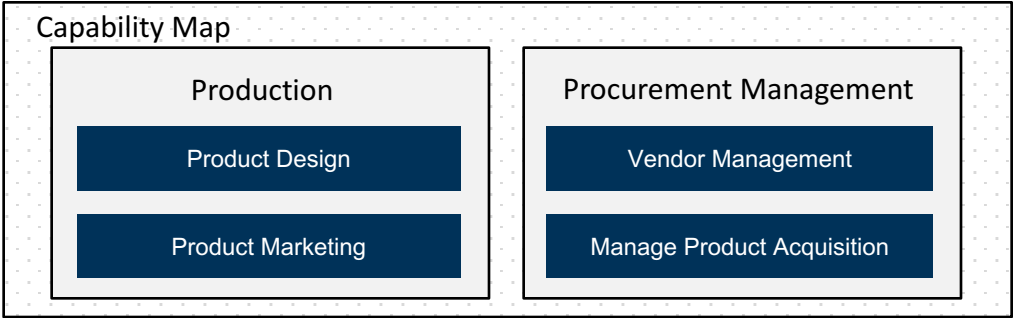
Business Capabilities

A **business capability** defines the organization’s capacity to successfully perform a unique business activity.
[Cameron & Kalex, 2009]

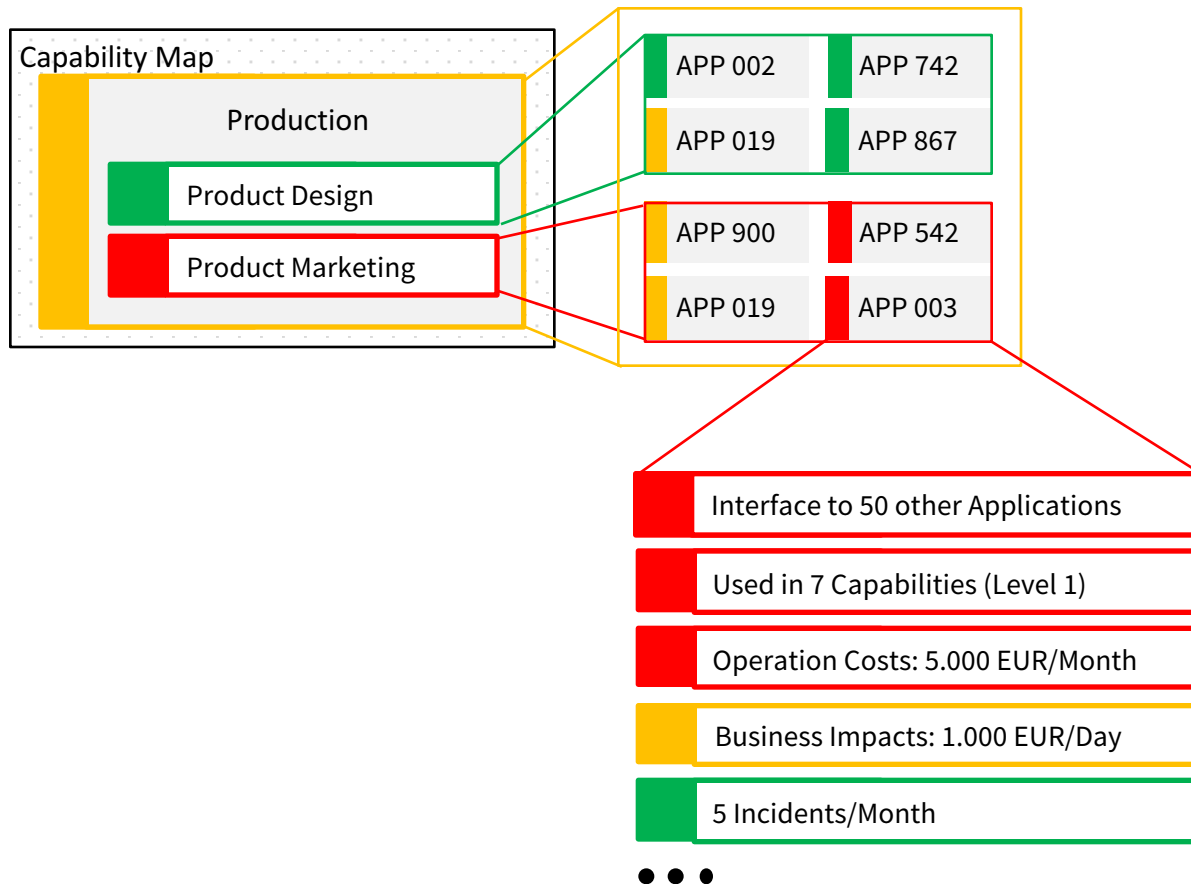


Business capabilities define “**what**” a business does, **not the “why” or “how”**.
[Nadarajah & Sapkal, 2015]

A **business capability map** is illustrated as a set of capabilities which can be gradually detailed forming hierarchies.
[Freitag, 2011]



“Assessment of Business Capabilities Based on Enterprise Application Architecture Complexity.”





**BUSINESS
CAPABILITIES**



**RESEARCH
QUESTIONS**



**RESEARCH
APPROACH**



PROJECT PLAN

Research Questions



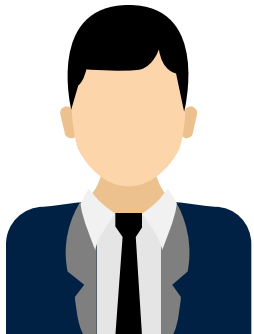
What kind of Application Characteristics can be used to measure the status of Business Capabilities?



How can the Business Capability Map be used to visualize potential actions?



What kind of operational actions can be derived from business capability complexity?





**BUSINESS
CAPABILITIES**



**RESEARCH
QUESTIONS**



**RESEARCH
APPROACH**



PROJECT PLAN

Research Approach

PART 1

1

Literature Review

2

Identify Application Characteristics

Identification of needed Application Characteristics to evaluate the Application

3

Conceptualization of Business Capability KPIs

Create a general formula to assess Business Capabilities based on the Application Characteristics

4

Data Collection and Cleansing

Gathering, Cleansing and Analysis of the Cooperation Partner's Data

5

Application Evaluation

Assess the Application by analyzing the collected Data

6

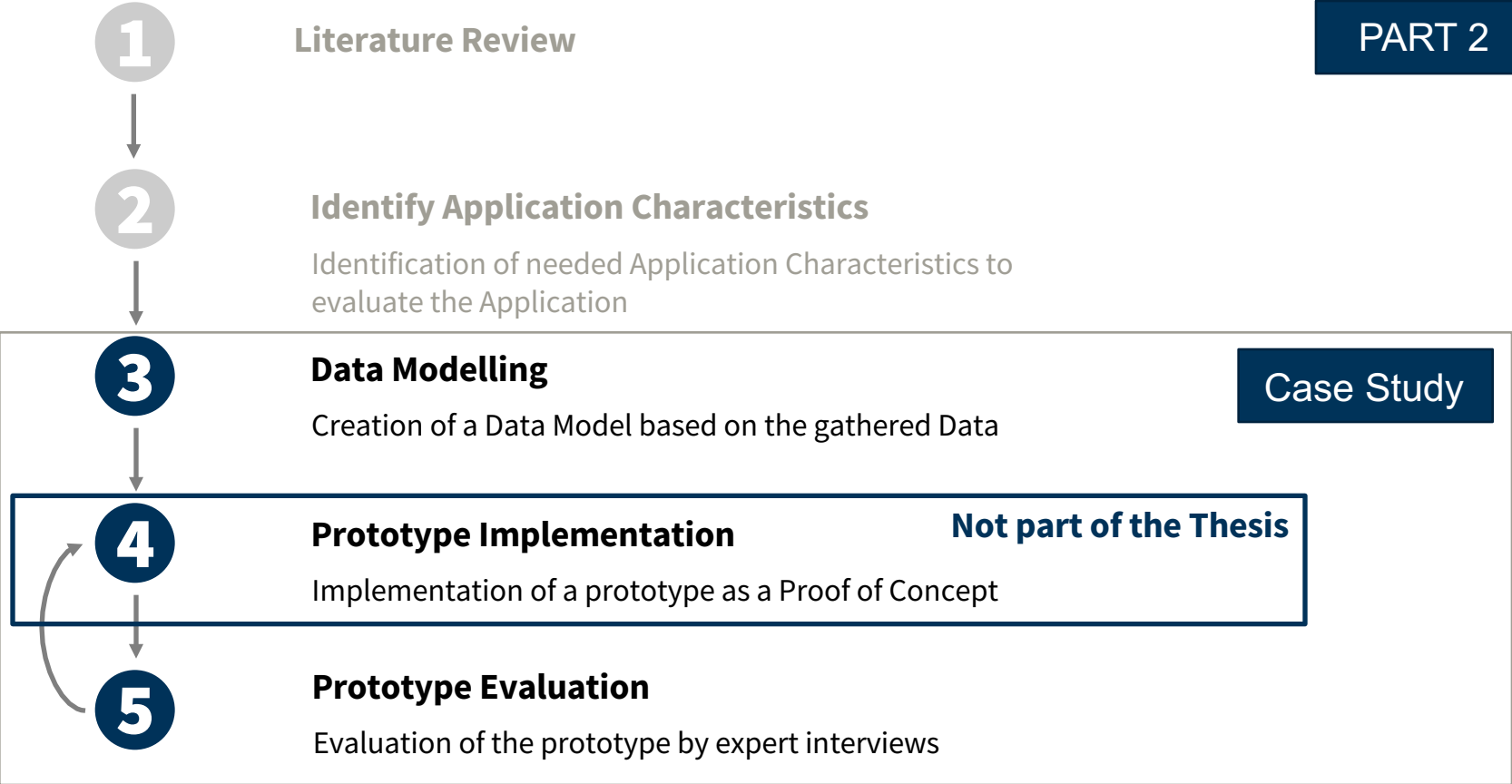
KPI evaluation and recommendation of action

Evaluation of Business Capability to derive recommendations for action

Case Study

Research Approach

PART 2





**BUSINESS
CAPABILITIES**



**RESEARCH
QUESTIONS**

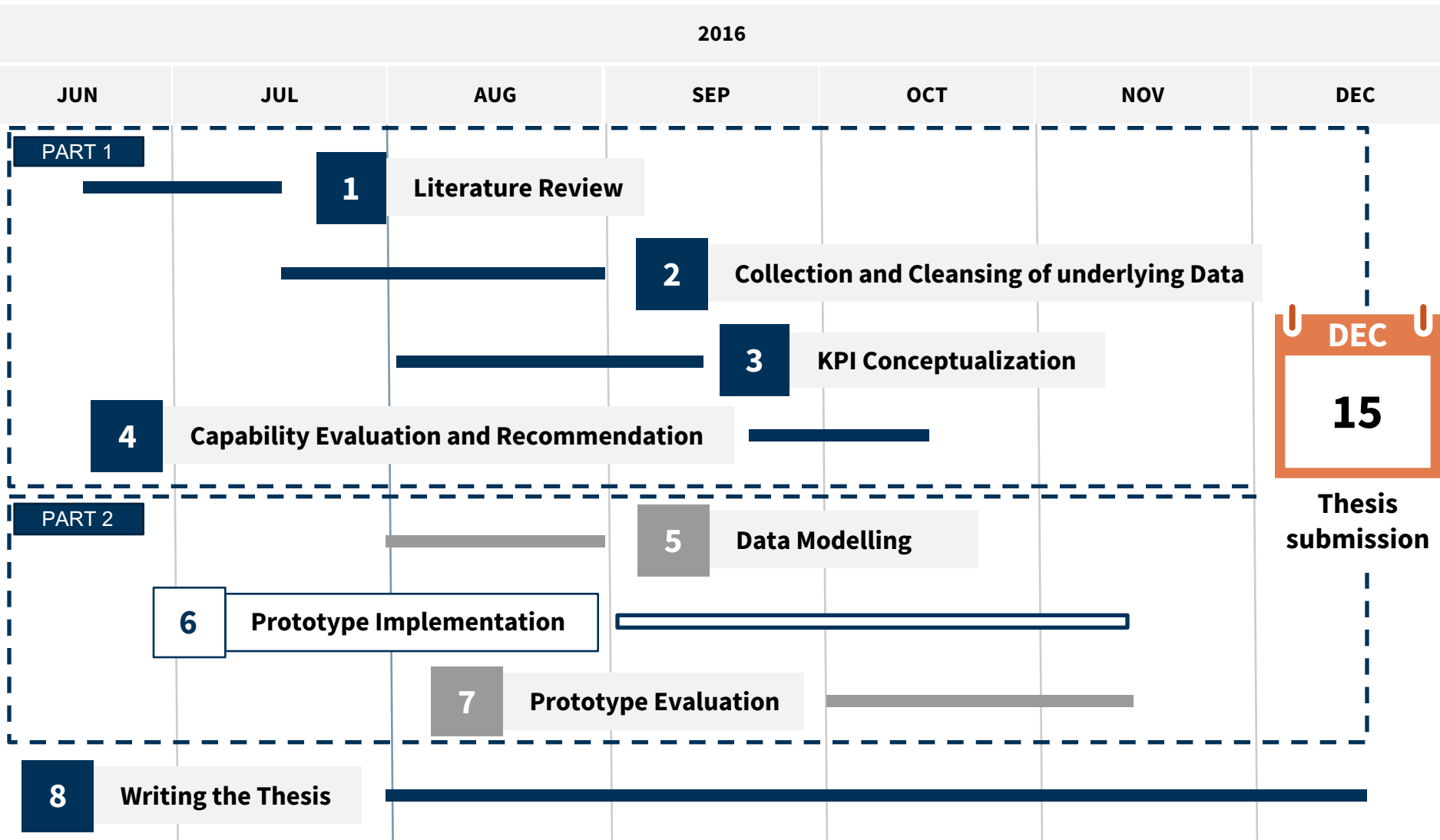


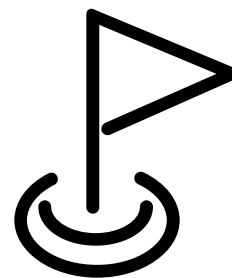
**RESEARCH
APPROACH**



PROJECT PLAN

Project Plan





QUESTIONS?

THANK YOU!

Fatih Yilmaz

Tel. +49 176 38172061
E-Mail yilmazfatih@gmx.de

HIGH
IMPORTANCE



LOW
IMPORTANCE

NAME	MEASURE	AVAILABLE
Independency	No. interfaces to other application	YES
Operational Costs	EUR / Month	YES
Incidents	No. incidents/Month	YES
Capability Coverage	No. of capabilities the application is used in	YES
Strategic Importance	-	IN PROCESS
No. of Applications	No. of applications used in a capability	YES
Application Failure	MTBF	IN PROCESS
Incident Processing Time	Minutes* / Incident	YES
Business Impact	EUR / Minute	IN PROCESS
Application Age	Years since first go-live date of application	YES
Licences	No. licenses	IN PROCESS
Technology Diversity	No. of OS / DBMS used by the application	IN PROCESS
Standards Deviation	Yes/No	IN PROCESS

* Average value