

MASTER THESIS: FEASIBILITY OF TRACKING AND PROTECTING DATA ASSETS IN DATA-BASED BUSINESS MODELS: A TECHNICAL AND ECONOMIC STUDY

1. MOTIVATION

The right data is a very valuable asset for a wide variety of purposes. For example, AI-based methods for object recognition, diagnosis of complex systems or the derivation of recommended actions for a company can be developed based on this. The value of data suitable for this purpose will increase in the future as AI processes penetrate the market.

Bosch Cognitive Services, a startup at grow (Bosch's incubator), focusses specifically on object recognition in the maintenance and spare parts business as well as on the data required for this purpose. One of the key challenges is to align the business model with viable technology to keep track and protect the data in case the data is provided to customers.

2. KEY SCIENTIFIC QUESTIONS

In the context described, the following main questions arises:

- What data protection and tracking approaches are possible for a data provider with focus on reselling data today and in the future?
- How is the technical and economic suitability / feasibility of these approaches to be assessed? What are the impacts to user experience, bot with the data provider and the customer for the different approaches?
- Which of the identified approaches, exemplified by a data provider's business model, is most appropriate?

3. FRAMEWORK

The main goals are:

- Elaborate the state of the art for technical approaches to data protection and tracking.
- Development of an assessment model considering the technical and economic impact of the considered approaches for the data provider and its customers.
- Application of the evaluation model to the business model of a data provider for an industrial use-case.

Setup:

- The thesis is written at FAU and accompanied by Bosch Cognitive Services (grow).