Machine Learning in Practice

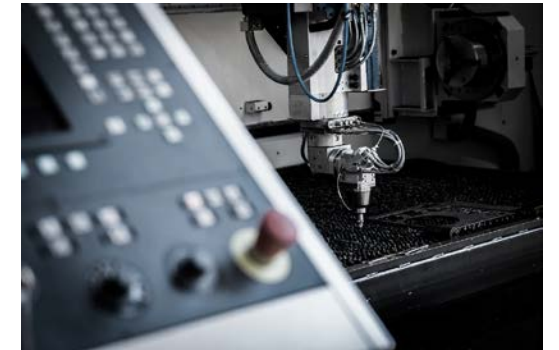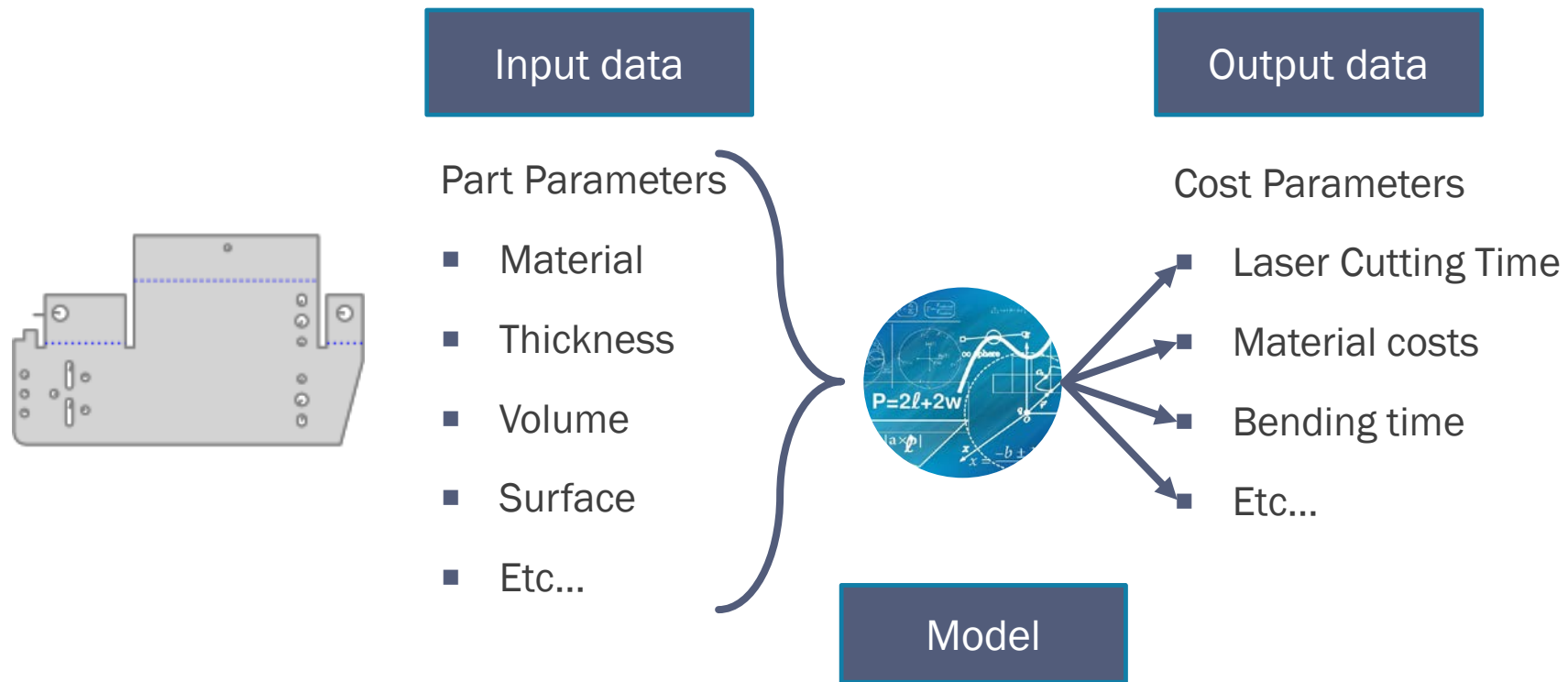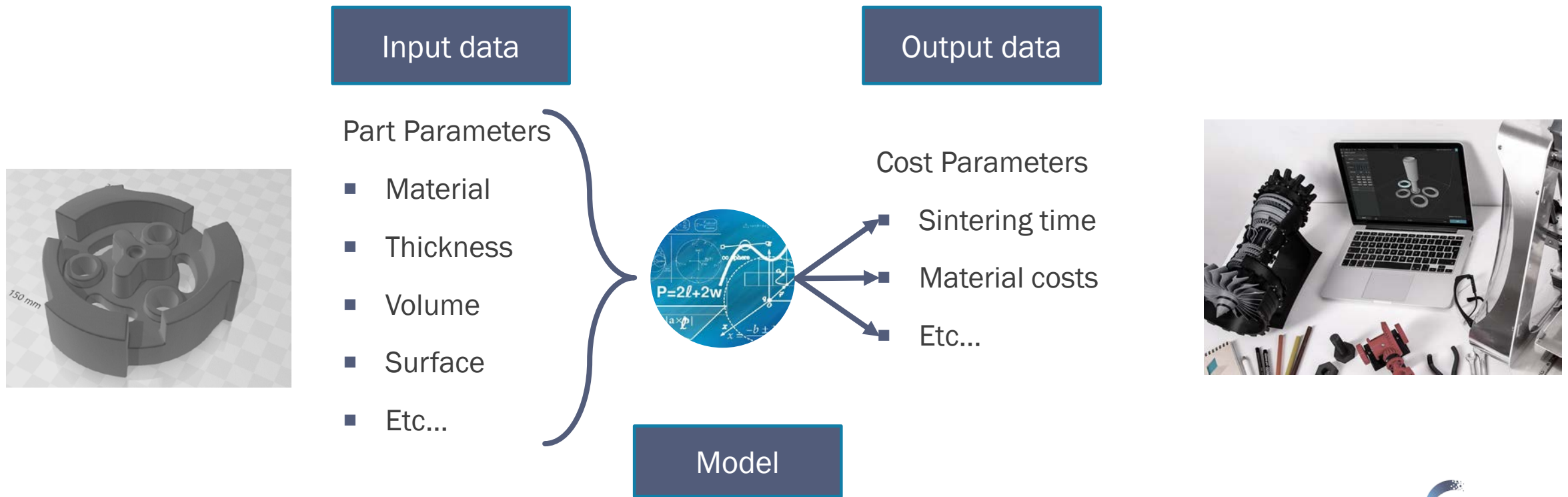## Fully automated quotation generation for manufacturing SMEs

Vision

With the use of artificial intelligence (machine learning), SMEs can create fully automated quotes. The algorithms developed estimate the machining times of mechanical components more accurately than an expert and within seconds.
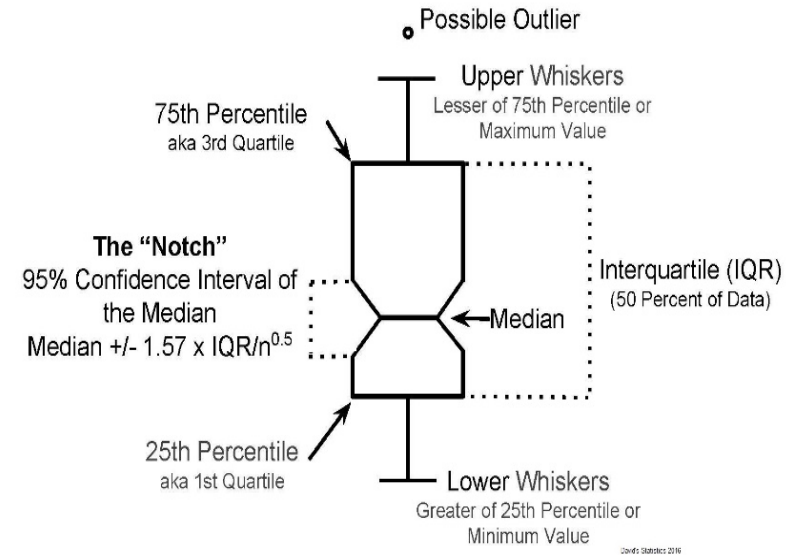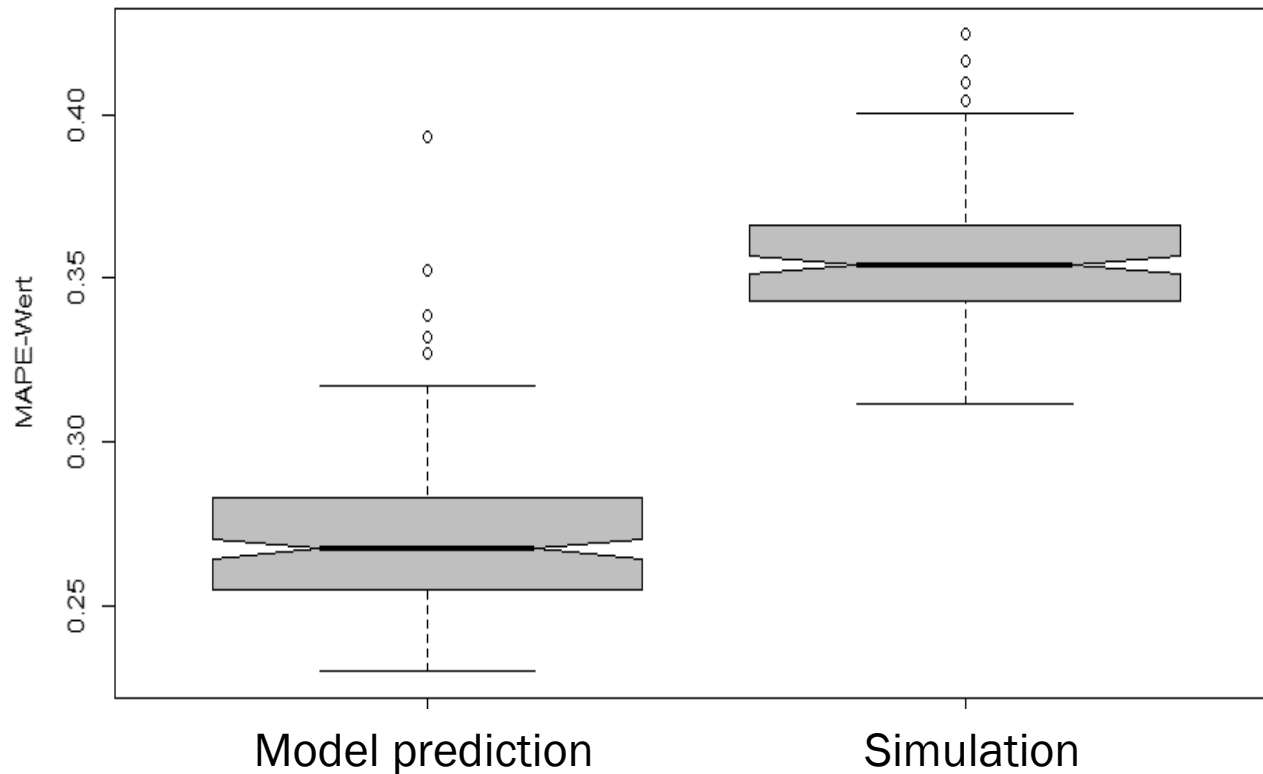
Implementation

Input data

Part Parameters

- Material
- Thickness
- Volume
- Surface
- Etc...

Output data

Cost Parameters

- Laser Cutting Time
- Material costs
- Bending time
- Etc...

$P = 2\ell + 2w$

Model

Synapto

Implementation

Input data

Part Parameters

- Material
- Thickness
- Volume
- Surface
- Etc...

Model

Output data

Cost Parameters

- Sintering time
- Material costs
- Etc...

--> Model and setup can be used for any manufacturing technique.
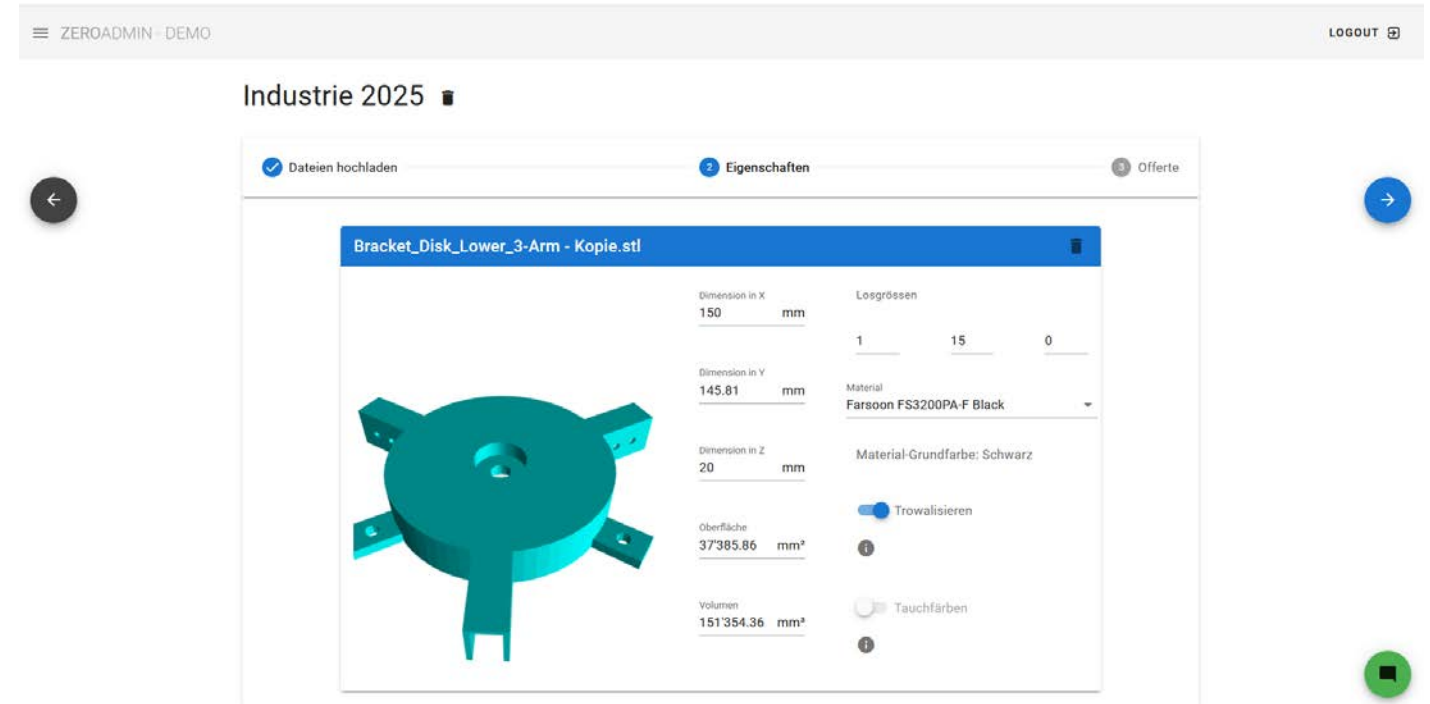
What about the precision?

Boxplot MAPE-Values

95% was chosen as the confidence interval of the median.

Benefits

- Reduce administrative costs by over 50%

- Better service for customers

- Know how in a mathematical model

Get in contact!

Business requests

Scientific requests

- Exclusive demo

  demo.synapto.ch (registration required)

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