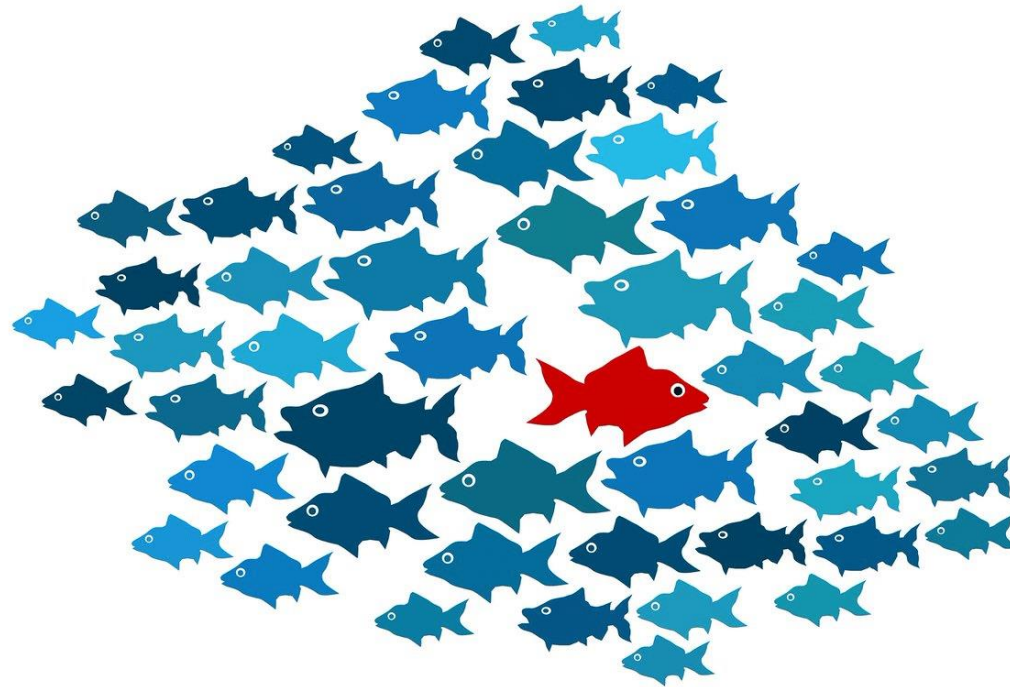# Short description of our case

Datathon – Ebner Stolz

The case in a nutshell...

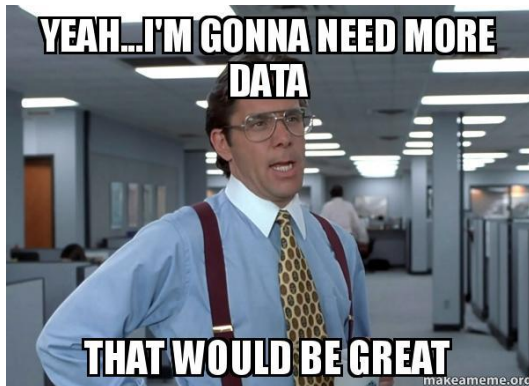## Identify anomalous clients within industries using business KPIs!

Motivation: One-dimensional analysis is easy...

- We calculate key business figures using our clients' annual financial statements.

- Comparing these KPIs with other companies in the same industry can indicate anomalies.

- One-dimensional comparisons are easy to perform and visualize

➤ **How do we identify unusual clients (anomalies) across multiple metrics? Which anomalies are relevant for the audit teams?**

- Classification of clients as normal or anomalies allows auditors to adjust their audit planning if necessary
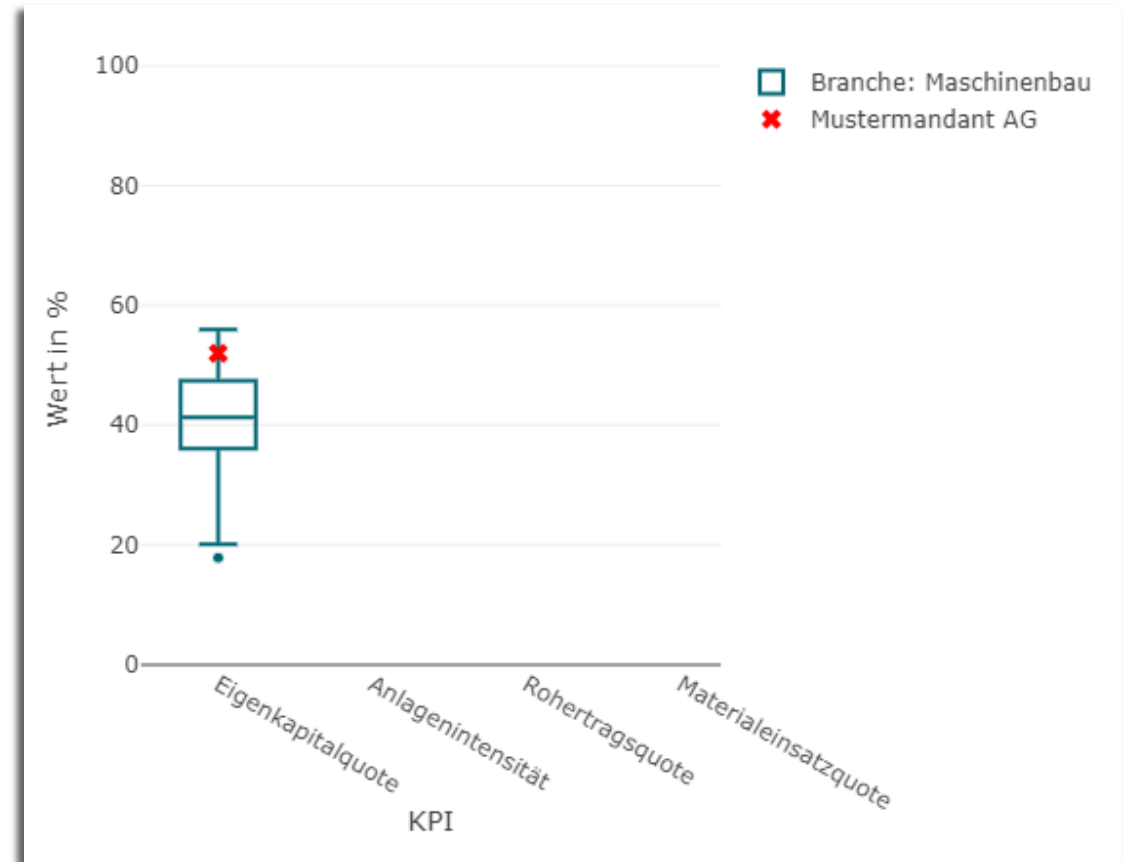
Your data set

- Your data set contains data
  - with >1500 clients
  - from >30 branches
  - including >20 KPIs
- Client number, -name, and KPI values have been anonymized.
- You will also receive another file with metadata for the KPIs (name, definitions)

YEAH...I'M GONNA NEED MORE DATA

THAT WOULD BE GREAT

https://makeameme.org/meme/yeahim-gonna-need-c45pbd

| kpi_id	client	client_name	branche	value
1	1055555	Mustermandant AG	3 Automobil-industrie	0,56
2	1055555	Mustermandant AG	3 Automobil-industrie	0,23
3	1055555	Mustermandant AG	3 Automobil-industrie	0,30
...	...	...	...	...
23	2786500	Beispielfirma GmbH	27 Handel	0,77
24	2786500	Beispielfirma GmbH	27 Handel	0,77

Our expectations to your results

- Design and implement an approach to detect anomalous clients for each industry!

- Upload your results (!) to our GitHub repo at the end of the processing period or send us an e-mail

1. PowerPoint (+ Pitch)

  - Lay out your understanding of the problem.
    - Which approach did you choose and why?
  - Discuss selected anomalies (preferably with visualization).
  - Bonus: Your Ideas for communicating anomalies, for example, using a dashboard or others. Users should be able to identify which mandates are anomalous and why.

2. Code

  - Your code must be executable and results reproducible
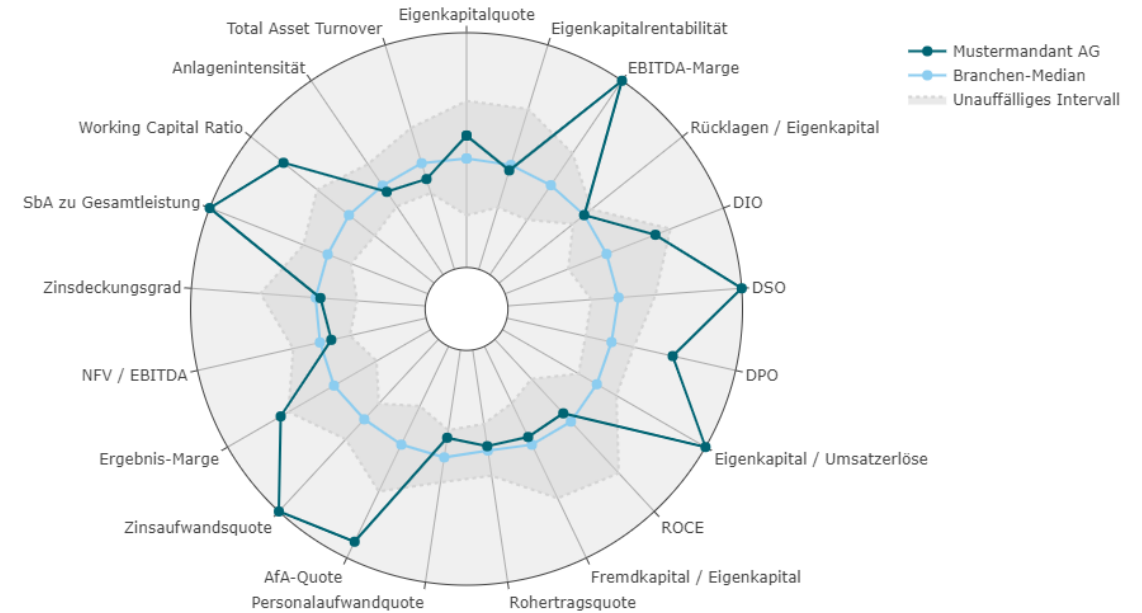
In conclusion...

Do you have any questions?