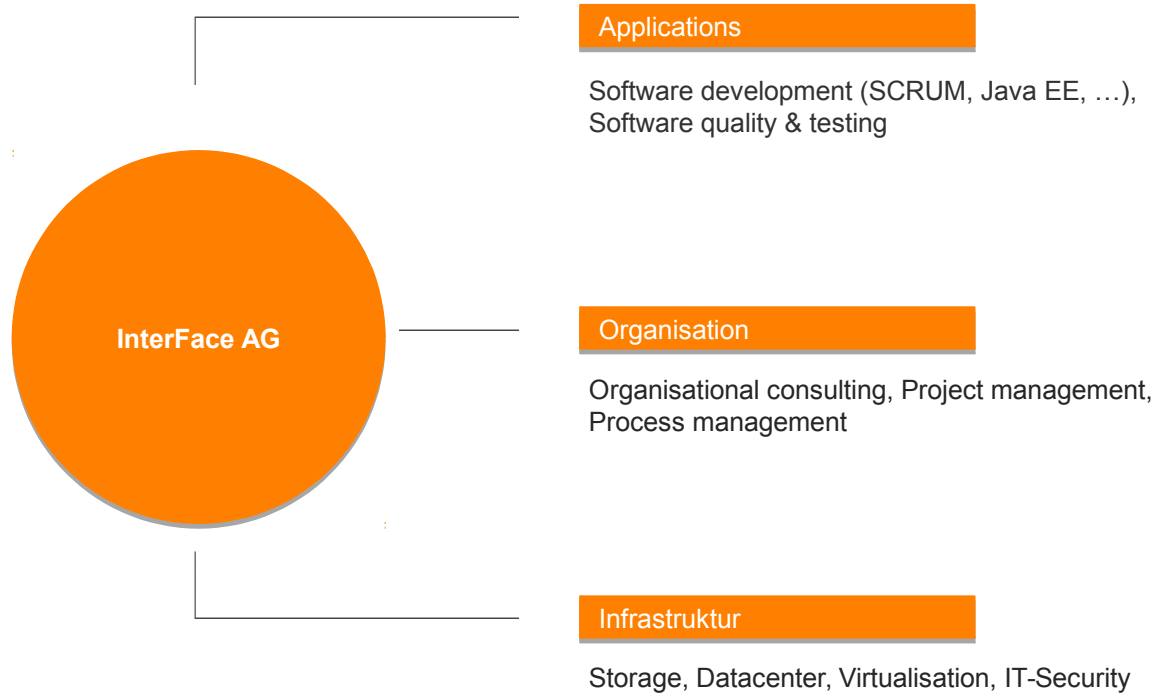


Architectural Analysis Tradeoff Method (ATAM)

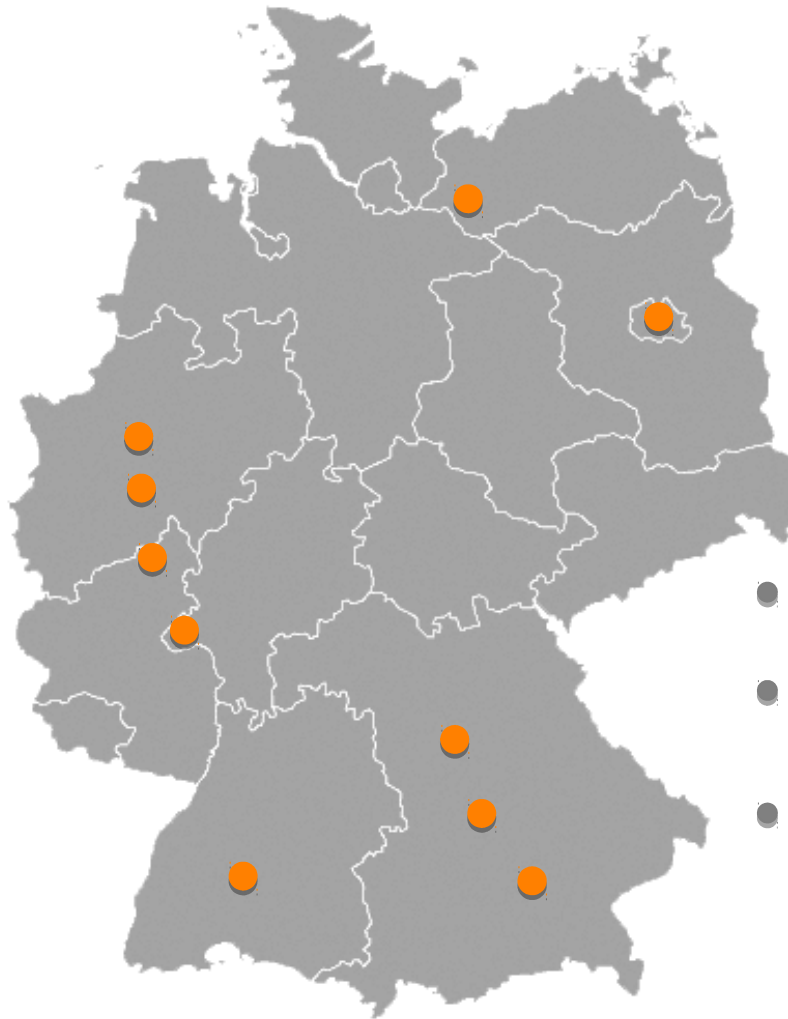
InterFace AG

Product portfolio



InterFace AG

Customer



InterFace AG

- Around 100 IT-experts in large projects all over Germany
- Work with Startups (4 Spin-outs)
- Regional office in Duisburg (8 employees currently)
- Successful cooperations with German Universities

We are looking for:

- CS students (pref. MSc) skilled in Java
- Interest for Agile Methodologies
- Interest to work in different roles in customer projects

What is software quality?

What is software quality?

- How well the software fulfils the functional requirements.
- How well the software fulfils the non-functional requirements

What are non-functional requirements?

What are non-functional requirements?

Availability

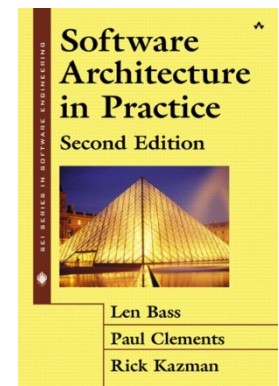
Modifiability

Performance

Security

Testability

Usability



What are trade-offs?

What are trade-offs?

- Trade-offs between functional and non-functional requirement
- Trade-offs amongst non-functional requirements

How to guarantee software quality?

- Tests
- Reviews
 - automatically (e.g. Continuous Integration, Checkstyle, ...)
 - expert-driven
 - process-driven

ATAM (Architectural Trade-Off Analysis Methods)

- ATAM is a process-driven architecture review method
- Goals:
 - facilitate dialog between the different stakeholders
 - identify trade-offs and risks
 - document the architecture
- ATAM is costly (> 2 weeks, many stakeholders involved), but usually worth it

ATAM Steps

1. Present the ATAM
2. Present business drivers
3. Present architecture

4. Identify architectural approaches
5. Generate quality attribute utility tree
6. Analyse architectural approaches

7. Brainstorm & prioritize scenarios
8. Analyse architectural approaches

9. Present results & follow-up

ATAM Steps – what we are going to do

- 1. Present the ATAM
- 2. Present business drivers
- 3. Present architecture

- 4. Identify architectural approaches
- 5. Generate quality attribute utility tree
- 6. Analyse architectural approaches



- 9. Present results & follow-up

You are going to do Step 2-5

We are going to do Step 6 & 9

