Context and Orchestration:

Putting the moving parts together –
a renaissance of system integration

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System integration now and then – looking back

- manageable and confined vertical structures

- project-specific, proprietary integration

- evolution into domain-specific solutions

- -> system integration eventually looses its significance and becomes part of the customization efforts

System integration now and then – looking ahead

- abundance of involved parties

- large geographical, structural, technical and cultural divergence of the parties involved

- abundance of involved tools and solutions

- functional overlaps, missing standards

- -> system integration re-establishes itself as essential element

Challenges in system integration: Usability

- more participants means more education, likely beyond a manageable threshold

- training efforts can be reduced by improving the usability of the tools

- ... which might imply a loss of proficiency and efficiency

Challenges in system integration: Security

- considerable difficulty to scale security in highly integrated system environments

- inbound customers imply special security challenges

- adopting to the necessary security standards might mean a major technological leap for the client
(and the solution providers)

Challenges in system integration: Structure

- consistency of terminology, processes, workflows, conceptions and the like given only along the vertical axis

- key aspects for dealing with structural inconsistencies:

  - careful analysis and meticulous preparation

  - standardisation before realisation

  - avoidance of two-way synchronisations

  - flexible implementation

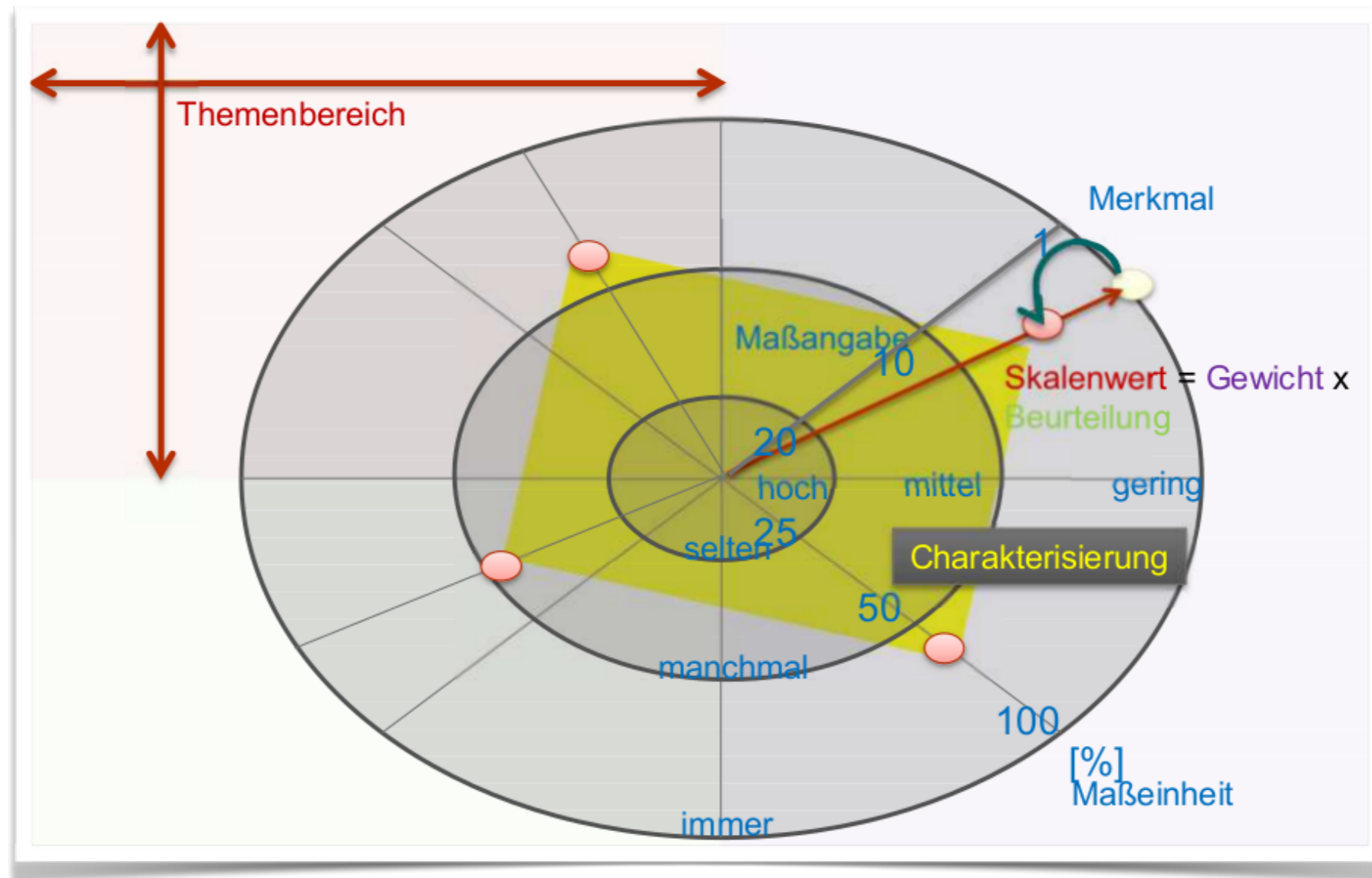 - all-over documentation

- losers and winners

Challenges in system integration: Engineering

- Interfaces galore

- System architecture

- Customisation and APIs
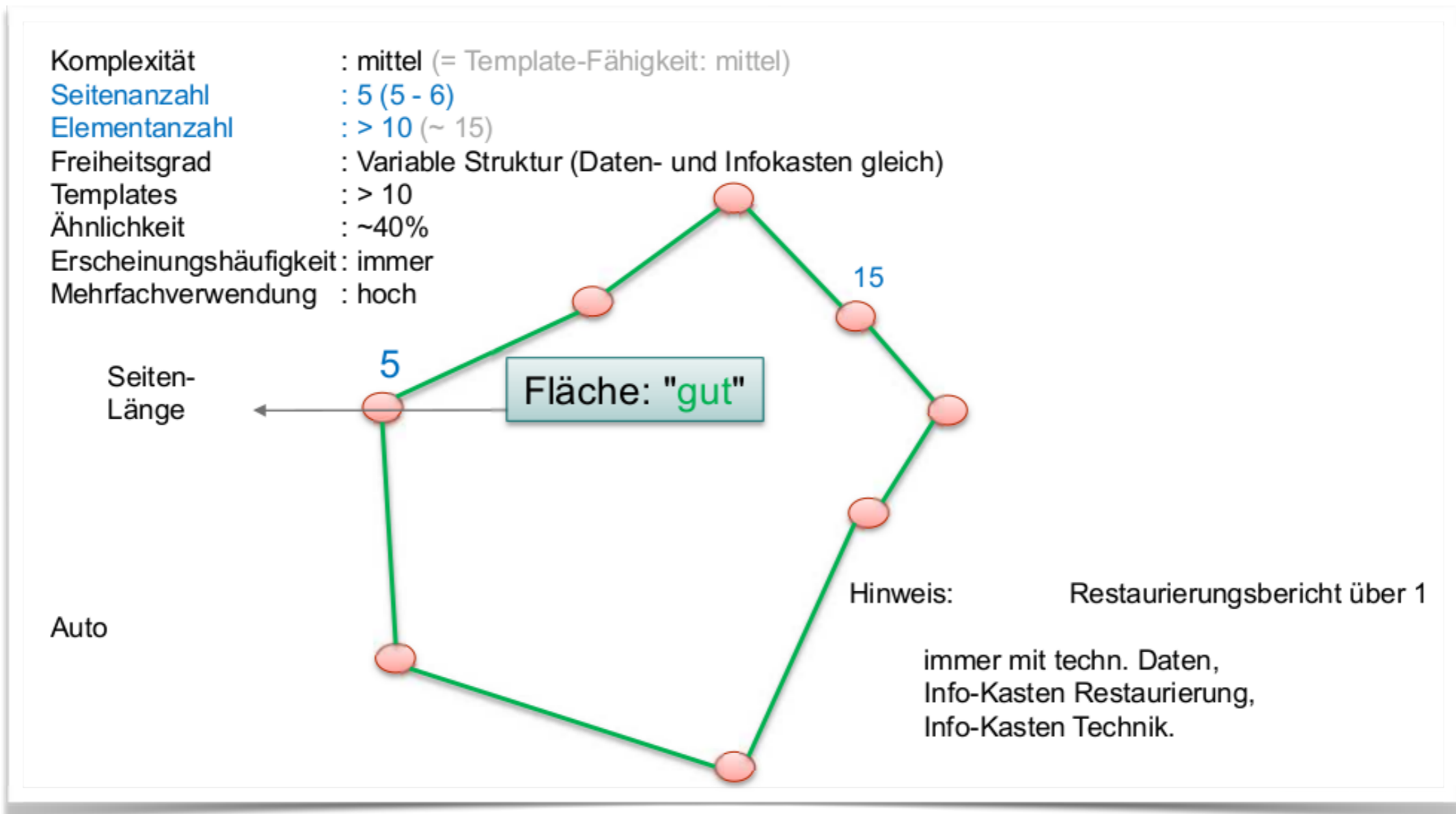
- Sticking to the standards

Challenges in system integration: Metrics

- Complex dependencies are hard to grasp

- Metrics help in quantifying and decision making

- There are no out-of-the shelf methodologies at this time

Challenges in system integration: Metrics

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Thank you!

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