

Digitalization

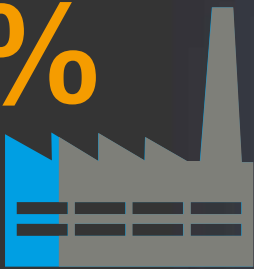
of R&D Success Patterns and Approaches



The subject of **digitalization** is **more relevant than ever before** for companies in the hightech sector.

15 %

of the interviewed companies are **very defensive** and are still waiting. For the other 85% digitalization already is part of the strategy.



Focus of business and the **priority within R&D shifts** towards services, products become "platforms"

„Old Economy“		„Digital Economy“
65	Reinforced focus on service	69
24	Integration of customer perspective	23
20	Digitalized added value	15
6	Development of system competence	15
16	Changes to the company's role within the network	8
14	Creation of update capabilities	8
4	More risks due to legislation	0
8	It stays the way it is	0

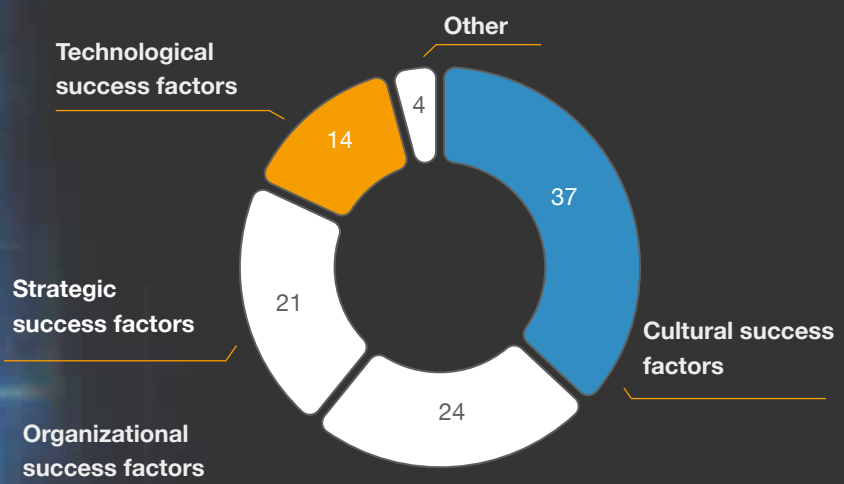
19 %



Future competitive advantages arise from increased **speed**, which is achieved by **agile development** of products and services.

- 19 Implement **agile** working methods
- 12 Use **development networks** for cooperation
- 11 **Synchronize** faster software development with slower hardware development
- 10 Ensure **updatability** during product use
- 10 Integrate and understand **customers** at an early stage
- 9 Use **modular** architectures
- 8 **Virtualization** of development

Crucial success factors tend to be „soft“ rather than „hard“



4 Archetypes of digital transformation

- The OBSERVER**
„Spectator, waits for the first results of others“
- The FOCUSED**
„Clear direction, initial experiences collected, demonstrate full performance“
- The BOLD**
„No clear direction, little experience, but stay in motion“
- The CONFIDENT**
„Digital spearhead, maintain advantage or expand it“

5 Basic digital principles



„FAIL FAST AND EARLY:
Failure is good and enables learning“



„DIGITAL CULTURE:
‘Digital’ as corporate DNA, everyone thinks and acts ‘digitally’“



„VERY WILLING TO TAKE RISKS:
Think big & bold“



„SPEED IS KEY:
It is better to be first with 80% than second with 100%“



„THE CUSTOMER’S PROBLEM IS THE FOCUS:
The customer’s problem, not the product, is the starting point“

3 Waves

A three-wave process is generally recommended for digitalizing R&D

1

1st Wave: „DIGITAL READINESS“

2

2nd Wave: „DIGITAL BREAKTHROUGH“

3

3rd Wave: „DIGITAL DNA“

Would you like to read the whole study?
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