

**Smart Services in**

**Industry:**

**Challenges and**

**Solutions**

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Picture created with Dall-E: “fully automated industry 4.0 production facility with emphasis on the use of smart services”



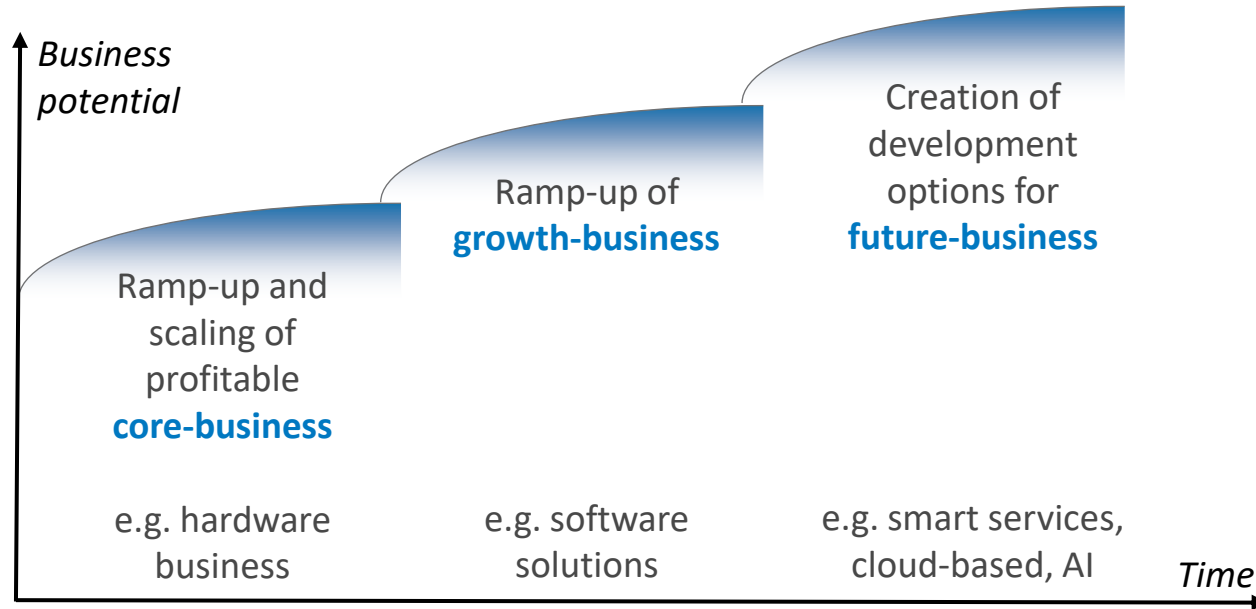
# What holds us back?

A non-complete list of reasons why the implementation of smart services is slow...



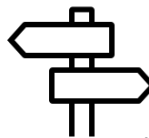
# Smart services at the crossroads

The three horizons of strategic innovation management



## Decisions...

Need to be taken without knowing the **technical** capabilities of the future

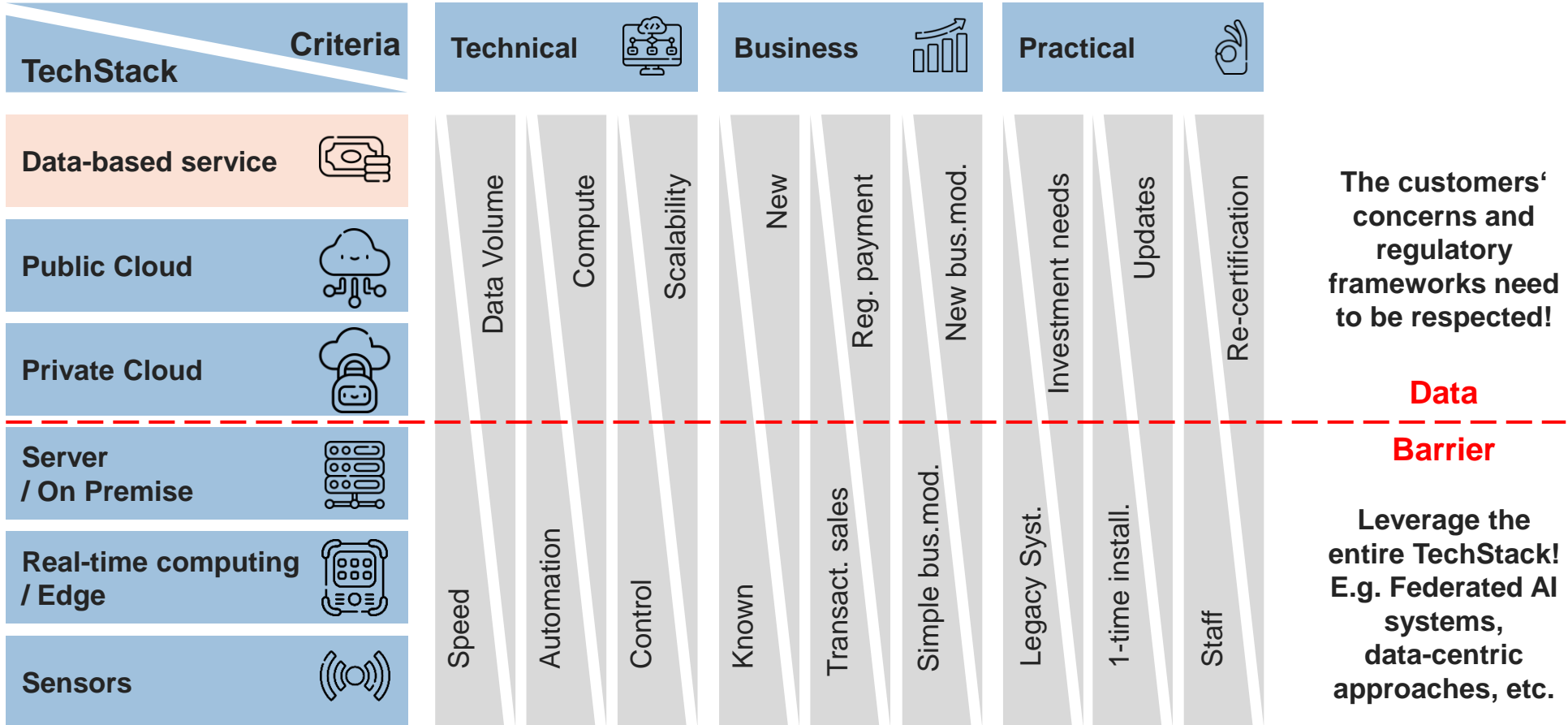


## ... might lead to...

- ... un-maintainable legacy systems.
- ... closed doors for certain solutions in the future.
- ... postponed huge investments to a later point in time.

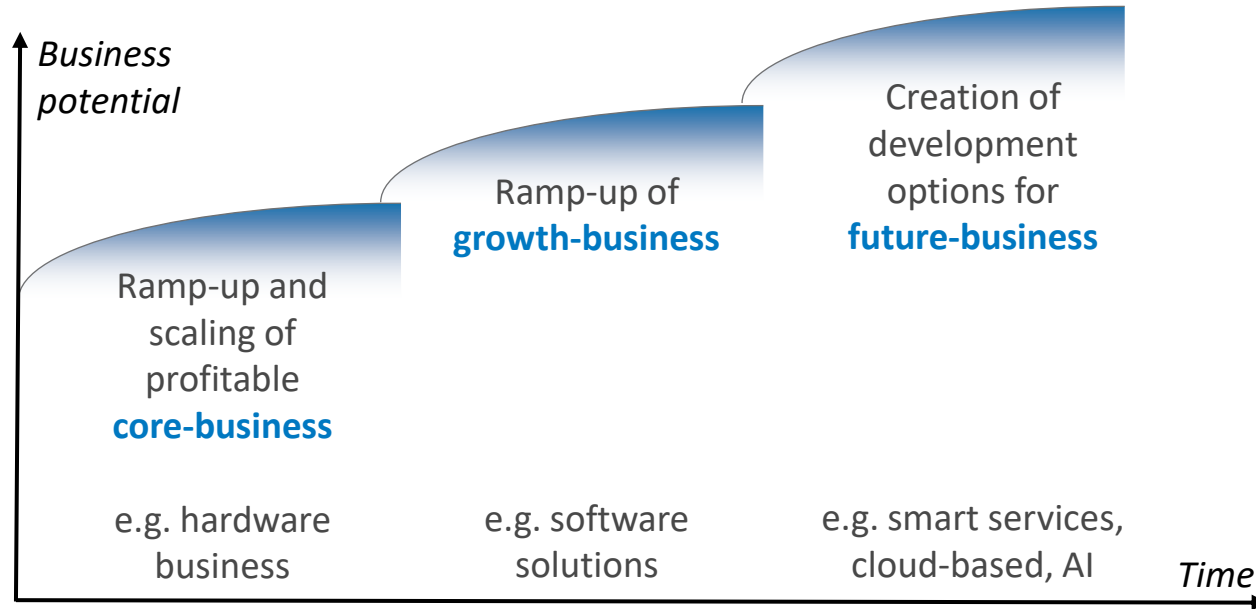
# Technical architecture for system agility

Trade-offs for **data-based, smart services** in industrial facilities



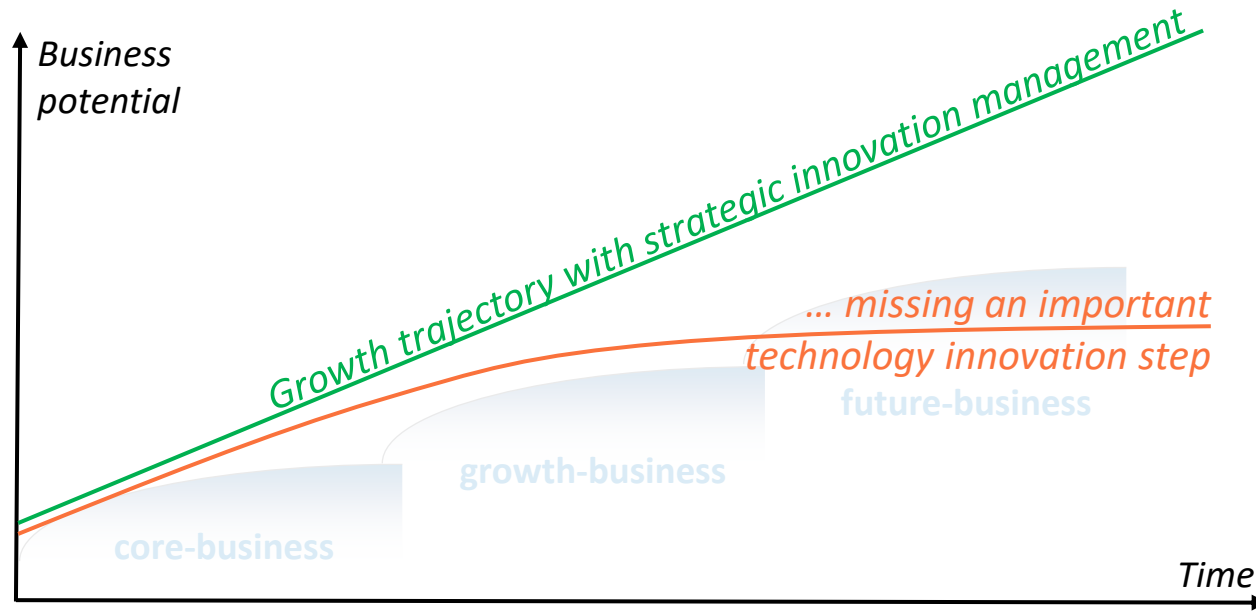
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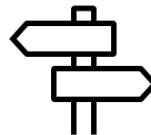
# Smart services at the crossroads

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## Decisions...

Need to be taken without knowing the **business** capabilities of the future

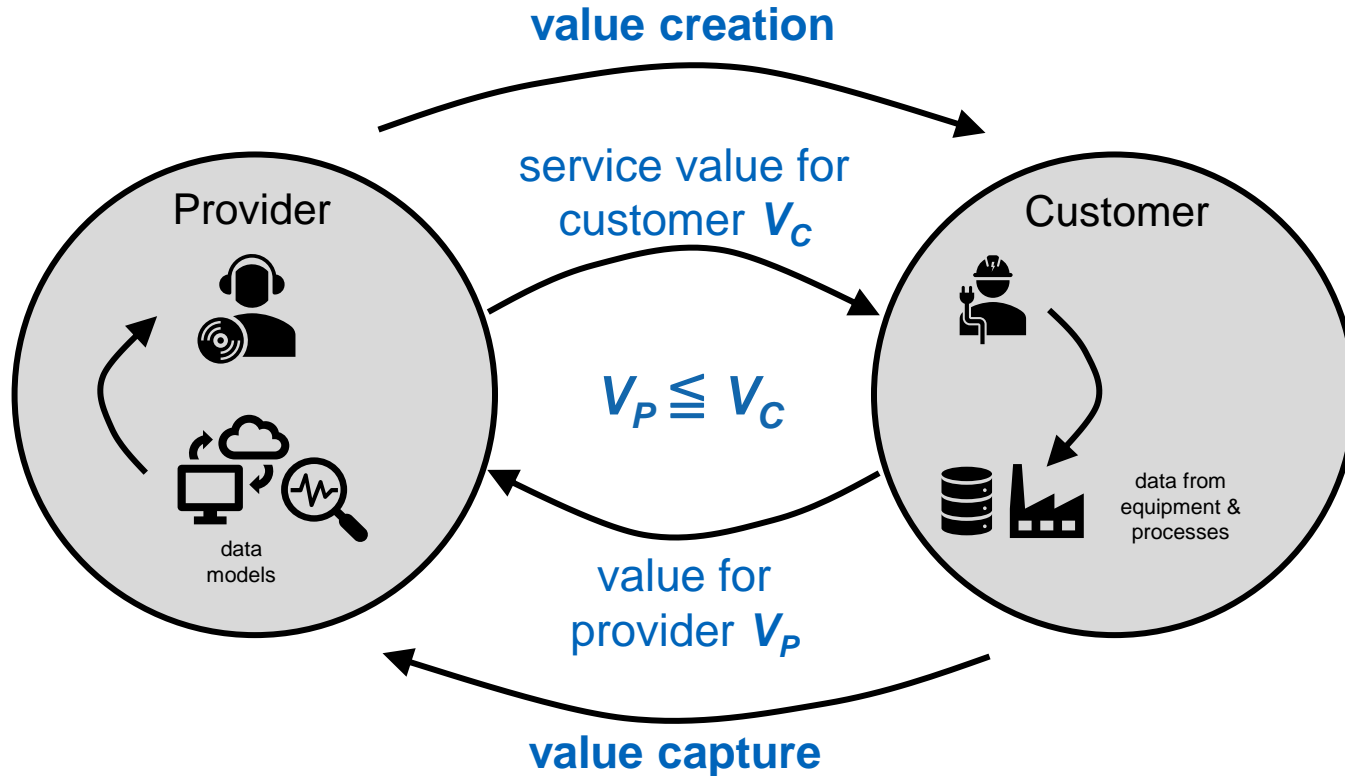


## ... might lead to...

- ... missed opportunities.
- ... stagnating / shrinking business.
- ... loss of competitiveness.

# A quantitative model for value creation and value capture

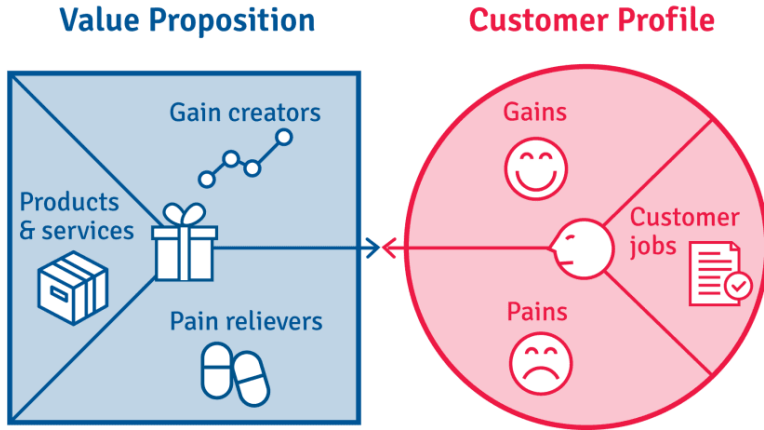
Measure the value of a solution





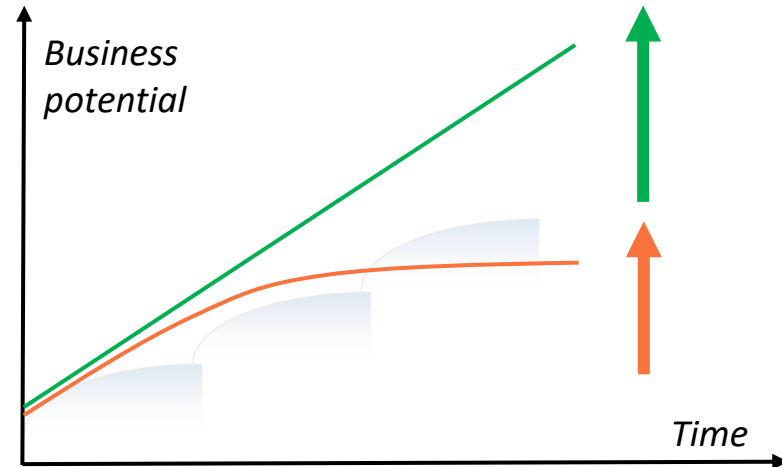
# Estimating the total business potential of a solution

## Gains and pains



The **total business potential** is a combination of the value creation by...

- Creating **gains**
- Solving **pains**



- ✓ Estimate the **total value of a solution** and derive the **business potential**.
- ✓ Make **good investment-decisions** based on a quantitative model.
- ✓ **Shorten the decision process** by providing an established framework.



Smart service implementation in traditional industries is **not as fast as expected**



To make good decisions in strategic technology and innovation management, we need **inter-disciplinary solutions between technology and business**



**Federated architectures** are key for **system agility**



Solid business decisions can be made by **quantifying the value of gains and pains**



# Thank you!



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