



LLSMS2903 – Digital Transformation Management

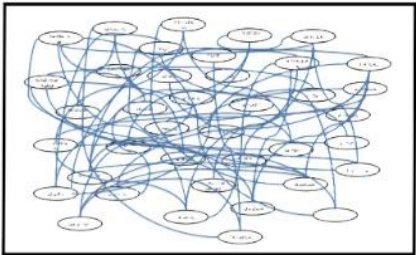
LLSMF2903 – Digital Business Systems

BUSINESS AND IT ALIGNMENT

Yves Wautelet (yves.wautelet@kuleuven.be)

SIMPLY EXPLAINED

gnik & pokie



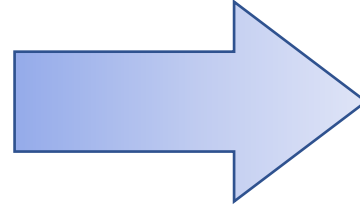
BUSINESS IT ALIGNMENT

I. What is Business and IT Alignment?

Business strategy influences IT strategy



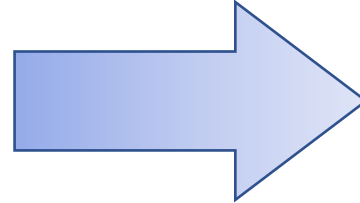
Business



IT



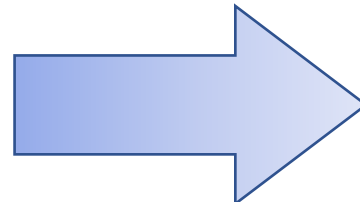
Internet company



IT is asset



Small industrial company



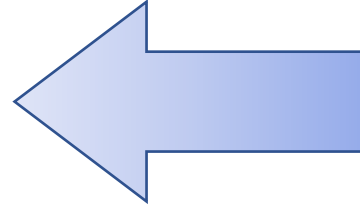
IT is unavoidable cost



IT opportunities influence business strategy



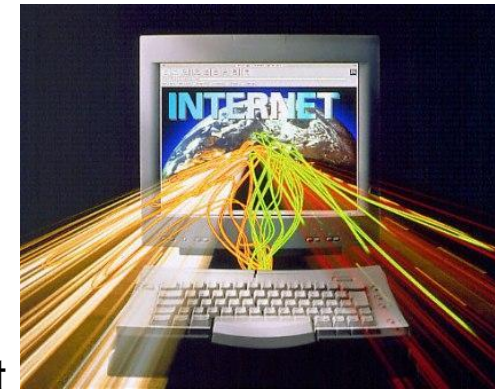
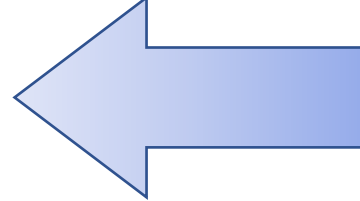
Business



IT



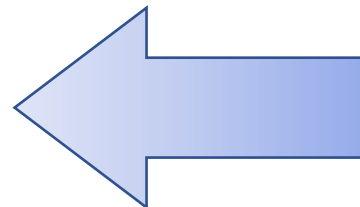
Internet company



The Internet



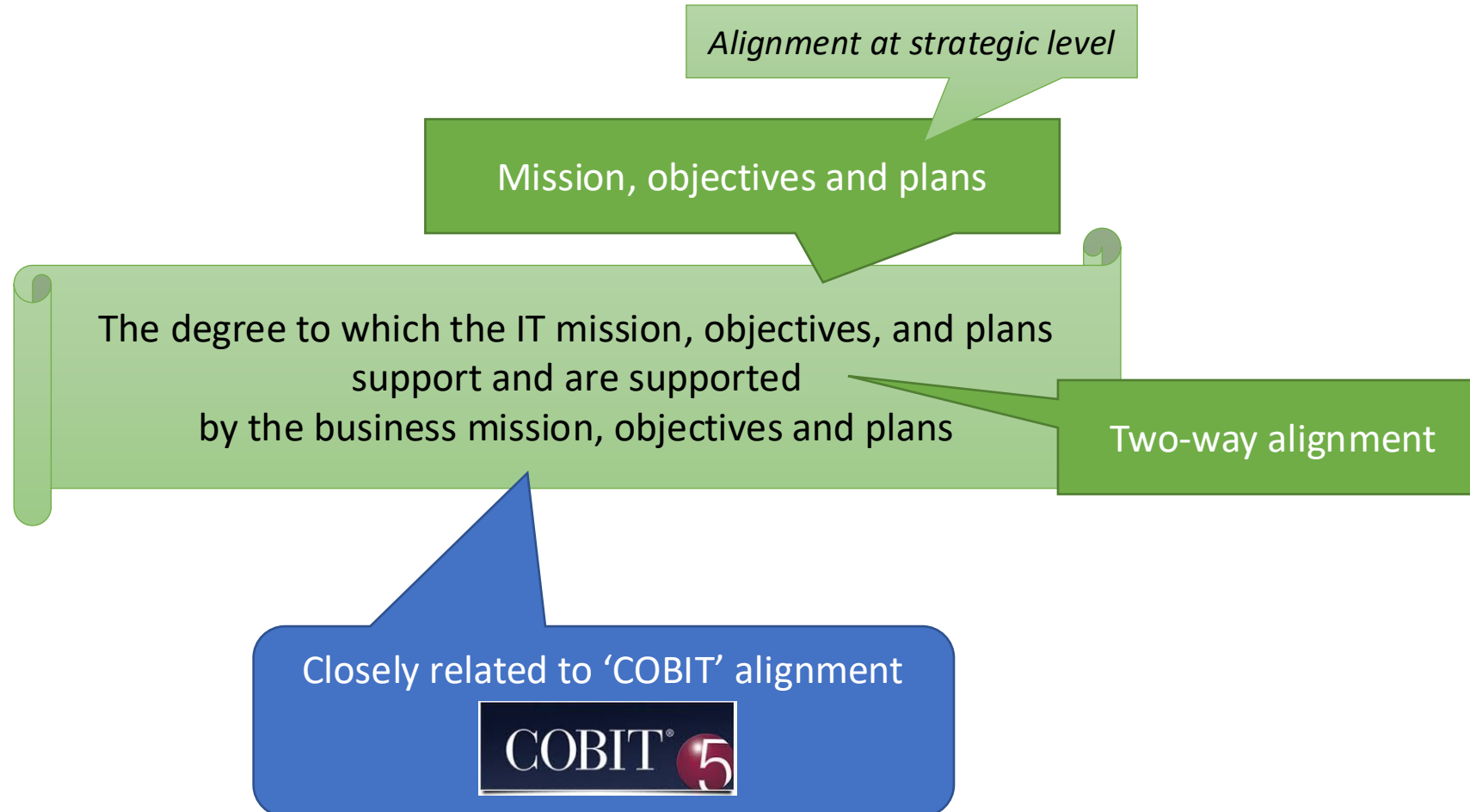
Retail bank



Internet banking

Business-IT alignment

HENDERSON & VENKATRAMAN



A state or a process? Formal or informal?

- A state

“Business-IT alignment leads to competitive advantages for the company”

- A process

A (continuous) journey, not necessarily ending in a stable end state

Formal

A formally established process seeking the alignment state

Informal

Supposedly achieved without explicit process
(but e.g. through governance)

There is business-IT alignment when.....



There is mature and integrated communication between the business and IT

IT demonstrates value to the business

There is proper governance of IT

There is a partnership between the business and IT

IT is able to provide flexible and customizable systems, supporting the business

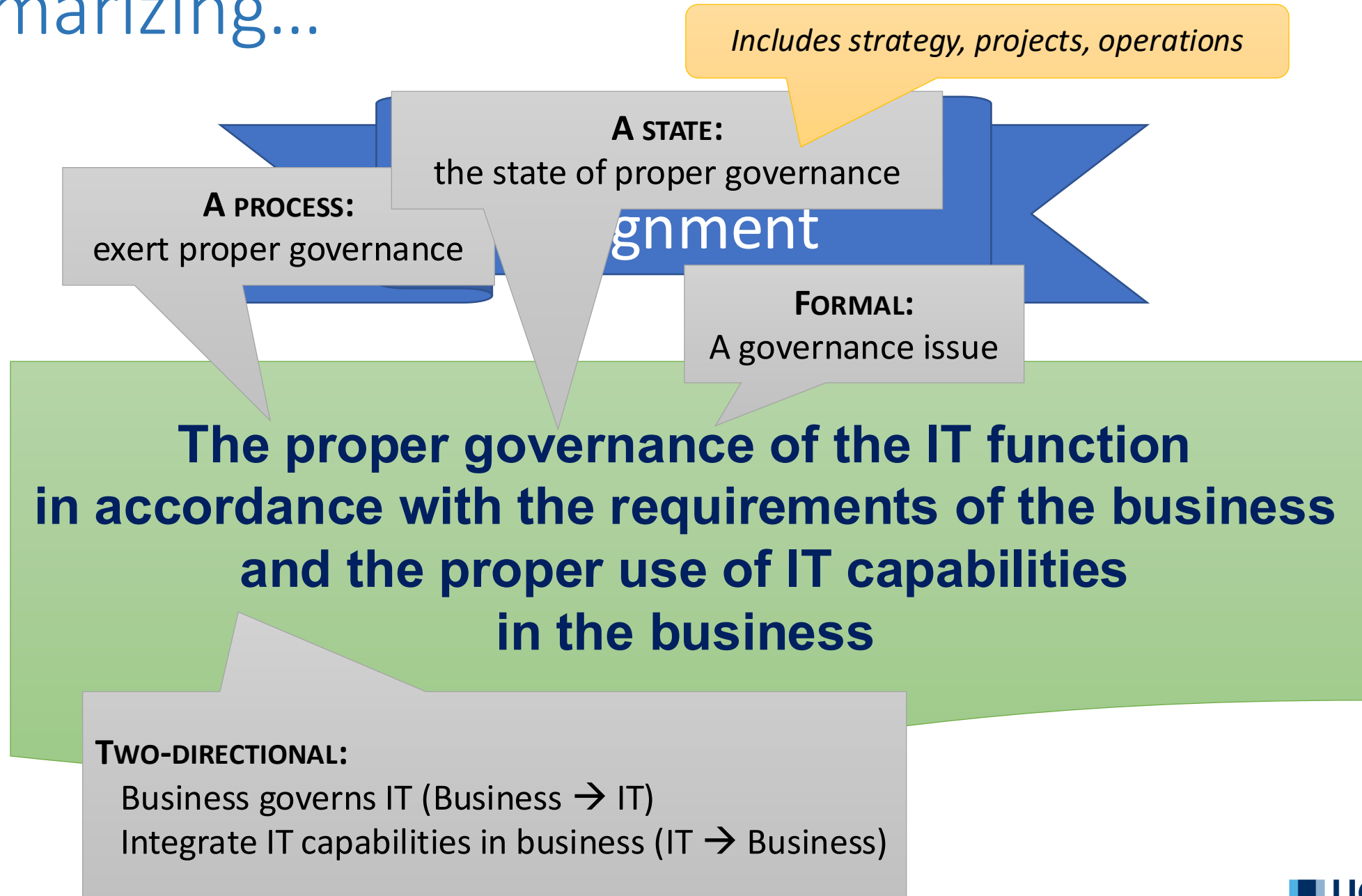
IT skills are at a higher level

Summarizing...



**The proper governance of the IT function
in accordance with the requirements of the business
and the proper use of IT capabilities
in the business**

Summarizing...



“Proper”?...

...lead to better performance

...outcomes are positive for the organization.

“Does business-IT alignment lead to better organizational performance?”

The **proper governance of the IT function
in accordance with the requirements of the business
and the **proper** use of IT capabilities
in the business**

...outcomes are positive for the organization.

“Proper”?...

We adopt this
definition

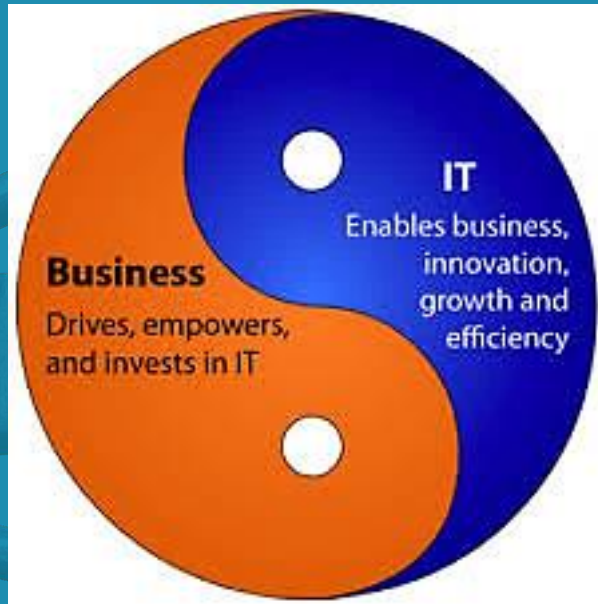
...according to (predefined)
best practices

The **proper governance of the IT function
in accordance with the requirements of the business
and the **proper** use of IT capabilities
in the business**

...according to (predefined)
best practices

No assurance of
better performance

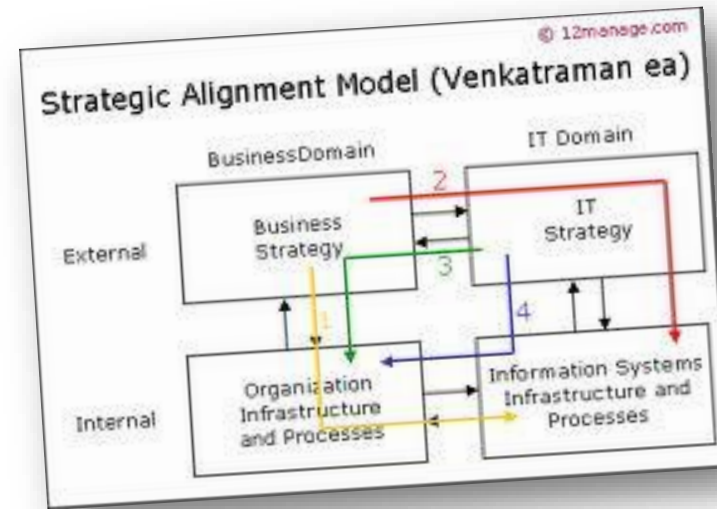
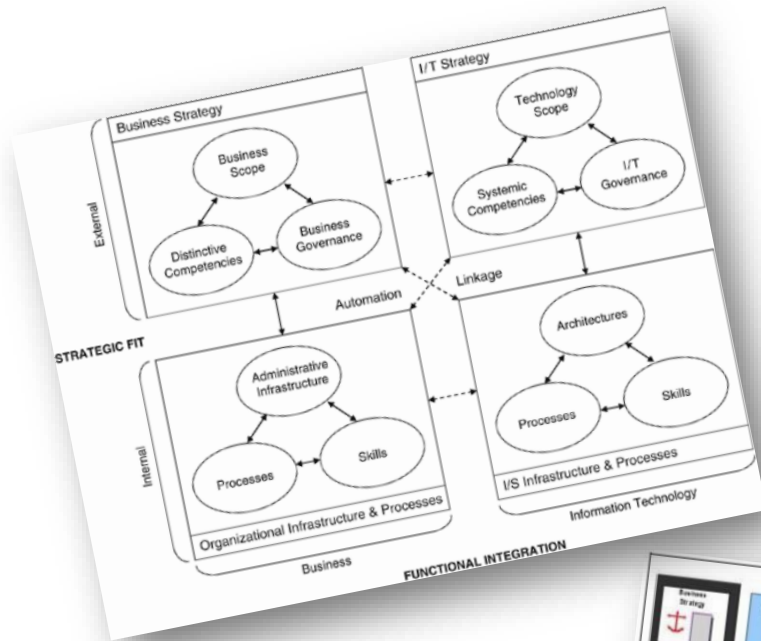
Empirical studies can reveal benefits



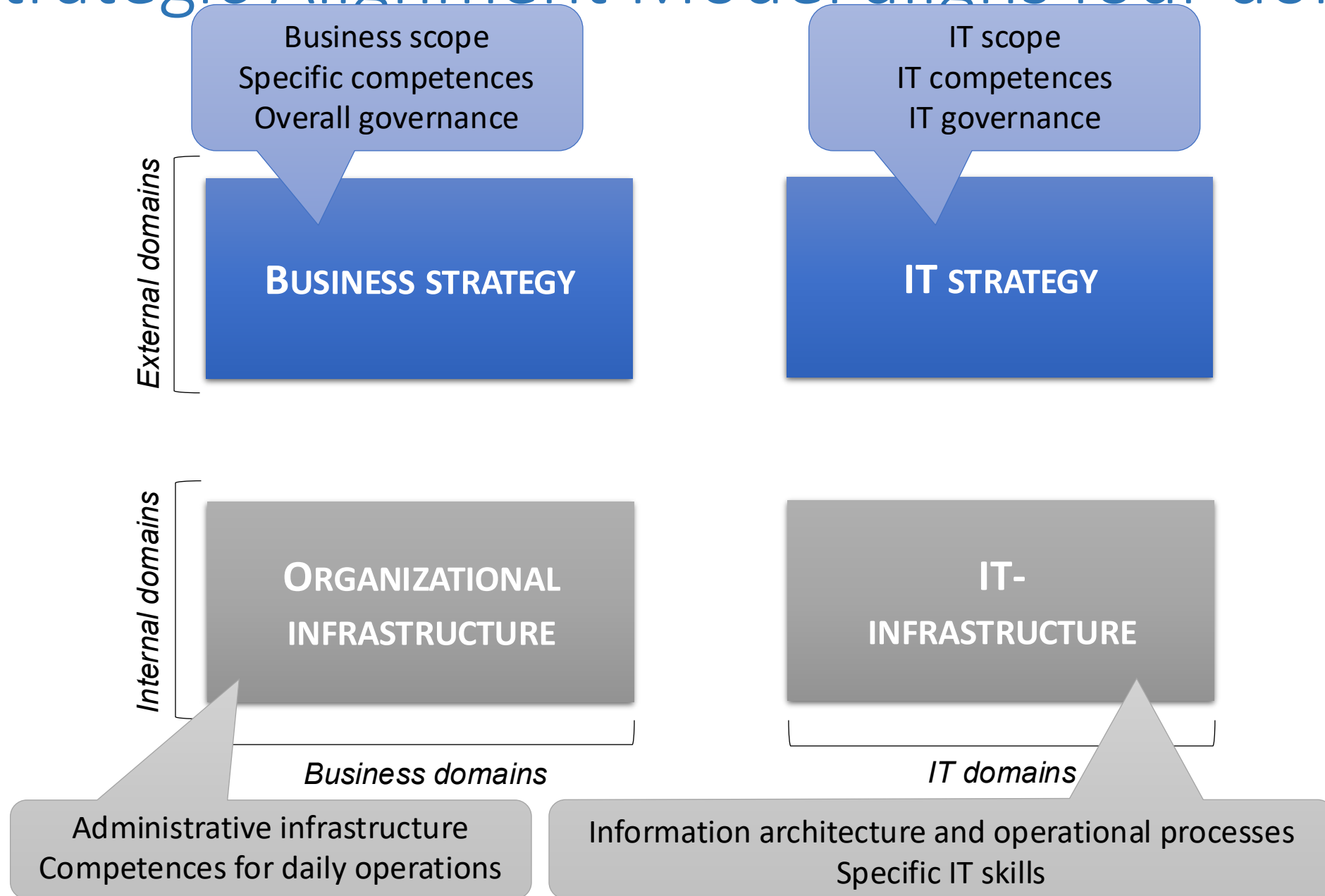
II. Business-IT alignment models

The Strategic Alignment Model (SAM)

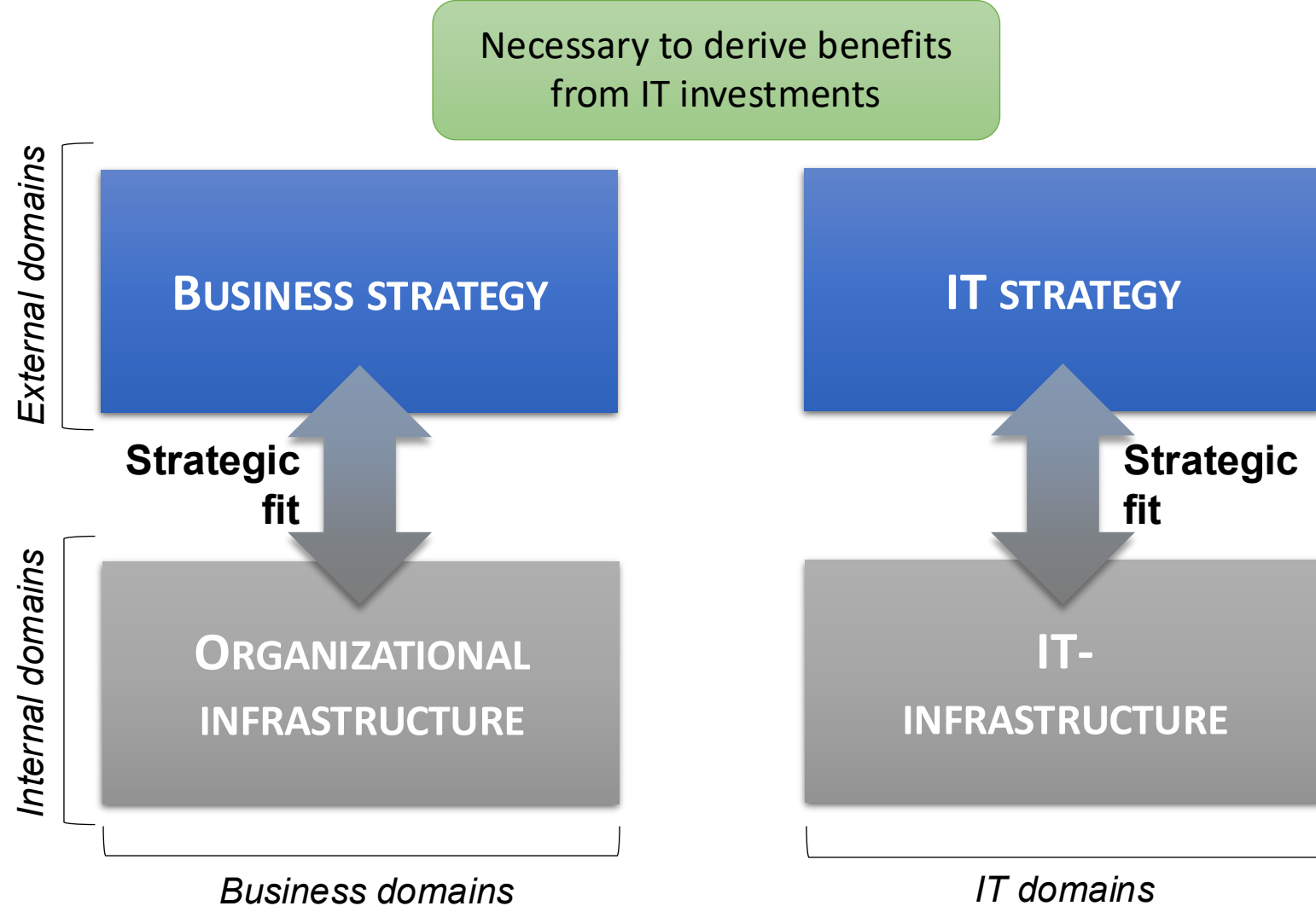
Henderson & Venkatraman (1993)



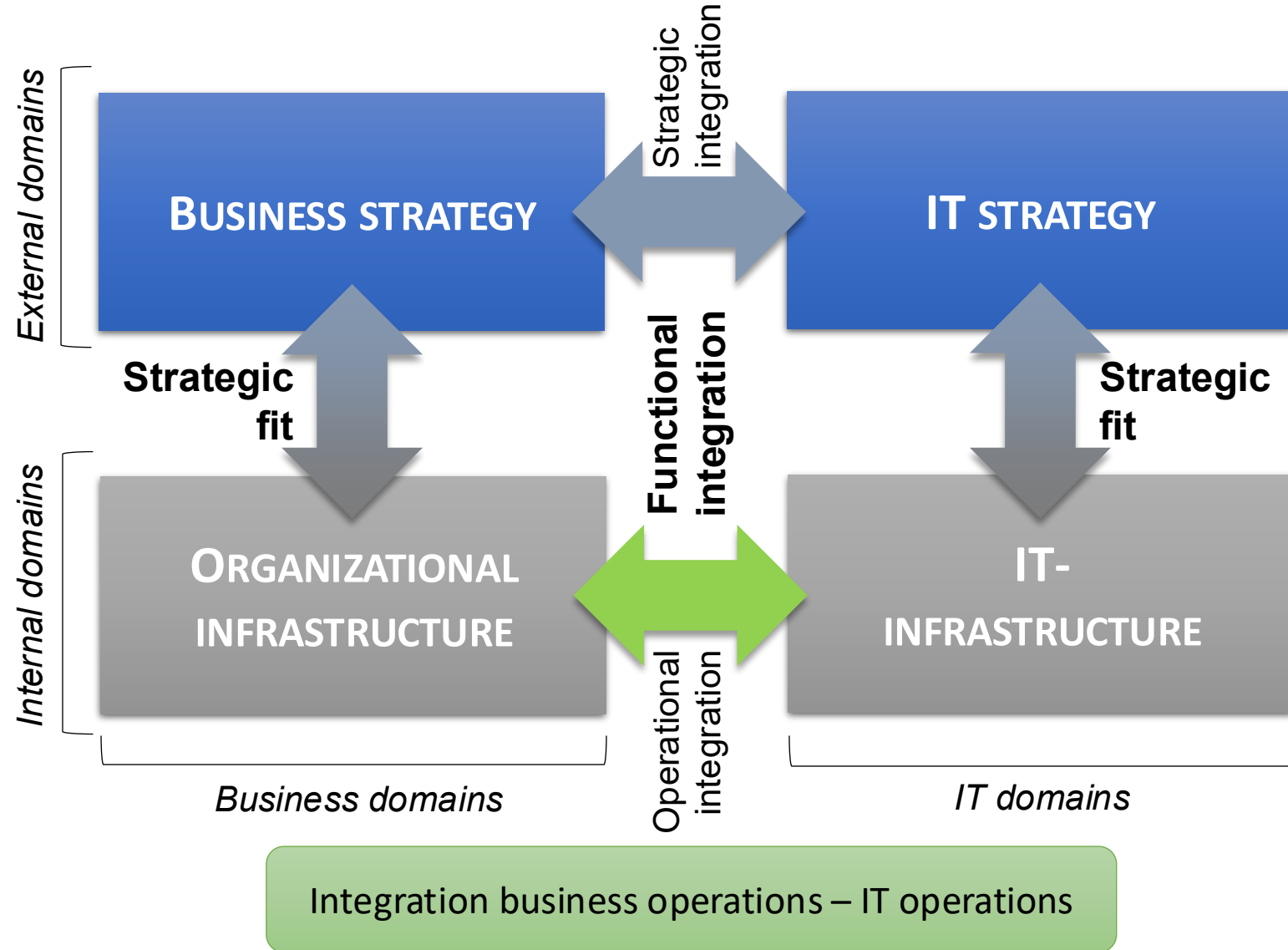
The Strategic Alignment Model aligns four domains



Strategic fit between external and internal domains

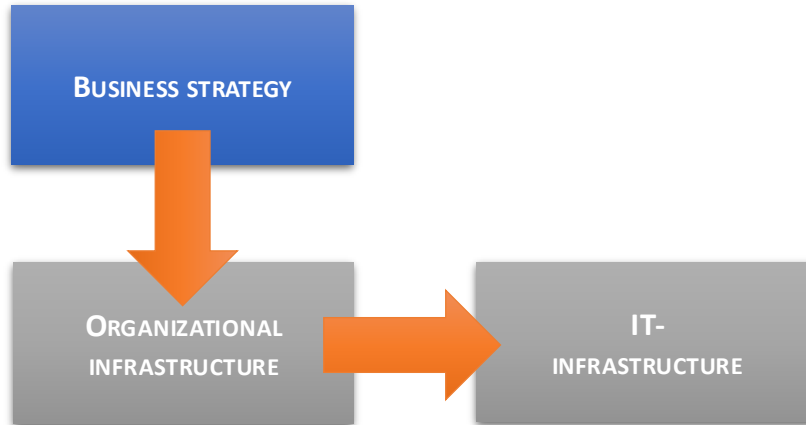


Functional integration: business and IT domains

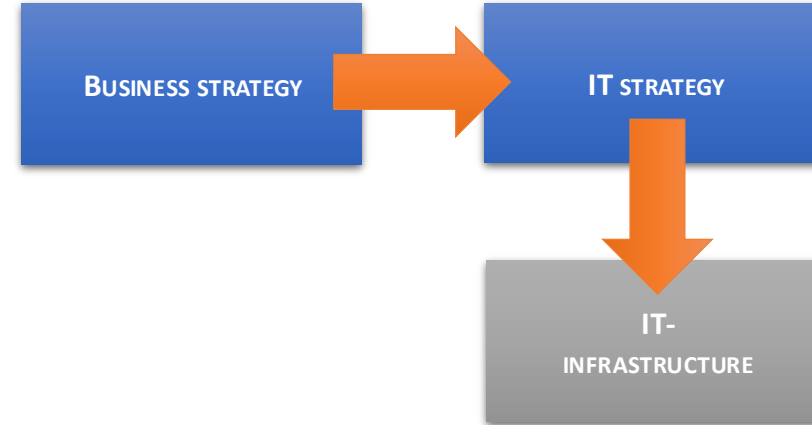


The SAM has four alignment perspectives

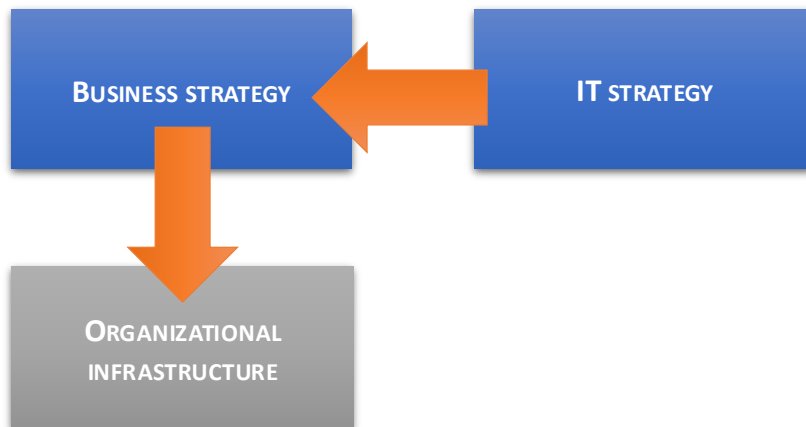
Strategy execution



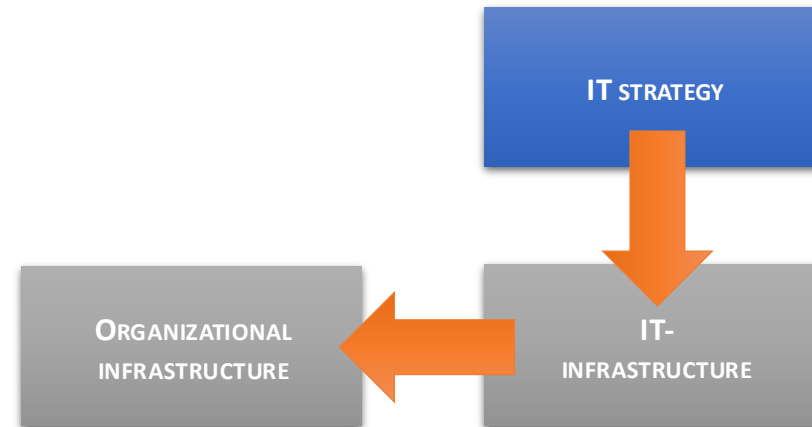
Technology transformation



Competitive potential

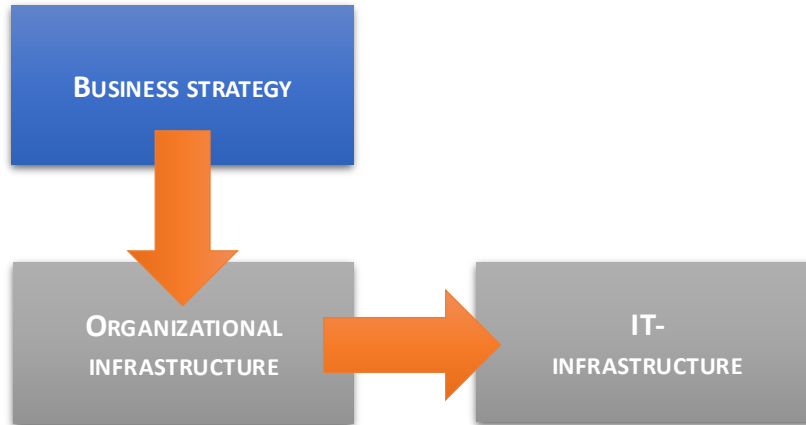


Service level

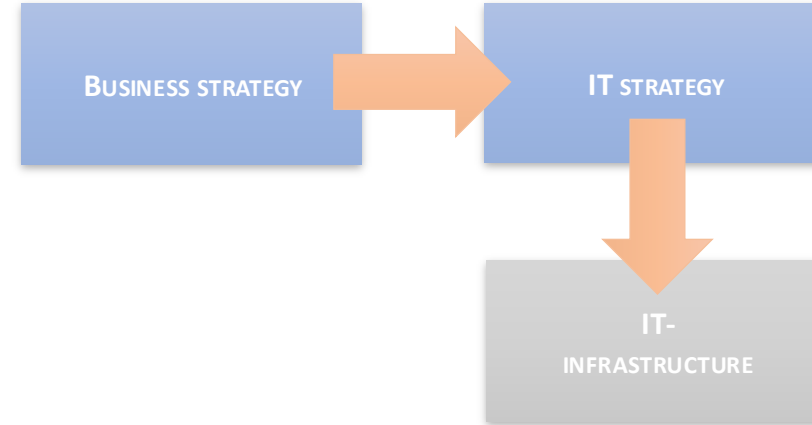


Strategy execution: the traditional approach

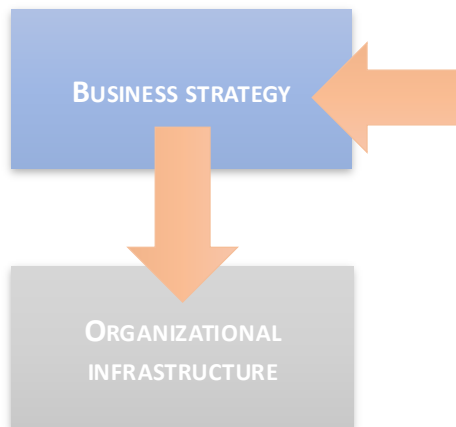
Strategy execution



Technology transformation



Competitive potential

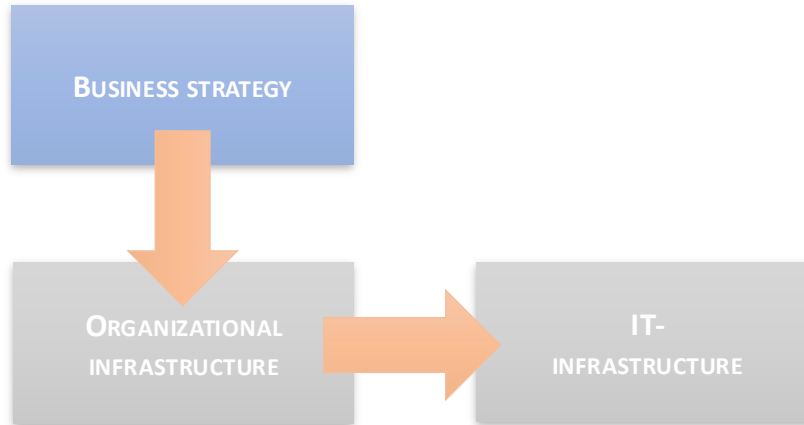


Well-defined business strategy
Business strategy determines organizational infrastructure
and then drives development of IT infrastructure
IT manager implements strategy

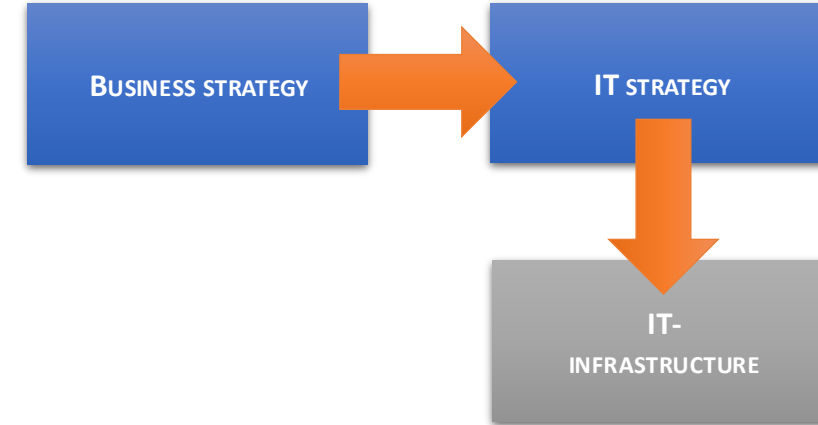
Common in traditional businesses
Classic view on strategic management
IT is a cost of business operations
Little or no IT strategy

Technology transformation: technological leadership

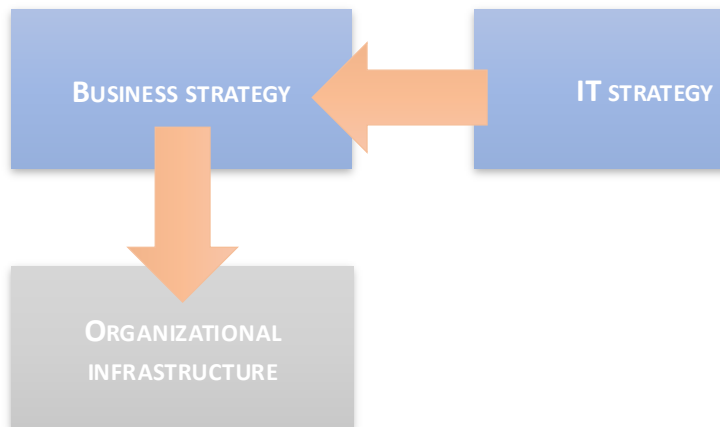
Strategy execution



Technology transformation



Competitive potential



Starts from business strategy
Business strategy drives IT strategy
IT infrastructure follows from IT strategy
Top management develops vision on technology
IT managers develop information architecture

Business envisioning technological leadership



Competitive potential: leverage opportunities

Strategy execution

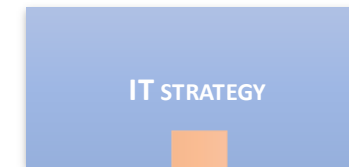


Use opportunities, offered by information technology
Start from IT strategy
Determine influence on business strategy
(adjust business strategy to new IT opportunities)
Derive organizational infrastructure from business strategy
Top management has visionary role
(how IT trends shape the business strategy)
IT manager is catalyst
Identifies and evaluates new trends
Assists senior management in development of vision

Competitive potential

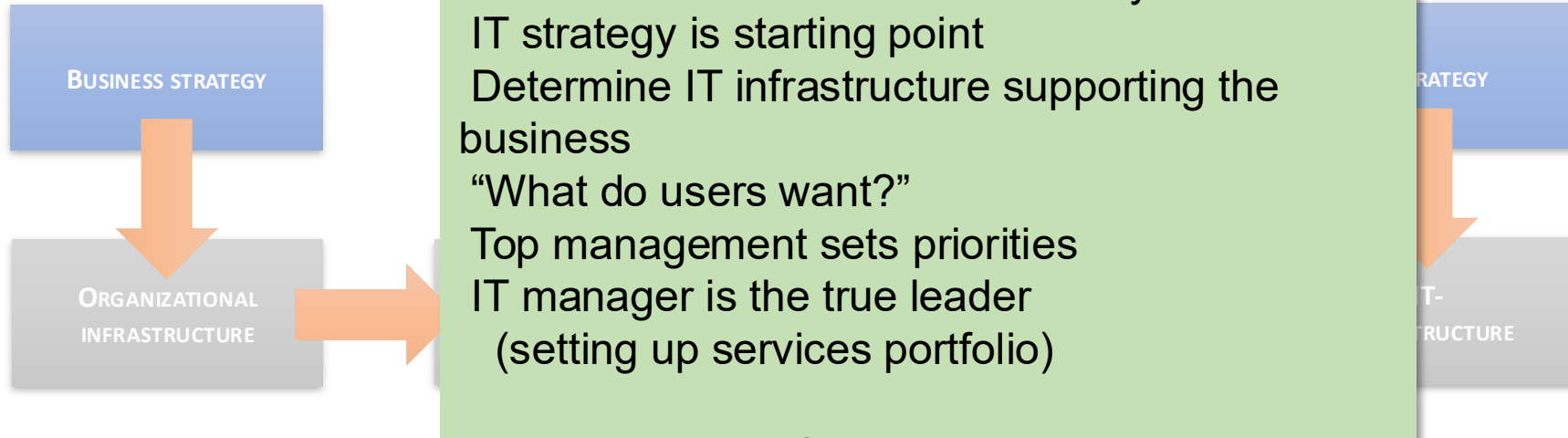


Businesses leveraging technology to gain competitive advantage



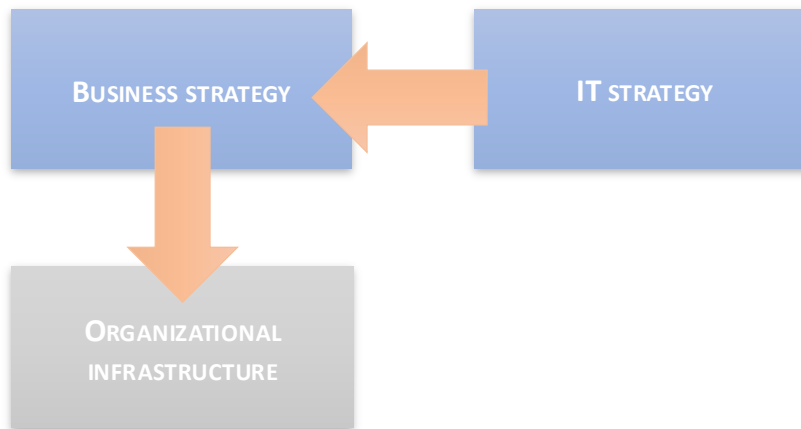
Service level: excellent operational IT services

Strategy execution

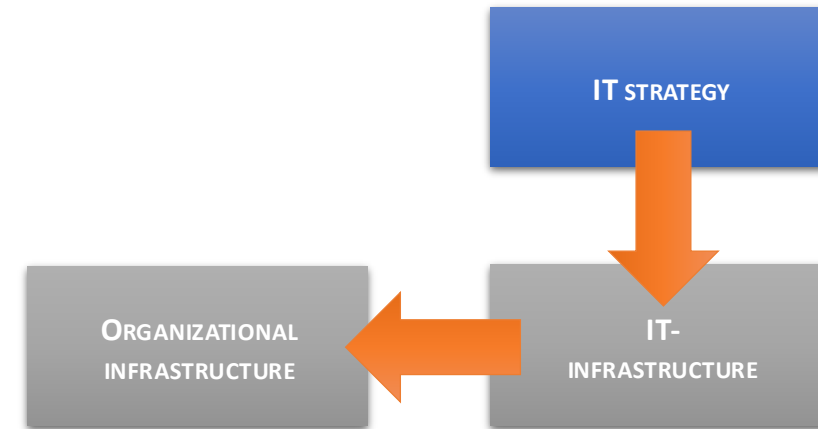


Businesses with focus on service

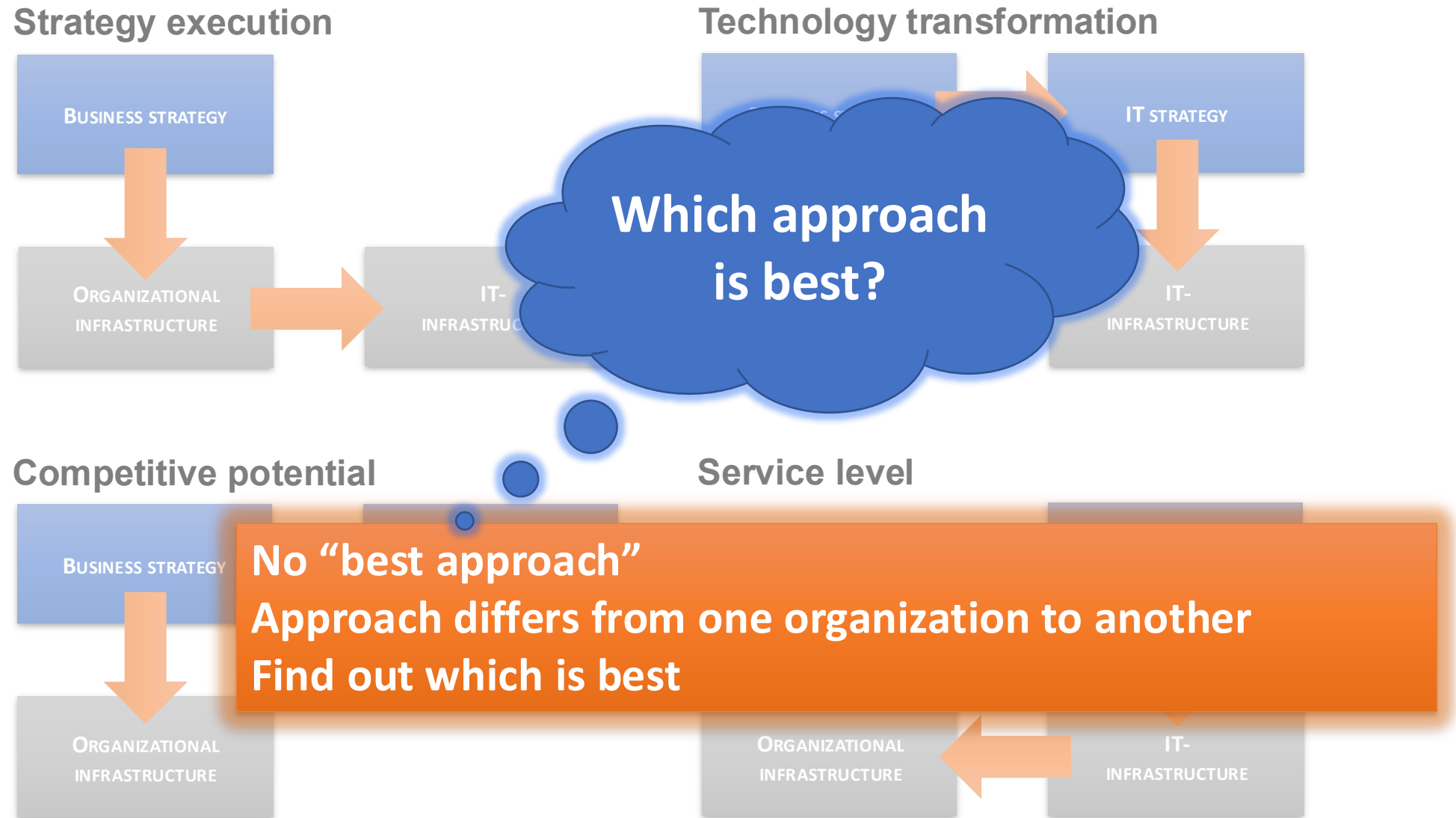
Competitive potential



Service level

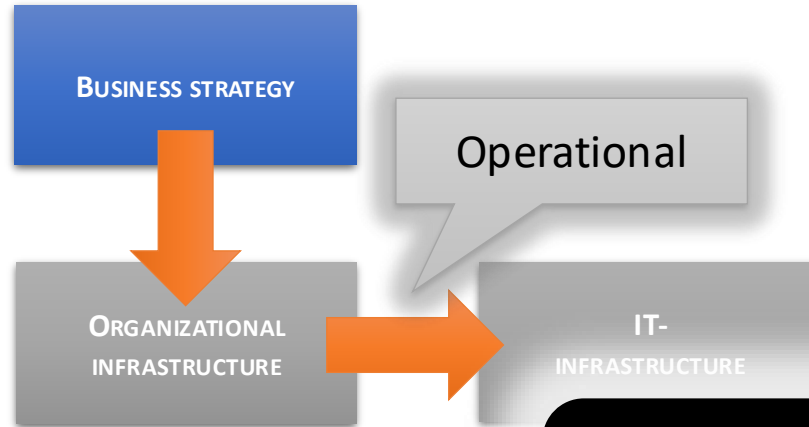


The alignment perspective depends on the organization



Only a single mode of functional integration

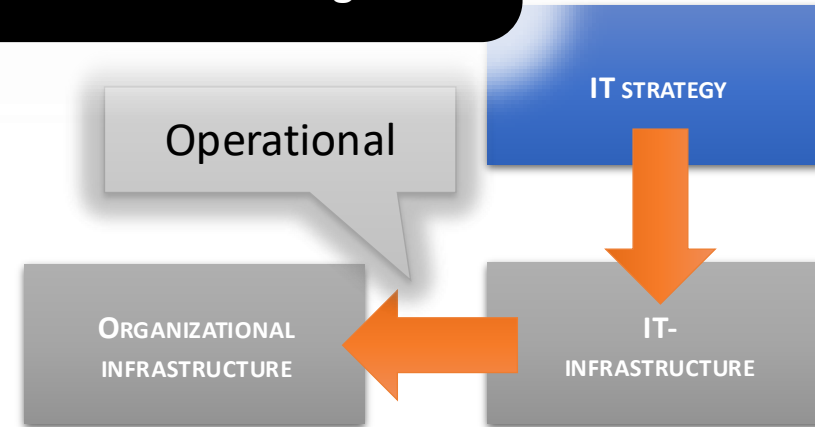
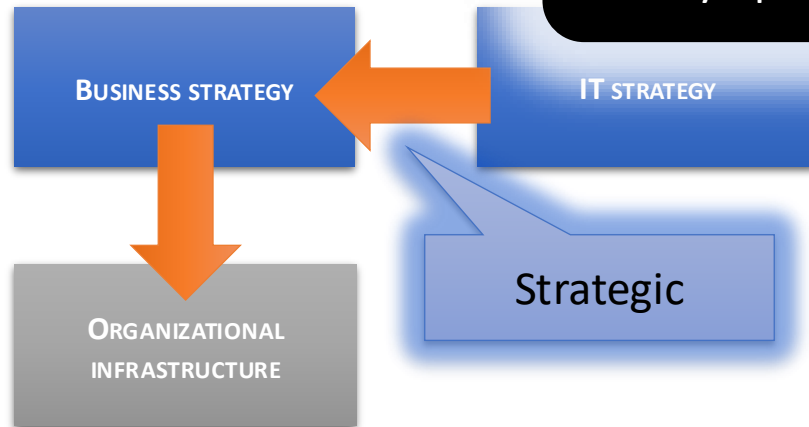
Strategy execution



Technology transformation



Competitive potential



Considers
only strategic business-IT alignment
or only operational business-IT alignment

The SAM highlights business-IT alignment issues

1. IT should consider external factors (the “business”) for alignment

2. How business-IT alignment is achieved depends on the organization (requires a broad vision on the role of IT)

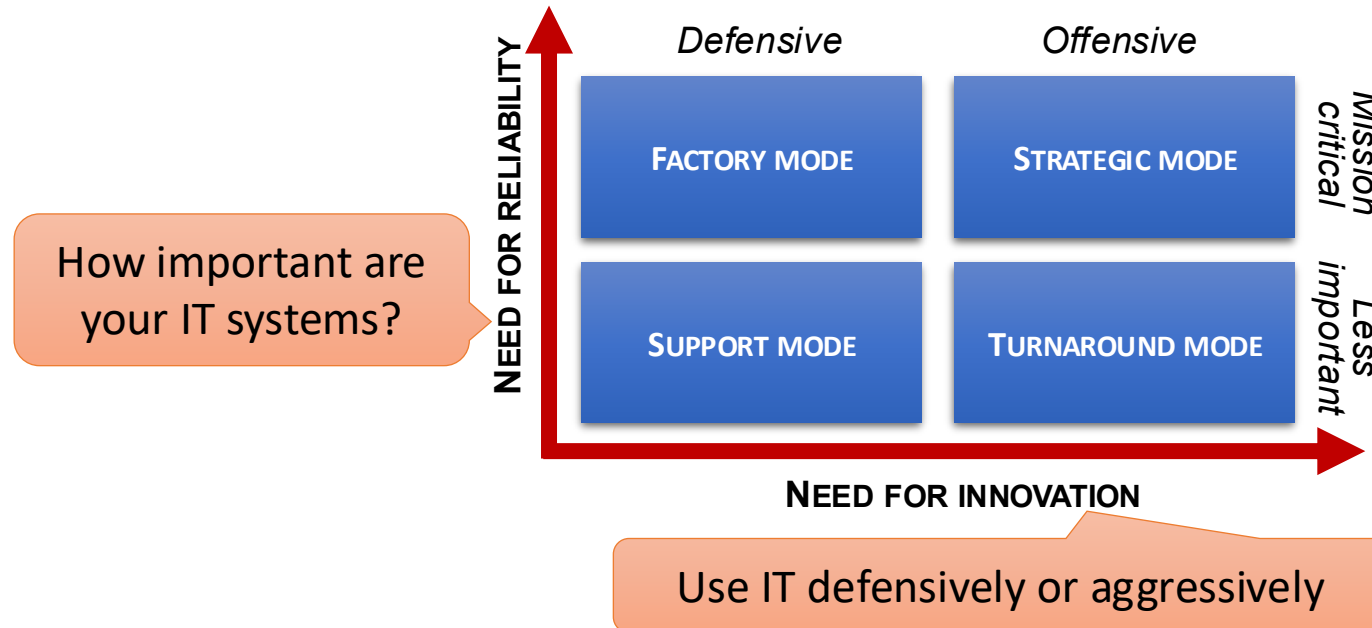
3. Roles and responsibilities of business and IT managers are very diverse: visionaries, leaders, executive managers

4. Evaluating IT is diverse:

- (1) as a cost center (cost efficiency)
- (2) as a service center (services quality)
- (3) as a profit center (sense of IT market)
- (4) as an investment center (how IT competencies are enhanced)

The strategic impact grid: what determines IT strategy?

2005



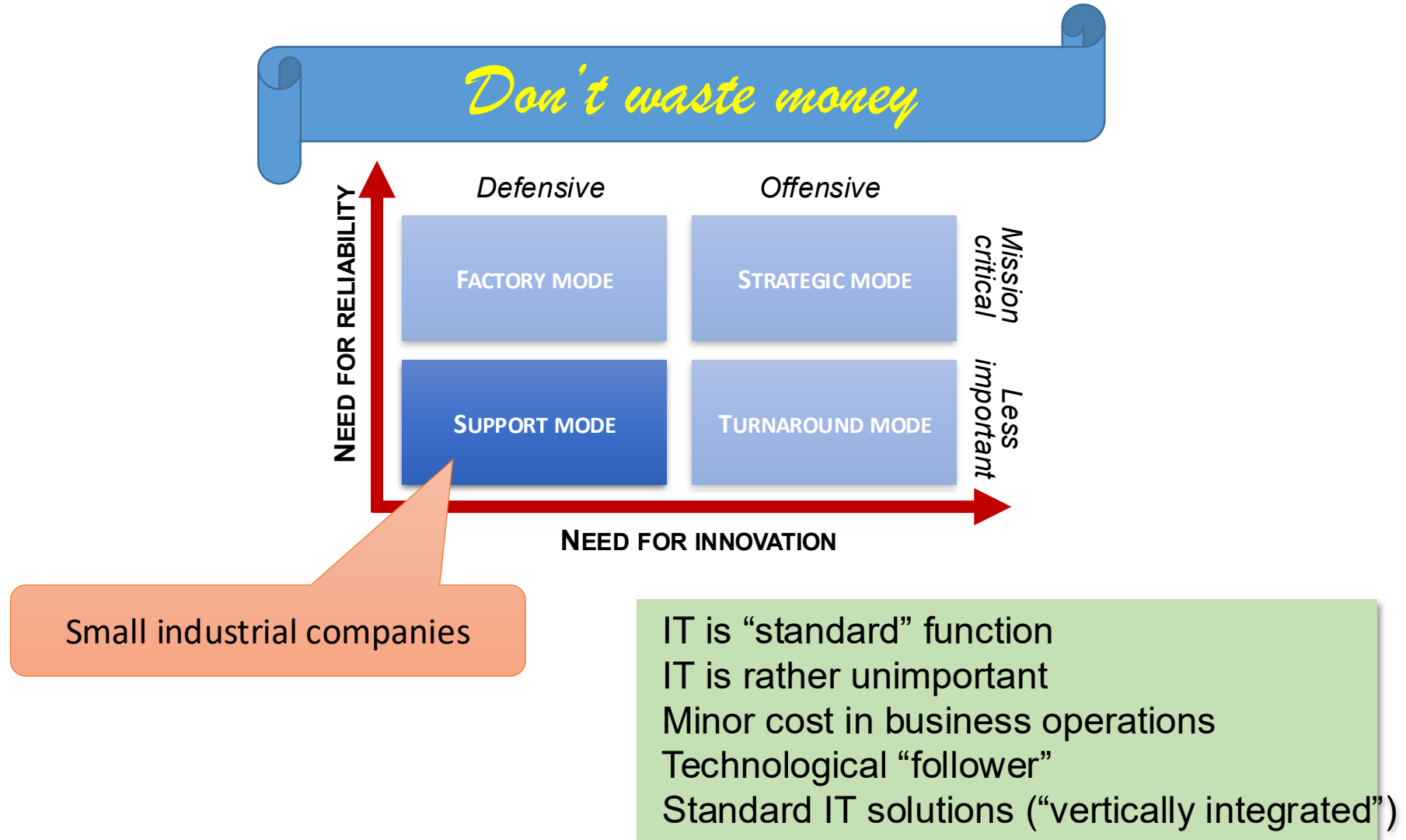
Richard Nolan



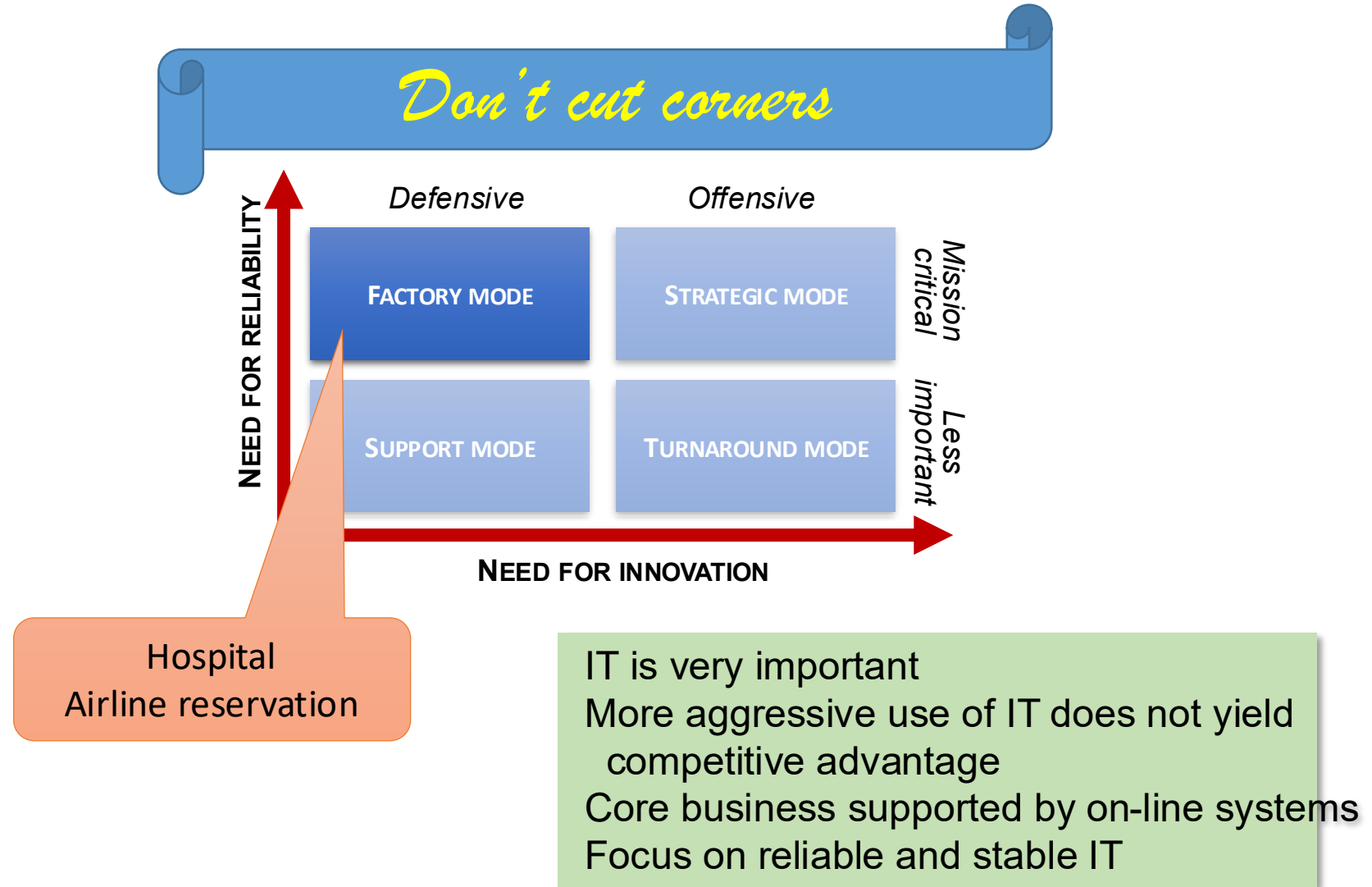
F. Warren McFarlan

Your IT strategy depends on the kind of organization you are

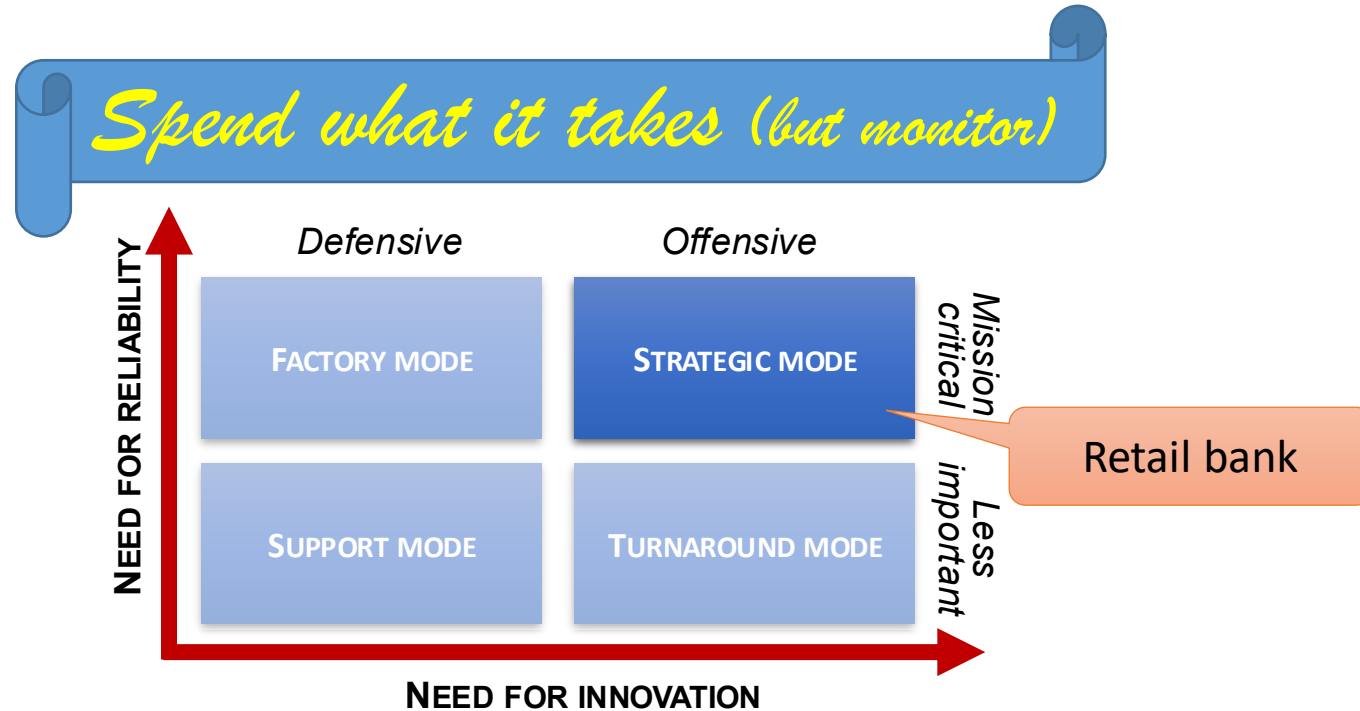
Support mode: IT is not very important



Factory mode: reliable standard systems

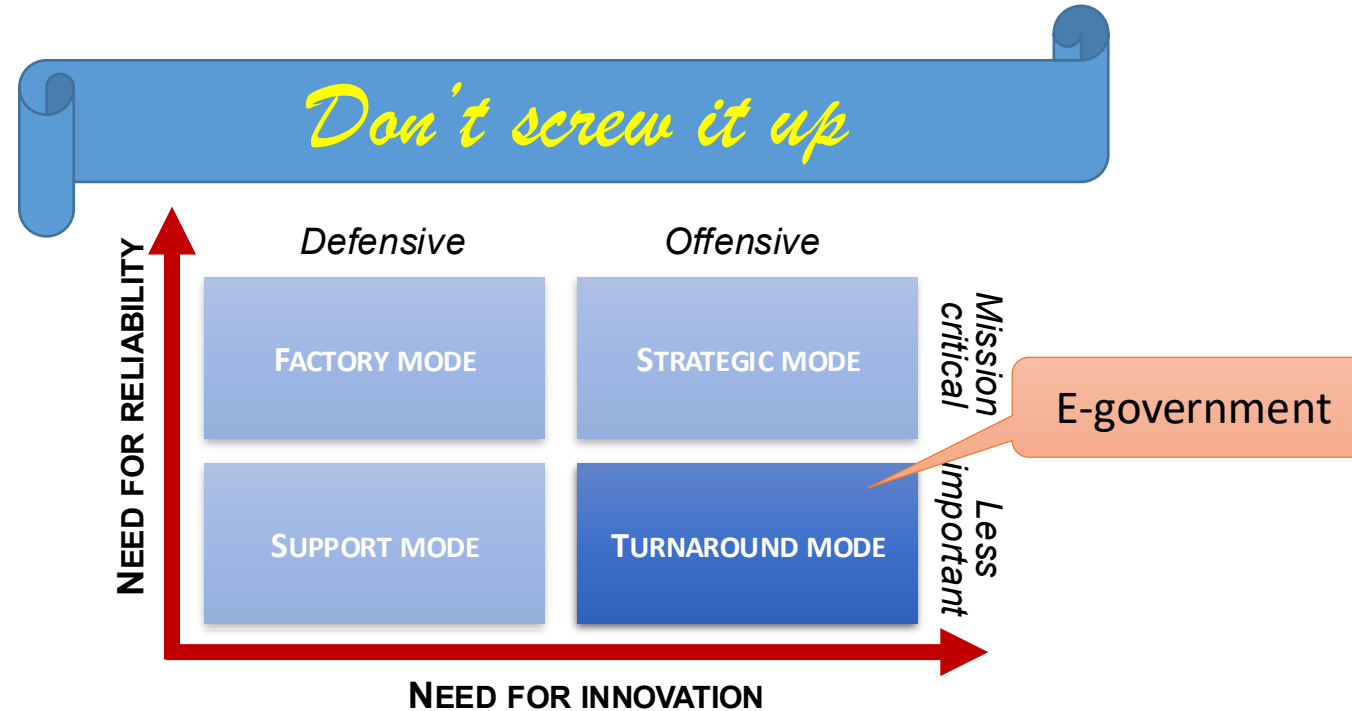


Strategic mode: IT is very important

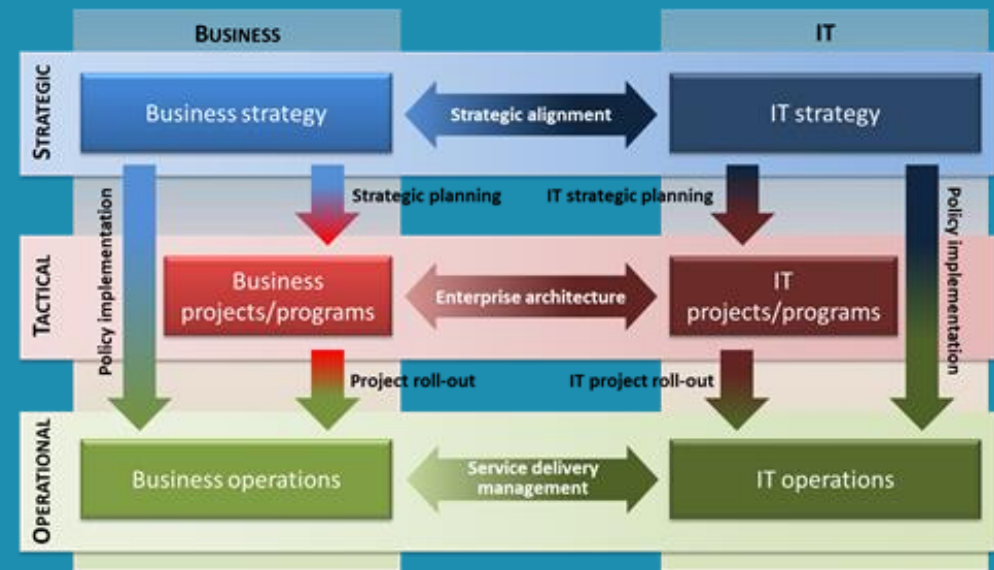


IT is of strategic importance
Critical on-line systems, 100% uptime
Innovation is critical
renew systems at fast pace
acquire or maintain competitive advantage
Managing IT is a challenge

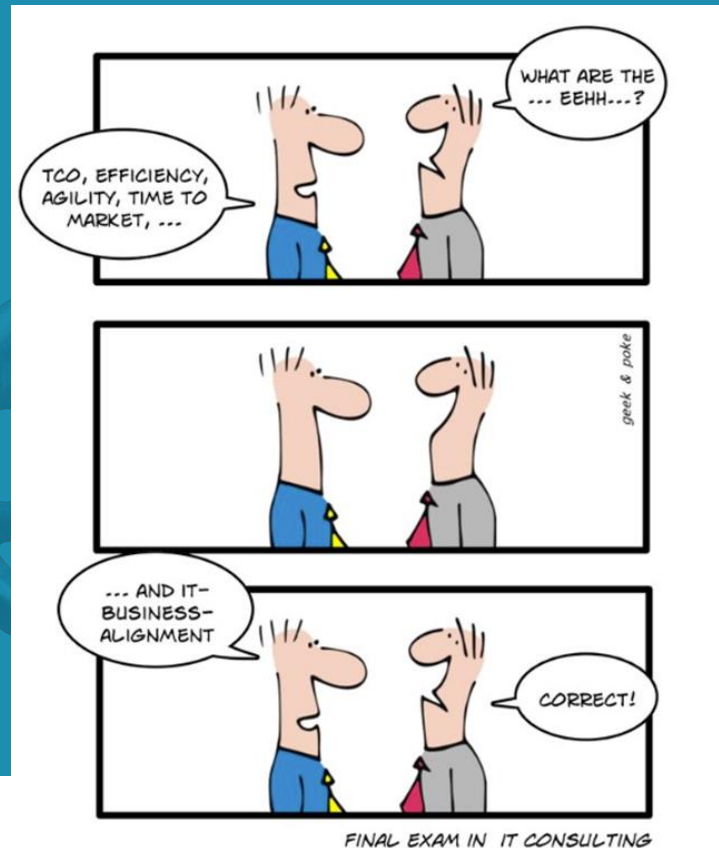
Turnaround mode: usually temporary focus on IT



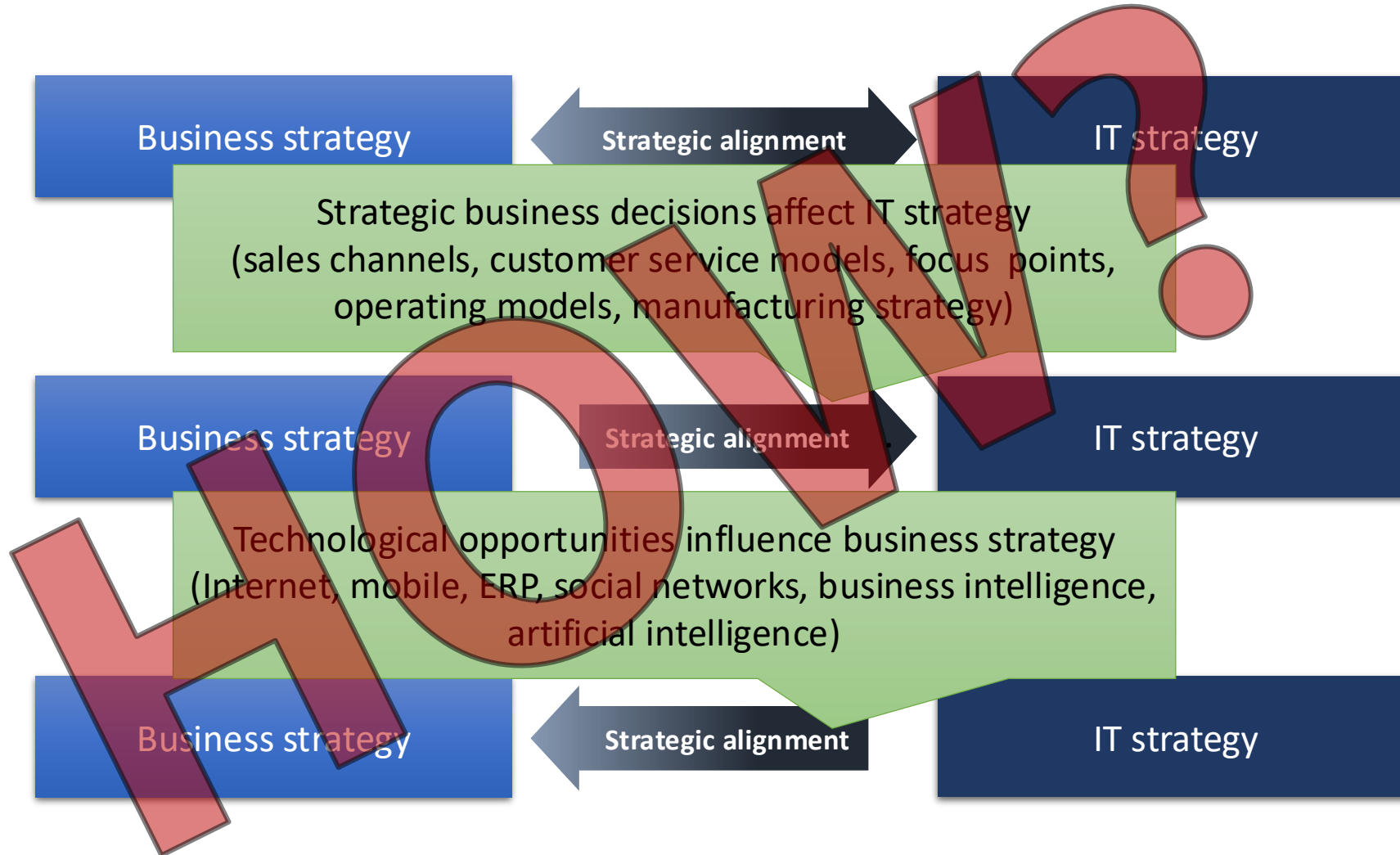
No need for particularly reliable systems
However: strong need to innovate
Cost savings through innovation
...often temporary situation on the way
to "Support" mode



III.I. Strategic Business-IT alignment



Strategic influences business – IT



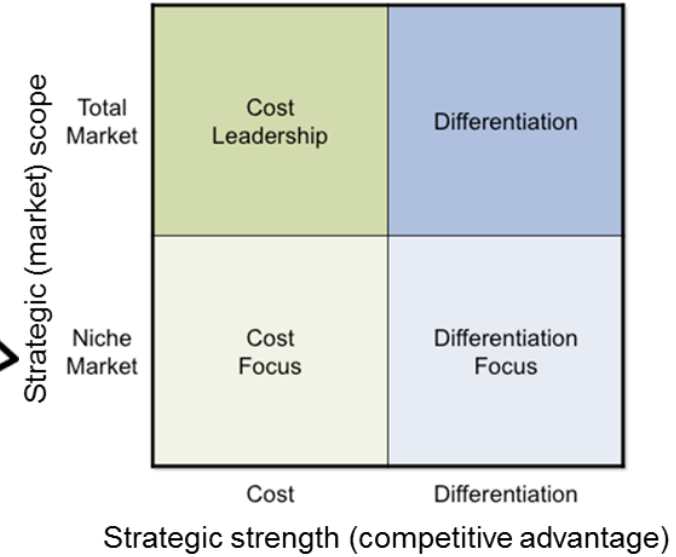
→ **Alignment techniques**

Strategic business focus points

Treacy & Wiersema



Porter



(Strategic) focus points

Financial focus

Operational focus

Product focus

Customer focus

Strategic business focus points

Financial focus

- Business

- Focus on low cost, high return
- Strict cost management
- Dominated by purchasing and financial control
- Small, standardized product offering

- IT

- Implements strict cost management
- Strict rules for IT funding
- Relation IT funding – requirements management
- Closely monitored purchasing and supplier management



Strategic business focus points

Operational focus

- Business

- Operational efficiency, governance, compliance
- Efficient and automated production facilities (large volumes)
- R&D focused on process improvements
- Efficient distribution channels
- Access to extensive capital
- Dominated by production/manufacturing



- IT

- IT used to automate business processes to maximum extent (large-scale transaction processing)
- IT is efficient
- Reliable, high-performance systems and services
- Stable and efficient basic infrastructure
- IT operations is primary focus
- Continuous improvement of IT processes, services and systems
- Active contribution to operational business process improvement
- Sufficient capital available

Strategic business focus points

Product focus

- Business

- High-value products
- Continuous innovation, aimed at differentiation
- Emphasis on product development
- Rapid follow-up of product generations
- Flexible manufacturing/services delivery
- Outsourcing
- Extensive marketing and branding

- IT

- IT is flexible and agile (e.g. supporting product diversity, granular pricing)
- IT supports creative processes (product development, prototyping), implementing communication and collaboration tools
- IT delivers non-standard services
- IT actively contributes to business products and services
- IT supports marketing (e.g. business intelligence)

IT outsourcing



ZARA



Ferrari

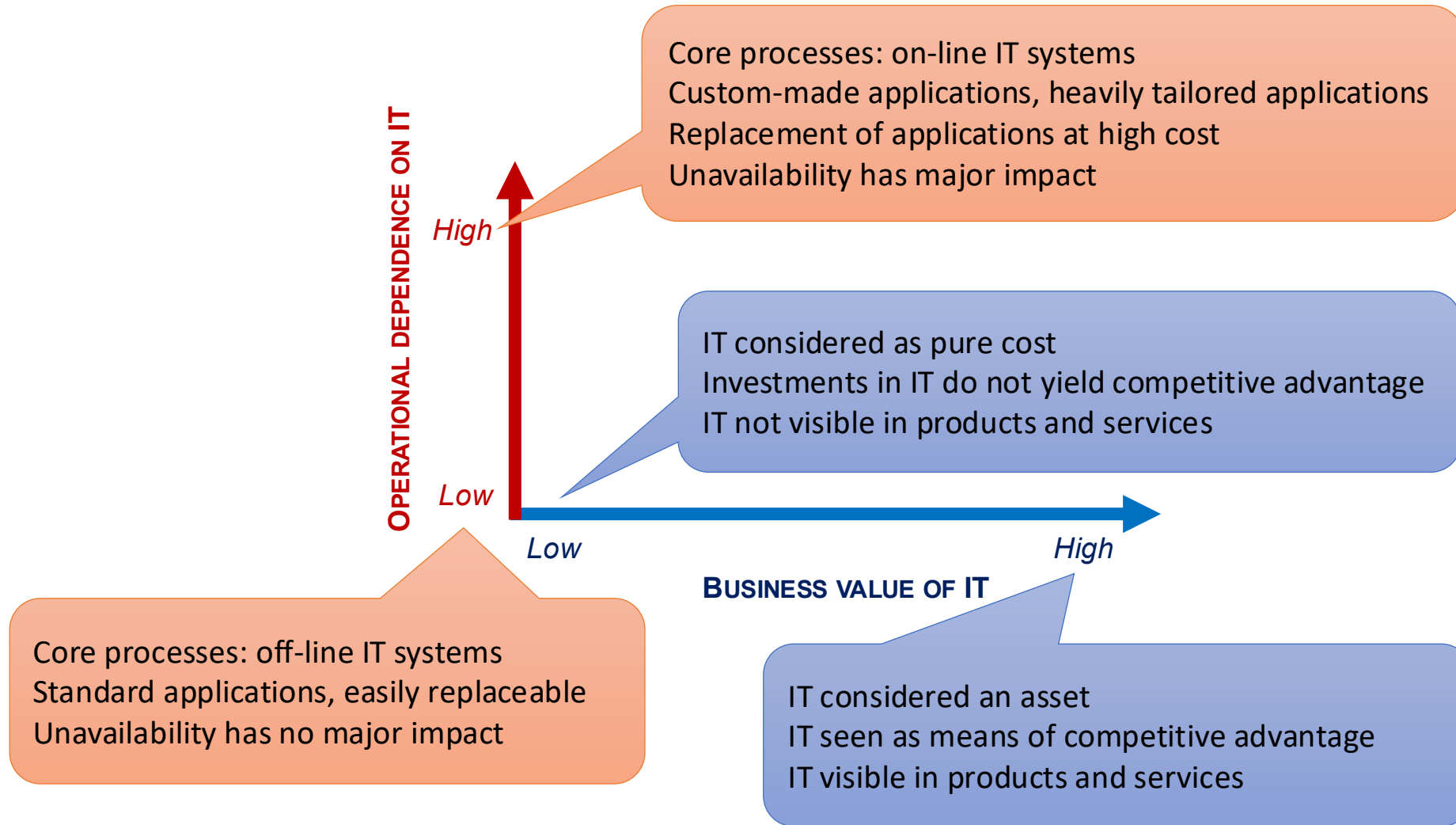
Strategic business focus points

Customer focus

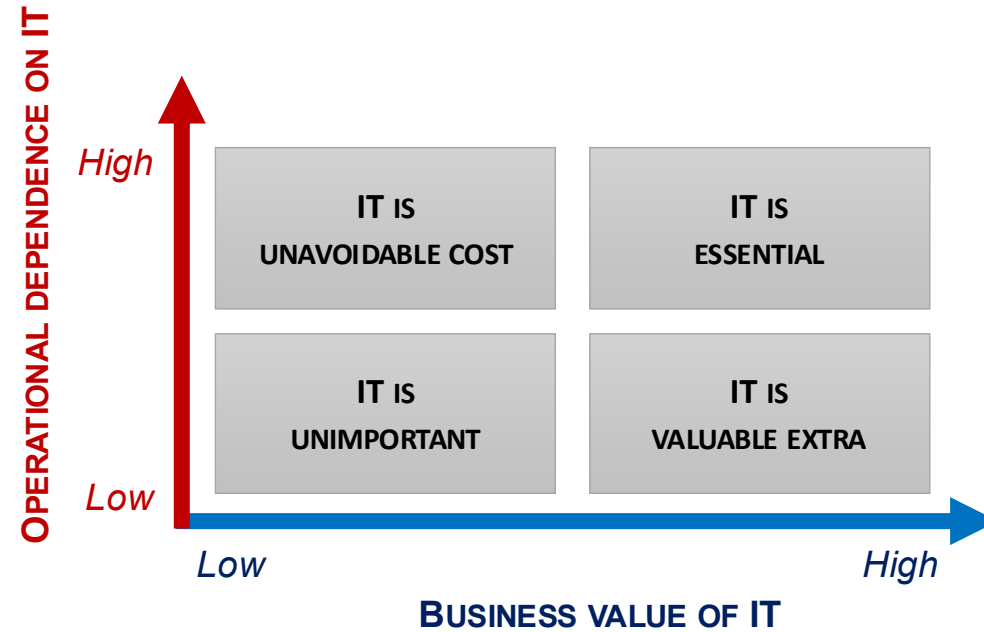
- Business
 - Excellent customer service
 - Customer intimacy
 - Understanding customer needs
 - Flexible needs fulfilment
 - Dominated by customer-oriented departments (sales, customer service)
 - Agile sales and after-sales processes
 - Staff empowered to serve customer
- IT
 - CRM
 - Support customer side of supply chain (delivery, after-sales)
 - Actively support customer purchasing improvement initiatives (e.g. web, mobile)
 - Actively support post-sales improvement initiatives



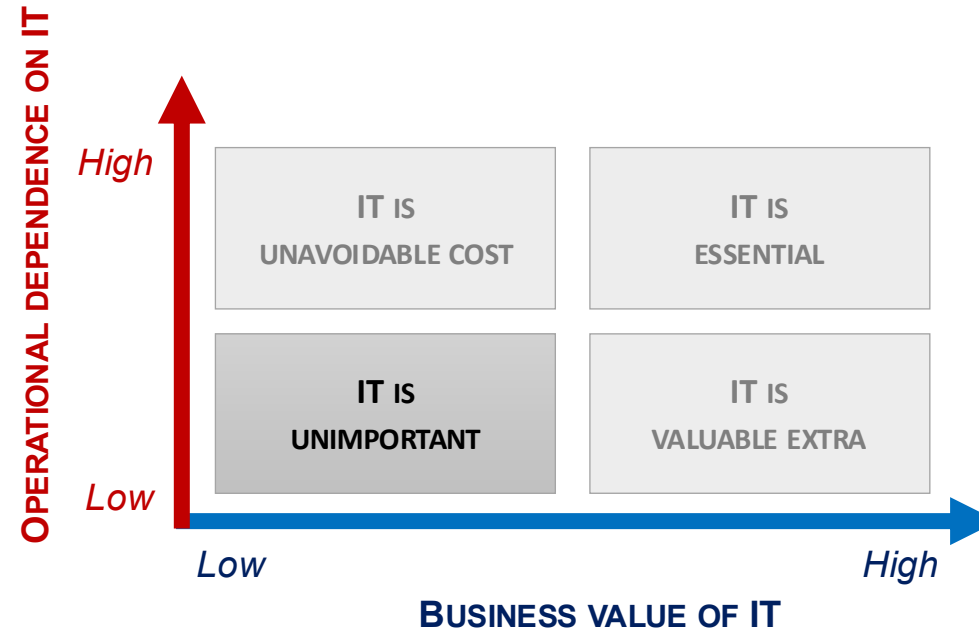
Strategic attitude towards IT



Strategic attitude towards IT: four quadrants



Strategic attitude towards IT: four quadrants

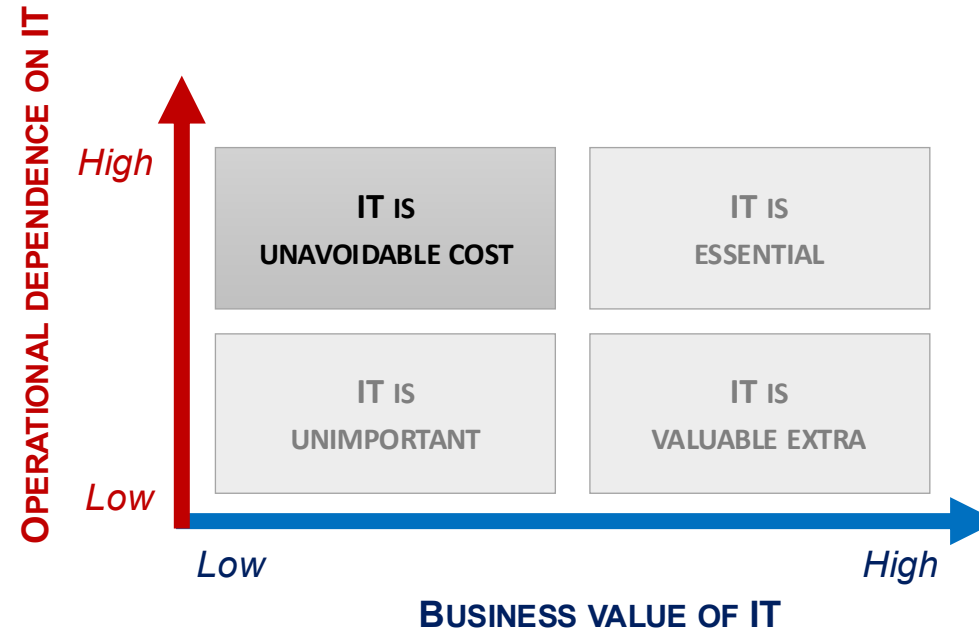


IT brings no specific advantage
No real dependence on IT

e.g. Small store
Specialized manufacturing

Cost-efficient IT
Standard IT systems

Strategic attitude towards IT: Unavoidable cost

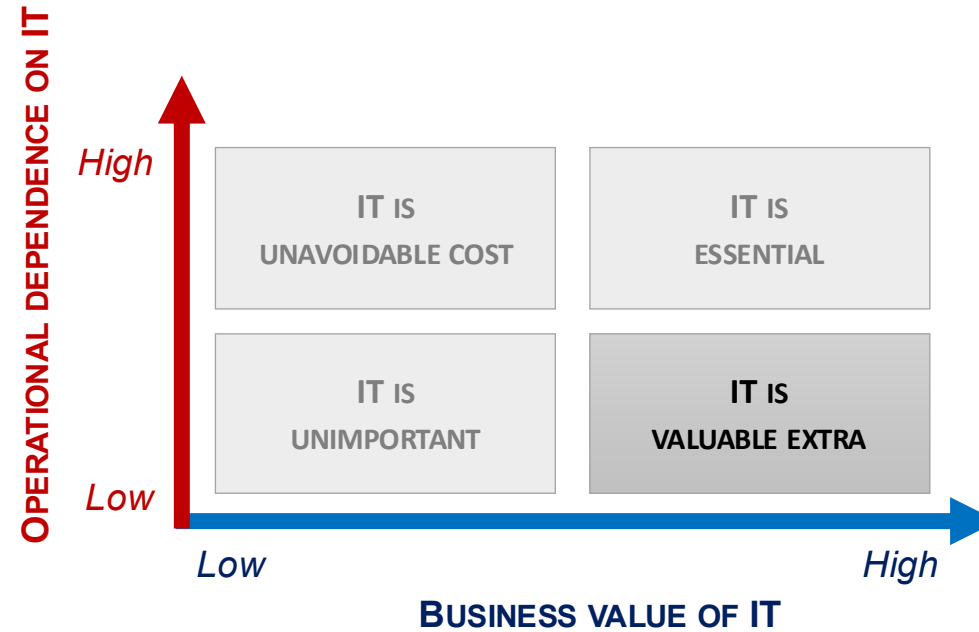


Extensive use of IT
However, no specific competitive advantage

e.g. Large non-profit (hospital)
Standardized industry (e.g. car)

Important but standard
Reliable systems

Strategic attitude towards IT: Valuable extra

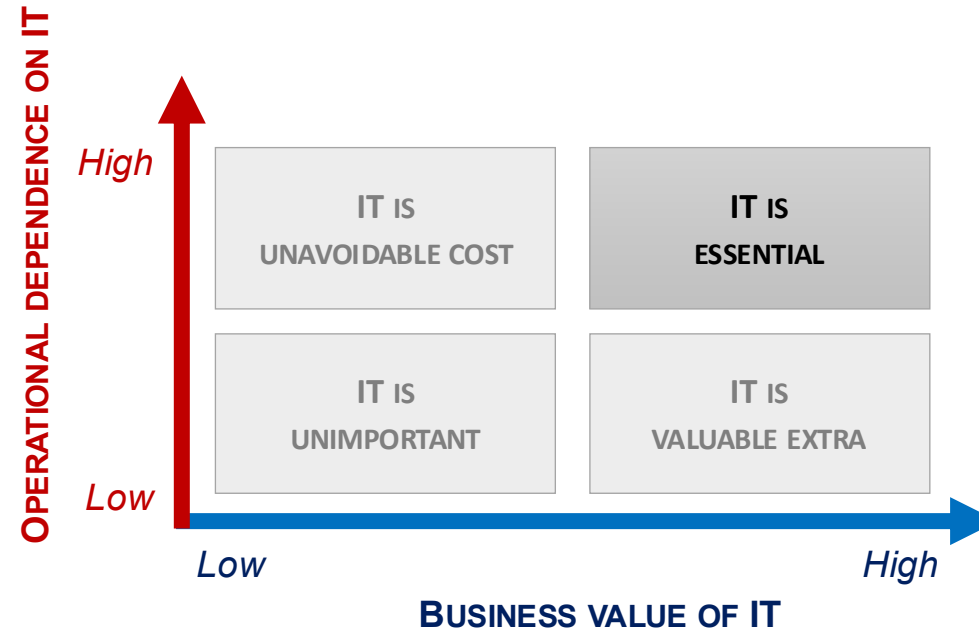


IT is valuable to the business
No critical dependence on IT

e.g. Tax collection service

Moderate, innovative IT development
Cost-efficient

Strategic attitude towards IT: Essential

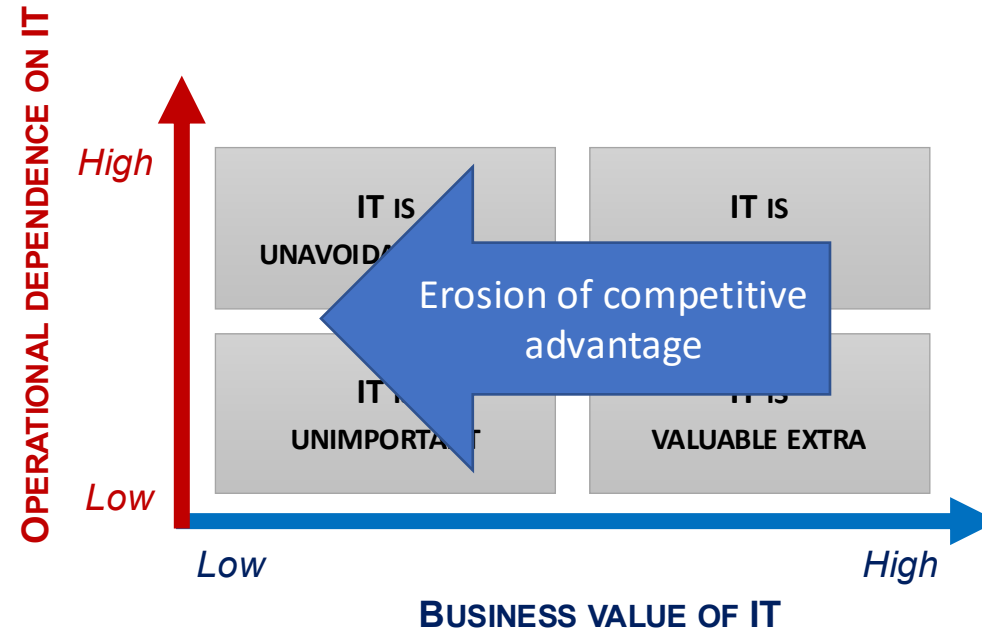


IT pervasive in operations
IT brings high value to the business

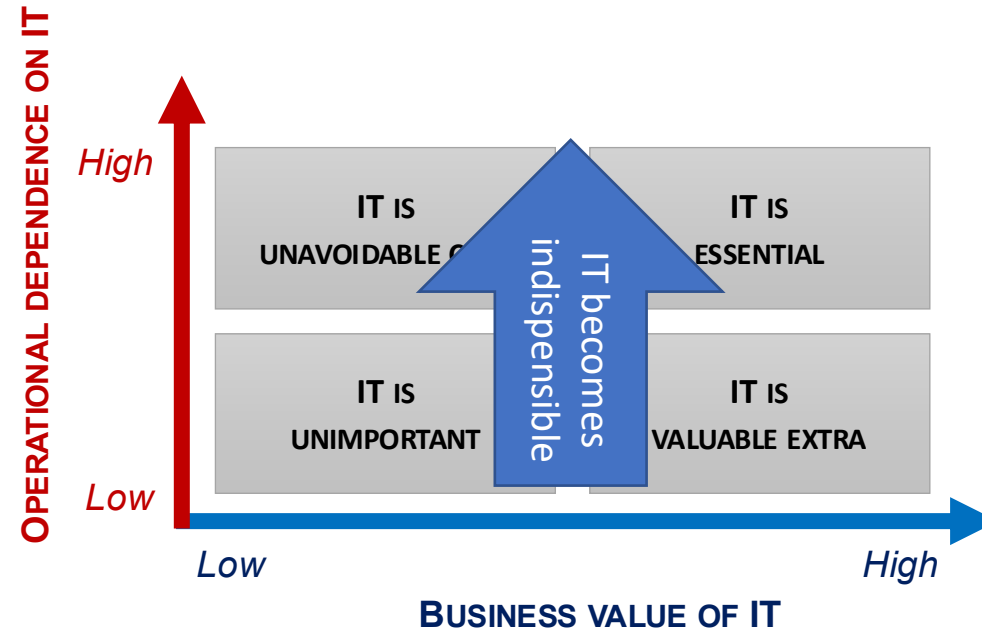
e.g. Internet business
Retail banks

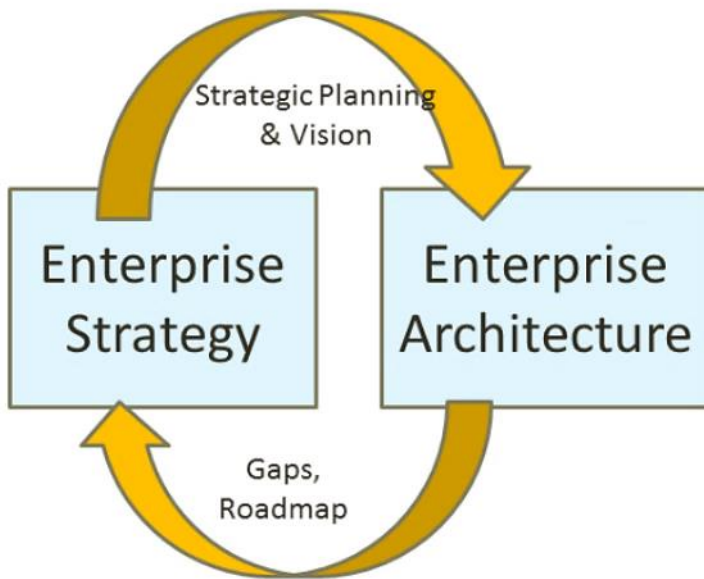
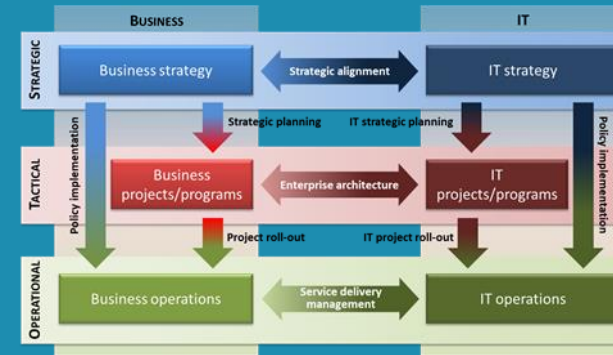
Extensive IT development effort
IT governance

Strategic attitude towards IT: evolution patterns



Strategic attitude towards IT: evolution patterns





III.II. Tactical Business-IT alignment

Alignment through enterprise architecture



Create common architecture business – IT

Make use of:

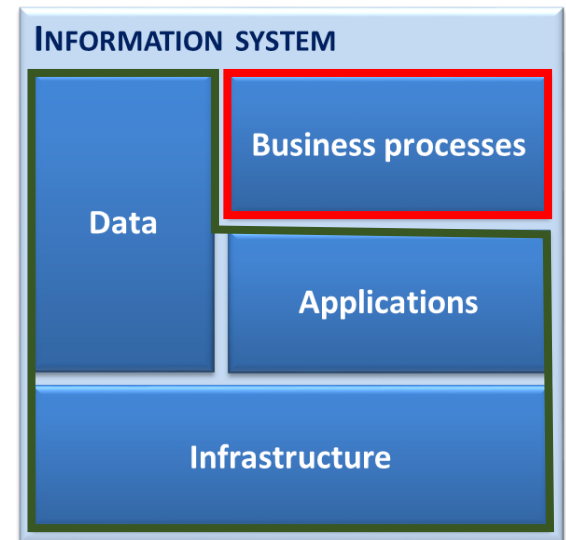
- Enterprise modeling languages (e.g. ArchiMate)
- Enterprise architecture methodologies (e.g. TOGAF)

Articulate links between business and IT

- Support business processes by applications
- Data structures

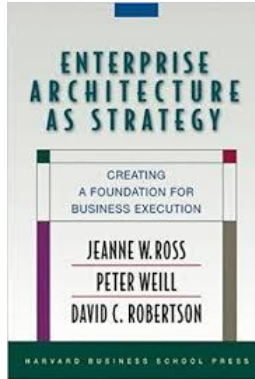
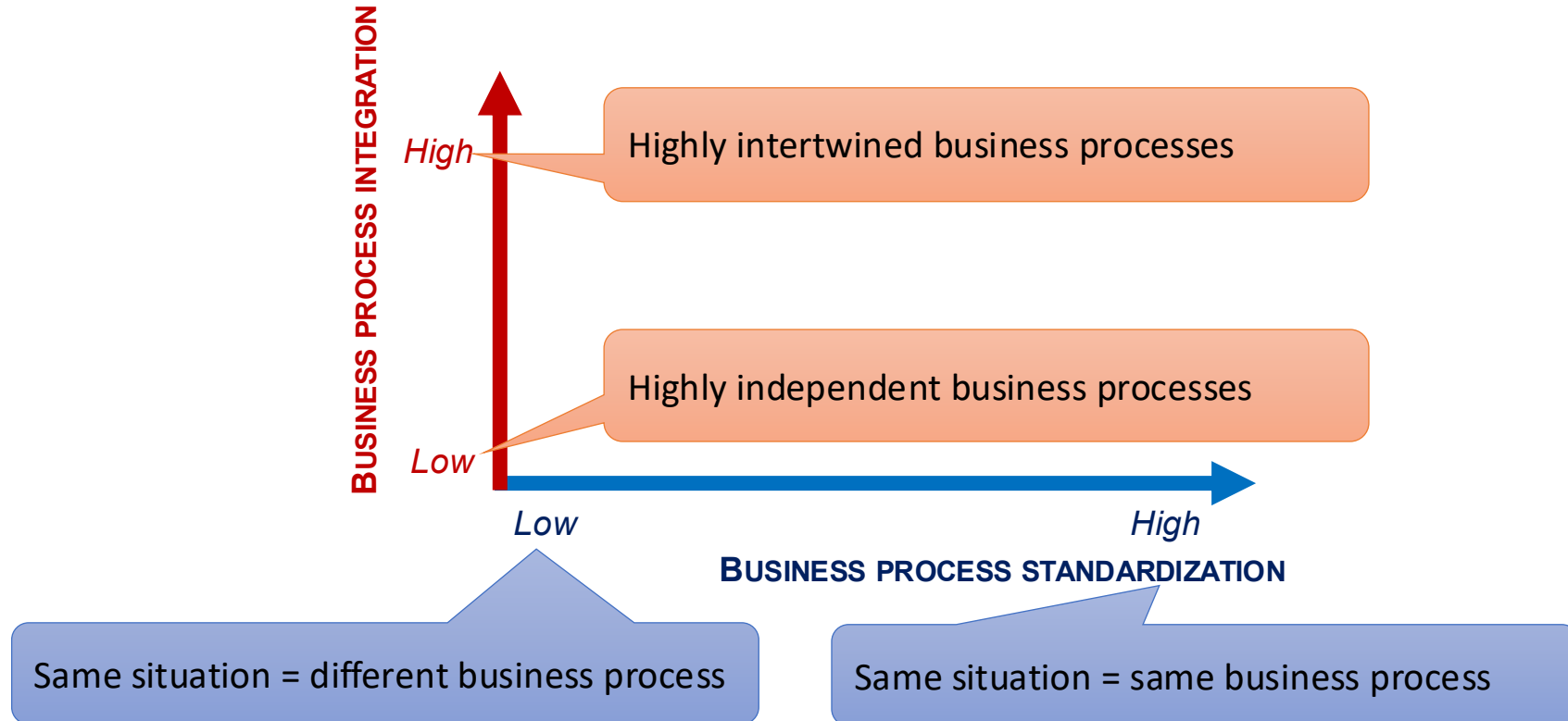
Common basis for implementation
business processes and IT

- Ensure IT supports business processes

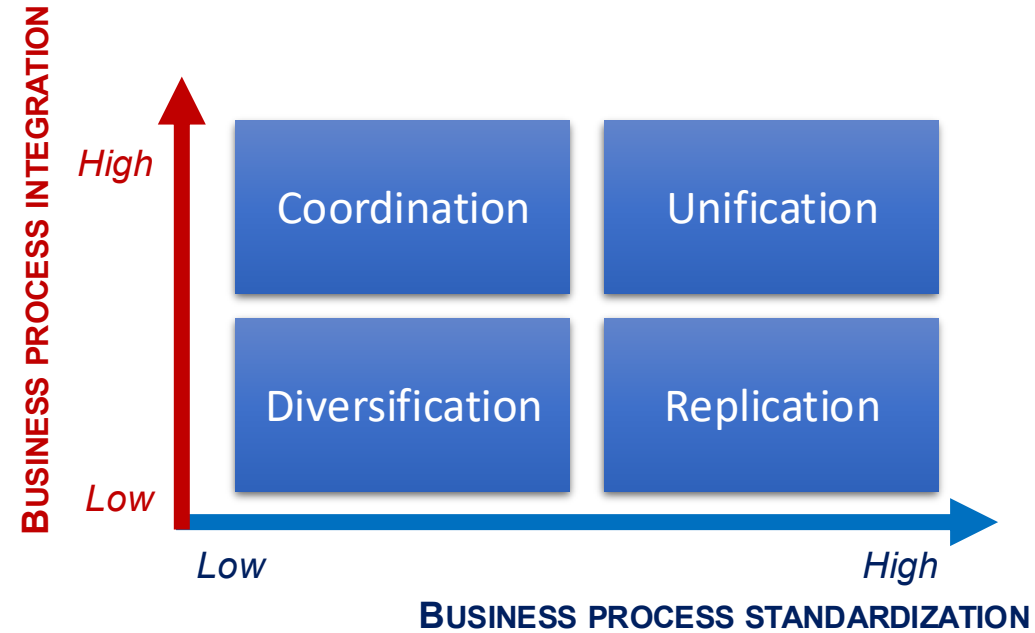


Operating model and enterprise architecture

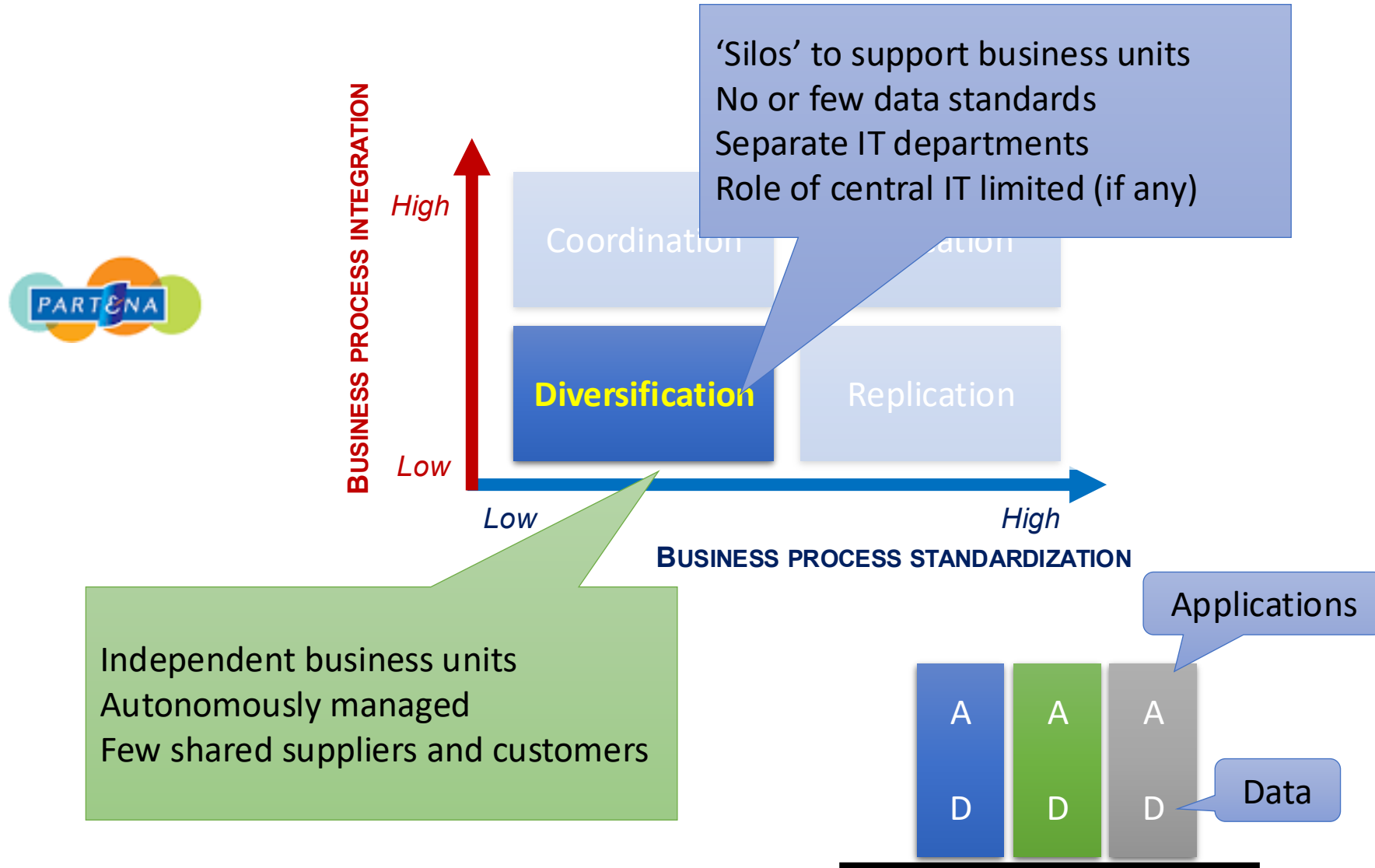
Chosen enterprise operating model influences architecture



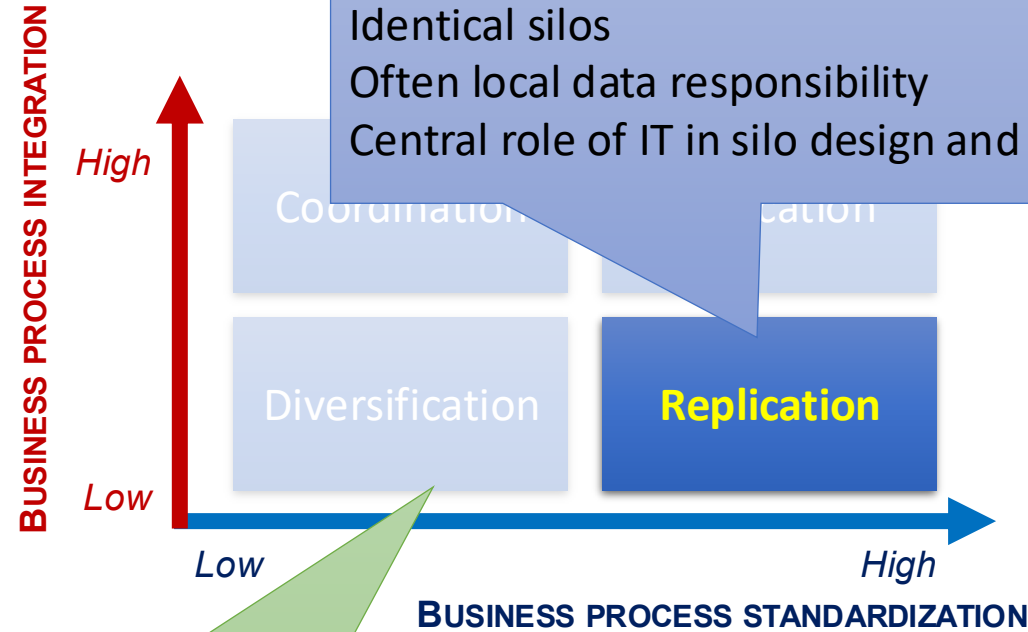
Four operating models



Four operating models: Diversification

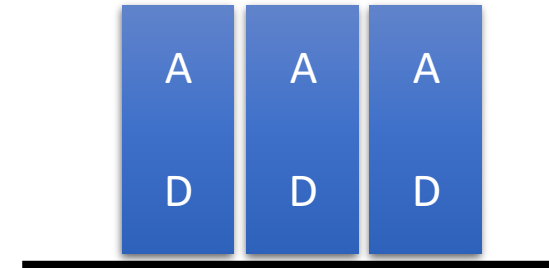


Four operating models: Replication

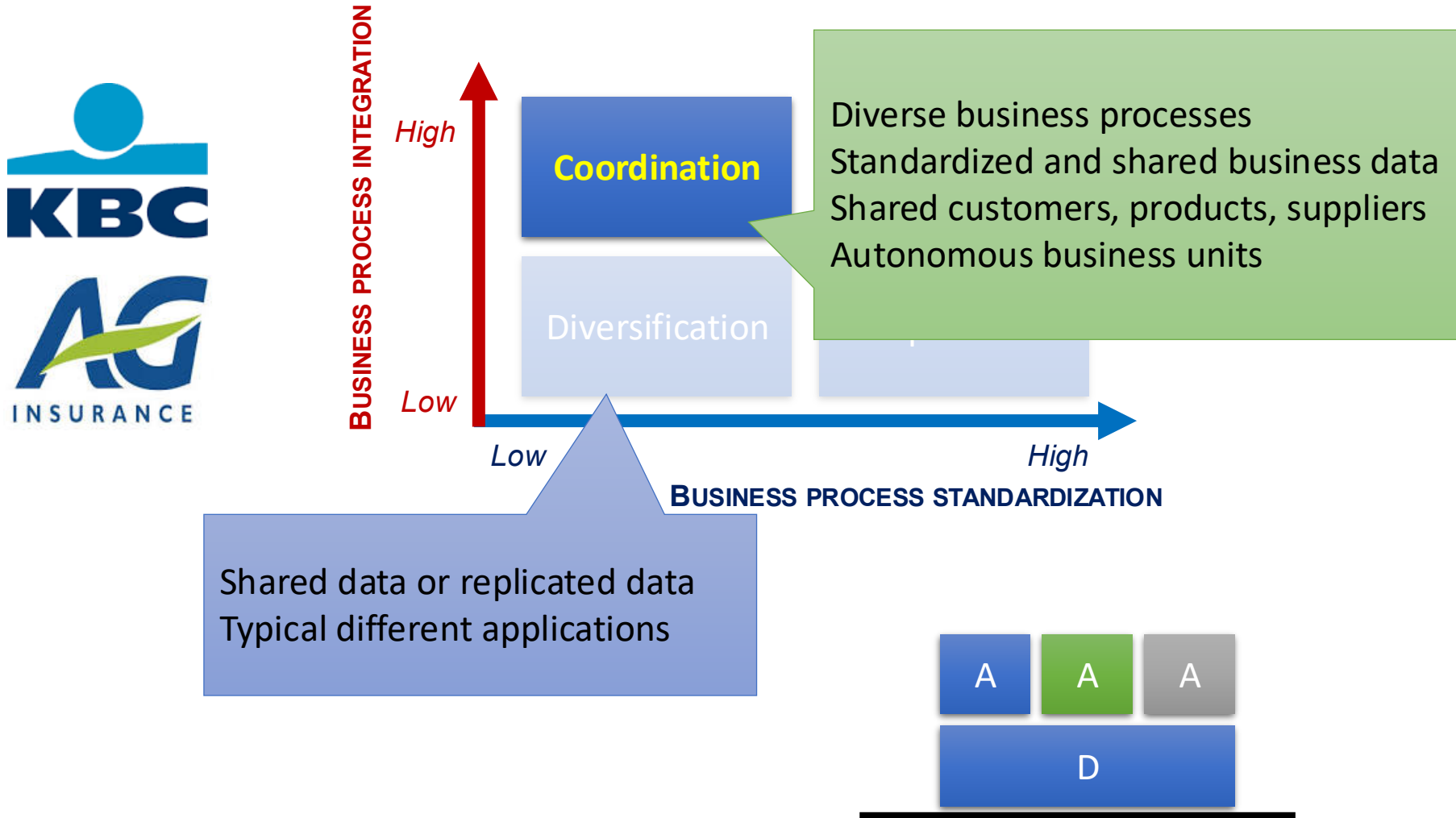


Central enterprise architecture
Identical silos
Often local data responsibility
Central role of IT in silo design and management

Central business design
Similar business units
Independent business transactions
(usually aggregated)
Locally owned business data

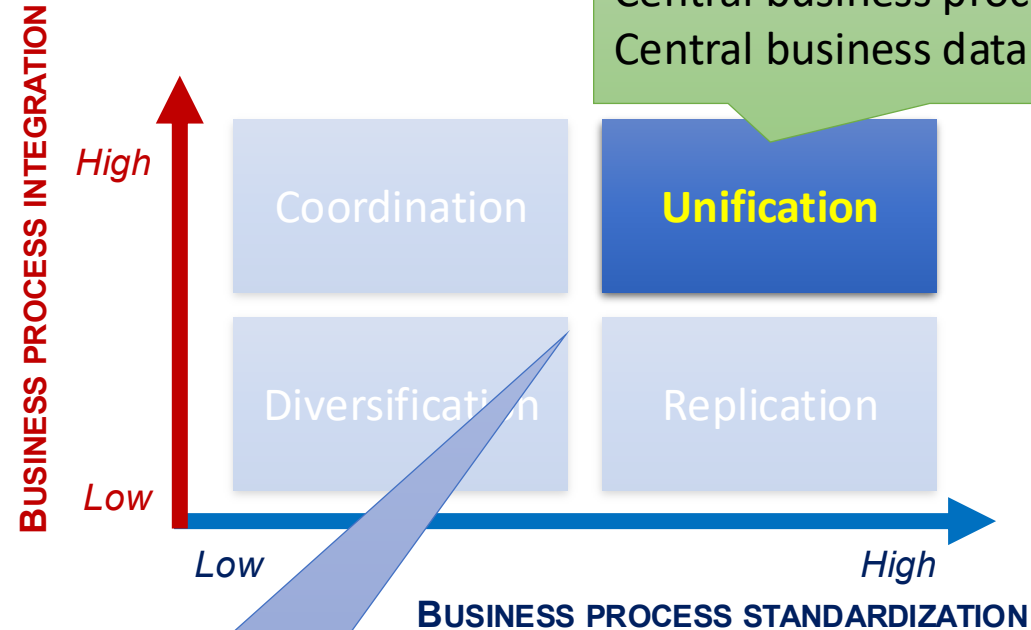


Four operating models: Coordination



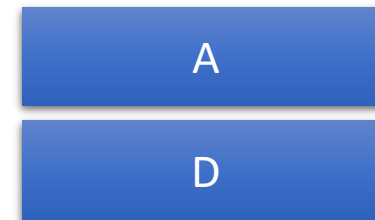
Four operating models: Unification

 DELTA



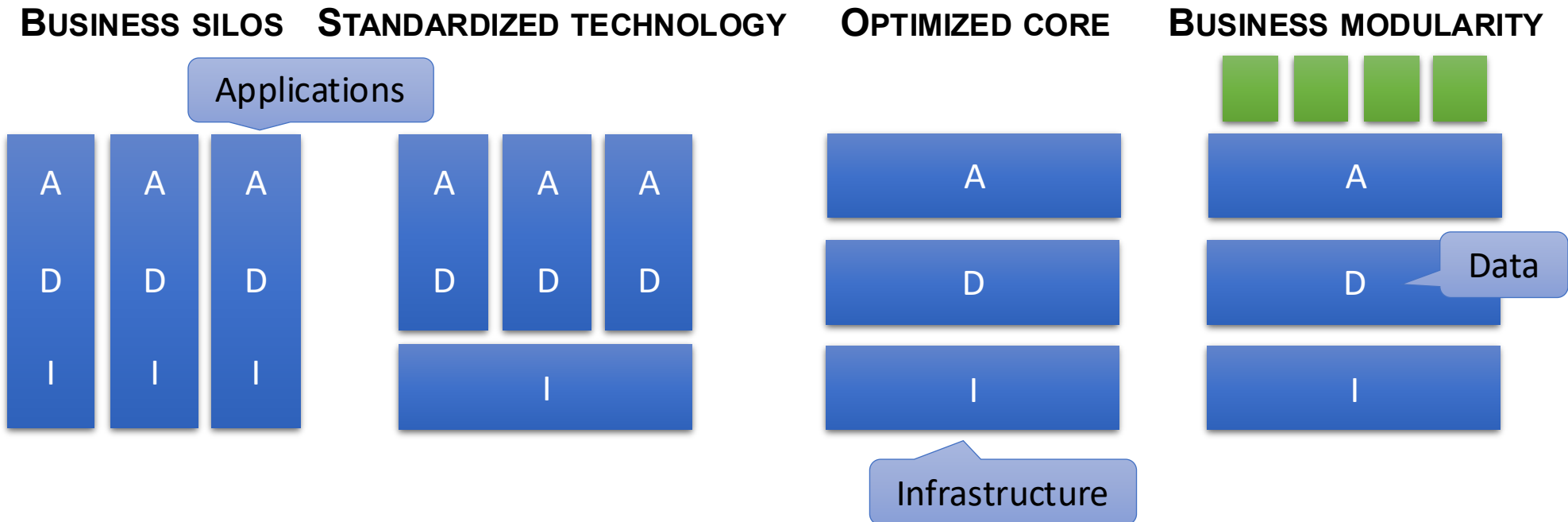
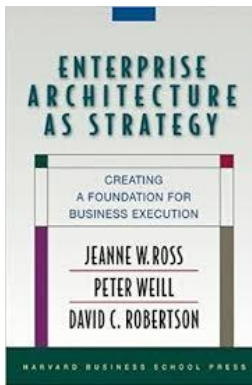
As if single entity
Centralized management
Central business process design
Central business data management

Full integration of data
Single application suite
Strongly centralized IT



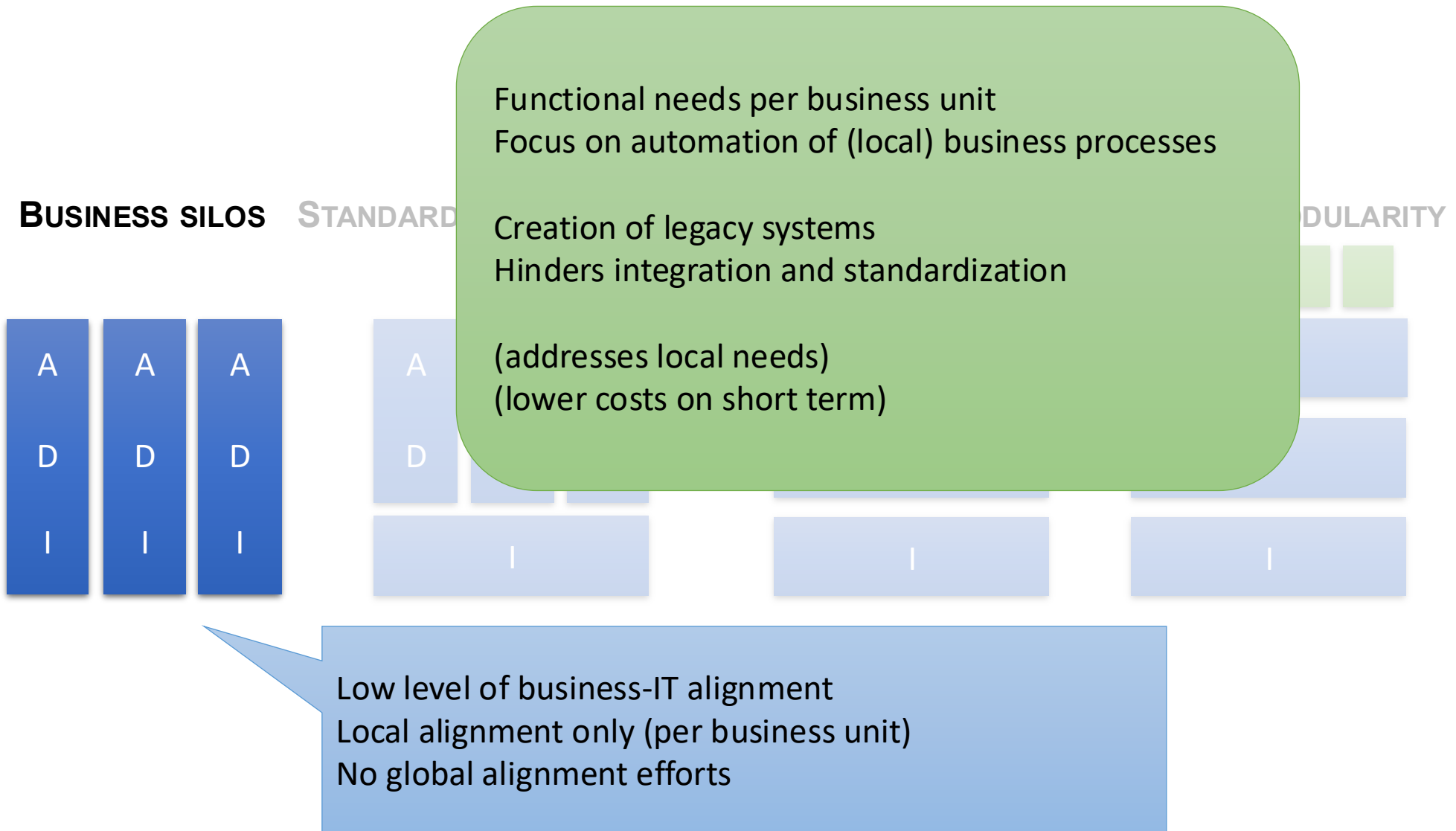
Four stages of architecture maturity

Stages of growing business-IT alignment through enterprise architecture



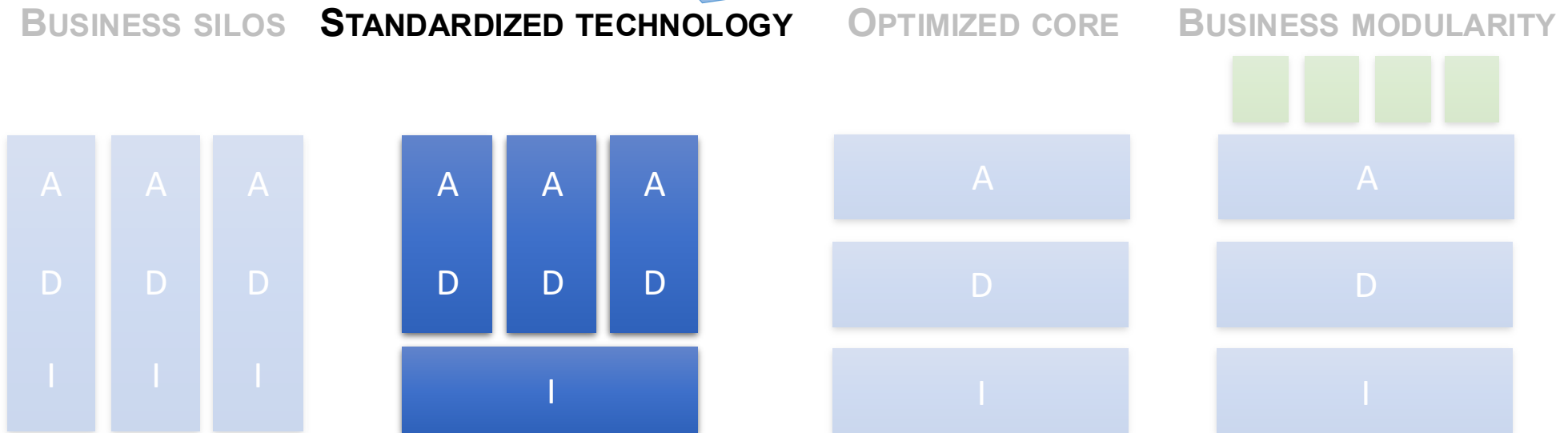
How far you can evolve depends on operating model

Four stages of architecture maturity



Four stages of architecture maturity

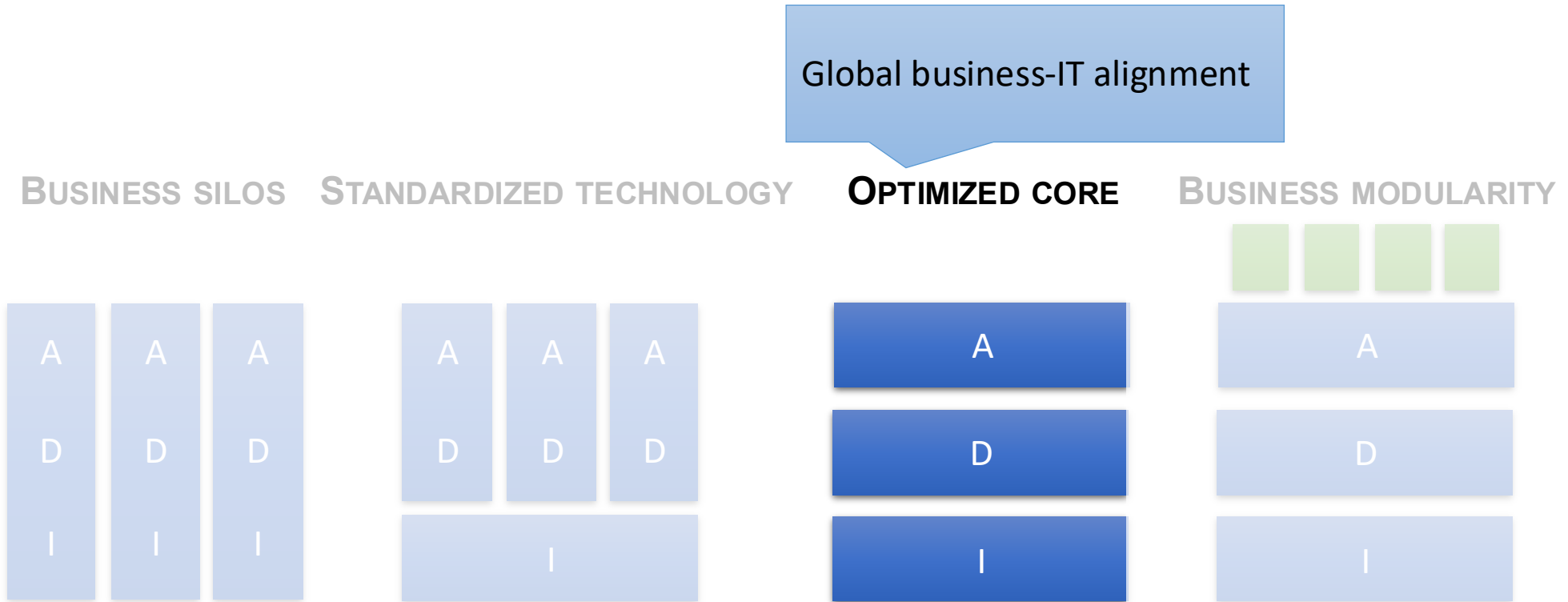
Full business-IT alignment on infrastructure level
Some effort towards global alignment
(highest level for diversification operating model)



Basic infrastructure shared, standardized, managed centrally
Data and applications bound to business units
Reduced number of technology platforms and applications

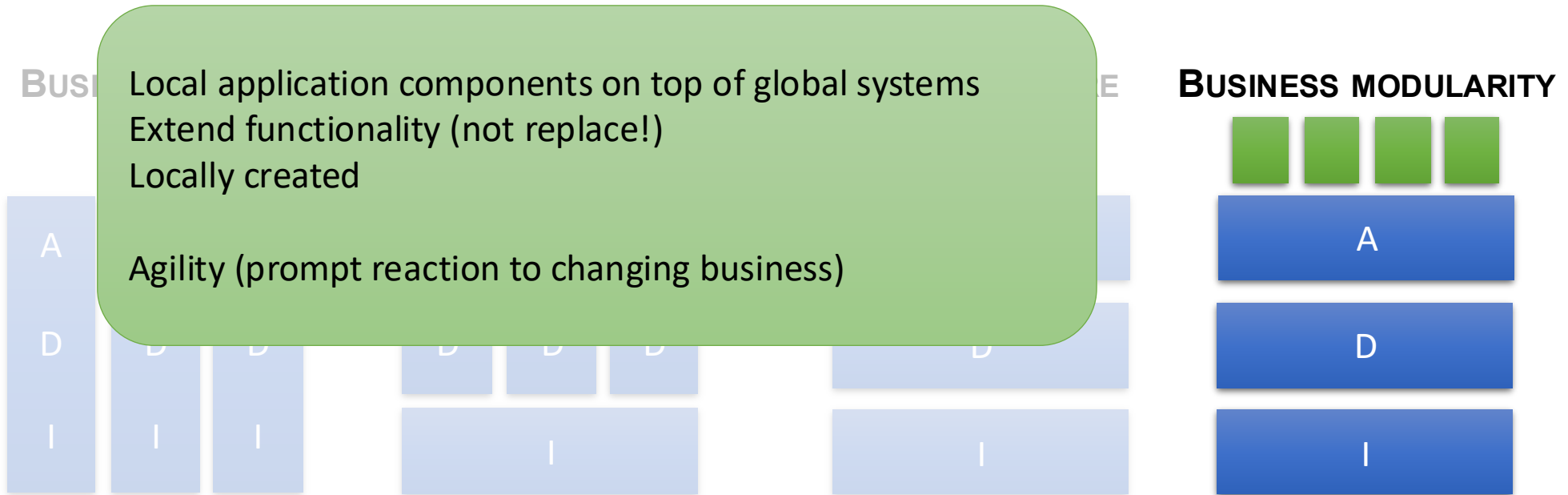
→ Reduced risk, improved reliability and security

Four stages of architecture maturity

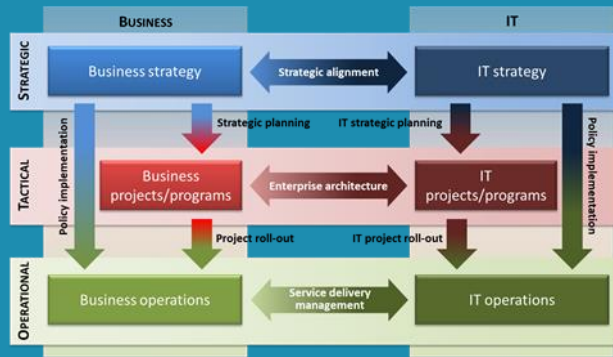


Infrastructure, data and applications shared, standardized, managed centrally
Single, max two technology platform(s)
Typically use of ERP

Four stages of architecture maturity



Agility on top of global business-IT alignment
Combination of 'local' and 'global' alignment



III.III. Operational Business-IT alignment



Alignment through services management



Provide IT services the business needs

Services delivery management

- Services provision process
 - Requirements management
 - Service catalog
 - Service request fulfilment
- Services delivery management
 - Demand and capacity management
 - Service level management

