# INNOCOM.

# Agile Architecture

# Introduction

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**Background:**

- In different (Chief) Enterprise Architecture roles for more than a decade.

- Supporting large and medium sized organizations in their agile architecture journeys at all maturity levels.

- Guest lecturer at the IC institute on Enterprise Architecture (and other topics).

# INNOCOM.

## Quelques indicateurs
- +20 ans d'existence
- Chiffre d'affaires: € 16 Mio
- #consultants: + 80
- #clients: + 80 par année

## Services
- Transformation d'entreprise
  - Digital, IT & Agile

## Compétences de base
- Architecture d'entreprise
- Stratégie informatique & modèles d'exploitation

## USPs
- Indépendance totale
- Savoir-faire & expérience
- Organisation agile (COE)
- Master en architecture inédit (Europe)

Great Place To Work® Certified Feb 2021–Feb 2022 Belgium

INSPIRE & SHARE

CONSULT, COMMIT & COACH

DEVELOP PEOPLE & RESEARCH

## IC Institute
an INNOCOM. company

- **Formations et evolutions**

MEA 2021

IC Institute Personal Growth Plan

IC Institute Masterclasses

IC Institute Bootcamps

- **Activités R&D**
  - **AI & architecture business**
  - **'Lean digital strategy and execution'**
  - **...**

- **Centre d'inspirations**
  - Conférences
  - Networking, événements

# IC Institute
*an* INNOCOM. *company*

## *Masterclass: Agile architecture*


AGILE TRANSFORMATION

Is your company in or considering an Agile Transformation? And do you struggle with the role of architecture in an agile organisation?  Do you want to learn how -in practice- you can successfully take the role of the architect, in an agile context?

Is your company in or considering an Agile Transformation? And do you struggle with the role of architecture in an agile organisation?  Do you want to learn how -in practice- you can successfully take the role of the architect, in an agile context?

**Then this INNOCOM Masterclass on 'Agile Architecture' could be a perfect fit for you!**

During **this 3-day session**, you will learn the **practical handles of agile architecture and agile architecting and learn HOW to use them via exercises.**
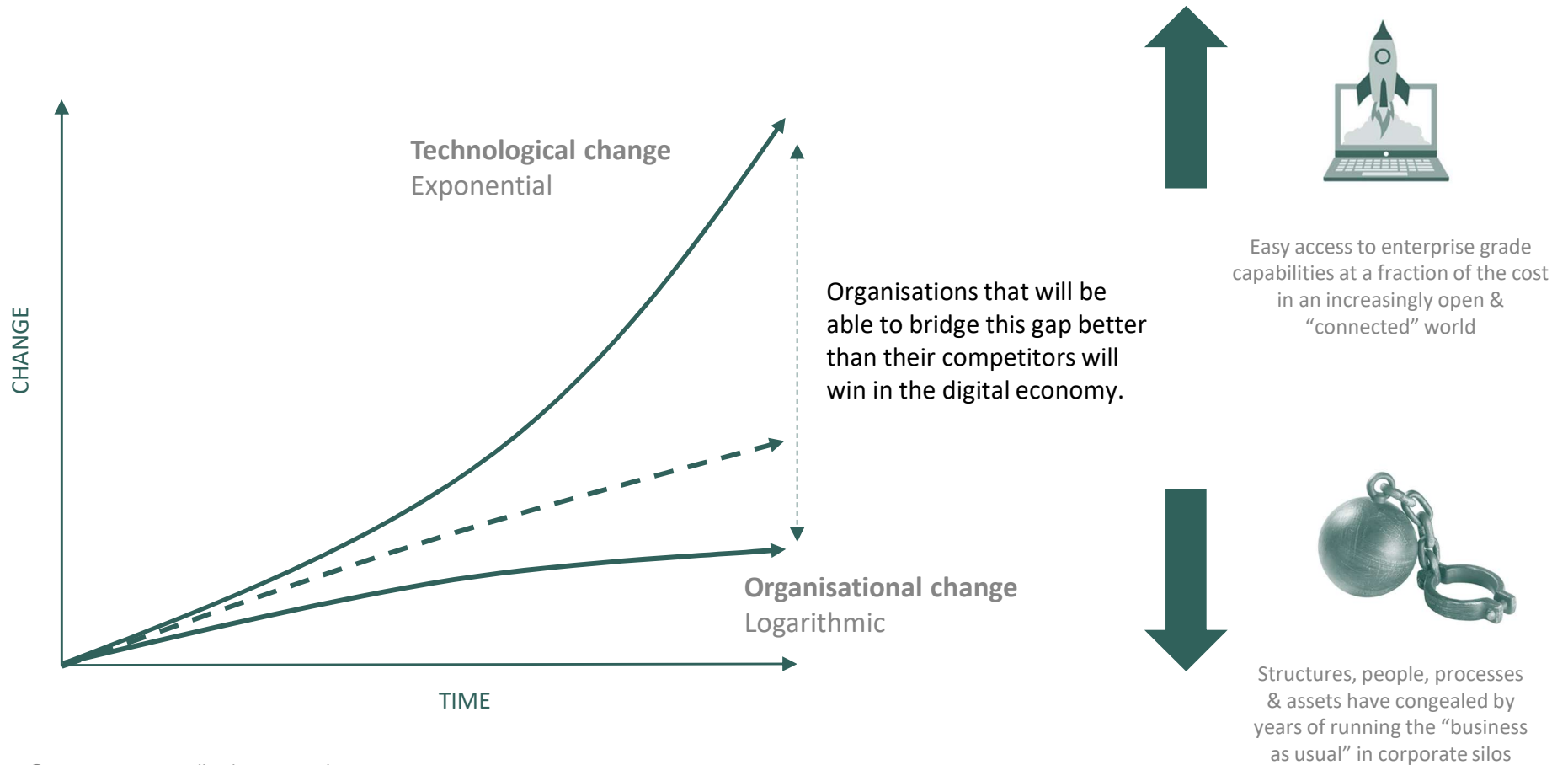
And of course, as of day one, you will be part of the INNOCOM community that you can address and that will support you in ALL your challenges.

The goal of this unique, interactive master class is to provide a highly engaging, proven educational program for current and aspiring IT and business architects who want to have an impact in companies applying agile methods and practices.
**A visible impact in YOUR career and for YOUR company!**

For more information and registration: *https://www.icinstitute.be/masterclasses*

# The challenge of digitalization

**Technological change**
Exponential

Organisations that will be able to bridge this gap better than their competitors will win in the digital economy.

**Organisational change**
Logarithmic

CHANGE

TIME

Easy access to enterprise grade capabilities at a fraction of the cost in an increasingly open & "connected" world

Structures, people, processes & assets have congealed by years of running the "business as usual" in corporate silos

# The challenge the modern enterprise face

Increasing Volatility, Uncertainty, Complexity, Ambiguity, …

…

Increasing security threats

Increasing possibilities by (cloud) services providers

**Enterprise**

IT as backbone of the factory

Windows of opportunity are shrinking

Increasing imposition of governance, legislation, …

**Increasing need for agility**     VS     **Increasing need for control**
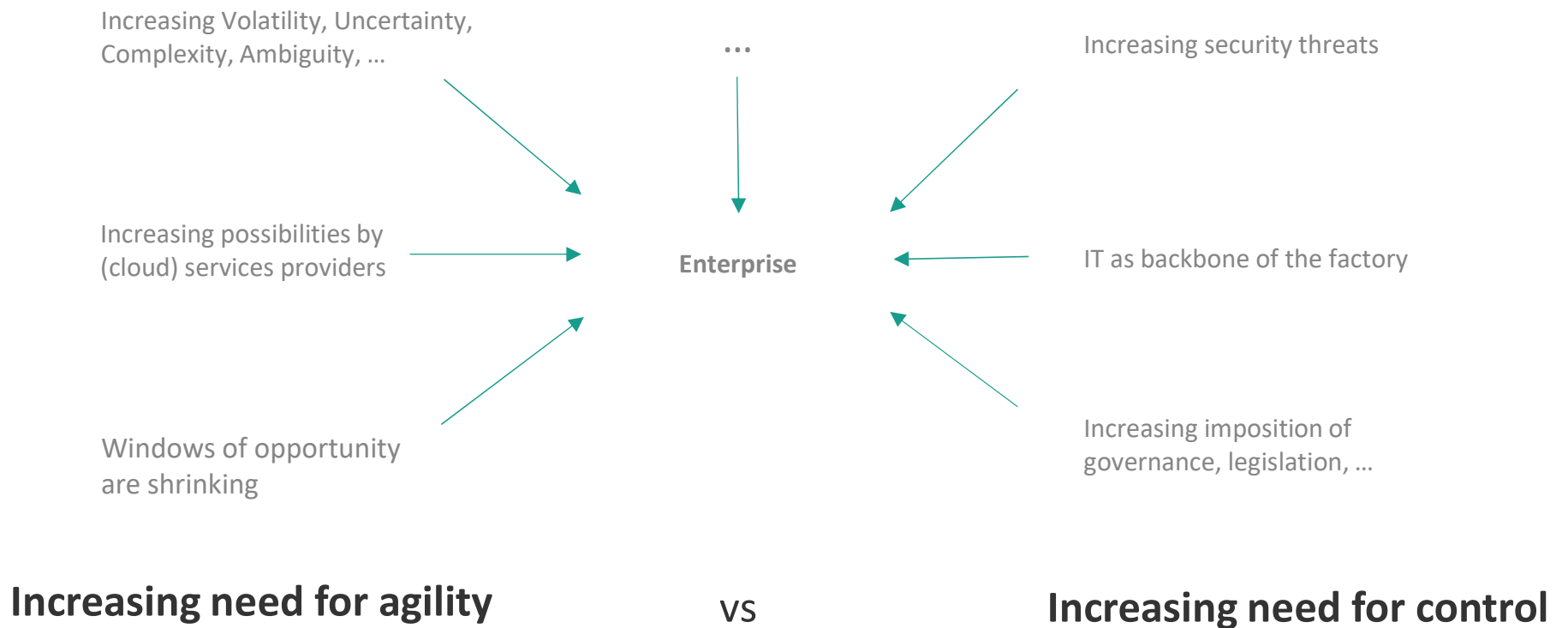
# We compete in the Age of Software

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"The problem is not with our organizations realizing that they need to transform; the problem is that organizations are **using managerial frameworks and infrastructure models from past revolutions** to manage their businesses in this one."

- Mik Kersten

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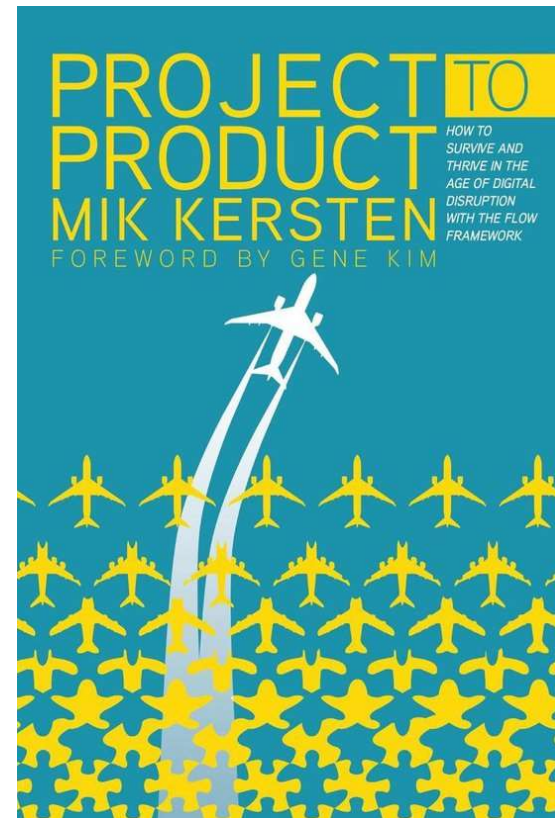
# An Unfortunate Truth



By "cutting corners" and focusing almost exclusively on immediate business gains, many organisations are severely impairing their own IT potential for the future

How to protect the organisation against its own short-sightedness?

# How Agile and Architecture are depicted…

"Architected" aproach

"Agile" approach



We'll figure it out before we act

VS

We'll figure it out while we're acting

10

# The real change is actually different…

### Efficiency first



Optimized for utilization of people & resources
Optimized for (internal) compliance

### Value first



Optimized to response for change
Optimized for continuous value delivery

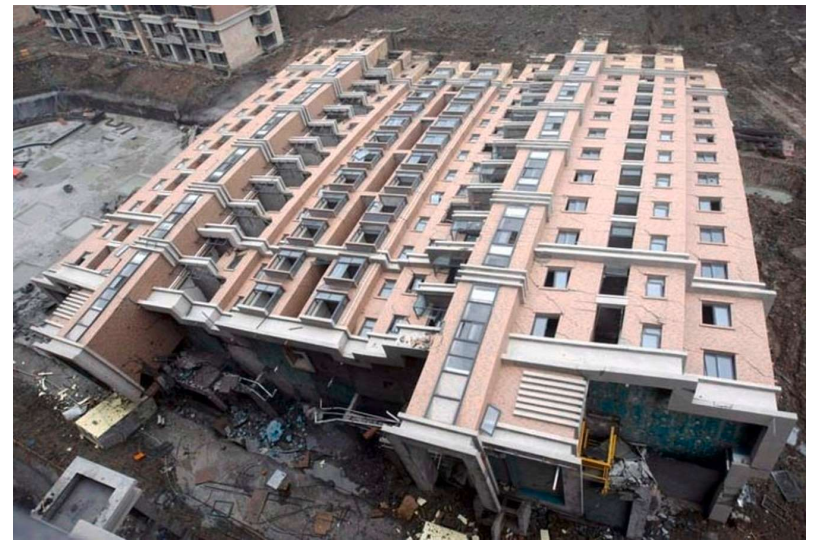# Why is this a challenge for Architects?

What architects aspire

What architects fear

**B**ig **U**p-**F**ront **D**esign is a successful strategy to realize the aspiration while reducing risks …
… when the environment is stable (enough).

# Agile Architecture

**Agile Architecture**



Sensibly balance the short & long-term trade-offs and make the choices visible and understandable to all stakeholders.

# This change has a big impact ...

●●●●

Change in the organization

(the way you operate)

*Faster response to changes in the market and a continuous delivery of value*

Change of the systems

(what you use as tools & techniques)

A change in mindset

(re-wiring the mind)
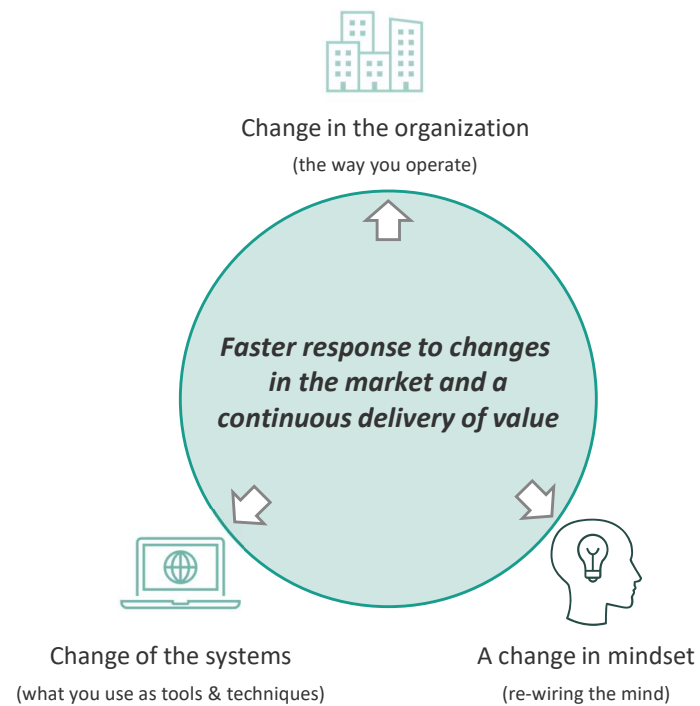
# Agile Architecture address these challenges

**Agile Architecting (what you do)**

• The agile skills of the architects and architecture practice.

**Agile Architecture  (what you build)**

• The required agile characteristics of the system or architecture.



*INNOCOM's AGILE Architecture journey*

# The challenge of digitalization



**Technological change**
Exponential

Agile Architecture is a key
capability to bridge the gap

**Organisational change**
Logarithmic

CHANGE

TIME
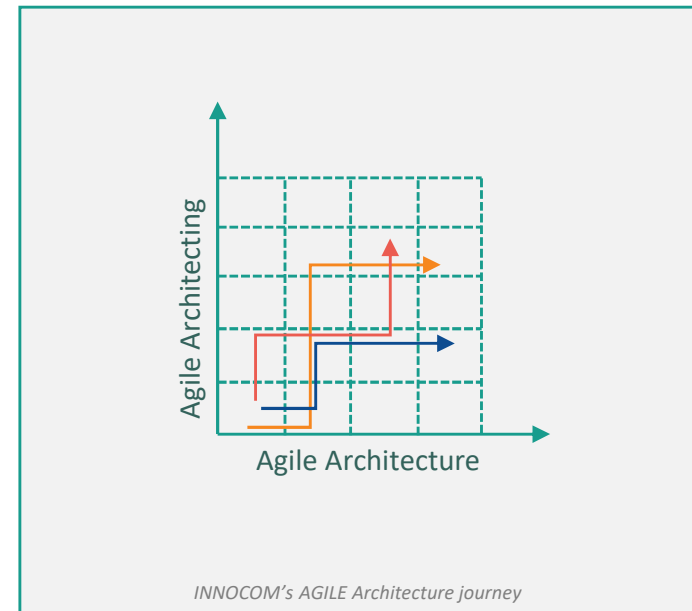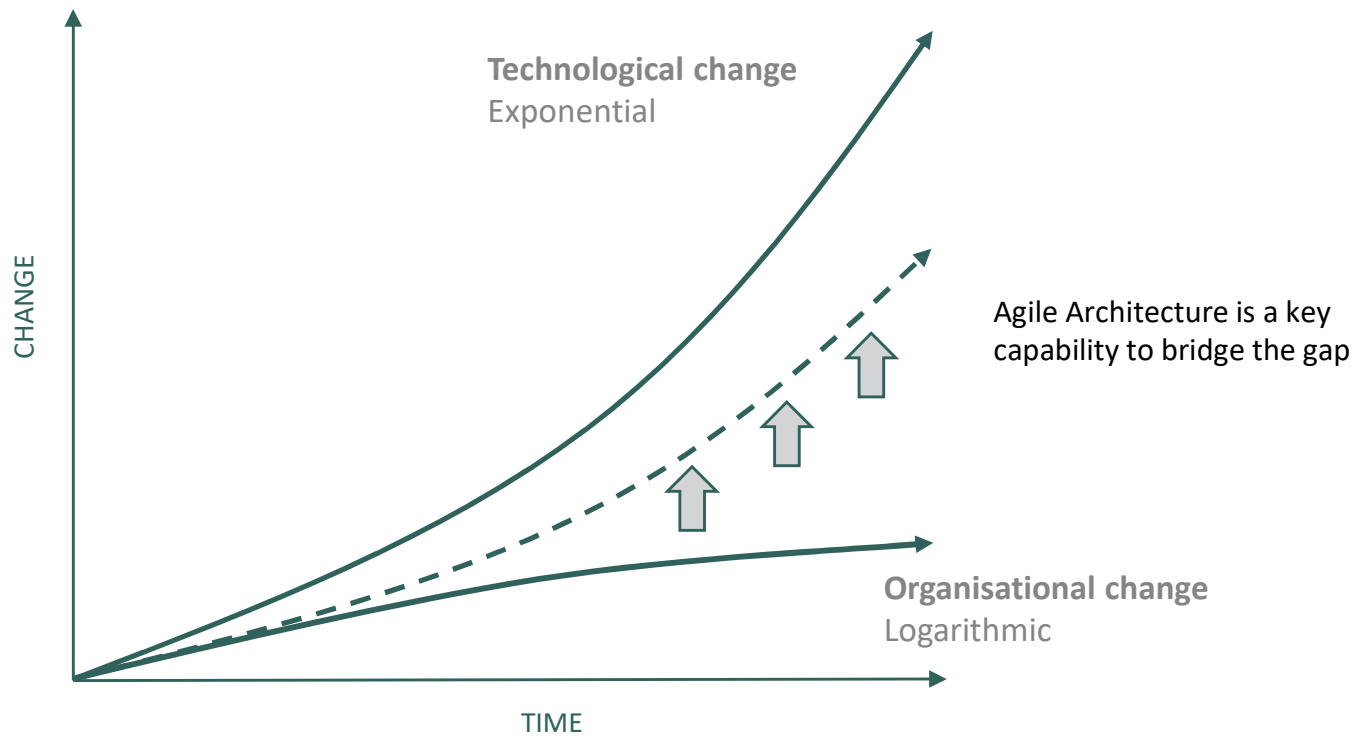
# Strategy translation is still necessary

Business Strategy
*"Aim"*

Unclear strategic choices

Too many projects at once, ignoring scarce resources

Unclear communicaton & misalignment

Local maximization instead of global optimisation

Roadmap
*"Execute & evolve"*

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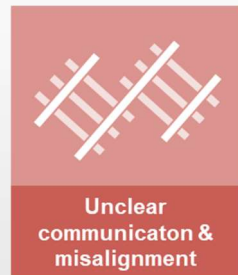
# Our *capability driven* approach

**Agile Architecture practices**

**Business Strategy**
*"Aim"*

**Enterprise Architecture**
*"Align"*

**Roadmap**
*"Execute & evolve"*
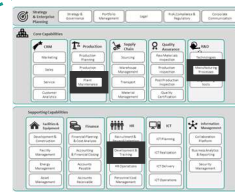


Strategic capability

gap
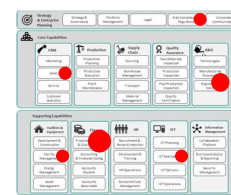
- Business vision
- Business drivers & strategy
- Business objectives and outcomes
- Policies, inhibitors and constraints (e.g. regulations, legal requirements)

- The strategy is made explicit in terms of what it means for the **architecture** of the **business capabilities**
- The **unique company DNA** is visualised in terms of strategic focus and competitive differentiation

- The current state is considered against the desired state and gaps are analyzed
- Each capability is optimized up to the level which maximally supports the overall company strategy

- The roadmap covers the projects to ensure the adaptation of the business capabilities (changed/new). These are prioritized by:
  - Value, strategic fit (linked to goals and value propositions) and project risk
  - The affordable company resources

# Key handles to tackle the challenge

## Eight key handles for agile architecting

**Organize as any other agile team**
Embrace the lean-agile principles and organize the architecture like any other agile team.

**Architect for purpose**
Avoid unnecessary work and complexity by careful considering the purpose, context and expected evolution of the solution. Reengineer if the assumptions change.

**Have a Trade-off canvas**
Have a clear vision of the future so options can be weighted keeping the vision in mind.

**Strong documentation practice**
A strong documentation practice supports clear communication and create visibility across all layers.

**Servant Leadership**
An architect is a change agent that enables agility through his knowledge and expertise in architecture. He is eager to educate & coach the organization.

**Enable decentralized decisions**
Define & agree the principles, standard, policies and the non-functional requirements with the stakeholders. Use them to maximize decentralized decision making.

**Design to Deliver**
Optimize the architecture roadmap for delivery of desired value. Don't be scared of rework in a later phase. Possible rework should be made explicit in the backlog.

**Manage uncertainty explicitly**
The uncertainty should be made explicit and managed. Do you need an answer today or can it wait? Do spikes if the uncertainty is too high to progress.

# Key handles to tackle the challenge

## Eight key handles to develop an agile architecture

**Segregation of Concerns**
Requires that every change driver is isolated from other concerns in its own construct.

**Non-breaking changes**
The systems are built in such way that internal change will not leak through the boundaries.

**Standards & Standardization**
Have clear standards applied and strive for standardization of interfaces. This encourages extensibility and reuse in unexpected ways.

**Maturity & expertise**
Have high maturity and expertise in the underlying domain and technology so we don't have to pay learning money every time we change.

**Appropriate variety level**
The system can deal with the complexity of the environment by having enough degrees for variety.

**Versatility**
The components can be (re-)used in different ways to help solve new challenges.

**Keep the system healthy**
Active manage the systems in your landscape so they stay healthy. Healthy systems are easier to adapt to new challenges.

**Enable continuous evolvement**
Make sure all the conditions for continuous evolvement are in place. It allows continuous delivery, testing, and integration practices.

# The INNOCOM Agile Architecture Framework

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