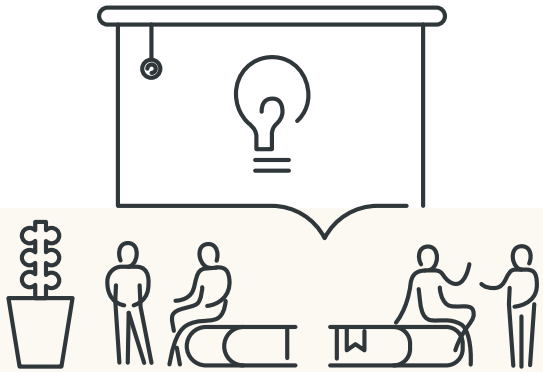
IMPLEMENT
CONSULTING GROUP_

KUNSTIG INTELLIGENS ER MEGET MERE END TEKNOLOGI

Agenda



Fredag 5. april 2019

Tidspunkt	
08:30 - 09:00	**Registrering og morgenmad**
09:00 - 09:30	Implement v. Snurre Jensen
09:30 - 10:15	Kamstrup v. Kasper Bundgaard Petersen
10:15 - 10:30	Kort pause
10:30 - 11:15	Trapeze v. Thomas Varan
11:15 - 11:30	Afrunding
11:30 - 12:00	Sandwich og netværk

GLOBAL SOULS WITH NORDIC ROOTS

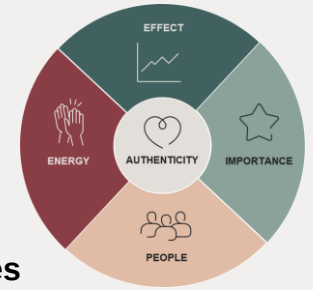
Headquartered in Copenhagen with offices in Stockholm, Malmo, Oslo, Zurich and Munich, our heart is in the North. With 800 consultants, multinational clients and worldwide projects, we offer expertise with a global perspective.

We believe that great organisational impact leads to great impact for humanity. Implement was created to help make true expertise turn into real change.

- Founded in 1996
- Average CAGR of 20%
- Today, 800+ people

- A co-op with 250 owners
- Proudly Scandinavian
- Working globally

DIGITAL TRANSFORMATION



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At Implement Consulting Group, we believe that change must result in tangible impact for our customers. This is reflected in our collaborative consulting approach and our implementation principles

Change with Impact
We make this come true by applying well-proven best practices such as the strategy method Playing to Win, our project management approach Half Double and the innovation method Design Thinking.

We always focus on our customers' challenges and opportunities. This is where we make the difference.

Combining best practice, technology and knowledge – together with our customers – we co-create lasting results.

Digital & IT Strategy	Sourcing & Selection	Data-driven insights	Public digitalisation	Successful projects
Digital Strategy	Sourcing strategy	Data Strategy	Digital people leadership	Project- and programme management
IT Strategy	Fast track Outsourcing	Data governance & management	IT and digital strategy	Change management
IT Governance & Organisation	Collaborative Accelerated System Sourcing	IT security	Governance and digital legislation	IT training
Enterprise Architecture	Contract and vendor management	GDPR	Smart city and connected technology	Cut over
IT Assessment & Benchmarking	IT cost analysis and benchmarking	Data Activation &. Artificial intelligence	Applying technology in the Public Sector	Being Agile
IT & Tech Due Dilligence	Public sourcing (EU tenders)			Agile training

What is artificial intelligence anyway?

> Artificial intelligence is the capability of a machine to imitate intelligent human behavior [1]

Narrow AI

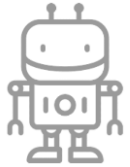
The application of AI to a very specific task. The algorithm cannot solve other tasks without re-training.

This is what you need to know about.

Cyborgs

The mixing of humans and machines into one. Mostly active research but with a few real world examples.

Most likely not relevant for you.



General AI

An AI which can perform any task a human can do. Does not exist in any practical sense.

Does not exist (yet)

[1] Definition form Meian-Webster Dictionary. Note that artificial intelligence is a term for how we, as humans, perceive the technology – not a description of the technology it self. What we twenty years ago considered to be AI is not AI today – it is a moving target.

CASE

IM_

GAME REVIEW ANALYSIS

Estimating the opinion of millions of users to guide smarter investments into video games.

Using Natural Language Processing to analyse positive or negative sentiment around specific topics for thousands of games helps knowing when and where to invest and guide support post-investment.

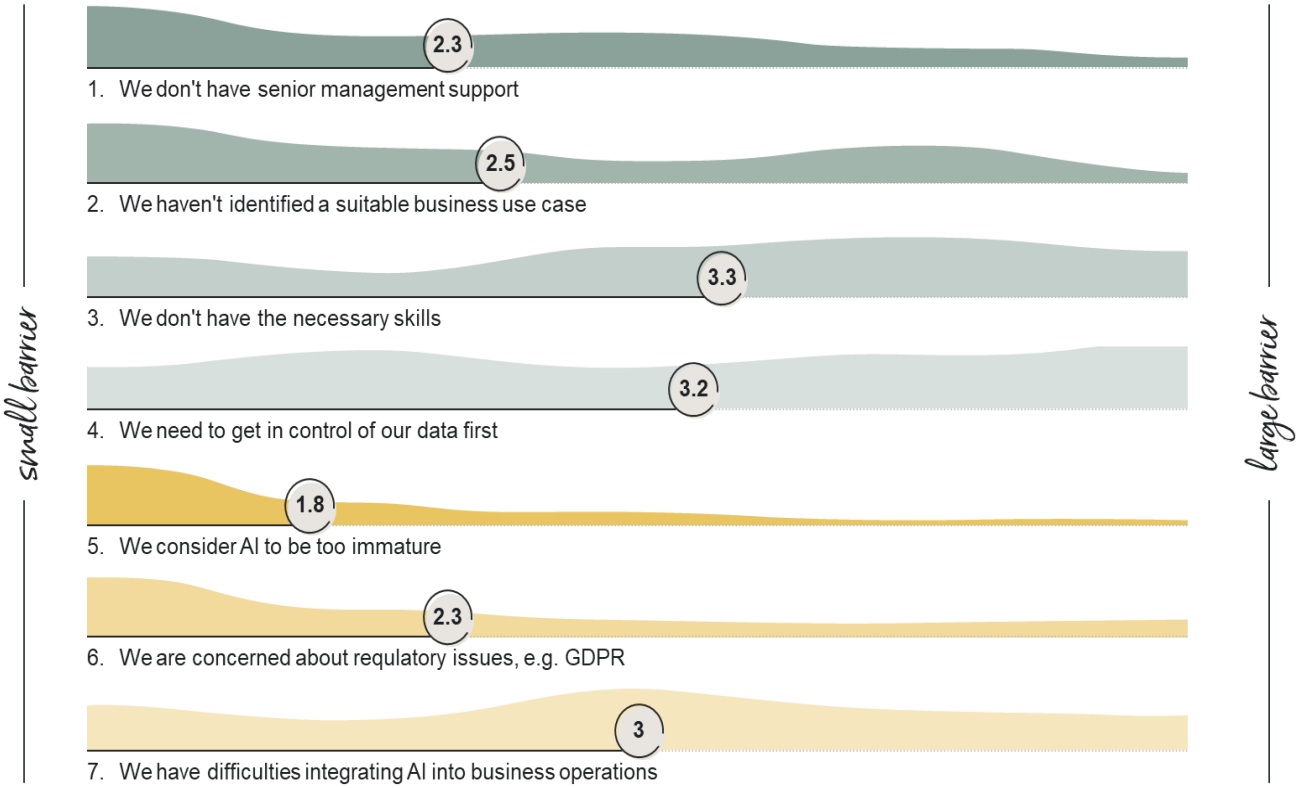
CASE

PREDICTING EDUCATION

Using machine learning to recommend educational pathways to young Danes.

Developed an algorithm from 1.6m individual pathways to provide diverse and helpful recommendations to individuals leaving primary school.

Barriers to adopting AI/ML – and why they exist



Source: "Artificial Intelligence without the buzz" – Implement event, 26. september 2018

TOP 3 HYPOTHESIS

1

There is a lot of hype and noise around AI/ML and some organisations admit to being **confused** on what to expect from AI/ML, where and how to start, which technologies to consider etc.

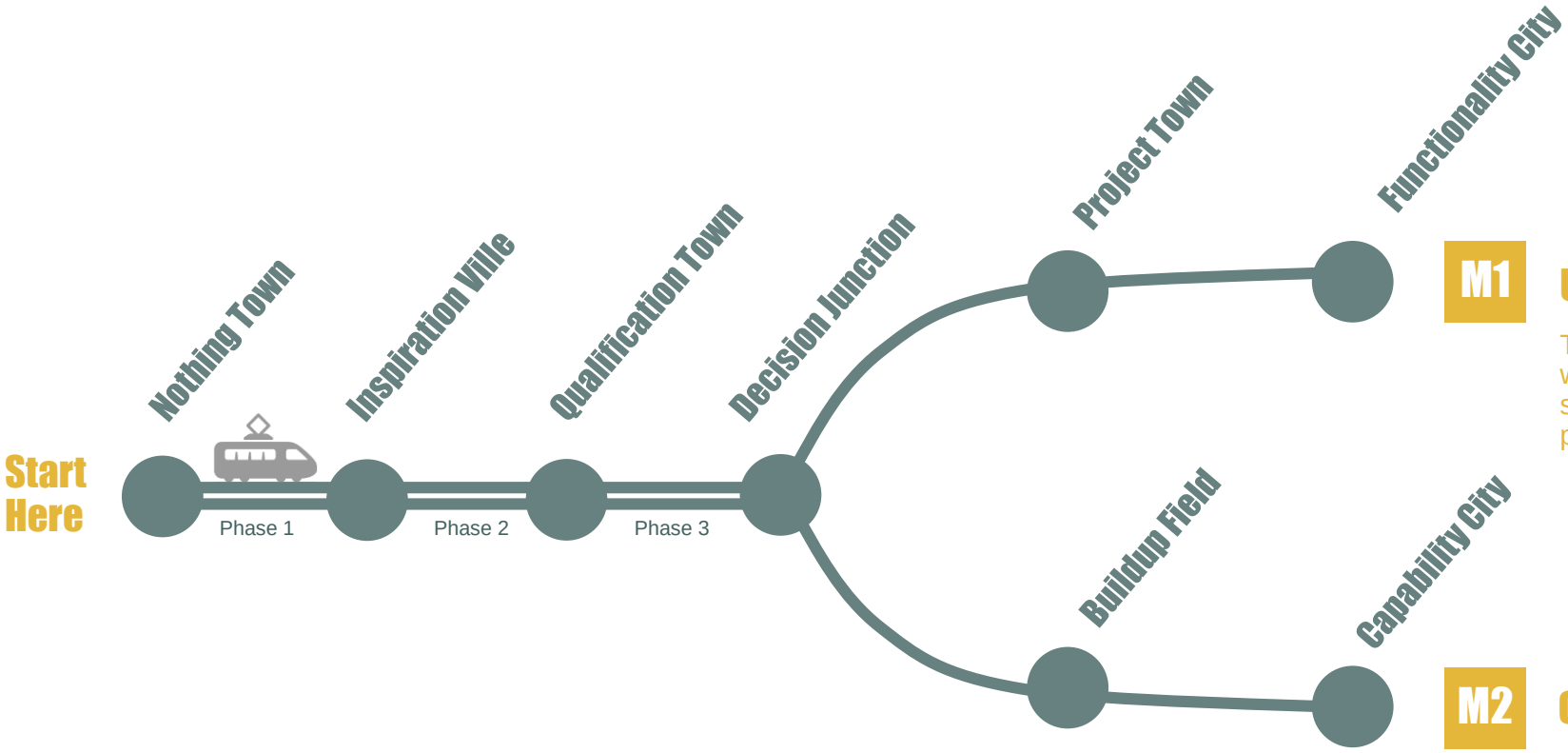
2

AI/ML is getting a lot of attention and the potential for individuals, organisations and society is huge. However, from an implementation perspective most organisations tend to **overestimate the importance of technology**

3

Data is a key component of AI/ML. Whether you are looking to AI/ML to support a specific use case or making AI/ML an organisational capability most organisations **underestimate data**

Where do organisations start?
Are you solving a specific problem or are you building a capability?



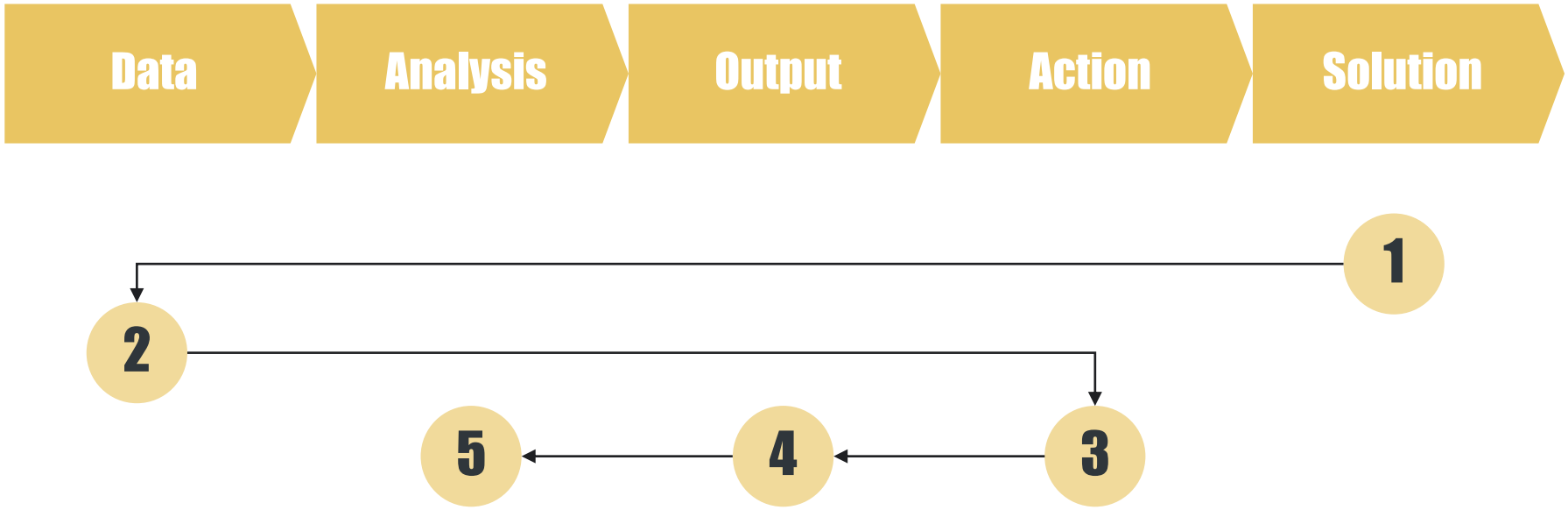
M1 Use Cases

The organisation wants to solve a specific business problem using AI / ML.

M2 Capability

The organisation wants a capability to solve problems with AI / ML continuously.

How do work with AI/ML



Do we have some data which is related to the problem?

What data analysis is best suited to find the information and give the output which is needed?

What output is needed to take action? How does that output need to be distributed?

What actions are needed to solve the problem?

What is the businesss problem?

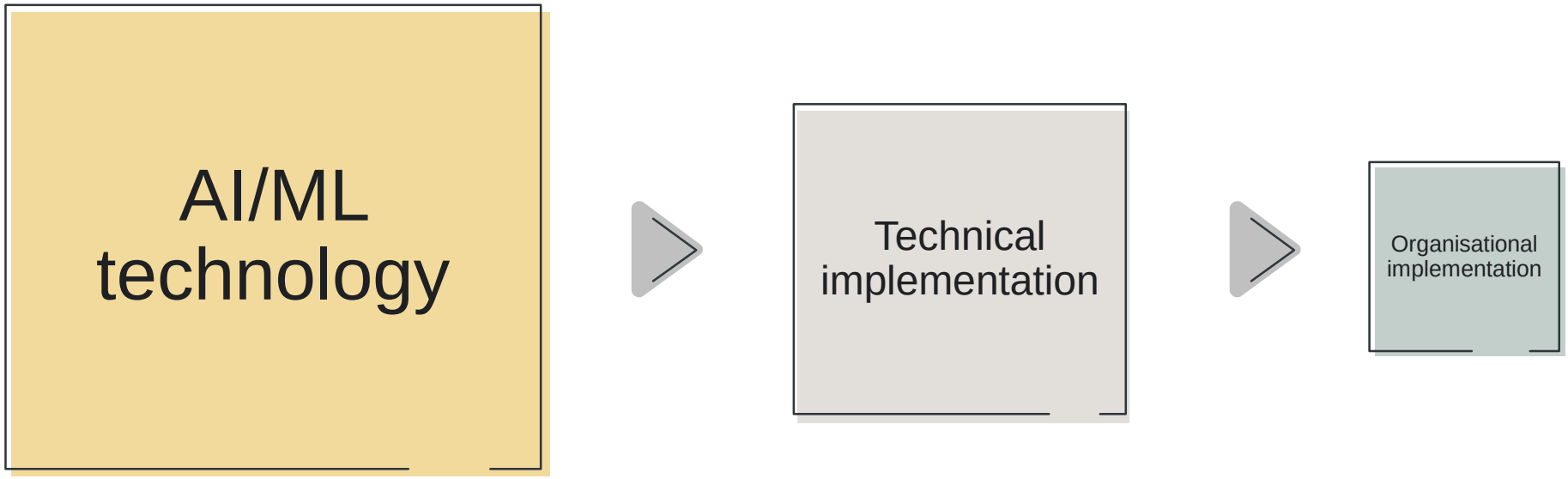
AI/ML building blocks

AI/ML technology

Technical implementation

Organisational implementation

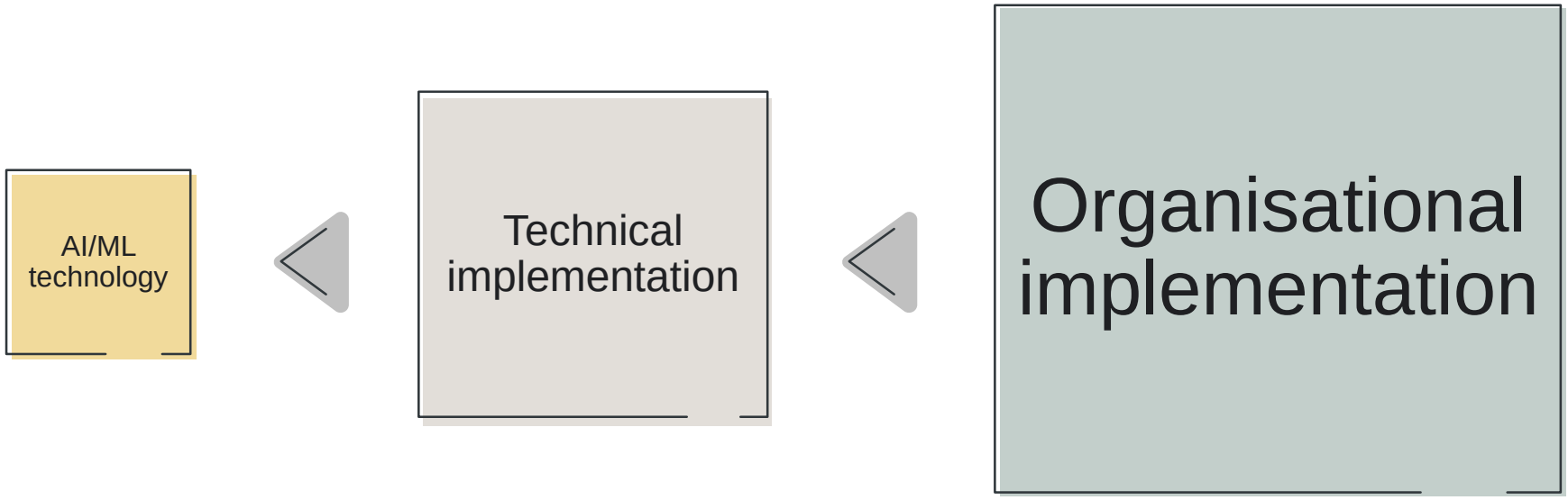
Focus (perceived complexity?)



Different families of AI/ML technology

Cloud / cognitive services	Open-source teknologi	Deep learning frameworks	Commercial platforms	Plug-n-play solutions
The big technology vendors all provide access to storage, computing and AI/ML as part of their cloud offerings. In addition to this they also offer pre-trained models for specific purposes like speech-to-text tagging, image analysis etc. Take note that even though the price of individual API calls is very low, building and running a production application with lots of activity requiring API calls can be quite costly	In the AI/ML space, the de facto standard technology is open-source. In addition to the easy access to the technology and the absence of traditional licensing fees, there is a huge and very active community supporting the use and developlent of the various open-source tools. Also, and this is key, almost all education on AI/ML is based on using open-source technology	A lot of companies contribute to the open-source community by releasing technology built in-house. The largest tech companies like Google, Micorsoft and Facebook are some of the most active in this area. A specific focus area for the large tech companies are frameworks for working with dee learning which is a subfield within machine learning	Even though the AI/ML space is dominated by open-soruce technology, commercial vendors do exist. Common for these is a platform offering which supports collaboration, documentation and easy deployment of AI/ML modelse. The commercial offerings also often provide a GUI as well as open-source integration	There is a plethora of targeted digital offerings that use AI/ML as part of the solution. Common for all of these is that they ship as finished products out-of-the-box but only works with a very narrow problem set. Examples include invoice handling, email routing, manpower planning, call center optimization etc.
IBM Watson aws Google Cloud Microsoft Azure	R python WEKA The University of Waikato H_2O.ai	TensorFlow Caffe2 PYTORCH Microsoft CNTK	sas THE POWER TO KNOW. rapidminer data iku Open for Innovation KNIME IBM Data Science Experience	ENVERSION QAMPO SUPWIZ

Where real complexity lies



Use cases

Unsupervised/supervised
Deep learning, Keras, Scikit learn
Python, R, Spark

Deployment
Real time execution
Model monitoring, maintenance

Change management
Benefits realisation

Project management practices

Capability

AI/ML platform
Competences

Deployment platform
Competences

Organisational design
Data governance
Data strategy
Model governance

Organisational change management: Implement perspectives on how to manage the change in technical implementations

PURPOSE: Ensuring a full organisational implementation of not only a system, but new ways of working and collaborating across. Only when both the technical and organisational implementation is done right can the expected benefits be realized.

Method	Delivered through …
 **Leading the change**	• Involvement of leaders to drive the change. Implement knows the importance of involving first-line managers to obtain honest feedback and build trust among employees • Development of change leadership capabilities at all levels of the organisation. Implement has ample experience with leadership development and coaching for leaders to improve their competencies in driving change
 **Communicating the change**	• A core story to describe the vision and goals of the project. Implement has a proven 7-step method to design and deliver engaging communications throughout the organisation based on the development of a core story • Dialogue with all levels of the organisation to understand the needs, wishes and potential concerns of both managers and employees. Implement knows the importance of
 **Implementing new ways of working**	• Process design as a key part of the program. Implement has established a sprint process in four steps for doing this. Our approach is based on a collaborative and high energy business simulation workshops with trained facilitators • Training is a crucial part in building the capabilities and confidence of the end users in the new system and surrounding processes. Implement has a unique approach to technical training based on solid research documenting how adults learn
 **Ensuring effect and impact**	• Defining governance and measurements throughout the project lifecycle. This is set up after the project has been initiated, and is where impact measuring, impact monitoring and tracking is happening • Focus on impact rather than deliverables. The change management team will help drive the dialogues in the organisation to focus on impact and how the project is important to achieve the overall goals of the organisation

IMPACT

- An engaged LoB that will help the project succeed with the change
- Alignment on new optimized business processes across the organisation
- Implementation of a sustainable change and effect
- A strong change governance structure that enables effective collaboration across the organisation

KEY ACTIVITIES

- Develop change vision and change impact assessment
- Designing TO-BE processes and implementing through simulations
- Developing Training Strategy & Plan as well as Training Design and Execution
- Setup Change Governance Structure and Change Measurement

CHANGE PRINCIPLES

- Effect
- Importance
- People
- Energy
- Authenticity

Method for organisational design

1. STRATEGIC OBJECTIVE

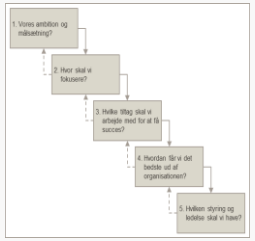
2. OVERALL ORGANISATIONAL DESIGN

3. DETAILED ORGANISATIONAL DESIGN

4. IMPLEMENTATION

OUTPUT

Strategic objective of the new organisation



Mapping of the current organisation

Design principles
(Requirements for the new organisation)

Capability model
(What does the new organisation need to be capable of?)

Operating model
(How must it work?)

Organisational structure
(Who is responsible for which tasks?)

Functional descriptions
(Which tasks are placed in each function?)

Management structure
(How is the organisation managed?)

Governance model
(Where are decisions made?)

Transition structures
(What temporary structures must be created?)

Transition

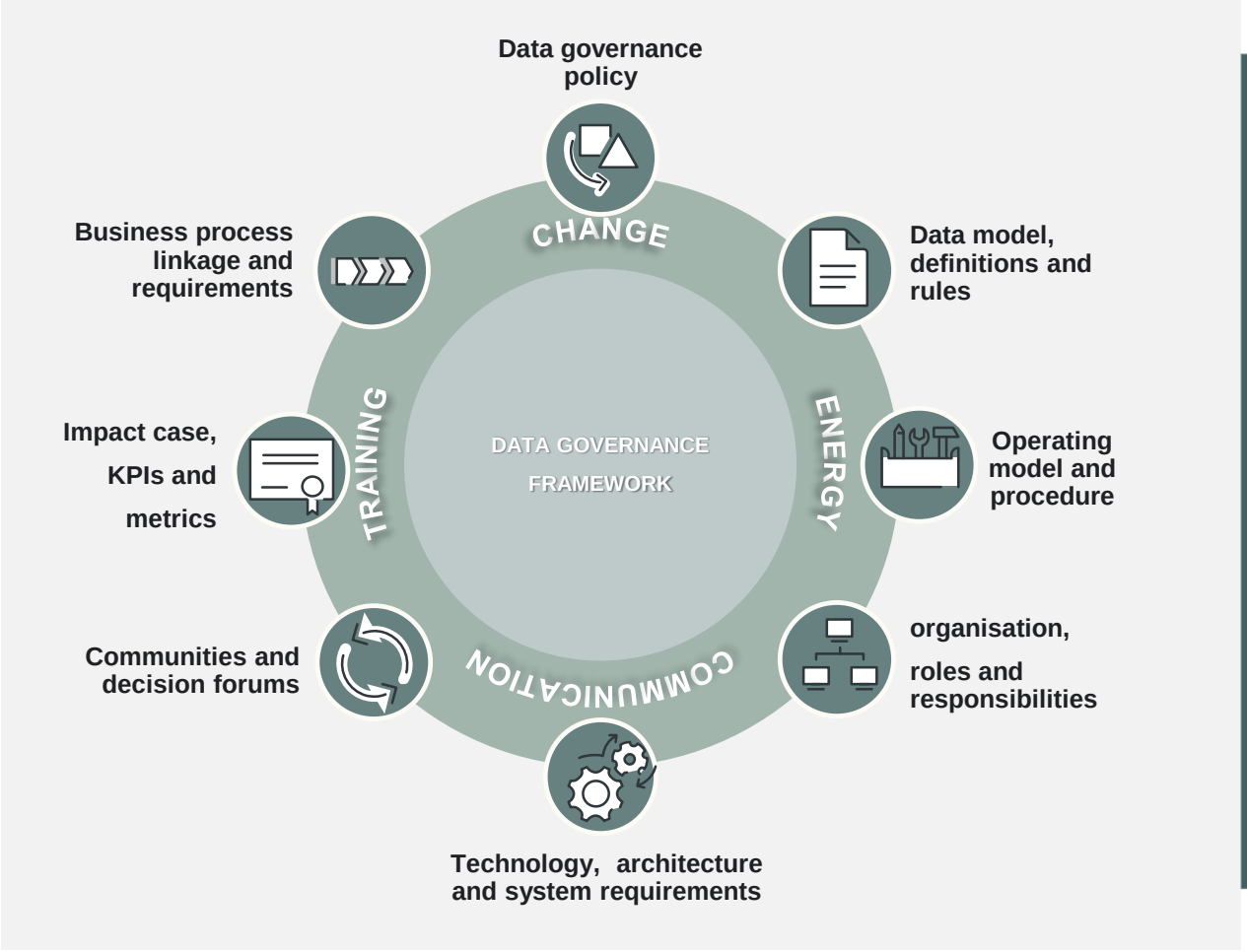
MAIN ACTIVITIES

- Data collection, e.g. interviews with relevant managers and key people
- Workshop with managers
- Collection of documents

- Data collection, e.g. interviews with relevant managers and key people
- Design principle workshop(s)
- Iterations of the prepared material
- Work meetings with relevant project participants
- Workshops with relevant managers and key people
- Involvement of HR and other relevant departments

- Work meetings about functional descriptions
- Iterations with relevant employees and managers
- Test of descriptions and organisation (duplicate functions, missing tasks etc.).
- Mapping of the current management structure and governance (incl. forums)
- Governance workshop
- Transition and implementation workshop

Implements framework for data governance addresses the relevant dimensions for organisations to achieve a successful implementation



For an enterprise data governance initiative we recommend initially developing a comprehensive data governance framework which must be continuously improved.

Our data governance framework – which takes into account avoiding the data governance pitfalls – can be used as reference model to:

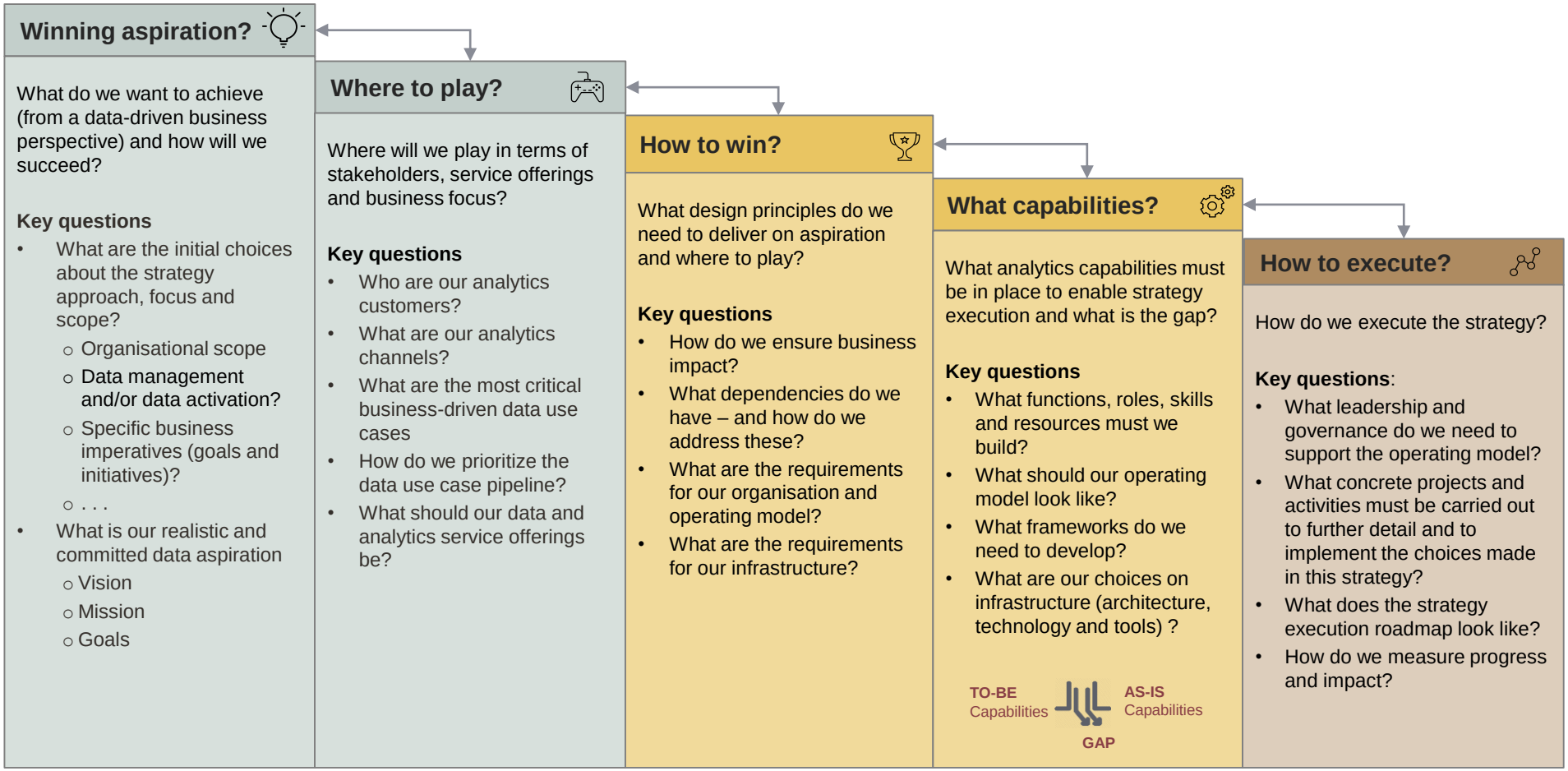
- Guide the design of a new data governance initiative

or

- Evaluate the maturity of an existing data governance framework

Building a data strategy

Our approach is based on Implement's general strategy framework, *Playing to Win (P2W)*, which we have adapted to data activation and data management. P2W is based on making and testing choices which frame the work on the next level of the cascade.



Four elements form the basis for managing projects in Implement – we call it LIFE

L

LEADERSHIP

Leadership must embrace uncertainty and make the project happen.

- Be an active, committed and engaged project owner to support the project and ensure stakeholder satisfaction.
- Be a collaborative project leader with a “people first” approach to drive the project forward.
- Apply a reflective and adaptive mindset – say yes to the mess.

I

IMPACT

Stakeholder satisfaction is the ultimate success criterion.

- Use the impact case to drive behavioural change and business impact.
- Design your project to deliver impact as soon as possible with end users close to the solution.
- Be in touch with the pulse of your key stakeholders on a monthly basis.

F

FLOW

High-intensity and frequent interaction to ensure continuous project progression.

- Allocate core team +50% and assure co-location. Reduce complexity in time and space to free up time to solve complex problems.
- Define a fixed project heartbeat for stakeholder interaction to progress the project in sprints.
- Increase insight and commitment using visual tools and plans to support progression.

E

ENERGY

Own the energy. Energy can be managed and created.

- Take responsibility for the energy. In the meeting. In the project. With the team.
- Design all touchpoints, meetings, workshops or events with as much attention to energy as to content.
- Energy can be managed and created. It’s not given. You own it.