

الهيئة الاتحادية للموارد البشرية الحكومية
Federal Authority For Government Human Resources



United Arab Emirates



February 25, 2021

Webinar: Data-Driven Innovation in HR Functions

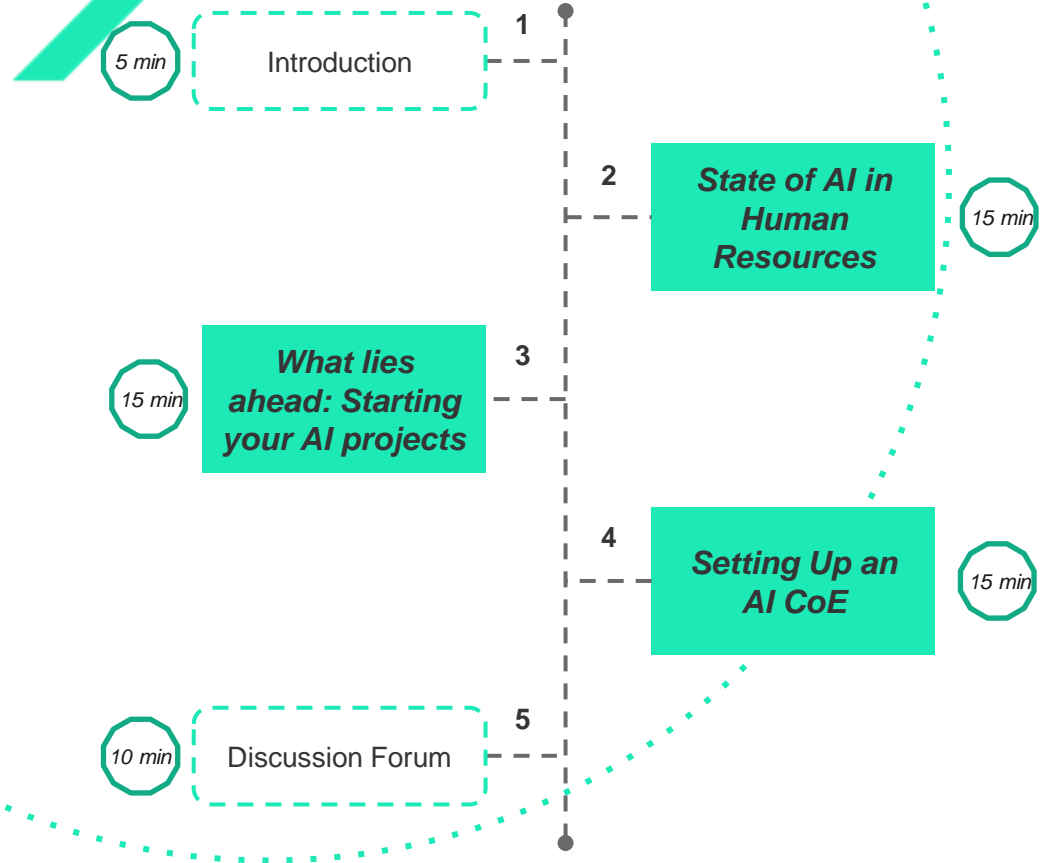
“Just as electricity transformed almost everything 100 years ago, today I actually have a hard time thinking of an industry that I don’t think AI will transform in the next several years”

Andrew Ng – Google Brain, Baidu, Stanford



Agenda

Webinar:
*Data-Driven Innovation in
HR Functions*



1. Introduction

Today's Hosts

Patrick Holzer



Data Science Practice
Middle East



Dubai



DT, RPA, AI, CX,
Human Resources

Aymen Omri



Data Science Practice
Middle East



Abu Dhabi



DT, RPA, AI, Data
Science, Data Analytics

We are a next-generation consulting firm

We are a global firm that has grown steadily over the past 20 years



2,000 Consultants



36 Offices across **18** countries



390M\$ in revenue for FY20/21



+19% increase in revenue FY19/20 despite C19

We invest heavily in tech and design to stay on cutting-edge and meet our clients' evolving challenges



5 AI centers



2 Design Centers



600 Clients
92% returning

We cultivate expertise stemming from R&D activities and our proximity with our clients' industries



4% Of our revenue invested in R&D



130k+ Followers on LinkedIn

A pioneer mindset, enhanced by a unique blend of capabilities...

...to better serve our clients.

INDUSTRY
REBOOT X.O

Delivering results through Business Expertise, the core of Consulting

BUSINESS
EXPERTISE &
TRANSFORMATION

Leveraging AI, emerging tech, and open innovation for augmented consultants

CONSULTING
4.0

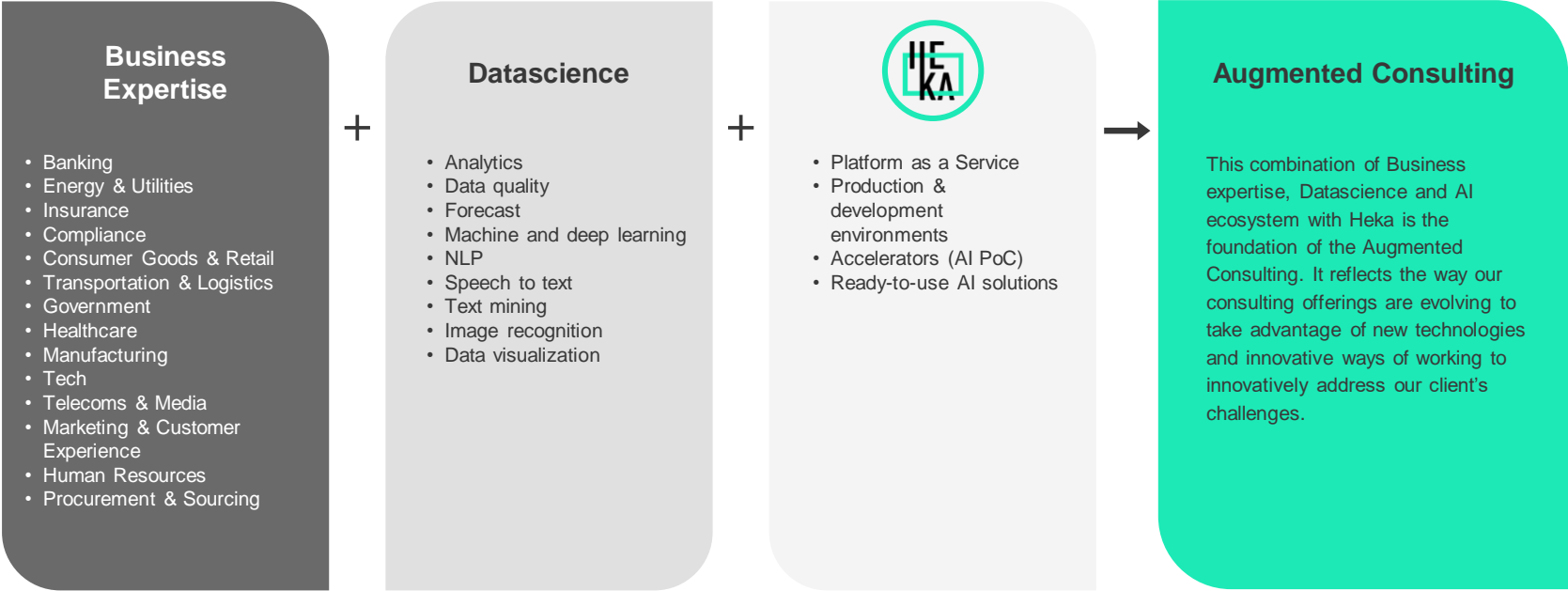
Reshaping projects and experiences through design & creativity for next-level impact

CONSULTING
by DESIGN

Making CSR a lever for profitable transformation

CONSULTING
FOR GOOD

From Consulting to Augmented Consulting, a blend of Business & Tech expertise



A horizontal timeline with four circular nodes labeled 1999, 2015, 2017, and 2020, connected by a line with an arrow pointing right.



2. State of AI in Human Resources

A Snapshot of HR Today



Operational HR

1970s



Strategic HR

2000s



Data-driven HR

Now

HR Professionals do not rely on gut feeling anymore, they make data-driven decisions for more strategic actions and stronger financial performance.

Journey To Become A Data-Driven HR Function: 3 pillars in 5 steps



Step
1

ALIGN

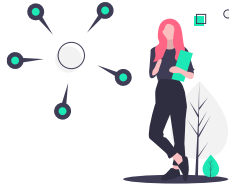
Align your vision and understand **why data is interesting** for your company and **what you want to achieve** with it



Step
2

STORE

Acquire and centralize the relevant data by **creating a data management organization** using technology



Step
3

ANALYZE

Start **extracting insights from your data** and understand **what are the main AI use cases** applicable



Step
4

DEVELOP

Build the necessary profiles and **implement analytics functions** and optimize business processes



Step
5

INNOVATE

Use your data and analytics to **innovate in products** and **transform the organization**

HR ANALYTICS – AI STRATEGY

DATA MANAGEMENT

VISION

Maturity of the HR Function Across the Journey



ALIGN

- Multiple Data sources not integrated
- Data in isolation and difficult to analyse

STORE

- Ad-hoc descriptive reporting and metrics
- Reactive to business demand
- Basic reporting

ANALYZE

- Multi dimensional dashboard and analysis
- Operational reporting for decision making

DEVELOP

- Development of people models with data analytics
- Insight into drivers of performance and behaviours

INNOVATE

- Centre of Excellence
- Development of complex models to anticipate issues
- HR as a profit centre

Making the Business Case for data-driven HR

Selling data driven HR across the company

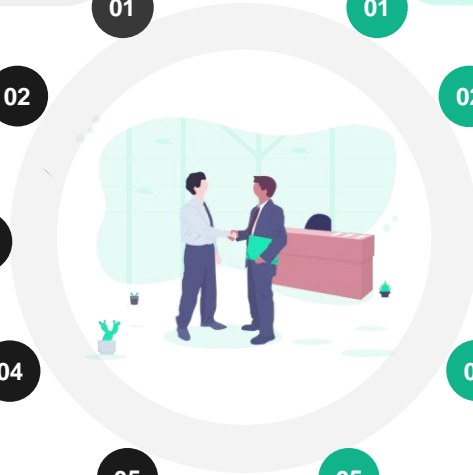
01 Make people understand the benefits of Data Driven HR for the organization

02 Onboard people from other functions (allows the capture of new kinds of employee data)

03 Prepare a business plan for the leadership team

04 Outline what you are hoping to achieve with data as well as the tangible benefits to the business and the employees

05 Be open and realistic about the time frame, business and costs disruption (don't gloss over these issues)



How to go about this in the company

01 Depends on the size of your organization and on the usual process for starting new projects

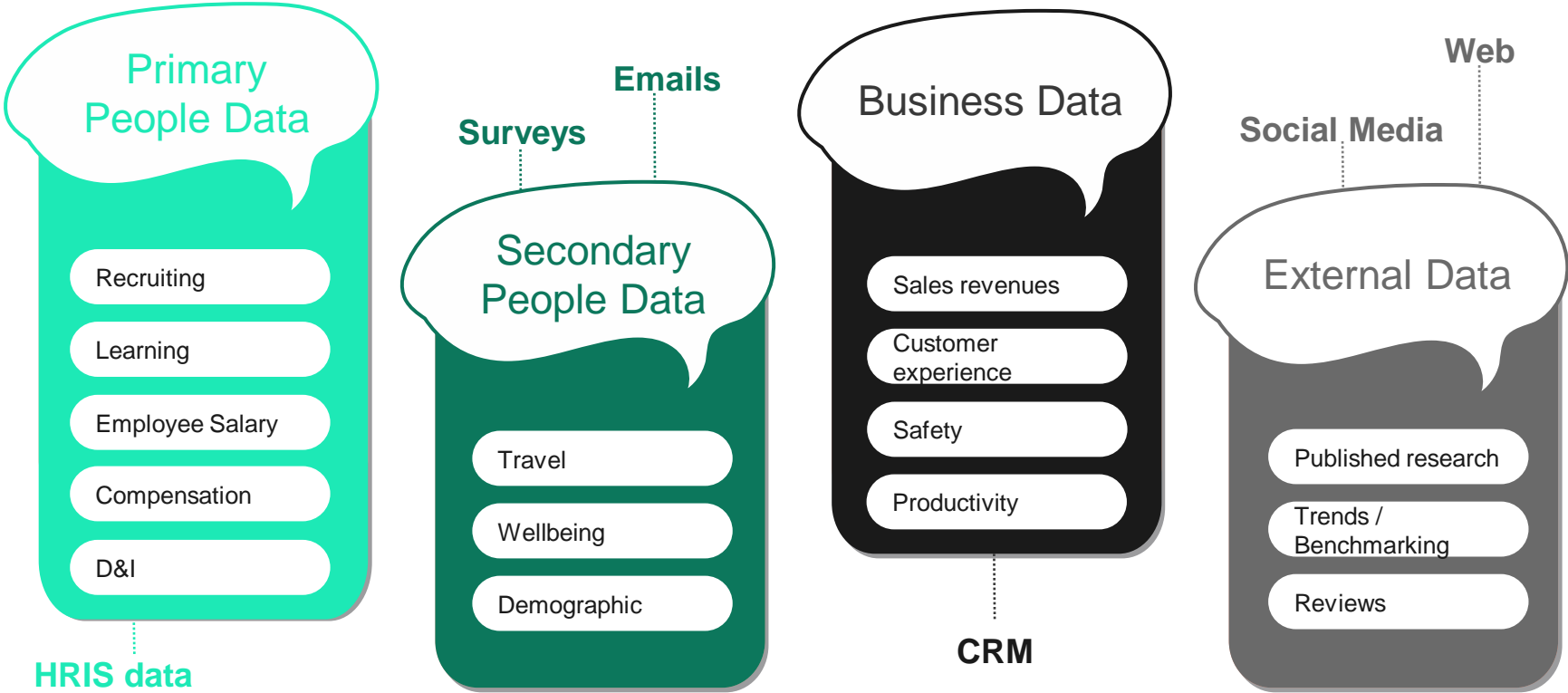
02 Summarize your data strategy into key points that can be communicated in a short presentation

03 Keep it simple and brief

04 Be enthusiastic

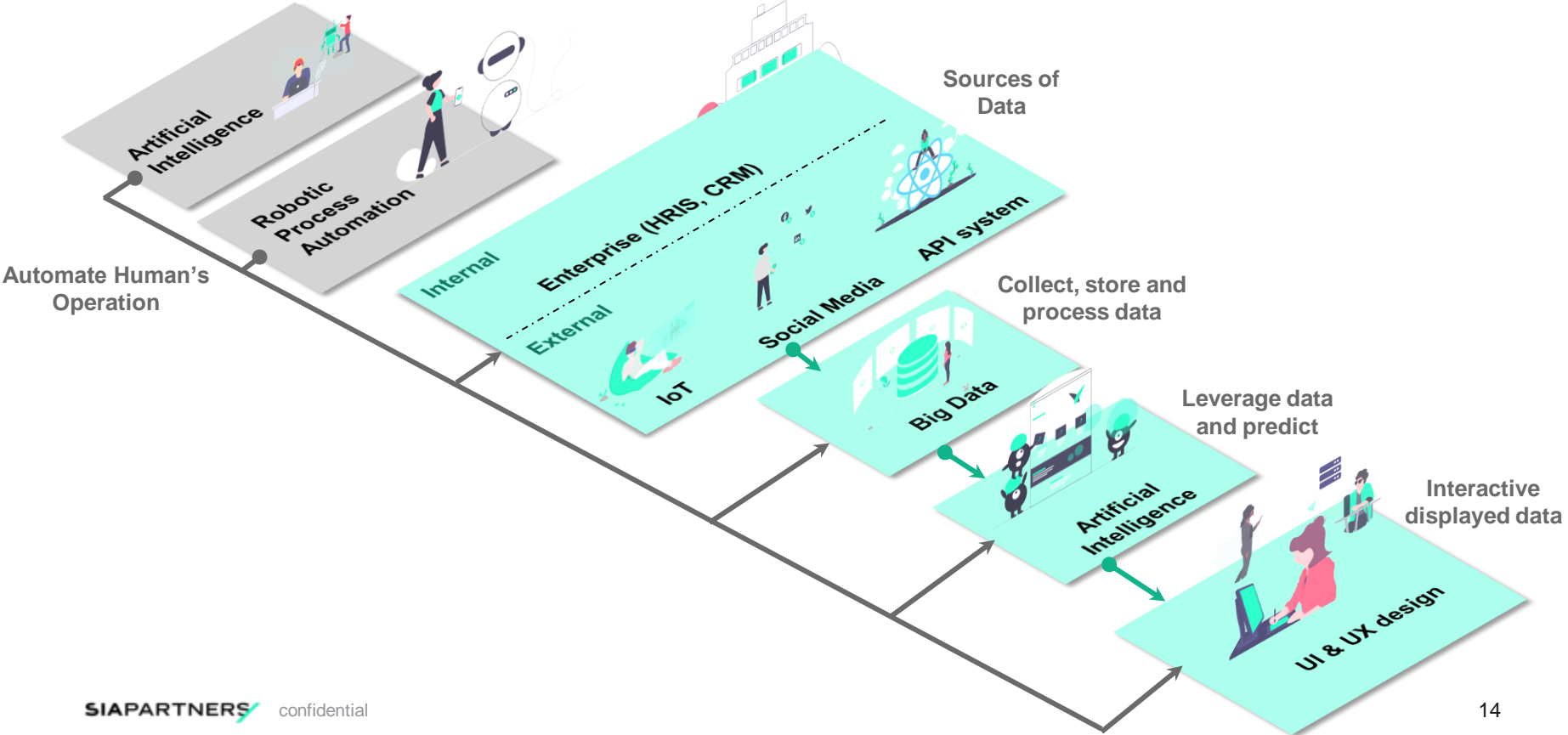
05 Show examples how other companies are leading the way

Leverage Data From Every Source



HRIS data

Pathway to an Organization Automation & HR Data Driven Digitization



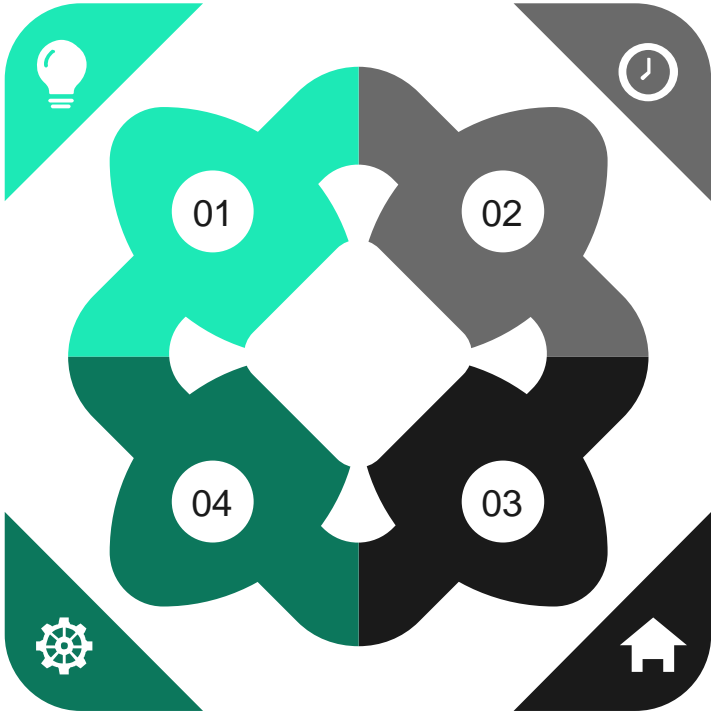
Topics Addressed by HR Analytics

Recruitment

- Attraction
- Evaluation
- Hiring

Employee Wellbeing

- Employee fitness and well-being
- Community service
- Cultural activation



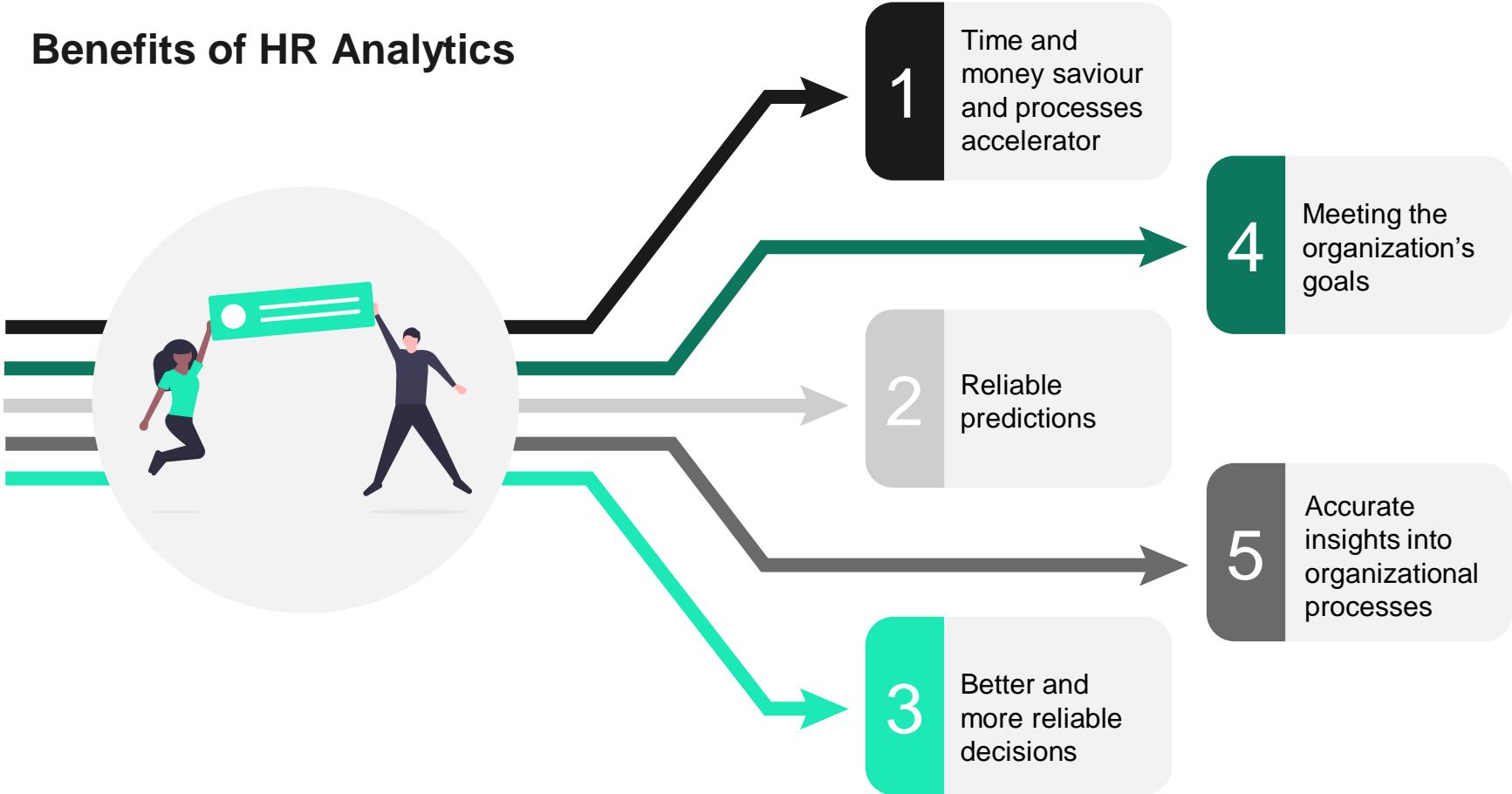
Employee Development

- On-boarding
- Ongoing development
- Career management

Employee Performance

- Goal setting
- Performance management
- Talent management

Benefits of HR Analytics



Challenges of HR Analytics



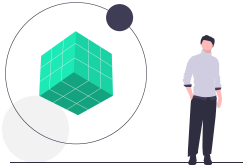
Bringing Together and Understanding Data from Many Sources



Lack of Data Analytics Skills within HR



Worries about Privacy & Compliance



Insufficient IT Resources for HR Data Analytics

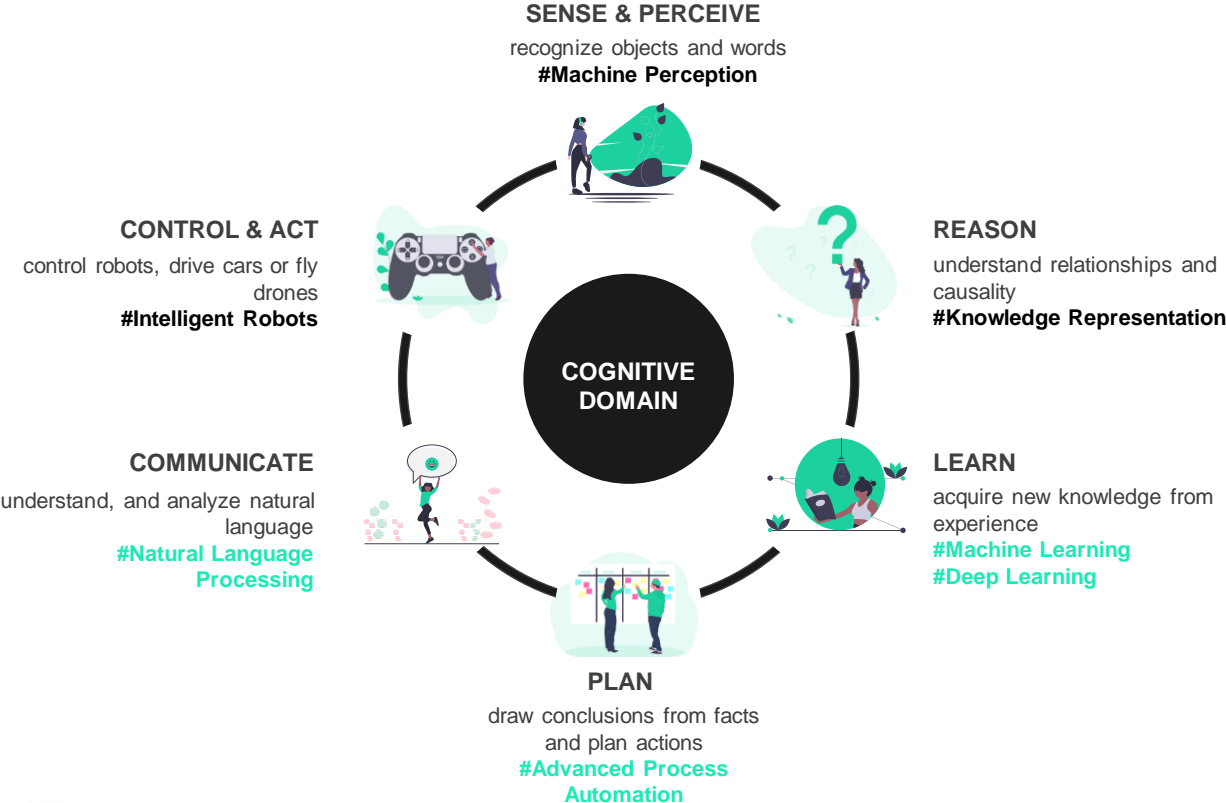


Insufficient Support of Top Management



3. What Lies Ahead: Starting your AI Project

An Attempt for AI Classification



HR Analytics Techniques

3 Domains of AI that enable HR analytics:

Natural Language Processing

Machine Learning

Advanced Process Automation

Text Analytics

- Scan and analyze the content of emails and CVs

Predictive Analytics

- Predict talent needs

Sentiment Analysis

- Understand employees opinion
- Determine employees emotional states

Image Analytics

- Facial recognition
- Recognize your brand in pictures shared by your employee on social media

Voice or speech Analytics

- Help identify employees satisfaction
- Support on digital interviews

Video Analytics

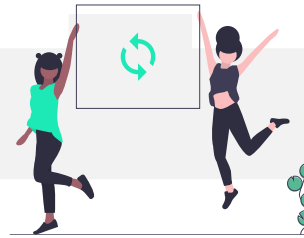
- Use of CCTV to detect if an employee is not wearing the right outfit or safety gear
- Alert abnormal behavior
- Understand more your employees

Key Ingredients of AI Implementation

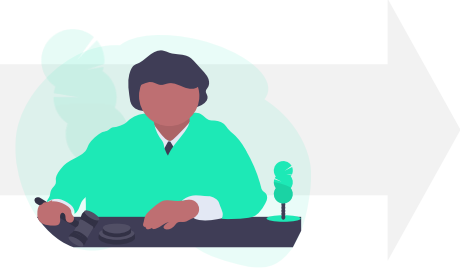
AI Challenges are not really about algorithms or technology:



Ingredient 1:
Coherent Strategy

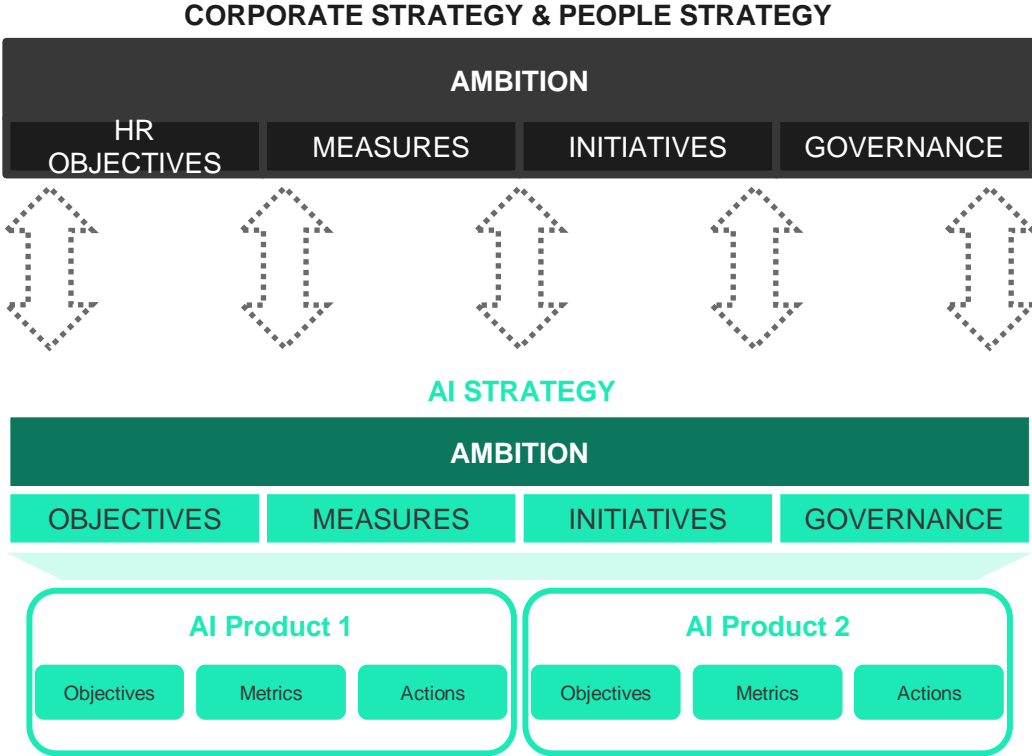
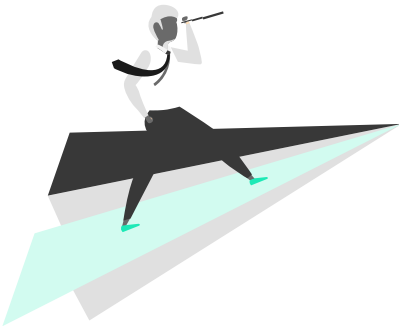


Ingredient 2:
Operating Model

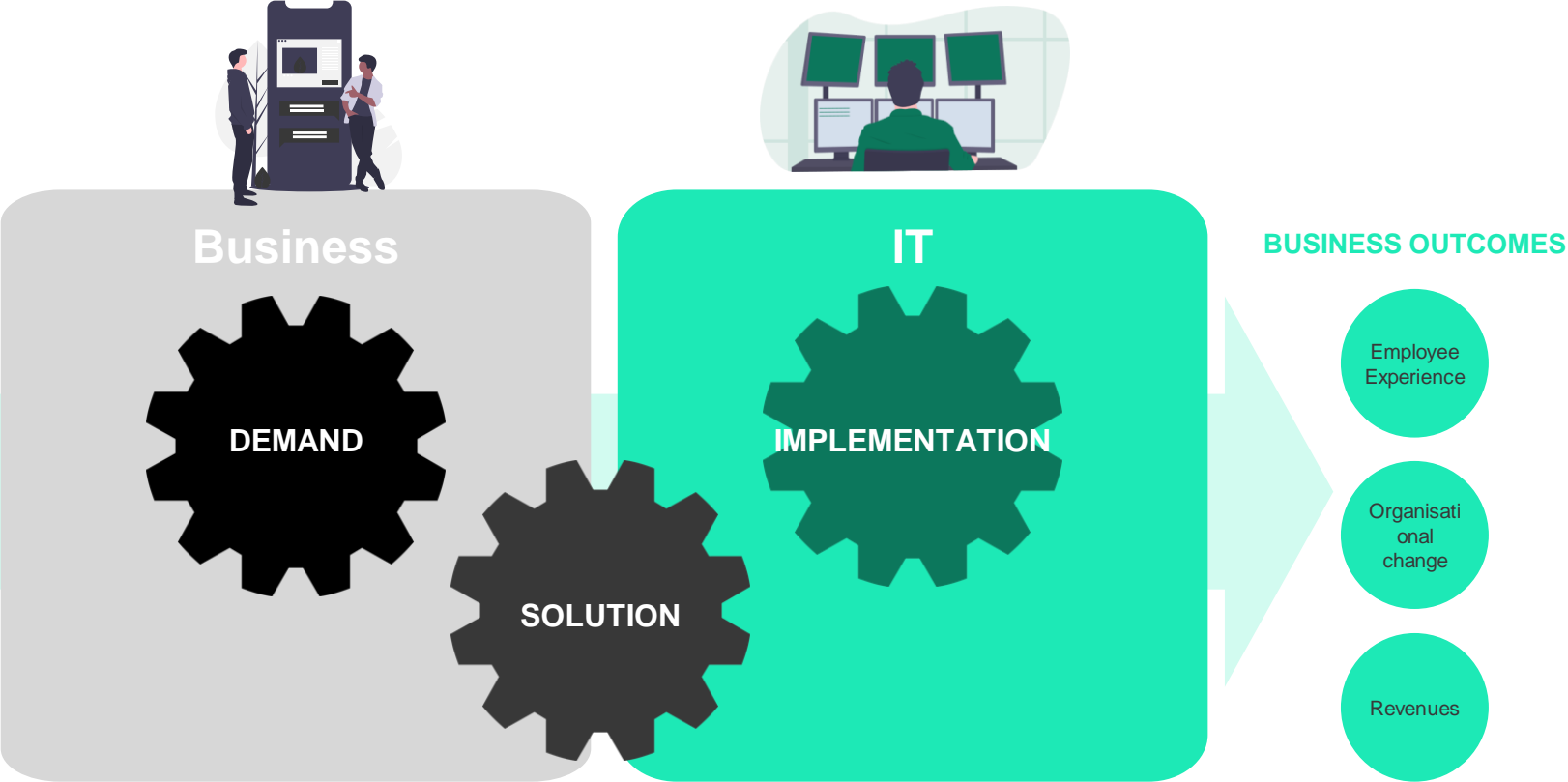


Ingredient 3:
Execution

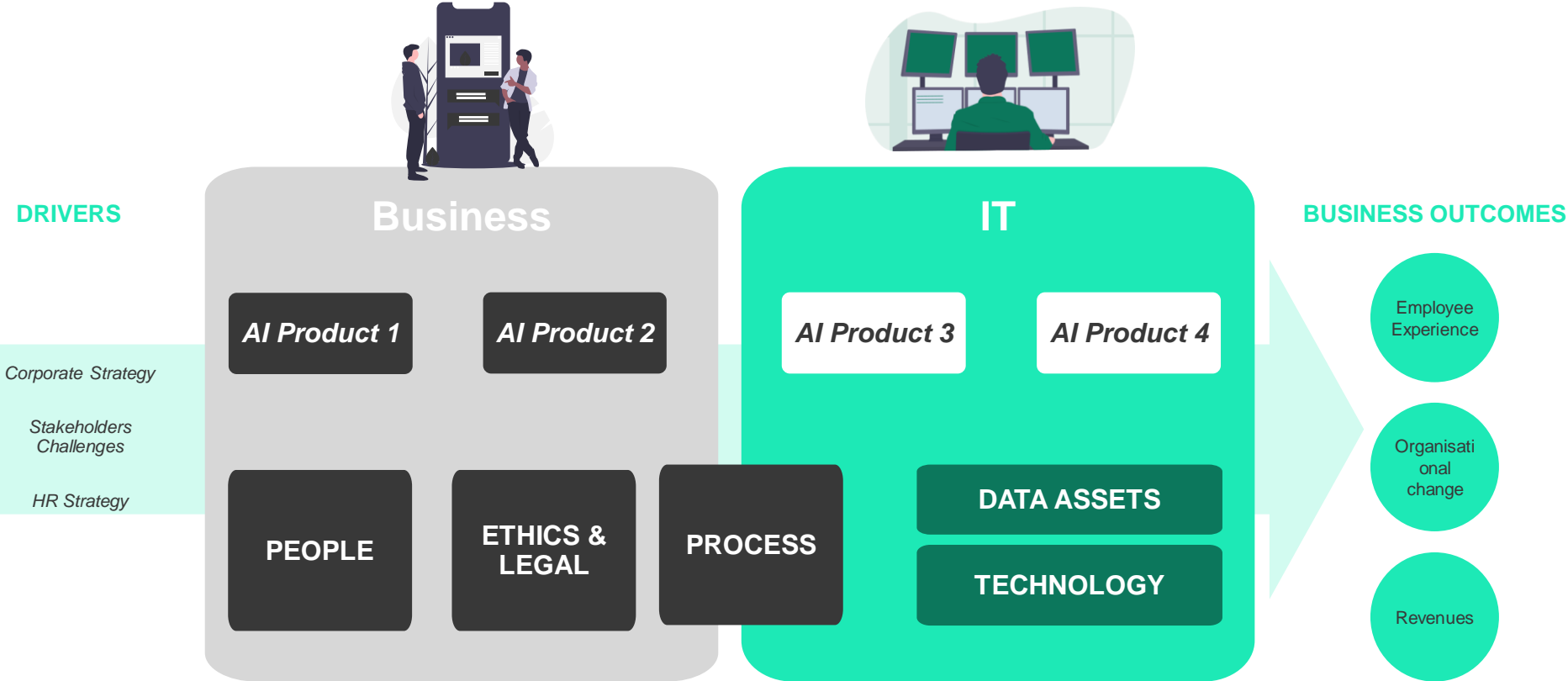
Ingredient 1: Align your AI Product to Corporate Strategy



Ingredient 2: Define the Operating Model (1/2)

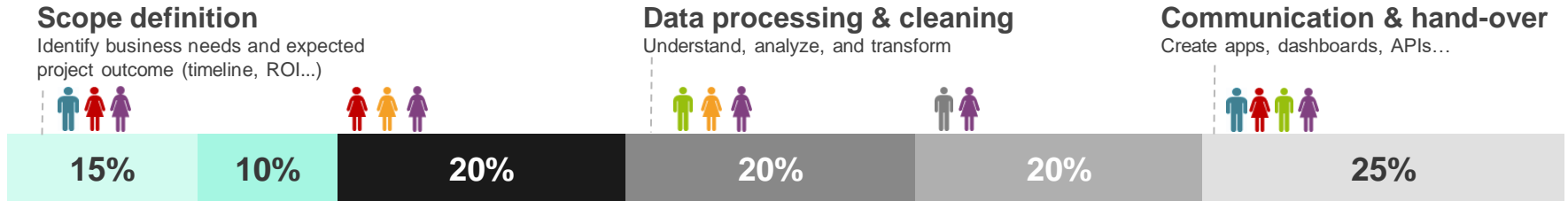


Ingredient 2: Define the Operating Model (2/2)



Ingredient 3: Execution – Set up of an AI Project Ways of Working

Timeline breakdown (up to 3 months)



Scope definition
Identify business needs and expected project outcome (timeline, ROI...)

Data processing & cleaning
Understand, analyze, and transform

Communication & hand-over
Create apps, dashboards, APIs...

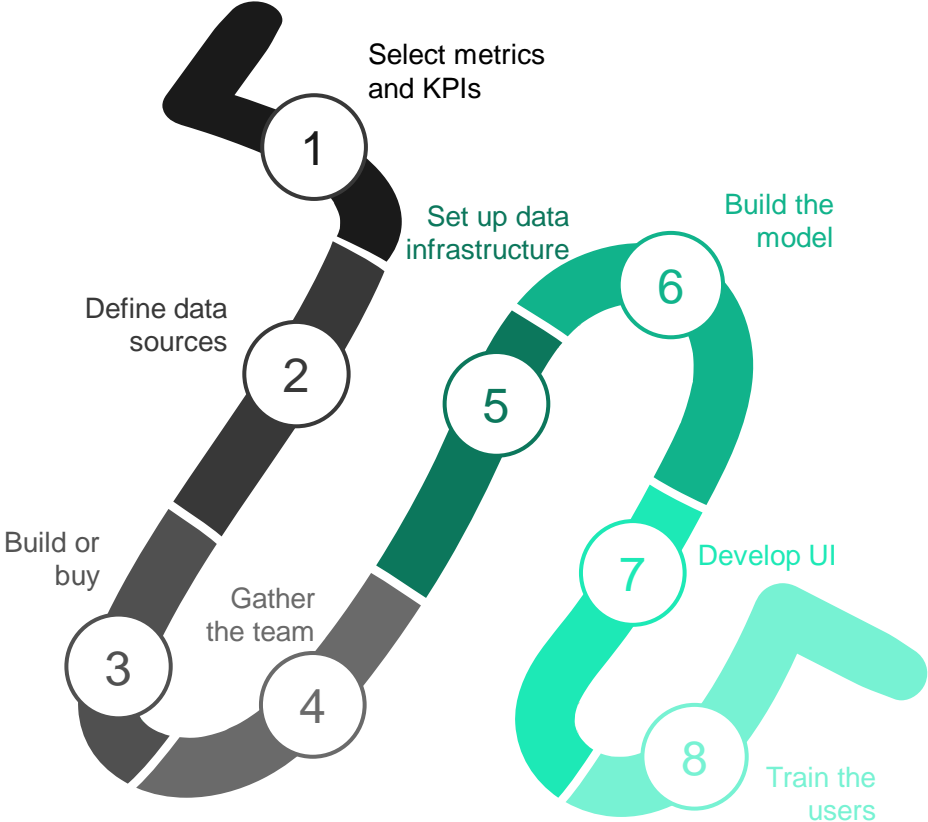
Prioritization
Added to backlog or discarded

Data identification
Collect relevant data that addresses the challenge

Model creation
Set hypothesis and then train, test, and deploy algorithms to make it usable on a set basis



Ingredient 3: Execution – AI Project Implementation



1 **HR Specialist**
Define KPIs and metrics
Formulate Requirements

2 **Executives**
Define Requirements
Check the market
Consider building a tool

3 **Executive & HR Specialist**
Evaluate commercial tools
Decide in the need to build

4 **Executive & HR Specialist**
Gather the team
Define roles

5 **Data Steward Data engineer**
Extract transform and load data set
Clean data set

6 **Data Steward Data scientist**
Prepare additional data collection
Train & deploy the model

7 **UI UX Designer & FE Developer**
Set up reporting
Implement a platform's front-end

8 **IT Department**
Develop training strategy
Implement onboarding tactics

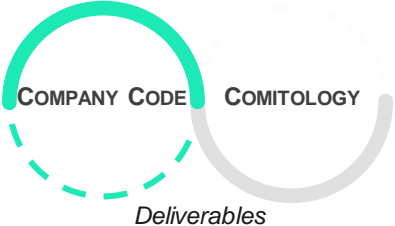
Ingredient 3: Execution - Ethics

GOVERNANCE



Definition of Ethical Principles

The governance must establish a corporate framework allowing operational staff to benefit from guidelines related to the ethics of AI. The governance participates in arbitration, particularly in the event of a conflict between profitability and ethics.

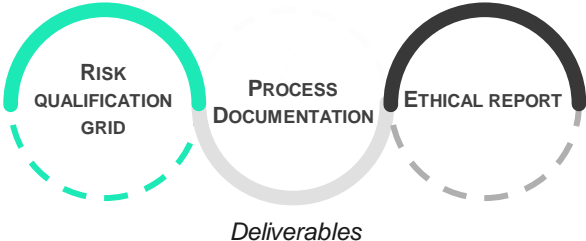


AI ethics



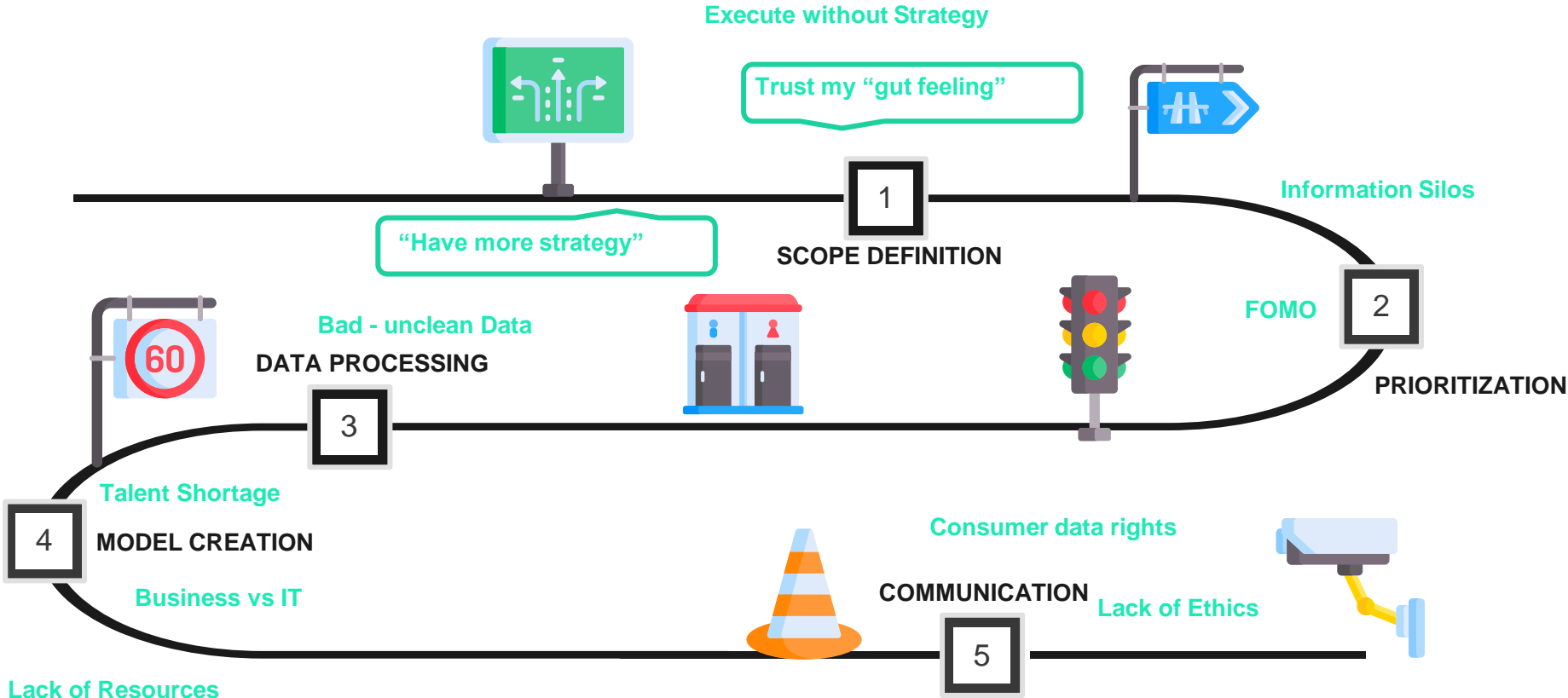
Application of Ethical Principles

Operational staff must implement ethical principles in the construction of systems, but also in their use as well as in the event of development.

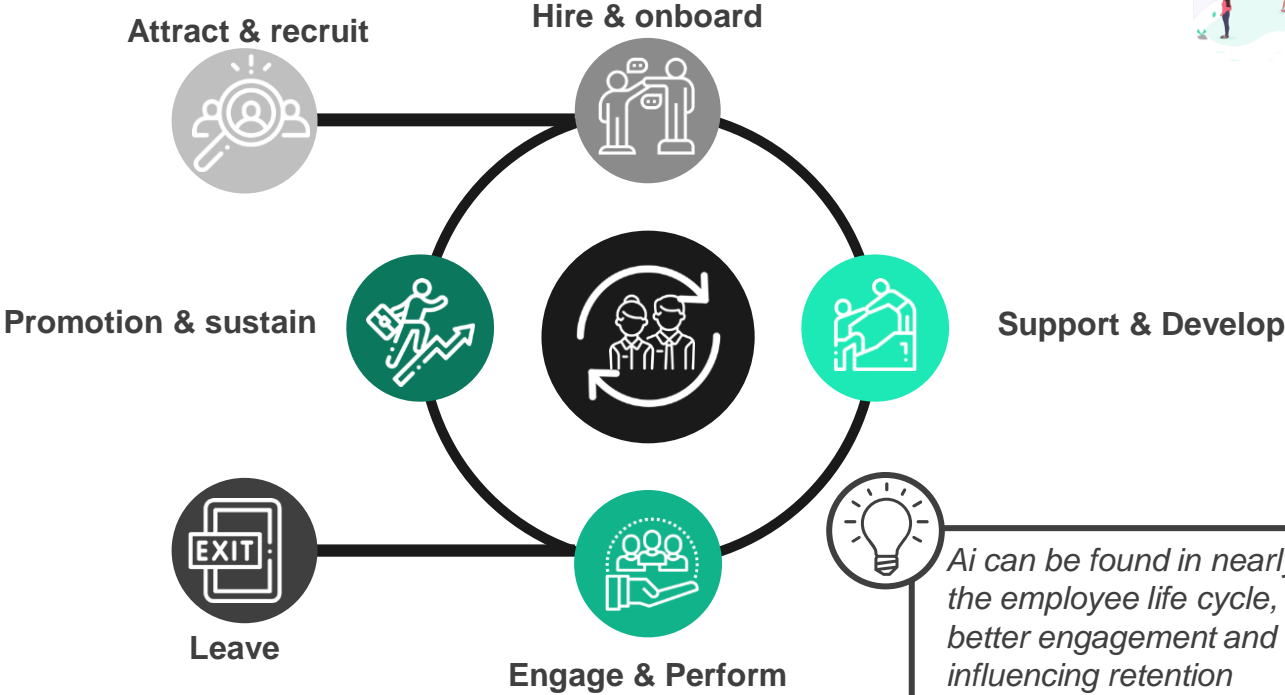
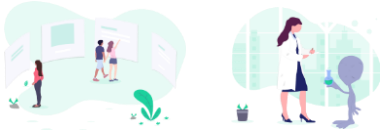


OPERATIONAL

Roadblocks to your AI Project



Artificial Intelligence can be part of the employee life cycle and occur in different stages of the life cycle



Ai can be found in nearly every stage of the employee life cycle, contributing to a better engagement and development and influencing retention

Case Study 1: CV Matching Bot

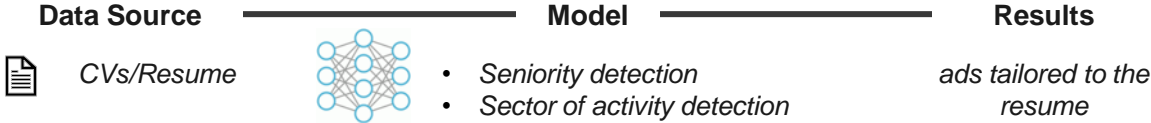


Business Problem

Identify the right profile to hire and help the customer find the best job ads.

Methodology

With convolutional neural networks, it is now possible and common to design algorithm capable of automatically interpreting text extracted from a document.



Outcomes

A solution which returns job ads tailored to candidates who upload their CV online and improve the user experience on the recruiting side while promoting the less popular ads.

LIVE DEMO



CV MATCHING BOT




Case Study 2: Talents Retention Bot

Business Problem

As the global trend toward travel and distant communication continues, businesses are finding themselves competing with a greater number of potential employers. Talented employees are pursued and leadership is forced to make decisions that will effect if these employees stick around.

Methodology

Data Source

 Data from HRIS

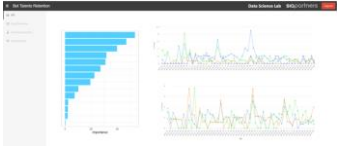


Model

- Finding importance of variables over the resignation
- Prediction of resignation

Results

Interface presenting the importance of variables and the risk of resignation per employee



Outcomes

Determine why employees are resigning and identify risky profiles and retain talents by identifying the causes of departure while searching for profiles with a high probability of resignation.

LIVE DEMO



TALENT RETENTION BOT



4. Setting Up an AI CoE

What is a AI Centre of Excellence?



- ✓ Direct support to the business
- ✓ Analytics performed by the closest to the business issues

- ✗ Lack of skills
- ✗ Lack of analytic perspective



- ✓ Leveraging existing HR data
- ✓ Encourages data processes

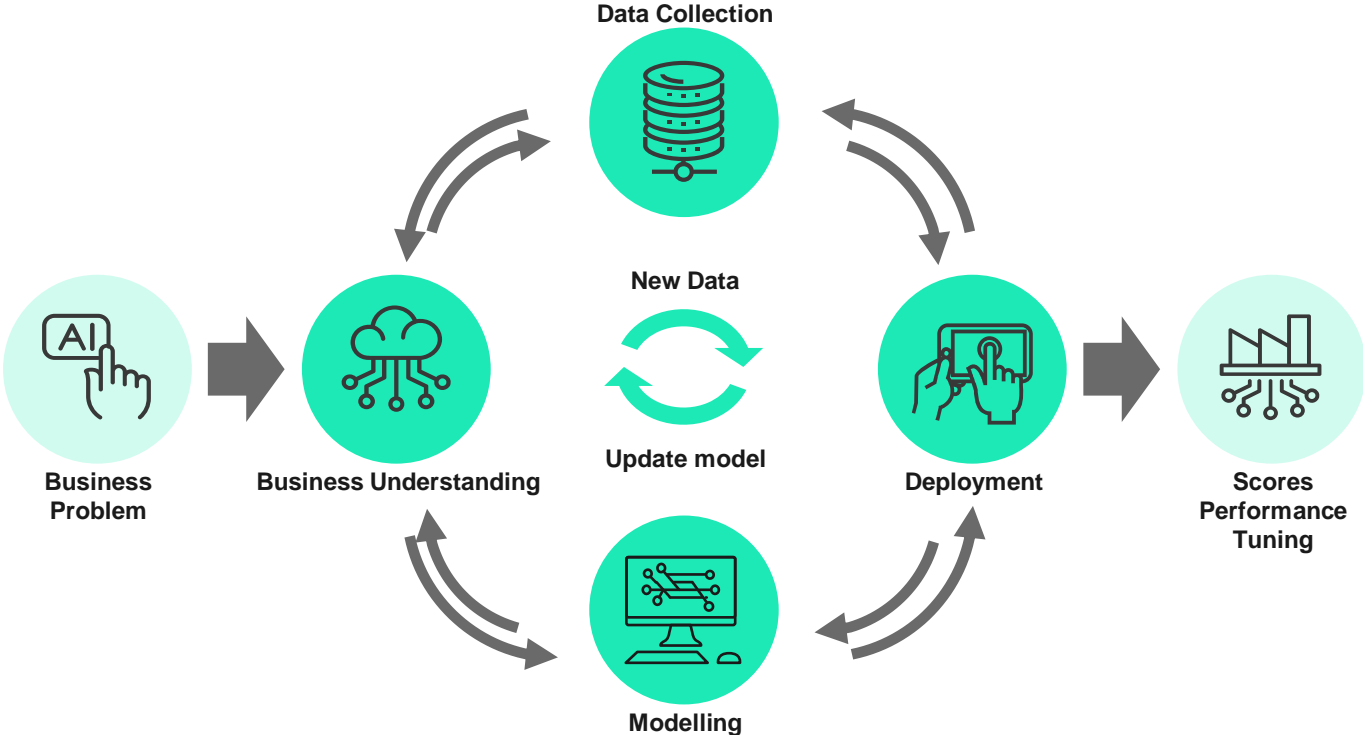
- ✗ Far from the business issues
- ✗ Lack of skills from HRIS analysts
- ✗ Requires training investment



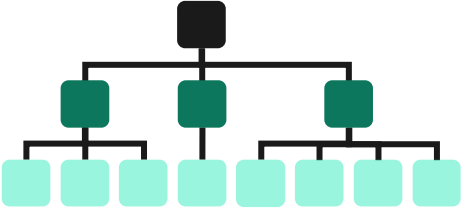
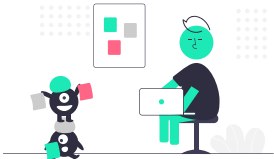
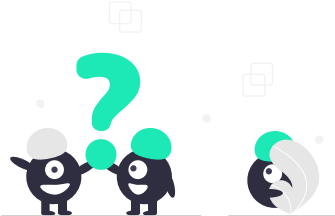
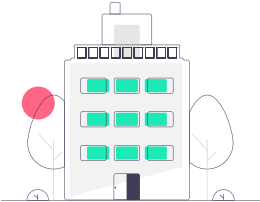
- ✓ Clear accountability of HR analytic
- ✓ Dedicated resources to analysis
- ✓ Greatest expertise

- ✗ Require HR restructuring
- ✗ Greatest needs in resources

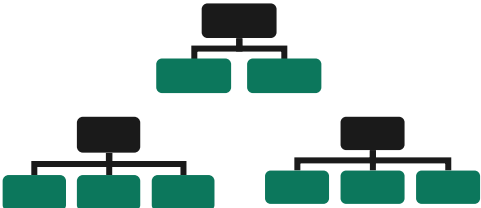
Cycle in which the CoE works



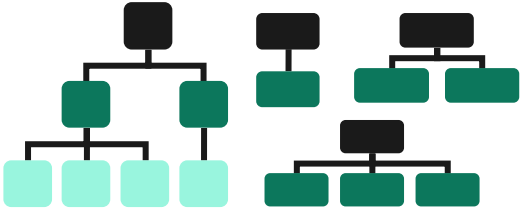
Types of Centres Of Excellence



Centralized



De-centralized



Hybrid

- ✓ Efficiency
- ✓ Faster to implement
- ✓ Straightforward accountability

- ✓ Flexibility
- ✓ Cross BU Silos

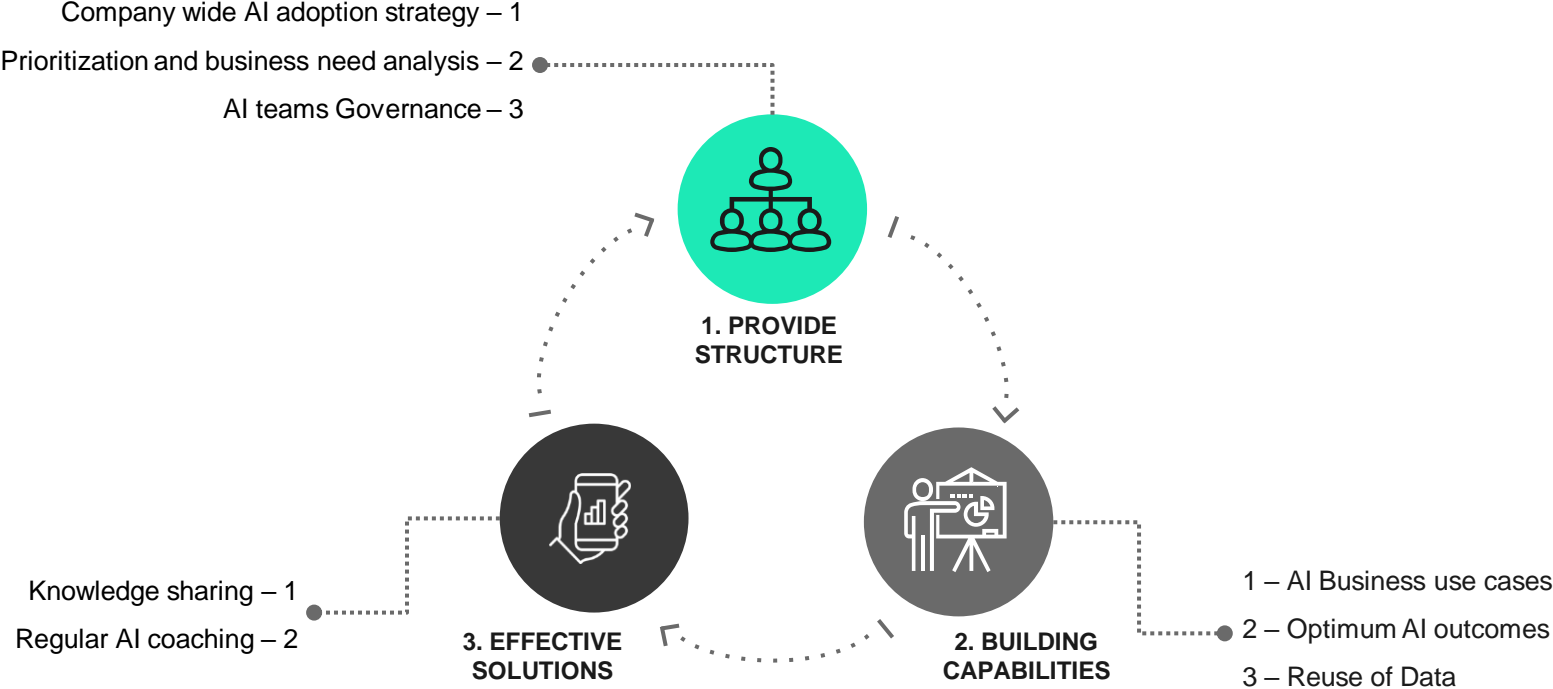
- ✓ Flexibility
- ✓ BU Acceptance
- ✓ Drive standards

- ✗ Too much process
- ✗ Inflexible
- ✗ Business unit resistance

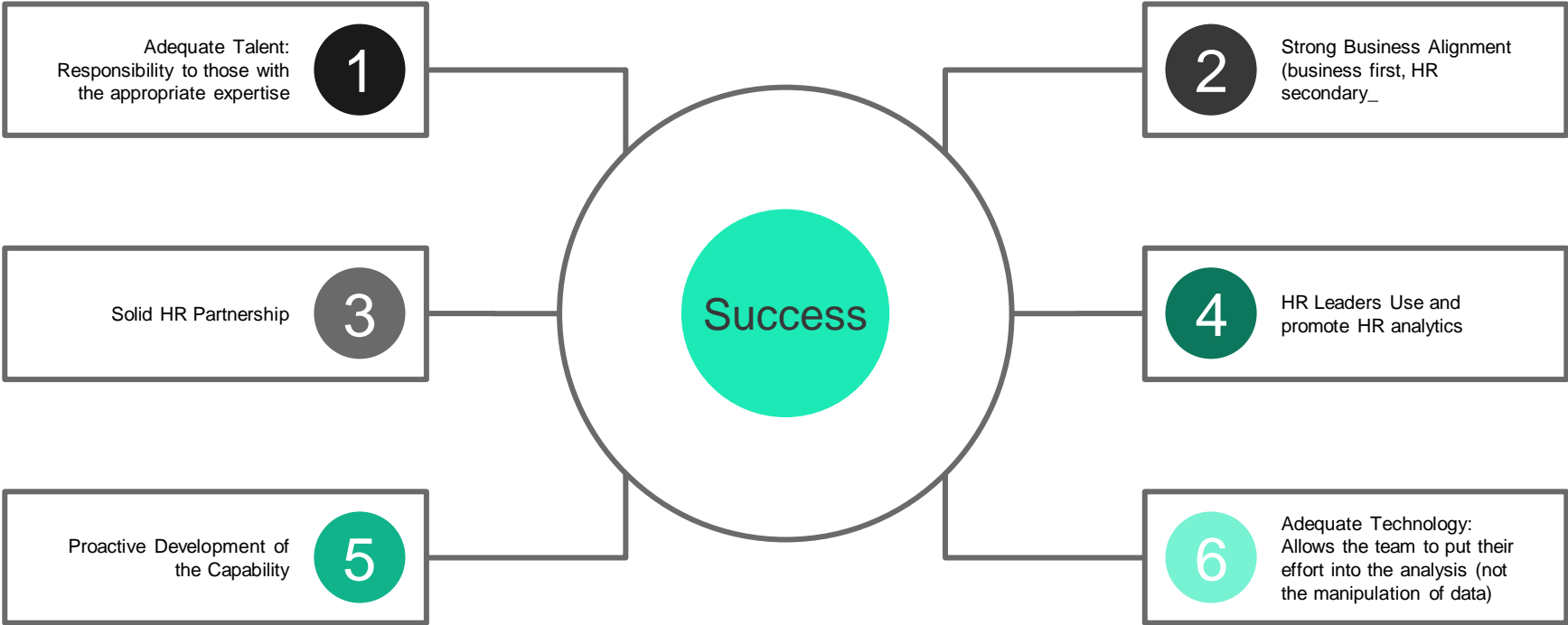
- ✗ Governance
- ✗ Prioritization of challenges

- ✗ Complexity
- ✗ Inefficiency

Reasons why CoE has benefits for any organization



Characteristics of Successful CoE's



AI CoE Set Up & Technical Framework

SET UP



SELECT A STRUCTURAL MODEL

DEFINE INITIAL ROLES AND RESPONSABILITIES

DEFINE KNOWLEDGE GOVERNANCE APPROACH

DEFINE LEARNING & DEVELOPMENT PLAN

FRAMEWORK



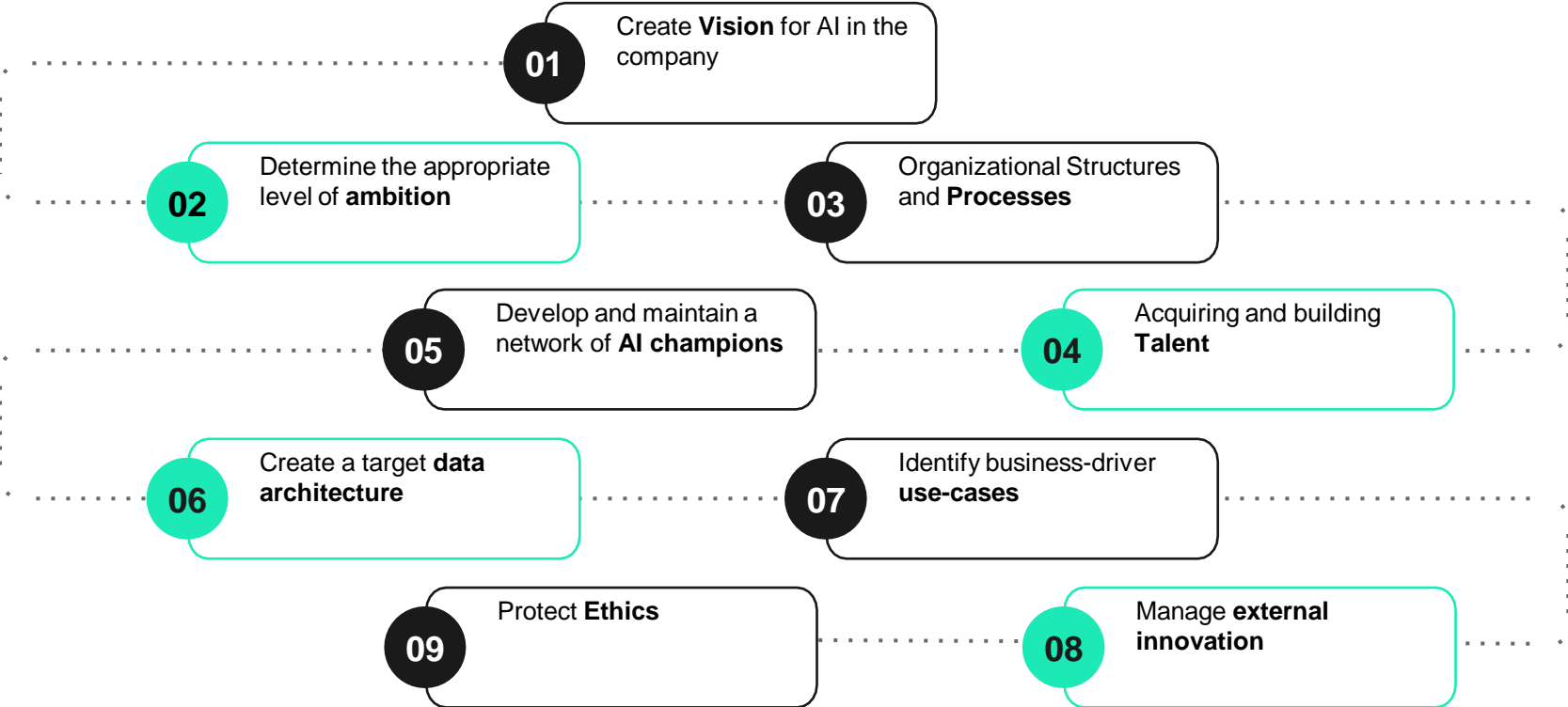
DEFINE DATA SOURCES

SELECT THE TOOLS

DEFINE THE GOVERNANCE STRUCTURE

SPECIFY KEY ROLES

Key Steps for successful implementation



However, there are major challenges to overcome

TEAM ACTIONABLE DATA



Teamwork

Artificial Intelligence; Machine Learning, Data Science and programming. All people need to work together



Recruiting training

To establish qualified team, recruitment and building new capabilities and keep up with new innovations is essential.



Re-skill existing employees

To achieve critical mass you, redeploy and re-skill current openminded team members

Data Quality

Identify data types; location meaning; origin & structure



Data Structure

Strict and effective data and protection



Data Science procedures

Clearly defined approach for data analyzation and processing

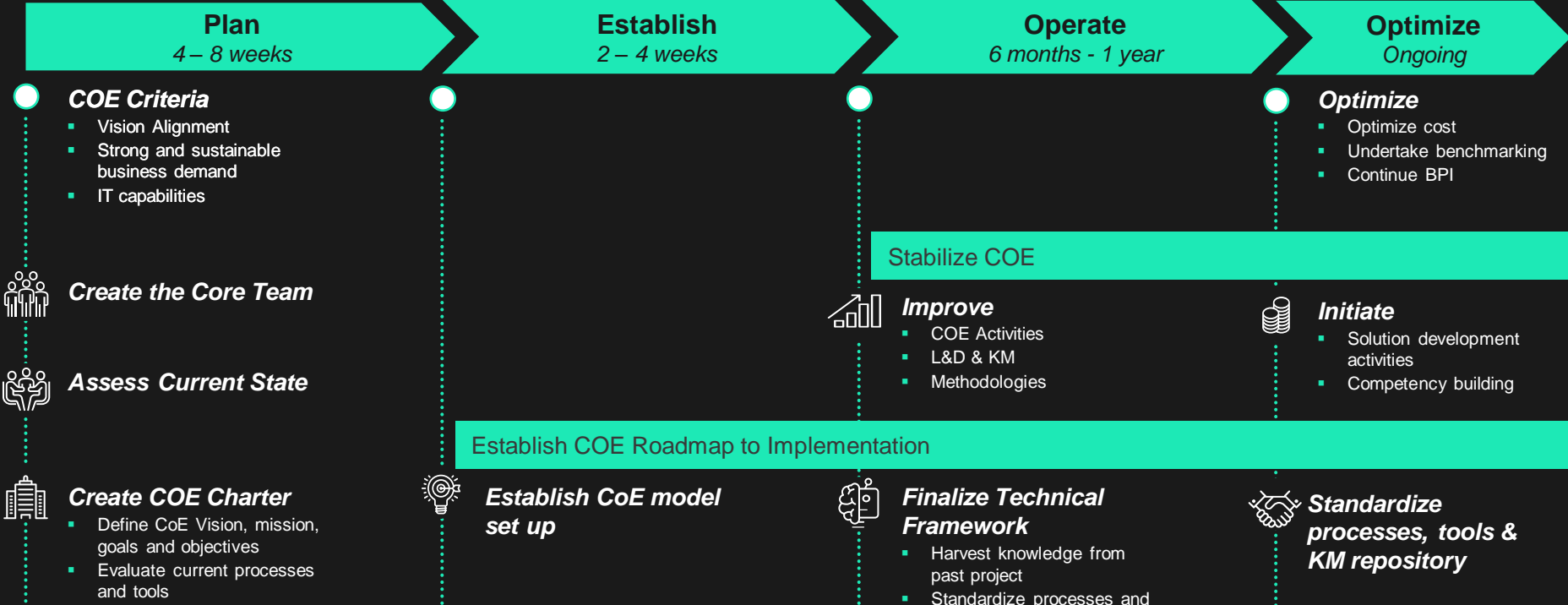


Governance

Correct governance to be implemented to ensure effective data use and especially reuse of data



The Journey to Build an AI Centre of Excellence





5. Discussion Forum



About which topic would you like to know more?

THANKS FOR YOUR TIME

FEEL FREE TO CONTACT US
IF YOU HAVE MORE QUESTIONS

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