Deloitte.

**Der Weg zum RPA
Center of Excellence –
Chancen und Herausforderungen**
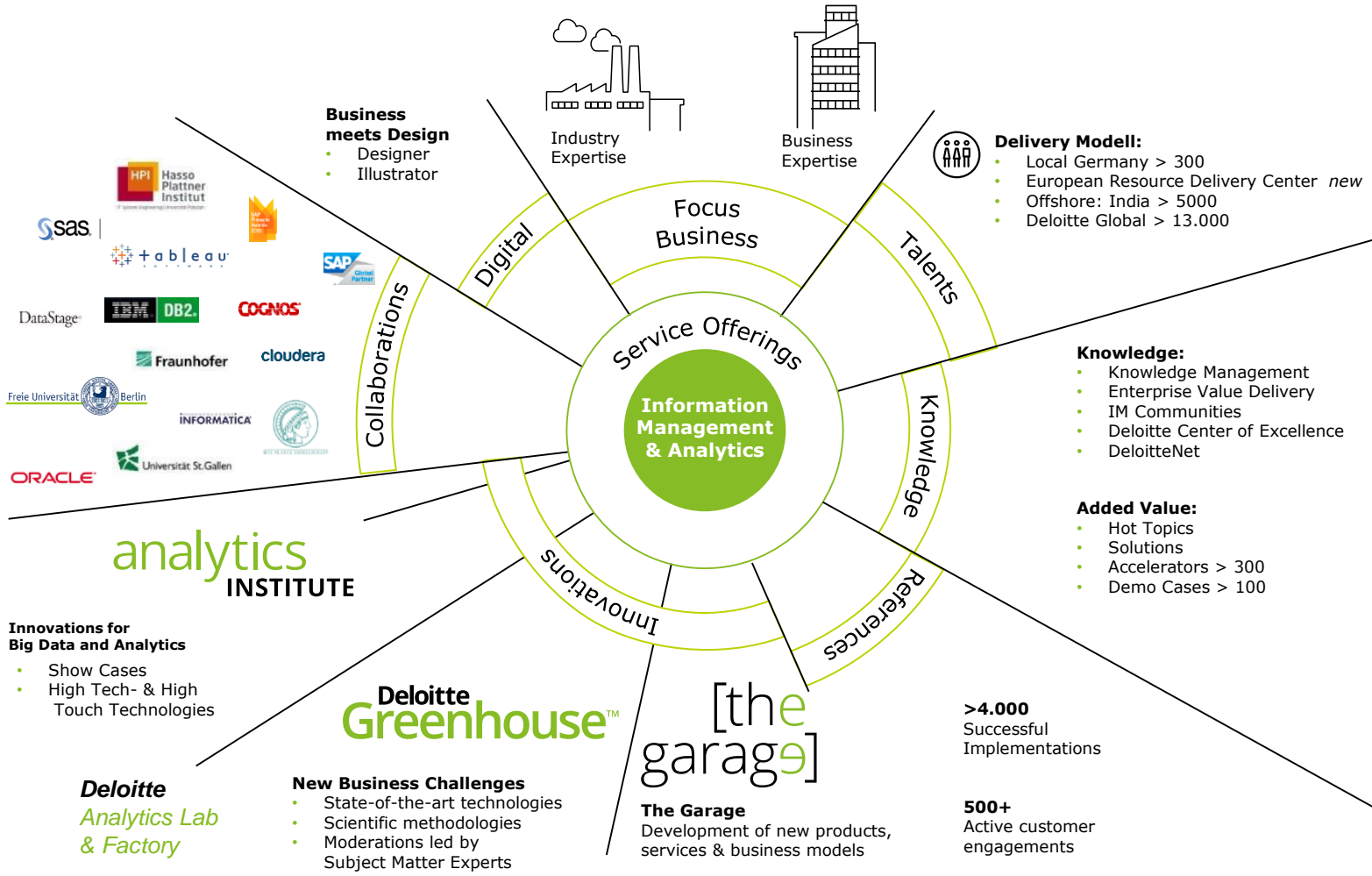
Fachhochschule Kufstein, 17.05.2019

Agenda

1   —————• **Introduction**

2   —————• **Proof of Concept**

3   —————• **Pilot**

4   —————• **Center of Excellence**

5   —————• **Q&A**

Introduction

Deloitte | Analytics & Information Management

Business meets Design
- Designer
- Illustrator

Industry Expertise

Business Expertise

Delivery Modell:
- Local Germany > 300
- European Resource Delivery Center *new*
- Offshore: India > 5000
- Deloitte Global > 13.000

Focus Business

Digital

Talents

Collaborations

Service Offerings

Information Management & Analytics

Knowledge

Knowledge:
- Knowledge Management
- Enterprise Value Delivery
- IM Communities
- Deloitte Center of Excellence
- DeloitteNet

Added Value:
- Hot Topics
- Solutions
- Accelerators > 300
- Demo Cases > 100

Innovations

References

analytics INSTITUTE

Innovations for Big Data and Analytics
- Show Cases
- High Tech- & High Touch Technologies

Deloitte Analytics Lab & Factory

Deloitte Greenhouse™

New Business Challenges
- State-of-the-art technologies
- Scientific methodologies
- Moderations led by Subject Matter Experts

[the garage]

The Garage
Development of new products, services & business models

>4.000 Successful Implementations

500+ Active customer engagements

Deloitte. Technology

Technology Strategy & Architecture

Deloitte Digital

Analytics & Information Management

SAP

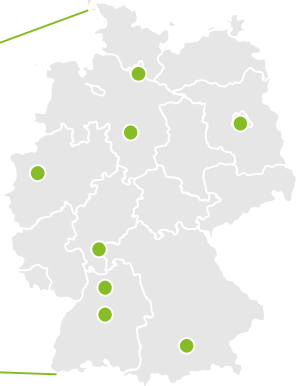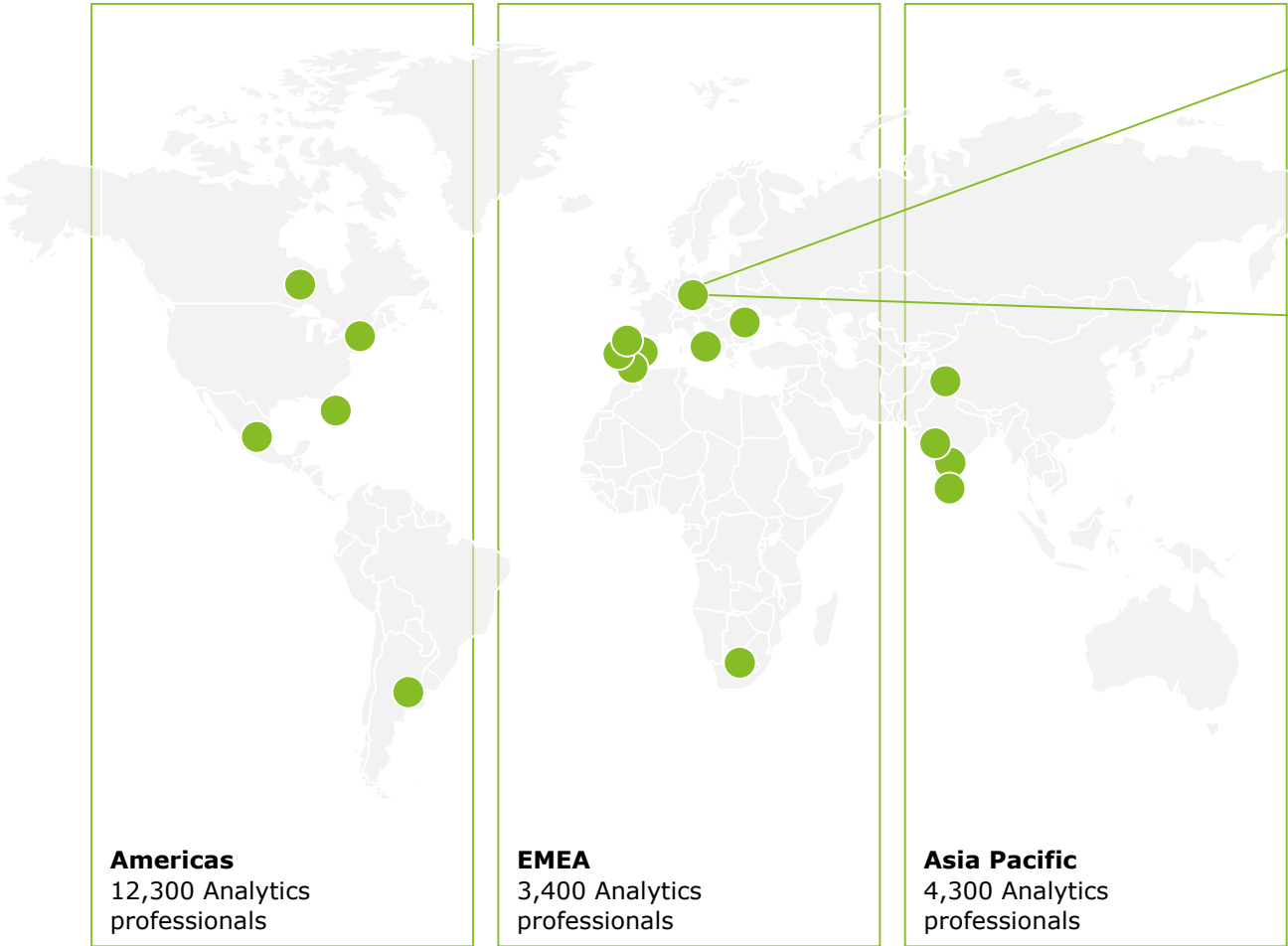**Oracle**

System Integration
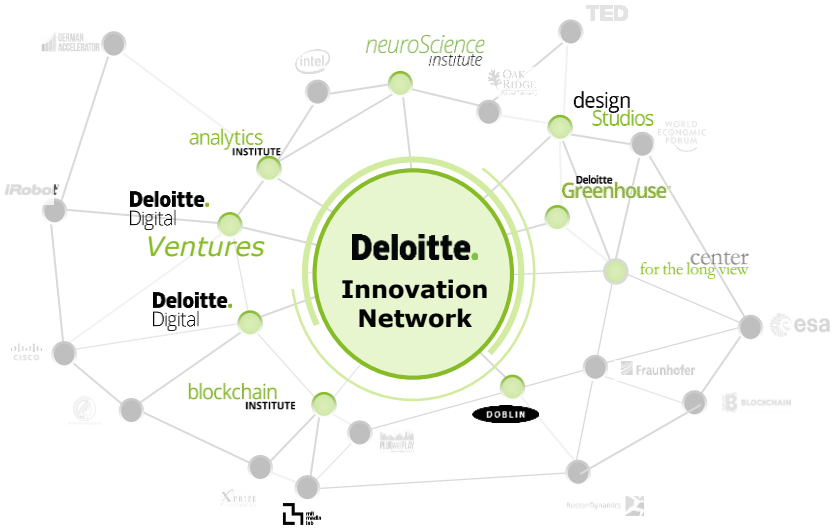
Application Managed Services

Cyber Risk

Deloitte Analytics global and German capabilities

Global Analytics Headcount >20,000

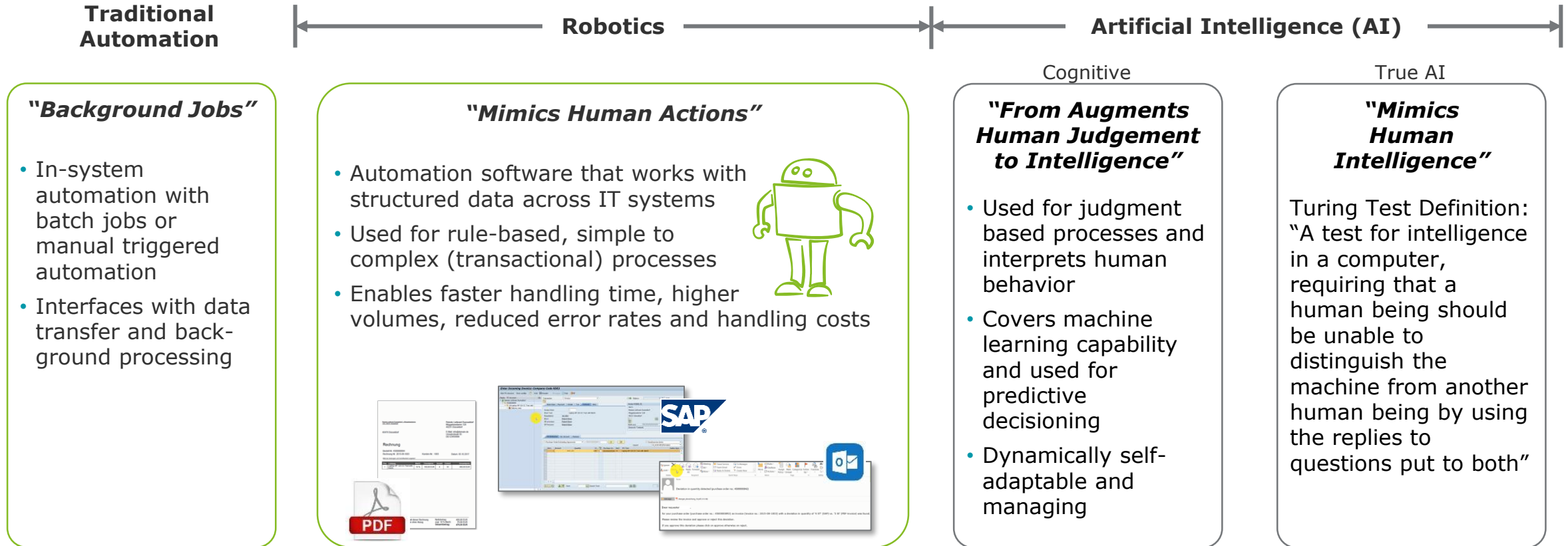**>300** Local Analytics Headcount Germany

Leading consultancy for Advanced Analytics

Americas
12,300 Analytics professionals

EMEA
3,400 Analytics professionals

Asia Pacific
4,300 Analytics professionals

What robotics is | Process automation focus areas

Traditional Automation	Robotics	Artificial Intelligence (AI)	

Traditional Automation

Robotics

Artificial Intelligence (AI)

Cognitive | True AI

"Background Jobs"

- In-system automation with batch jobs or manual triggered automation
- Interfaces with data transfer and back-ground processing

"Mimics Human Actions"

- Automation software that works with structured data across IT systems
- Used for rule-based, simple to complex (transactional) processes
- Enables faster handling time, higher volumes, reduced error rates and handling costs

SAP

PDF

"From Augments Human Judgement to Intelligence"

- Used for judgment based processes and interprets human behavior
- Covers machine learning capability and used for predictive decisioning
- Dynamically self-adaptable and managing

"Mimics Human Intelligence"

Turing Test Definition: "A test for intelligence in a computer, requiring that a human being should be unable to distinguish the machine from another human being by using the replies to questions put to both"

Area of Interest for Process Automation

Robotic Process Automation | Capabilities & Benefit

What is Robotics?

Robots are...

- Computer-coded software
- Programs imitating human interaction with applications
- Cross-functional and cross application macros

Robots are able to...

- Validate and analyze
- Gather and collate information
- Record data
- Calculate, decide and produce
- Orchestrate and manage
- Transport and communicate
- Report

... in appropriate processes:

- Structured and fixed inputs and outputs
- Rule-based & repetitive
- Limited human (voice) intervention
- Stable process with little exceptions and changes
- High volume or significant peaks in workload

Main benefits

Cost Reduction
Cost reduction net 30% - 60% per automated process

24/7 Operations
Non-stop performance - no queues at peak

Valuable Work
Employees do not waste any capacity for routine tasks

Quality
Increase quality by avoiding human errors and focusing on exceptions
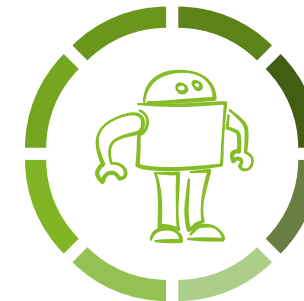
Short Payback Period
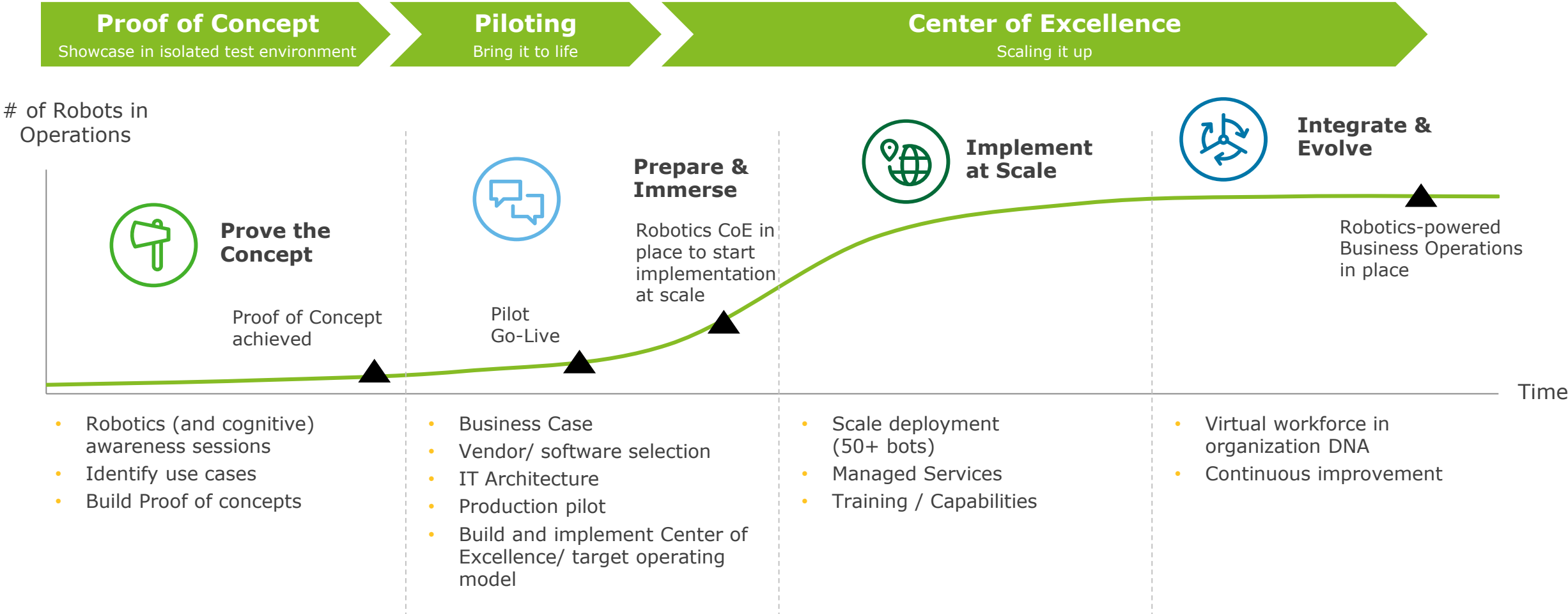RPA implementation costs are paid off in < 12 months

Internal Control
Avoiding human fraud, easily performed Control & Compliance checks
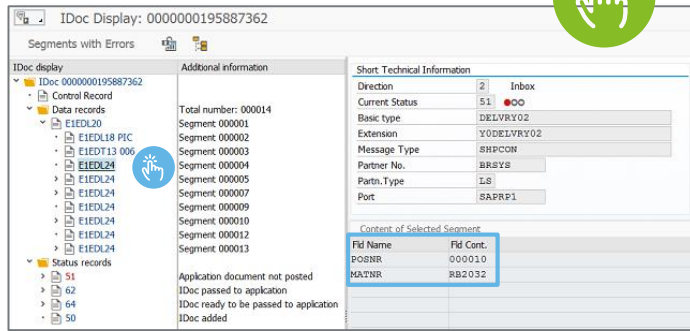
Speed Increase
Turn-around-time decrease (up to 80%)

# Implementation roadmap | The Journey from a Proof of concept to full scale

Proof of Concept	Piloting	Center of Excellence
Showcase in isolated test environment	Bring it to life	Scaling it up

# of Robots in Operations

Prove the Concept

Proof of Concept achieved

Prepare & Immerse

Robotics CoE in place to start implementation at scale

Pilot Go-Live

Implement at Scale

Integrate & Evolve

Robotics-powered Business Operations in place

Time

- • Robotics (and cognitive) awareness sessions
- • Identify use cases
- • Build Proof of concepts

- • Business Case
- • Vendor/ software selection
- • IT Architecture
- • Production pilot
- • Build and implement Center of Excellence/ target operating model

- • Scale deployment (50+ bots)
- • Managed Services
- • Training / Capabilities

- • Virtual workforce in organization DNA
- • Continuous improvement

Proof of Concept

Proof of concept | Key Deliverables

We create the following deliverables…

Screenshots and process description (BPP) of how the Robot should work

RPA Demo & Video

Key POC Outcomes

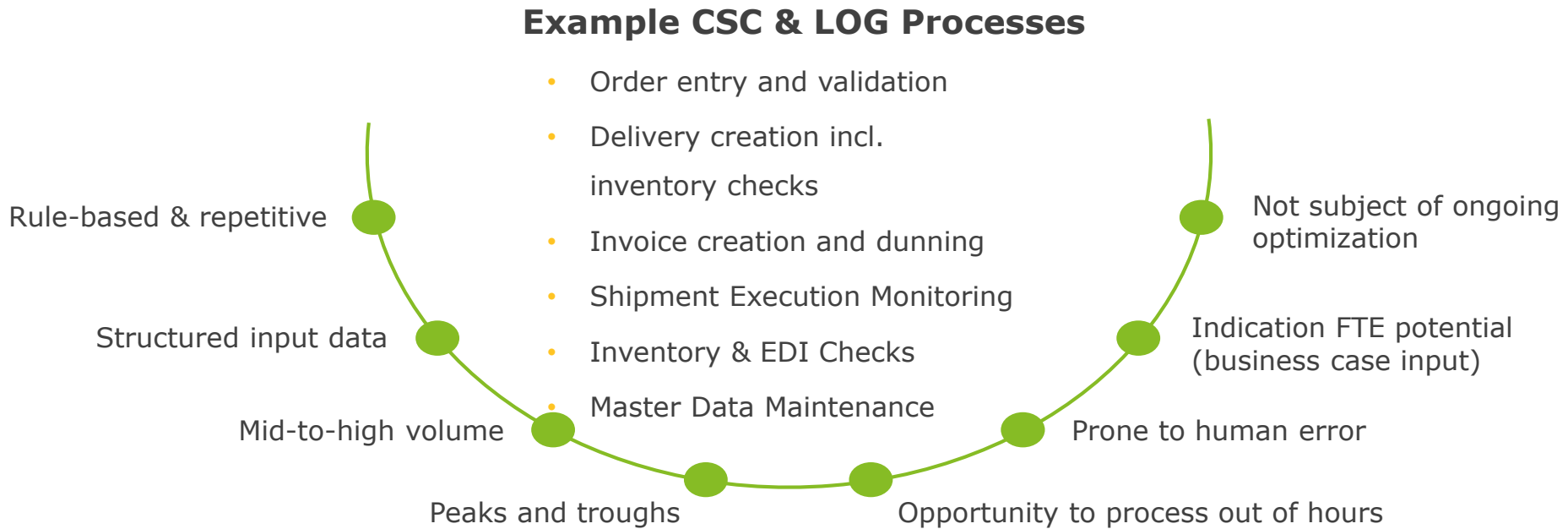RPA Step-by-Step Documentation

POC Decision Paper
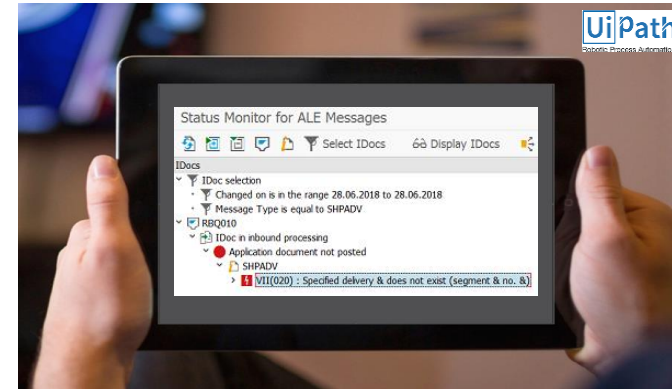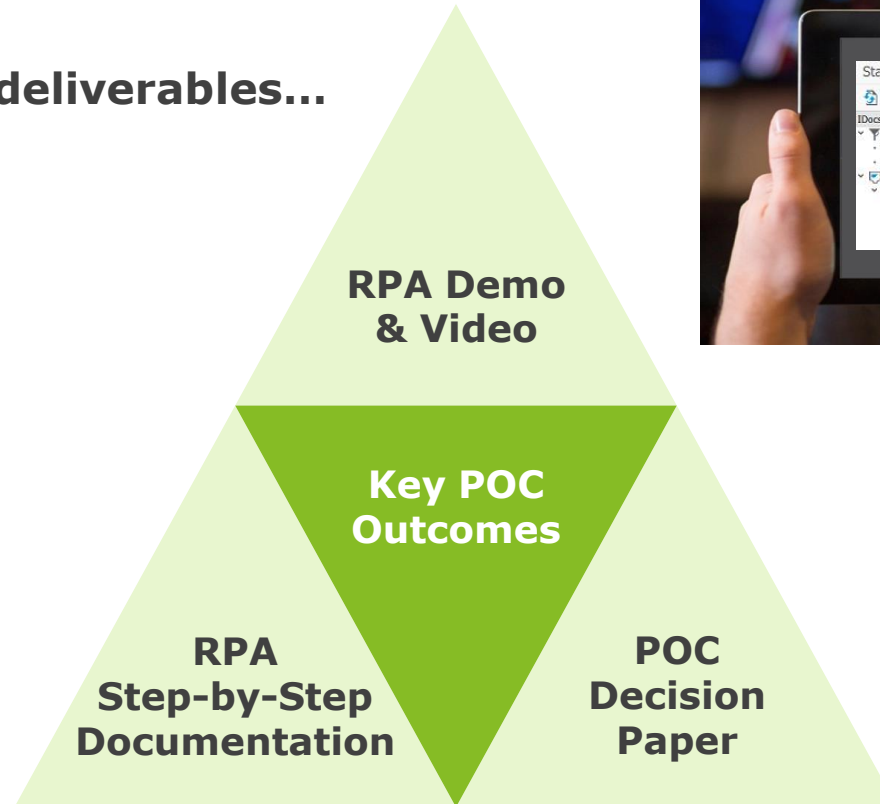
Live demo on RBQ and video as showcase

Scope and results of POC, business case, lessons learnt, recommendations

Proof of concept | Suitability of processes for Automation

Example CSC & LOG Processes

- Order entry and validation
- Delivery creation incl. inventory checks
- Invoice creation and dunning
- Shipment Execution Monitoring
- Inventory & EDI Checks
- Master Data Maintenance

Rule-based & repetitive

Structured input data

Mid-to-high volume

Peaks and troughs

Not subject of ongoing optimization

Indication FTE potential (business case input)

Prone to human error

Opportunity to process out of hours

Example

CSC & LOG with it's high volume and stable processes, is a possible area of choice to **prove value of process automation**

These are the criteria to look for processes

Search for these...	Try to avoid these...

Search for these...

- **Routine, repetitive processes**, executed at least weekly with the exact same sequence of steps
- Process depends on **digital structured, interpretable input data** which is always available in the same format
- Flow of the steps is rather straight forward **with few exceptions** or decision points
- **Autonomous execution by the robot possible**, no input for decisions by human required
- Process spans across **limited number of business applications** (e.g. Excel, Outlook, SAP; 3-4 max.)

Try to avoid these...

- **Specialized process**, carried out few times only or in many different variants
- Input for process is **paper-based or unstructured** (e.g. free-text email)
- Many nested process parts with a **high number of decision points**
- Strong human / robot interaction needed as decision criteria may not be available digitally
- **Large number of business applications** involved in process execution (more than 4)

Classification framework of Robotics process complexity

Description	Process Steps	Process Decisions	Steadiness	Form of Input Data	Systems	Access to Systems	Fields	No. of Hand-Offs
	Number of process steps (incl. number of loops)	Number of decisions (linear or complex)	How often does the process change?	What form do input data have (un-/ structured and digital / analog)?	Number of different systems	Restrictions to access systems (e.g.Citrix)	Number of fields to be filled out per process?	Number of different departments involved in the process
	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale
Complex	>70	Complex	High frequency of changes	Unstructured / analog	>5	heavy	>20	>5
	>50	Complex (rule-based)	Often	Structured / analog	4		20	4 or 5
Scoring System	>30	Linear and complex	Medium	Both analog and digital	3	medium	15	3
Simple	<20	Linear	Rarely	Unstructured / digital	2		10	2
	<10	No decisions	No changes	Structured / digital	1	none	5	1

RPA Software vendor used

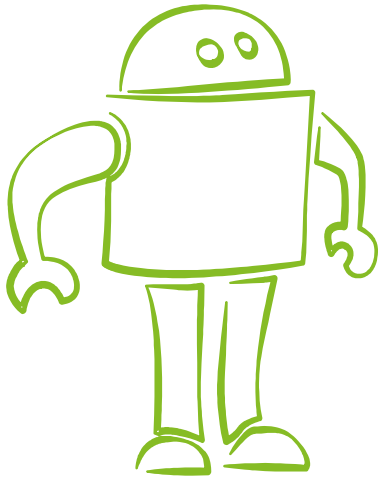|	**AUTOMATION ANYWHERE** Go be great.	**blueprism**	**UiPath**
Specialization	• SAP automation including data extraction and report generation	• No specialization but leader in back office	• SAP automation including data entry and content migration
Key Differentiators	• Ease of implementation due to simple architecture • Reusability through metabots to expedite process creation • Depth of deployment experience	• Efficiency in scaling with robot creation and ecosystem costs • Well developed training program and approach • Highest level of control over robots	• Best-in-class integration with systems • Ease of use with intuitive GUI and drag-and-drop process creation supported by the business
Why Clients Choose These Vendors	• To implement simple processes automations quickly for immediate ROI	• To enable scalability and support large, enterprise automation initiatives	• For business-led process creation, integrating multiple systems, specifically SAP and CITRIX

The Forrester Wave – RPA - Q2/2018

Challengers | Contenders | Strong Performers | Leaders

Stronger current offering

UiPath
Automation Anywhere
Pegasystems
NICE
Blue Prism
EdgeVerve
Kryon Systems
WorkFusion
Thoughtonomy
Kofax
Contextor
Softomotive
Redwood Software
Another Monday
AntWorks

Weaker current offering

Weaker strategy ———————————————► Stronger strategy

Market presence

Source: Deloitte, Forrester

Proof of Concept lessons learned

PoC is successful from technical perspective

Implementation time is rather short (3 – 4 weeks)

PoC provides a good basis for a "Go-Live"

Pilot

Bringing it to Life – Key considerations

Scope

Do not start with all processes and geographies at once, piloting with subsequent use cases is more beneficial

Leakage

Take leakage into account and that processes cannot be fully automated / still need some manual support

Operating Model

Ensure that the process automation operating model is designed and implemented early, e.g. along a feasibility study

Business Case

Do a proper PoC and piloting phase with a feasibility study to validate benefits before large-scale deployment

Change Management

Prepare the organization for the virtual workforce and shape discussions along the process automation journey

The Journey from a manual process to an enhanced automated process

① **As-Is Process Documentation**

② **To-Be Process**

③ **Step-by-Step Documentation**

④ **Teach**

⑤ **Test**

⑥ **Enhance**

⑦ **Go-Live**

⑧ **Optimize**
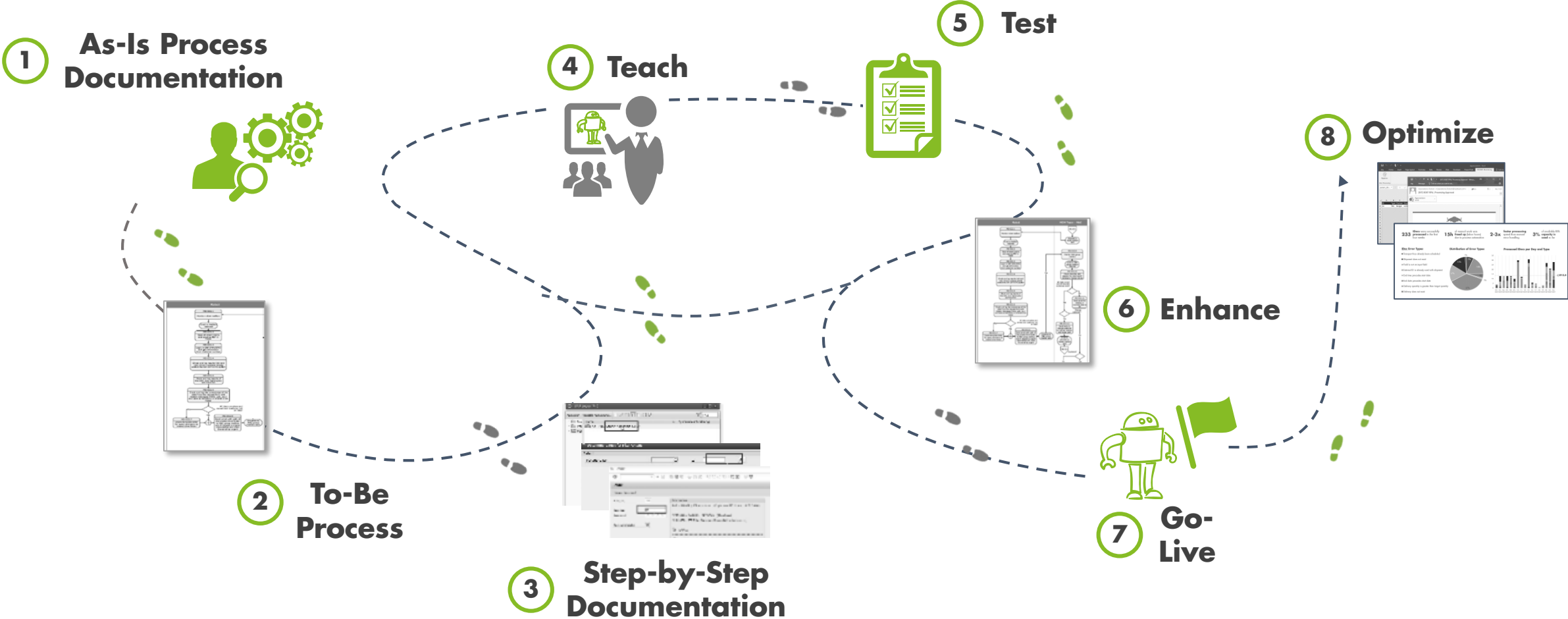
RPA Pilot lessons learned
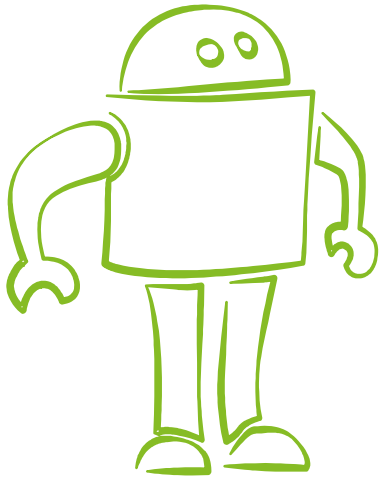
Robotics PoC was successful from technical perspective

Noticeable business benefits after Go-Live achieved

Precise and extensive "process rule-set" required

Robust and dynamic process architecture necessary

Business involvement indispensable for implementation

Center of Excellence

Target Operating Model

Strategy & Vision
- Defining the strategy and vision for process automation
- Identifying the expected business benefits, outlining how these align to corporate strategy and how they will be realised

Technology
- Defining a scalable, low maintenance technical environment and associated growth strategy

People
- Defining roles and responsibilities to operate efficiently
- Securing candidates for Robotics delivery, support and training roles

Service Model
- Agreeing the engagement model required to support operational processes
- Defining the management, reporting, scheduling and support model for processes for business as usual

**Robotics Operating Model**

Organization
- Defining the organisational design that best supports delivery of the RPA capability and aligns with corporate strategy and culture

Governance
- Defining the decision structure and committee structure needed to decide, execute and manage robotics

Pipeline & Benefit Model
- Defining the opportunity assessment approach and pipeline triage procedure to optimise the number of processes selected for robotics and maximise the associated business benefit

Delivery Model
- Agreeing the Robotics delivery approach and embedding process documentation standards, templates and policies
- Defining the delivery management and tracking approach that ensures optimal usage of the defined methodology
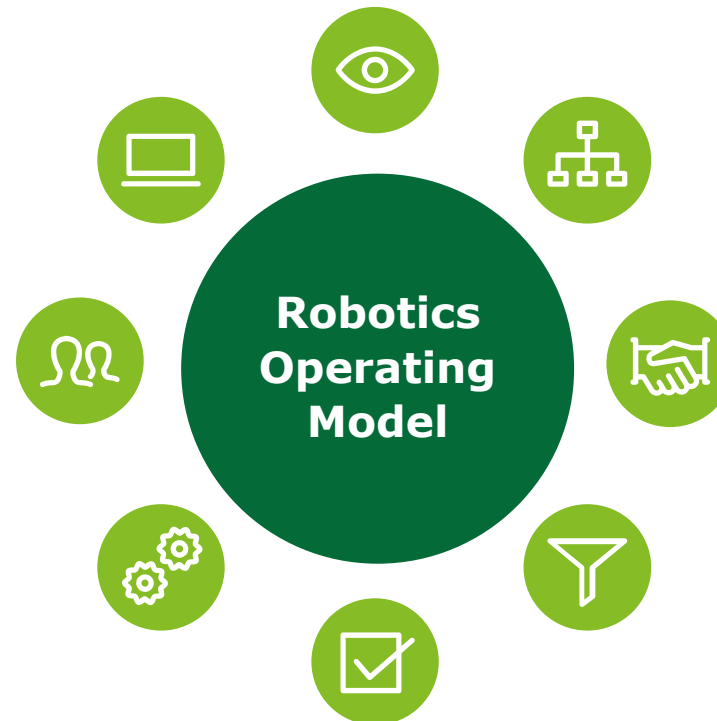
CoE Dimension 1: Operating Model

Illustrative

1 Operating Model — 2 — 3 — 4

Divisional

- Local automations in individual functions with no/minimum dependency on other functions

Management

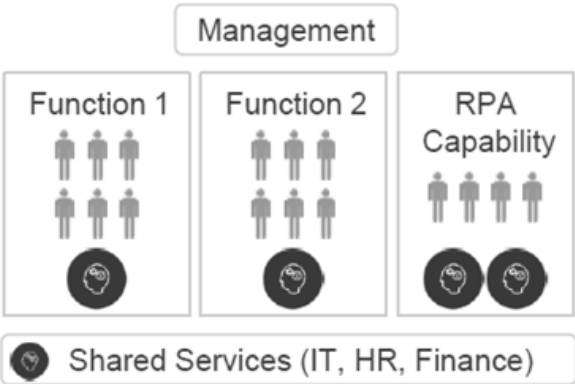| Function 1	Function 2	Function 3
RPA		RPA

Shared Services (IT, HR, Finance)
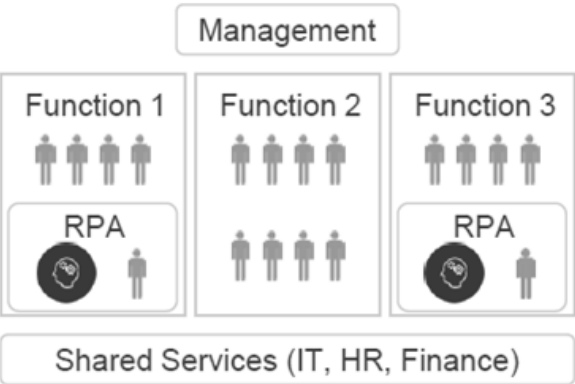
Federate

- Bespoke automations in multiple functions, supported by a central and standard platform when needed

Management

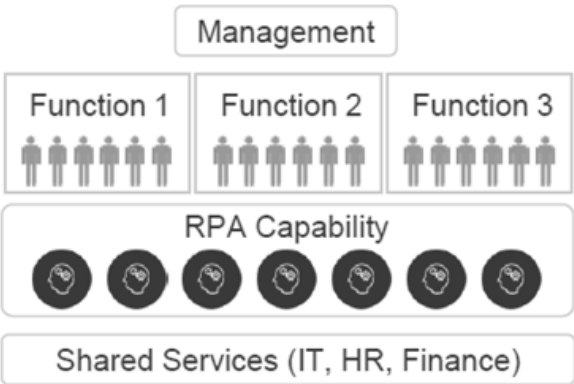| Function 1	Function 2	RPA Capability

Shared Services (IT, HR, Finance)

Centralised

- Low cost, scalable automations across the enterprise using a central and standard platform

Management

Function 1	Function 2	Function 3

RPA Capability

Shared Services (IT, HR, Finance)

CoE Dimension 2: Process Pipeline

1 ——— **2** **Process Pipeline** — **3** ——————— **4**

Push Model

- Enablement of process experts with deep functional knowledge to understand RPA requirements (ambassadors)
- Identify suitable processes on their own based on checklist criteria and propose candidates (longlist)
- Gatekeeper (RPA specialist) validates proposed candidates (shortlist)
- present business case to decision board for approval and prioritization

Process Assessment Tool

Pull Model

- Establish process scouts with deep RPA knowledge
- Screening of processes for suitable candidates (e.g. through process pattern analysis and/or interviews with process experts & owners)
- Identify potential candidates (longlist)
- Validate with process owners and determine business case metrics (shortlist)
- present business case to decision board for approval and prioritization

CoE Dimension 3: Service Delivery Model

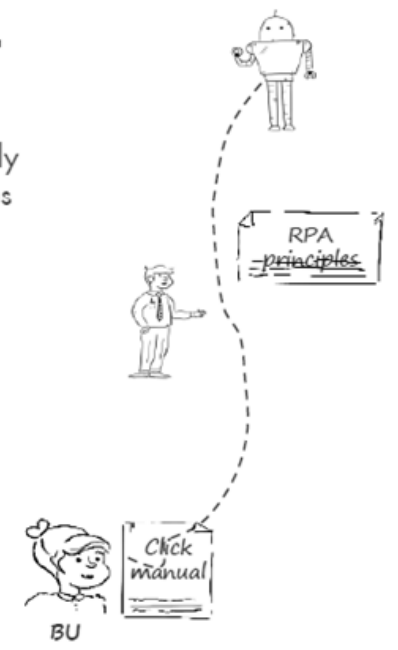**Illustrative**

① ② **③** ④

③ Service Delivery Model

Internal Enablement

- Employees get a basis RPA-Training for 3-days and a "work shadowing" approach for their first automated process
- After the first automation with an expert, the employees automate their own processes according to the trained guidelines
- People use their knowledge to optimize new processes for automation

RPA Creator (BU or external)

RPA principles

Extended work-bench
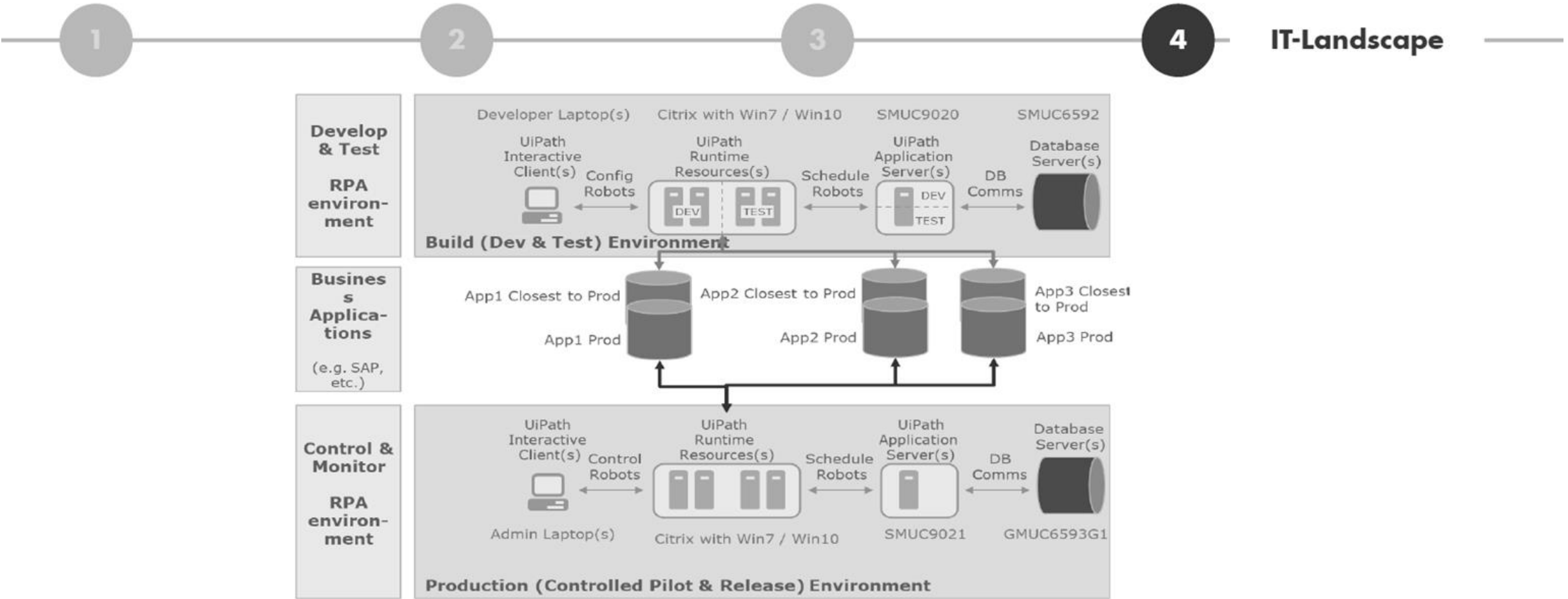
- External developer are responsible for the automation of processes
- Number of developers can be easily adjusted to the number of processes for automation
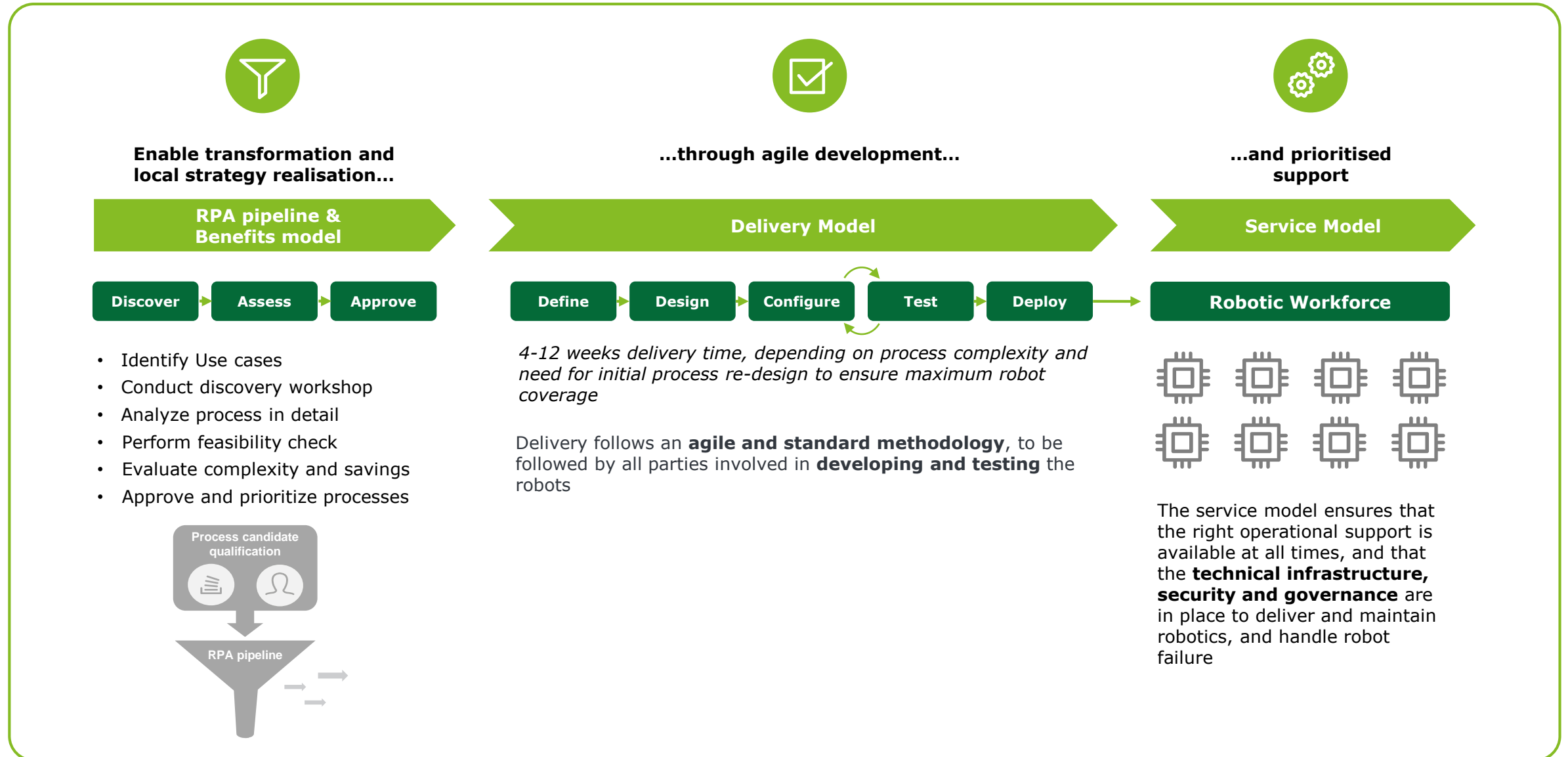- Documentation and process flows can still be prepared internally

RPA principles

Click manual

BU

CoE Dimension 4: IT-Landscape

Illustrative

Robotics Process Selection, Delivery and Management - Overview

Enable transformation and local strategy realisation…

…through agile development…

…and prioritised support

RPA pipeline & Benefits model	Delivery Model	Service Model

Discover → **Assess** → **Approve**

Define → **Design** → **Configure** → **Test** → **Deploy**

Robotic Workforce

- Identify Use cases
- Conduct discovery workshop
- Analyze process in detail
- Perform feasibility check
- Evaluate complexity and savings
- Approve and prioritize processes

4-12 weeks delivery time, depending on process complexity and need for initial process re-design to ensure maximum robot coverage

Delivery follows an **agile and standard methodology**, to be followed by all parties involved in **developing and testing** the robots

Process candidate qualification

RPA pipeline

The service model ensures that the right operational support is available at all times, and that the **technical infrastructure, security and governance** are in place to deliver and maintain robotics, and handle robot failure

Q&A