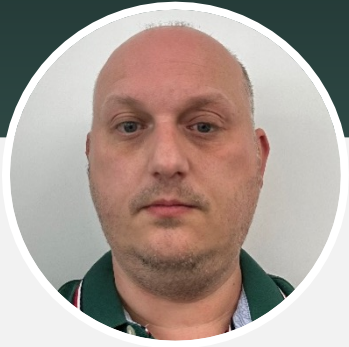aaseya
A YASH Technologies Company

From Nuclear Safety to Safe Neighborhoods:

Government Triumphs in Regulatory

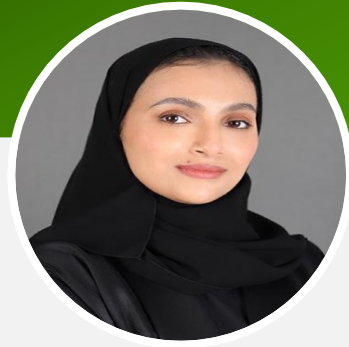Compliance and Productivity with Pega & AI

Introduction

RICHARD WILKINSON
Product Owner – Sellafield Ltd.

SARAH ALGHAMDI
General Manager, MoMRAH

PANKAJ JAIN
CEO, Aaseya

GRAHAM DAWKES
Sr. Vice President, Sales, Aaseya

Enhancing Integration Of Municipal Services And Housing Products For Saudi Cities

Vision

Excellence In Providing Municipal Services, Achieving Urban Sustainability In All Regions Of The Kingdom, And Organizing And Facilitating A Balanced And Sustainable Housing Environment

Message

Improving The Quality Of Life And Prosperity In Saudi Cities To Respond To The Aspirations And Needs Of Current And Future Generations And Achieve The Happiness Of The Residents

Inspection before Pega "MCP"

1 **Inconsistent Processes**
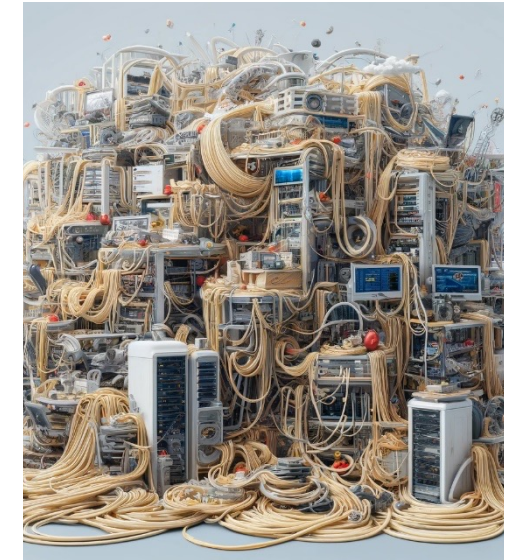
Different municipalities followed varying inspection protocols, making it difficult to ensure consistency and compare data.

2 **Lack of Visibility**

The fragmented approach hindered the ministry's ability to track progress and identify areas for improvement.

3 **Resource Intensive**

Managing multiple inspection processes was both time and cost-intensive for the ministry.

Road to Excellence with Pega & Aaseya

GOAL:
Provide a Unified Inspection System across the entire Kingdom of Saudi Arabia

3
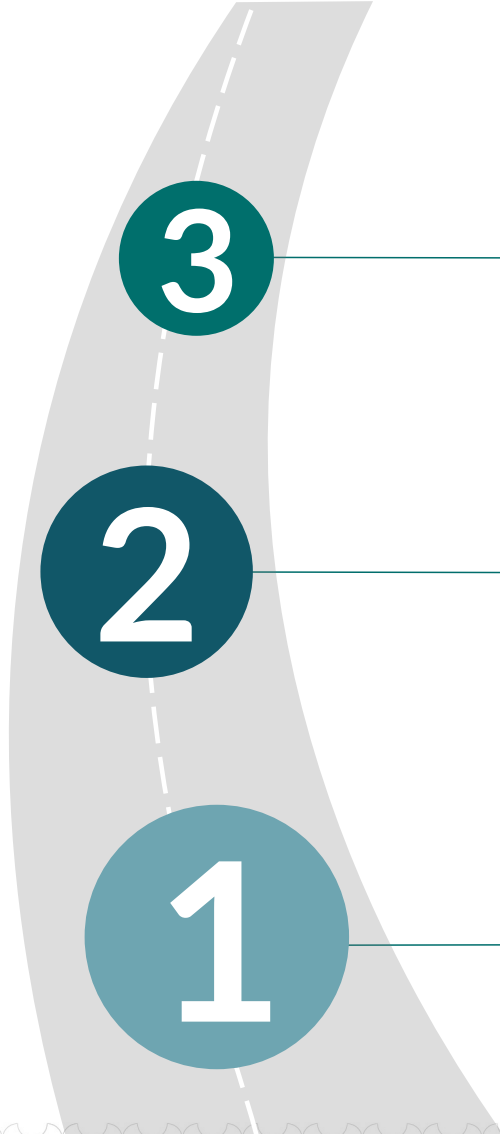
End to end Inspections

More than 13 inspections types supporting adhoc, periodic, campaign, mission and follow-ups triggers.

2

Unified Integrated Platform

Seamless connectivity with external systems like Licensing, GIS, Objections, and Payments.

1

Streamlined Workflows

Automated case management, routing, and SLA tracking.

MCP – Inspection System	01
MCP – Smart Inspections System	02
City Management System	03

Results and Impact of Momtathel

2021	**2 bn SAR**	**67%**
First Go-Live	Revenue 2021-now	Reduction in processing time
269	**17**	**6000+**
Sub-Municipalities	Municipalities	Users

MCP – Inspection System 01

MCP – Smart Inspections System 02

City Management System 03

Governance Improvements

Enhancing city cleanliness, urban planning, and essential service delivery.

Resident Safety

Enforcing rules and regulations to maintain environmental health and safety.

Inception to Delivery

Aaseya's end-to-end delivery, from design to implementation of highly scalable solutions.
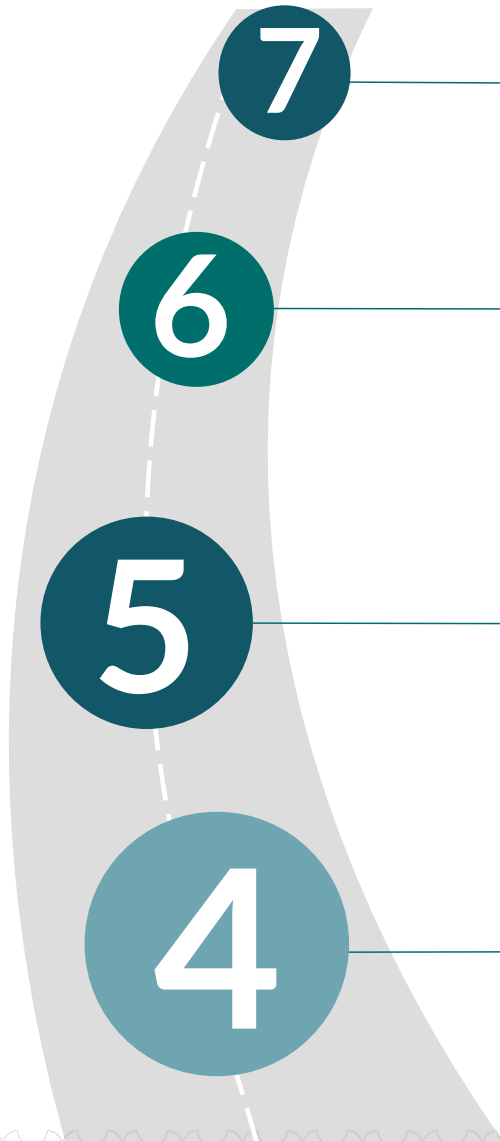
Pega and Aaseya: Architects of Innovation in Smart Inspection System

GOAL:
Smart technologies will be applied to all types of Inspections

7 — Data Analysis
AI-powered heatmaps and case distribution optimize inspector workloads.

6 — AI Engines and Emerging Technologies
Created and Integrated with Pega: Computer Vision, Case Clustering, Violator Detection, Case Prioritisation and License Plate Recognition

5 — Enhanced Monitoring Techniques
Inspection Mediums: Dashcam, Mobile applications — Balady Lens, Drones, Satellite and Security cameras

4 — Crowdsourcing
Leveraging public participation to gather widespread data, enhancing the efficiency and coverage of regulatory compliance and quality control.

MCP – Inspection System	01
MCP – Smart Inspections System	**02**
City Management System	03

وكالة التحول الرقمي والمـدن الذكيـة
Digital Transformation & Smart Cities Deputyship

وزارة الشؤون البلدية والقروية والإسكان
Ministry of Municipal & Rural Affairs & Housing

How Does It Work Based On Balady Lens Inspection Medium?

Scanning	Image processing	Case management	Reporting
Immediate	*Immediate for AI / 5 days for manual*	*1 day*	*Immediate for portal / Weekly for dashboard*

بلـــدي لنس
Balady Lens

Images captured **every 50 meters** as per agreed guidelines

Images are **geotagged**

AI detection covers VP element?

yes

AI detection of VP elements

*Manual processing will help **train AI model** and will be **phased out gradually***

no

Manual detection of VP elements

PEGA®

Pega Platform and CRM AI-enabled case processing

Inspectors review **portal**

CCC dashboard

وكالة التحول الرقمي والمـدن الذكيــة
Digital Transformation & Smart Cities Deputyship

وزارة الشؤون البلدية والقروية والإسكان
Ministry of Municipal & Rural Affairs & Housing

Results and Impact of Smart Momtathel

Increase Geographical coverage	Increasing the coverage of priority areas by implementing a local lens compared to the monthly rate of the exclusivity component.	**~12x**
Increase visual pollution detections	Increasing the number of detections by using a local lens solution compared to previous discoveries through the use of the exclusivity component.	**~15x**
Efficiency in time and effort	Reducing the time taken after completing the inspection process through a local lens solution compared to using the exclusivity component.	**~4x**
Reducing the need for the number of Inspectors	Increasing the number of detections by using a local lens solution compared to previous discoveries through the use of the exclusivity component.	**82%**
Rationalising expenditure	Increasing the number of detections by using a local lens solution compared to previous discoveries through the use of the exclusivity component.	**76%**

MCP – Inspection System 01

MCP – Smart Inspections System 02

City Management System 03

وزارة الشؤون البلدية والقروية والإسكان
Ministry of Municipal & Rural Affairs & Housing

وكالة التحول الرقمي والمدن الذكية
Digital Transformation & Smart Cities Deputyship

Shaping Smarter Cities: The Next-Gen City Management System with Pega

GOAL:
Centralised application for the management and operation of cities
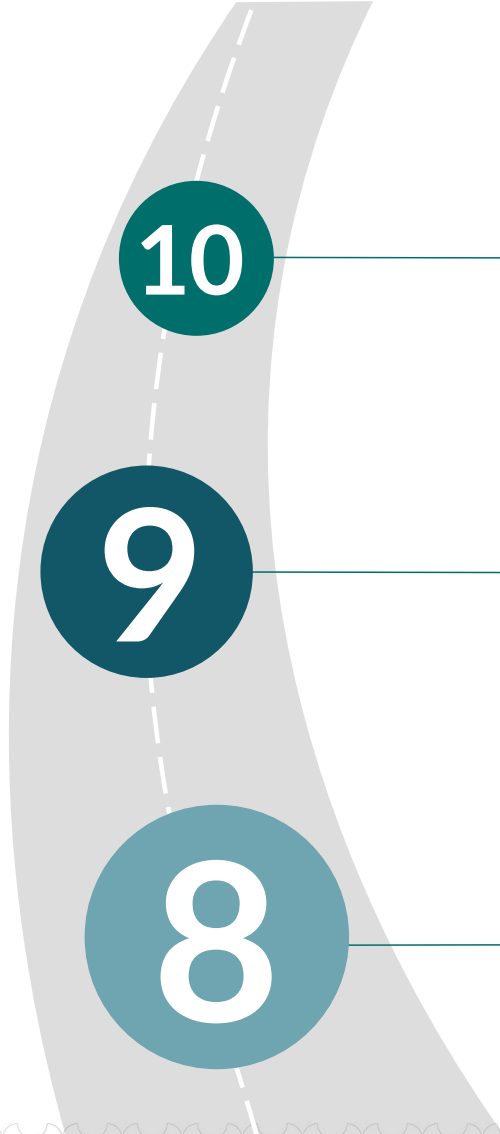
10

Fully Integrated Solution

Integrated with Pega Smart Inspections, Pega CRM and all existing and future Smart City Solutions. Ultimate Solution allowing any city to become a smart city.

9

GIS Integration

All city assets are mapped on GIS and linked to contracts, contractors, and operational plans.

8

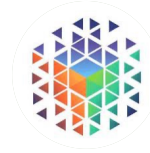### Municipal Operation Business Management

City operations are streamlined through mapping, supervision, and management of contracts, contractors, and plans, with a focus on linking complaints to actionable oversight and field implementation.

MCP – Inspection System 01

MCP – Smart Inspections System 02

City Management System 03

Pega Positioning

Web & Mobile   Self service   Open APIs

apigee

PEGA APPLICATIONS

Pega Infinity™

MOMTATHEL
Smart Inspection System

CMS
City Management System

CRM
Citizen Relationship Management

FURAS
Investor Management System

INCIDENT GATEWAY
Intake of any Incident

Background Processing

Queue Processors

Data Streams

Job Scheduler

Data Flows

UI

Dashboards

Portals

Mobile App for Inspectors

Mashup

Automation

DevOps

Routing

Service Level

Agreements

Case management

Delegated Business Rules

Dynamic Workflows

Approval Flows

Global Incident & Inspection

Search

INTEGRATION – PEGA LIVE DATA – DATA VIRTUALIZATION

Databases   Image Processing System   Data lakes   سداد SADAD   AI Engine   Other Ministries   إيفاء المنصة الوطنية للمخالفات   EFAA

INTEGRATIONS & DATA

وزارة الشؤون الـ
والقروية والإسكان
Digital Transformation & Smart Cities Deputyship

والمـدن الذكيـة
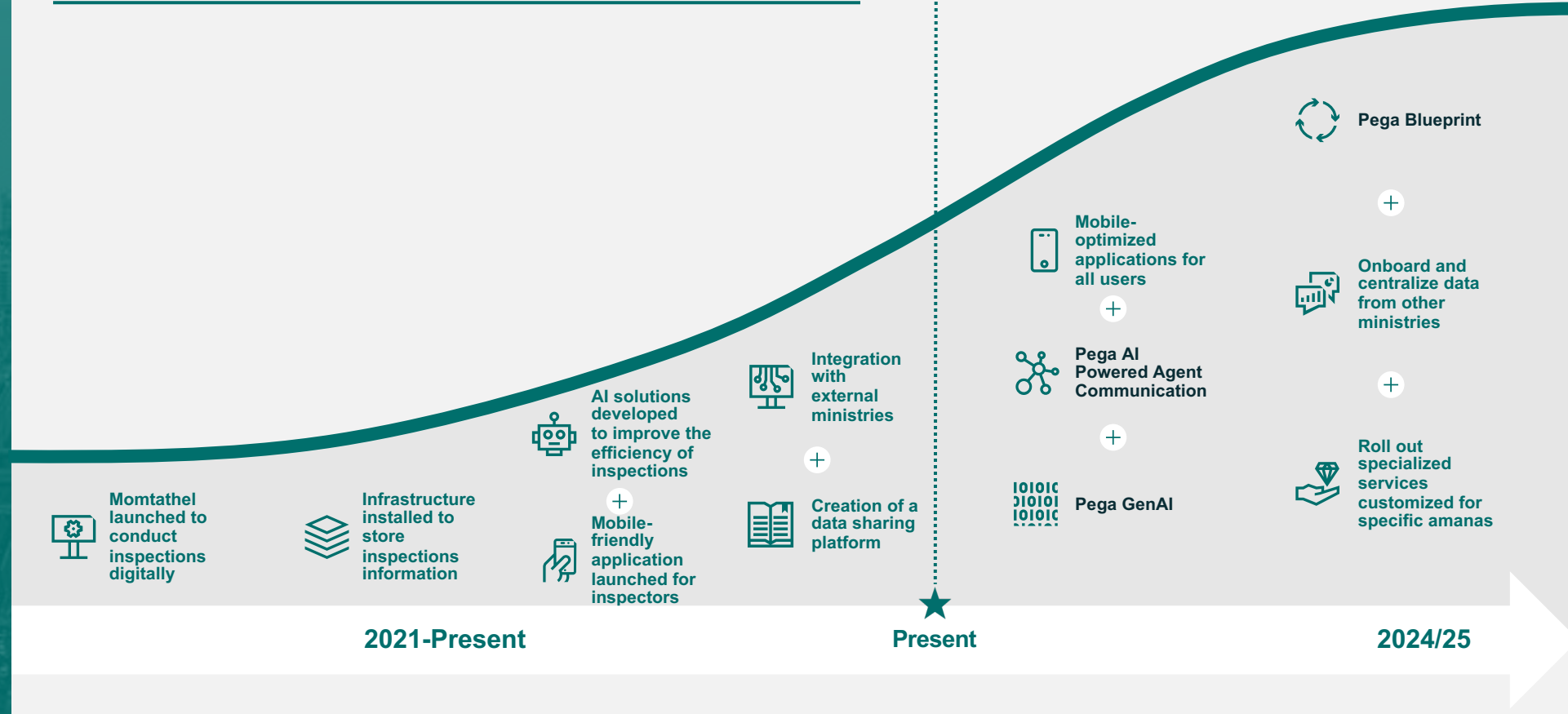Ministry of Municipal & Rural Affairs & Housing

DTSC's Vision: Momtathel needs to evolve further to support the everchanging inspection needs of the Amanas

DIGITAL APPLICATION FOR INSPECTIONS

TECHNOLOGY PLATFORM FOR AI & DATA SOLUTIONS

1. **AI POWERED SOLUTIONS**
2. **MOBILE-CENTRIC INSPECTIONS**
3. **MINISTRY API MARKETPLACE**

Momtathel launched to conduct inspections digitally

Infrastructure installed to store inspections information

AI solutions developed to improve the efficiency of inspections

Mobile-friendly application launched for inspectors

Integration with external ministries

Creation of a data sharing platform

Mobile-optimized applications for all users

Pega AI Powered Agent Communication

Pega GenAI

Pega Blueprint

Onboard and centralize data from other ministries

Roll out specialized services customized for specific amanas

2021-Present   **Present**   **2024/25**

Shaping Saudi's Future: Smart Cities Powered by Pega & Aaseya Digital Innovation.

وزارة الشؤون البلدية
والقروية والإسكان
Ministry of Municipal Rural Affairs & Housing

THANK YOU

وزارة الشؤون البلدية
والقروية والإسكان
Ministry of Municipal Rural Affairs & Housing

Sellafield Ltd

Richard Wilkinson

Pega Product Owner

What is Sellafield?

Sellafield Ltd

SEMS programme

SEMS Drivers

The SEMS Programme was established based on two key drivers (see below), which in turn shape it's overarching mission. The SEMS Programme enables a number of benefits through the ECDV's.

Two Key Drivers

Resolution of issues across the Sellafield Ltd. Management System

Enabling effective delivery of business performance, changes and benefits

Our Mission is to: *"Deliver a cohesive management system which enables us to perform with pride, passion and at pace by connecting people, systems and processes"*

The SEMS Programme will deliver...

Opportunities to **maximise value, cost efficiencies and risk mitigation.**

Simplified and standardised ways of working.

A **'golden thread'** of **compliance built in to all processes.**

Greater clarity on roles and responsibilities.

An **improved end user experience.**

Increased **procedural use and adherence**
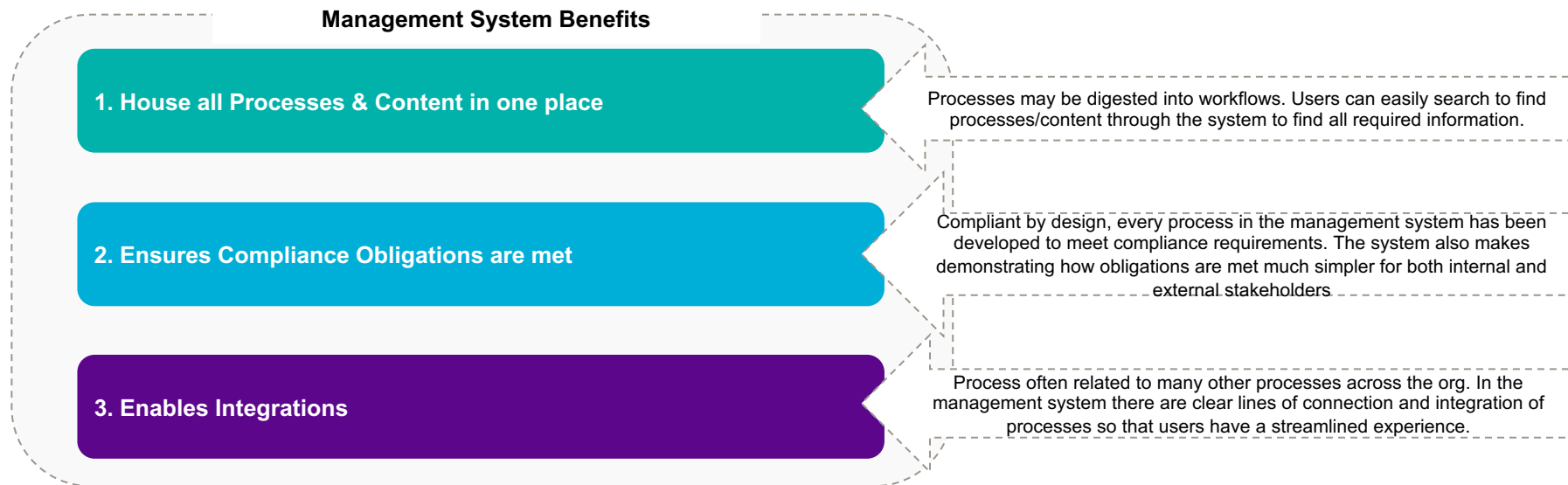
... and enable:

Significant Benefits

The Management System

Why does Sellafield need a Management System?

The Management System ensures Sellafield can meet their objectives in the most efficient manner possible

- Running an efficient and effective organisation that achieves its goal of decommissioning nuclear waste within a set budget each financial year

- Ensuring all activities carried out by staff are compliant to all relevant legislation in the UK, especially activities with nuclear safety impacts

Management System Benefits

1. House all Processes & Content in one place

Processes may be digested into workflows. Users can easily search to find processes/content through the system to find all required information.

2. Ensures Compliance Obligations are met

Compliant by design, every process in the management system has been developed to meet compliance requirements. The system also makes demonstrating how obligations are met much simpler for both internal and external stakeholders

3. Enables Integrations

Process often related to many other processes across the org. In the management system there are clear lines of connection and integration of processes so that users have a streamlined experience.

Sellafield Ltd

What does SEMS contain?

Static documentation

Static documentation represents any type of 'paper' documentation. In the current SLMS there are several document types: Charter (SLC), Form (SLF), Manuals & Plans (SLM), Policy (SLCP), Practice (SLP), Supporting Practise (SLSP). These documents are used to provide and capture information about processes and procedures. In SEMS, some documentation will be turned into workflows and others will be kept as static documentation.
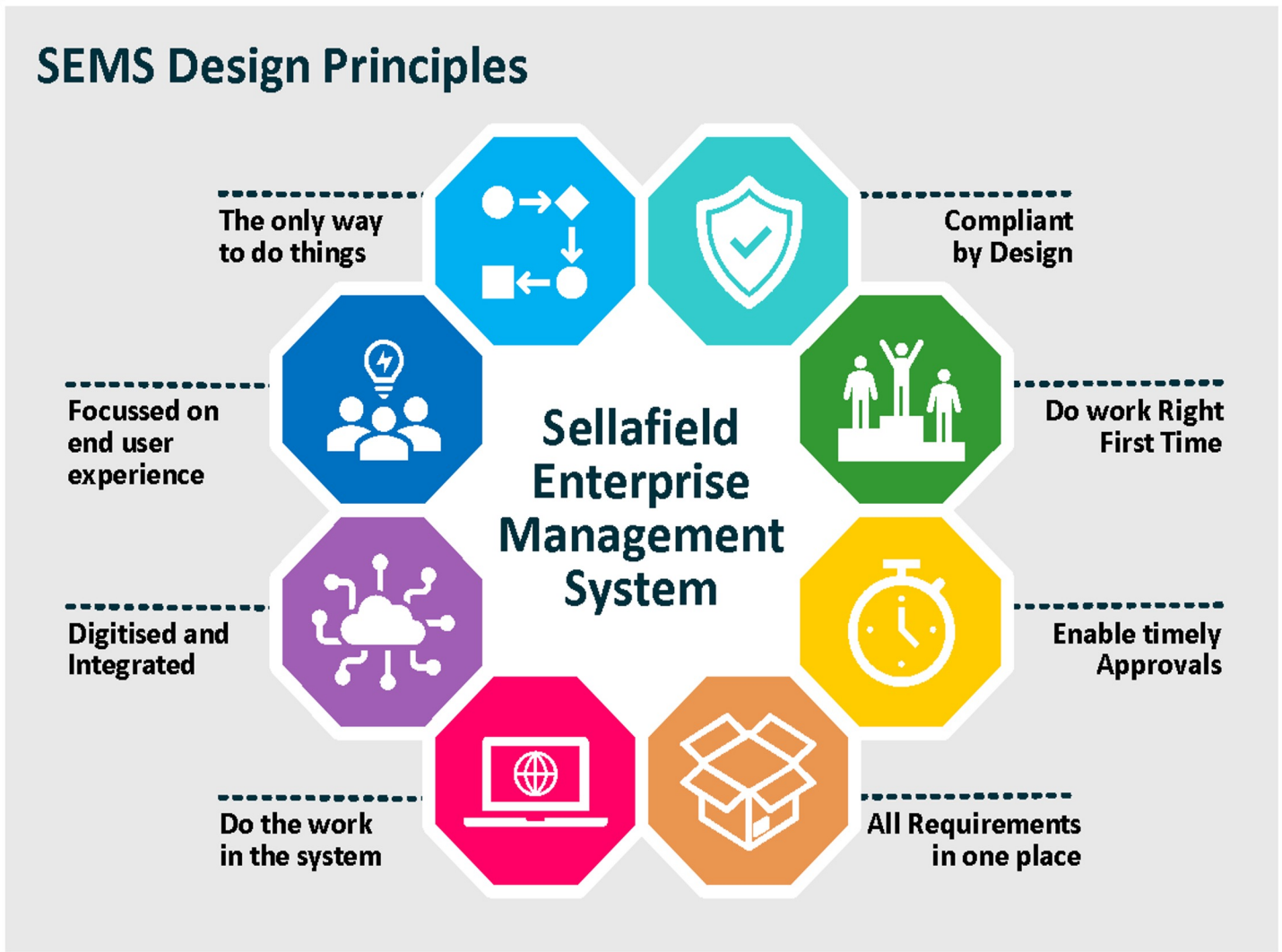
Workflows

Workflows are digital processes, where a previously static process has been converted into a step-by-step workflow that guides the user intelligently.

At the most simple level these processes will capture information from the end user and then guide them down a pathway of steps based on the answers/content they have provided.

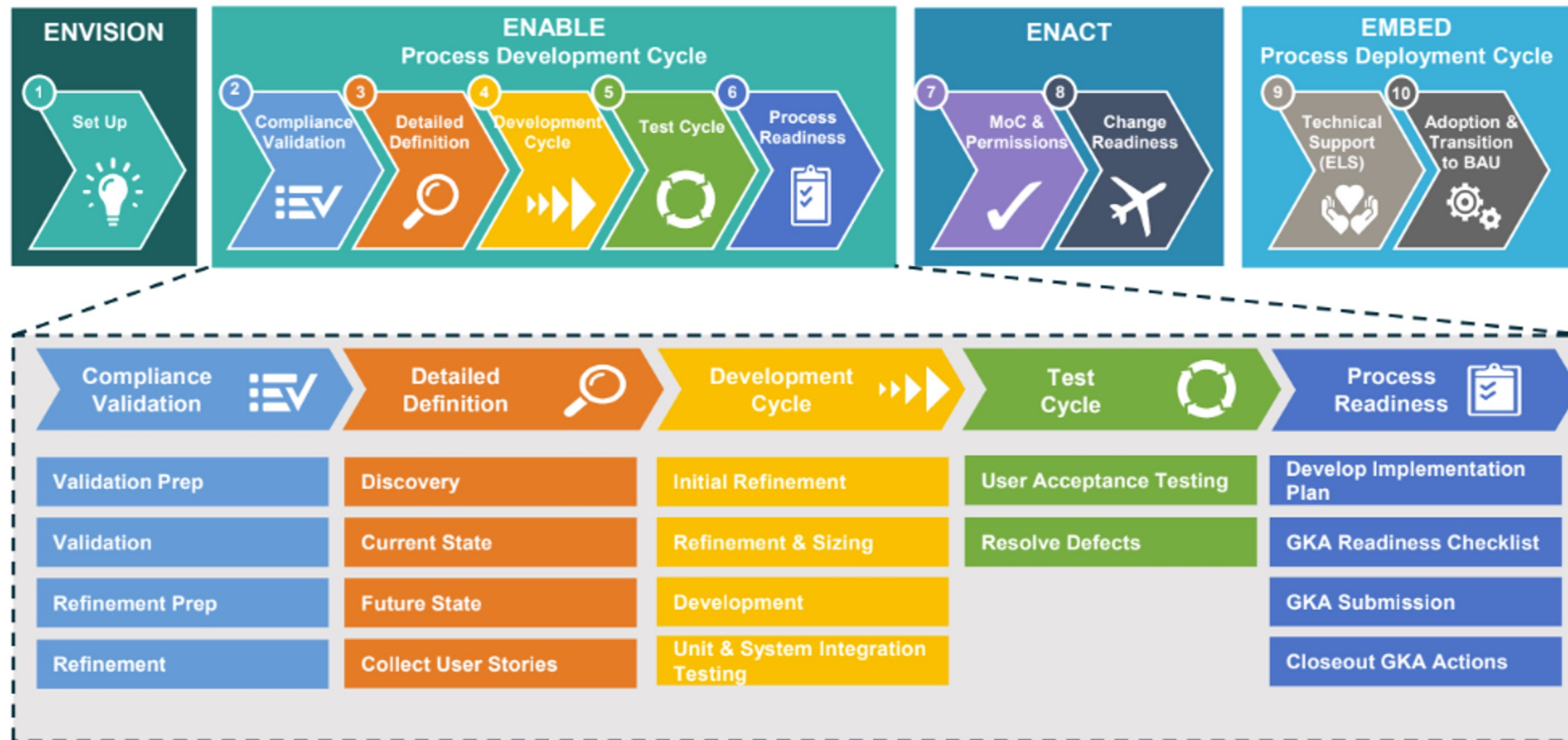Sellafield Ltd

Overview of our delivery process

SEMS Design Principles

Toolset Activities

The Toolset team are responsible for all elements of the management system build, including; ensuring the management system is compliant by design, reengineering processes into digitsed workflows, developing the physical system and testing with users to iterate and remove bugs. The breakdown of key activity is shown below:

SEMS Early System Access Success

All Sellafield internal end users had the opportunity to experience SEMS before it was launched. The aim was to build awareness and confidence with SEMS ahead of Go-Live:
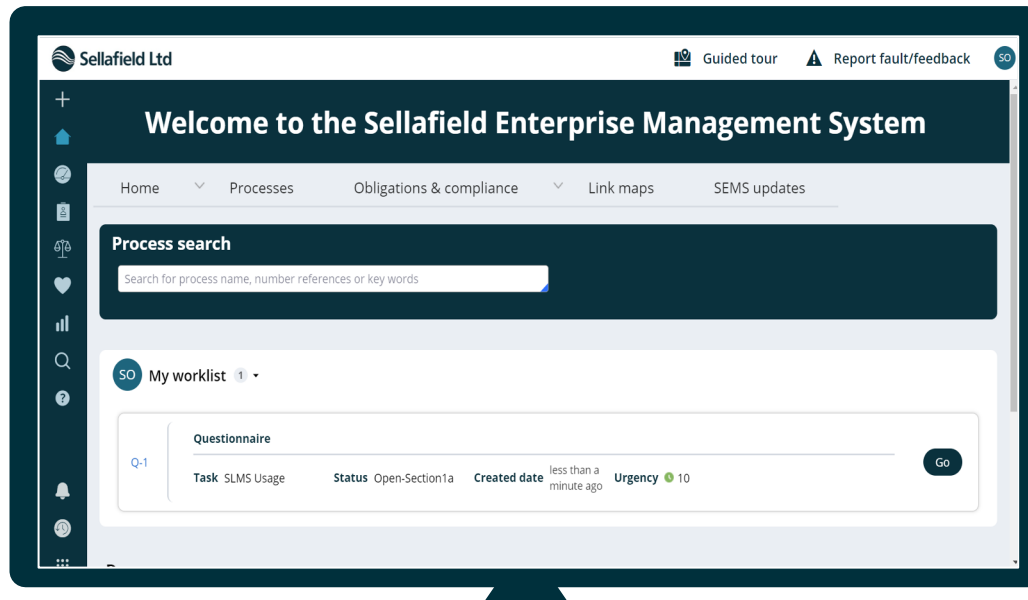
1 Access the system via the access link provided

2 Step through the Guided Tour

3 Explore the homepage and the new features

4 Explore the new architecture and find processes you use

5 Set up your Favourite Processes

6 Find a document

7 Complete the Questionnaire in My worklist

8 Explore the help page

9 Raise any issues you experienced as a Fault or Feedback

SEMS Early System Access Success

7141 Users accessed SEMS

42 Days of Early Access

£5658 for Charity

Stakeholders responded to 194

58% Positive Initial Impressions

Data issues Raised 124

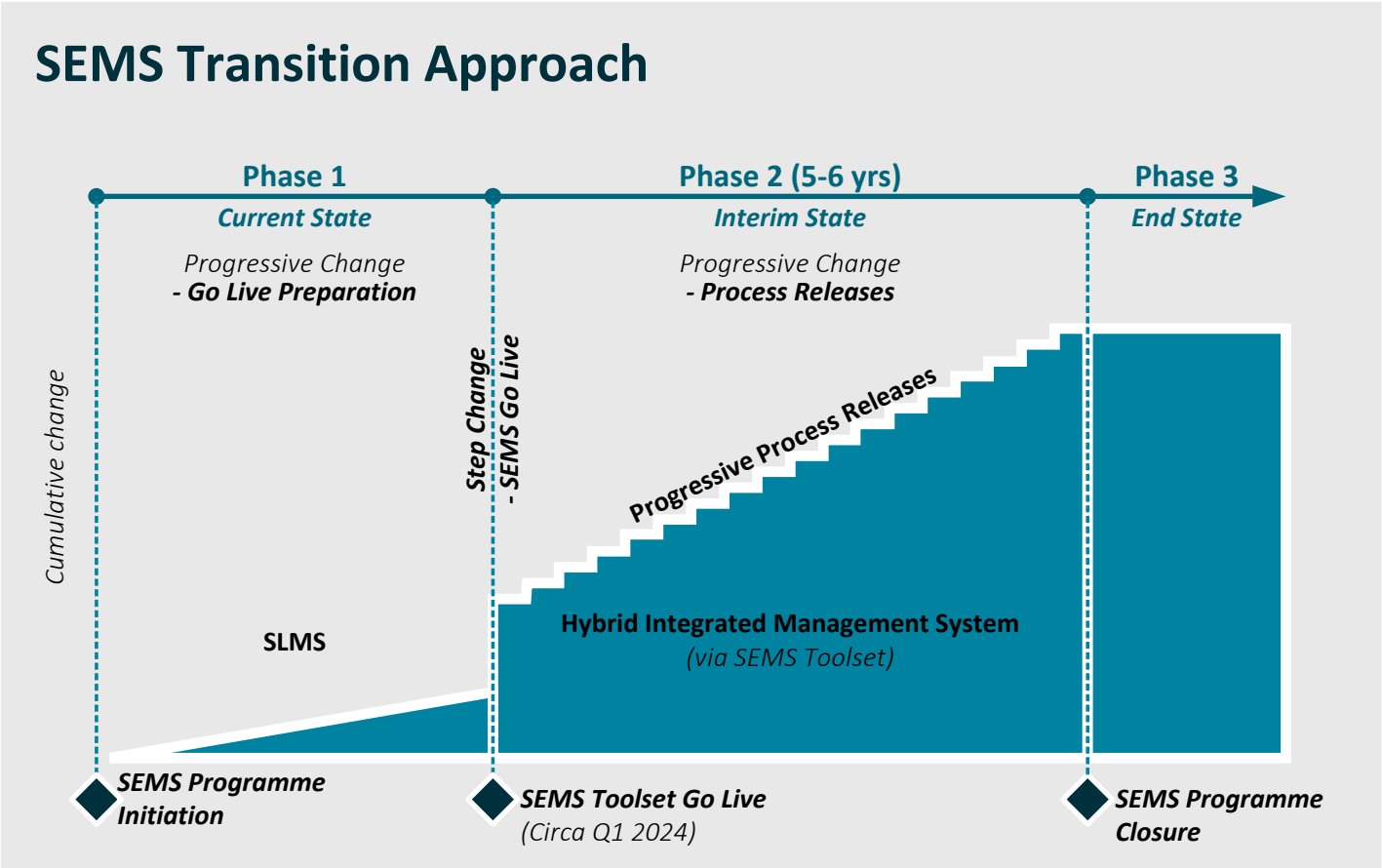77 Future enhancements identified

494 Faults & Feed Back received

x2 Significant Enterprise-wide historical IT Issues identified

Transition Journey to SEMS

- Transition between the existing management system and the new SEMS will be executed in a phased, progressive and controlled manner over a 5–6-year period

SEMS Transition Approach

Phase 1 — Current State — Progressive Change - Go Live Preparation

Phase 2 (5-6 yrs) — Interim State — Progressive Change - Process Releases

Phase 3 — End State

Step Change - SEMS Go Live

Progressive Process Releases

Cumulative change

SLMS

Hybrid Integrated Management System (via SEMS Toolset)

SEMS Programme Initiation

SEMS Toolset Go Live (Circa Q1 2024)

SEMS Programme Closure

Sellafield Ltd

Q&A

RICHARD WILKINSON
Product Owner – Sellafield Ltd.

SARAH ALGHAMDI
General Manager, MoMRAH

PANKAJ JAIN
CEO, Aaseya

GRAHAM DAWKES
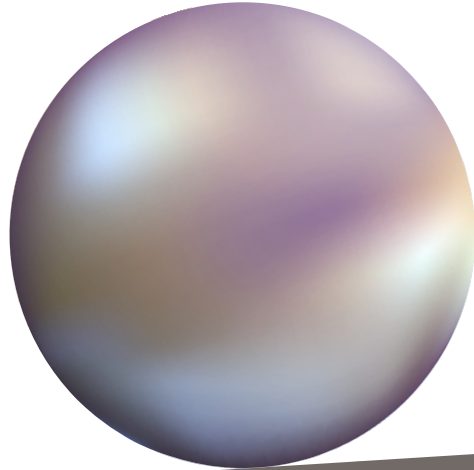Sr. Vice President, Sales, Aaseya

Right-Sized Transformation Partner of Choice

Small Enough to care

Large Enough to transform

- Service delivery excellence, and consistency

- Business value, innovation and transformation

- Will be where customers want us to be

- Flexible, agile and responsive

- Focused management attention

- Building and sustain the relationship

THANK YOU