# Smart PMO

## Products & Services at the cutting edge of AI innovation

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# EXECUTIVE TEAM

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Project Manager
Ex Google, Flextronics

**Dr. Houssem Jerbi**
Chief Data Science
PhD AI, ex Facebook, Insight
Centre for Data Analytics

**Dr. Aymen Ben Azouz**
Solutions Manager
PhD IoT, Ex Oracle, Insight
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**Eugene Mac Mahon**
Sector Manager, Construction
Multinational Projects

**Dr. Ahmed Khamassi**
Tech & Data Advisor
Equinor, JP Morgan, Google

Supported by

ENTERPRISE IRELAND
where innovation means business

AI & Data supplier

GOV.UK
Digital Marketplace

Partners

Microsoft Azure

Innovation Award

Highways UK
ROADS FOR A MODERN BRITAIN

IRELAND CIVIL & construction

# WHAT WE DO

- We solve complex industrial problems across multiple industries using **AI and data science** and state-of-the art **business processes**

- We build advanced AI solutions to **de-risk and optimise complex processes**

## AI for Project Management

- Proprietary AI algorithms
- Schedule, Cost, Resources, Safety, Contractors, Suppliers
- Maximise productivity
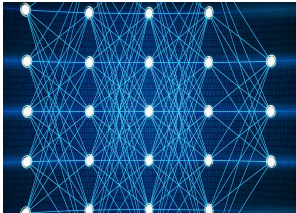- Risk intelligence
- Optimise supply chain

**+**

## Custom AI Development

- Act as AI partner for government departments and companies
- Build a secured Data infrastructure
- Build AI products to increase revenue, efficiency, productivity
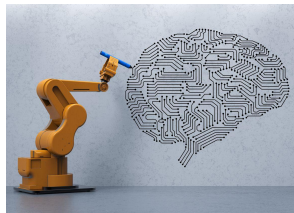- Value Assurance, Change Management

**Machine learning**



**Deep learning**



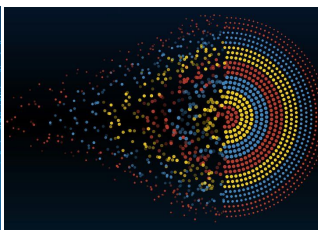**Reinforcement learning**



**Natural Language Processing**



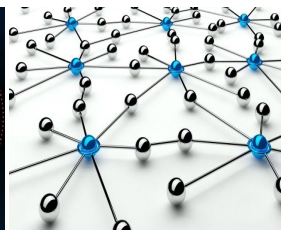**Recommender Systems**
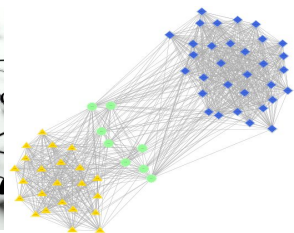


**Cloud & Big Data**



**Data Management**



**Data Visualisation**



**IoT**



**Data mining**

# OUR AI & DATA SERVICES - PROJECT THEMES

- Smart Cities
- GovTech
- Construction
- Energy
- Manufacturing
- FinTech
- Retail
- Health & Wellbeing
- AdTech

# OUR AI & DATA SERVICES - SELECTED CASE-STUDIES

## Smart City

AI system that predicts accident risks, understand reasons, identify high-risk accident blackspots

AI that uses IoT sensors data to measure traffic level and road quality and optimise road maintenance planning.

## Manufacturing

Predictive maintenance system for a global lifts and elevator manufacturer.

AI system that uses conditions data to optimise material procurement and assembly works planning.

## Construction

Intelligent cost benchmarking during projects early stage.

Project Risk & outcome prediction from project planning to closure.

Resource management and productivity optimisation.

## Retail

Demand forecasting & AI-based procurement optimisation.

Product recommender system for supplement and pharmaceutical online platform.

## FinTech

Investment lead sourcing for a private equity.

Investment recommender system for cross-border businesses.

## Real Estates & Housing

Housing intelligent planning tool that uses AI to offer builders and investors predictions of property demand and price.

## GovTech

AI system that streamlines citizen communications for a government department.
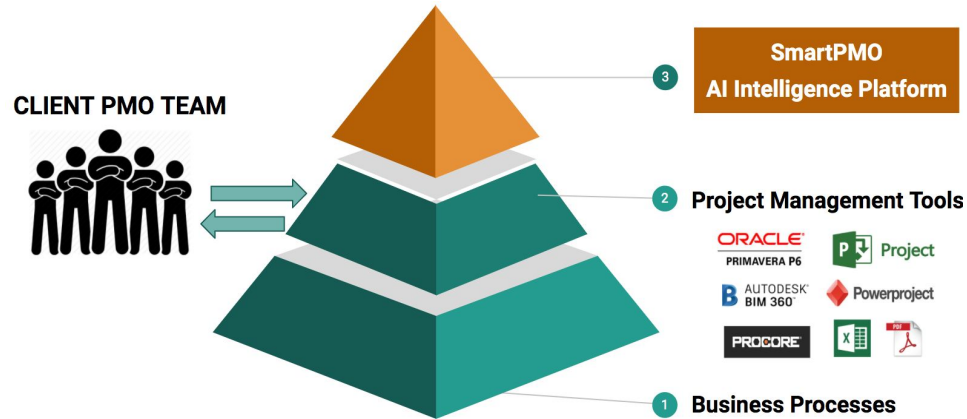
AI system that helps measure and optimise Government campaigns.

## Health & Healthy ageing

AI system that uses IoT data to support elder well-being.

AI recommender system that uses images data to provide support to people with dementia.

# OUR PRODUCT - CAPITAL PROJECT INTELLIGENCE PLATFORM



**CLIENT PMO TEAM**

3 — **SmartPMO AI Intelligence Platform**

2 — **Project Management Tools**
- ORACLE PRIMAVERA P6
- P Project
- B AUTODESK BIM 360
- Powerproject
- PROCORE
- Excel
- PDF

1 — **Business Processes**

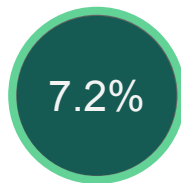| **What?** | **Industries** | **Themes** | **Objectives** |
|---|---|---|---|
| • **Automated & Scalable AI platform**<br>• Analyse & learn from data, then provide predictive insights & risk intelligence to optimise processes, planning and control | • Construction & Engineering<br>• Pharmaceuticals<br>• Energy<br>• Housing | • Cost<br>• Materials & resources<br>• Labor, safety<br>• Environment, waste | • Process optimisation<br>• Reduce waste<br>• Maximise productivity<br>• Net-zero, carbon reduction |

- **Client: Transport Department, Middle East**
- Projects type: Roads, bridges, tunnels
- £12b portfolio
- Challenges: Avg 56% delays, 41% cost overrun
- Data scattered (schedule & cost), poor quality

## SmartPMO Solution

| 38% | 7.2% | 60% |
|:---:|:---:|:---:|
| Reduction in project delays | Cost saving | Reduction in process time |

- We have strong experience record in delivering innovation projects across the R&D cycle.

- 3 strategic research & academic partnerships.

- PhDs & engineers with industry and research experience at Facebook, Google, Insight Centre for Data analytics, University College Dublin, etc.

**Build core technology, software, algorithms**

**01**

**02**
**Evaluation & Validation**

Value assurance throughout the Research project

**Demonstration & Use-cases**
**04**

**03**
**System Integration**
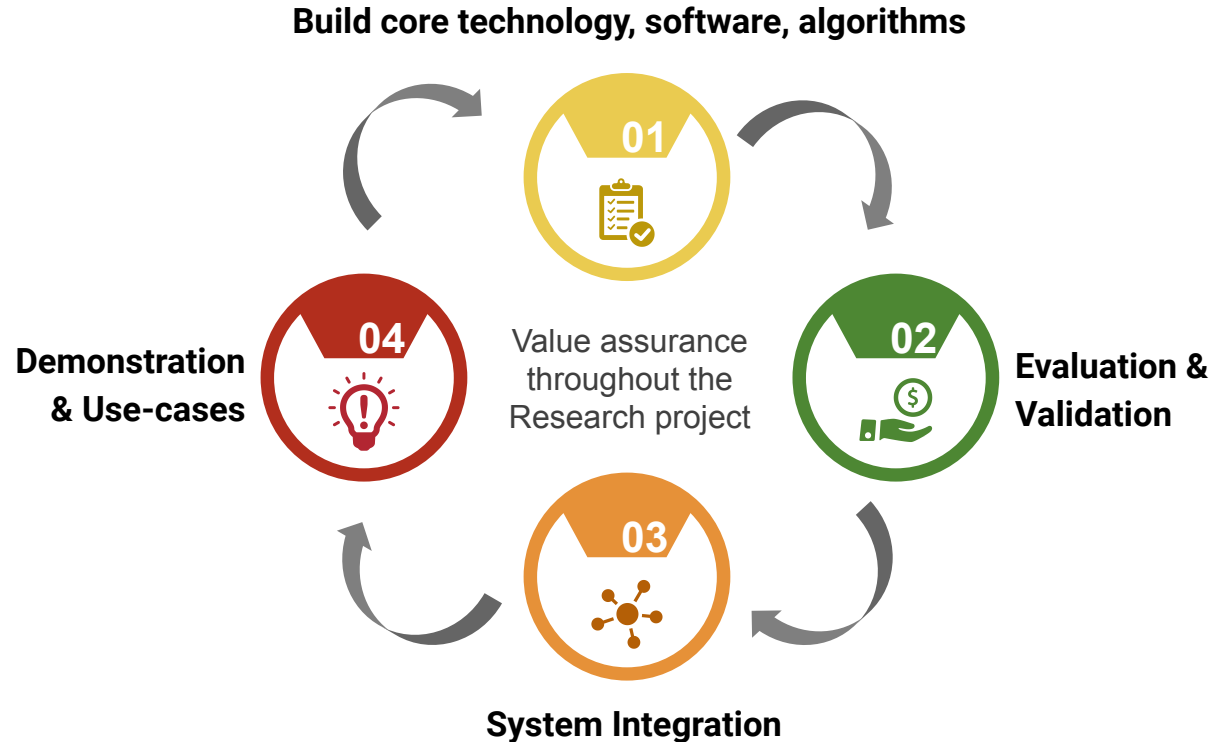
# MAIN TOPICS OF INTEREST - CLUSTER 4

### *DESTINATION – CLIMATE NEUTRAL, CIRCULAR AND DIGITISED PRODUCTION*

| | | |
|---|---|---|
| HORIZON-CL4-2022-TWIN-TRANSITION-01-06 | ICT Innovation for Manufacturing Sustainability in SMEs (I4MS2) | IA |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-07 | Digital tools to support the engineering of a Circular Economy | RIA |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-09 | Demonstrate the use of Digital Logbook for buildings | IA |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-10 | Circular flows for solid waste in urban environment | IA |

### *DESTINATION – INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY*

| | | |
|---|---|---|
| HORIZON-CL4-2022-RESILIENCE-01-02 | Monitoring and supervising system for exploration and future exploitation activities in the deep sea | RIA |
| HORIZON-CL4-2022-RESILIENCE-01-06 | Sustainable and innovative mine of the future | IA |
| HORIZON-CL4-2022-RESILIENCE-01-19 | Advanced materials modelling and characterisation | RIA |
| HORIZON-CL4-2022-RESILIENCE-01-25 | Optimised Industrial Systems and Lines through digitalisation | IA |

# MAIN TOPICS OF INTEREST - CLUSTER 4

*DESTINATION – WORLD LEADING DATA AND COMPUTING TECHNOLOGIES*

| | | |
|---|---|---|
| HORIZON-CL4-2022-DATA-01-01 | Methods for exploiting data and knowledge for extremely precise outcomes (analysis, prediction, decision support), reducing complexity and presenting insights in understandable way | RIA |
| HORIZON-CL4-2022-DATA-01-04 | Technologies and solutions for data trading, monetizing, exchange and interoperability | IA |
| HORIZON-CL4-2022-DATA-01-05 | Extreme data mining, aggregation and analytics technologies and solutions | RIA |

*DESTINATION – DIGITAL AND EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL*

| | | |
|---|---|---|
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-05 | AI, Data and Robotics for Industry optimisation (including production and services) | IA |

*DESTINATION – A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES*

| | | |
|---|---|---|
| HORIZON-CL4-2022-HUMAN-01-01 | AI for human empowerment (AI, Data and Robotics Partnership) | RIA |

# Get in touch

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