

Deploying Digital Twins to Address Complex National Challenges

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in

DigiGov Expo



DIGIGOVEXPO



**NATIONAL
DIGITAL TWIN
PROGRAMME**



HM Government

National Digital Twin Programme

Working across boundaries



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National Digital Twin Programme (NDTP)

Four focus areas – joining up thinking and driving alignment through collaboration with national stakeholders

Operating frameworks

Legal Sustainability Ethics

Technical Safety Security

Commercial Governance

Data and technology

Data discovery Data quality

Data interoperability

Integration architecture

Data exploitation

Model interoperability

Open sourcing

Skills, culture and engagement

Skills gap – current & next gen

Delivery principles

Communication and outreach

Stakeholder engagement

X-Government alignment

Demonstrator programme

Retrofitting in housing

Energy system

Asset resilience, emergency planning and response

Vulnerable people

Collaboration projects

National Digital Twin Programme (NDTP)

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Department for Transport

Department for Transport



Department for Energy Security & Net Zero

Department for Energy Security & Net Zero



Department for Science, Innovation, & Technology

Department for Science, Innovation & Technology



Strategic Command

Ministry of Defence
Defence Intelligence



Ministry of Defence
The Royal Engineers



Ministry of Defence
Royal Air Force



Defence Science and
Technology Laboratory



Home Office

Home Office



Infrastructure and
Projects Authority

Infrastructure and
Projects Authority



UK Research
and Innovation

Innovate UK



Anglian Water



National Grid
ESO



Ofgem



NATO



Met Office

Meteorological Office

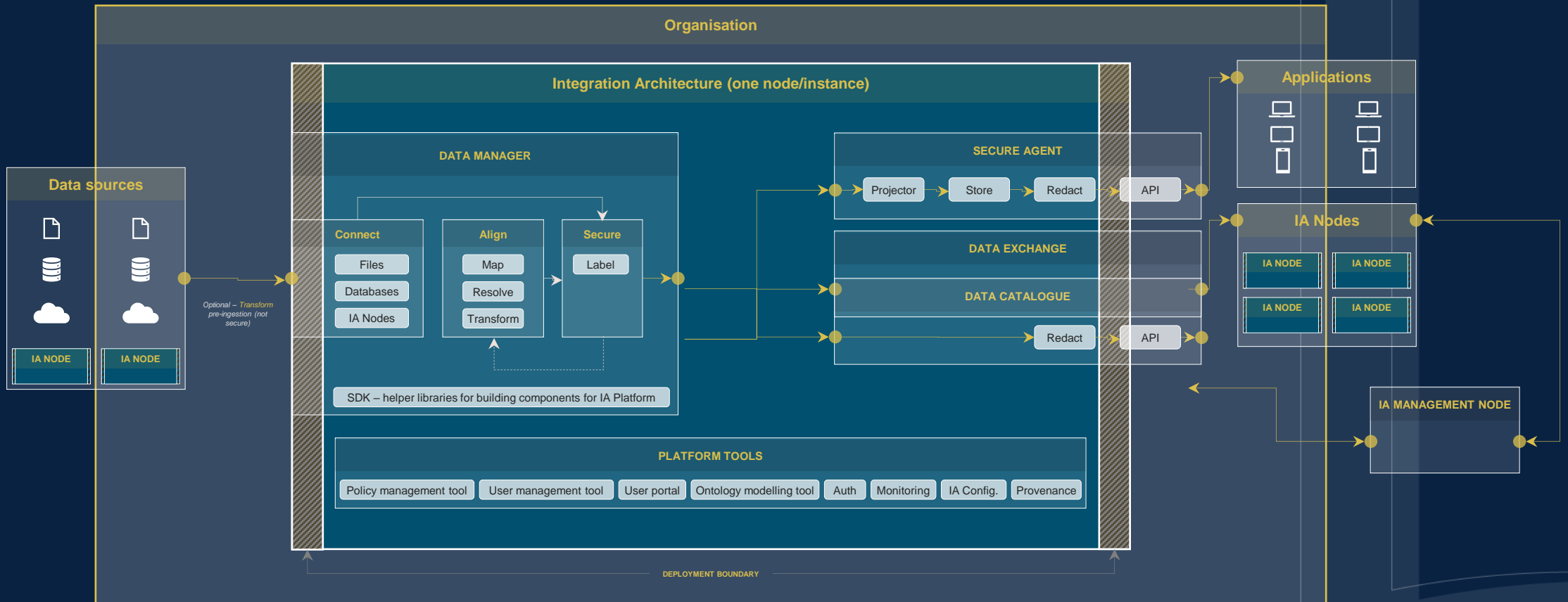


Engineering and
Physical Sciences
Research Council

Engineering and Physical
Sciences Research Council

National Digital Twin Programme (NDTP)

Creating an open-source data sharing infrastructure



National Digital Twin Programme (NDTP)

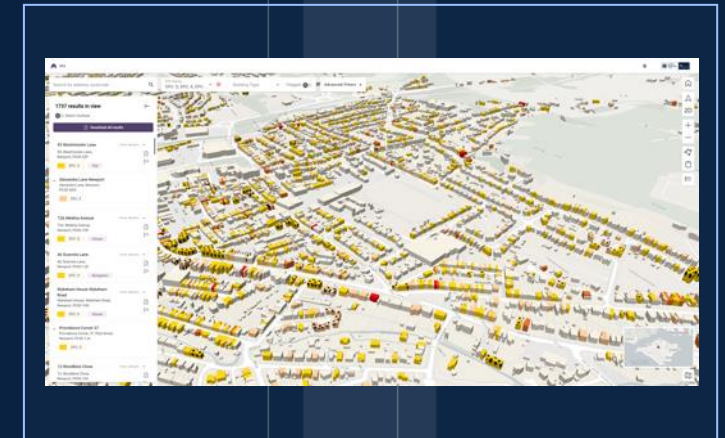
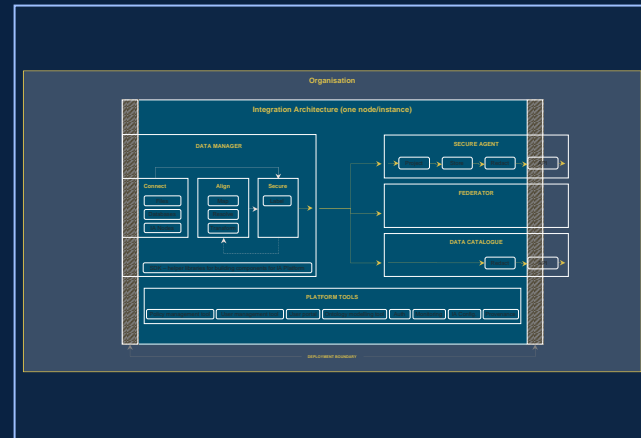
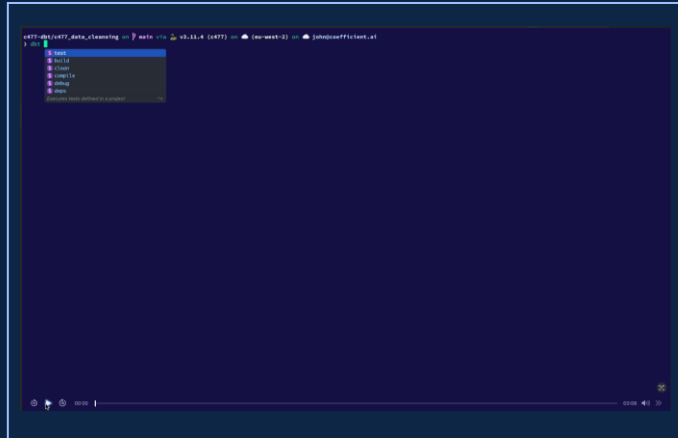
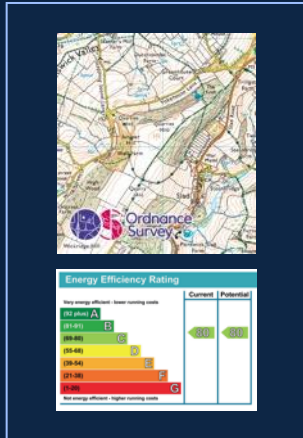
Demonstrator Programme – Retrofit in housing

Data Sources

Data cleansing

Integration architecture

Visualisation



Demonstrator programme

Asset resilience

Data sources

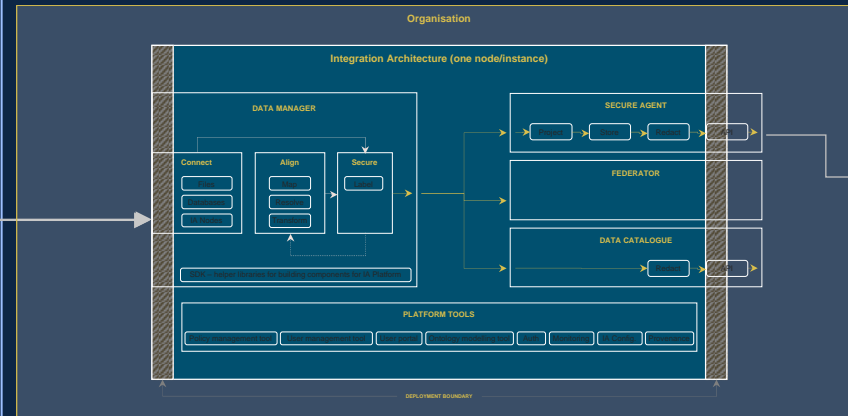
Robotics



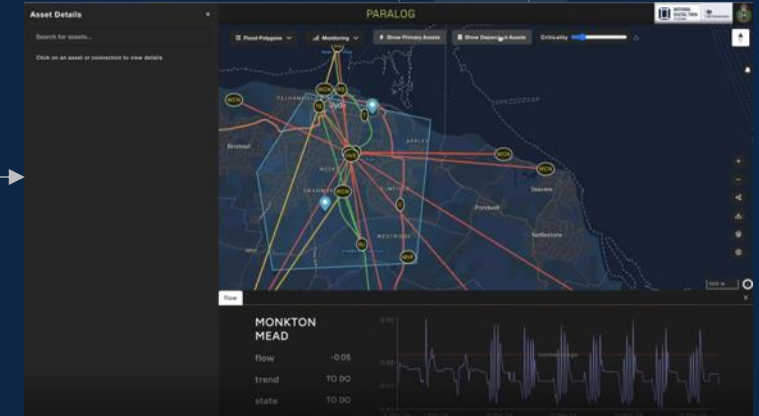
Sensors



Integration architecture







Visualisation



Demonstrator programme

Incident management

 | **LISA** | [OVERVIEW](#) | [LOG](#) | [LOCATION](#) | [FILES](#) | [INCIDENTS](#) | Alex Atudisie [Sign out](#)  

RECOVERY Animal disease - major outbreak of highly pathogenic avian influenza : Avian Flu Hazelgrove Farm, East Ashey - 10 Sep 2024 @ 13:29 

Incident log

Animal disease - major outbreak of highly pathogenic avian influenza : Avian Flu Hazelgrove Farm, East Ashey

Create new log entry Form* Location* Files (0) Sketch

Category: SitRep (M/ETHANE) x ⌵ Date and time occurred: dd/mm/yyyy 📅 --:-- 🕒 [< Now](#)

[Further guidance on M/ETHANE](#)

Has a major incident been declared? ⌵ Exact location: ⋮ Set

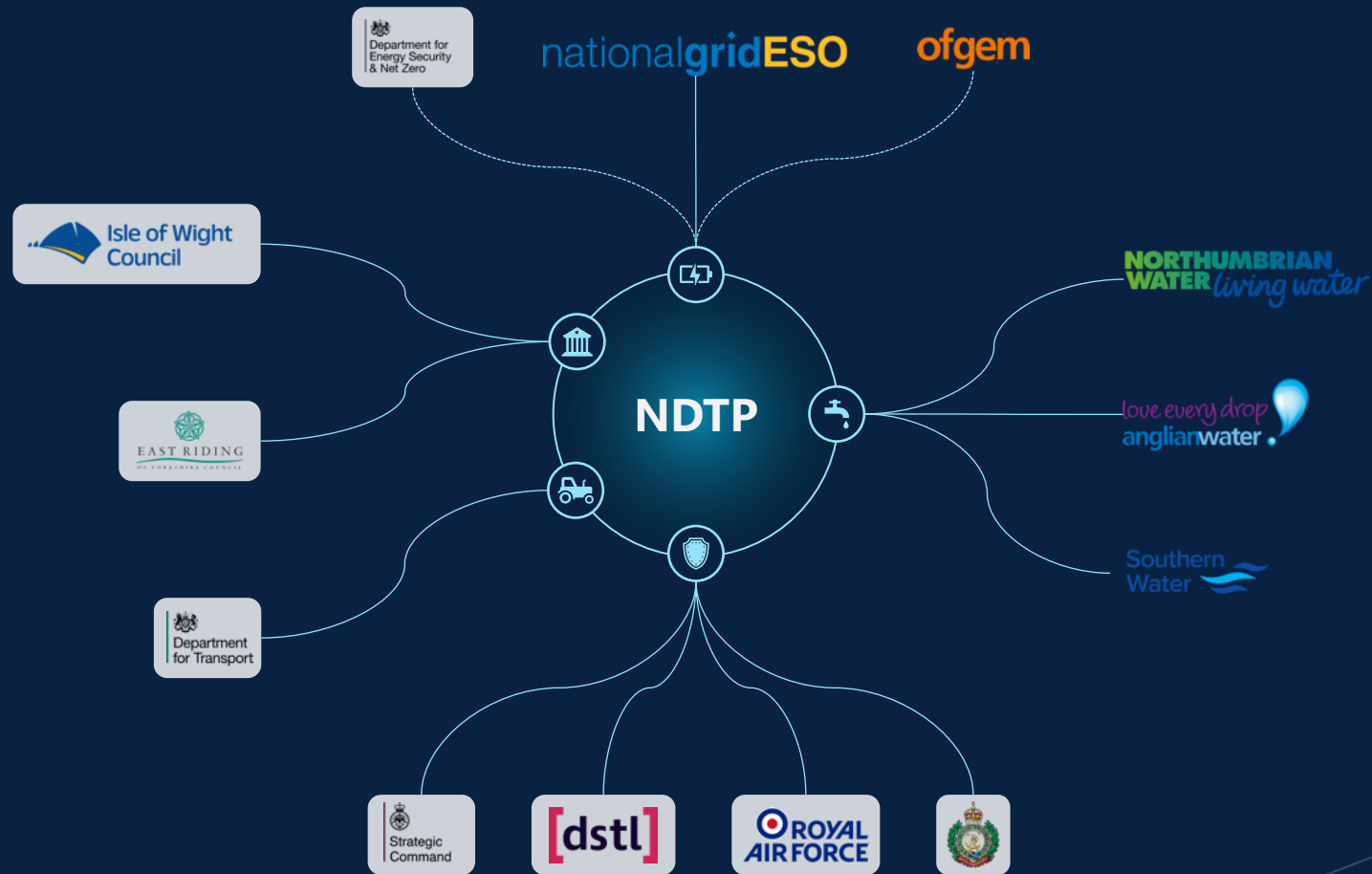
Hazards present or suspected: Access routes that are safe to use:

Number, type, and severity of casualties: Emergency services present and those required:

[Show errors](#) Cancel Save

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Thank you



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