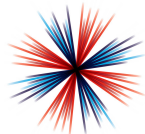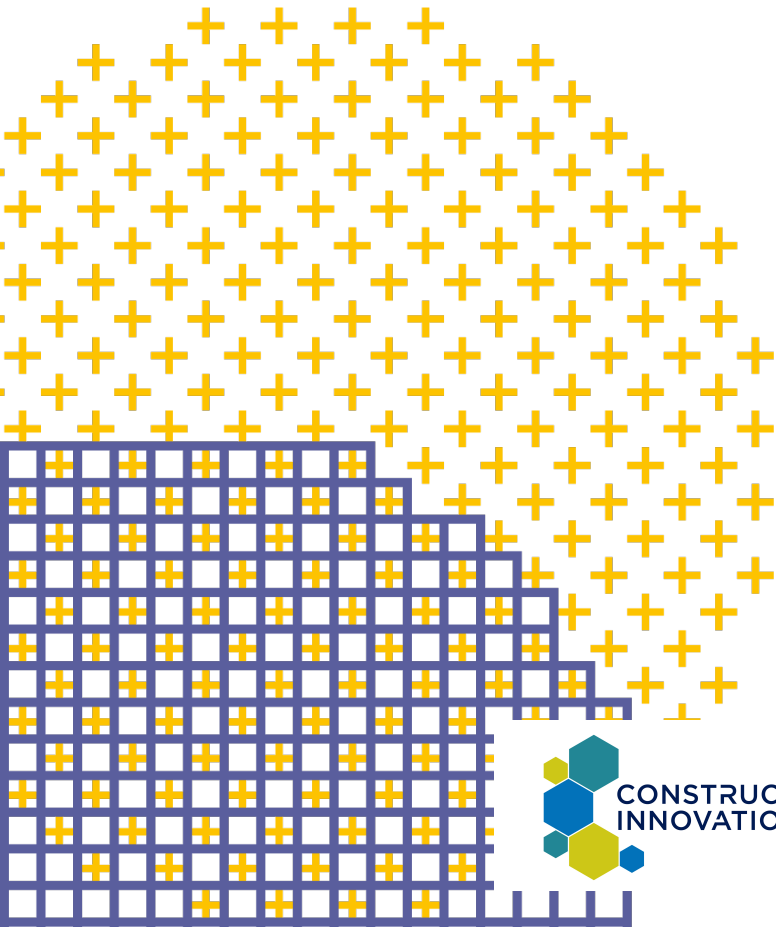# NATIONAL DIGITAL TWIN PROGRAMME

An Introduction to the Information Management Framework for the National Digital Twin

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CONSTRUCTION INNOVATION HUB

INDUSTRIAL STRATEGY | UK Research and Innovation

Department for Business, Energy & Industrial Strategy

The National Digital Twin Programme

Data for the public good recommendations
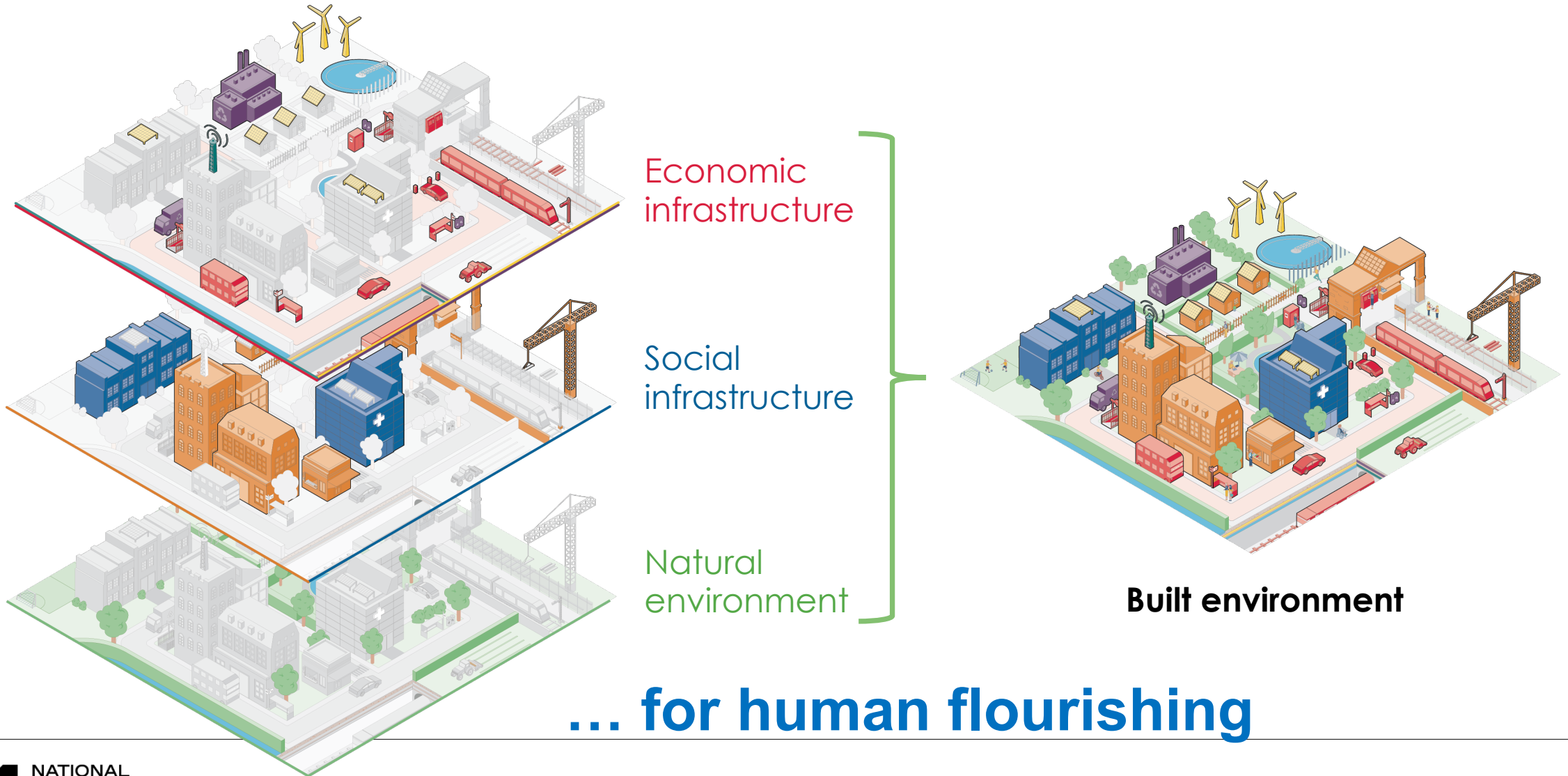
2017

→ **The National Digital Twin Programme**

- Is led by the **Centre for Digital Built Britain**, with the mission of:
  - **delivering an Information Management Framework**, enabling secure data sharing and effective information management
  - **enabling the National Digital Twin**, an ecosystem of connected digital twins that will deliver better outcomes from our built environment
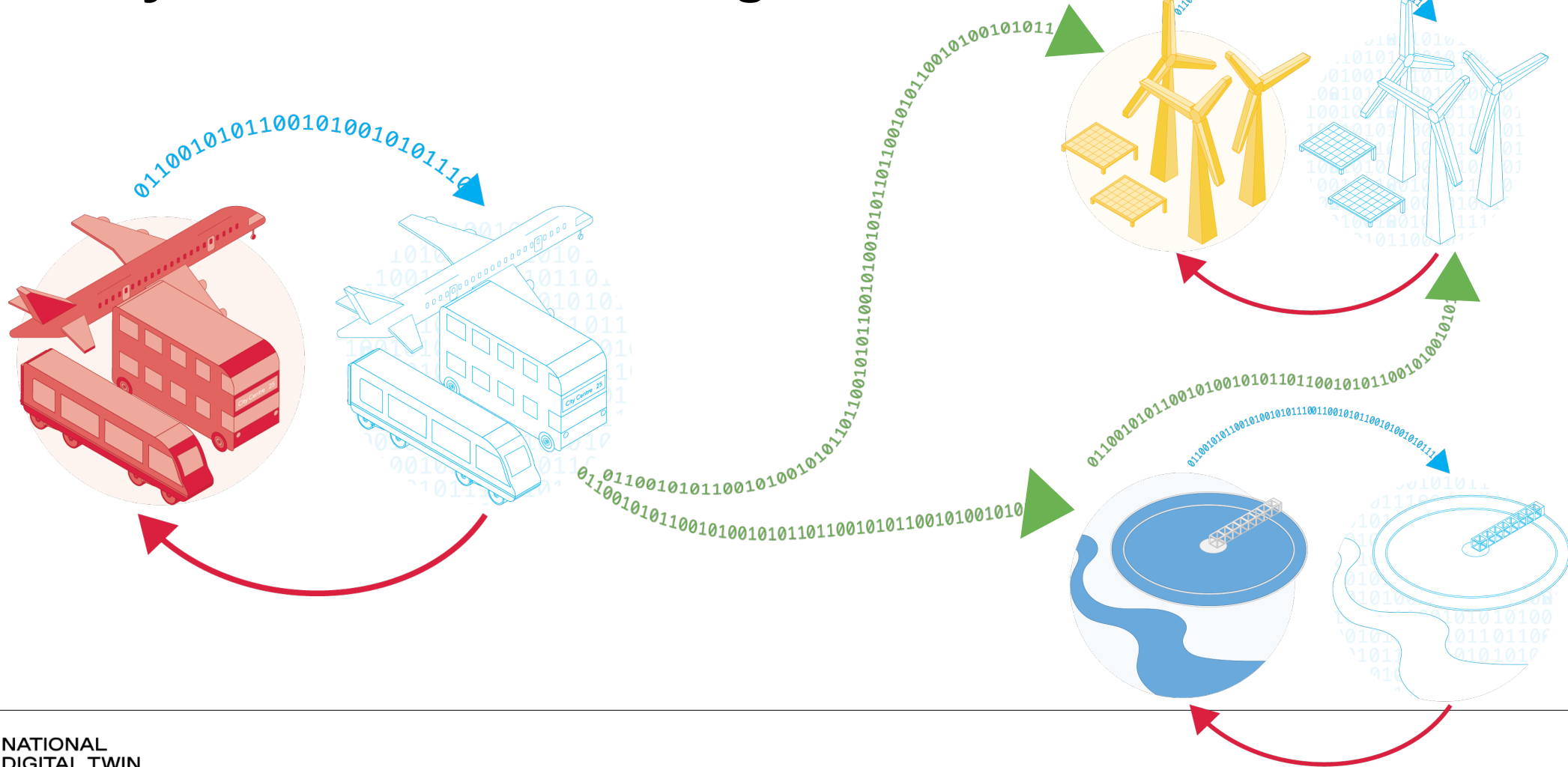 - **aligning** industry, academia and Government on this agenda.

The Built Environment: A system of systems …

Economic infrastructure

Social infrastructure

Natural environment

Built environment

… for human flourishing

NATIONAL
DIGITAL TWIN
PROGRAMME

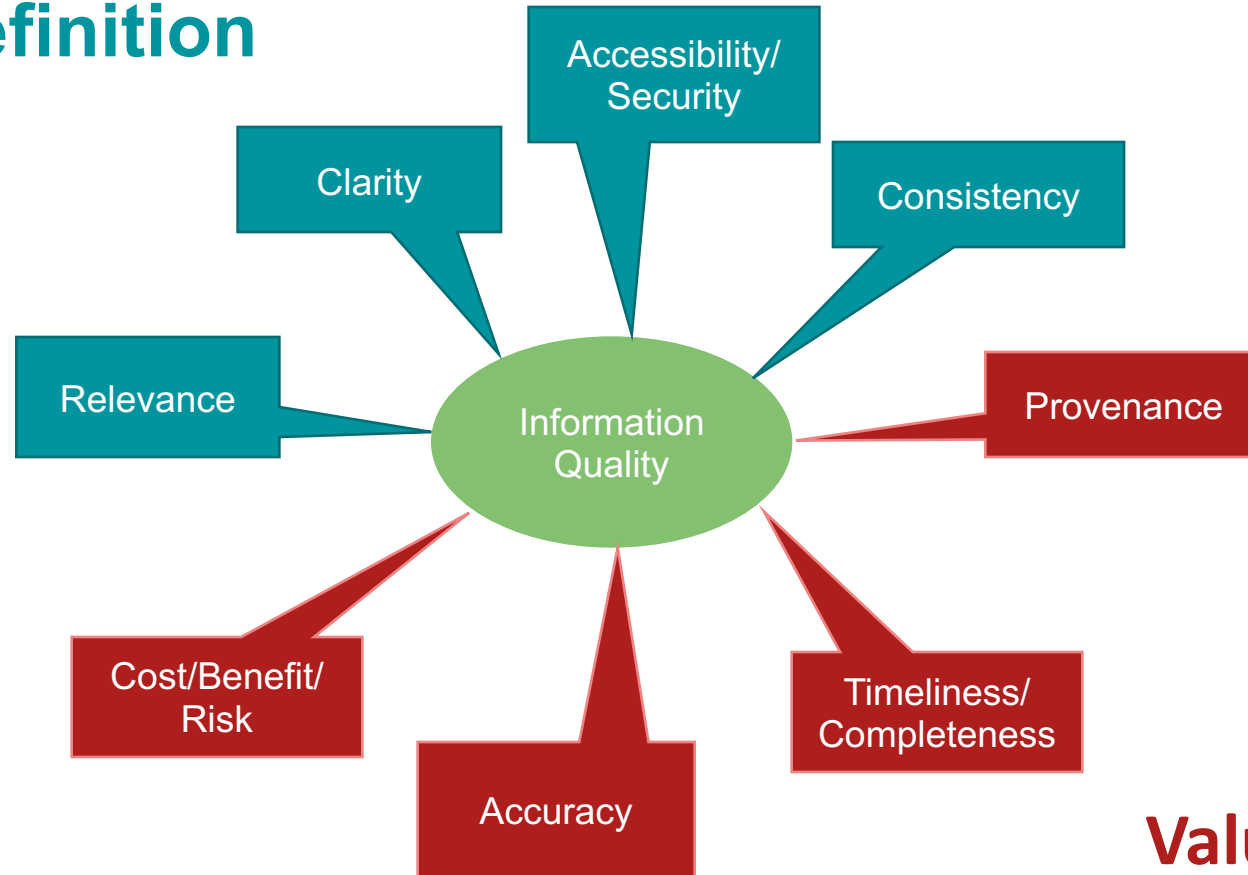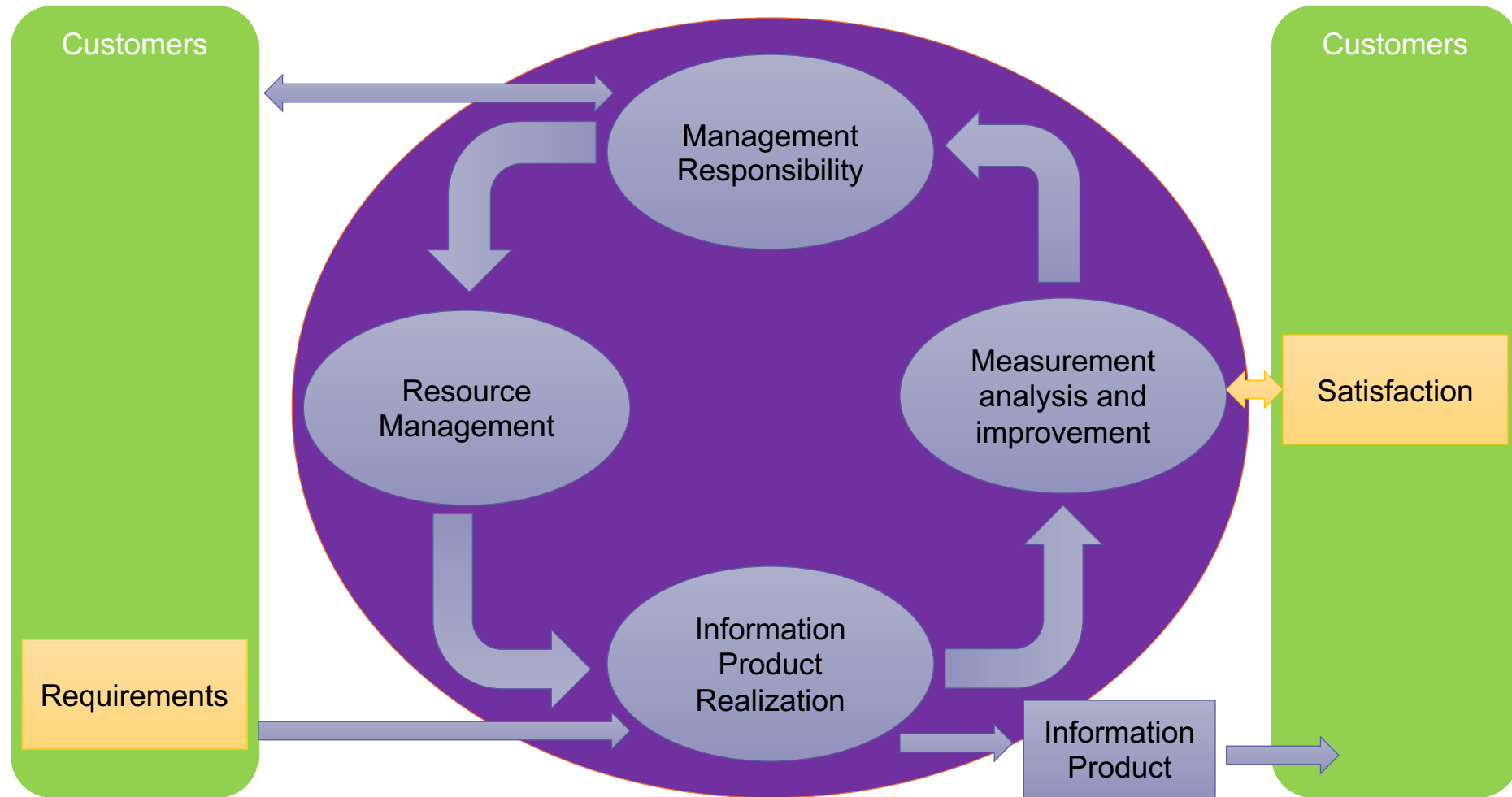# The National Digital Twin

An ecosystem of connected digital twins

Critical Properties of Information

Process Based Quality Management System (ISO 9001)

Information Management Landscape

Management

Policy/Controls Framework

Governance

Strategy & Operating Model

Organization

Plans, Justification & Risk Mgt

Roles and Responsibilities

Key Performance Indicators

Business Processes

Information

Information Quality Management Process

Information Management Framework

Foundation Data Model

Reference Data

Integration Architecture

Security Framework

Development Methodology

Architecture Standards

Data Quality Standards

Communications

Application Portfolio

IM Community

IT Support

Knowledge Management

Training

Support

NATIONAL DIGITAL TWIN PROGRAMME

The pathway towards an Information Management Framework

https://www.cdbb.cam.ac.uk/news/pathway-towards-IMF

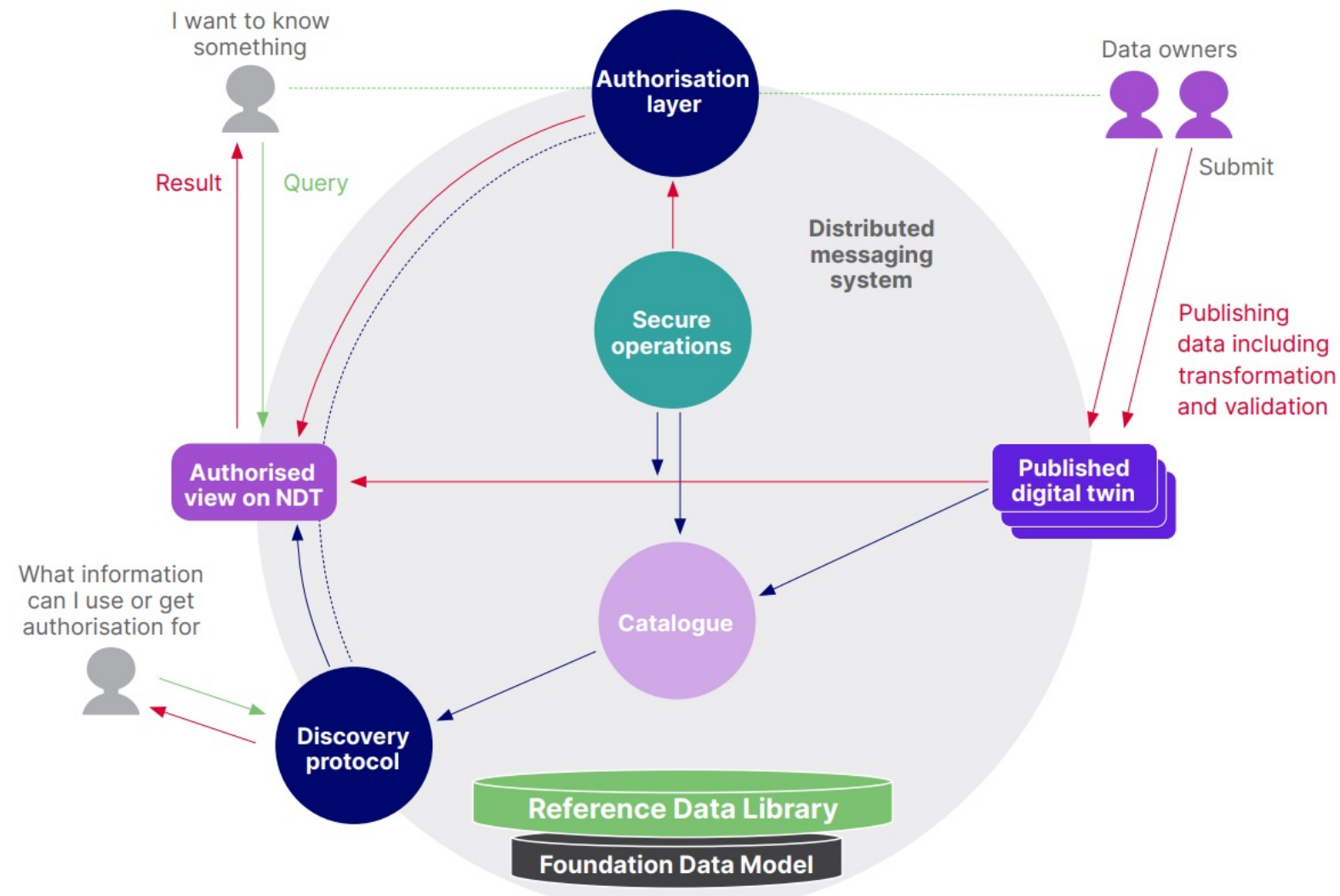**The technical core of the Information Management Framework is**

1. **Foundation Data Model** – A high level definition of the structure and meaning of data to enable the consistent sharing of data across Digital Twins and the ecosystems they support.

2. **Reference Data Library** – the particular set of classes and the properties we will want to use to describe our digital twins

3. **Integration Architecture** – the protocols that will enable the managed sharing of data

NATIONAL DIGITAL TWIN PROGRAMME

The pathway towards an Information Management Framework

A 'Commons' for Digital Built Britain

cdbb
Centre for Digital Built Britain
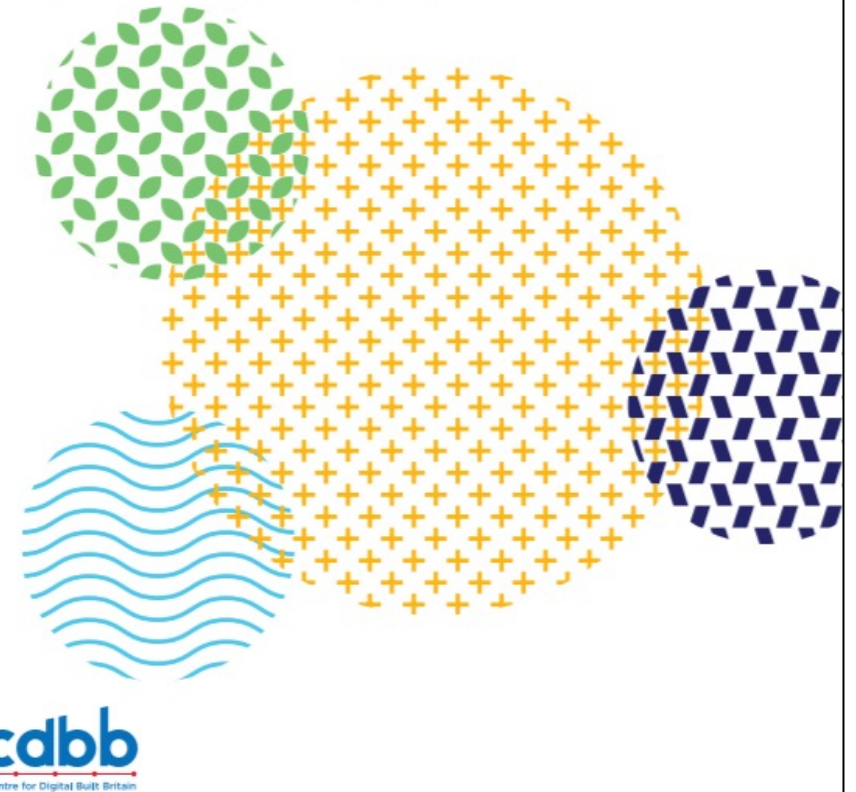
A National Digital Twin enabled by the IMF

Thank you