



Southeast Asia Disaster Risk Insurance Facility

PROTECT THE GREATEST HOME OF ALL:

OUR COUNTRIES

SEADRIF is a regional platform to provide ASEAN countries with financial solutions and technical advice to increase their financial resilience to climate and disaster risks.



Public asset management and the role of data

Facilitator: Benedikt Signer

Speakers:

Chil Soriano, Philippines | Steven Eglinton, UK | Julie De la Cruz, Philippines

Objectives of the factsheets and webinar

- **Why** should governments develop a financial protection strategy for public assets?
- **When** can insurance be a good option for the financial protection of public assets?
- **Who** are the key stakeholders (both external and internal) that play roles in each stage of the insurance development process?
- **What** are the most important step-by-step considerations involved in the development of a strategy for public asset insurance?

INTENDED OUTCOME:

Government officials to develop strong understanding of the steps required to design, develop, deliver and operate effective financial protection of public assets, particularly through risk transfer and insurance

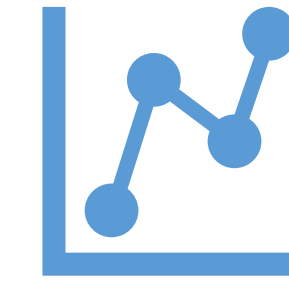
Structure of Webinars



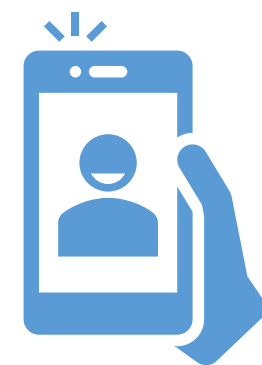
90-minute webinar for each factsheet



Different guest speakers



Poll results will be included in final outputs



**Live polls:
Please participate**



**Please share questions
via Q&A function**

Overview of the Knowledge Series

- Roles and responsibilities for the government officials within an internal insurance program, the associated stakeholders, including auditing, compliance and governance, supervisory.
- Multi year aspects such as renewals and re-assessment of exposures.
- Review of procurement considerations
- Dealing with claims management
- Incorporating innovations and technologies



FACTSHEETS 7 and 8

- Development of an implementation roadmap for a public asset financial protection program
- How governments can agree objectives and build consensus around priorities
- How to develop internal governance and oversight functions, and ownership at each level of the insurance program
- How risks are allocated across asset owners and operators



FACTSHEETS 1 and 2

**Operations
and
Management**

**Policy,
Institutions
and
Regulations**

**Access to
domestic
and
international
markets**

**Data,
Information
and
Analytics**

- Roles and options available to construction of cost-effective insurance, including common insurance structures and case studies, their pros and cons against considerations of budgets, risk appetites, and government priorities
- Introduction of pooling and mutualization of large scale public assets insurance programs
- Insurance/reinsurance concepts of retention, deductible and exclusion



FACTSHEETS 5 and 6

- The importance and development of Public Assets Registries, and associated Enterprise Asset Management systems.
- How to assess and quantify asset exposure, sources of data, requirements for insurance transactions
- Introductions to the use of catastrophe analytics, burning cost / technical and market rates, tariff structures, risk based pricing methods, and underwriting.



FACTSHEETS 3 and 4

Plans for July - September

**Experience sharing webinar:
Week of 27th July**

**Fact sheets 5 – 8:
Recommence in September**

Benefits of improving public asset management



More effective and forward-looking decisions



Improved governance and accountability



Improved financial efficiency



Improved customer service



More effective risk management

The role of a public asset registry (PAR)

A public asset registry is a digital database which assists effective whole-of-government business planning by providing a single source of information on all non-financial government assets with their geo locations along with physical characteristics, asset value, and asset life.

A PAR CAN BE USED TO:

- Maintain a central repository of information on government assets across the asset lifecycle.
- Conduct an annual physical inventory of all assets.
- Maximize the value of public assets by optimizing the way the assets are allocated, used, leased, and/or sold.
- Conduct risk assessments of assets, recording historical data on disaster events and post-disaster assessment, or utilizing advanced tools to assess assets' exposure to different types of risks.
- Prioritize assets for operational and financial protection, including for risk transfer and insurance based on varied parameters such as asset value, location, condition, strategic importance, risk.





POLL (1)

Which of these are important benefits to you in your consideration to develop a public asset registry?
(select all that apply)

- Maintain a central repository of information
- Able to conduct annual physical inventory checks
- Optimize the use and values of assets
- Identify and manage risks to assets
- Prioritize risk management actions on assets

Perspectives from Philippines: National Asset Registry System (NARS)

Chil Soriano

Former Undersecretary, Department of Finance

Philippines

Inter-agency committee on government property insurance

OVERVIEW

- Legal Framework: Administrative Order no. 4 (*until November 2019*)
- Mandate: Formulate necessary policies, rules, and regulations to ensure that key government properties/assets/insurable interests are **comprehensively and adequately insured**
- Chair: Department of Finance, through the Bureau of the Treasury
- Members: Department of Budget and Management, Office of the President, Insurance Commission, and the Government Service Insurance System

IDENTIFIED STRATEGICALLY IMPORTANT ASSETS

- Roads, Bridges, Schools, Hospitals, Health Centers, Dams, Irrigation Facilities, Welfare Centers

MAIN RECOMMENDATION

- Indemnity Insurance program for Strategically Important Assets
- Development of a **National Asset Registry** to be housed in the Bureau of the Treasury

ISSUES AND CHALLENGES

- Data constraints
- Initial lack of expertise

**CONTINUATION:
DBCC TECHNICAL
WORKING GROUP
ON ASSET
MANAGEMENT**
*Whole of
Government
approach on Asset
Management*

Why build a registry?

“What gets measured,
Gets managed”

Peter Drucker, “The Practice of Management”

- For government **to know** its assets
- For government **to better manage** its assets
- For government **to track ownership** of its assets
- For government **to improve its decision making**

National Asset Registry System

Initial Assets

- Schools
- Roads
- Bridges
- Hospitals
- Dams
- irrigation facilities
- welfare centers

Other planned Assets

- Airports
- Seaports
- Trains
- power plants,
- transmission lines
- equipment of Science and Technology agencies

Onboarding

Training courses and workshops conducted with Central and Regional Offices

Current Asset Information included

- Geographical, Financial, Legal, Insurance
- Asset-Specific information

Envisioned Analytics/Output

- Asset Insurance/Prioritization
- Risk Modeling
- Asset Maximization/Performance Management

Our approach

Excel Template

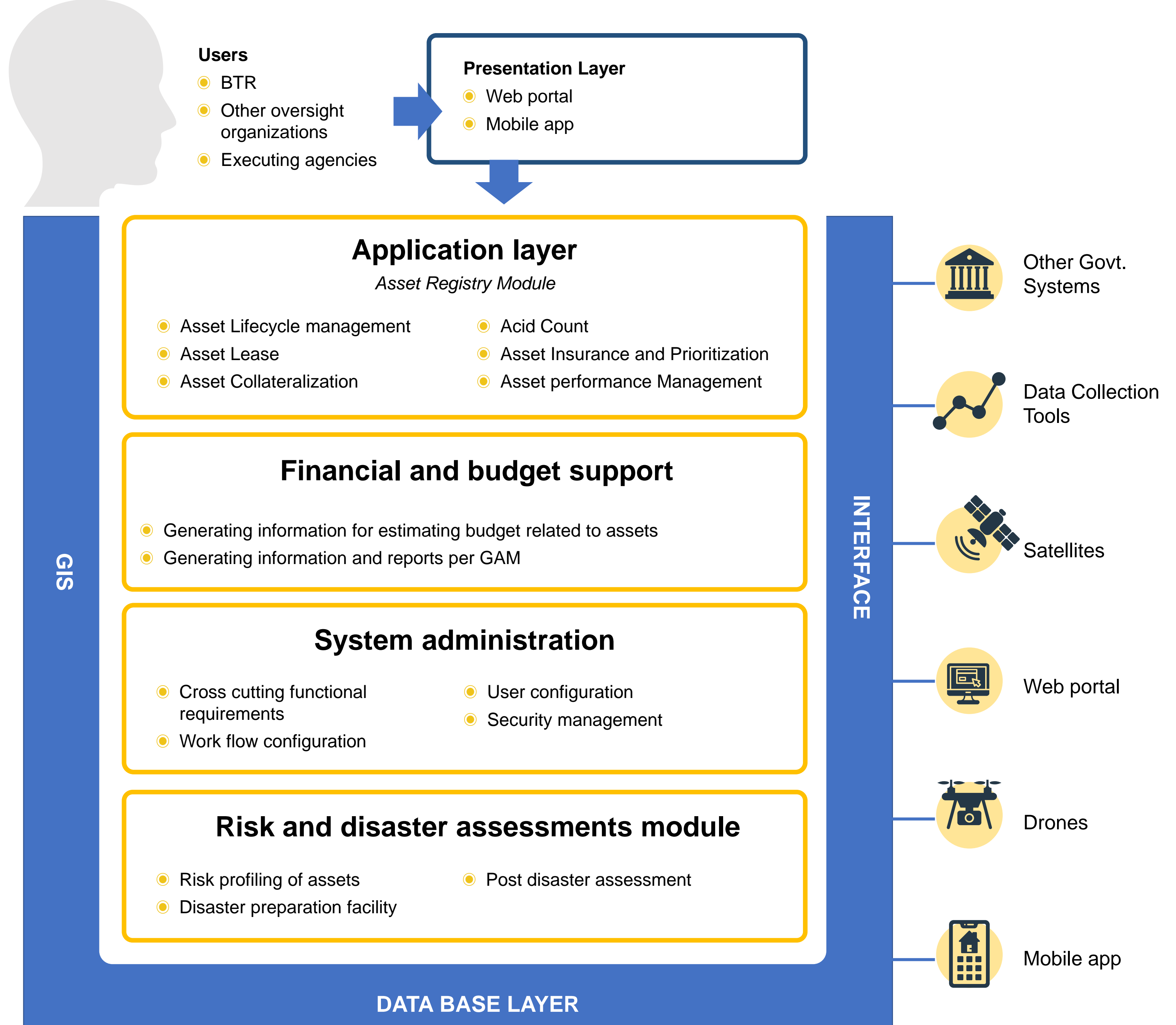


Online Inventory System
(under development)



National Asset Registry System with modules on Asset Lifecycle, Risk Modeling, Insurance Prioritization

Overall Conceptual Design



Anticipated benefits

Prioritize assets for insurance coverage

INSURANCE PRIORITIZATION:
Parameters

- 1.** Strategic importance
- 2.** Risk rating
- 3.** Condition
- 4.** Location
- 5.** Asset value

BUSINESS INTELLIGENCE TOOL FOR ASSET PRIORITIZATION:

- Automated report and list of assets to be insured with required data
- Record information on third-party evaluation of assets
- Facility to store insurance policy claim
- Notification on insurance policy expiration
- Automated notification for raising insurance claim for damaged assets

COPE Data fields (Sample)

- Fire protection
- Ceiling type
- Exterior walls
- Flooring type
- Roofing type
- Roof pitch
- Partitions
- Foundation type
- Average story height

Data Fields: Common Data Specifications

General Information

- National Asset Number
- Organization/Agency Code
- Asset Name/ Type
- Property Number

Location Information

- Region, Municipality, City
- PSGC Code
- Latitude
- Longitude

Legal / Ownership Information

- Ownership
- Mode of Acquisition/ Conveyance
- Conveyance Information
- Acquisition/ Conveyance Date

Financial Information

- Book Value, Accumulated Depreciation
- Asset Life, Number of years used
- Sound Value/ Assessed Value/ Appraised Value
- Mode of Disposal/ Disposal Date

Insurance Information

- Sum Insurable (if not insured)
- Insurance Details (Amount insured, Coverage, Type of Policy, Amount Insured, Premium, and Deductible)

Data Fields: Asset Specific



ROAD

Technical Specifications: General technical specifications

Functional Classification	Total Road length	Length per Surface Type			
		Concrete	Asphalt	Earth	Gravel
Directional Flow of traffic	Number of Lanes	Year of Construction	Pavement Type	Surface Type	Terrain Type
Hazard Risk	Hazard Threat	Condition	Remarks		



BRIDGE

Technical Specifications: General technical specifications

General Bridge Type	Bridge type of construction	Year of Construction	Condition	Load Limit	No. of Lanes
Carriageway Width (meters)	Terrain Crossed	Overall Width (meters)	Overall Length (meters)	Maximum Bridge Height (meters)	Length of Span (meters)
Hazard Risk	Hazard Threat	Deck Materials	Deck Wearing Surface	Deck Drainage	Pier Type
Pier Material	Pier Foundation Type	Main Member Material	Slope protection	Abutment Type	Abutment Foundation Type
Abutment Material	Remarks				

Data Fields: Asset Specific

SCHOOL Technical Specifications



General technical specifications:

School Classification	Occupancy	Details	Date constructed	Area per floor (m ²)	Number of floors
Total Floor Area (m ²)	Building footprint Area	Number of basements	Number of Mezzanines	Grade	Remarks

Materials:

Walls	Mezzanines	Roofs	Columns	Joist/Girders	Remarks
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Mitigation Measures:

Number of fire extinguishers	Number of sprinklers	Number of fire hose	Flood defense	Remarks
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Status of use: (area in m²)

Administrative office	Academic classroom	Conference/ AVP room	Canteen	Clinic	Computer room
Laboratories	Library	Supply Room	Vacant	Rent/Usufrust	Others

HOSPITAL Technical Specifications



General technical specifications

Hospital Classification	Building type	Details	Date constructed	Area per floor (m ²)	Number of floors	Total floor area (m ²)
Building Floor Area (m ²)	Number of basements	Number of Mezzanines	Grade	Remarks	In Patient Occupancy: Authorized bed capacity	Remarks

Materials:

Walls	Mezzanines	Roofs	Columns	Joist/Girders	Remarks
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Mitigation measures:

Number of fire extinguishers	Number of sprinklers	Number of fire hose	Flood defense	Remarks
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Status of use: (area in m²)

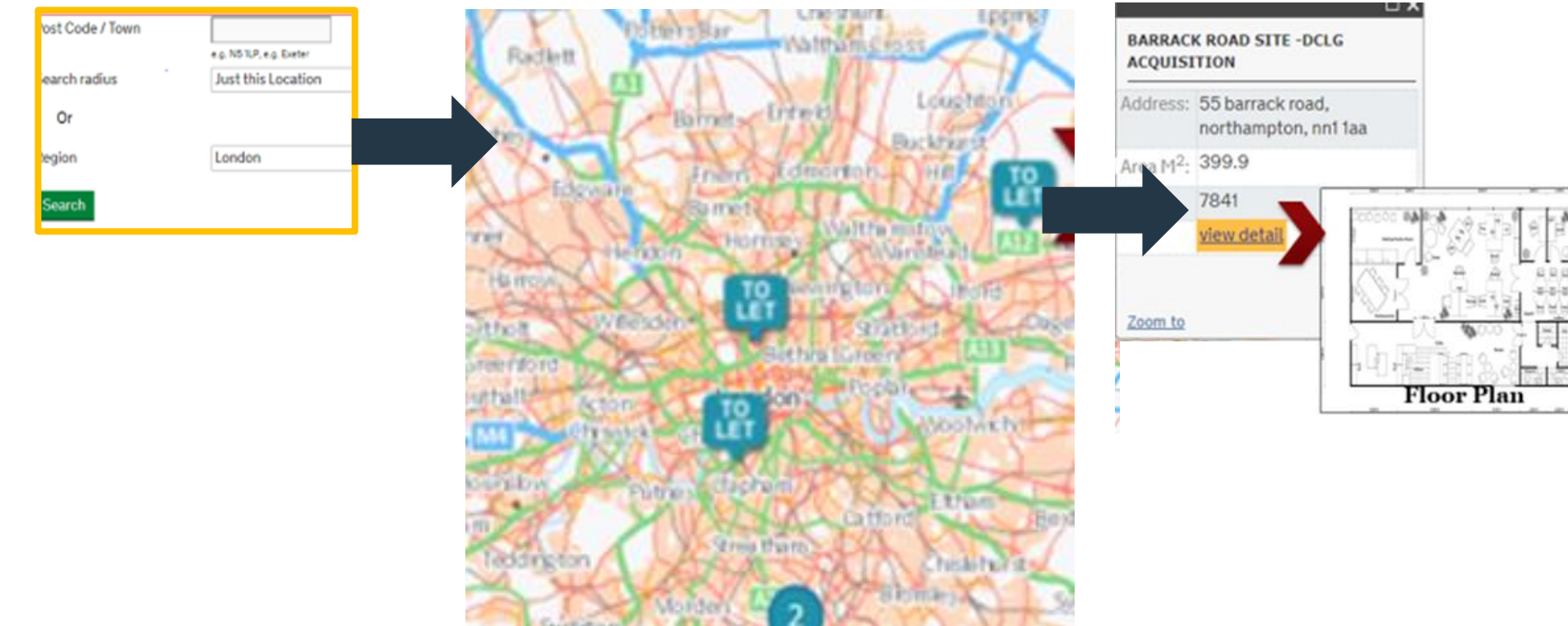
Administrative office	Ancillary	Operating room	Emergency room	ICU service	Ward	Waiting area
Mortuary service	Doctor's clinic	Nursery	Supply room	Electrical room	Cold room	Watcher's room
Isolation facilities	Delivery room	Recovery room	Pharmacy room	Others	Remarks	

Anticipated benefits

1. Capture data on vacancy & occupancy
2. Facilities & Space Management Planning
3. List vacant Assets for sale/rent
4. Raise capital receipts meeting budget deficit
5. Share assets (heavy machinery) b/w orgs
6. Receive automated alerts for required space

Asset Performance Management

Search feature for vacant properties for sale/rent



Achievement of UK e-PIMS

- Raised £ 1.8 billion via capital receipt
- Accredited savings of about £ 54 million pa with cost of less than £ 2 million pa

Anticipated benefits

1. Capture damaged assets

2. Automated notification for raising insurance claim

3. Online service requests & work orders

4. Plan inspections and update damage details

5. Plan Fund disbursement & track utilization

6. Build Loss Database

7. Mark emergency facilities pre-disaster

8. Release notifications in public domain

9. Support in interface with Catastrophic Risk Modelling Solution



Data collection tools

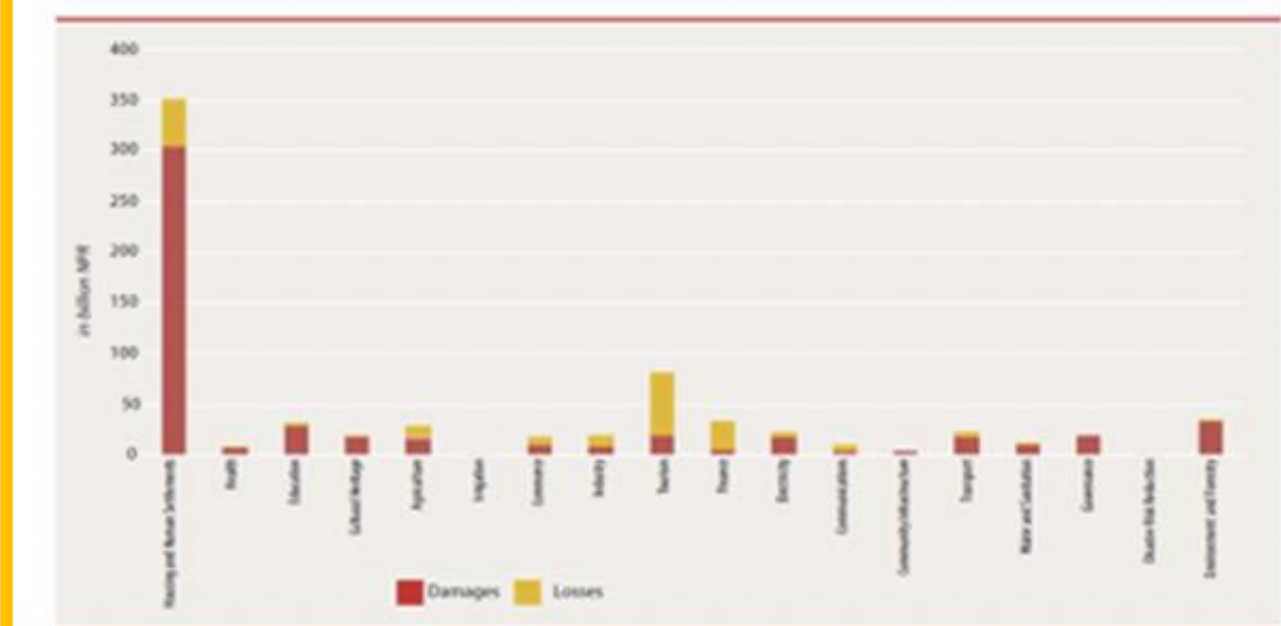
Post Disaster Damage Assessment

A. Raise online service request & Work Orders



115930 Emergency	
WORKORDERID:	115930
Description:	Emergency
Priority:	3
Status:	CLOSED
Submit To:	GILBERT, CLIFF
Proj Start Date:	03/23/09 18:00:00
Proj Finish Date:	
Actual Start:	03/23/09 18:00:00
Actual Finish:	03/23/09 18:00:00
Domain:	1
X:	2173540
Y:	251456

B. Bar chart on damaged assets by sector/org.



Future Plans

Collaboration with the Department of Science and Technology (DOST), Philippine Institute of Volcanology and Seismology (PHIVOLCS) and other risk management agencies for better disaster/hazard mapping



VISION:

To be the Philippines' central source of information for accurate and efficient hazards and risk assessment, to help the government increase the nation's resilience to natural hazards

- **Governance Platform** where different stakeholders (Government, Citizens, Business, can collaborate for the sharing, standardization and optimum use of information necessary for risk valuations, and consequently for good governance
- **Physical Platform** where tools are developed for data integration, management and analysis of information (**HazardHunterPH**, **GeoMapperPH**, **Geo AnalyticsPH**)

www.georisk.gov.ph



Future Plans

- **Linkages with national government agencies and corporations as well as local government units** that have their own asset registry to develop a common metadata set across the whole of government and to facilitate the sharing of information
- Adoption/adaption of **international standards for data inputs and quality** to allow for regional collaboration
- **Easy Reference Dashboard** with quick access to geospatial and asset information
- **Risk Modeling capabilities** to estimate damages of events and forecast potential losses of incoming events

Major Challenges and Possible Solutions

Gathering data from the regional/field offices

- Use of technology (smart phones/tablets/i-pads, drones, satellites)
- Incentives and explanation of benefits of having more/better information

Improving and assuring data quality

- Rating system for data quality
- Training of staff in central, regional and field offices on data gathering and reporting standards

Linking physical assets to accounting treatment and legal ownership documents

- Application of Asset Management principles and practices to accounting concepts such as depreciable/useful life and derecognition of assets
- Setting up of Asset Management Units/TWGs in each agency with representatives from different offices and disciplines

Processing and analyzing the data

- Reporting templates for data gathered and electronic processing and presentation of data, where possible (tables, graphs, charts)
- Training of staff in central, regional and field offices on data analytics and policy recommendations
- Development of civil service cadre of AM experts

Keys to Success



Communication

Clear communication channels – listening to the agencies regarding their needs and relaying to them what needs to be done.

Consideration

Consideration in dealing with agencies. This new initiative is taxing and complex, requiring the patience and understanding of all concerned.

Collaboration

Making this a partnership. Agencies must see the value of this initiative and be appreciated as well as key partners in this program, and not just as a source of data.

Chapterization

Taking it “chapter by chapter”. The program need not be implemented government-wide right away. It can start with selected pilot agencies and then expand incrementally.

Keys to Success



Linkages with ongoing Initiatives

The Environment and Natural Resources Data Management Tool (ENRDMT) for Local Government Units (LGUs) facilitated Philippine compliance with the global Extractive Industries Transparency Initiative.

Institutionalization

Issuance of a Department Order making the ENRDMT part of the electronic system for submitting LGU financial statements to the Bureau of Local Government Finance of the Department of Finance.

Penalties

Revised Department Order that specified penalties for the first, second and third offenses by the local treasurer helps to ensure compliance.

Clear Guidelines from the Top

Coordination among the oversight agencies resulting in non-conflicting guidelines will facilitate compliance by agencies and LGUs.

Asset management concepts and good practices

Steven Eglinton

Director, BimEnable & GeoEnable

UK

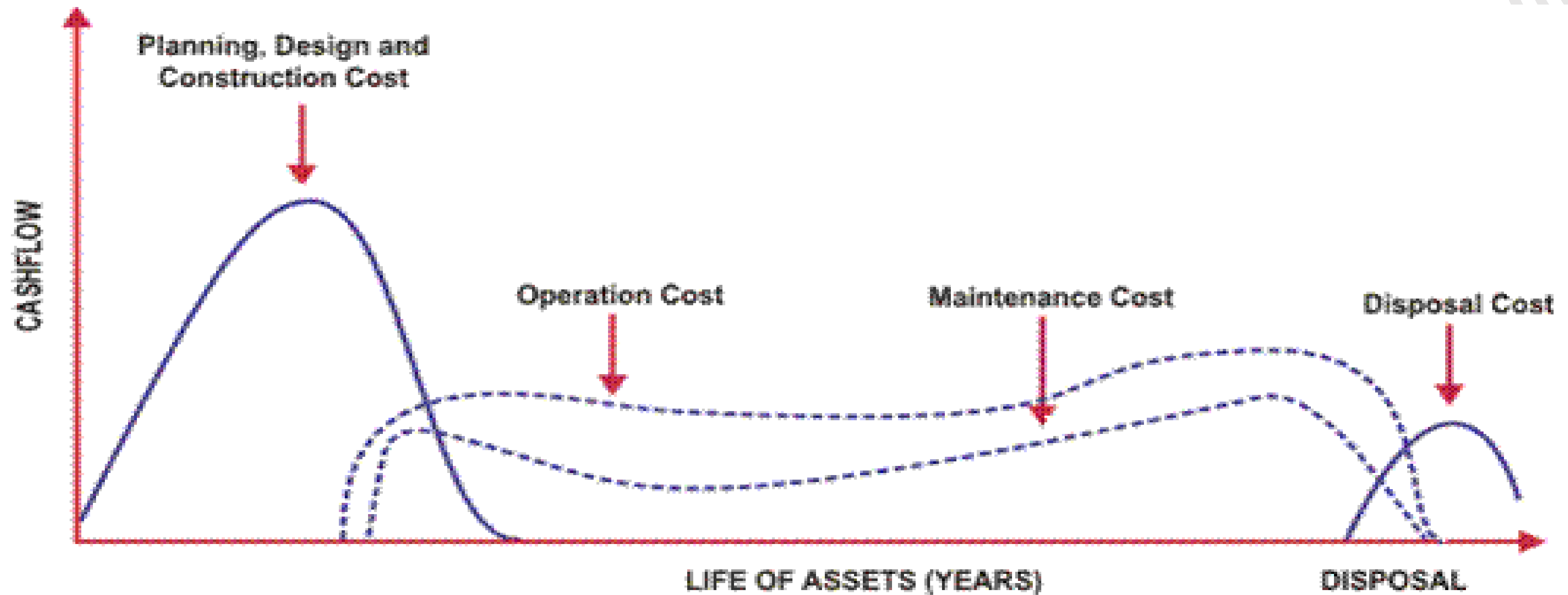
What I will cover

- 1) Asset management: first principles, rationale, terminologies and introduction to ISO standards and recommended approaches
- 2) PAR: components and maturity levels
- 3) UK experience: early developments to current evolution

What I will cover

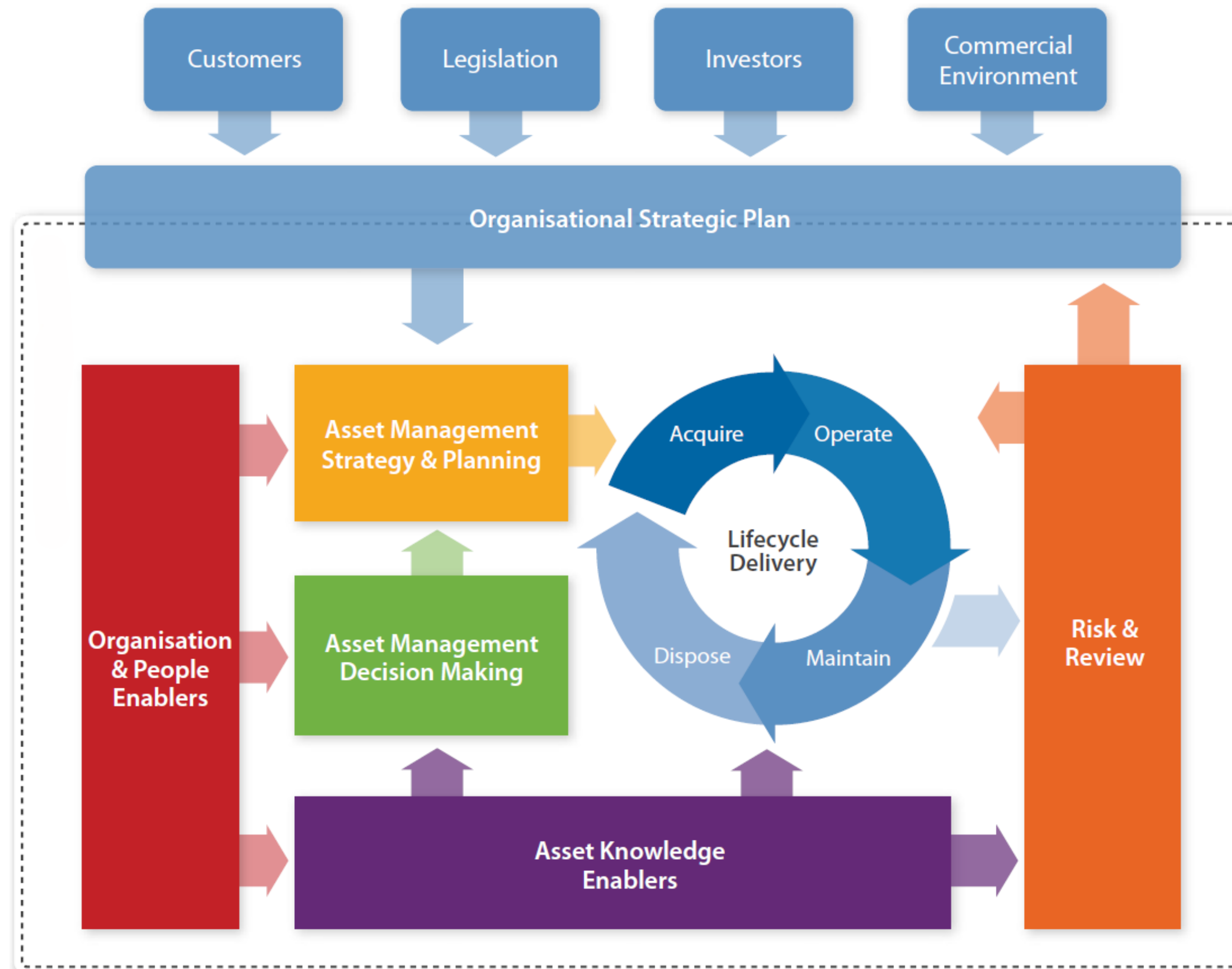
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Asset Management – basic principals



We need to consider *Whole Life Cost* or *Total Expenditure (TotEx)*

Asset Management – an overview

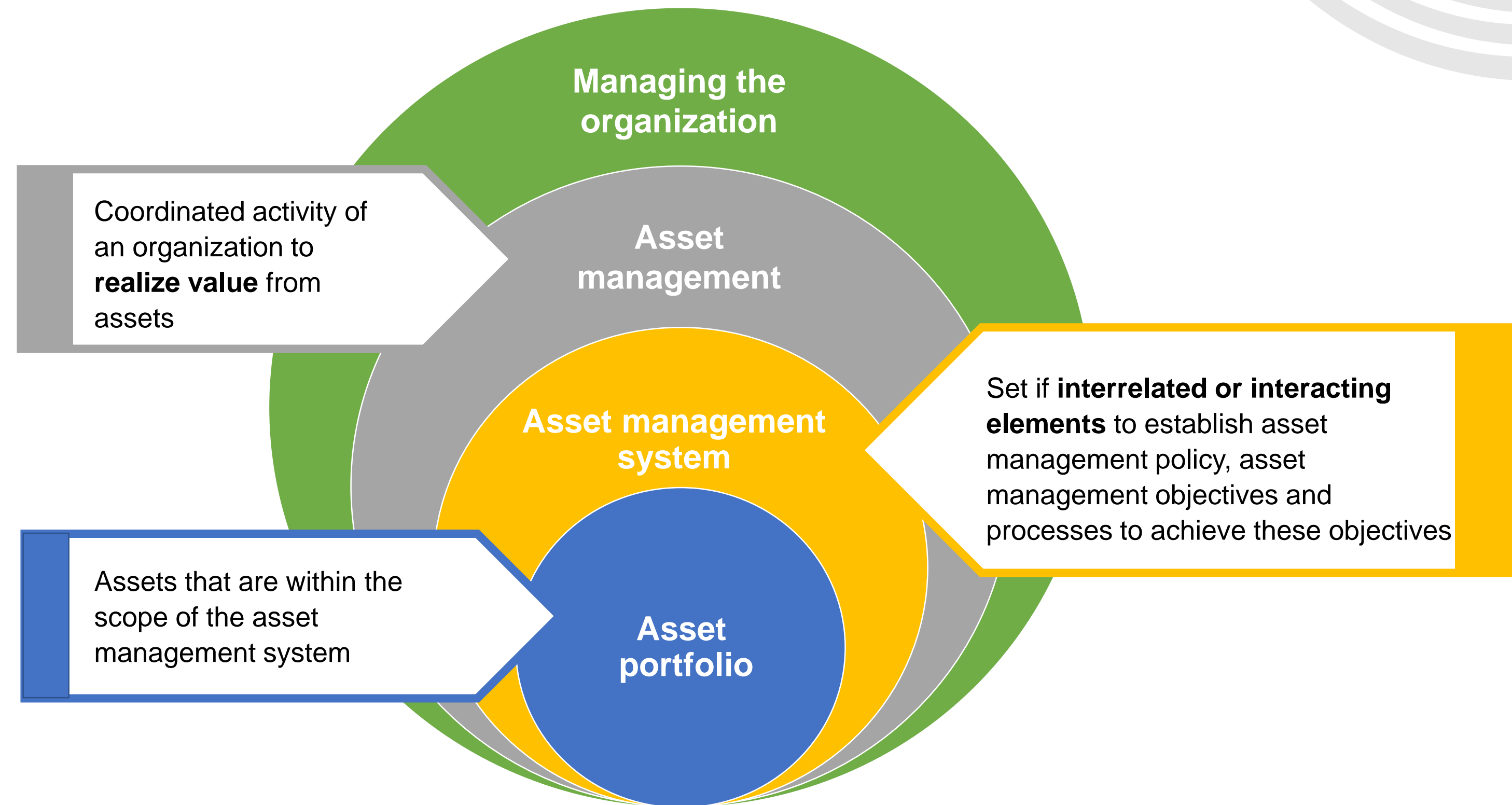


- Asset management refers to systematic approach to the governance and realisation of value from assets over their whole life cycles
- It may apply both to tangible assets and to intangible assets
- Continual improvement is key
- ISO 55000 series
- From UK PAS 55 standard

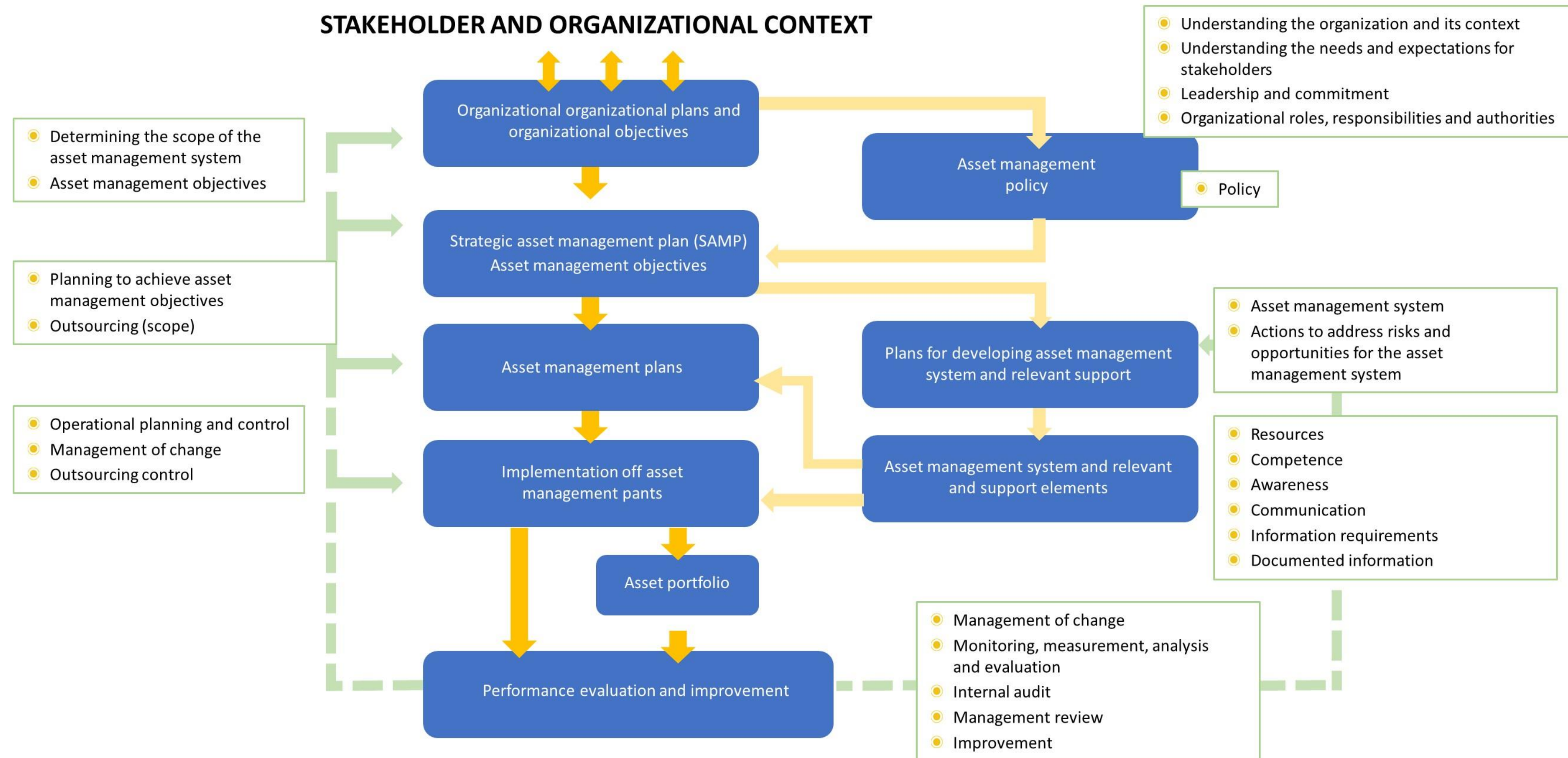
Understanding Asset management

Asset Management and ISO 55000 series

- ‘Asset Management’ is not the same managing assets!
- It is a long-term, strategic approach to asset
- ISO 55000 series sets-out the
- We need this same approach to managing our data – a ‘whole-life’ approach



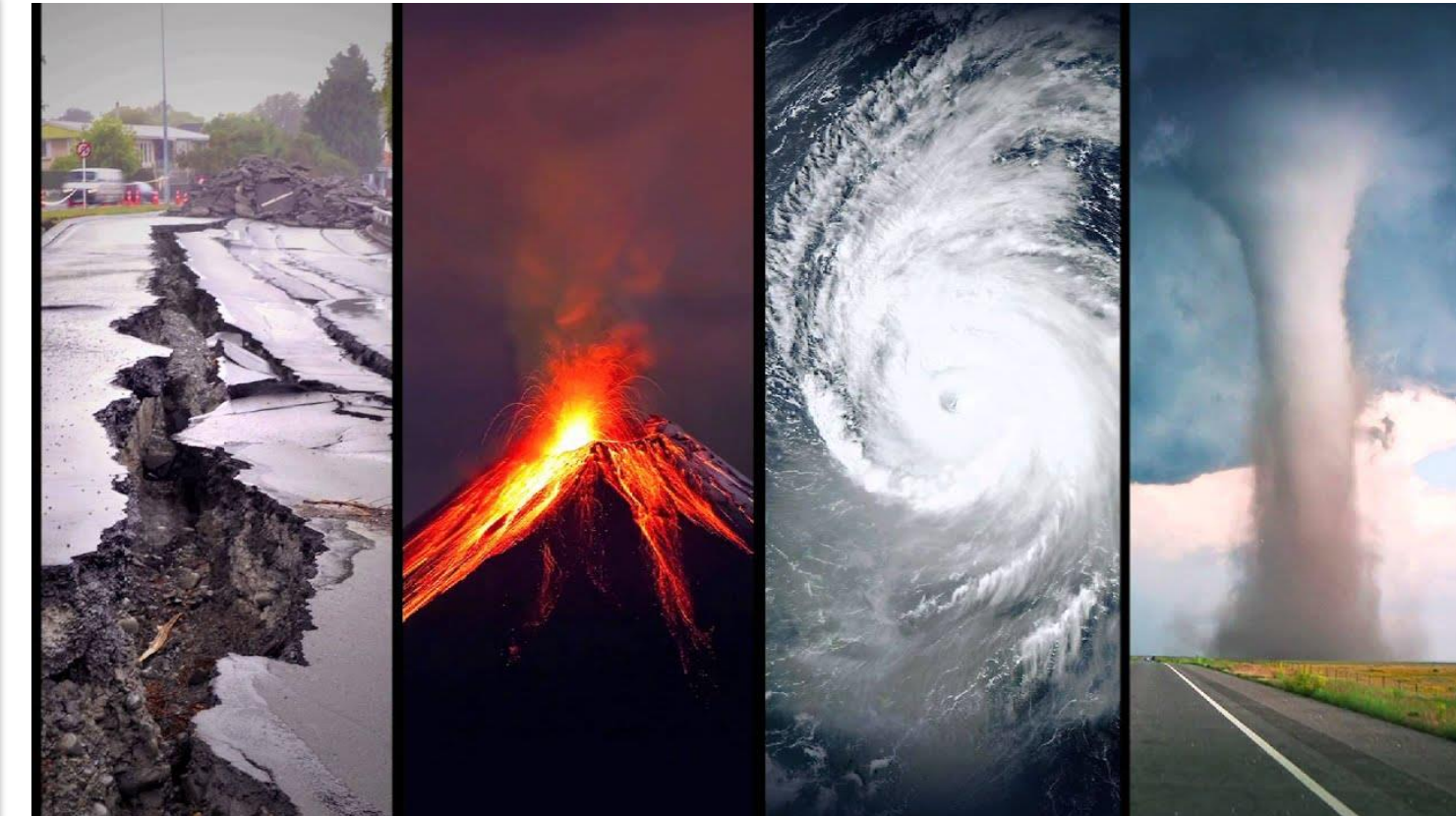
Key Elements of Asset Management Systems



What I will cover

- 1) Asset management: first principles, rationale, terminologies and introduction to ISO standards and recommended approaches
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Better information help us plan to reduce risk



A PAR provides us with trusted information

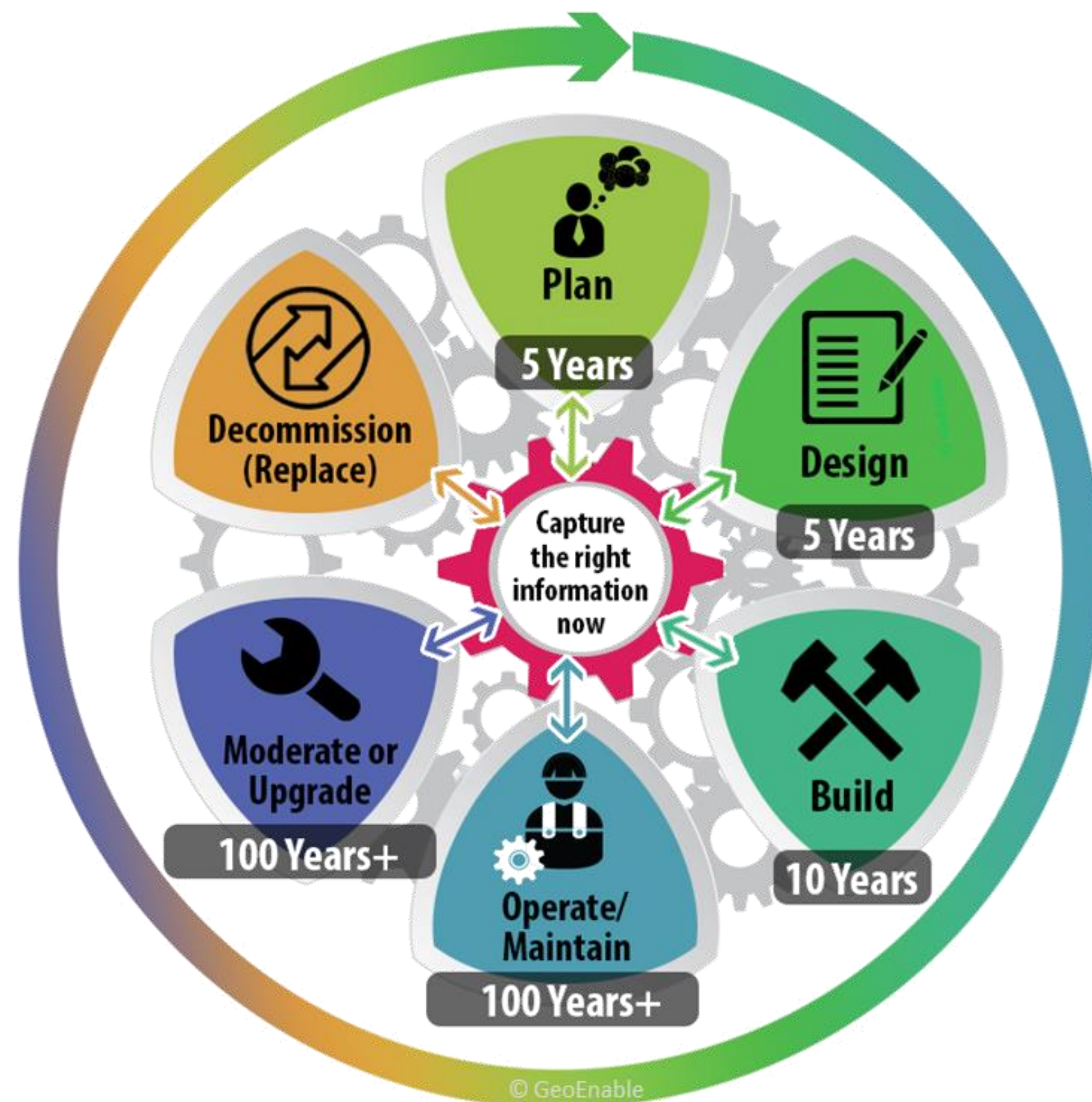
- Procuring **quality information** and metadata to enable...
- Data-Driven **Decision-making** about our Assets



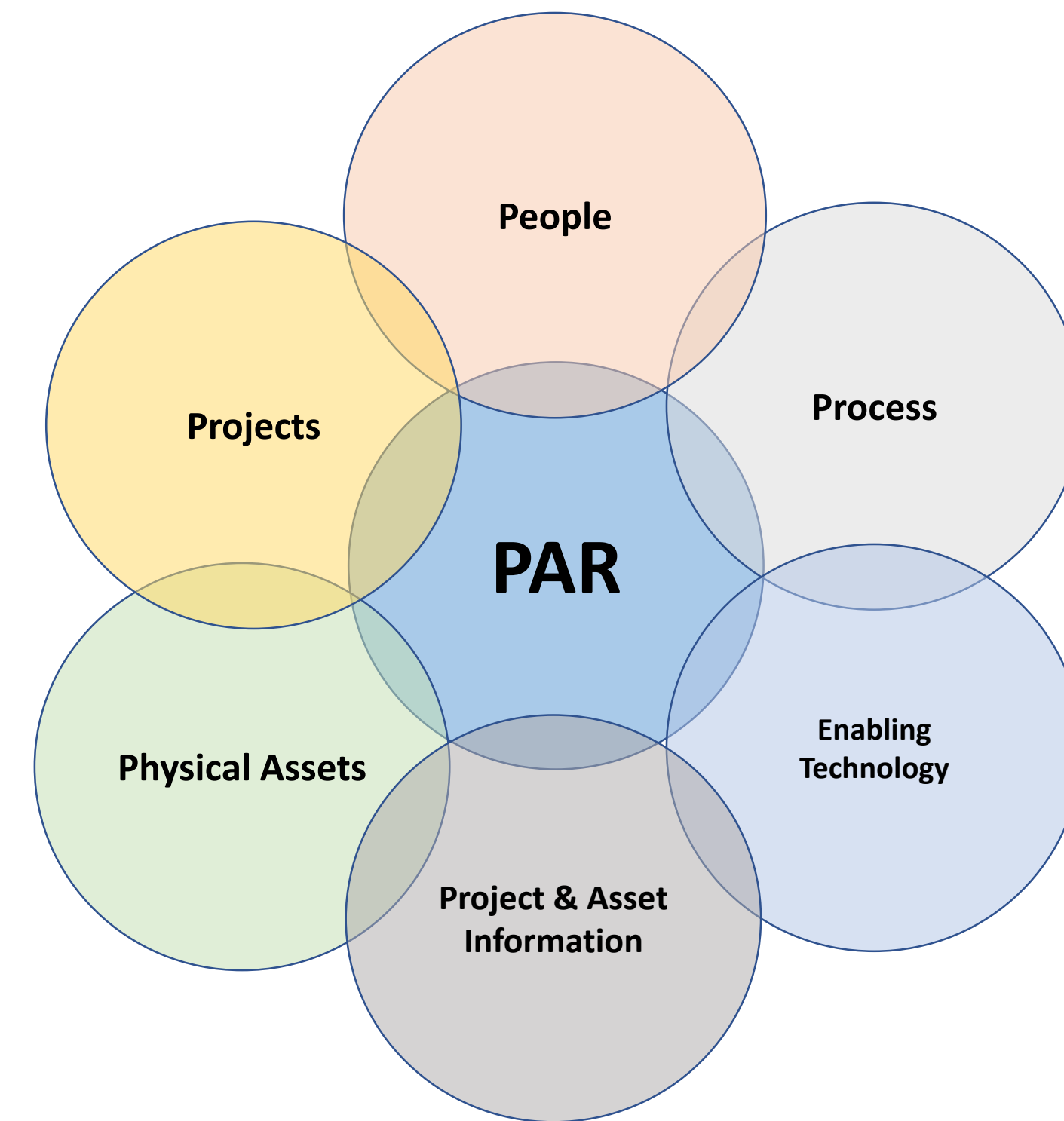
Slide © BimEnable, part of GeoEnable

Designing Public asset registries for the whole-life of assets

We need a long term approach



with a blend of skills



Basic components of a public asset registry systems

Conceptual design of a public asset registry system

Asset management modules

Asset registry module

- Asset lifecycle management
- Asset lease
- Asset collateralization
- Asset count
- Asset Insurance and Prioritization
- Asset Utilization Management

Risk and disaster assessment module

- Risk assessment of assets
- Record of disaster events
- Post-disaster damage assessment

Functionalities

- Business Intelligence and Analytics
- Reporting
- Geographical Information Systems (GIS) visualization

Interfaces

- Financial management or accounting system
- Public infrastructure management system
- Public procurement system

System administration

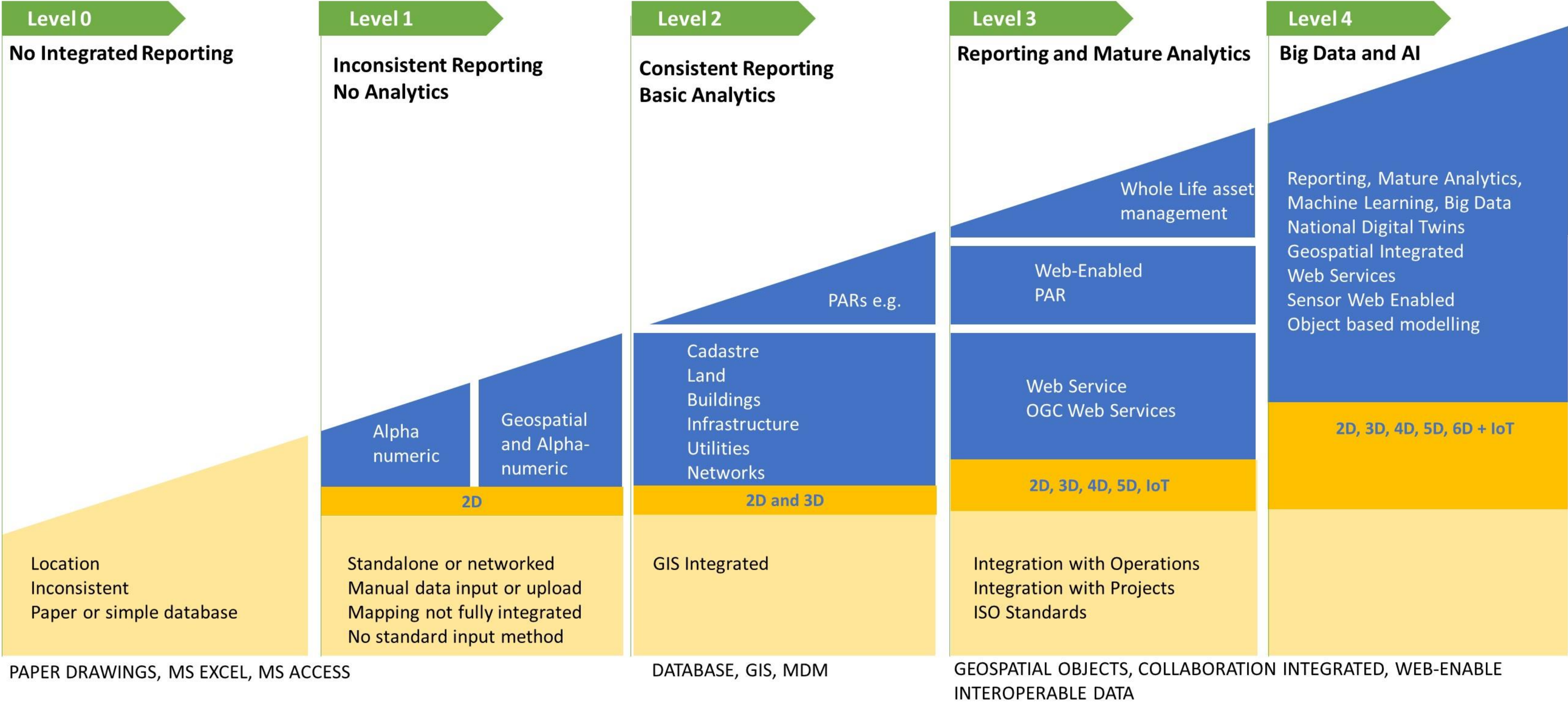
- General requirements
- Workflow management
- User administration
- Security management

Data collection

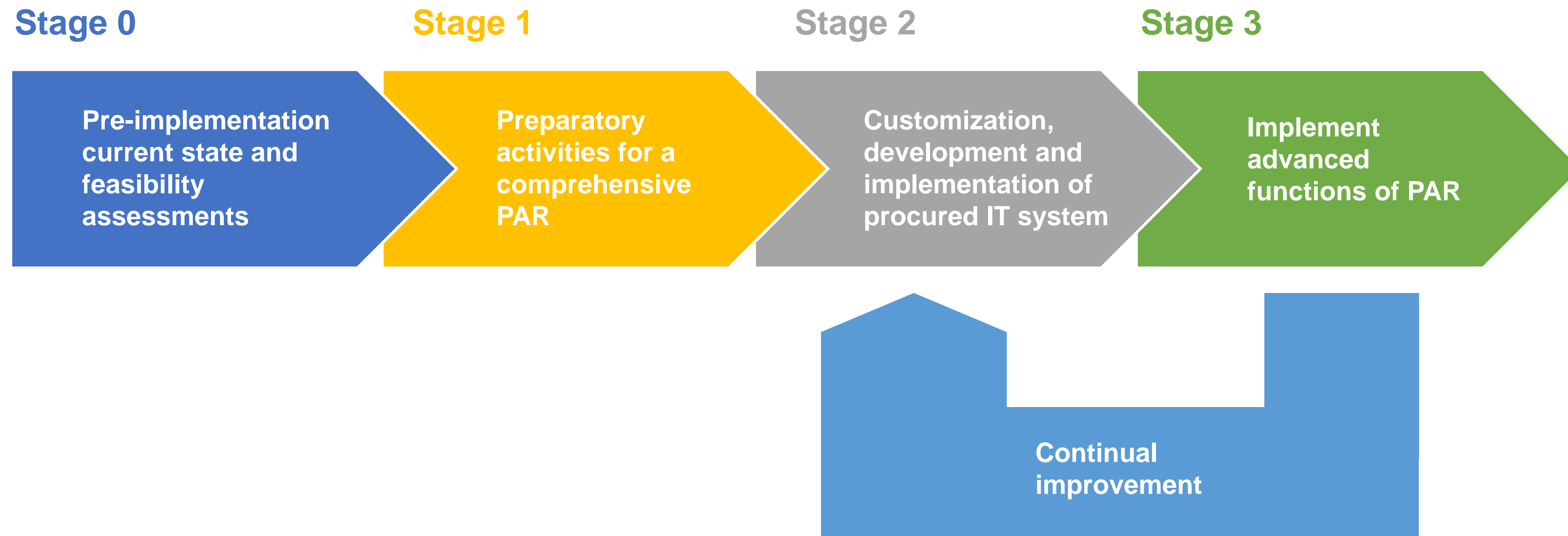
- Web portal
- Mobile applications

PAR Maturity

PAR maturity



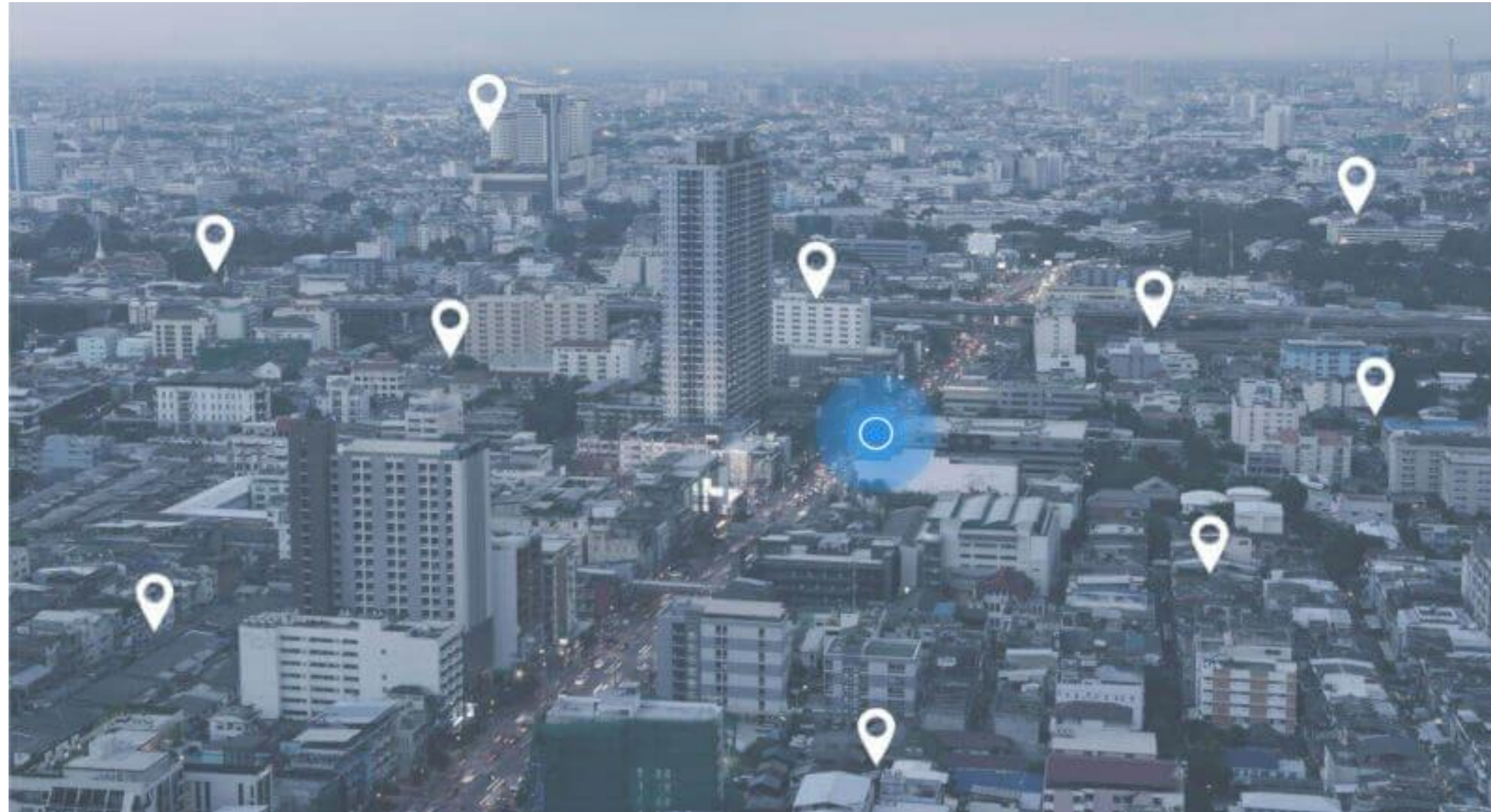
Developing a PAR



What I will cover

- 1) Asset management: first principles, rationale, terminologies and introduction to ISO standards and recommended approaches
- 2) PAR: components and maturity levels
- 3) UK experience: early developments to current evolution

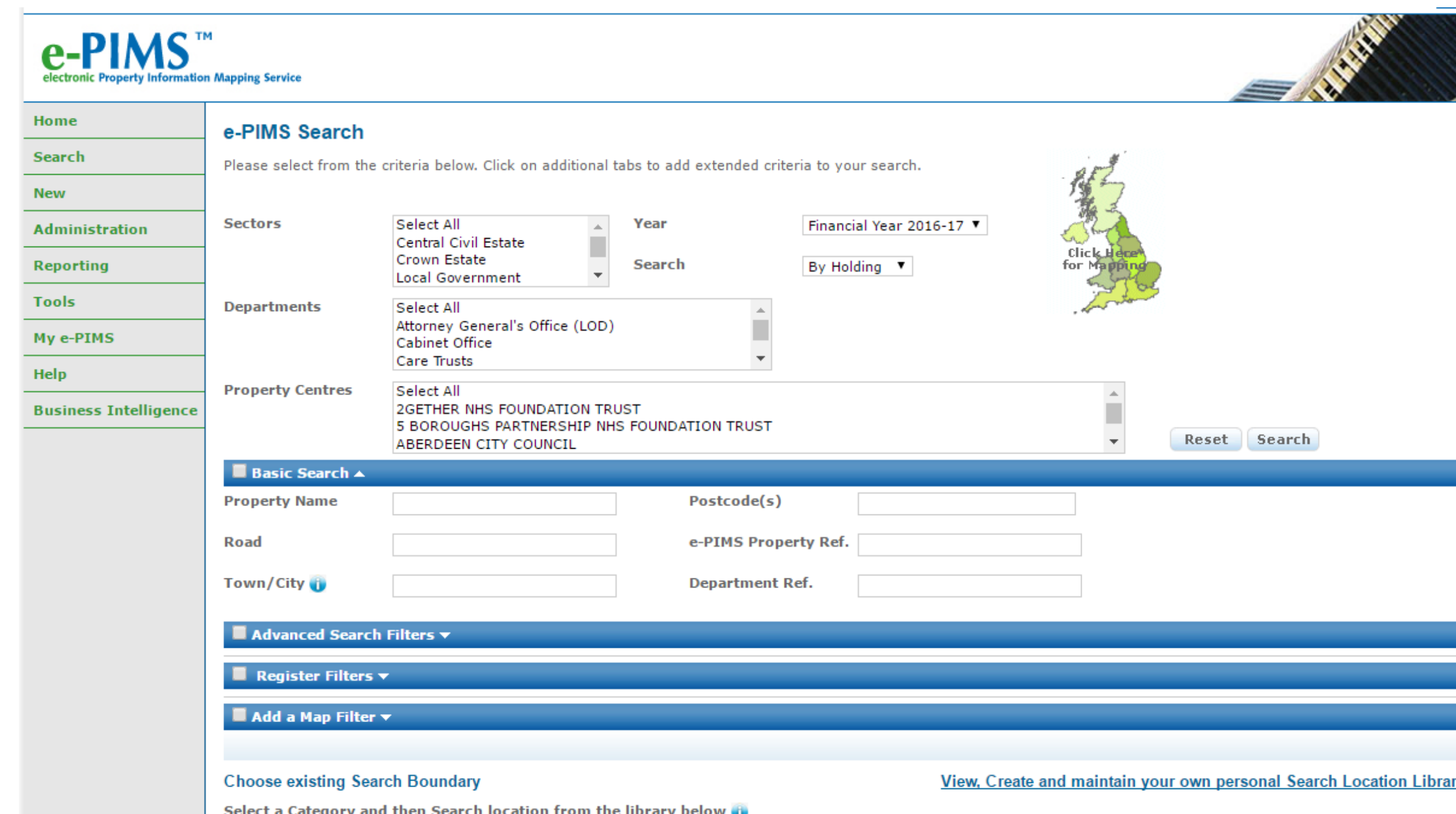
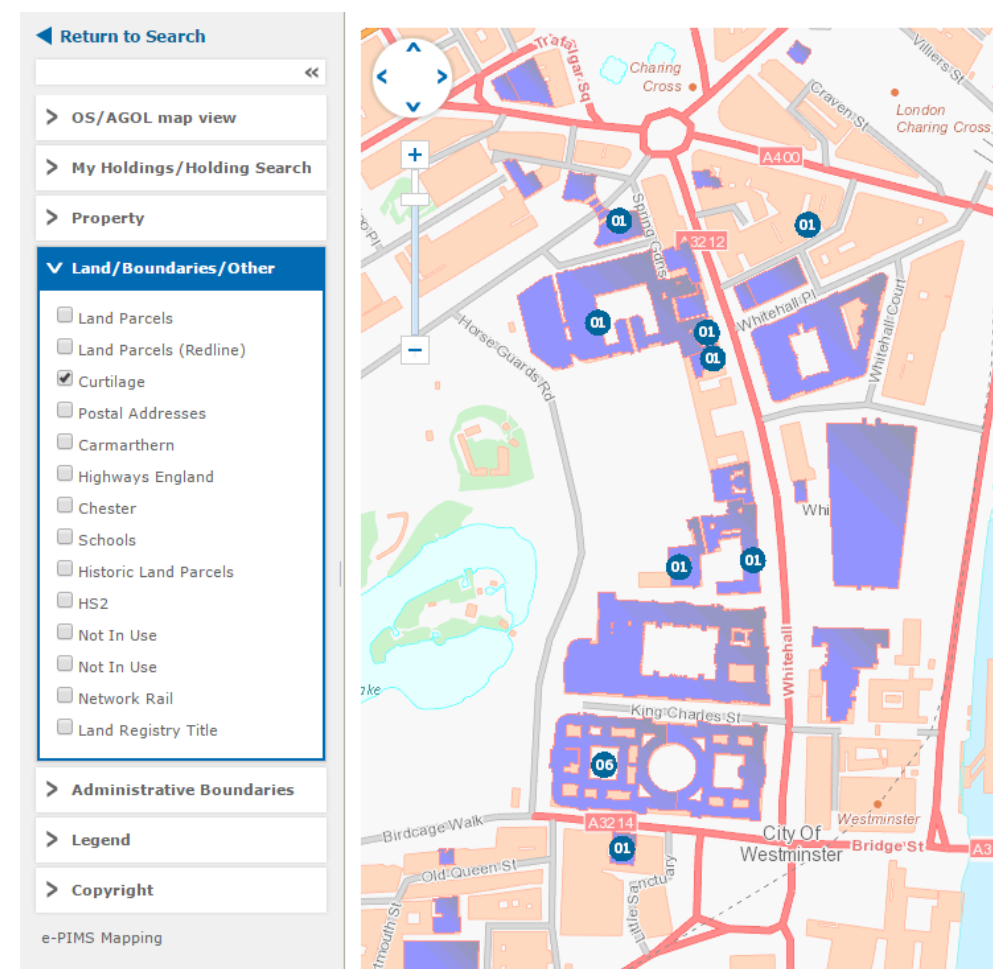
Government Property Data



Existing (Legacy) Technology

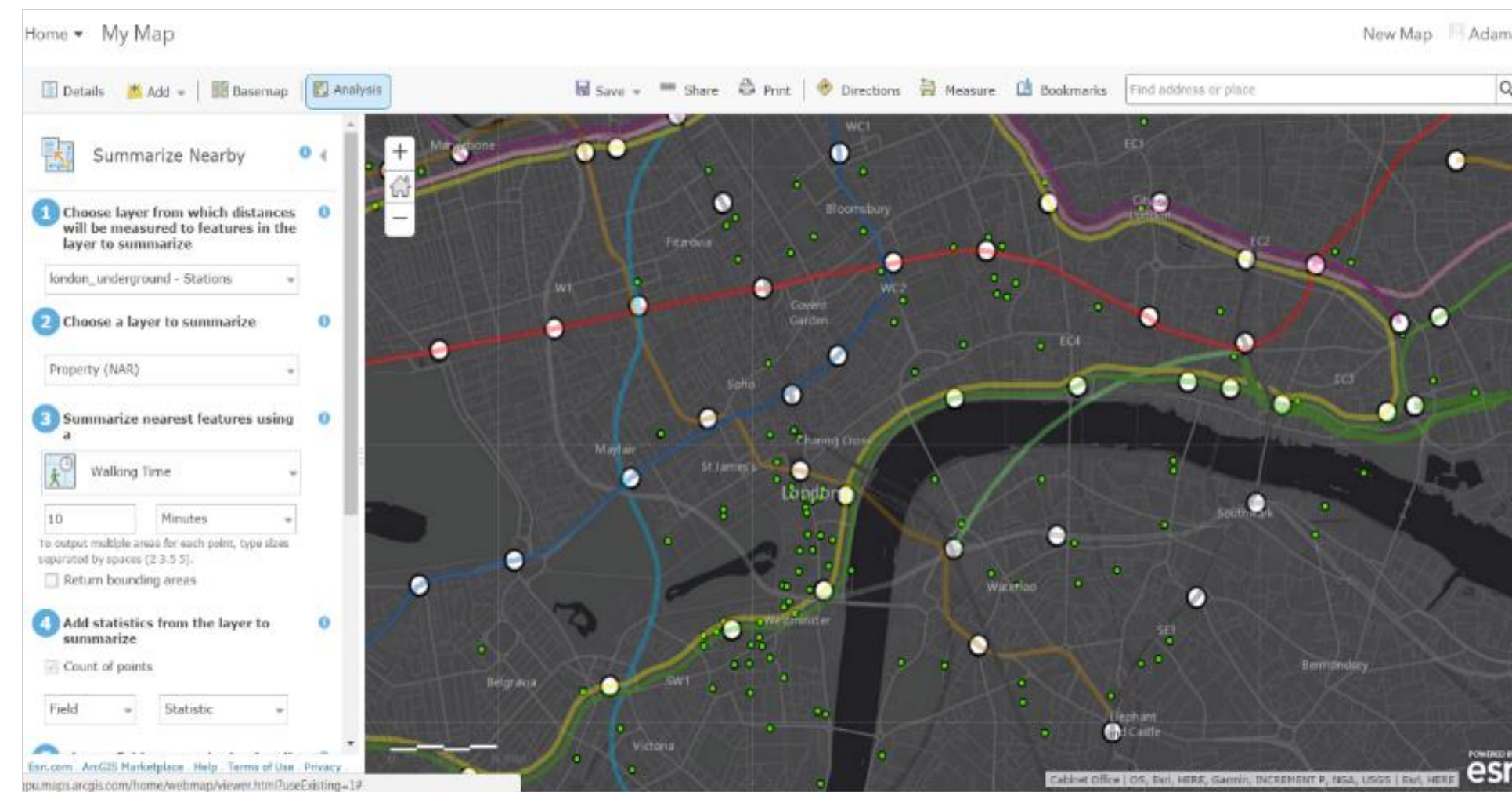
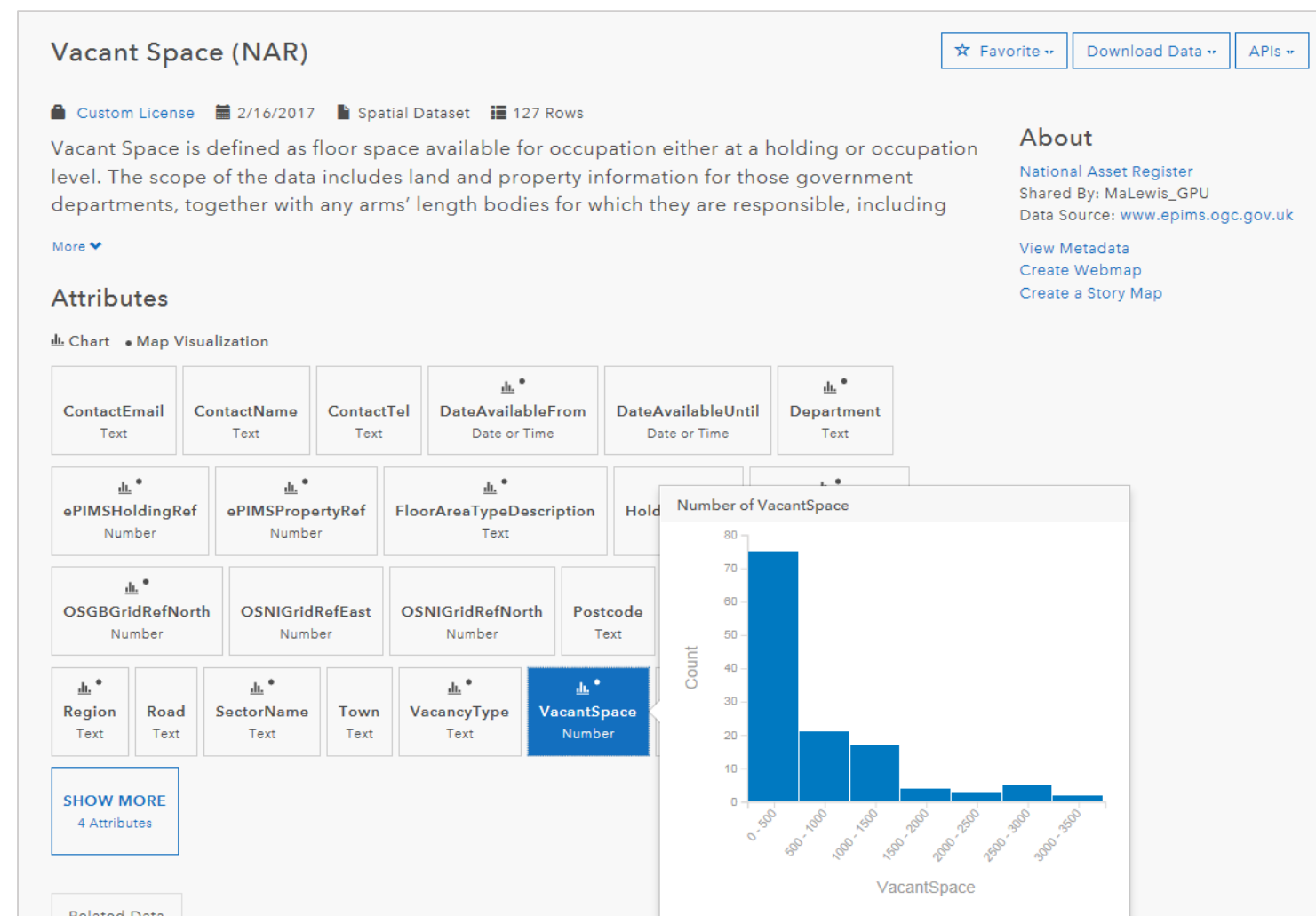
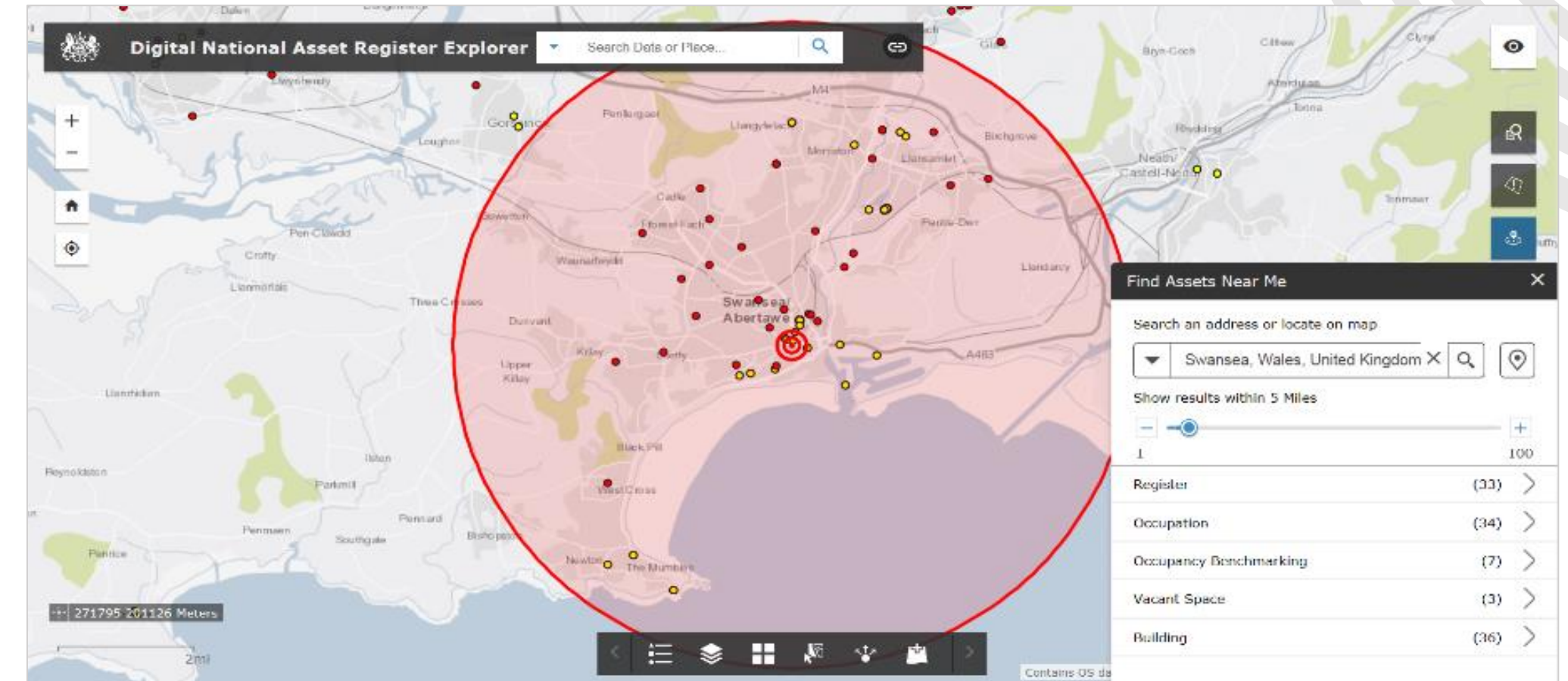
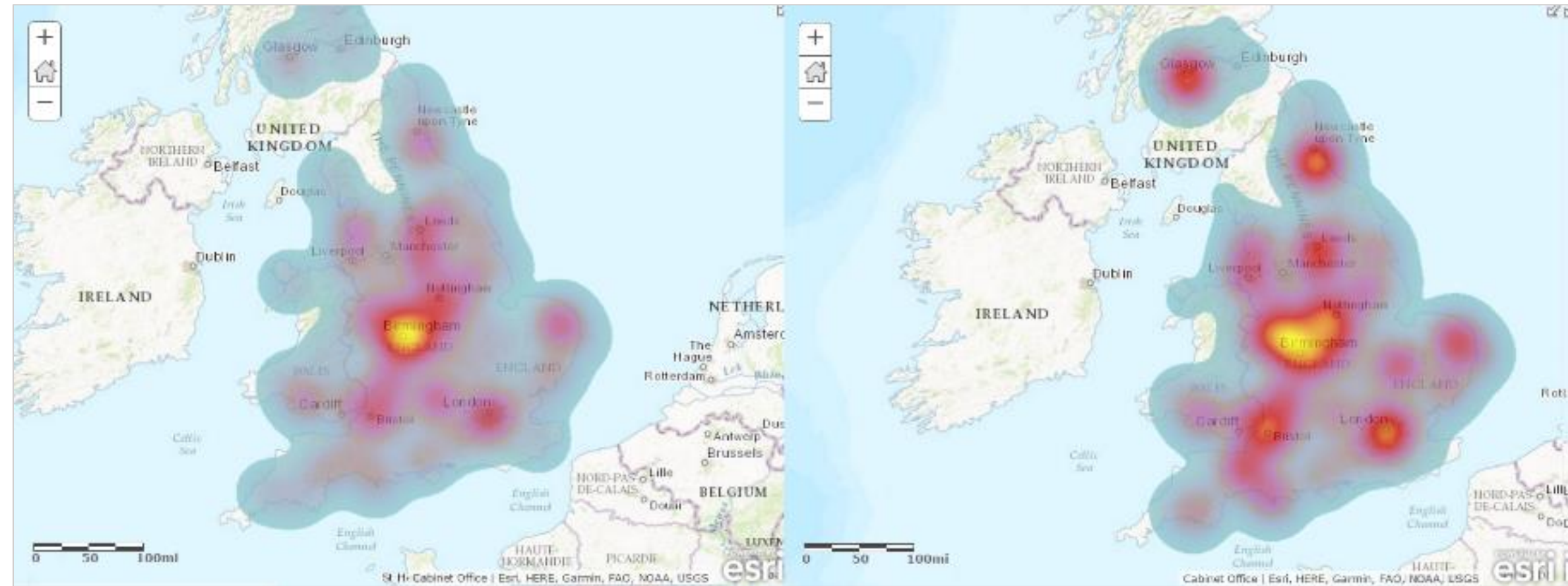


Enabling Technology



Why move from Electronic Property Information Mapping Service (e-PIMS)?

Digital National Asset Register (d-NAR)



Modernising the Government Estate – a transformation strategy



- Backed by Policies and an information management improvement programme
- Stakeholder needs fully understood
- The d-NAR is data and analytics focused

The importance of consistent standards

Julie Christie Dela Cruz

Technical Director, Arcadis GEC

Philippines

Property Asset Management – questions for **senior decision-makers** to ask

1 Do you incorporate **government policy** into a compatible property strategy and plan which is up-to-date (ie. reviewed at least annually)?

2 Do you have **adequate and accurate information** about your overall property portfolio?

3 Do you have one or more managers **solely responsible** for property?

4 Does the Senior Management team receive **regular reports** about property and its performance against pre-agreed overall KPIs?

5 Does your property help to **deliver your services** in the way you would like it to?

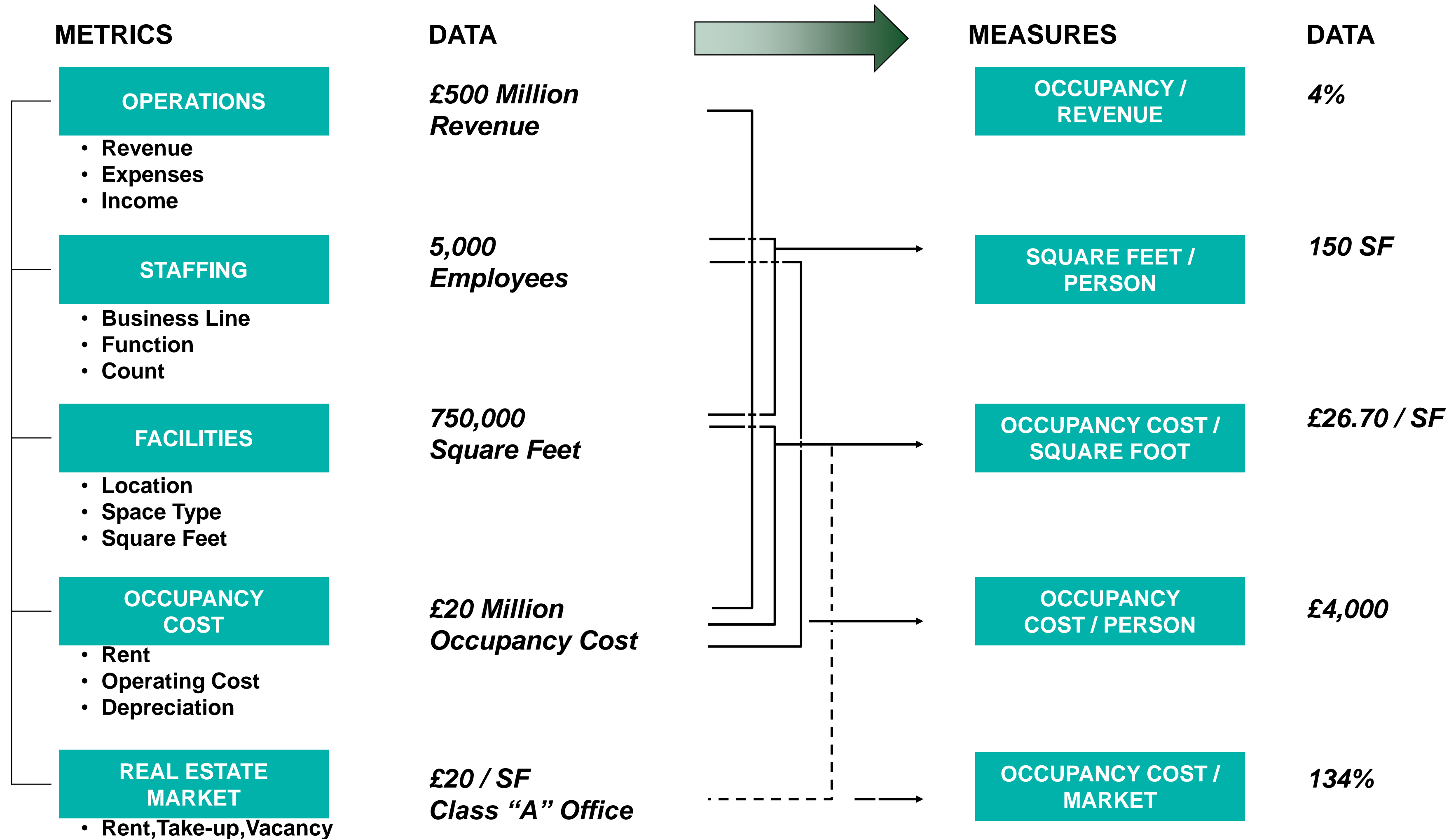
6 Do your **customers** have a good experience when visiting your properties?

7 Do you know how much your property is **costing** you?

8 Do you have a plan to improve **service levels**, improve occupational **efficiency**, release **capital** and reduce recurring **expenditure**?

9 Do you know the extent of your **maintenance backlog** and what you are doing about it?

Public sector **property assets** need the **right data** for the **right measures**

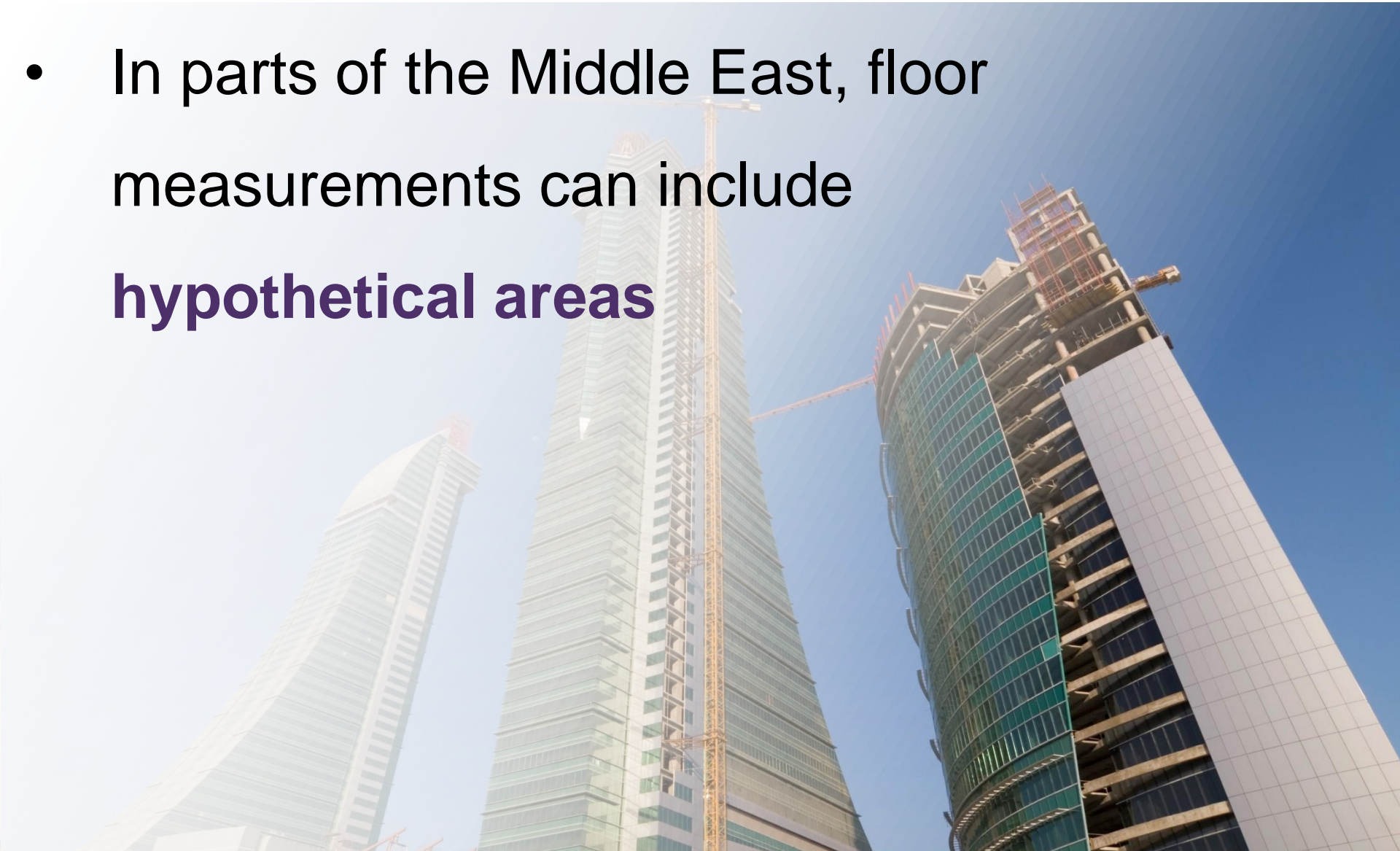


Completed assets are **measured** differently, everywhere, resulting in confusion

- In Spain, residential property measurements often include **swimming pools**



- In parts of the Middle East, floor measurements can include **hypothetical areas**



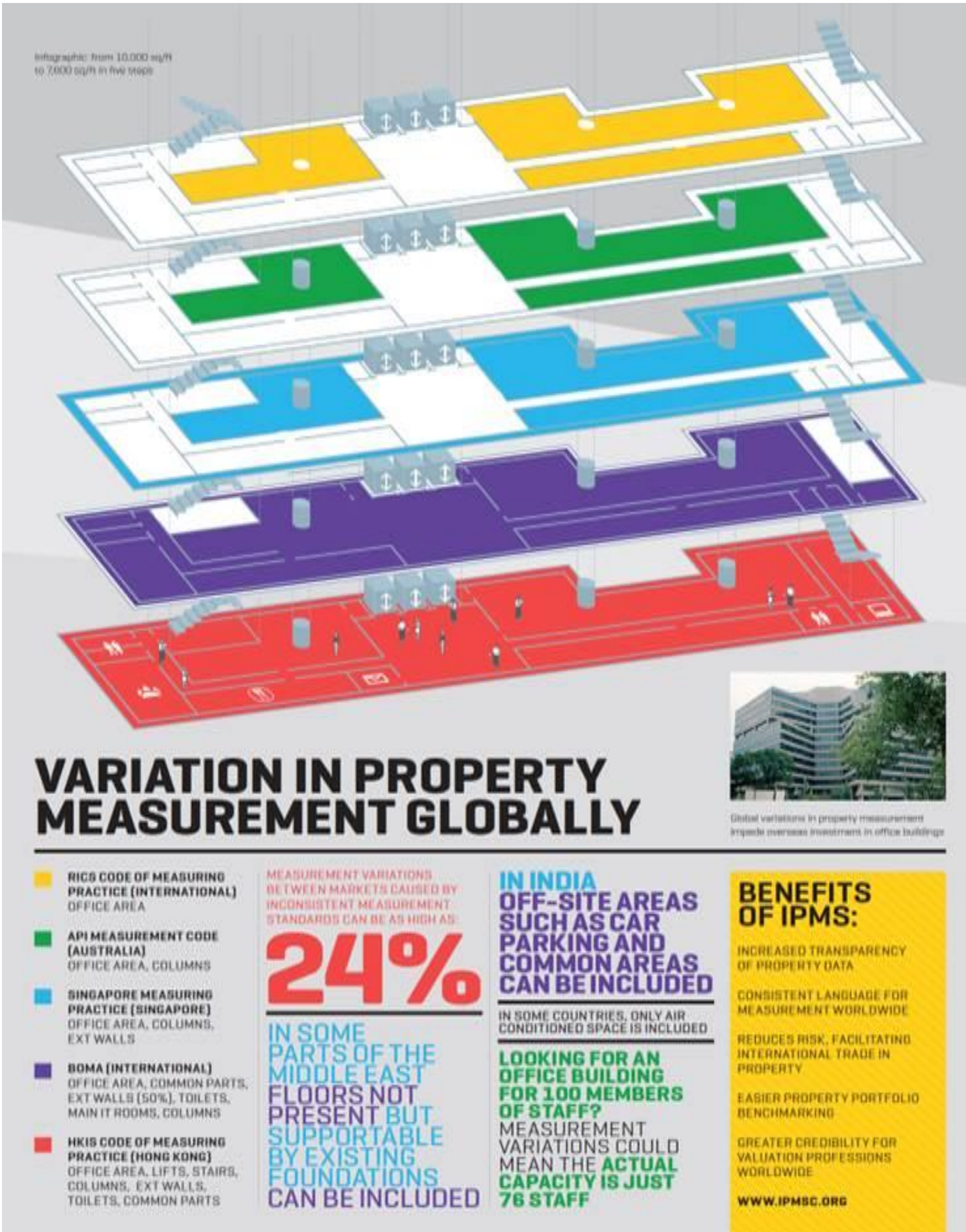
- In India, floor measurements can include off-site **car parks** as well as common areas.



- In the U.S. sometimes the **air-conditioned space** is used instead.



Variations of up to 24% globally can have a material impact on asset owners



International standards now exist to address these issues

ILMS International
Land
Measurement
Standards

International Land Measurement Standards create a globally consistent, fit for purpose, basis of recording and reporting information relevant to land and property transactions. The standards help reduce risk by ensuring consistency, and supporting land governance, robust conveyancing, secured lending and land registration.

ICMS INTERNATIONAL
CONSTRUCTION
MEASUREMENT
STANDARDS

International Construction Measurement Standards establish a single, globally agreed approach for presenting construction costs.

Standardising the presentation of costs on projects allows:

- More effective global cost comparisons
- Better investment and funding decisions
- Improved cost prediction and management
- Consistent accounting

IPMS INTERNATIONAL
PROPERTY
MEASUREMENT
STANDARDS

International Property Measurement Standards establish a single, globally agreed approach to measuring buildings. The standards are incorporated in the RICS Property Measurement Professional Statement, which professionals are required to follow and are regulated against.



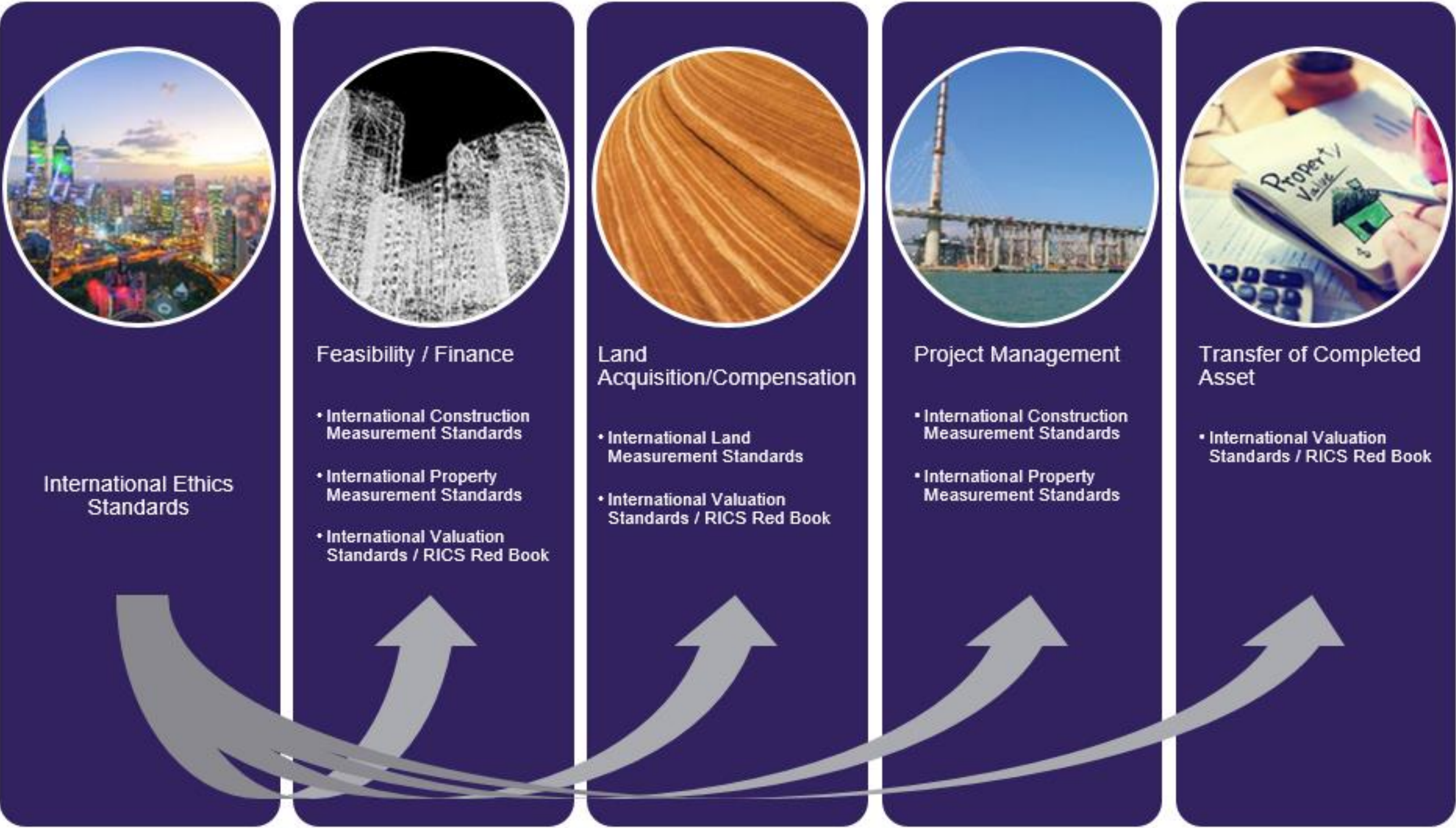
International Valuation Standards, adopted in full into the RICS Red Book, establish a single, globally agreed approach to conducting valuations across all asset classes including real property, businesses and financial instruments.

RICS reinforce these standards through an active regulation regime for all professionals providing opinions of value.

IES INTERNATIONAL
ETHICS
STANDARDS

International Ethics Standards establish high-level, global ethics principles for professionals operating in the land, property, construction and infrastructure sectors. These principles ensure professionalism is delivered consistently and transparently throughout the world.

International standards cover the asset life-cycle



ICMS presents a unique opportunity to improve **asset life-cycle performance**

ICMS INTERNATIONAL
CONSTRUCTION
MEASUREMENT
STANDARDS

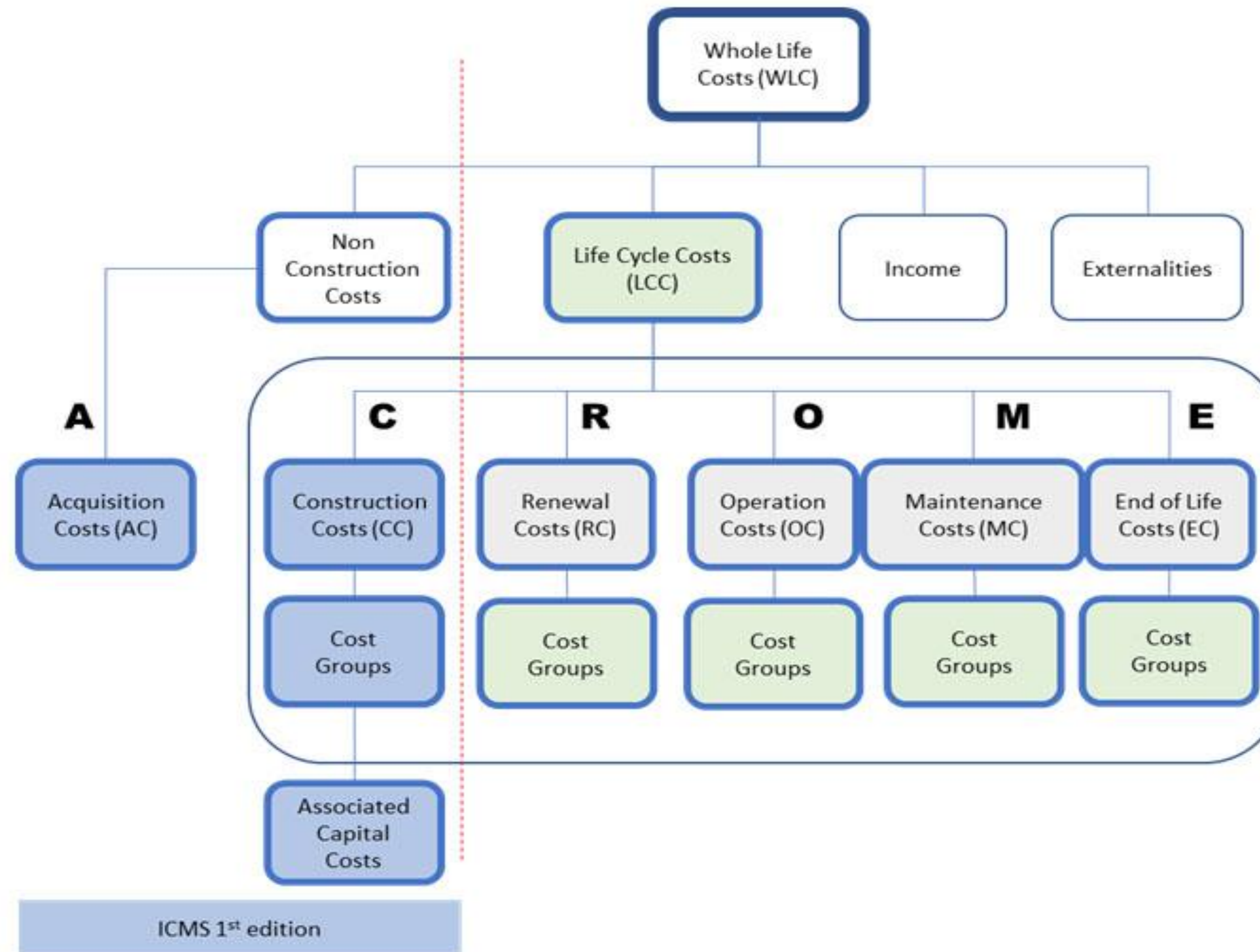
International Construction Measurement Standards: Global Consistency in Presenting Construction Costs

International Construction Measurement Standards Coalition

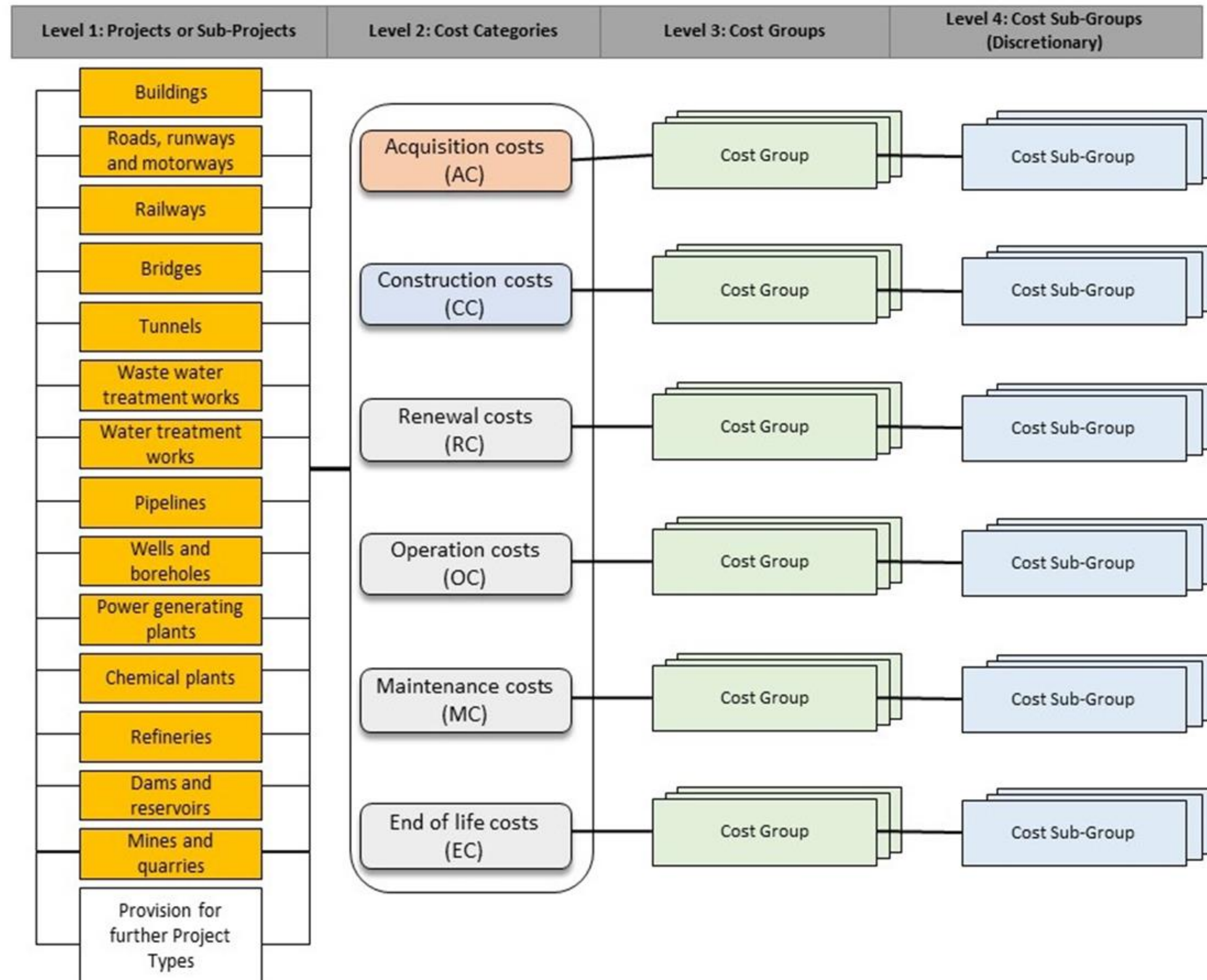


- **International Construction Measurement Standards (ICMS)** establish a global standard for assessing project costs.
- ICMS defines what should be included in the calculation of a project's costs and how the data should be reported, enabling global consistency.
- **Project life cycle costs** play a pivotal role in the financial management of construction projects around the world. They allow critical decisions to be made regarding the relative importance of capital and longer-term costs, which ultimately impact asset performance, longevity, disaster resilience and sustainability.
- **ICMS2** is being released in Sep 2019 and covers project life cycle costs – as well as pure construction costing

ICMS provides a global **project life-cycle cost classification** ...

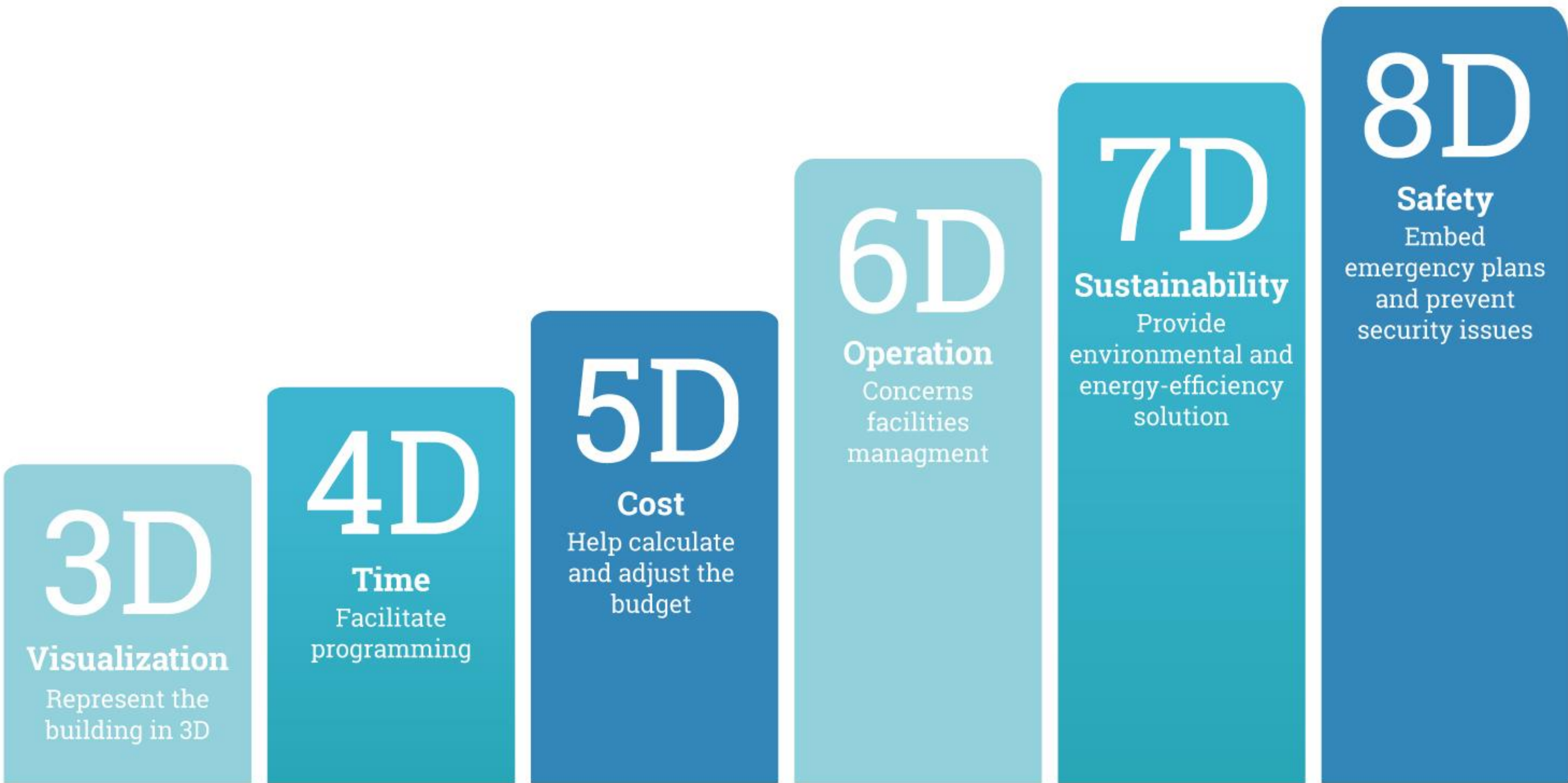


ICMS enables consistent reporting for **property and infrastructure** assets





BIM is a data-driven holistic modelling system that is based on 3D CAD



Questions and Answers



**USE THE Q&A
FUNCTION**



POLL (2)

Which of these do you think are the major barriers in your country in the development of a public asset registry (PAR)? (select all that apply)

- Lack of existing data and the need to collect from scratch
- Lack of understanding on IT and implementation solutions
- Difficulty in changing behaviors on how to use the data
- Difficulty in integrating existing data from different sources
- Lack of knowledge on how to implement a PAR

Thank you



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