

# UK Environmental Observation Framework

## UK-EOF Data Solutions Workshop

### Breakout Session C: National Infrastructure

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# Breakout Session C: National Infrastructure

- **Contents:**
  - What do we mean by National Infrastructure?
  - Why are we looking at this?
  - What is a Data Warehouse?
  - Future requirements from UK-EOF – can the infrastructure cope?
  - How does this relate to the Data Status Table?
  - Are we SEIS ready?

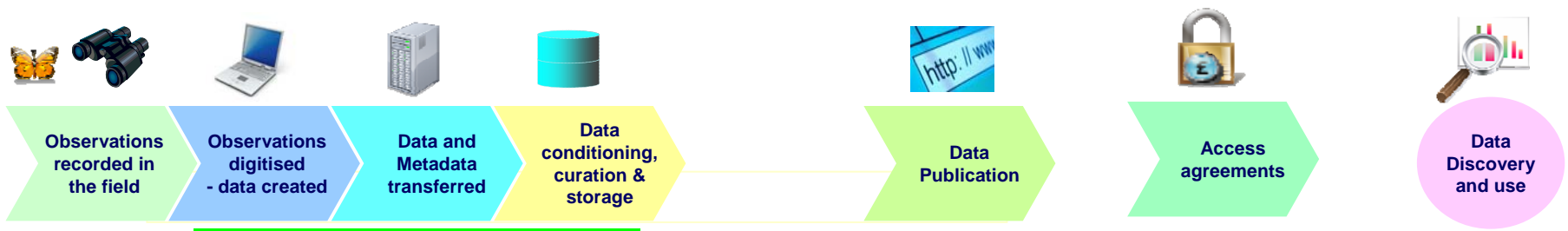


## Breakout Session C: National Infrastructure

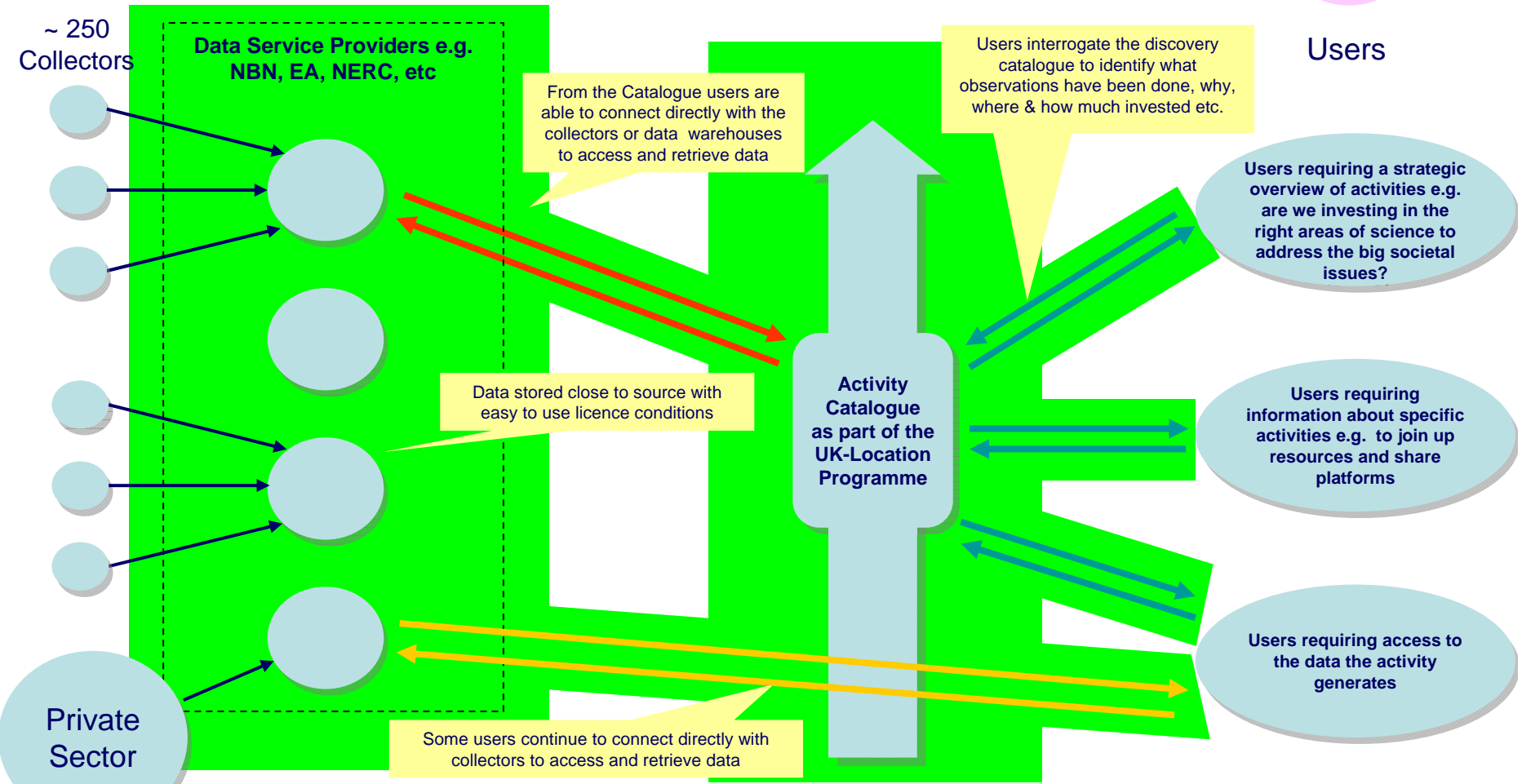
- What do we mean by National Infrastructure?
  - Primarily this session is addressing the technology required to enable metadata and the data itself to be accessible to users
  - In this session we will not be discussing the additional effort that might be required to carry out the conditioning of the data. This will be addressed in Session B
  - We will though discuss the technology required for enabling data to be transferred consistently

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~ 250 Collectors



CONTRACTS & STANDARDS (via Location Council)

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- So what does the national infrastructure cover?
  - Physical hardware of the ‘pipes and buckets’
  - The schema required to enable different elements to talk to each other
  - The standards required to ensure greater consistency and to enable interoperability



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- Why are we looking at this?
  - We need to make the UK-EOF DI work and if additional infrastructure is required, this needs to be provided
  - The Business Case that the UK-EOF team is putting together will identify the additional requirement and seek to justify the investment



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- What is a 'Data Warehouse'?
  - In this context a data warehouse is the repository for observation data and metadata from the programmes and activities undertaken by or on behalf of the UK
  - Different descriptions:
    - Data Warehouse
    - Data Archive Centre
    - Data Grid (NERC)
    - Data Service Providers (Location Programme)
    - **Are there any more?**



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- What is a 'Data Warehouse'? (cont)
  - Examples of key facilities managed by:
    - NERC
    - Environment Agency
    - British Library
    - UKHO
    - INSPIRE/ Location Programme
    - NBN
    - Defra Network e.g. SPIRE
    - Ordnance Survey
  - What others exist e.g. for storing data from smaller/ diverse collectors? (group 1)
  - Do they cover all the domains/ observation collectors (over 250)? (group 2)
  - What additional infrastructure is required to enable all data to be stored? (plenary)





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- Current capability and future requirements?
  - Increasing demands from achieving the UK-EOF vision:
    - Discovery Catalogue
    - Requirement to publish programme/ activity metadata
    - Improving access to the data
    - Future increase in standards for collecting, storing and publishing data
  - What will be the impact on the current infrastructure? (Group 1)
  - How will this need to be addressed? (Group 2)
  - What are others e.g. Location Programme doing to address these issues? (Group 1 & 2)

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- How does this relate to the Data Status Table?
  - will provide the means to evaluate performance and
  - report on the ability to store and transfer data and metadata effectively from one place to another
  - the resulting table will enable UK-EOF to highlight where resources need to be directed



## UK-EOF Data Initiative – Data Status Table Example

Data set e.g.	Data and Metadata Generation				Storing & Archiving			Publishing/ Sharing		Access Agreements	Overall Ability to re-use
	Collection Standards	Data entry/ digitisation	Quality Assurance i.e. checking & Cleaning	Creation of data documentation & Metadata	Place to store physical samples	Place to store electronic data	Long term preservation strategy	Publication place e.g. portal	Publication standards e.g. Gl or INSPIRE		
<b>Atmosphere</b>											
Example 1	Green	Green	Red	Green		Yellow	Yellow	Yellow	Red	Red	Yellow
Example 2	Green	Green	Yellow	Yellow		Yellow	Yellow	Green	Green	Red	Yellow
Example 3	Green	Green	Green	Green		Yellow	Green	Yellow	Red	Red	Green
<b>Biosphere</b>											
Example 1	Green	Green	Green	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Example 2	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Red	Red	Green
Example 3	Green	Green	Green	Green				Green	Green	Red	Green
<b>Lithosphere</b>											
Example 1	Green	Yellow	Yellow	<b>This is an example, for illustrative purposes only</b>				Yellow	Red	Red	Red
Example 2	Green	Green	Green					Red	Green	Red	Red
Example 3	Green	Green	Green					Green	Green	Yellow	Yellow
<b>Cryosphere</b>											
Example 1	Red	Red	Green	Green		Yellow	Yellow	Yellow	Red	Red	Red
Example 2	Green	Green	Green	Yellow		Yellow	Yellow	Yellow	Red	Red	Red
Example 3	Green	Green	Yellow	Yellow		Yellow	Yellow	Yellow	Yellow	Red	Red
<b>Fresh Water</b>											
Example 1	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green
Example 2	Green	Green	Yellow	Green	Green	Yellow	Yellow	Green	Red	Red	Green
Example 3	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
<b>Marine</b>											
Example 1	Green	Green	Red	Red	Red	Red	Yellow	Yellow	Red	Red	Red
Example 2	Green	Red	Red	Green	Green	Yellow	Green	Yellow	Red	Red	Red
Example 3	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Red	Red	Green

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- How does this relate to the Data Status Table?
  - Place to store electronic data
  - Long term preservation strategy
  - Publication place e.g. portal
  - Publication standards e.g. GI or INSPIRE
- From the perspective of National Infrastructure, what is required to ensure that these are green?



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- Are we SEIS ready?
  - How does this relate to SEIS?
  - What area is SEIS going to impact?
  - Is there anything else required for SEIS or any other initiative?

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## Breakout Session C: National Infrastructure

- Wrap up prior to plenary
  - What are the key messages we wish to pass back to plenary?
  - Are there any other issues we have not covered?

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