

## UK-EOF Data Solutions Workshop

### The UK-EOF Data Initiative The Data Lifecycle

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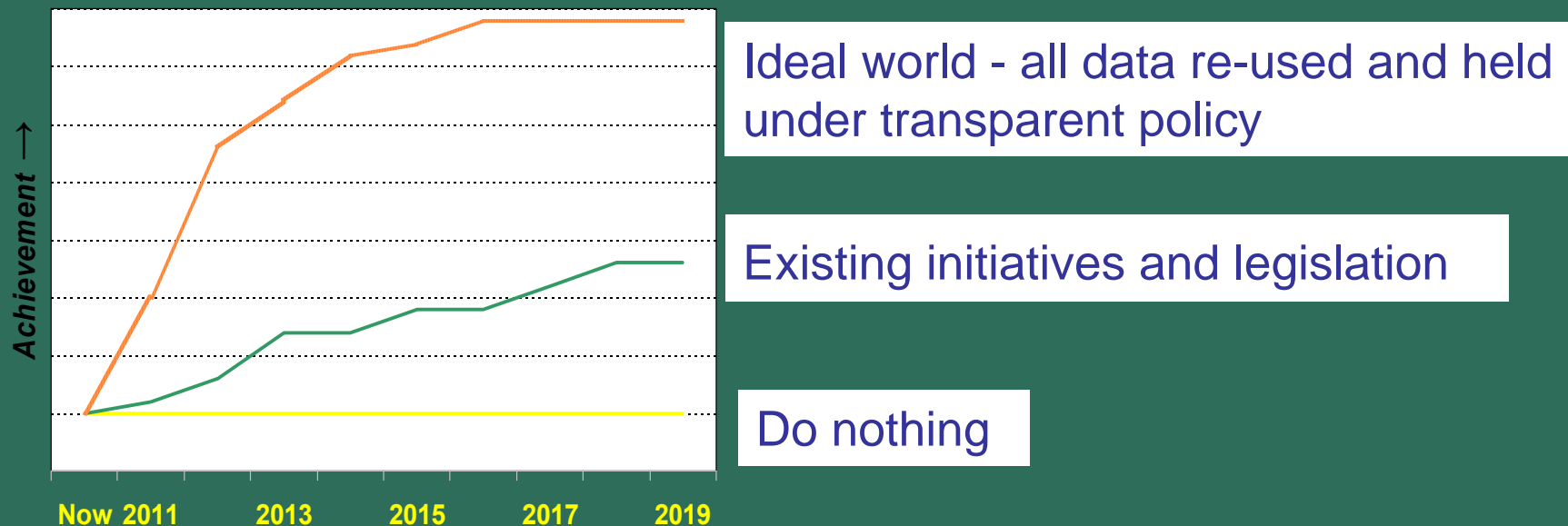


# The Data Lifecycle

- **Contents:**
  - Why are we doing this?
  - Introducing the Data Lifecycle model
  - Data Status Table
  - What is UK-EOF doing?
  - Phasing of the delivery programme
  - Effort required to reuse data
  - Summary & Conclusion



# Addressing data issues in the UK



- Unanimous agreement at senior Gov level – there are complex and challenging problems across the UK
- Existing / forthcoming legislation tackles only part of the story
- The new ‘Location Strategy’, INSPIRE and SEIS will help
- Senior leadership is essential to change the culture and organisational issues
- A project is required to realise the objectives – WS2b UK-EOF Data Initiative



# The Data Lifecycle



**Observations  
recorded in  
the field**





# The Data Lifecycle



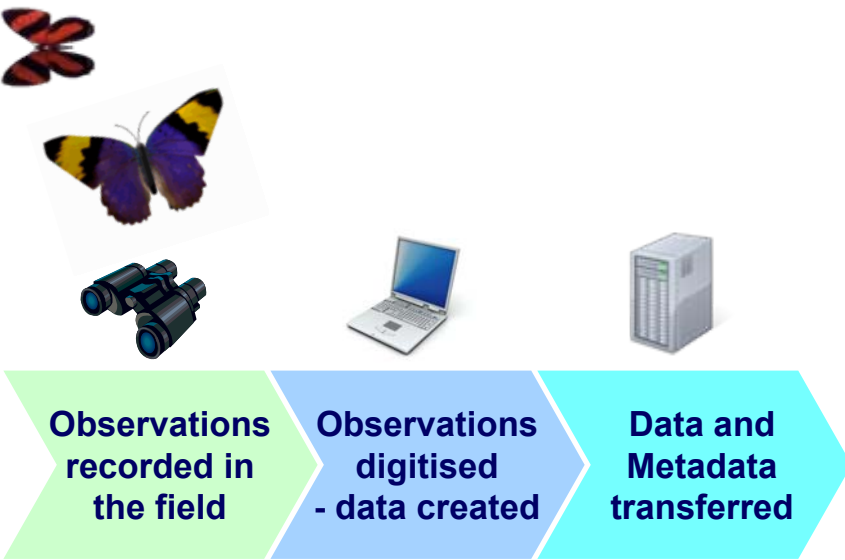
**Observations  
recorded in  
the field**

**Observations  
digitised  
- data created**





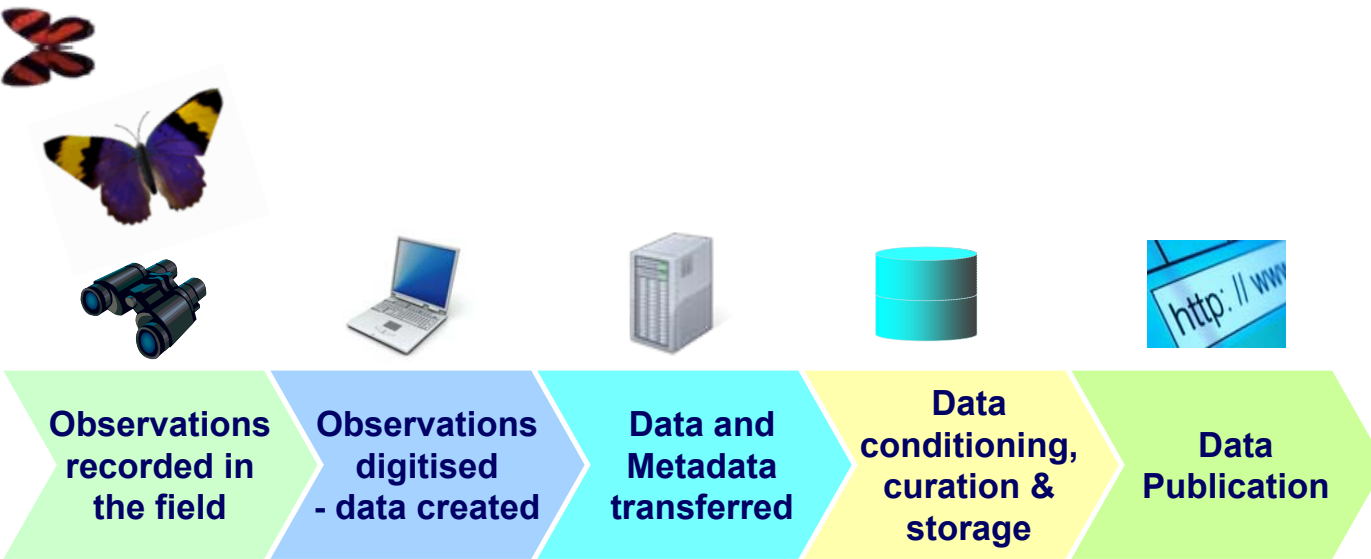
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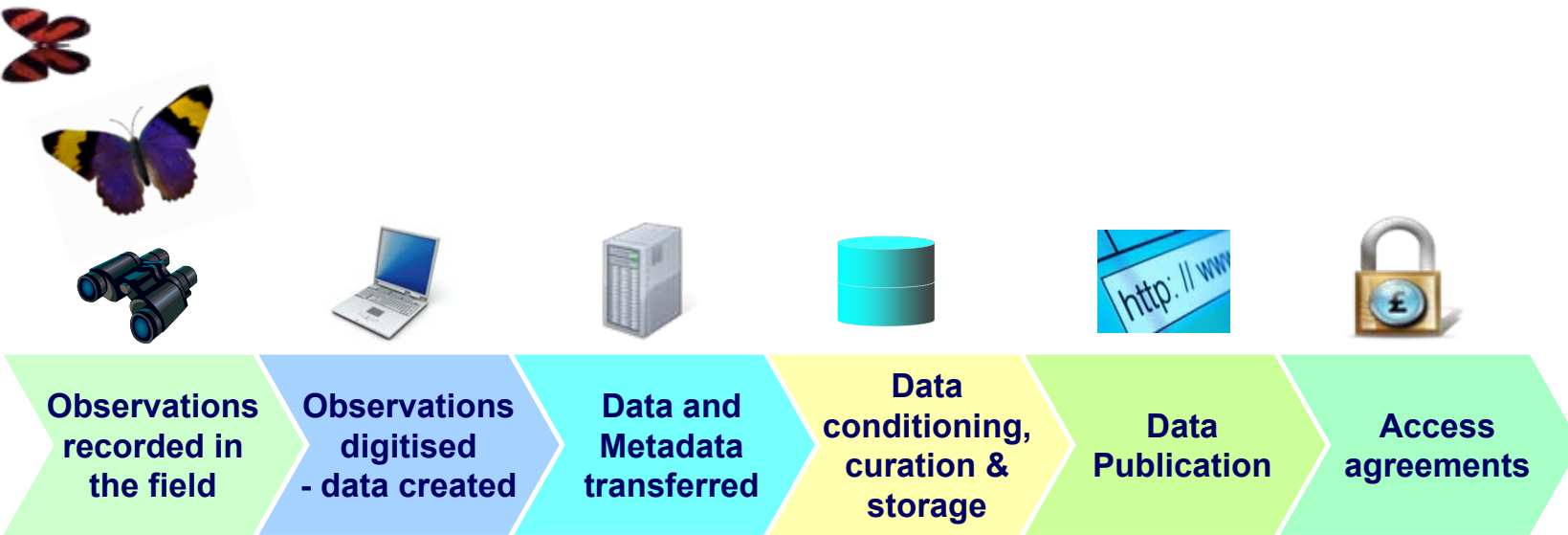


# The Data Lifecycle

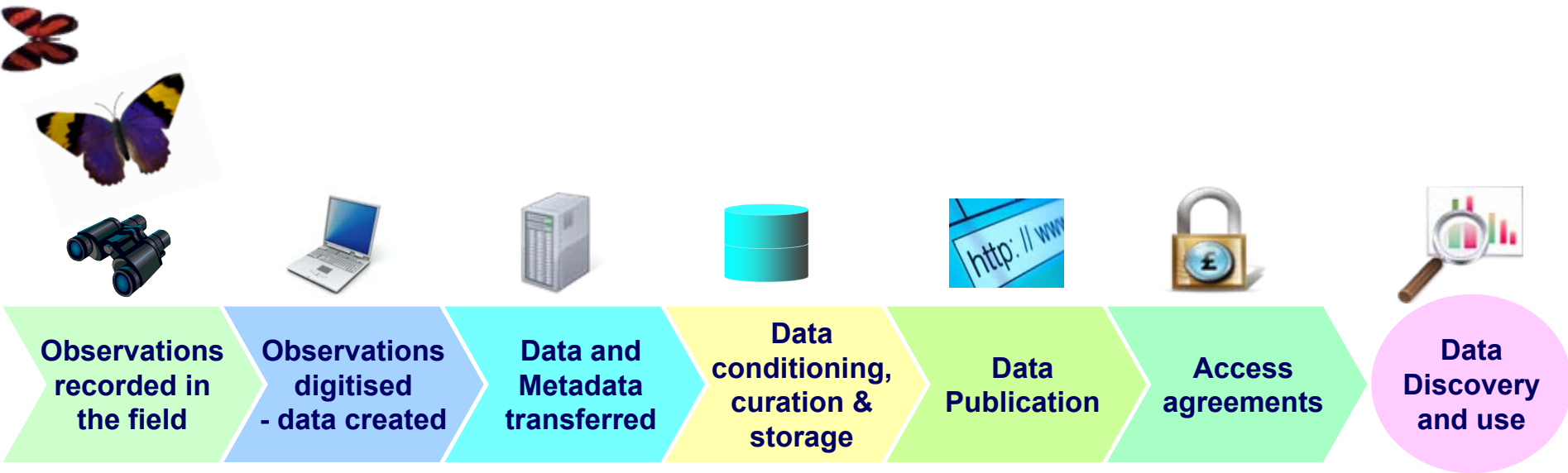


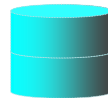


# The Data Lifecycle



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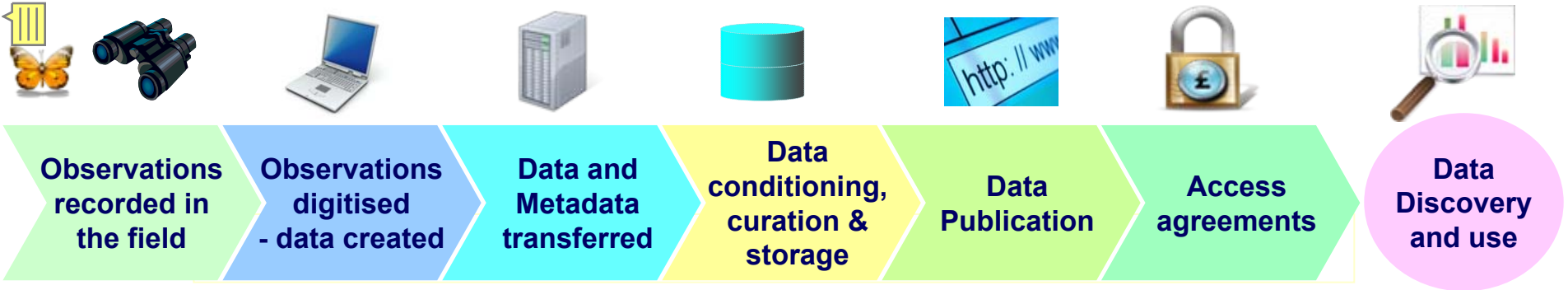


<b>Data and Metadata Generation</b>				<b>Storing &amp; Archiving</b>			<b>Publishing/ Sharing</b>		<b>Access Agreements</b>	<b>Overall ability to reuse</b>
Collection Standards	Data entry/ digitisation	Quality Assurance i.e. checking & cleansing	Creation of data documentation & <u>metadata</u>	Place to store physical samples	Place to store electronic data	Long term preservation strategy	Publication place e.g. portal	Publication standards e.g. GI or INSPIRE		

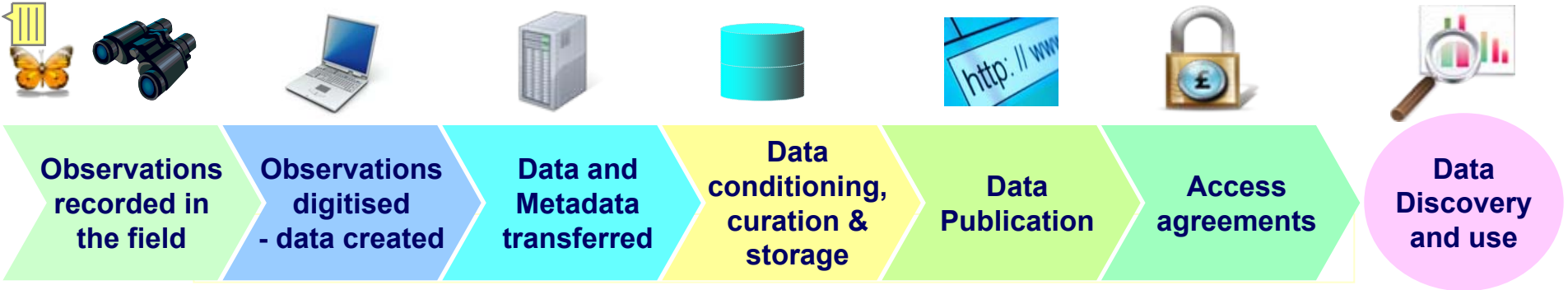


## UK-EOF Data Initiative – Data Status Table Example

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. GI or INSPIRE		
<b>Atmosphere</b>											
Example 1	Green	Green	Red	Green	Yellow	Yellow	Yellow	Yellow	Red	Red	Yellow
Example 2	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Red	Yellow
Example 3	Green	Green	Green	Green	Yellow	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	Yellow	Yellow	Yellow	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	Red	Green	Red
Example 3	Green	Green	Green					Green	Yellow	Yellow	Yellow
<b>Cryosphere</b>											
Example 1	Red	Red	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
Example 2	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
Example 3	Green	Green	Yellow	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	Yellow	Yellow	Green	Yellow	Red	Red	Red
Example 3	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Red	Red	Green



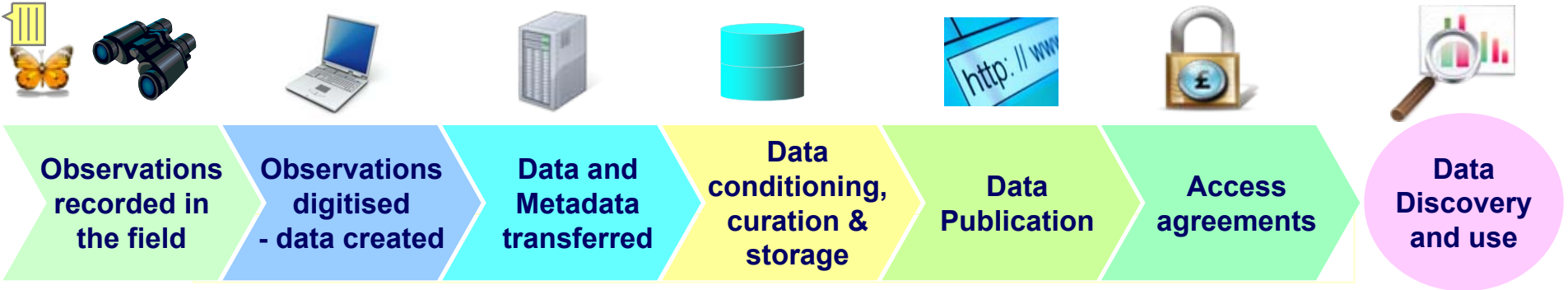
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**Quality Standards – Best Practice for data collection and storage**

**Access agreements Standards**

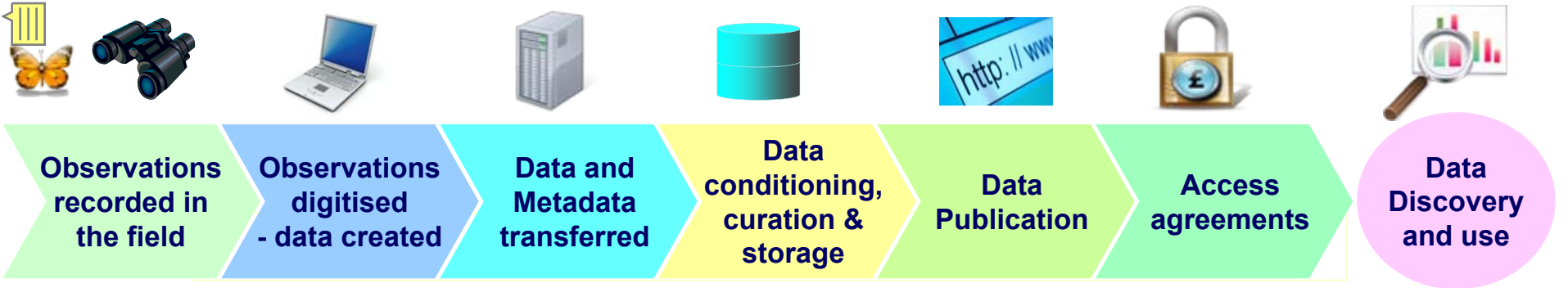


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**Quality Standards – Best Practice for data collection and storage**

**Access agreements Standards**

**Defining & implementing national infrastructure**



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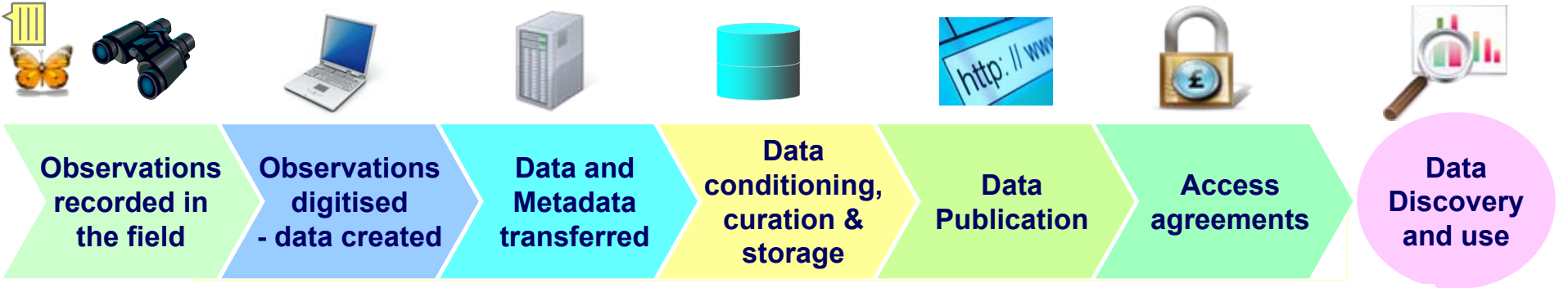
**Quality Standards – Best Practice for data collection and storage**

**Access agreements Standards**

**Defining & implementing national infrastructure**

**Observation Activity Catalogue**





## UK-EOF DATA INITIATIVE

### SCOPE

**1a Discovery Catalogue**  
 (Interim June 2009. First full catalogue June 2010)

**1b Quality & Access Standards – Best Practice for data collection, vocab control etc.**

**Phase 1**  
 To April 2010

**1c Data Policy – transparent and published, check list established**

**1d Defining storage and national environment data infrastructure (costed Sept 2009)**

1e Business Case

### IMPLEMENT & ENFORCE

**Data Policy – Implemented through contract and citation process**

**Phase 2**  
 April 2010 to April 2013

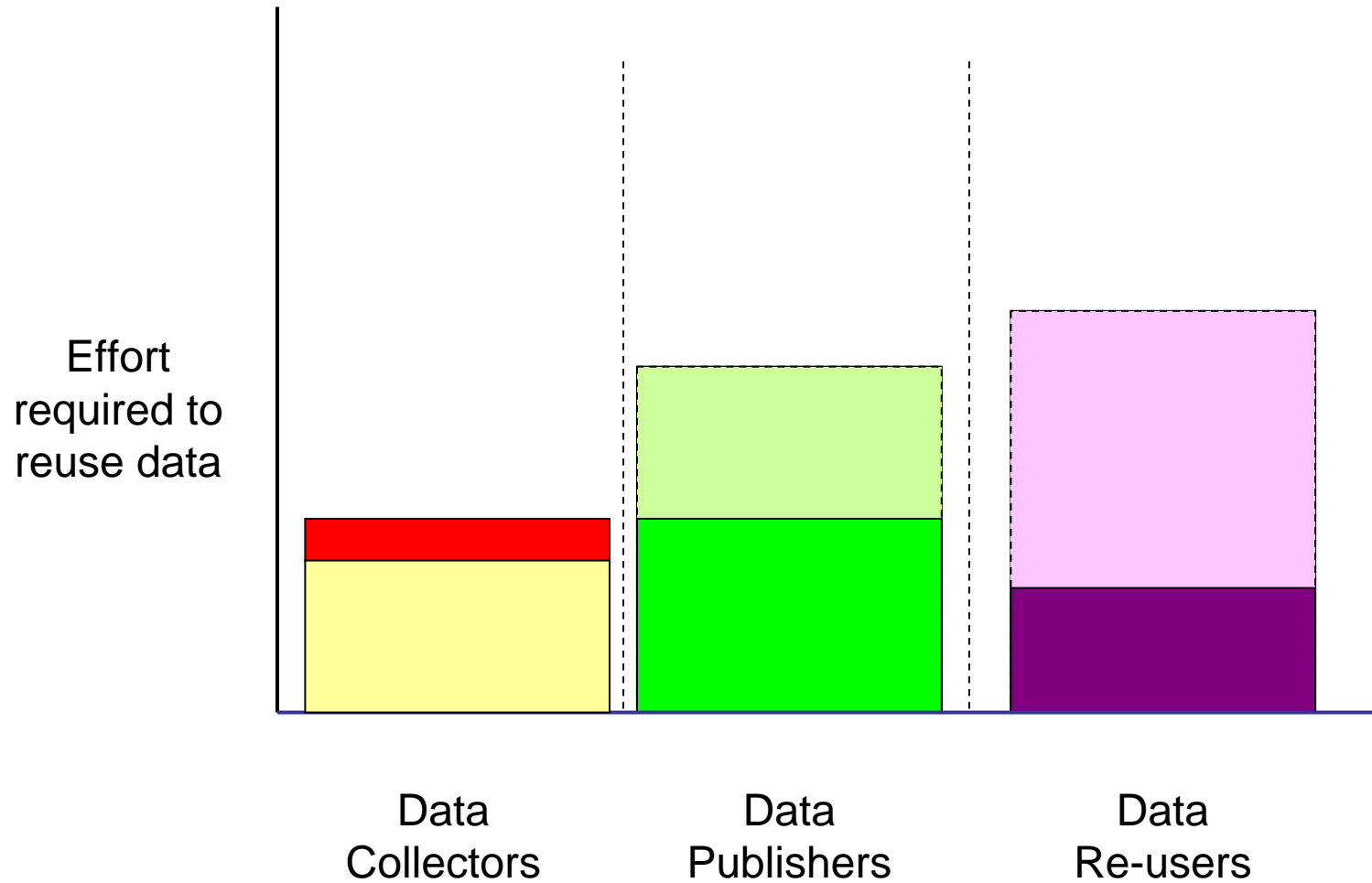
**Implement infrastructure using UK-SDI and ongoing development of the Catalogue**

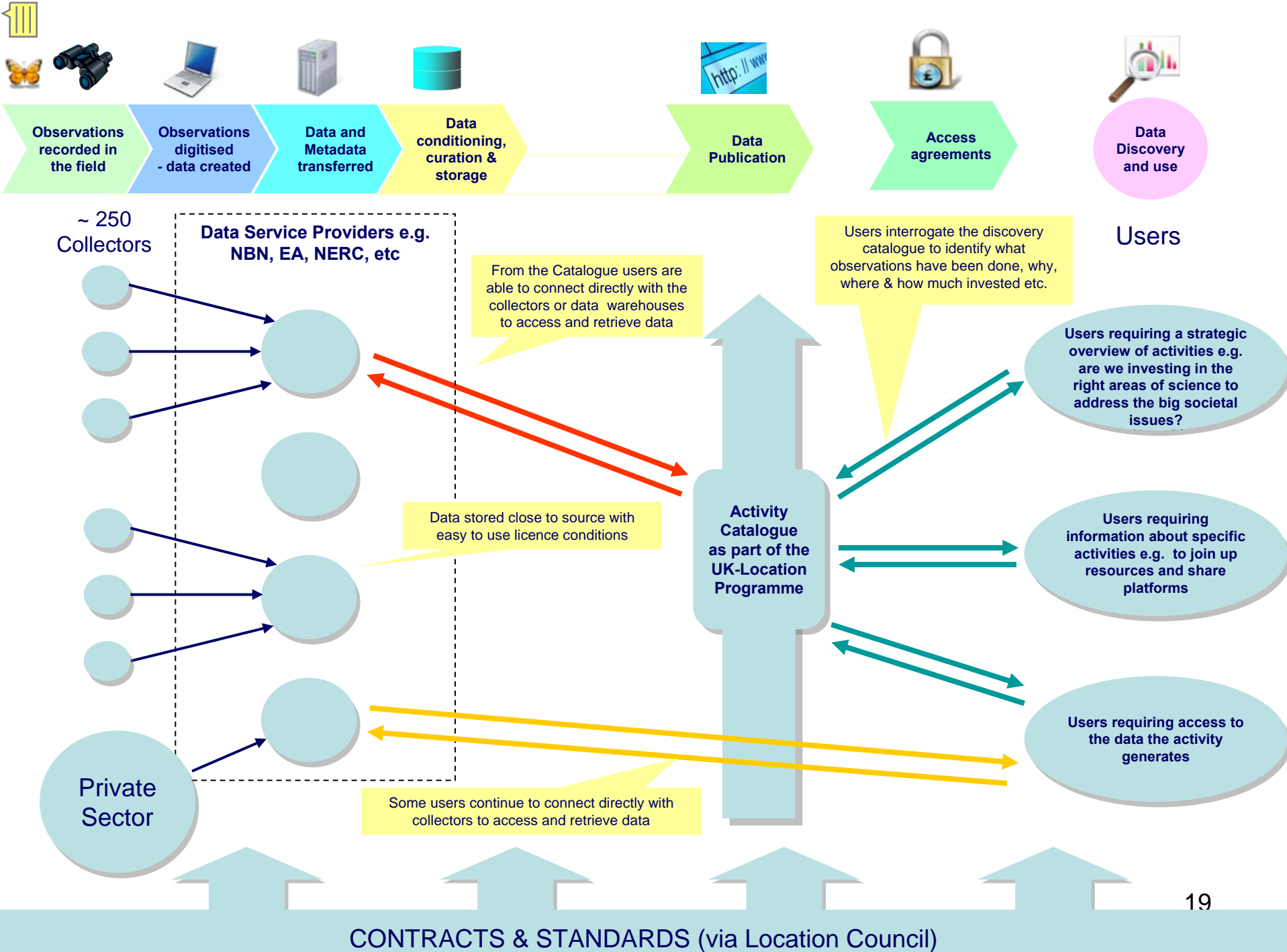
### STEADY STATE

**Phase 3**  
 From 2013



# Effort Required to Reuse Data at Each Stage of the Lifecycle







# UK-EOF Data Initiative Deliverables Summary

1. A catalogue for discovery of observation activities (2009) and access to data from 2010
2. Supporting the community on sharing data:
  - act as a funnel for the vast number of data initiatives
  - translate the mandatory data management requirements into understandable instructions and tools
  - provide a focal point for the UK input to the GMES insitu work and GEOSS
3. Data will be valued within and between each organisation
  - it is collected, held and stored under a transparent data management policy
  - funders of data use 'good practice' contract clauses
  - proper acknowledgement when data is reused so that collectors get credit e.g. via a data citation system
4. Ensuring that (by working with others) there is full & effective infrastructure in place to support funders, collectors and users of environmental data
5. Independent report on progress on the UK's ability to share and reuse data using the Data Status Tables

# Conclusion

1. Many initiatives use lots of different language – its important to be clear what is being talked about
2. Are these initiatives focussed on the areas that make the greatest impact?
3. All parts of the lifecycle must function effectively
4. More effort at start of process significantly reduces effort at end
5. Change is at hearts and minds i.e. the whole culture is changing – not just a technical change
6. Many players needed to achieve the vision – this is first stage of defining goals and workplans - please engage this pm and onwards to make sure you see the changes in the areas that matter most