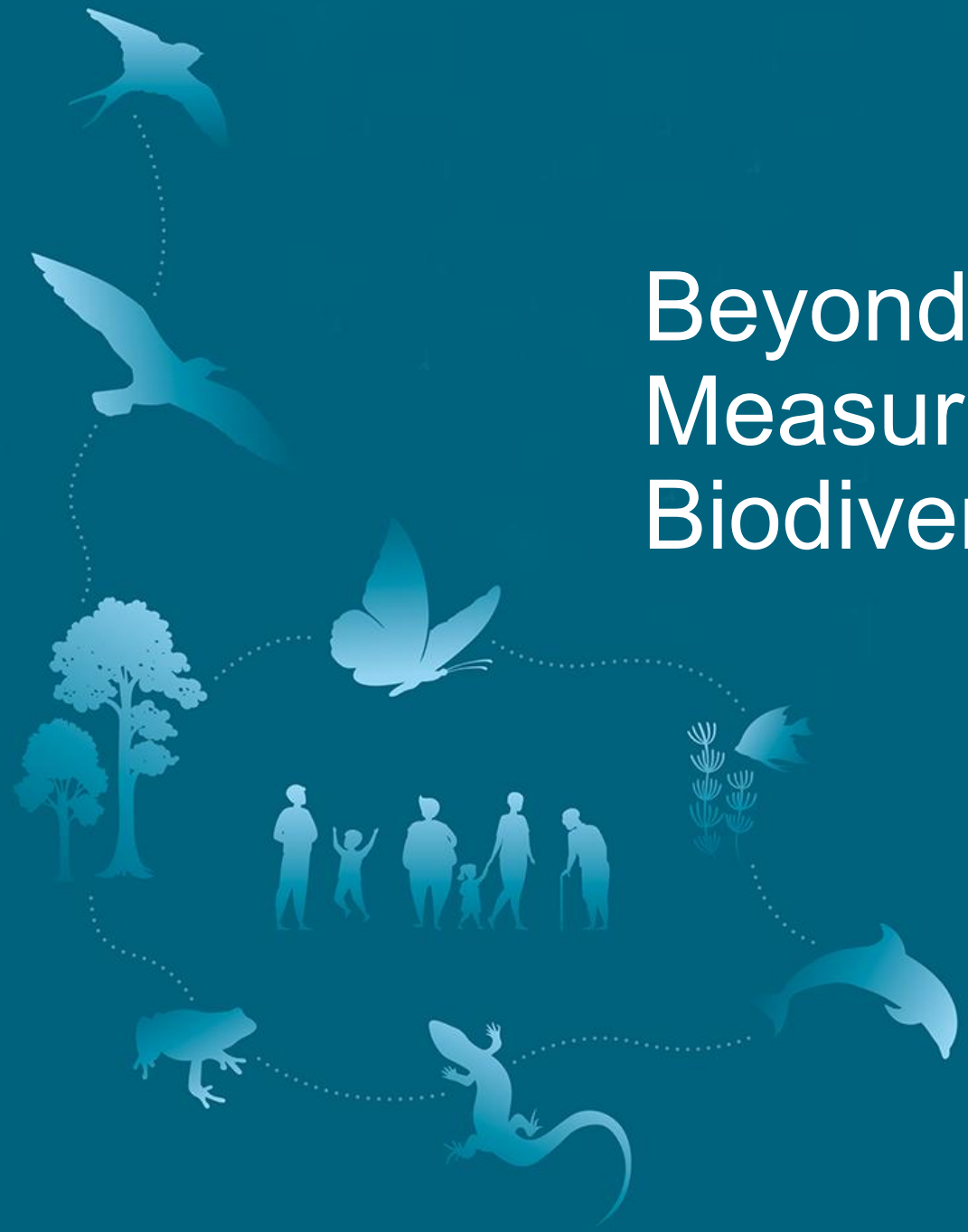


Beyond Numbers of Records: Measuring the Value of Biodiversity Data

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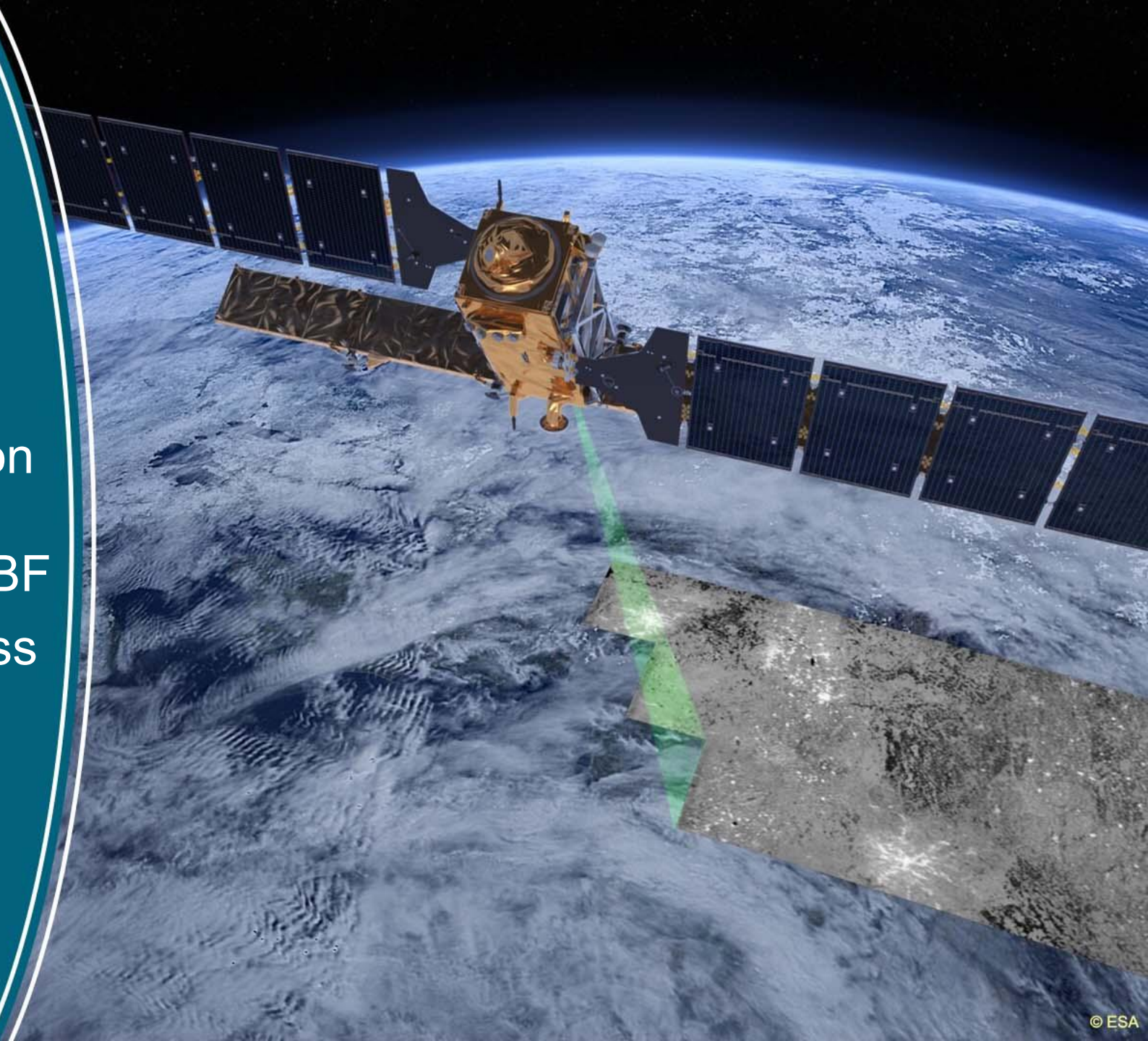
Tree Robinson
Theresa.Robinson@jncc.gov.uk

Together for Nature

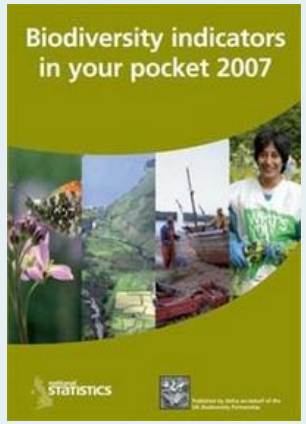
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Why biodiversity data matters

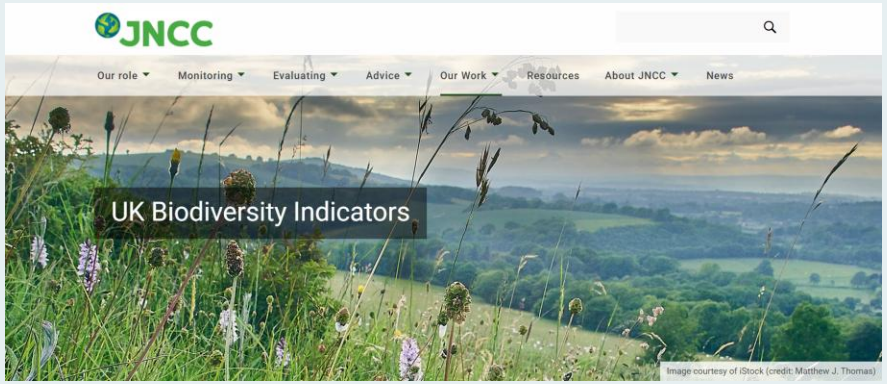
- Domestic and international and reporting needs
  - Domestic targets – e.g. on species abundance
  - International targets – GBF
- Indicators are how we assess progress towards targets but…
  - Need biodiversity data to evidence them!



UKBI background

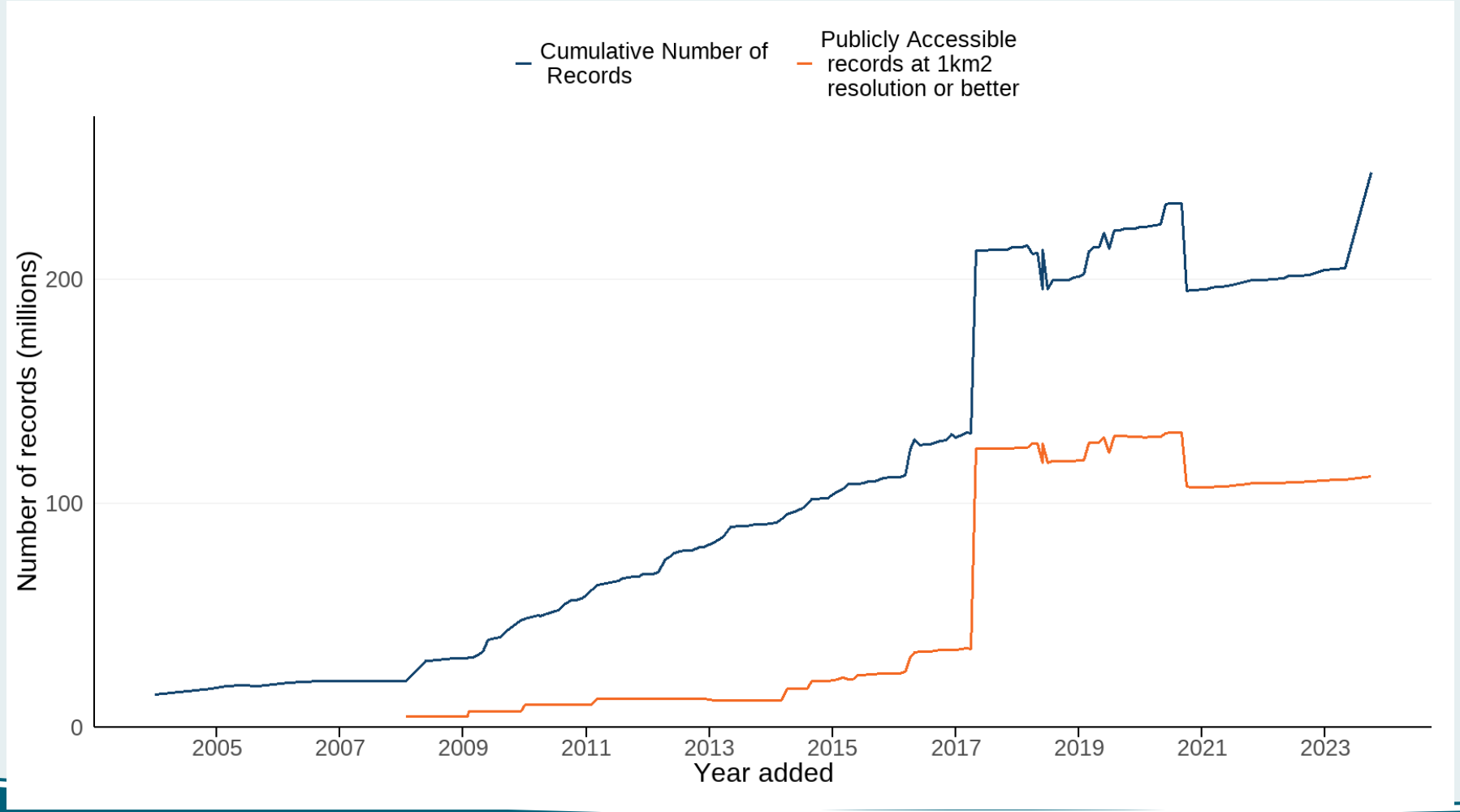


- Published ~annually since 2007
  - “Biodiversity Indicators in your Pocket”
- Accredited Official Statistics compendium
  - Office for Statistics Regulation reviewed and reconfirmed this year
- Redeveloped multiple times, for Aichi targets and then GBF
- “Biodiversity data for decision making”, published using NBN Data since 2014



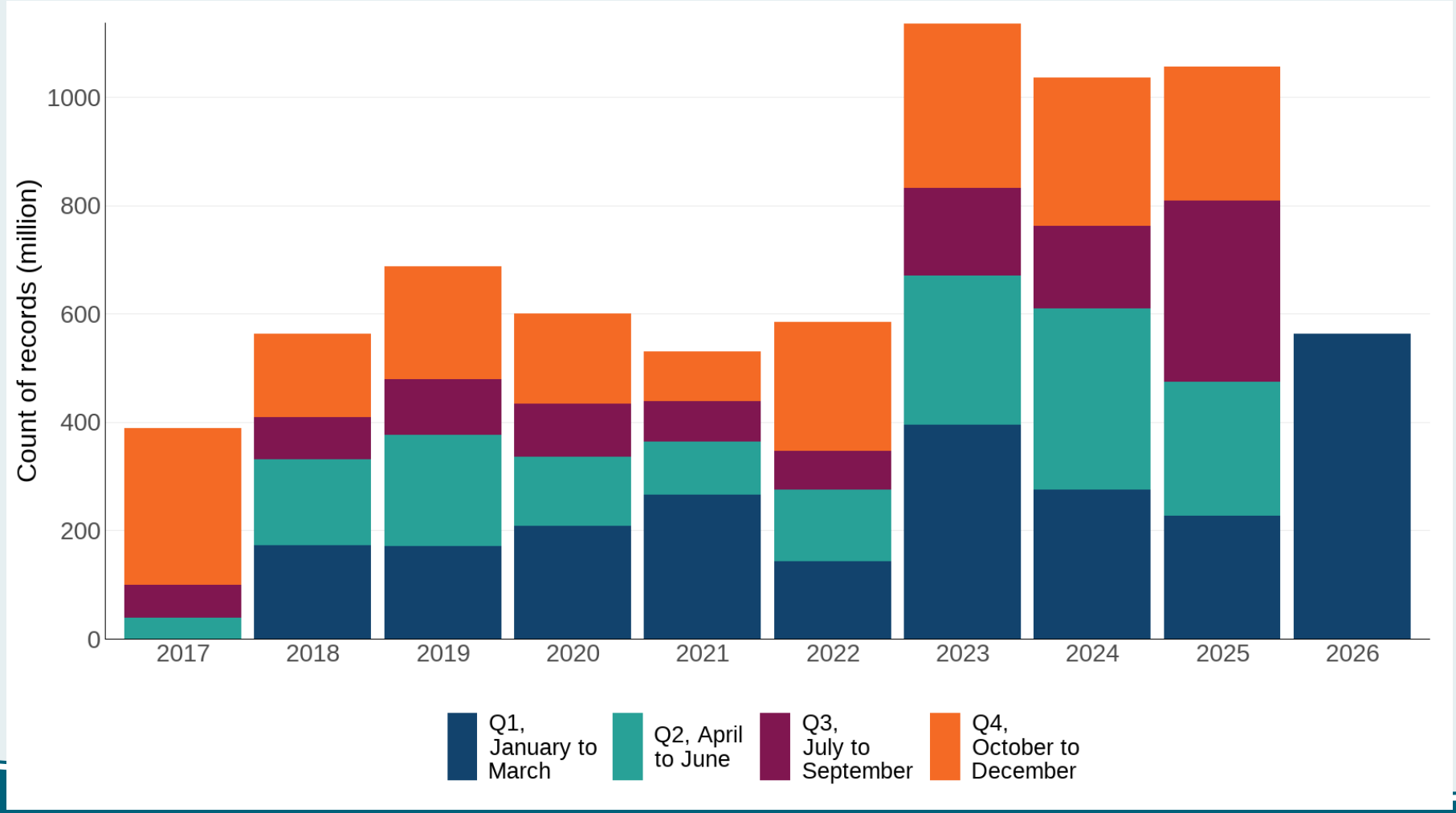
Biodiversity data for decision making

- Older version of the indicator assessed number of records by when they were added



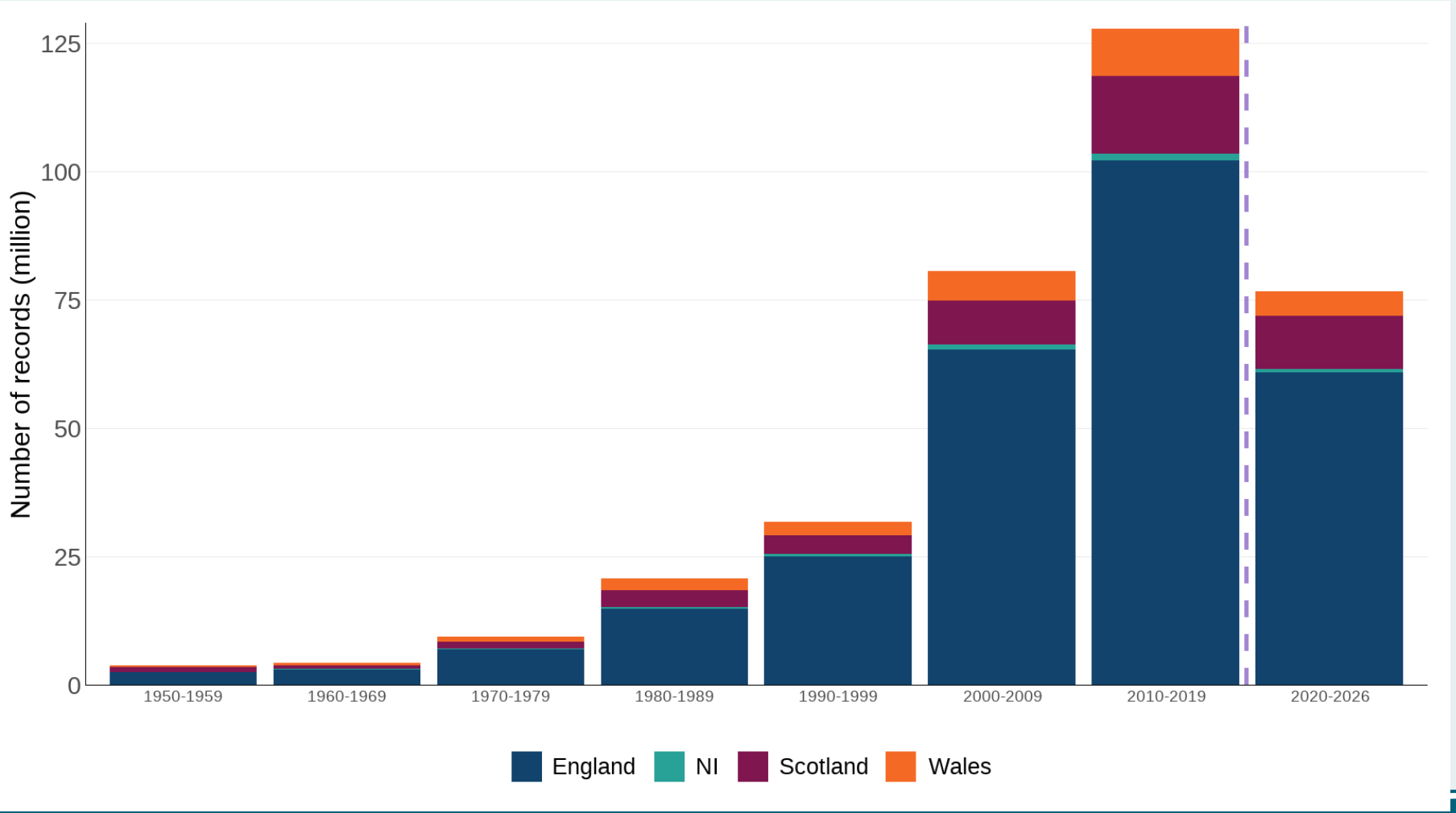
UKBI on Biodiversity Data

- New version counts records downloaded as a proxy for use



UKBI on Biodiversity Data

- Also include unique users, download events, and **total records per decade**



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FAIR (and CARE)

- UK's Headline Indicators considered among the best internationally regarding FAIR
- Ultimate goals of FAIR:
  - Cross-country comparisons
  - Internal reproducibility
  - Capacity building
- What can we do better?
  - Share code and workflows for international capacity building
  - Introduce DOIs and persistent identifiers
  - Clarify licensing for methods, code and datasets



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Can the data answer the biodiversity questions society is asking?

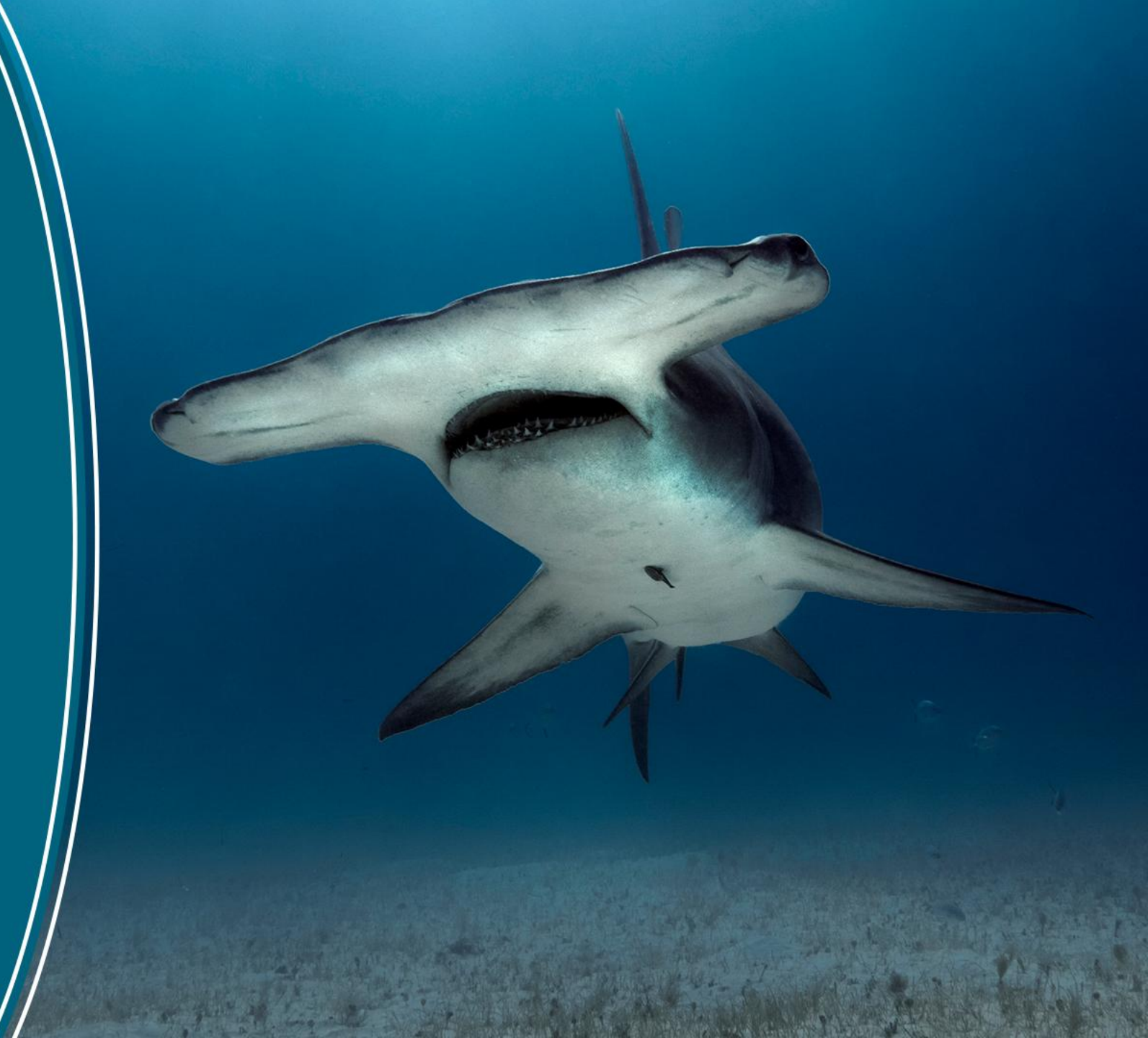
- NBN Atlas as critical infrastructure
- Growing demand from GBF reporting
- Greater use across UK indicators
  - Greater use of NBN expertise!
- Opportunities for collaboration on future development



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What makes a biodiversity dataset useful for policy?

- Representative
  - Broad coverage
- High quality
  - Accurate identification
- Well documented
  - Metadata
- Widely accessible
  - Discoverable / downloadable
- Useful
  - Focused on key questions
- Sustainable
  - Ongoing monitoring key for indicators



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Where gaps are

- Representativeness across taxa
- Priority species and habitats
- Geographic gaps
- Marine
- Linking observations to action



Where could NBN data take us next?

- Currently primary contribution is to Biodiversity Data indicator
  - Also, Headline Indicator A.4 on Genetic Diversity of Wild Species
- NBN data could also contribute to other indicators:
  - Species distribution indicators
  - Potential species recovery metrics:
    - Distribution
    - Richness
- **Consistency in recording approaches is key for indicators**
- What do we need from the NBN to achieve this?

AI and data – the next decade

Could help

- Species identification
- Automated QA
- Metadata generation
- Record validation support

Could bring challenges

- Verification burden
- Bias amplification
- Provenance
- Trust

Questions for users

- What level of confidence is needed?
- How should AI-assisted records be flagged?
- What evidence standards should apply?

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Together for Nature

