UK Hydrographic Office

Marine Spatial Data Infrastructure

Presented to IHO MSDIWG 13 by
Helen Phillips

May 2022

UK Hydrographic Office

UKHO Data Governance & our Data Principles

UKHO Data Principles

1. Data is an Asset that has Value

- a. We Source Once, Use Many
- b. We retain received data As-Is
- c. We prioritise data collection and analysis
- d. We maximise the value of data
- e. We ensure our own datasets comply with the Data Principles

2. Data must be Safeguarded

- a. One Way In and One Way Out
- b. We own and protect data
- c. We manage the data lifecycle
- d. We record data lineage

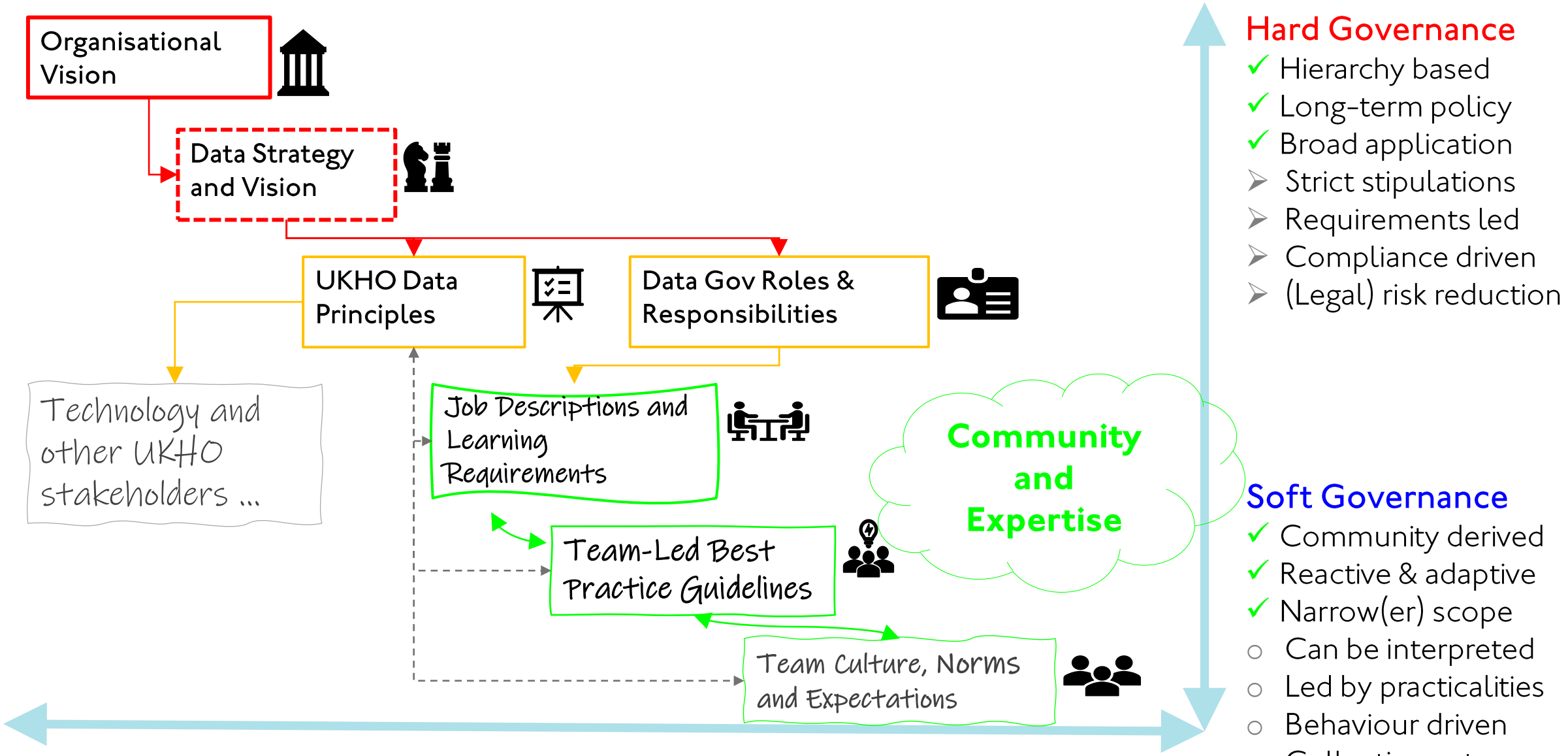
3. Data must be Easy to Use

- a. Our data has metadata
- b. Our data is sharable
- c. Our data is standardised
- d. Our data adheres to FAIR Principles
- e. We present data appropriately

4. Data must be Fit for Purpose

- a. We define data purpose at an appropriate level
- b. We define and understand data veracity
- c. We monitor data veracity

Best Practice in its wider Context



Hard Governance
- ✓ Hierarchy based
- ✓ Long-term policy
- ✓ Broad application
- ➢ Strict stipulations
- ➢ Requirements led
- ➢ Compliance driven
- ➢ (Legal) risk reduction

Soft Governance
- ✓ Community derived
- ✓ Reactive & adaptive
- ✓ Narrow(er) scope
- ○ Can be interpreted
- ○ Led by practicalities
- ○ Behaviour driven
- ○ Collective outcomes

Broad focus: *Relatively* agnostic of data (*services*), people and platforms

Specific focus: *More* dependent on the technical domain and human landscape

Best Practice Guidelines

A. Safeguarding Data

A1. Contribute to the improvement of access controls to data, datasets and databases.

A2. Contribute to the improvement of backups and associated roll-back (or undo) capabilities.

B. Managing Data Assets

B1. Depending on the supplier community involved, reasonable requests to mitigate the most common and problematic data issues should be made.

B2. Create and maintain accessible, consistent, centralised and practically useful information around datasets.

C. Sharing and Transferring Data

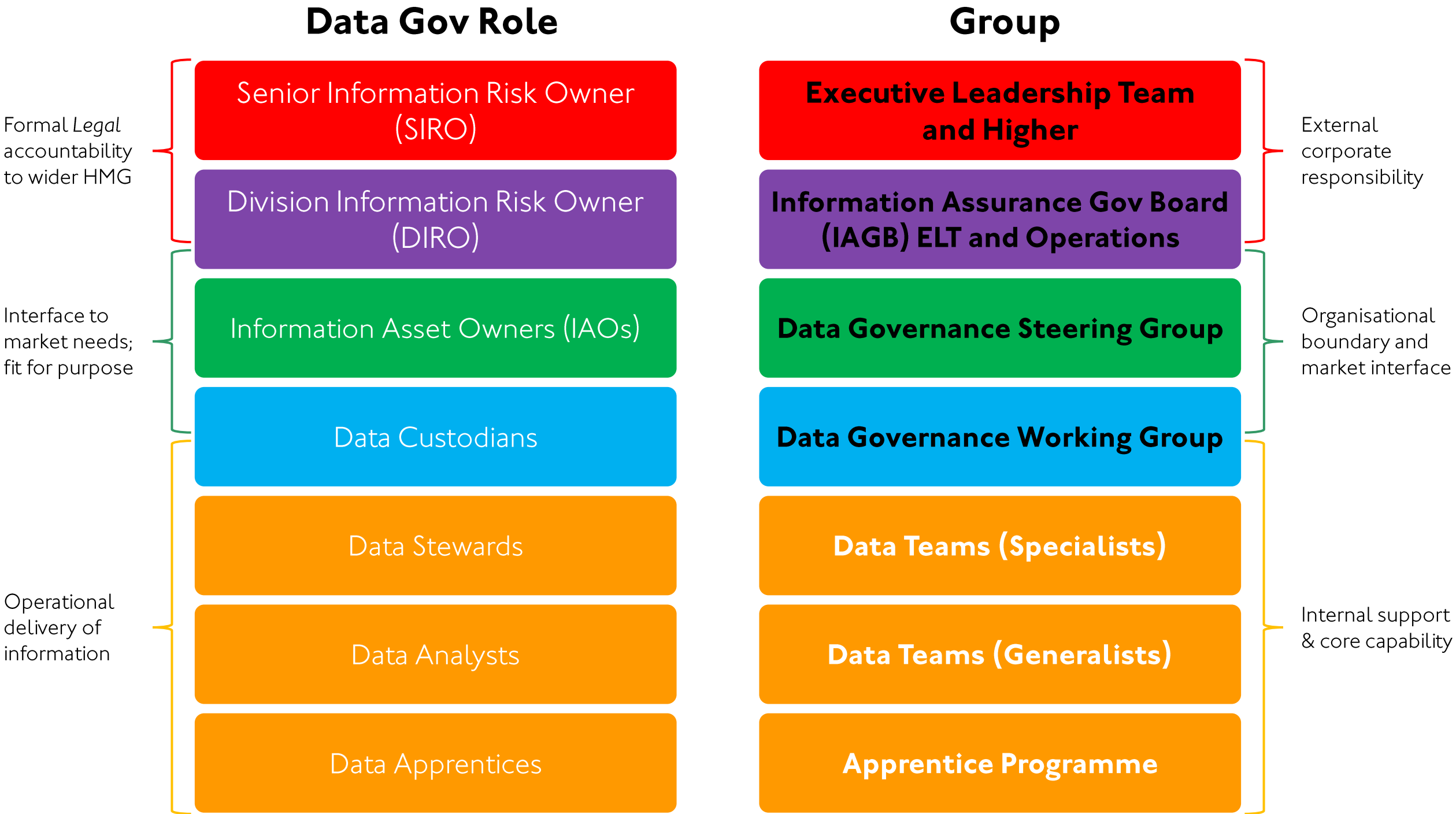
C1. Create and maintain tools for capturing useful and practical information when transferring or sharing data.

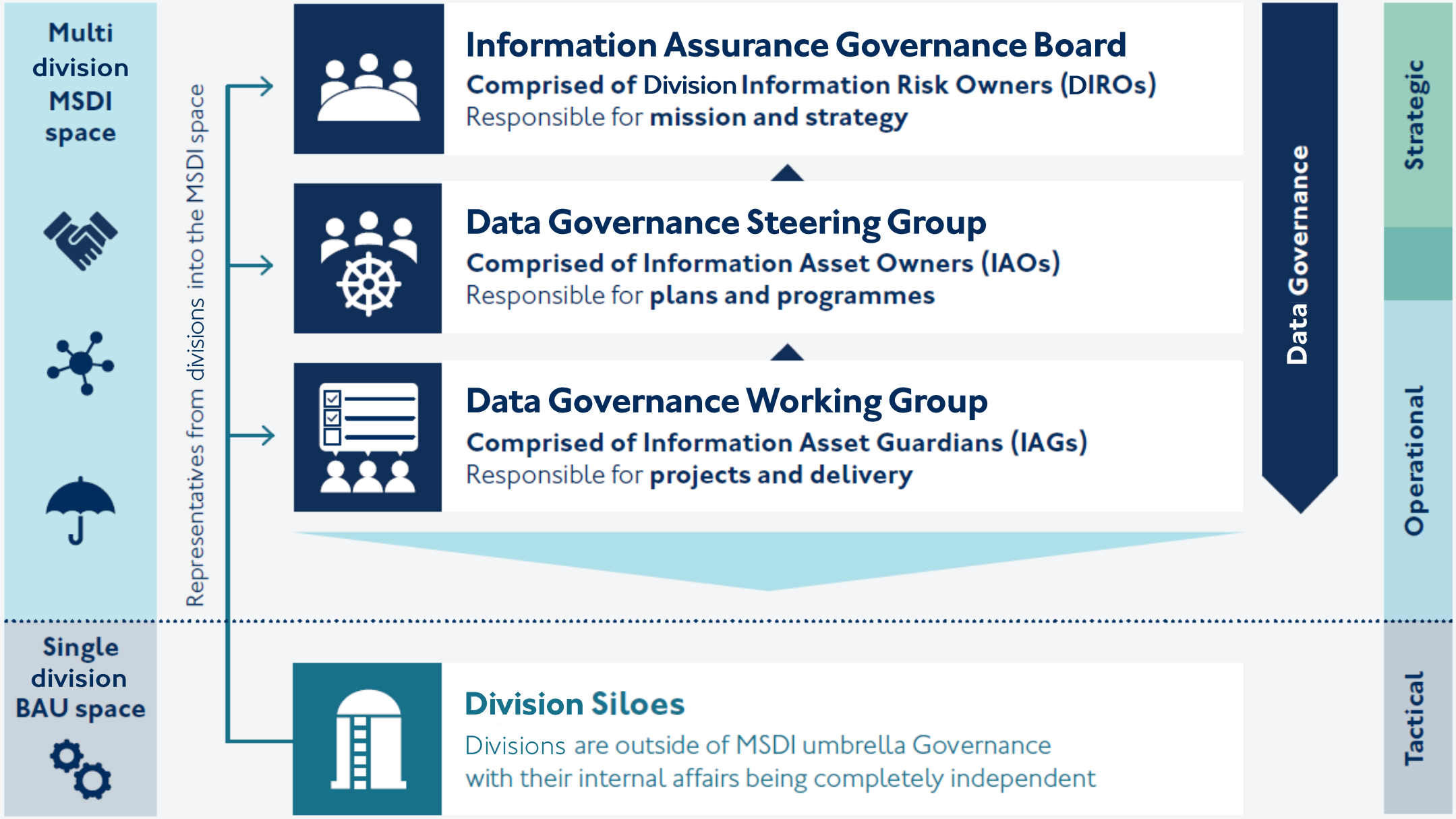
C2. Ensure that data transfers are governed in an effective and practical manner, beyond formal record keeping and logs.

D. Usage and Exploitation of Data

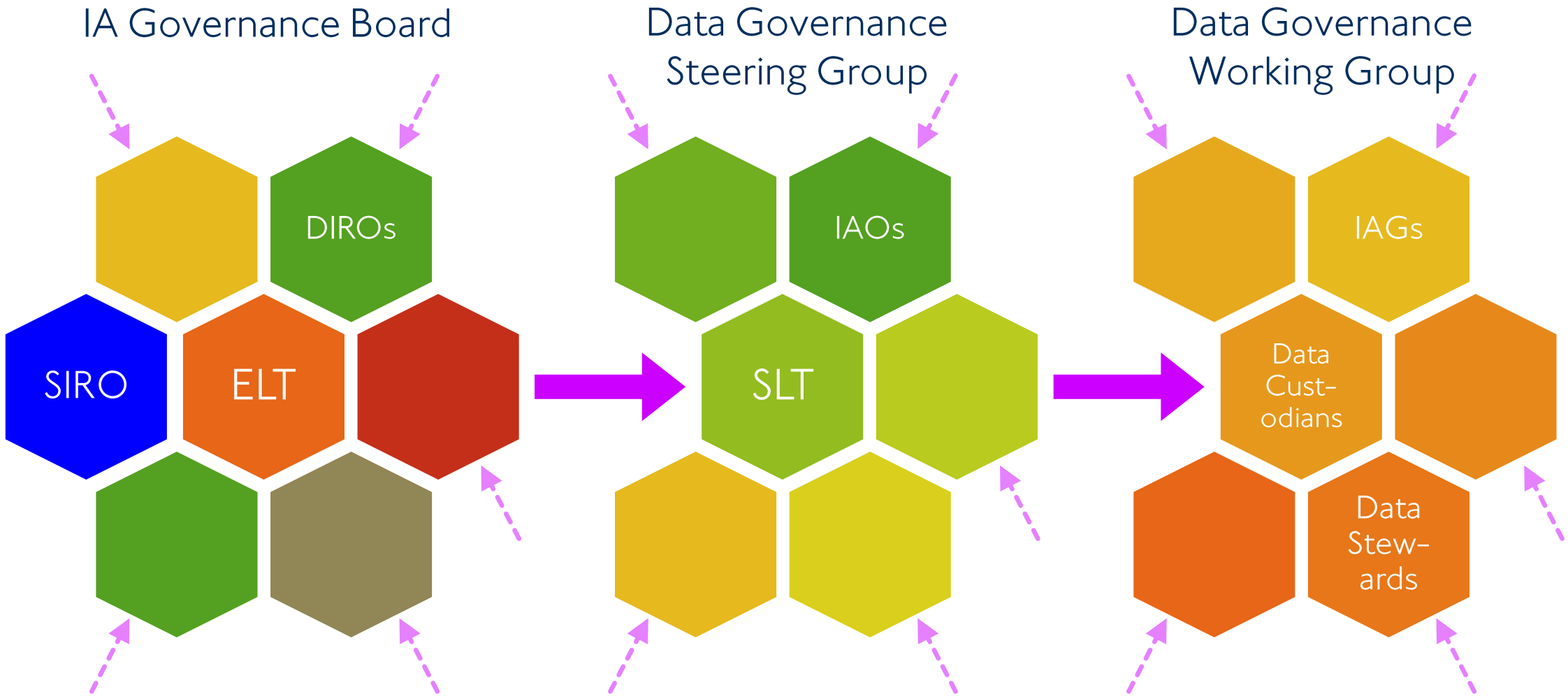
D1. Make reasonable efforts to increase the “readiness” of data for use, reuse and exploitation.

D2. Make reasonable efforts to understand the requirements, application and releasability for requested data – also to communicate relevant UKHO data capabilities to requestors.


Data Gov Role
Group
Senior Information Risk Owner (SIRO)
Division Information Risk Owner (DIRO)
Information Asset Owners (IAOs)
Data Custodians
Data Stewards
Data Analysts
Data Apprentices
Executive Leadership Team and Higher
Information Assurance Gov Board (IAGB) ELT and Operations
Data Governance Steering Group
Data Governance Working Group
Data Teams (Specialists)
Data Teams (Generalists)
Apprentice Programme
Formal Legal accountability to wider HMG
Interface to market needs; fit for purpose
Operational delivery of information
External corporate responsibility
Organisational boundary and market interface
Internal support & core capability



© UK Hydrographic Office 2020



Collaborative, cooperative and consensus **decision-making**

Our (common) Data Governance Challenges

Data Policy
Describes what will be done to manage data

DG Operating Model
Detailed descriptions of how data will be managed

Data Glossary
provides clear meaning and business context of business terms

Data Lineage
graphic representation of how data flows through an organisation

Data Quality Rules
rules that determine whether data is fit for a purpose

Data Quality Reports
exceptions to agreed data quality standards

Data Quality Issue Resolution
a process for managing data quality issues

Risks and Controls
look at the risks to data and what can be done to mitigate them

Red = most prevalent & pressing, Orange = gaps generally identified, Green = usually easiest to cover

UK Hydrographic Office

The UKHO Marine Data Portal

- Replaced the INSPIRE Portal in December 2018 as the place to search and download data sets regarding maritime limits and boundaries, ships' routeing measures and bathymetry.

- It presents us with not only a capability to serve data under our current obligations but provides a platform for future data provision and value-added services.

- It creates a 'one-stop shop' portal for data and services.

UK Hydrographic Office

What is the Marine Data Portal?

The Marine Data Portal Vision:

- To give people easy and timely access to marine location-based information from seabed to surface to help them with sustainable marine decision making.
- An organised gateway to our non-navigation data and services.

Marine Data Portal – May 2022

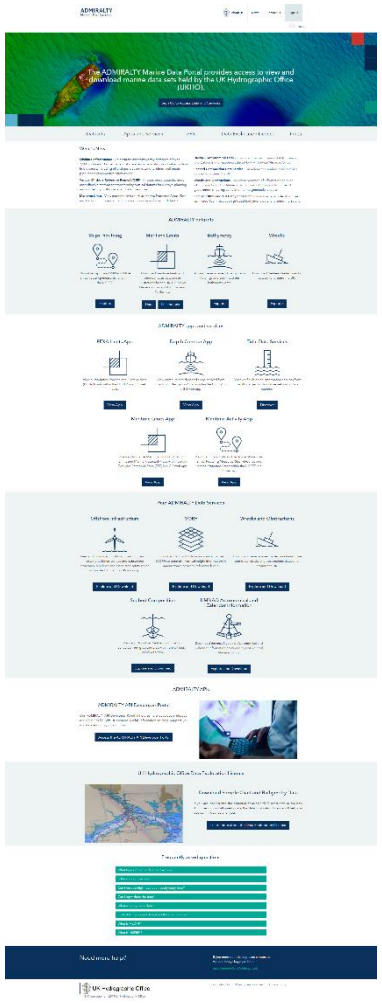
*An organised gateway to our **non-navigation** data and services.*

May 2022

Data & Services

- Offshore Infrastructure
- Seabed Mapping
- Wrecks
- Tidal Information
- Maritime Limits
- HMNAO
- Seabed Type
- Maritime Activity

Marine Data Portal



Non-Navigation Users

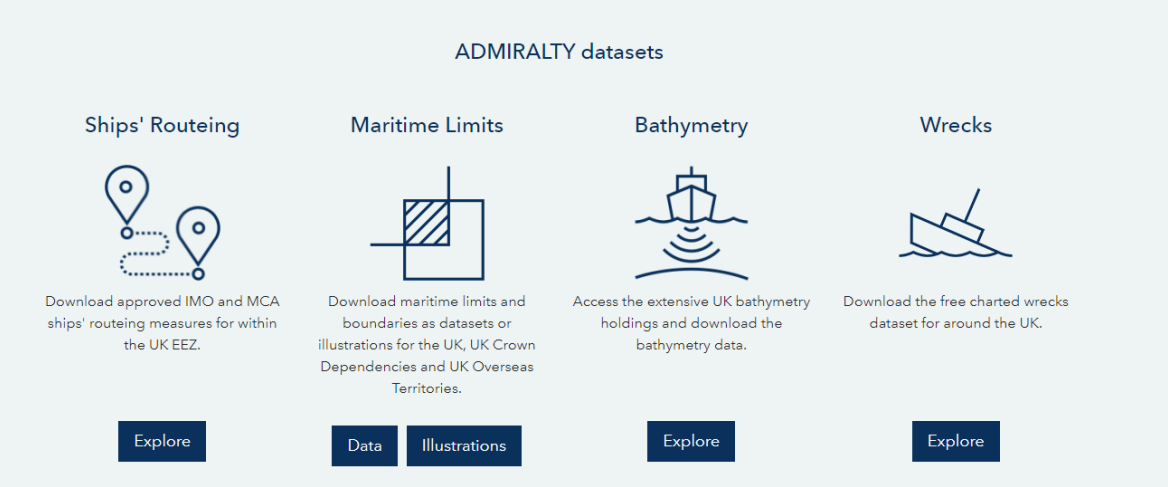
- Geo-Data Engineer
- Marine Archaeologist
- Marine Consultant
- Academic Professor
- Coastal Engineer

UK Hydrographic Office

Current content

Free Download	Bathymetry Surfaces	Over 5000
Free Download	Maritime Limits	36
Free Download	Maritime Limit Illustrations	21
Free Download	Foundation Datasets	2
Free to View	Foundation Datasets	9
Paid Download	Foundation Datasets	9
S-100 Trial Data sets (Free Download)	S-101, 102, 104, 111, 121 and 122	6

UK Hydrographic Office



Data is available to download via the ADMIRALTY Datasets section.

All data is free to download and provided with an Open Government Licence.

Data is around the UK except for Maritime Limits which covers crown dependencies and overseas territories.

Key datasets:

- Wrecks – INSPIRE wrecks only charted wrecks in UK with limited attributes (Name of wreck is one of them)
- Bathymetry (seafloor mapping) – Over 5000 processed surfaces. These are the output of making survey data ready for use in charting.
- Maritime Limits – both data and PDF pictures used as a reference dataset.

Example User – Marine Archaeologist working on a impact assessment of a wind farm on the seascape. Needs access to seafloor mapping (bathymetry) and wrecks.

UK Hydrographic Office

Thank you