UK Hydrographic Office

Marine Spatial Data Infrastructure

Presented to IHO MSDIWG13 by
James Carey

January 2023

Drivers For Change

- Next Generation Navigation Products – S1xx

- Decline in use of paper

- Increasingly sophisticated use of marine data – digital twins and autonomy

Key DITTO Takeaways

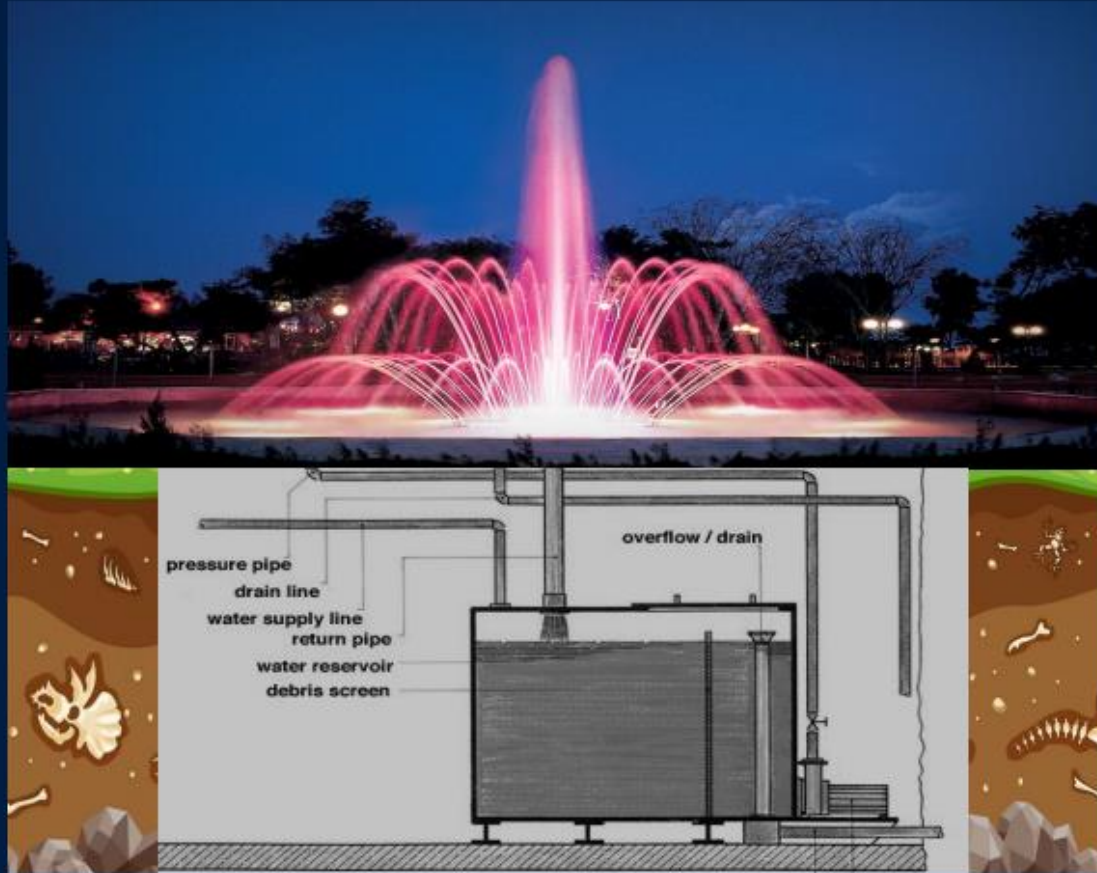Importance of data sharing and interoperability (Q-FAIR)

Hydrographic Data is going to be a key foundation, currently very oceanographic in focus and participation.

Diversity of participants

What is a Digital Twin?

The sparkly fountain

Presented by Terry McConnell
Fugro DITTO22

Digital Twins:

Are the visible part of a complex digital data eco-system

Are empowered by that digital data eco-system

and

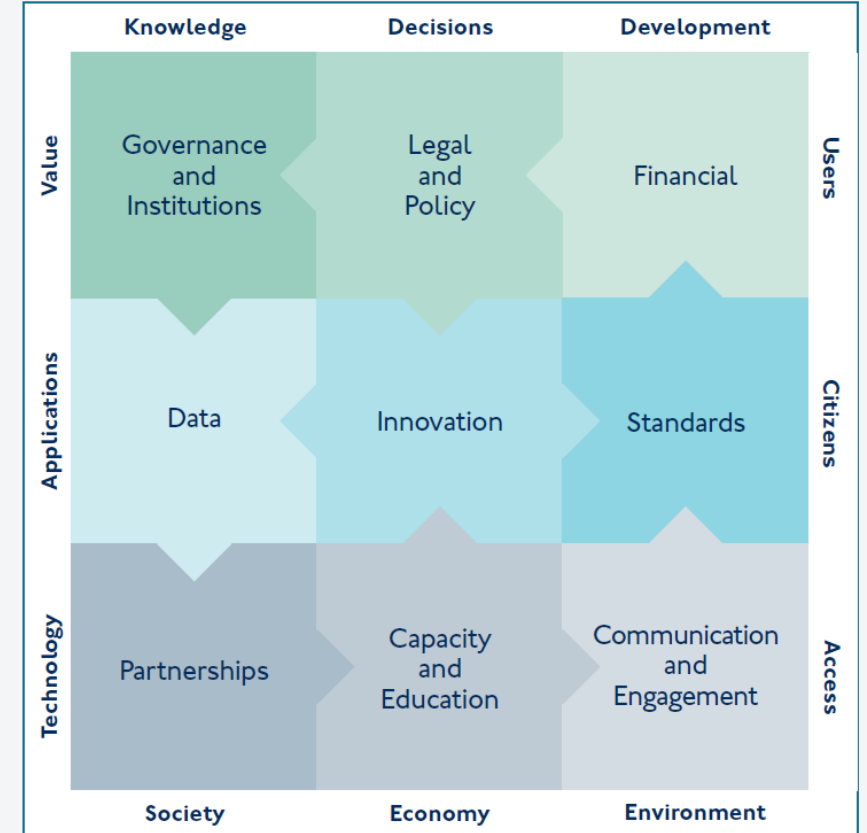Dictate the design of the digital data eco-system.

3

The Integrated Geospatial Information Framework

The UN-GGIM IGIF Nine Pathways model

	Knowledge	Decisions	Development	
Value	Governance and Institutions	Legal and Policy	Financial	Users
Applications	Data	Innovation	Standards	Citizens
Technology	Partnerships	Capacity and Education	Communication and Engagement	Access
	Society	Economy	Environment	

Governance →
Technology →
People →

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Governance

Technology

People

Best Practice in its wider Context

Organisational Vision

Data Strategy and Vision

UKHO Data Principles

Data Gov Roles & Responsibilities

Technology and other UKHO stakeholders ...

Job Descriptions and Learning Requirements

Team-Led Best Practice Guidelines

Community and Expertise
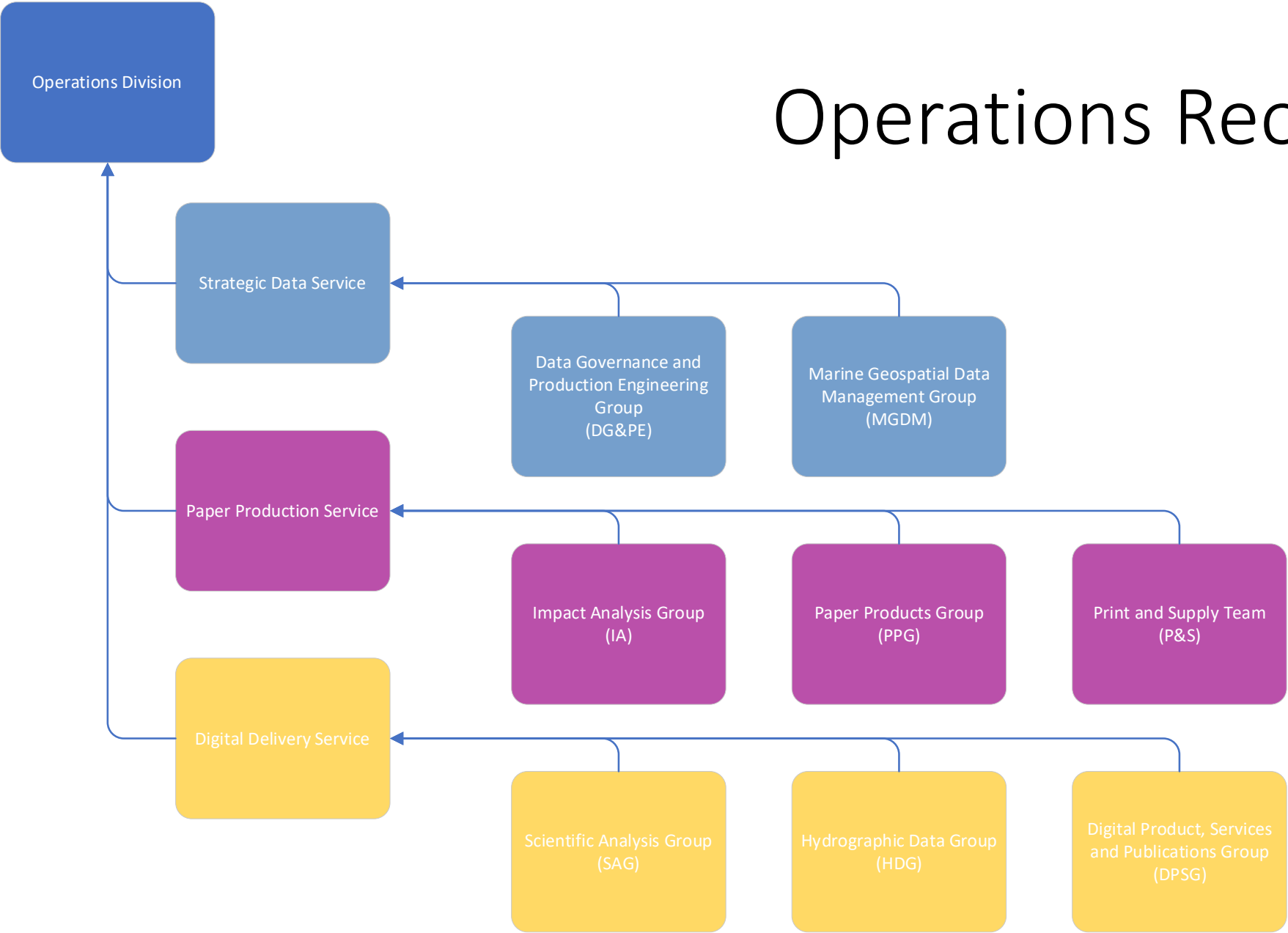
Team Culture, Norms and Expectations
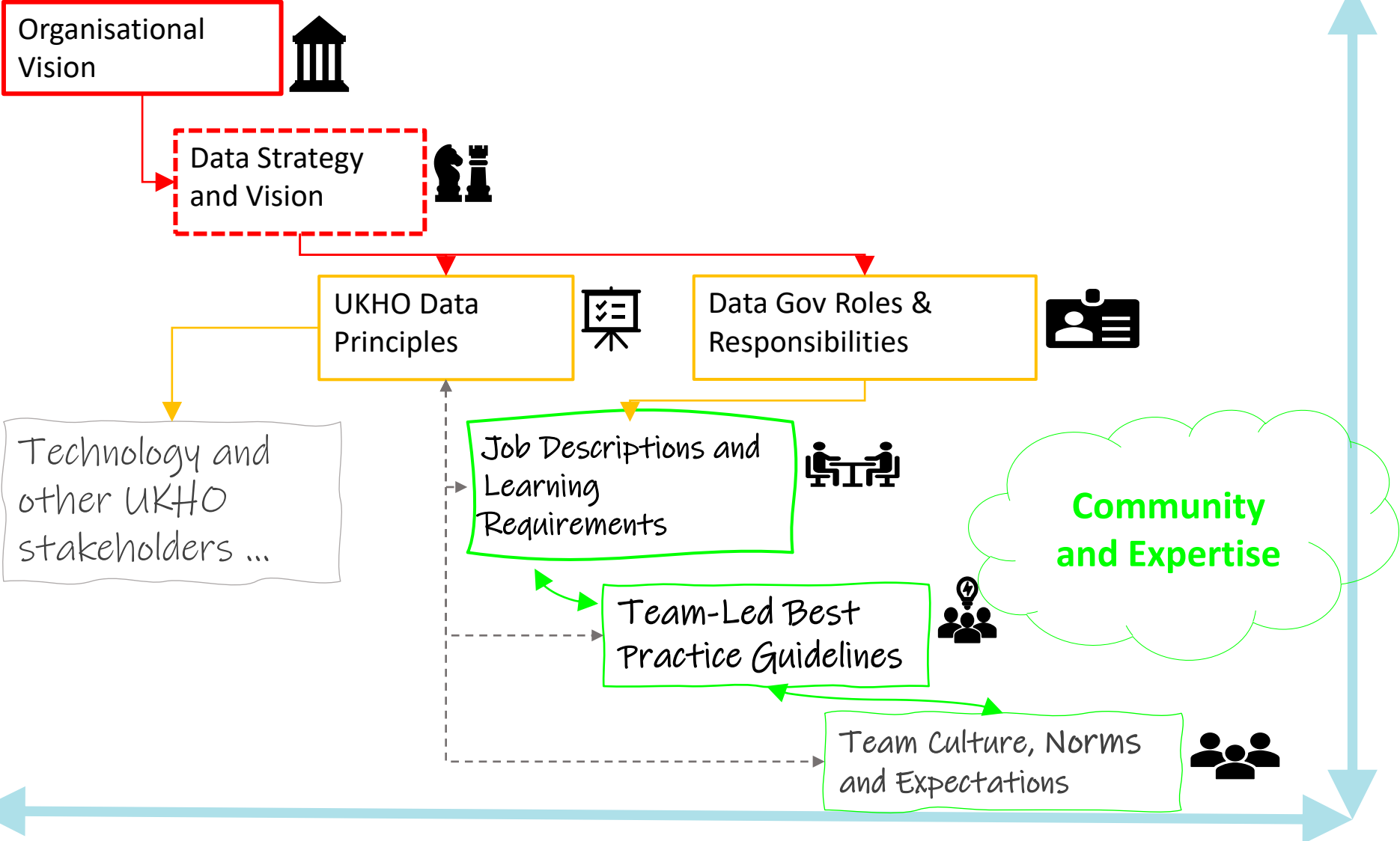
Hard Governance
- ✓ Hierarchy based
- ✓ Long-term policy
- ✓ Broad application
- ➤ Strict stipulations
- ➤ Requirements led
- ➤ Compliance driven
- ➤ (Legal) risk reduction

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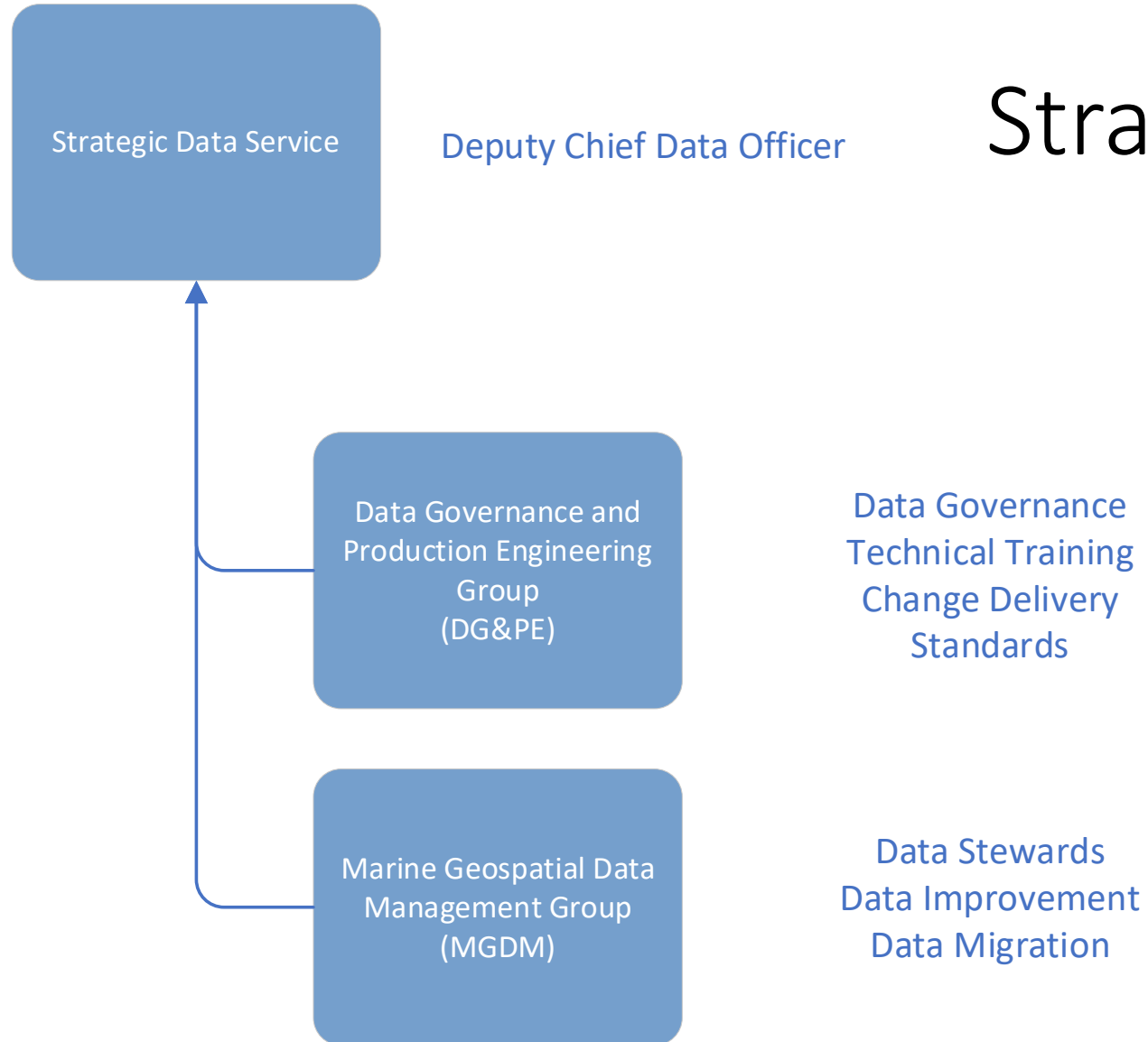- ○ Behaviour driven
- ○ Collective outcomes

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

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

Strategic Data Service

Strategic Data Service — Deputy Chief Data Officer

Data Governance and Production Engineering Group (DG&PE) — Data Governance, Technical Training, Change Delivery, Standards

Marine Geospatial Data Management Group (MGDM) — Data Stewards, Data Improvement, Data Migration
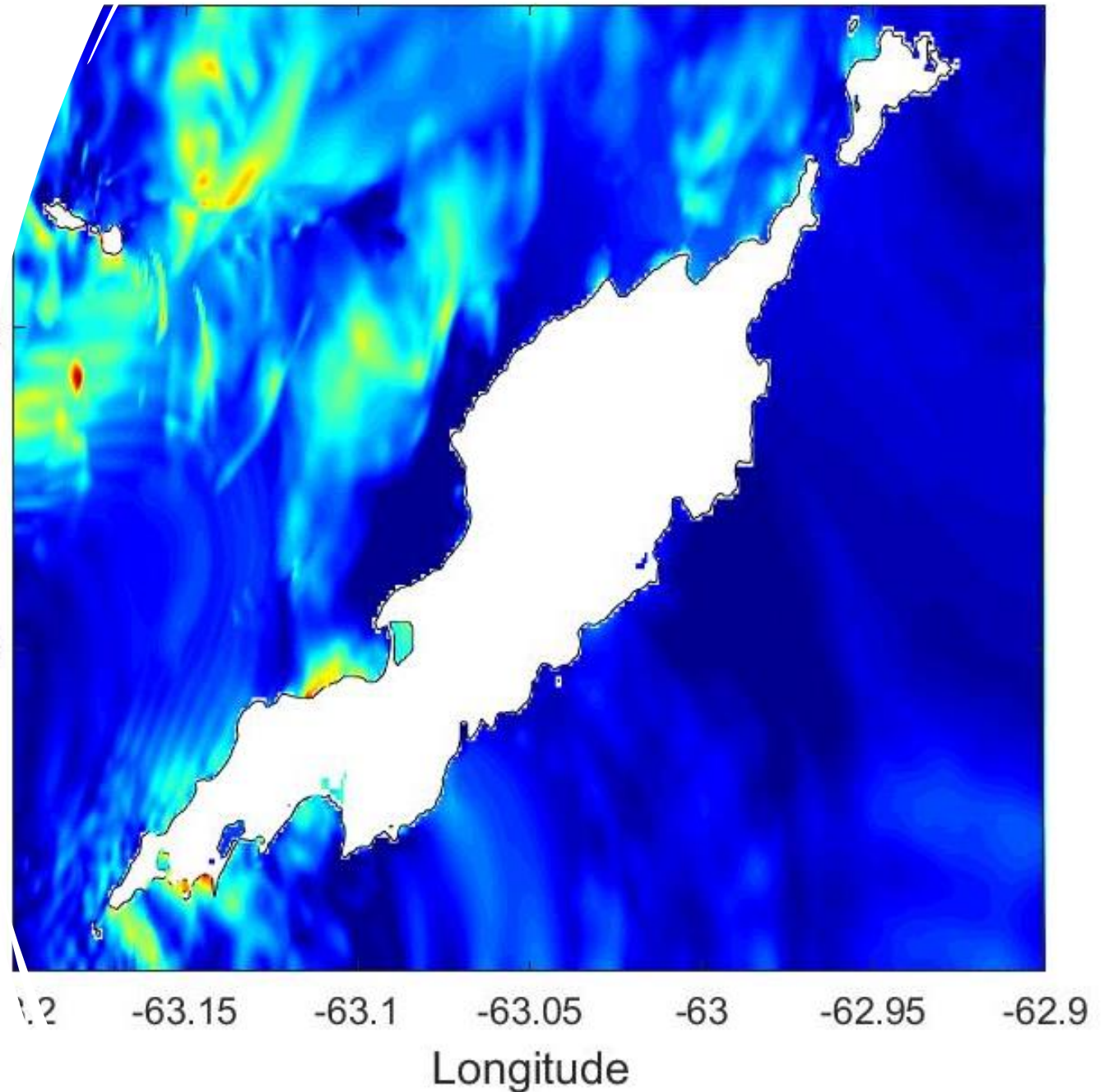
Current Activity

- Data Strategy

- Definition of Data Stewardship

- Data Improvement to support S1xx

- Standards Development

- Data Quality Plan

- Embedding Data Governance

- Continued support to business as usual

- OGC FMSDI Projects

Thank you