An integrated system for data discovery, management and access in the South Atlantic UKOTs

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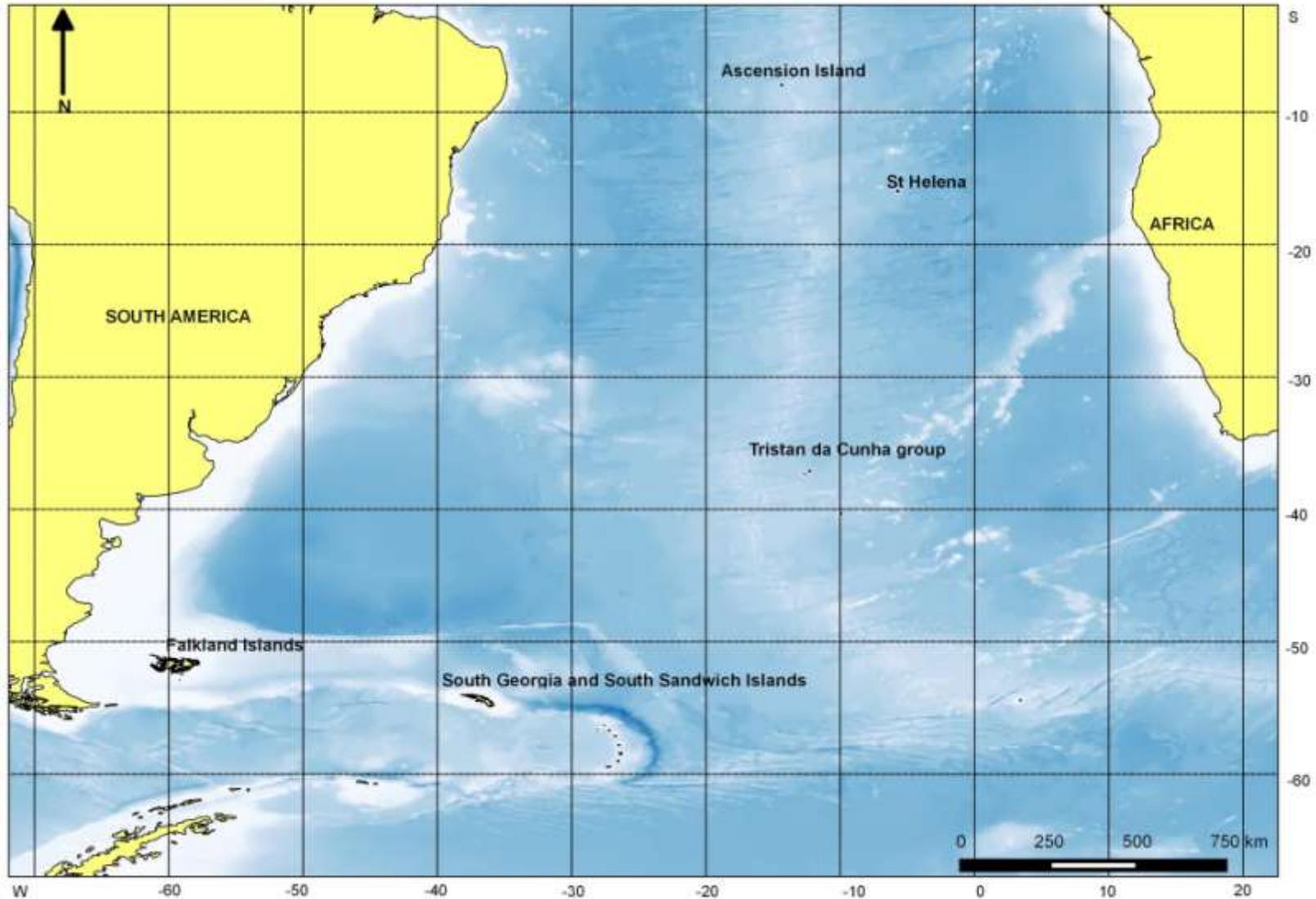
Stanley 04/12/2014

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Geographic context

What the SA UKOTs have in common

In terms of geography and socio/economics:

- Remoteness;

- Small communities with defined identity;

- Unique native wildlife (flora and fauna) and unspoiled habitats;

- "Fertile ground" for researchers and conservation projects;

- Similar, although at a different scale, economy (fisheries, farming, potentially oil and gas, tourism, MOD).

In terms of data:

- Stand alone and independent way of dealing with data;

- Scarce use of standards for data collection;

- Very little application of Geographic Information Systems to analyse spatial data;

- High dependence on external consultancy groups for data analysis and reporting;

- Lack of a coordinate data management and strategy;

- Little understanding of data already available for the territories.

A co-ordinated and holistic approach as solution to the data issues

Creation of regional data systems within each territory which will refer and use the same data strategy, standards and framework developed by the Information Management System-GIS data centre for the entire South Atlantic

Promotion, through training, of the use of GIS in the governmental departments

Raising awareness of spatial databases, data management and metadata compilation by involving stakeholders and researchers

Use and application of open source systems (no costs and availability to all) and standards for data collection

Ensuring free data access to local communities and secure data storage either within the territories or externally
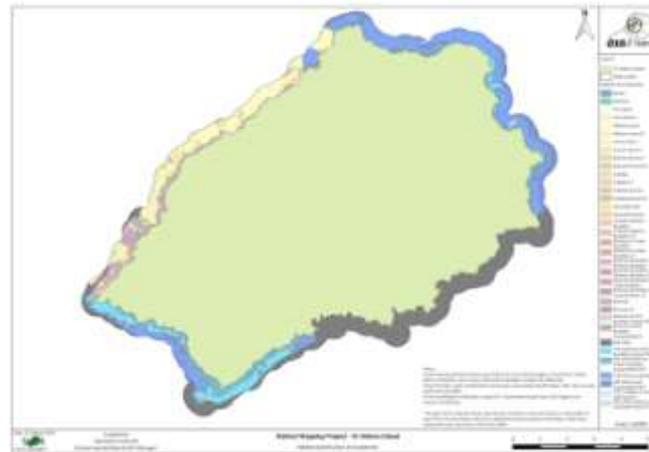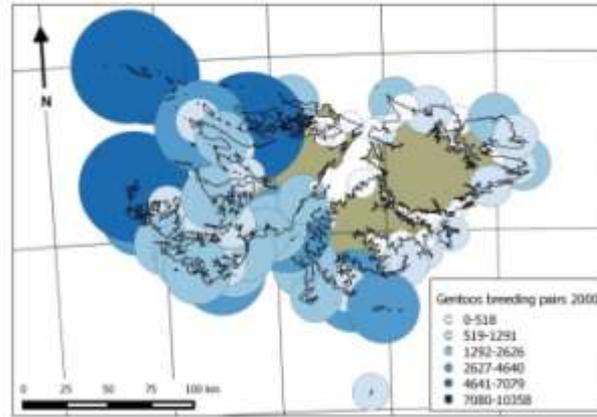
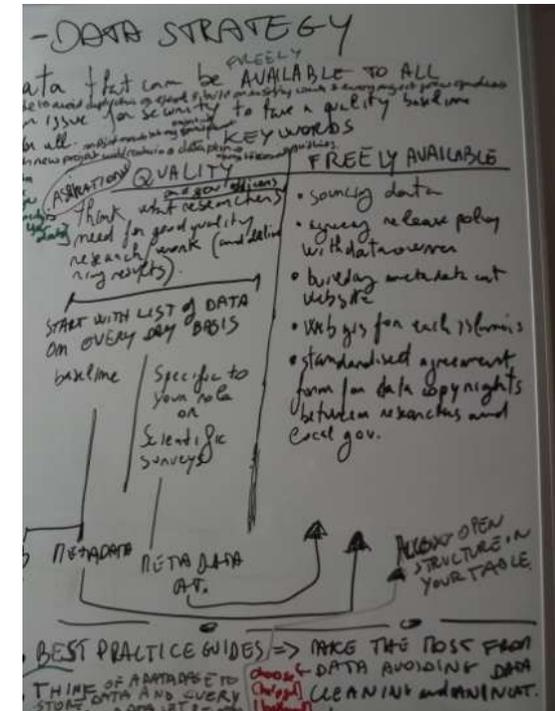# What the Information Management System– GIS data centre is about?

PEOPLE, **DATA** and **INFORMATION SYSTEMS**

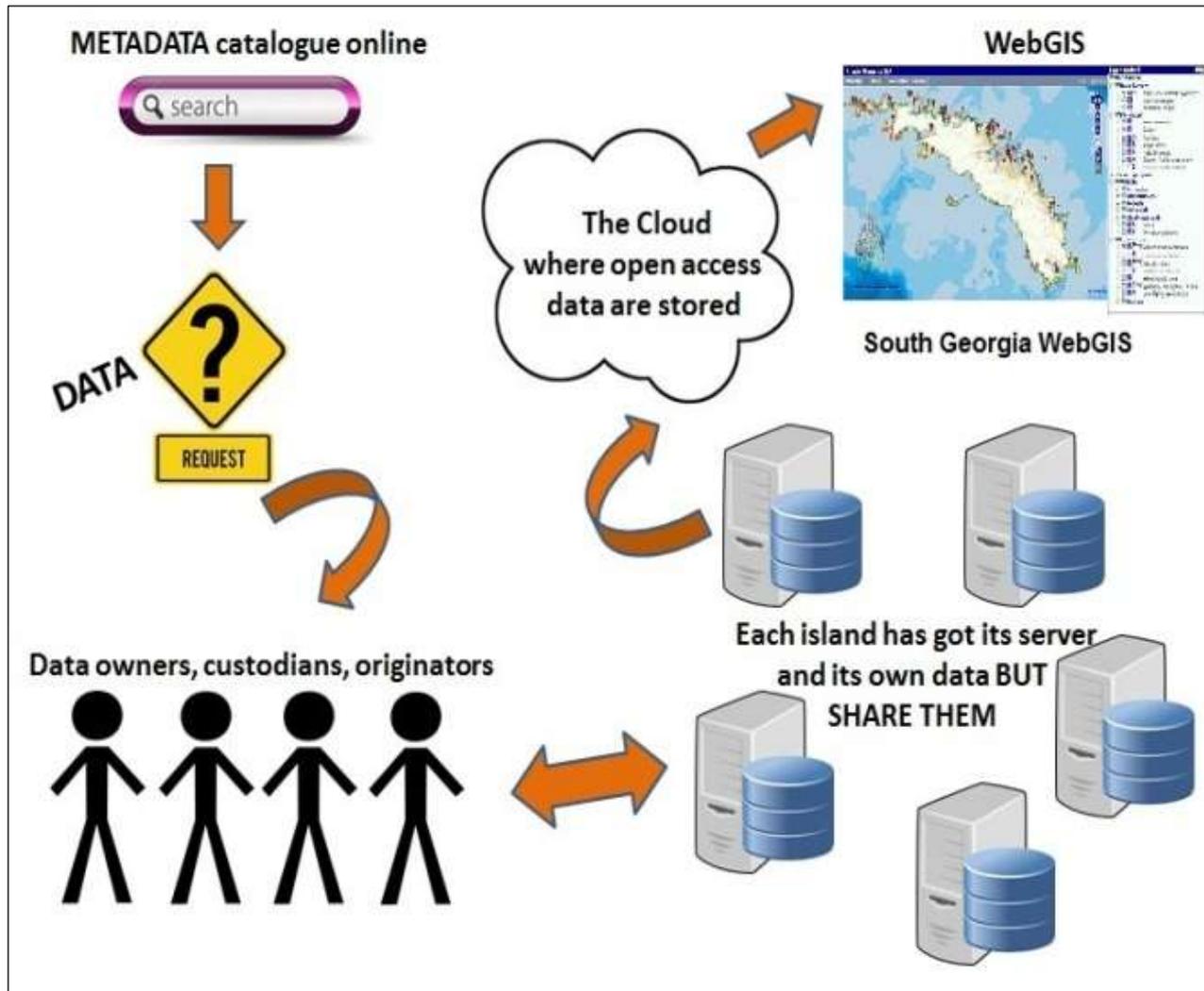**GIS TRAINING/ BUILDING EXPERTISE and SPATIAL DATA UNDERSTANDING**

COLLECTION/QUALITY/ ACCESS/STANDARDS

MANAGEMENT/STRATEGY/ CURATION/STORAGE/SHARING

The architecture of the Information Management System

Data management flow

Data management needs to be thought from the moment the need of data is conceived to the time the data becomes obsolete and is archived

PLANNING THE REASON WHY WE NEED DATA

ACQUIRING DATA FROM FIELD WORKS OR OTHER SOURCES

PROCESSING DATA TO MAKE THEM READY FOR ANALYSES

ANALYSING DATA TO EXTRACT INFORMATION

Making metadata available online open the door to what has been already collected and offer basis for partnerships and development

The relationship between local governments and researchers/organisations that collect data should be regulated clearly.

Standardise the research licence agreement that is in use by some territories

STORING AND ARCHIVING DATA TO PRESERVE THEM

PUBLISHING AND SHARING DATA AND METADATA TO PROMOTE COLLABORATION WITH OTHER ORGANISATIONS

Getting use of...

3 operations that should run constantly during the data management flow

Metadata compilation →

Data quality control and assurance →

Back-up and data security →
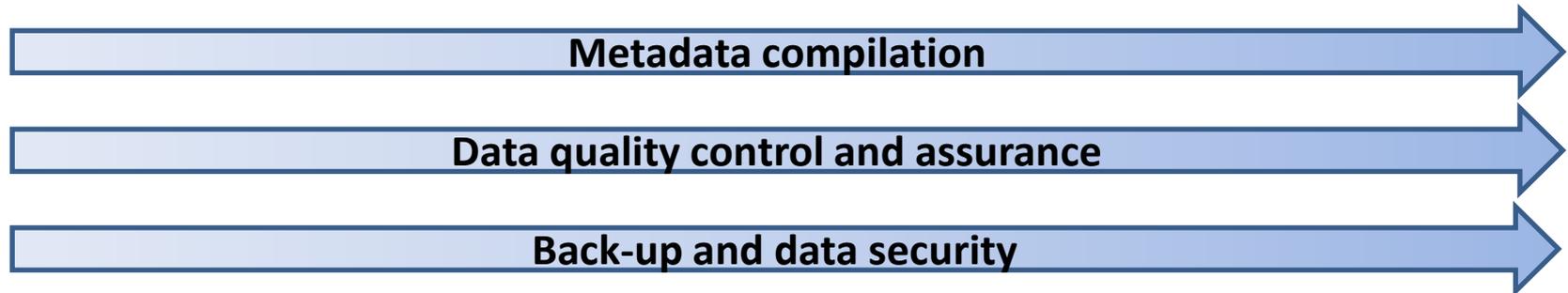
Metadata are crucial for any potential use or reuse of data; no one can responsibly re-use or interpret data without accompanying metadata that explains how the dataset was created, why, where it is geographically located, and details about the structure and meaning of the data.

Metadata transcend people and time. Which means that in working places with high staff turnover, continuity is ensured as well as cutting costs (time spent in looking for data, wondering where they are)

Quality control is critical since data come from many sources, need integration, are requested to address specific questions, provide support for decision making and info delivery is wanted in real time.

So, the IMS–GIS data centre is working on:

- **Metadata catalogue** online and metadata collection across the territories
  http://www.south-atlantic-research.org/2014-06-02-13-19-19/gis-data

- Accessing and regulating the data access through a **data request form** to be used by any data user (the form will be available online);

- Preparing a **research licence agreement** between the local governments and individual researchers and institutional research organisations to ensure that a copy of the data is kept on the islands. Any use of the data will be requested to the researchers.

- Making the re-use of data a transparent and clear process through the adoption of a **data licence agreement request**;

- Increase confidence and understanding in spatial data and databases through various **GIS training activities**;

Conclusions: reasons why an integrated information system is essential for the SA UKOTs

Data are at the basis of any decision making process.

Hence to make good decisions scientists, governmental officers and industry need solid, accurate, reliable and documented data.

Data are valuable.

Would you buy a rotten apple? Would you buy a car without comparing it with other models and checking the specs? Having a data curation centre that ensure collection of quality data and train people to document data allow that the data can be used by others and facilitate partnerships.

Data are an asset.

Reduce loss of data and protect them from being corrupted or modified. Knowledge of which data are already available cuts costs. No more effort to re-do surveys, save money for taking research and development further ahead.

Thank you