



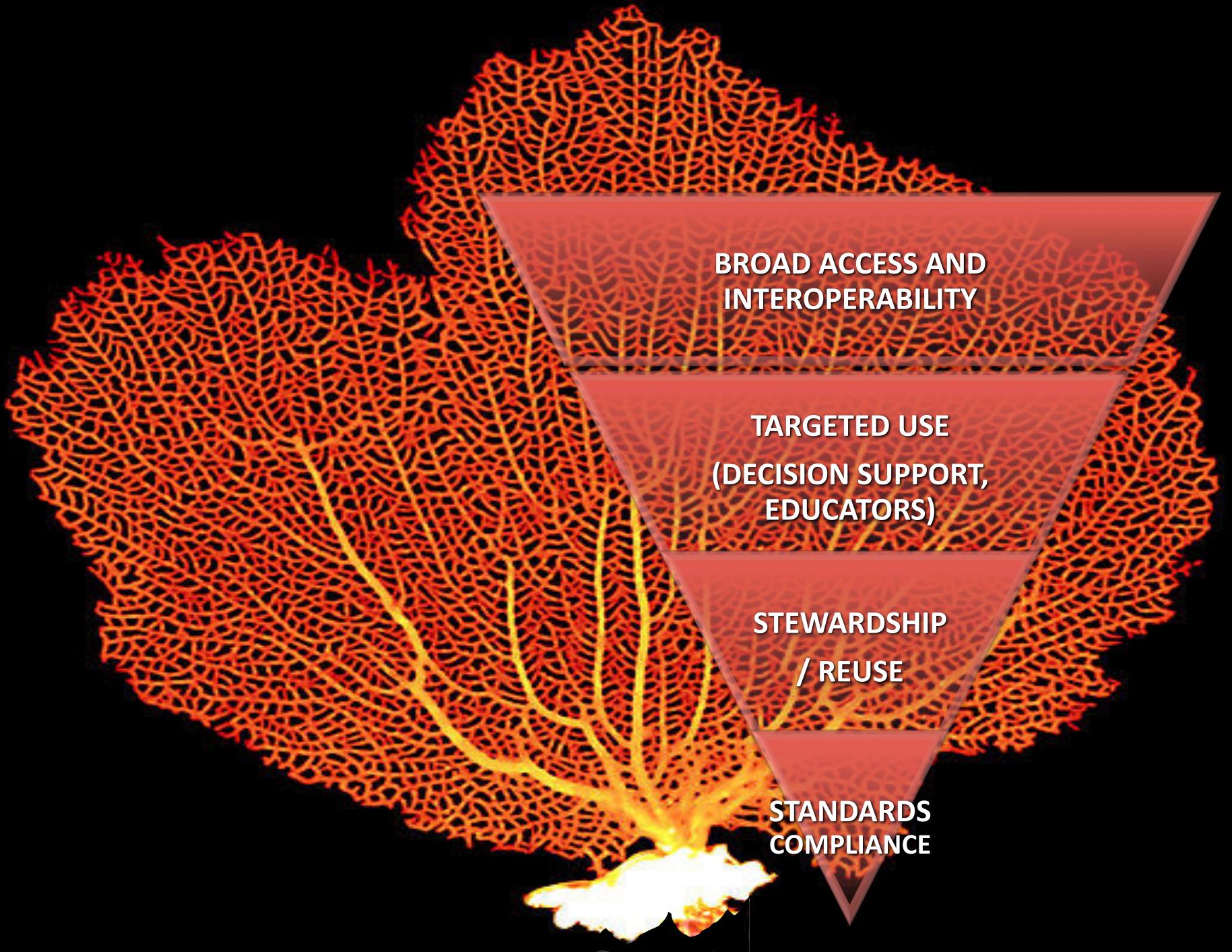
Data and Information Management and Product Development

A Critical Component of Ocean Exploration

- President's Panel Report
- Public Law 111-11

— Establish[ing] a broad-based task force to design and implement an integrated, workable, and comprehensive data management, information processing system for all information, including unique and significant features.

Source: the President's Panel Report



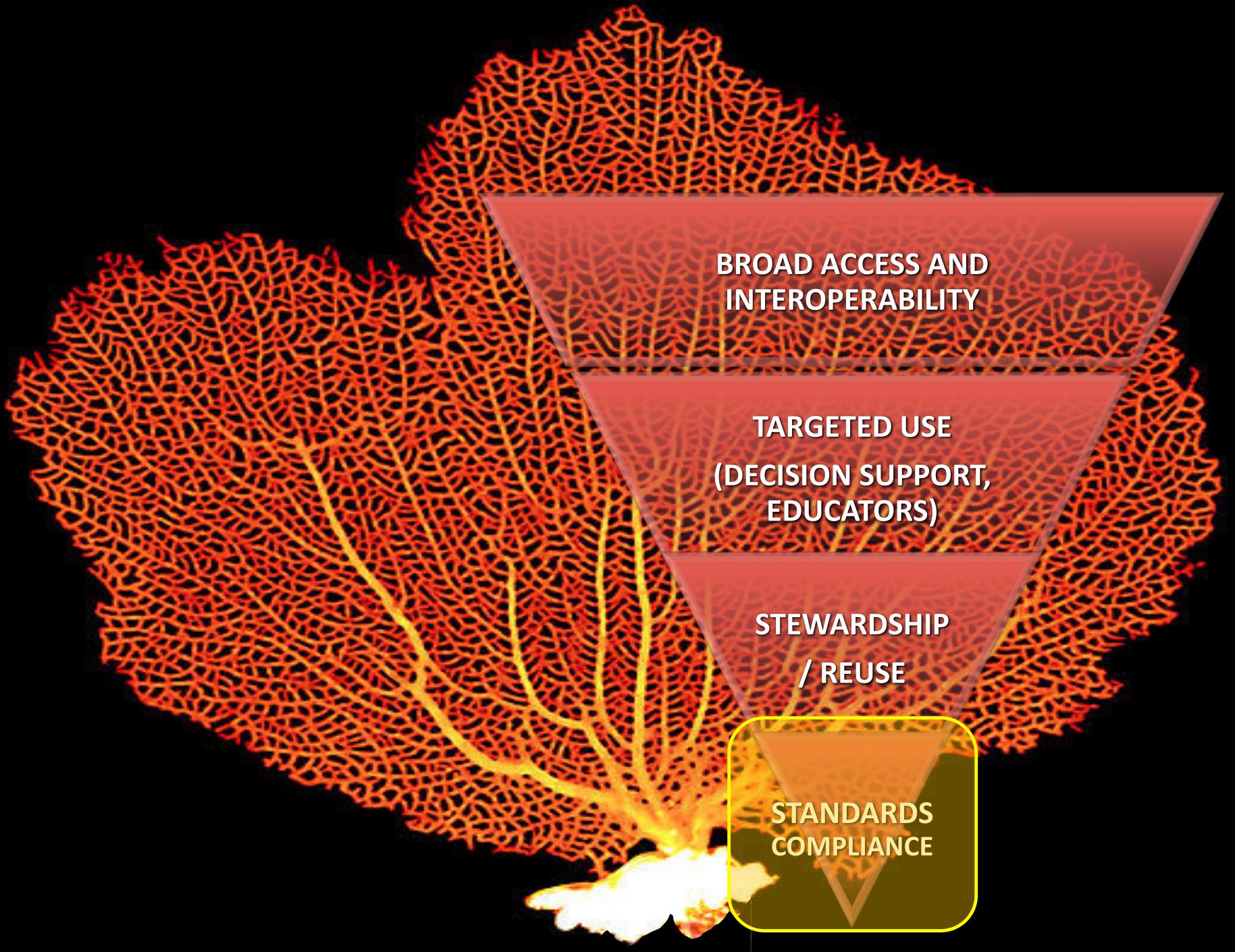
Standards-based, Results-oriented Program

- *2002 Data Management Culture*
- *National Spatial Data Infrastructure*
 - *Federal Geographic Data Committee Content Standards*
 - *Geospatial One Stop*
- *Performance Measures / Metrics*
 - *Data volume*
 - *Metadata and data file count*
 - *Timeline for access*
 - *User metrics (e.g. data downloads)*

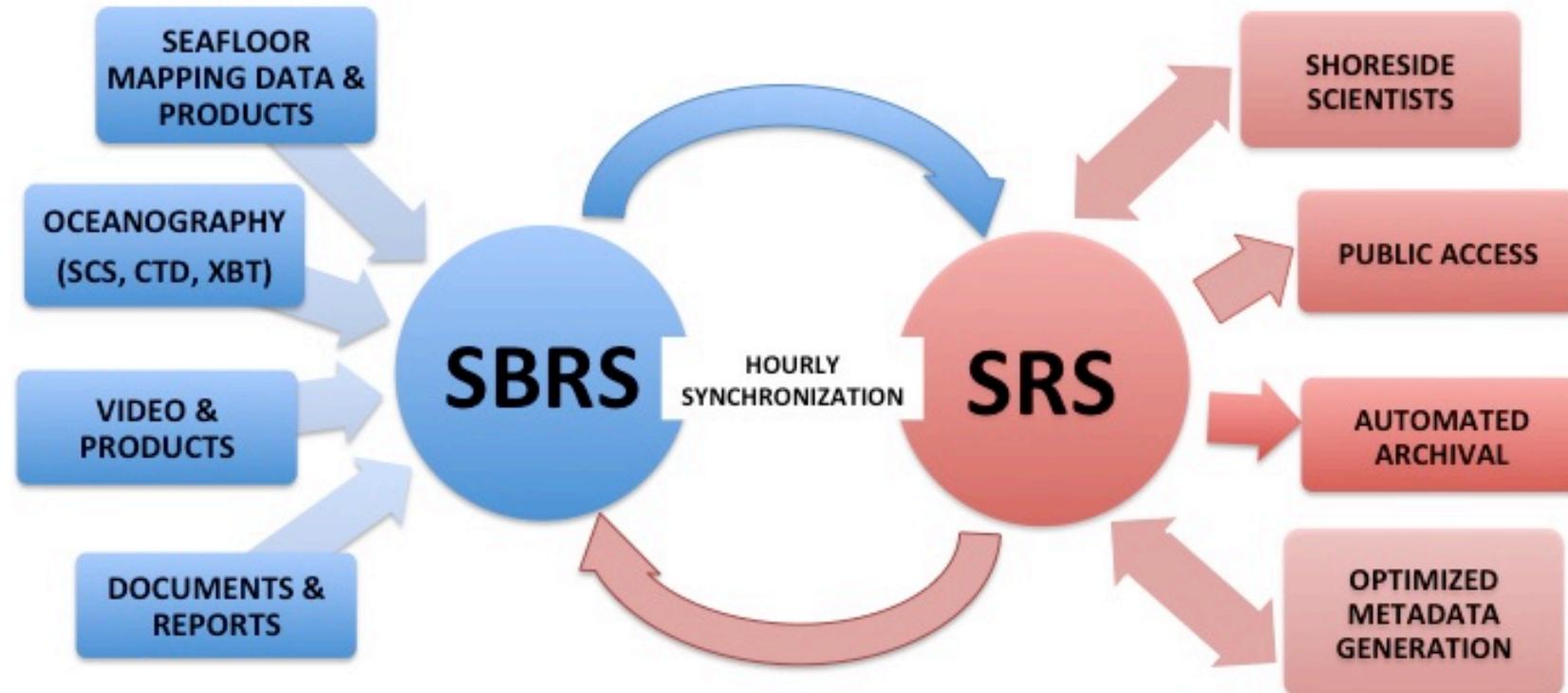
Standards-based, Results-oriented Program

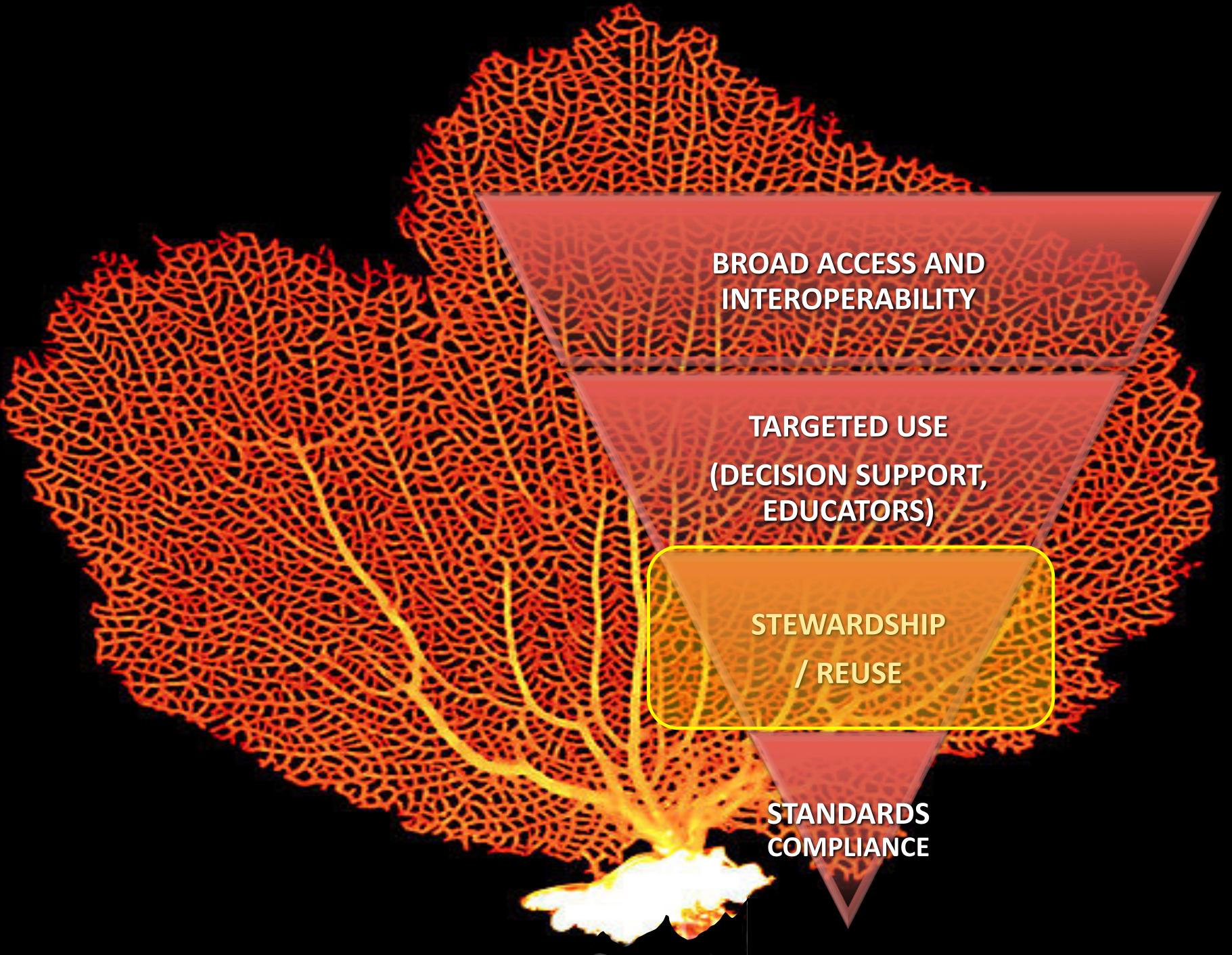
- *2012 Data Management Culture*
- *Extended National Spatial Data Infrastructure*
 - *Data as a “capital asset” - portfolio approach*
 - *FGDC has endorsed 64 non-Federal Standards*
 - *International & OpenGIS Standards enhance interoperability*
 - *National GeoPlatform replaces GOS*
- *Performance Measures / Metrics*
 - *Output –vs- Outcome... what to measure?*





Telepresence Information Exchange

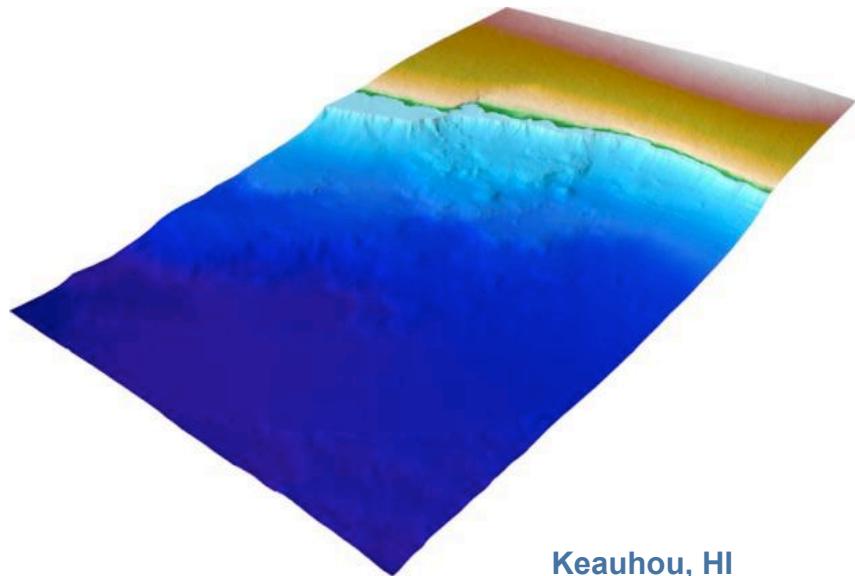




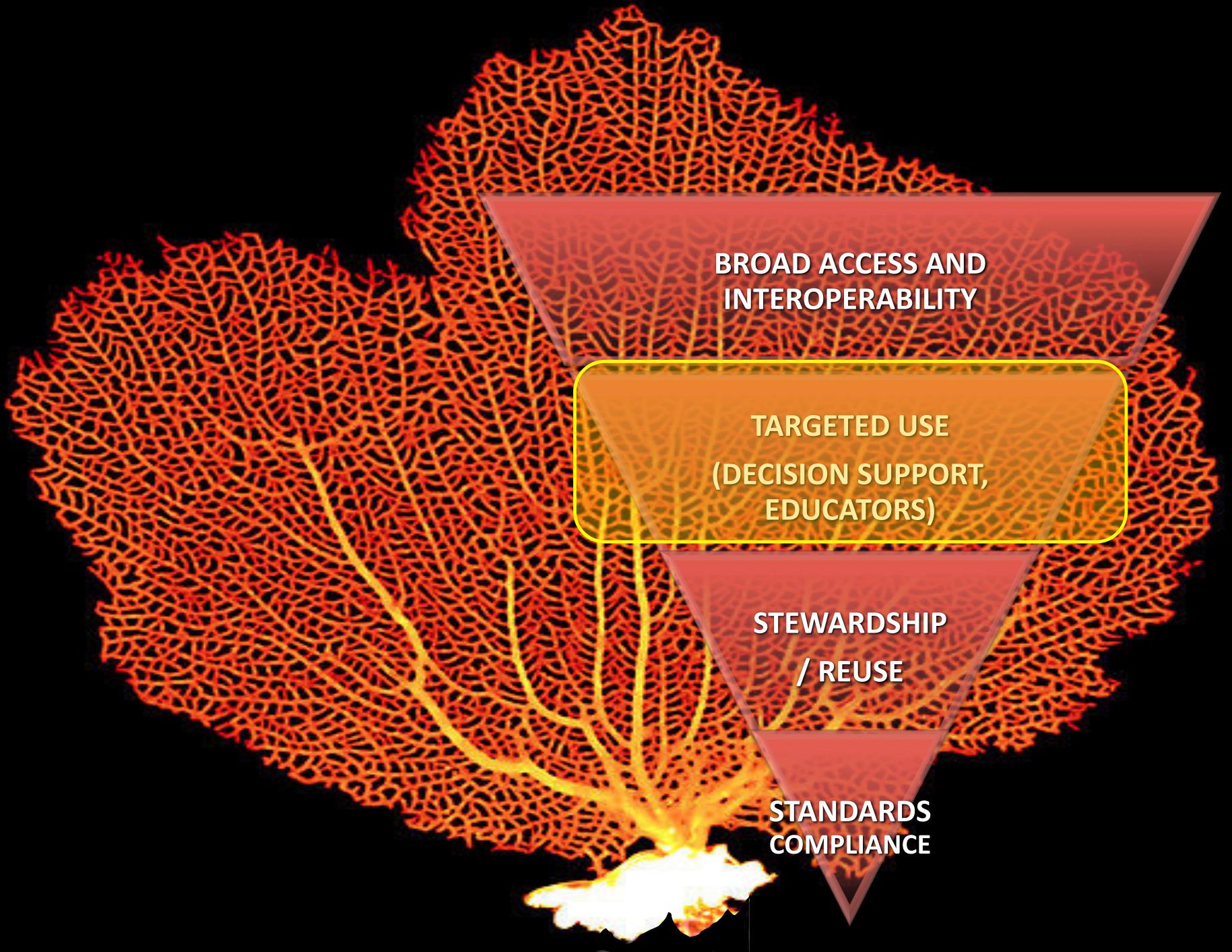
Data Reuse: Integrated Ocean and Coastal Mapping

“Map Once Use Many Times”

- Habitat Mapping Olympic Coast National Marine Sanctuary
- Tsunami Inundation Modeling in the Hawaiian Islands
- Extended Continental Shelf Assessment

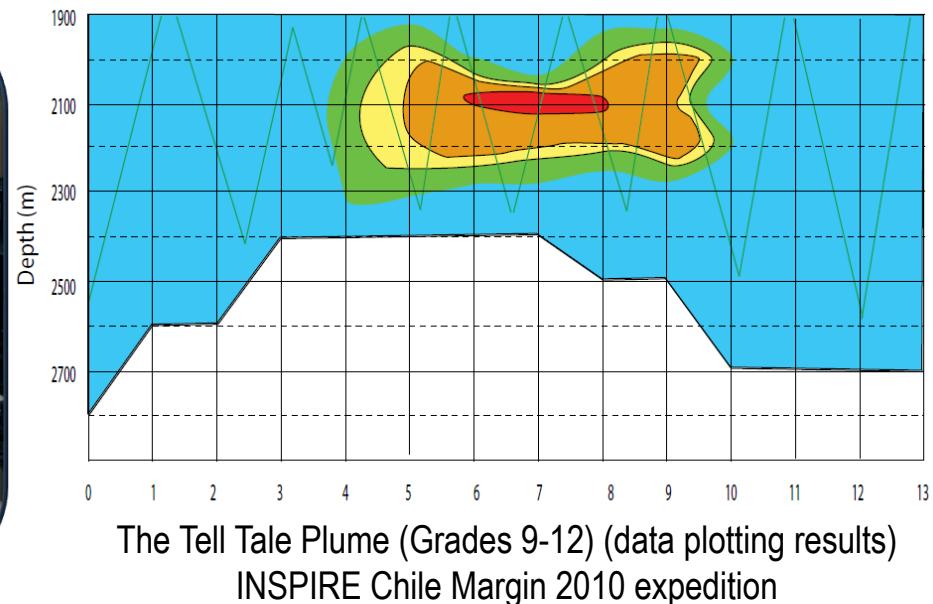


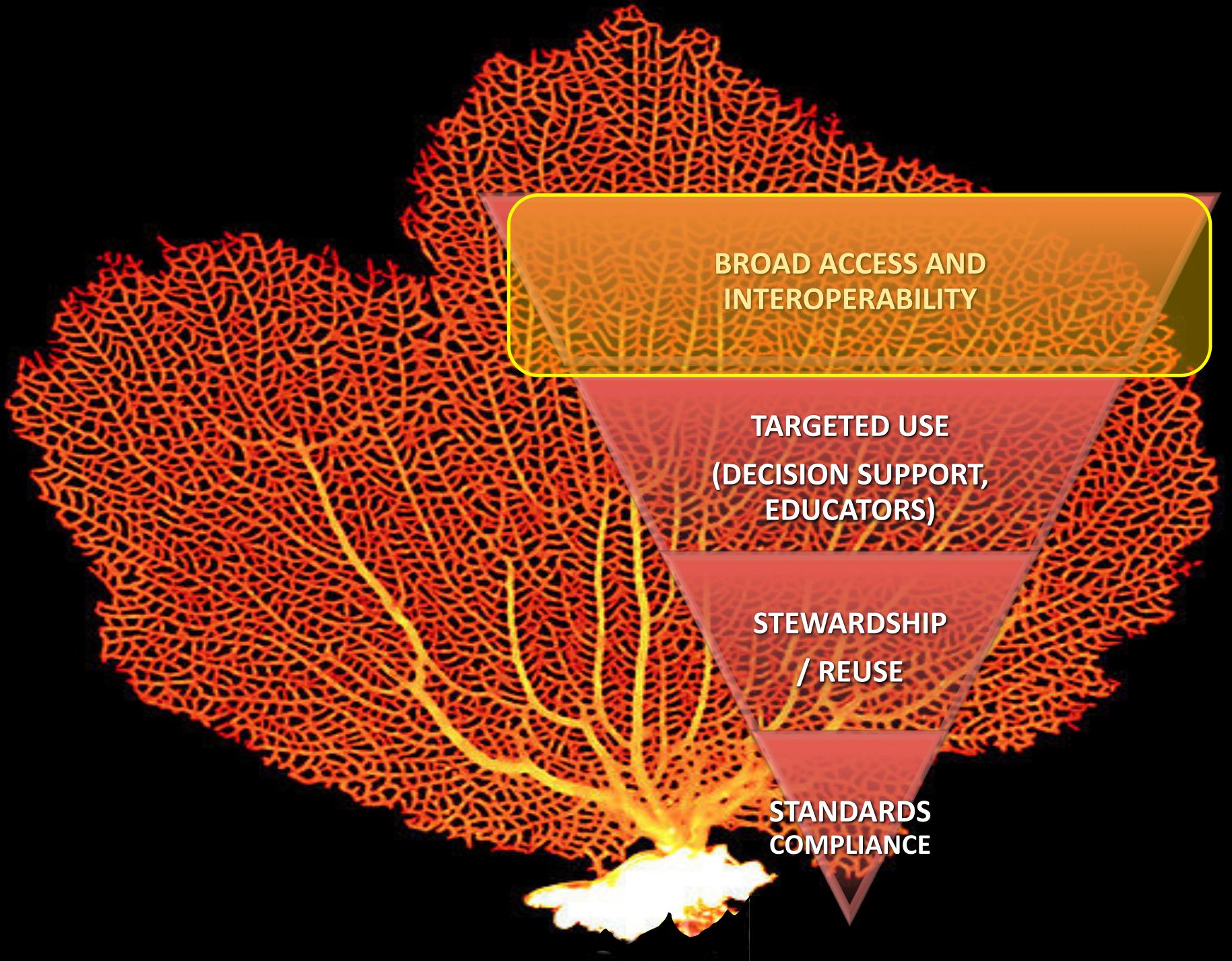
Keauhou, HI
1/3 arc-second DEM



Targeted Information Use: Educators

- Expedition data are used in lesson plans
 - Simulate “real-world” data analysis and interpretation techniques
 - Encourage understanding of the overall ecological context of living and geologic systems found in expedition areas







Digital Atlas

Cruise Search

Select Year(s)

- 2001 ● 2007 ●
- 2002 ● 2008 ●
- 2003 ● 2009 ●
- 2004 ● 2010 ●
- 2005 ● 2011 ●
- 2006 ● 2012 ●

No Years All Years

Select Theme(s)

- Acoustics
- Corals
- Education
- Habitat Characterization
- Marine Archaeology
- Marine Life Inventory
- New Ocean Resources
- Ocean Exploration
- Ocean Mapping
- Technology Development

No Themes All Themes

170 Cruises Displayed

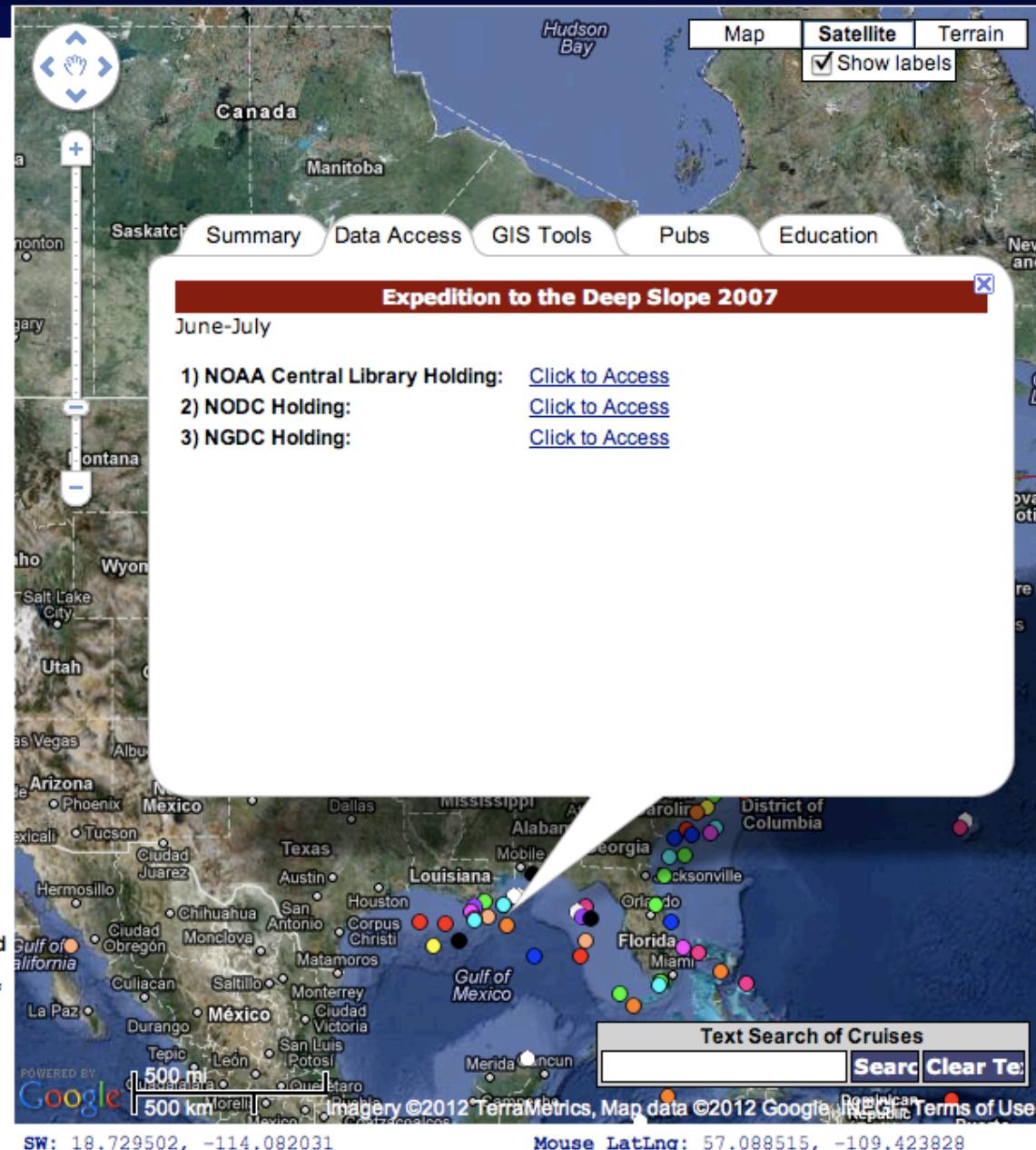
NOTE

use Text Search of Cruises to find particular cruise(s).

The text search is independent of the year and theme settings.

If you get lost, just click on the Reset button.

Reset



Cruise Listing

Survey
[More Details ...](#)

61) 2007 - Cayman Islands Twilight Zone
[More Details ...](#)

62) 2007 - Submerged Landscapes of Maine
[More Details ...](#)

63) 2007 - South Atlantic Bight Habitat Mapping
[More Details ...](#)

64) 2007 - New Zealand SEEPS
[More Details ...](#)

65) 2007 - Expedition to the Deep Slope
[More Details ...](#)

66) 2007 - Cumberland Club
[More Details ...](#)

67) 2007 - Submarine Ring of Fire
[More Details ...](#)

68) 2007 - Revolutionary War Transport Fleet in Newport Harbor
[More Details ...](#)

69) 2007 - Archaeological Survey Off the Virginia Capes
[More Details ...](#)

70) 2007 - Operation Deep Scope
[More Details ...](#)

71) 2007 - Okeanos Explorer: A New Paradigm for Exploration
[More Details ...](#)



Okeanos Explorer

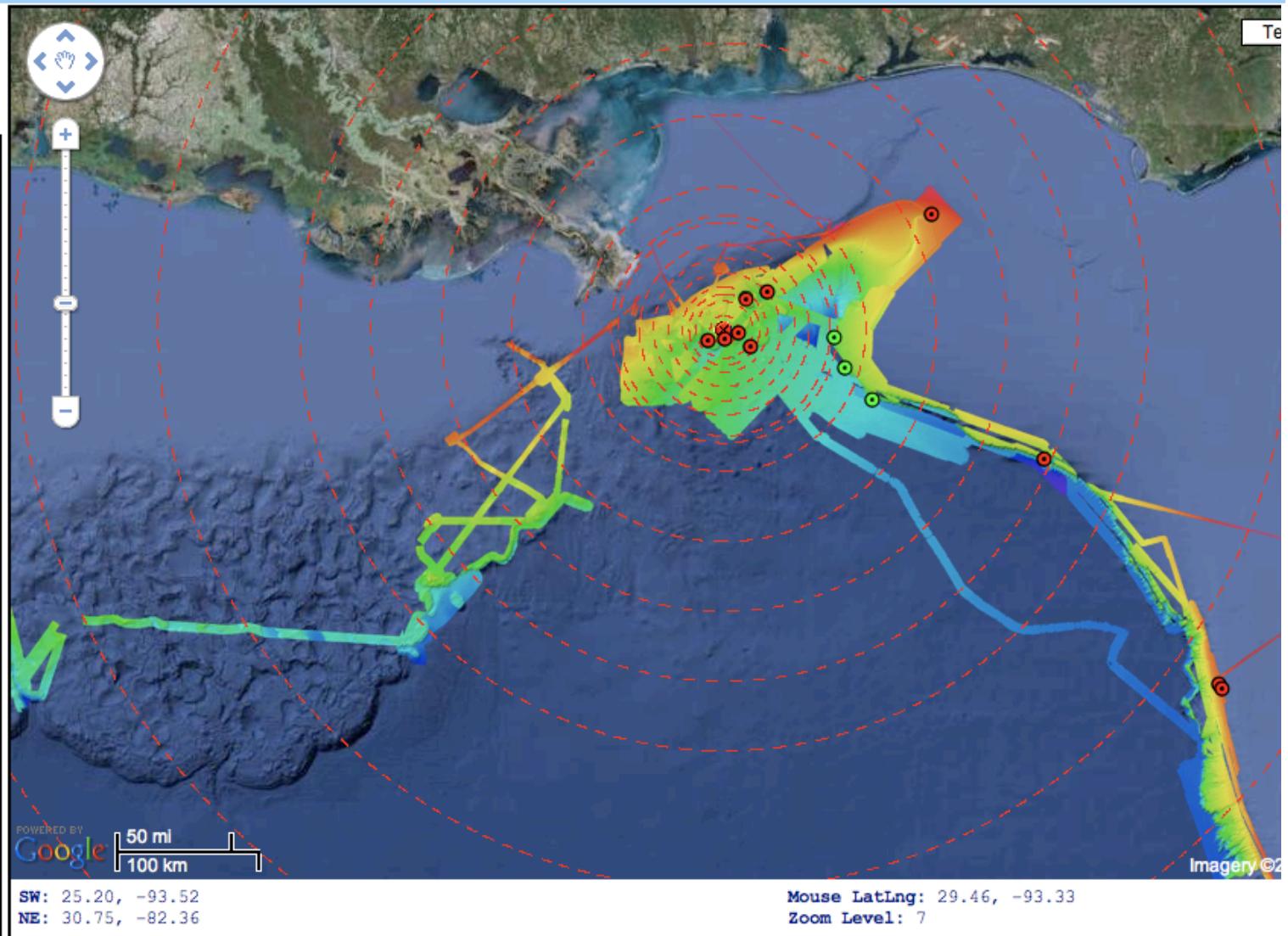
Help

Select A Cruise:

EX1202L2 Mar 20 – Apr 07

Available Data Layers

- Ship Track
- Ship Observations (GMT)
- Daily Updates
- Bathymetry
- CTDs
- Dives
- Additional Data and Tools
 - Exclusive Economic Zones *N*
 - Plate Tectonics *N*
 - Volcanoes *▲*
 - Sea Surface Temperature
 - USA Sanctuary Boundaries
 - USA Sanctuary Names
 - Lease Blocks
 - Oil and Gas Platforms
 - Oil and Gas Pipelines
 - NDBC Buoys
 - Shipping Fairways
 - DWH Location
 - Distance From DWH
 - Education
 - Other Cruise Tracks





data explorer

beta release

[HOME](#) [DATA SEARCH](#) [SEARCHTIPS](#)

Search

Search metadata content, including title, abstract, and keywords

Records shown from: OER data explorer

Click here to select different site or configure search.

[OER data explorer](#)

28 Results

[YouTube](#)

3 Results

[NGDC Geoportal CSW](#)

5 Results

[NODC Geoportal CSW](#)

15 Results

Select sites where the search will be distributed

You may select up to 5 sites.

- OER data explorer
- YouTube
- NGDC Geoportal CSW
- NODC Geoportal CSW

GEOGRAPHIC AREA

Zoom the map to desired area, and choose "intersecting" or "fully within"

- Anywhere
- Intersecting
- Fully within

EXPLORE

Results 1–25 of 28 record(s)

[1](#) [2](#) [>](#) [Last](#)

Expand results [Zoom To Results](#) [Zoom To Searched Area](#)

[Ship Navigation KML Product for EX1202L2: Gulf of Mexico Exploration](#)

KML representation of the navigational track of the NOAA Ship Okeanos Explorer during EX1202L2 in the Gulf of Mexico between 20120319 and 20120407

[Open](#) [Preview](#) [Metadata Details](#) [Metadata XML](#) [Zoom To](#)

[KML representation of Little Hercules ROV Trackline for DIVE01 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between 20120319 and 20120407](#)

KML representation of Little Hercules ROV Trackline for DIVE06 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between 20120319 and 20120407

[KML representation of Little Hercules ROV Trackline for DIVE14 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between 20120319 and 20120407](#)

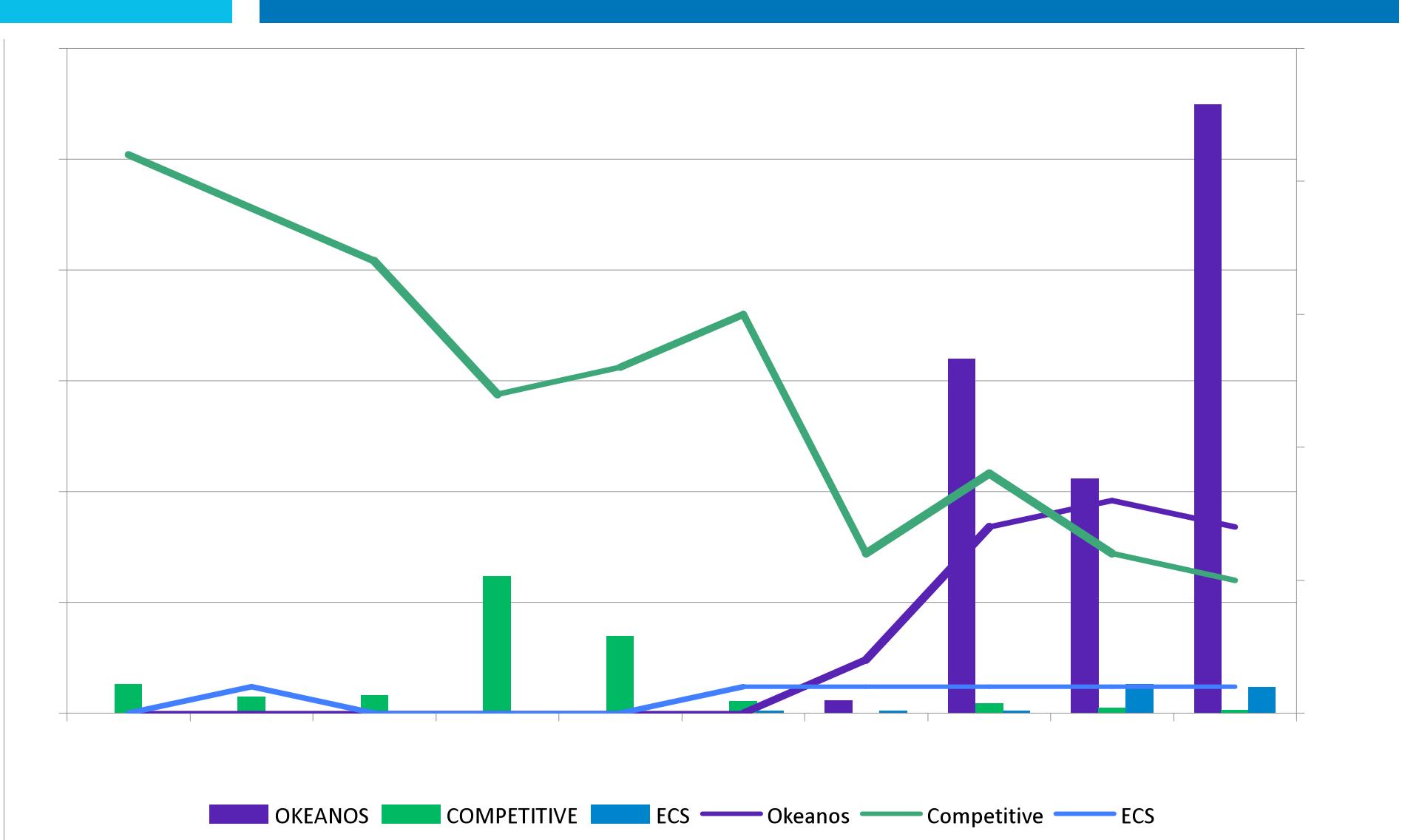
KML representation of Little Hercules ROV Trackline for DIVE02 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between 20120319 and 20120407

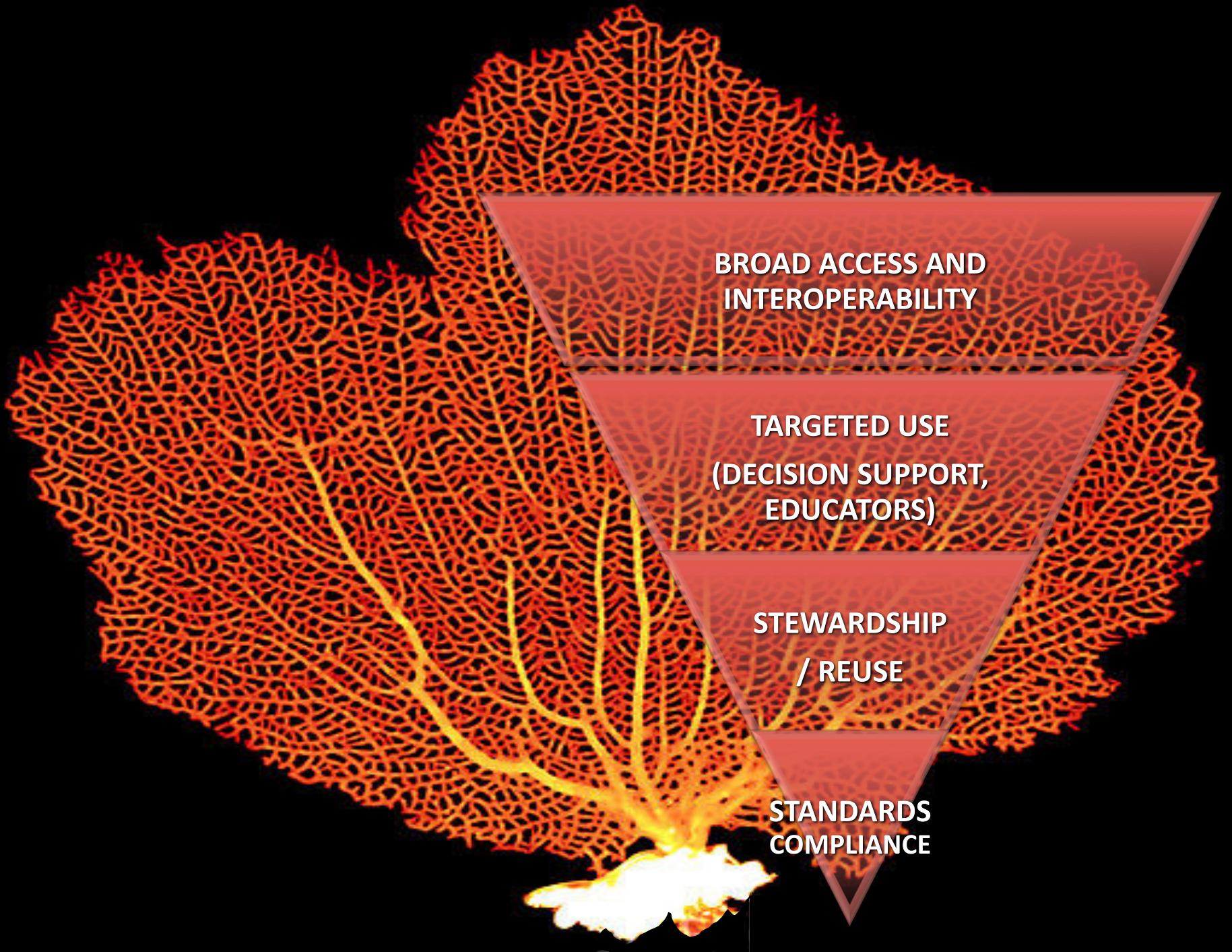
[KML representation of Little Hercules ROV Trackline for DIVE03 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between 20120319 and 20120407](#)

KML representation of Little Hercules ROV Trackline for DIVE04 during EX1202L2 :Gulf of Mexico Exploration on NOAA Ship Okeanos Explorer between

Ocean Exploration Program Review – May 7-8, 2012

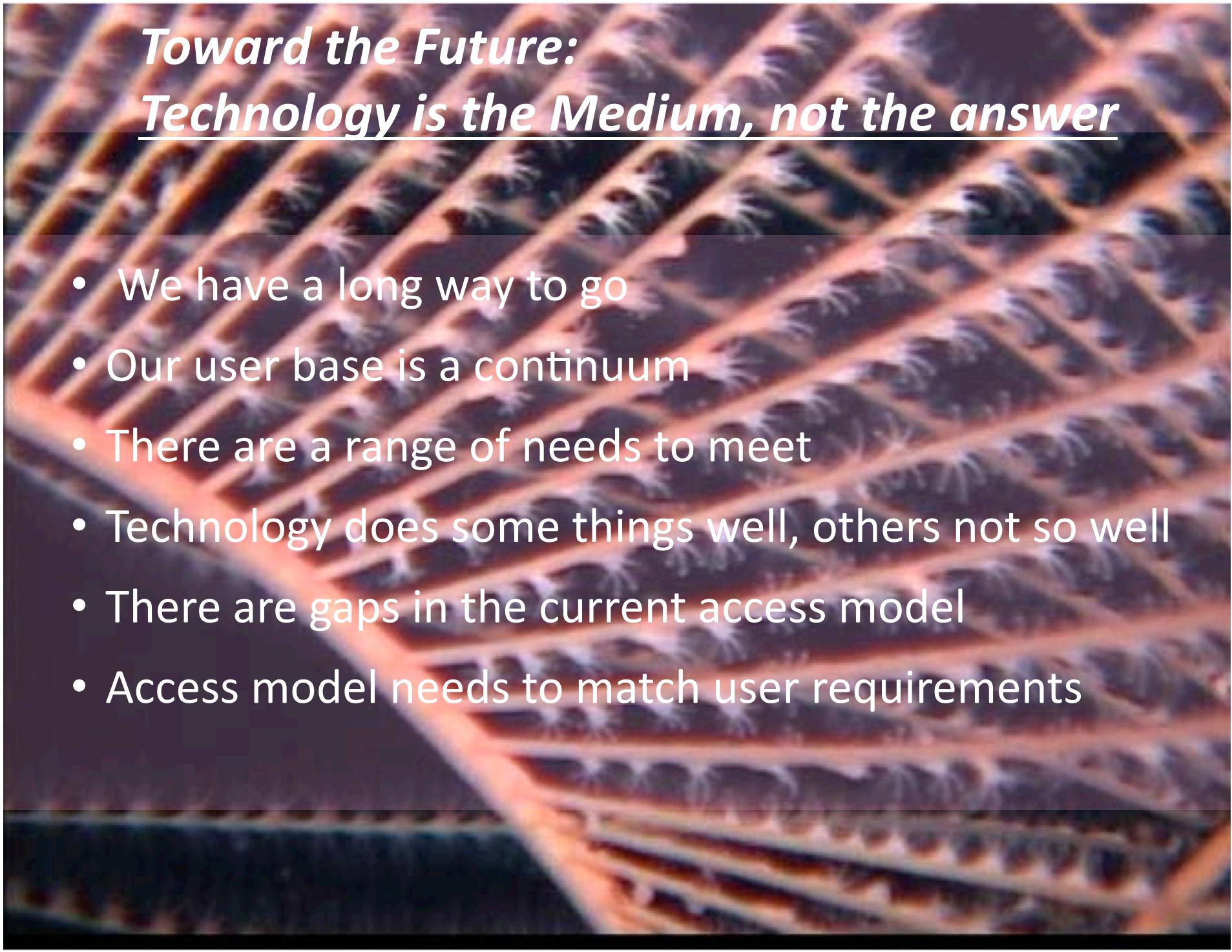
Trends in Data Volume -vs- Expeditions





Toward the Future: Spontaneity Should be Celebrated

- Old rules no longer apply
 - More demand for information
 - Linking high quality content together online is a way of meeting that demand
 - Technology is an access equalizer
 - No more ‘one stop shopping’ (many routes to information)
- Access will be customized by systems that learn about and give users what they are looking for
 - Amazon.com for data: users who liked THIS also liked THAT (or found xyz helpful)



Toward the Future: Technology is the Medium, not the answer

- We have a long way to go
- Our user base is a continuum
- There are a range of needs to meet
- Technology does some things well, others not so well
- There are gaps in the current access model
- Access model needs to match user requirements