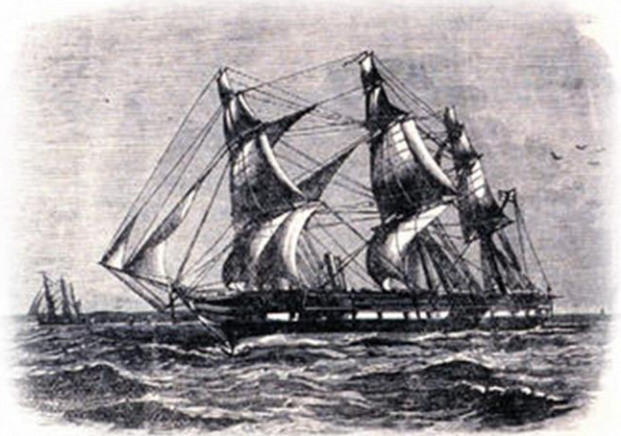


# La Batimetría y su utilidad

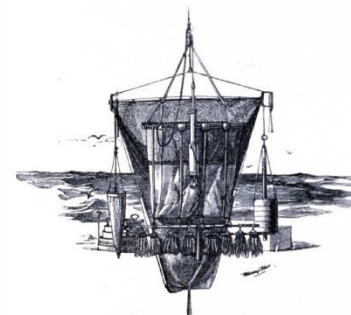
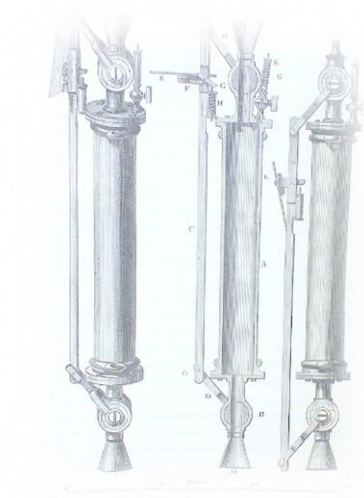
Deborah Febres Urdaneta – Abril, 2016



# Erase una vez...



H.M.S. CHALLENGER UNDER SAIL, 1874.



TRAWL, DREDGE, TOW-NET, WATER-BOTTLE, SOUNDING MACHINE, AND SIEVE.



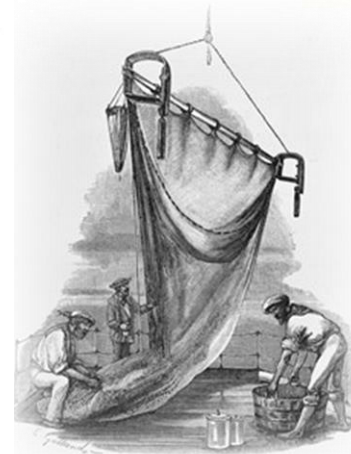
—SOUNDING LEAD—



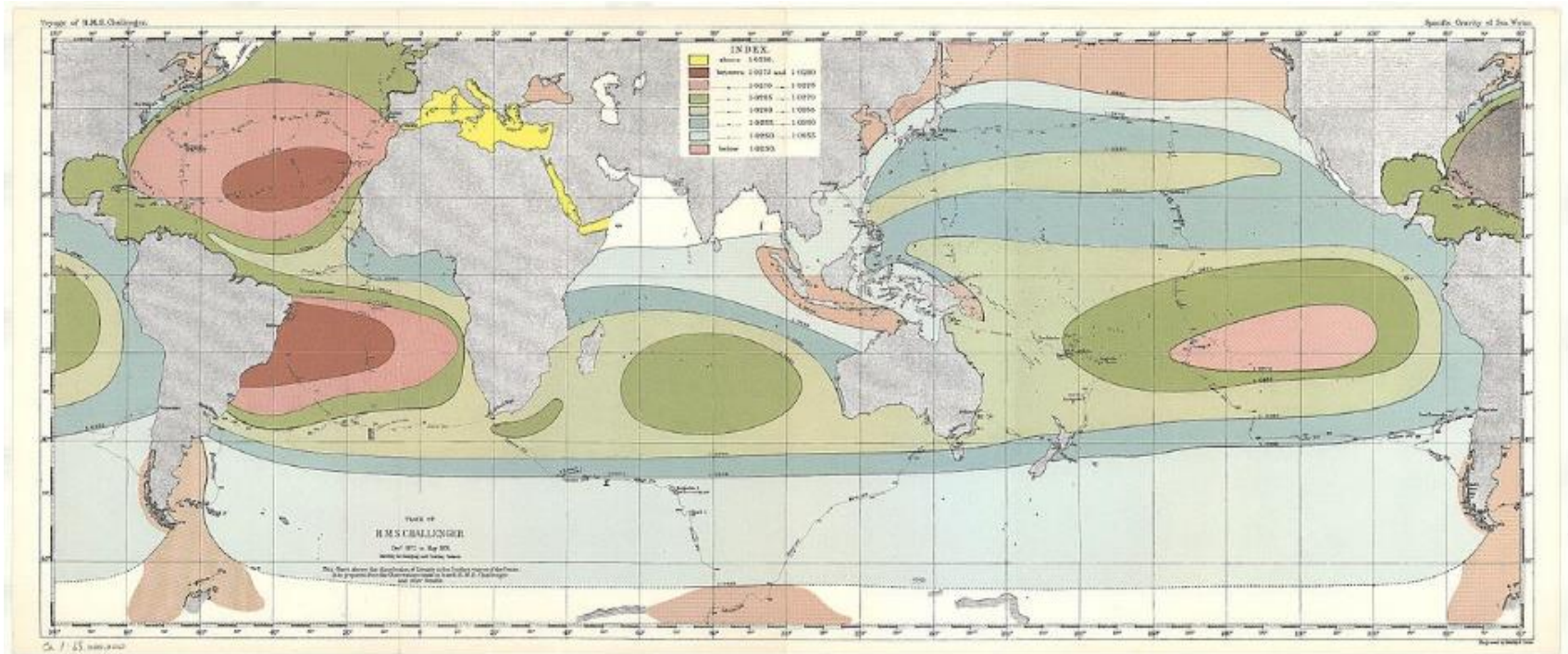
FIG. 17.—The Cup Lead.



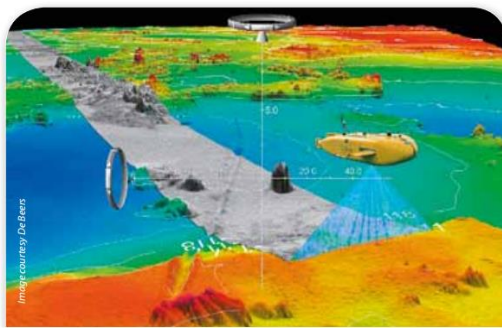
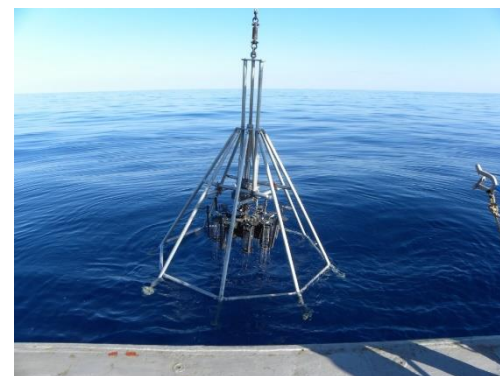
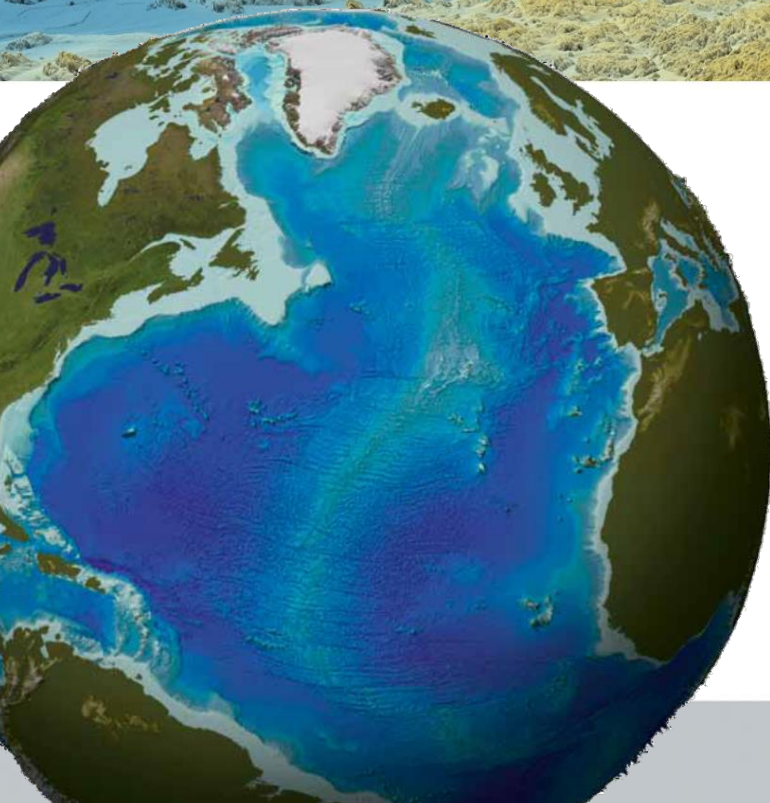
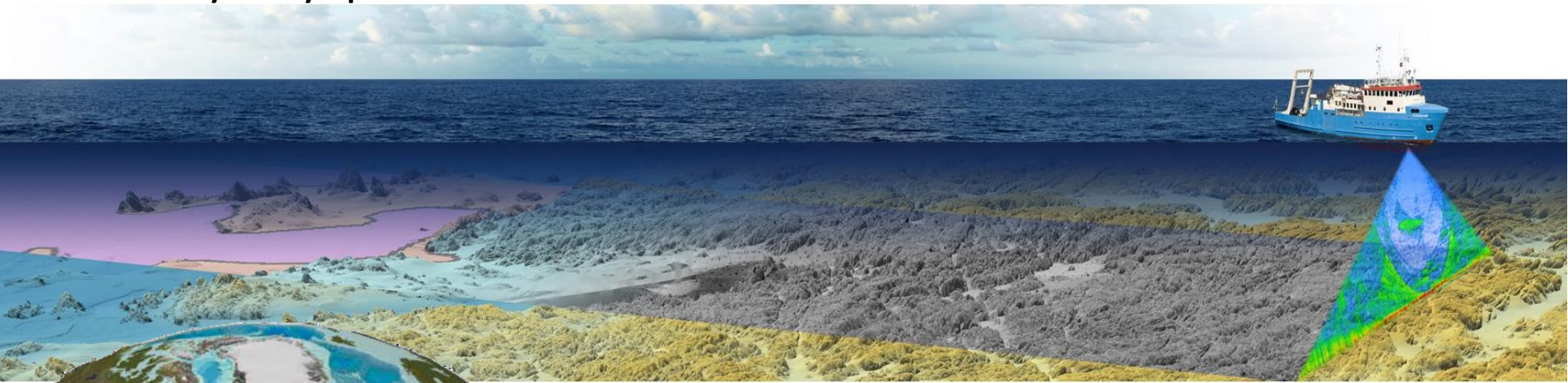
FIG. 18.—The Valve Sounding Lead.



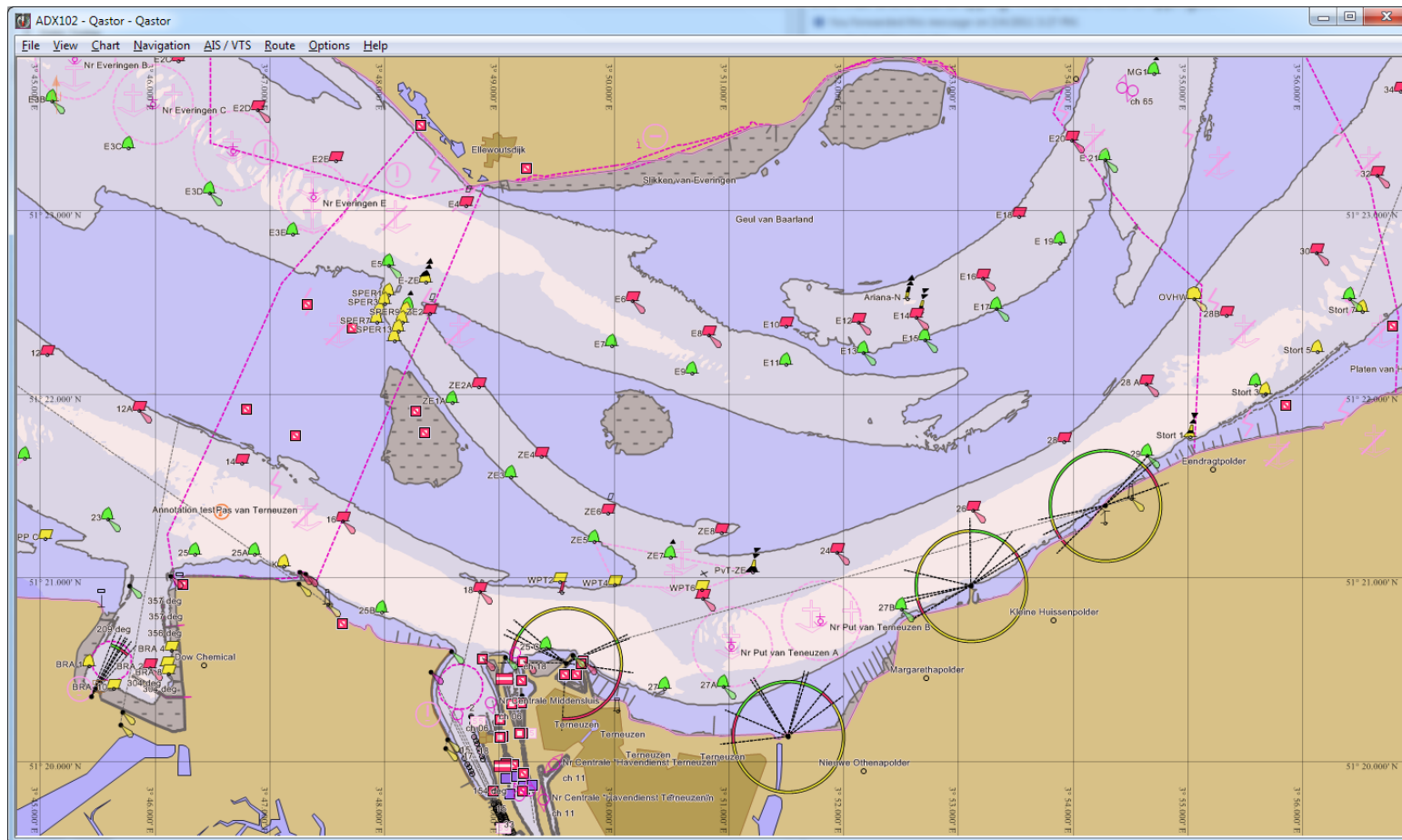
# Antes...



# Hoy... y probablemente mañana



# Después...



La pantalla se actualiza a la marea en tiempo real



# Geología, Oceanografía y Biología Marina



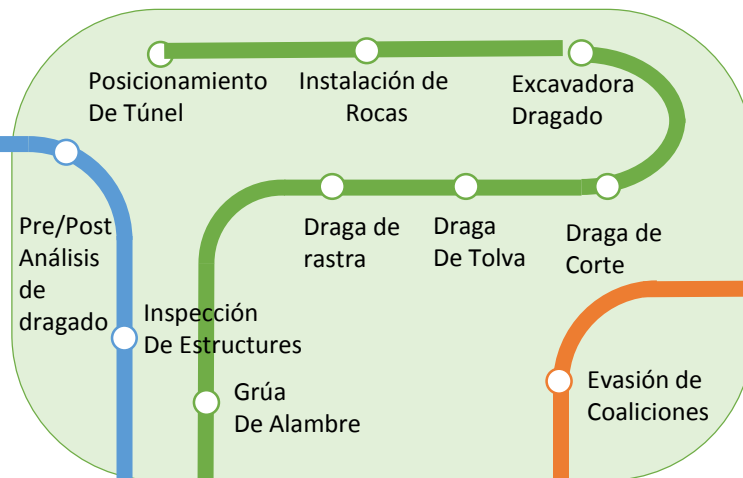
QINSy

Fledermaus

Qimera

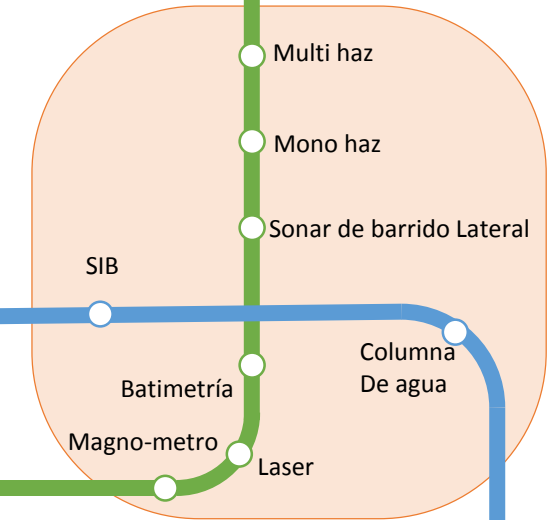
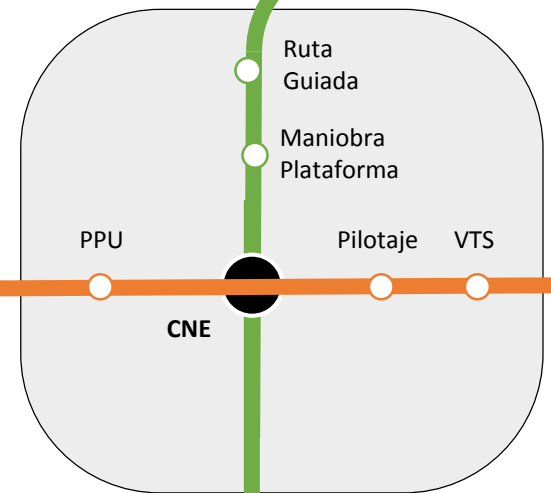
Qastor

# Construcción



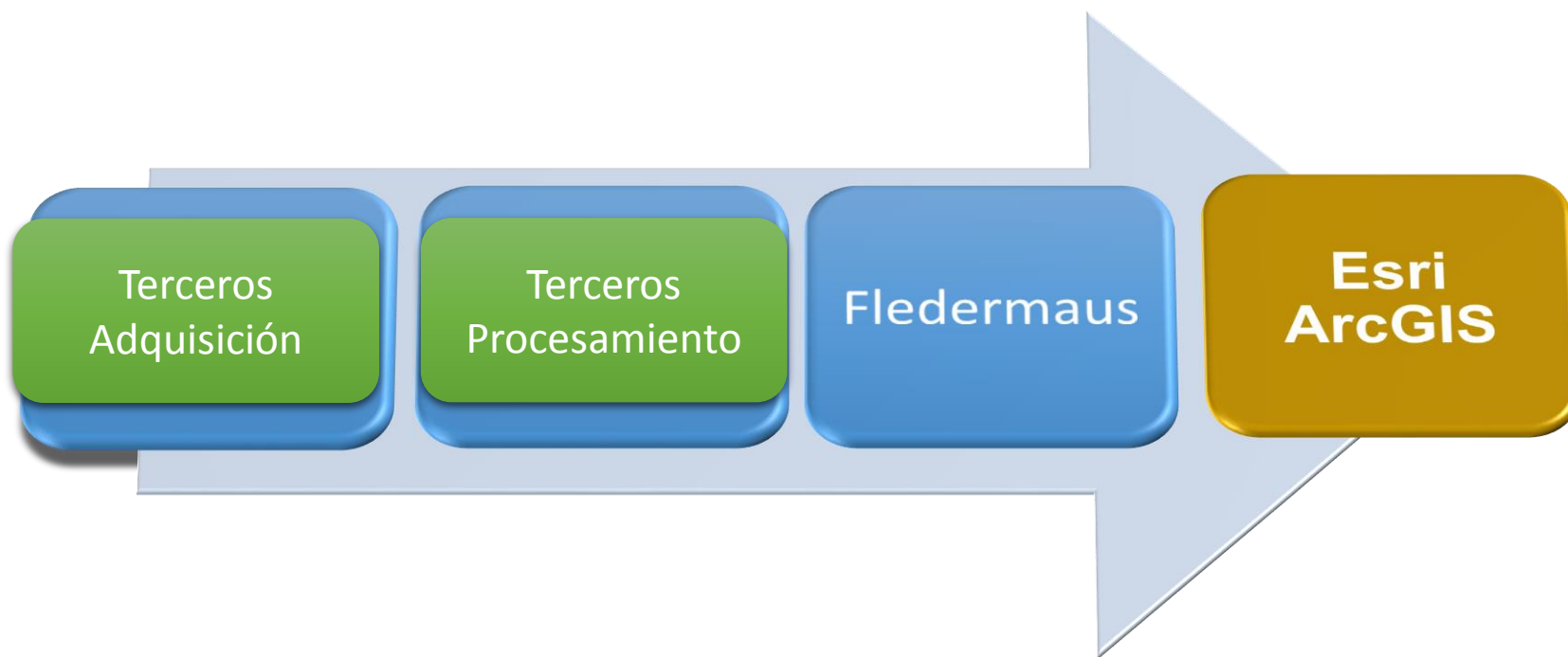
# Costa afuera

# Navegación



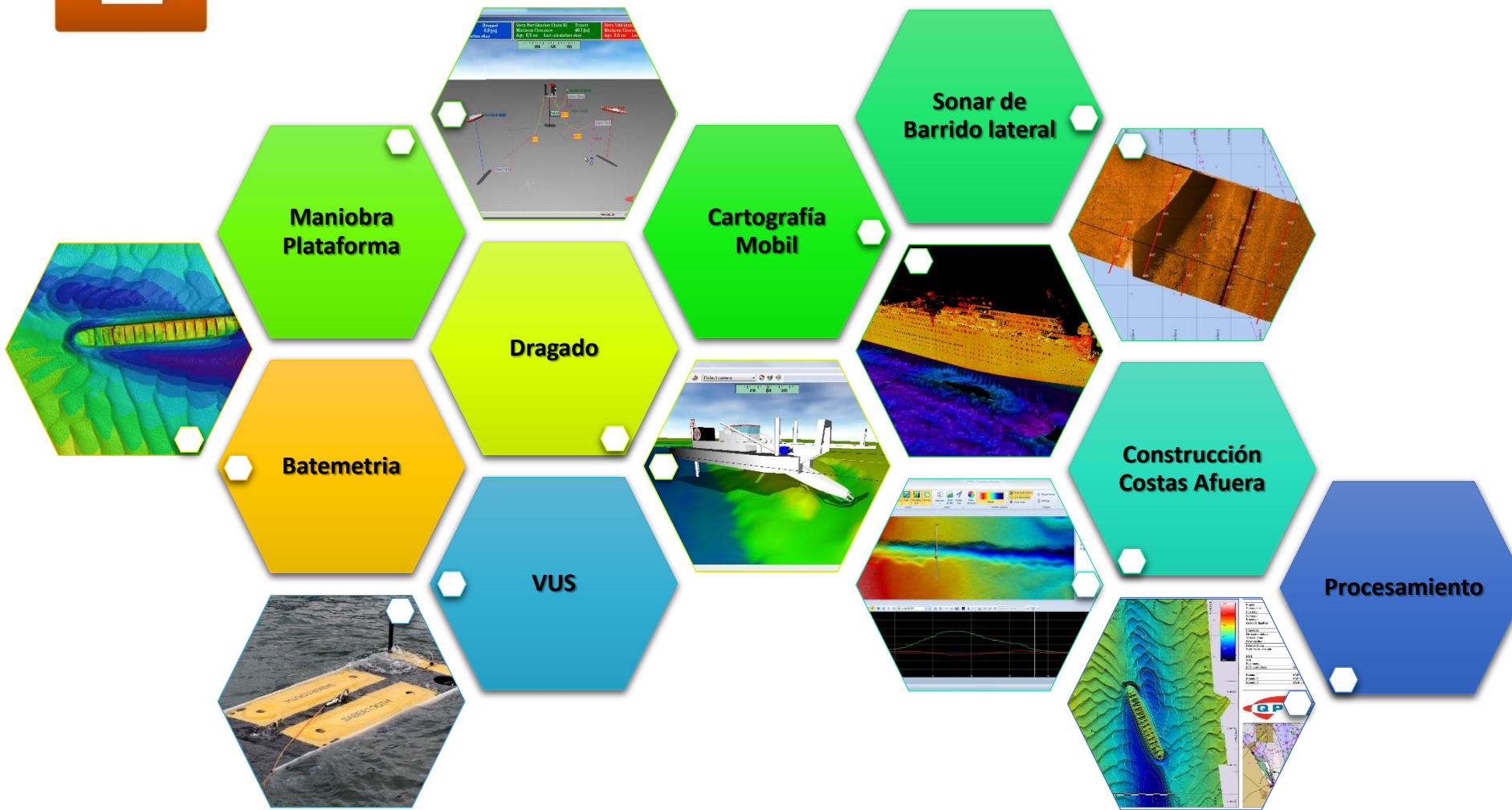
# Hidrografía

# Las industrias y usuarios





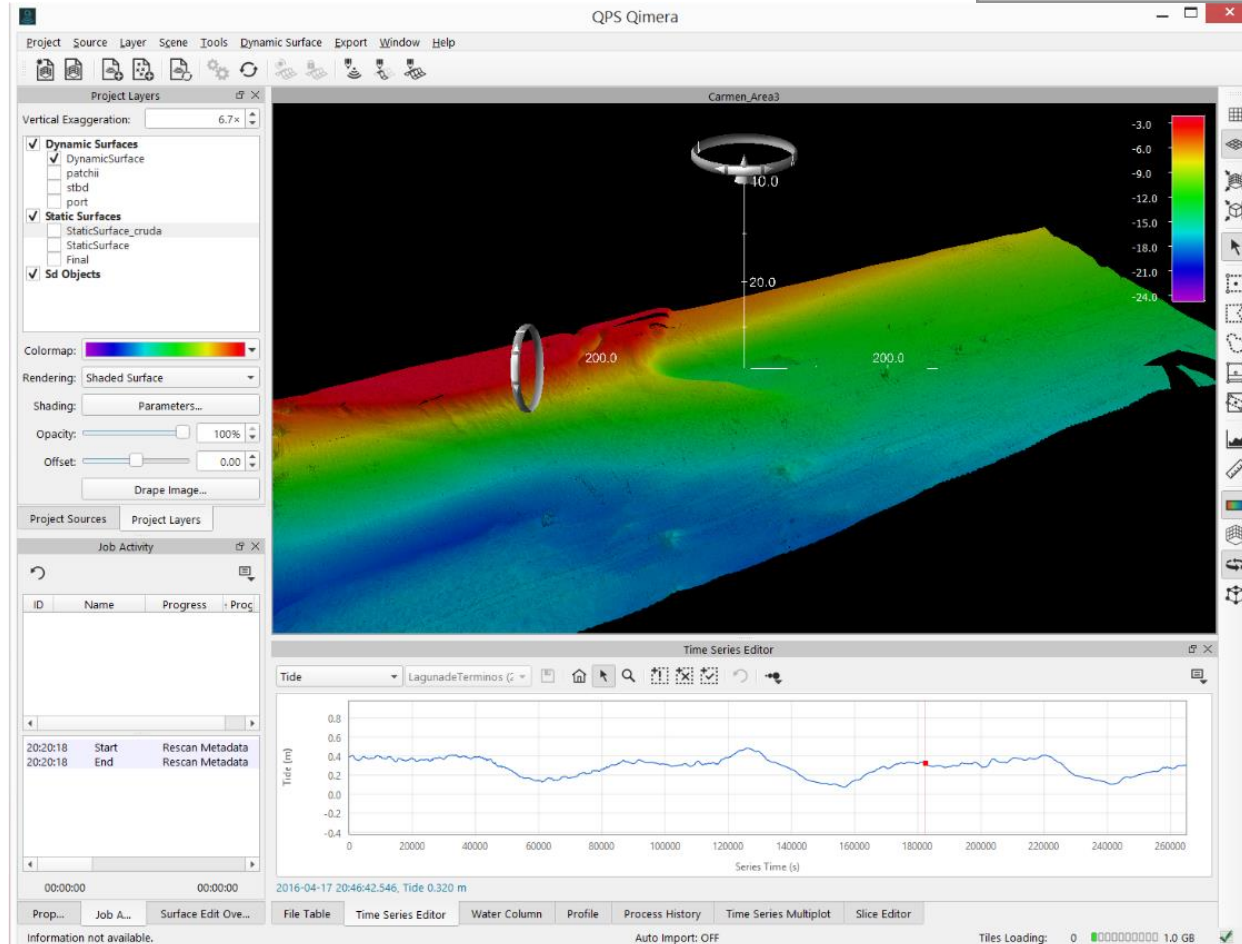
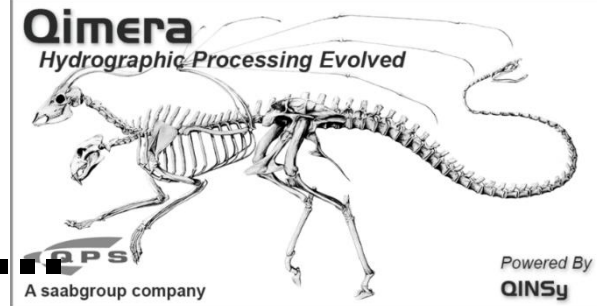
# QINSY Acquisición de datos...



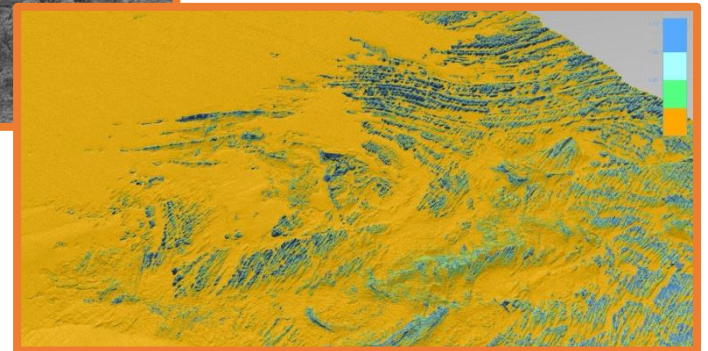
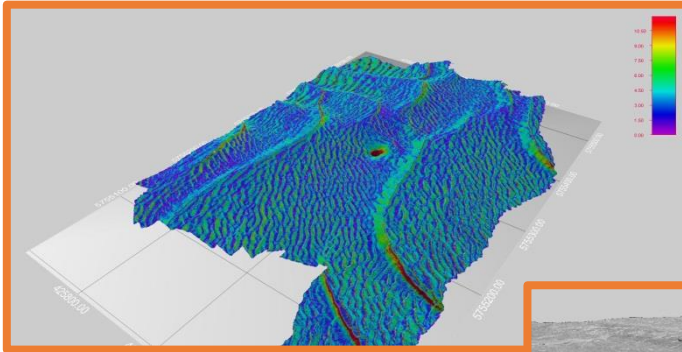




# Qimera: para procesar...



# Producto para especialistas...



# Totales ...

The screenshot displays the Fledermaus software interface. The main window shows a 3D visualization of a terrain with various data layers overlaid. The terrain is colored in shades of purple, blue, and green, indicating different elevation or data values. The visualization is viewed from an isometric perspective.

**Scene List (Left Panel):**

- Scene
  - Interpretation\_Backscatter\_draped.sd\*
  - Interpretation\_Backscatter.sd
  - Interpretation\_area\_slope
  - Interpretation\_area\_rugosity
  - Interpretation\_Area\*
  - Interp1
  - Interp1\_image1\*
  - Clamcatch\*
  - Interpretation\_Area-Drapedinter.sd\*

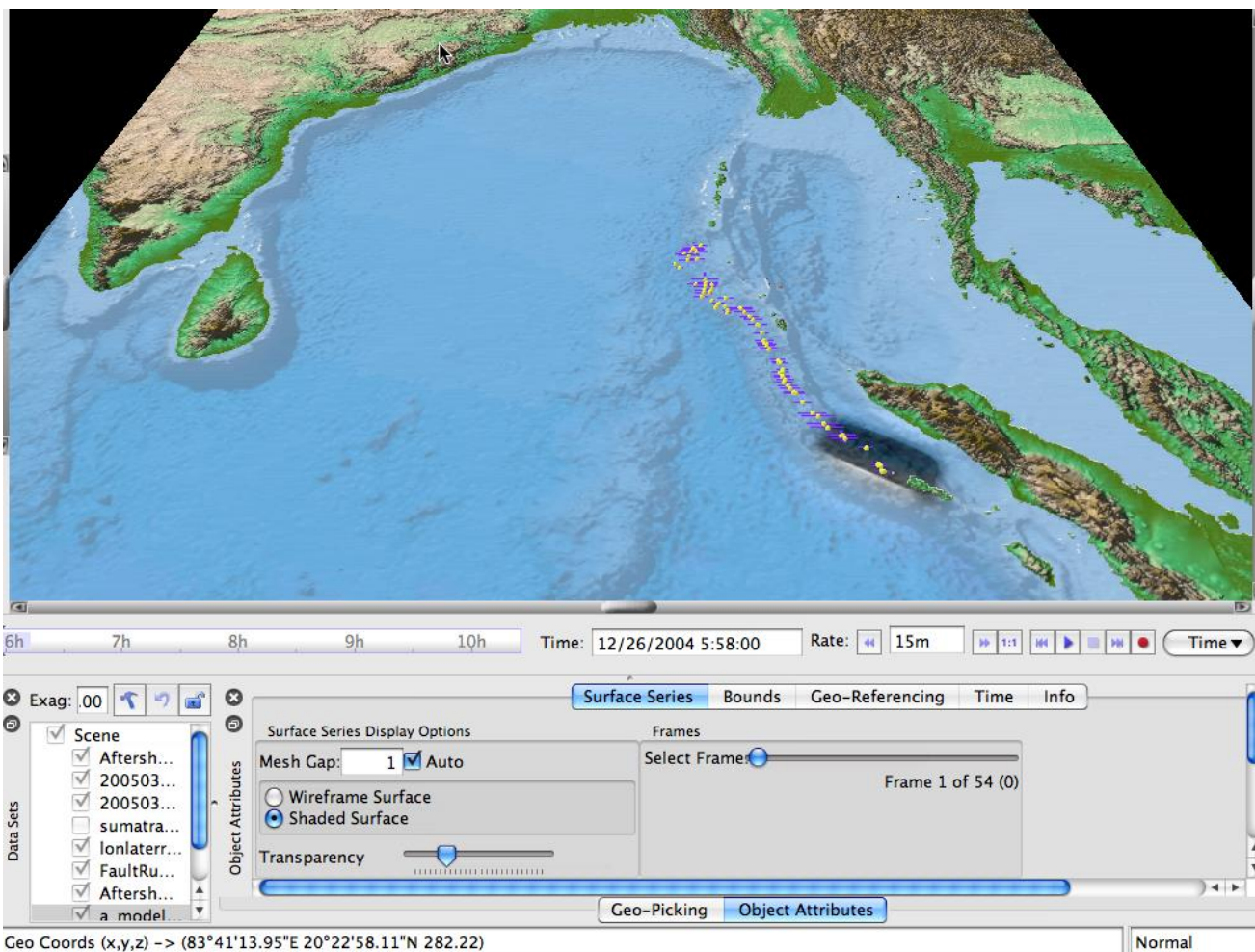
**Scene Display Settings (Bottom Panel):**

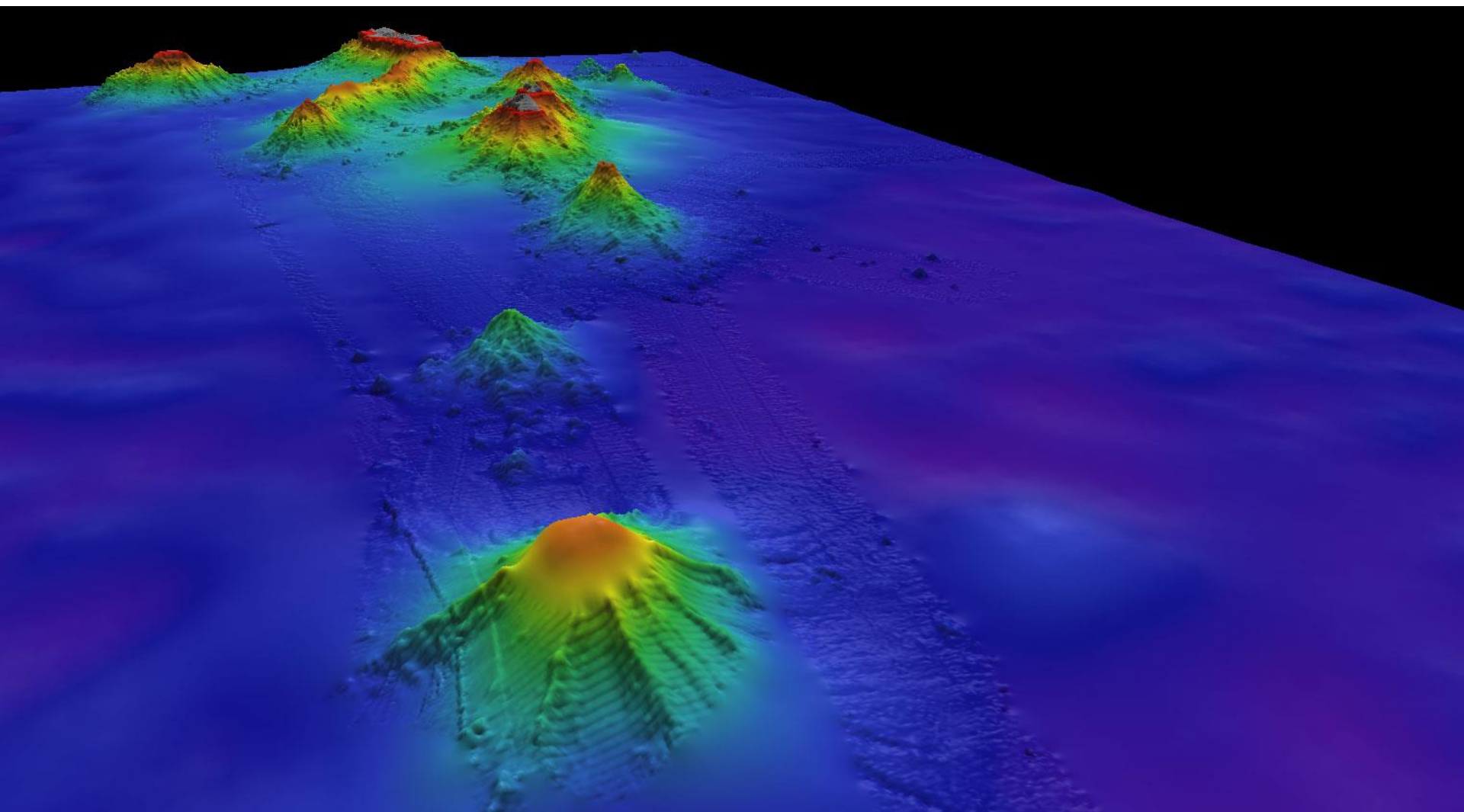
- Scene Display Coordinate System: FP\_WGS\_84\_UTM\_zone\_30N
- Local Vertical Unit Datum: FD\_undefined
- Geographic Unit Displays: -122.765235°
- Projected Units Display: 4678392.9
- Display Mode: Flat
- Active Pick Point Object: None
- Colors: Background Color: Black, Foreground Color: White, Swap Colors button.

**Geo Coordinates (Bottom Bar):**

Geo Coords (x,y,z) -> (417501.5 5576029.2 -9.54) (lat,lon) -> (50.330577°, -4.1591177°)

# Análisis Científico

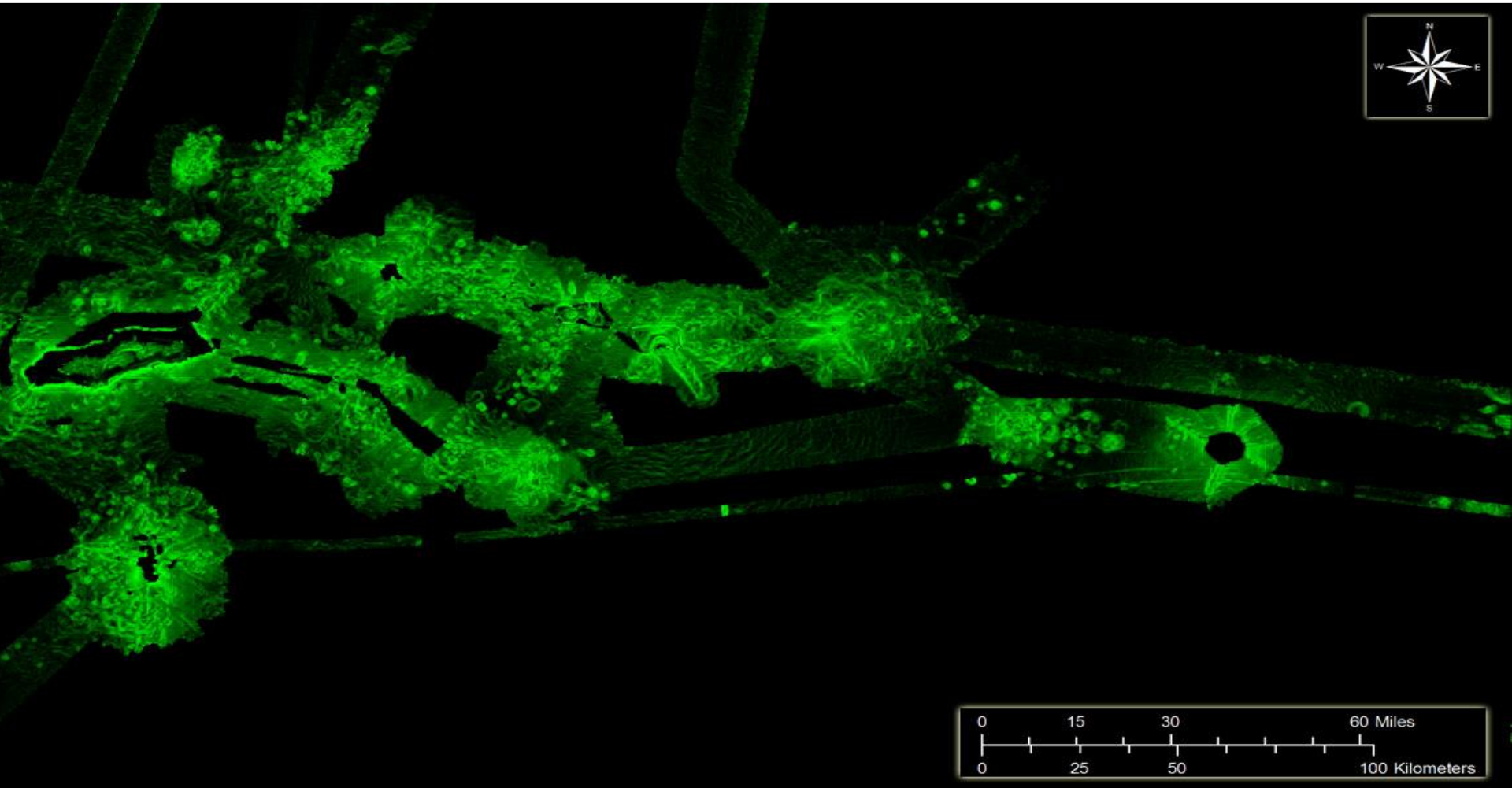




Credit: Jed Roberts

Data source: The Seamount Catalog  
[www.earthref.org](http://www.earthref.org)

# Análisis de pendientes



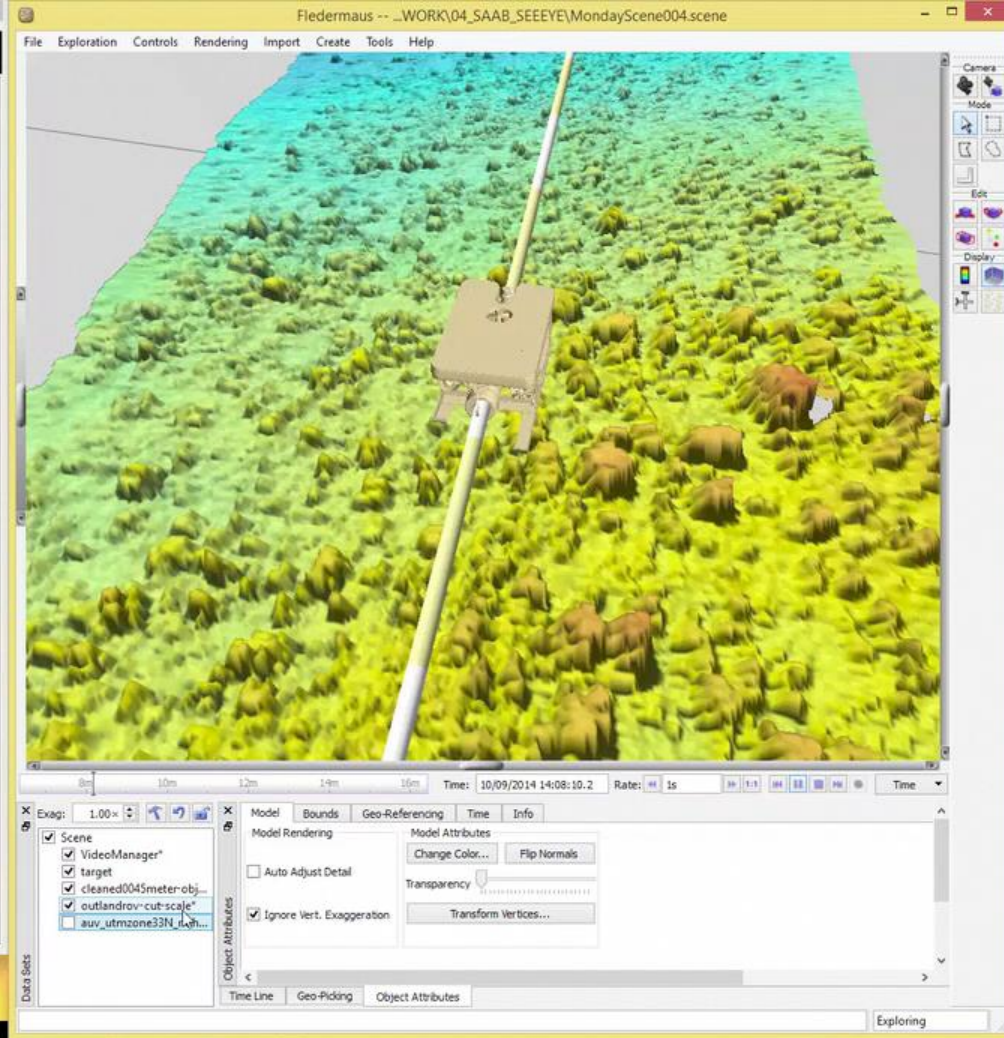
Credit: Jed Roberts

Data source: The Seamount Catalog

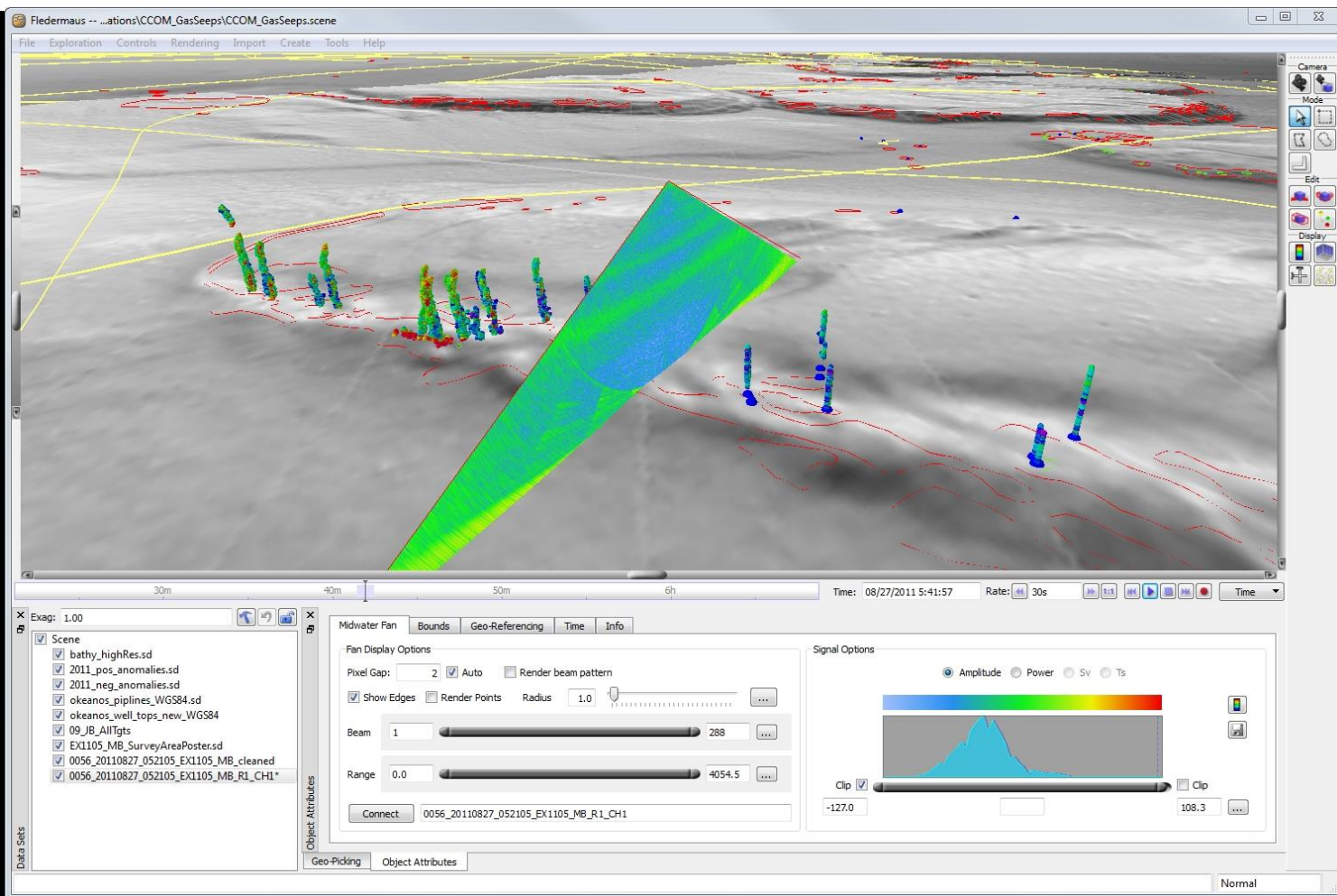
[www.earthref.org](http://www.earthref.org)



# Inspección de tuberías y cables

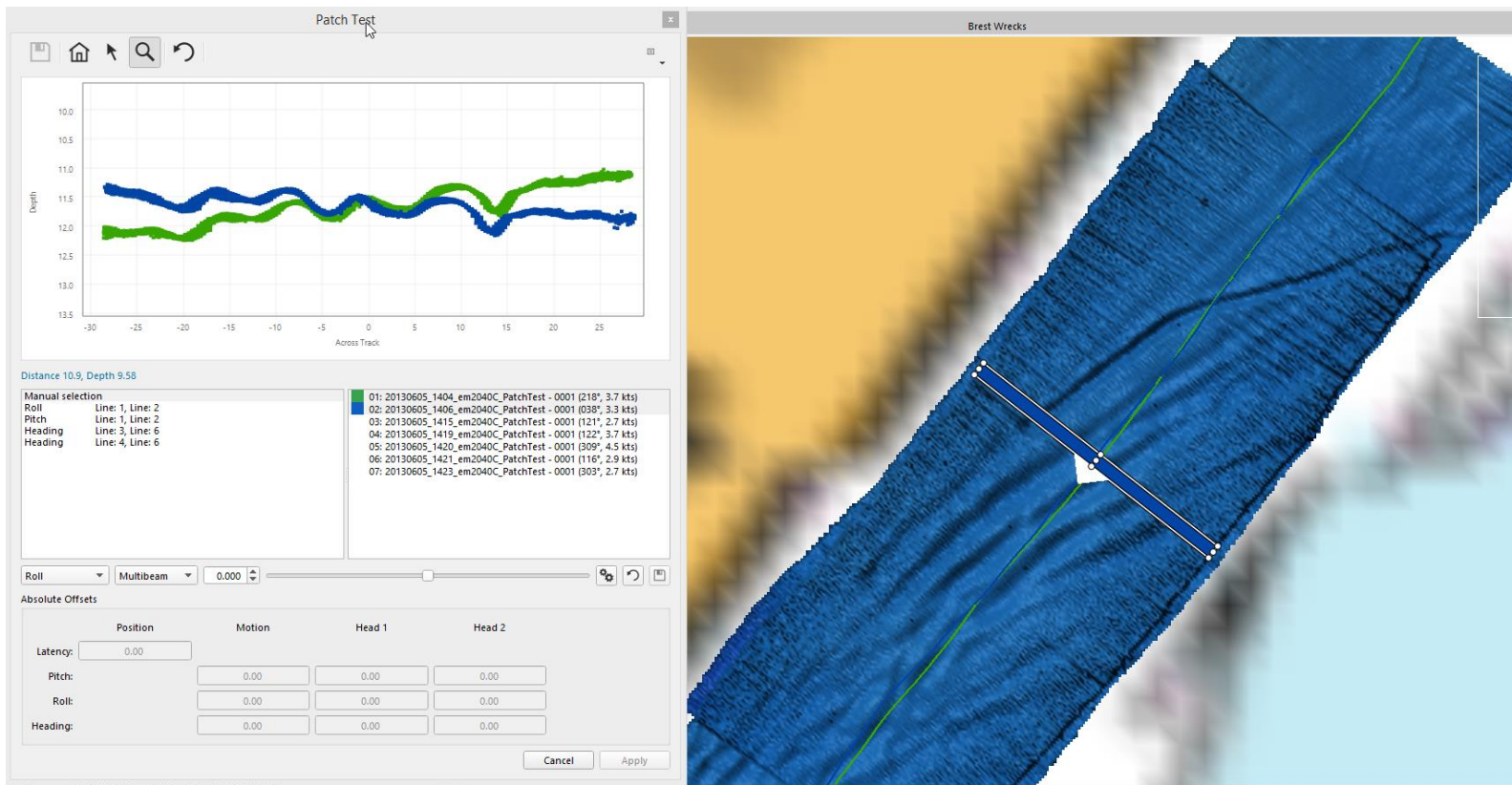


# Impacto ambiental

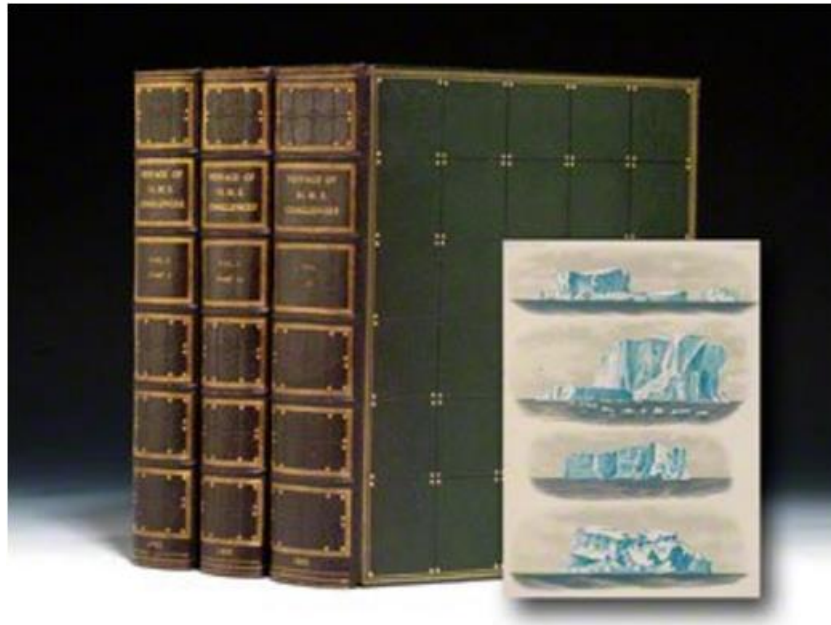




# Calibración



# Perspectivas...

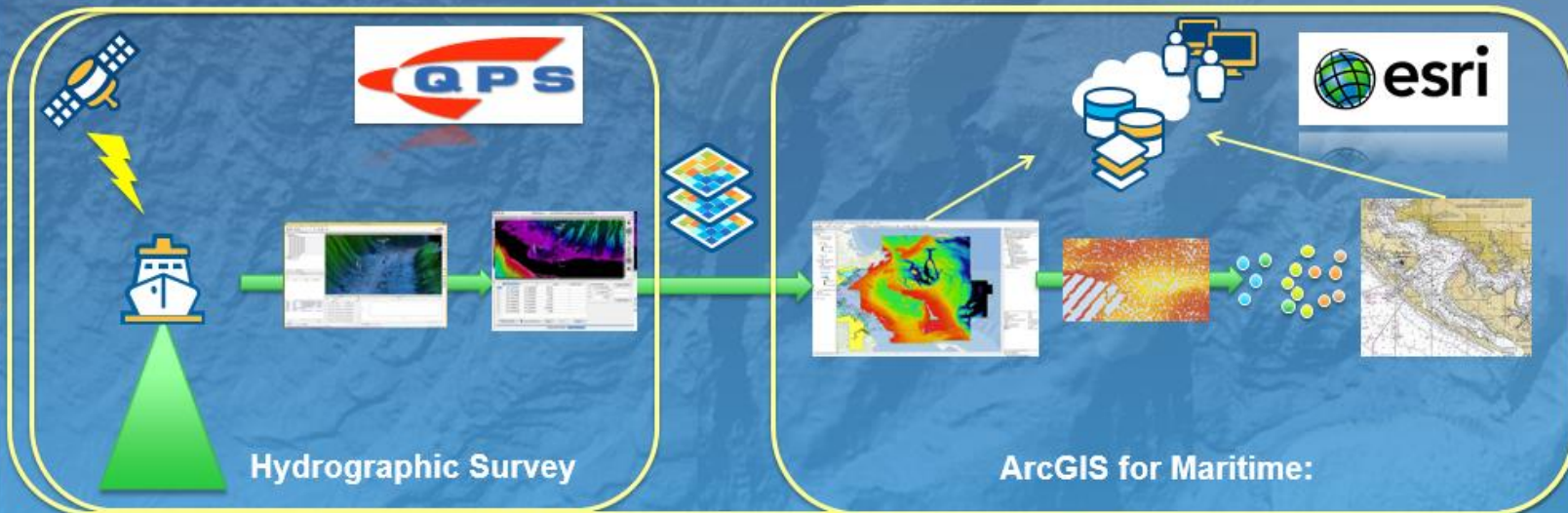


**Informes y resultados de las misiones de HMS Challenger**



# Producto para todos los datos acceder...

## QINSy – Qimera – Fledermaus – ArcGIS for Maritime The Modern Hydrographic Workflow



- |  |   |  |   |   |   |
|--|---|--|---|---|---|
| <p><b>QINSy</b><br/>Data Acquisition</p> <ul style="list-style-type: none"> <li>- Survey planning</li> <li>- Data collection</li> <li>- Nav Data</li> <li>- Positioning</li> </ul> | <p><b>Qimera</b><br/>Post processing</p> <ul style="list-style-type: none"> <li>- Data Analysis</li> <li>- Applying corrections</li> <li>- Data cleaning</li> </ul> | <p><b>Fledermaus</b><br/>Post processing</p> <ul style="list-style-type: none"> <li>- QC/QA</li> <li>- 3D analysis</li> <li>- Surface creation (BAG and other Raster)</li> </ul> | <p><b>Bathymetry</b></p> <ul style="list-style-type: none"> <li>- Data management</li> <li>- Metadata</li> <li>- Data analysis</li> <li>- Compose surface</li> <li>- Collections</li> <li>- Surface modeling</li> <li>- Reduce point density</li> </ul> | <p><b>Charting</b></p> <ul style="list-style-type: none"> <li>- Nautical data management</li> <li>- Chart production</li> <li>- Chart like products</li> <li>- IHO compliant</li> </ul> | <p><b>Server</b></p> <ul style="list-style-type: none"> <li>- Sharing Data and Products</li> <li>- ENC Online</li> <li>- Baseline for MSDI</li> </ul> |
|--|---|--|---|---|---|

# Aplicaciones, soluciones y servicios para la comunidad marítima



## QINSy

Levantamientos hidrográficos y sistemas de posicionamiento



## Fledermaus

Visualización y análisis



## Qimera

Procesamiento de datos hidrográficos



## Qarto

Producción específica de CNE



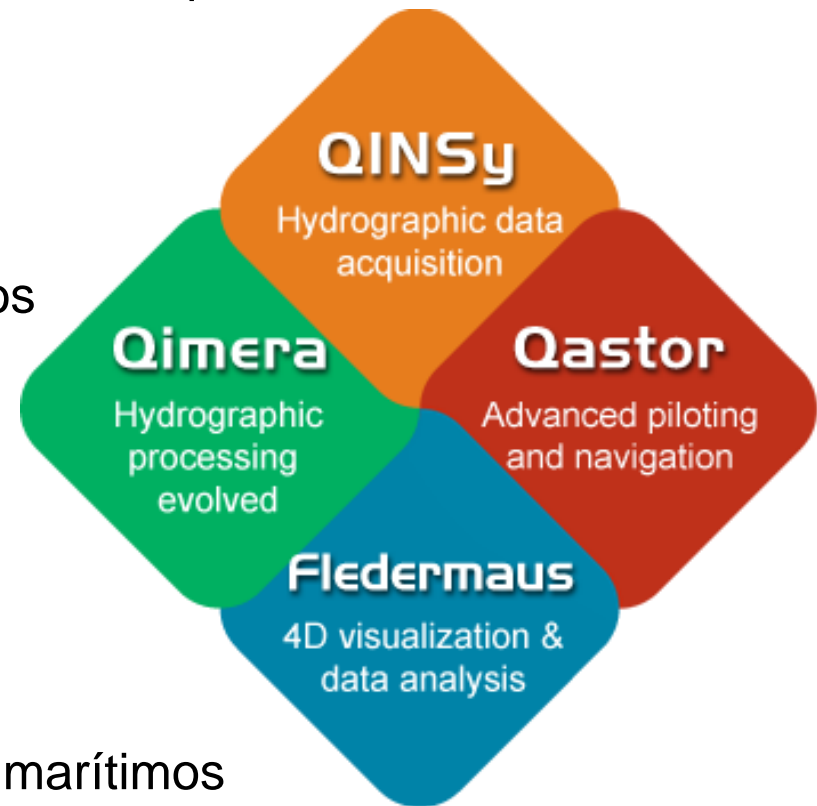
## Qastor

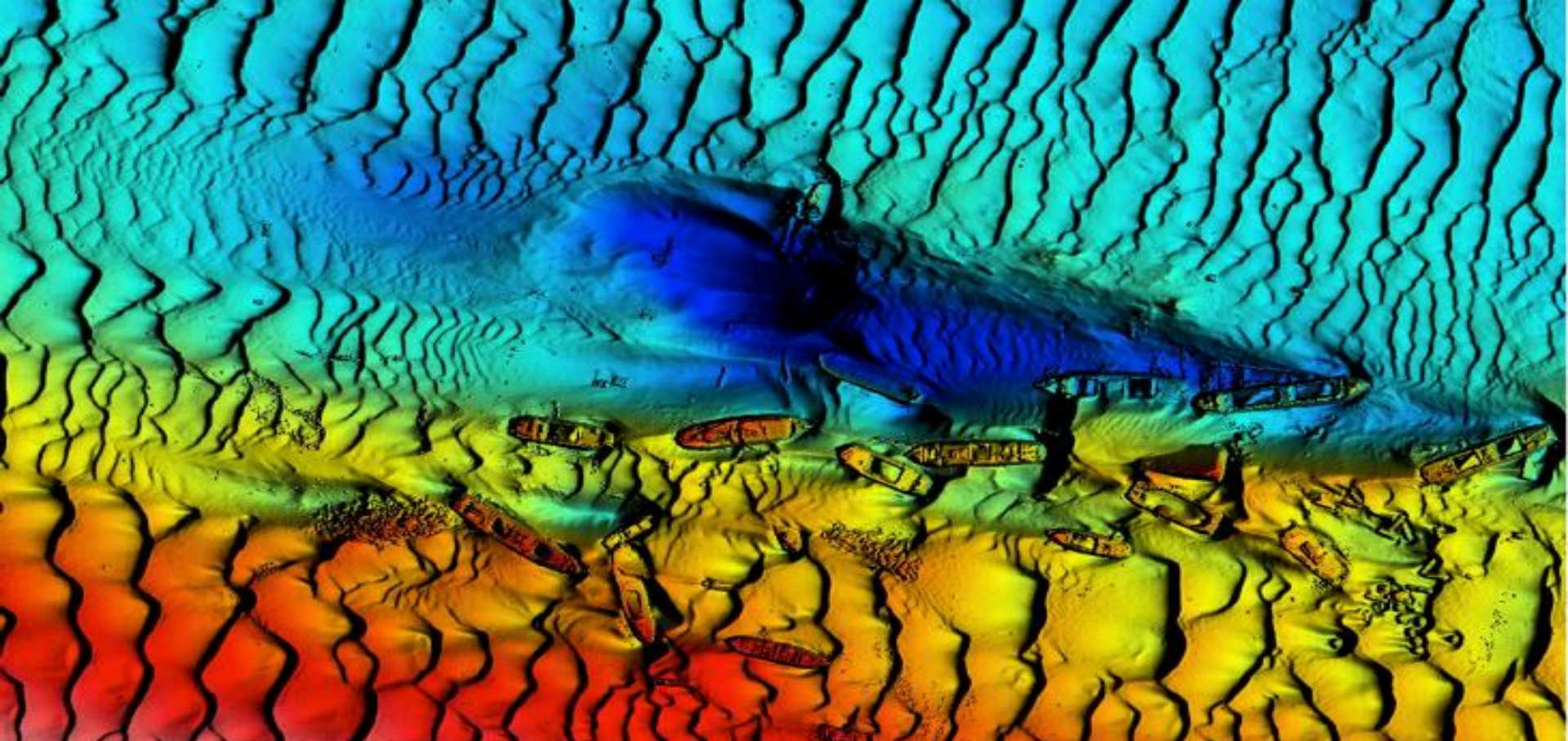
Navegación y acoplamiento



## Connect

Sistemas de distribución para datos marítimos





**Gracias**



**SAAB**

**SAAB**GROUP.COM