

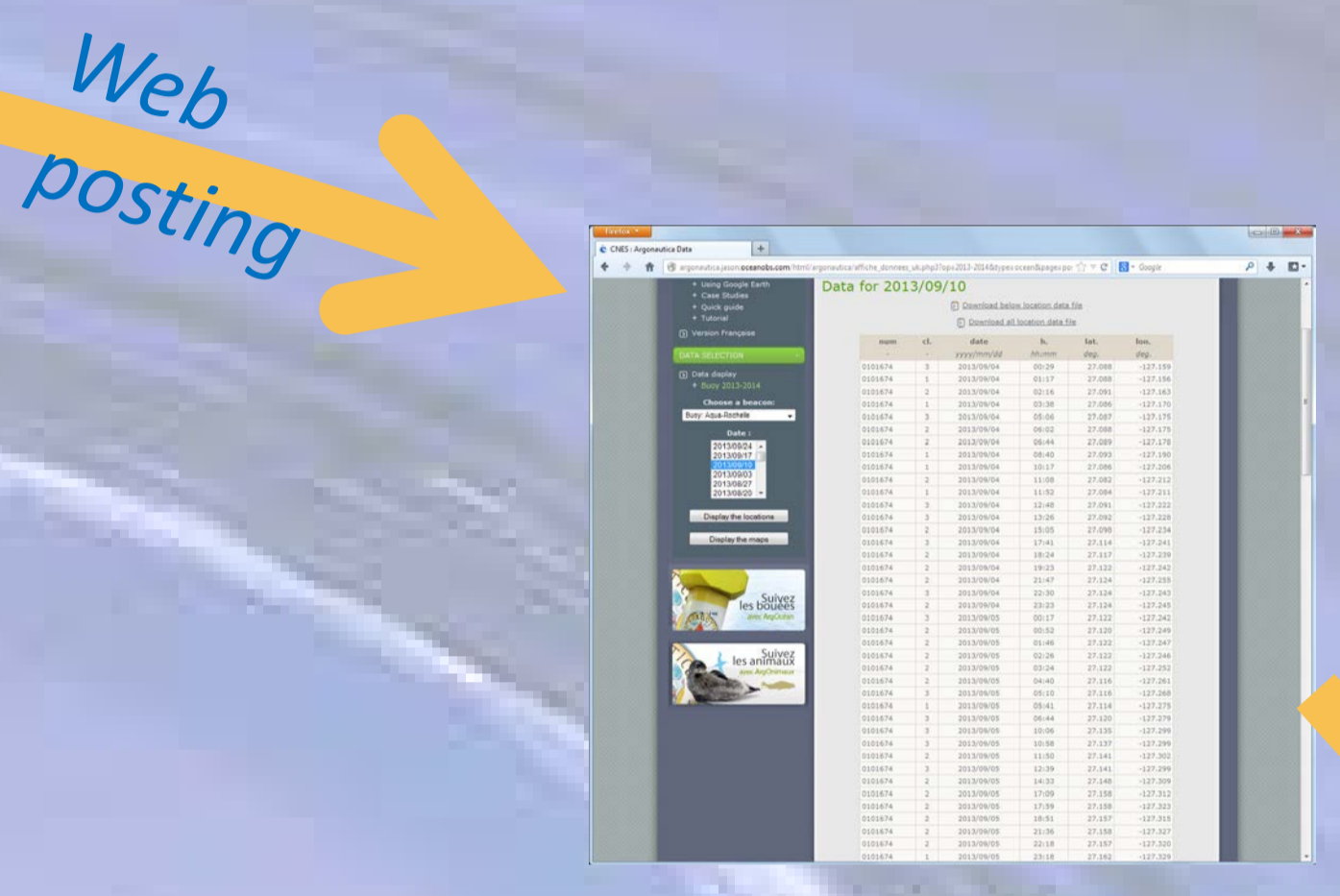
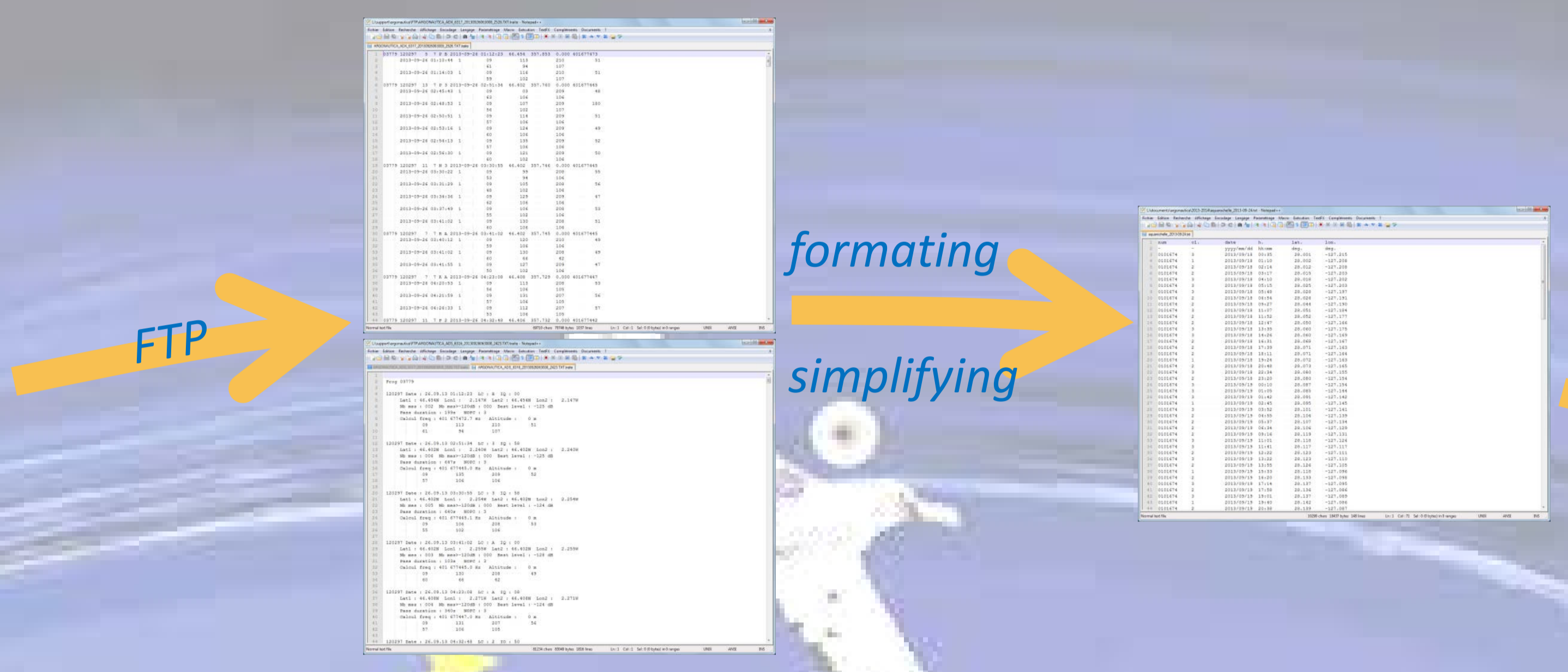
# Argonautica: behind the scenes (que se passe-t-il derrière l'écran ?)

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The Argonautica educational project makes actual oceanographic data available to primary and secondary students. The project proposes among other activities to monitor drifting buoys or Argos beacon on marine animals. This enables the students to understand oceanic circulation, the links between ocean and environment and how they vary, We've been talking for more than ten years of the enthusiasm of students and teachers participating to the project; of the possibilities of the project; of the achievements of the participants... Now we lift the veil on what's happening behind the scenes.

- Current processings**
- Defined in 2004 (for the 2004-2005 Vendée Globe)
  - For weekly deliveries with a delay for maps
  - And yearly complete re-processing
  - Possibility of having Argos beacon sensor data
  - Pole projections, Google Earth added afterwards

**At the beginning:**  
Argos beacons  
launched in the ocean,  
or carried by animals



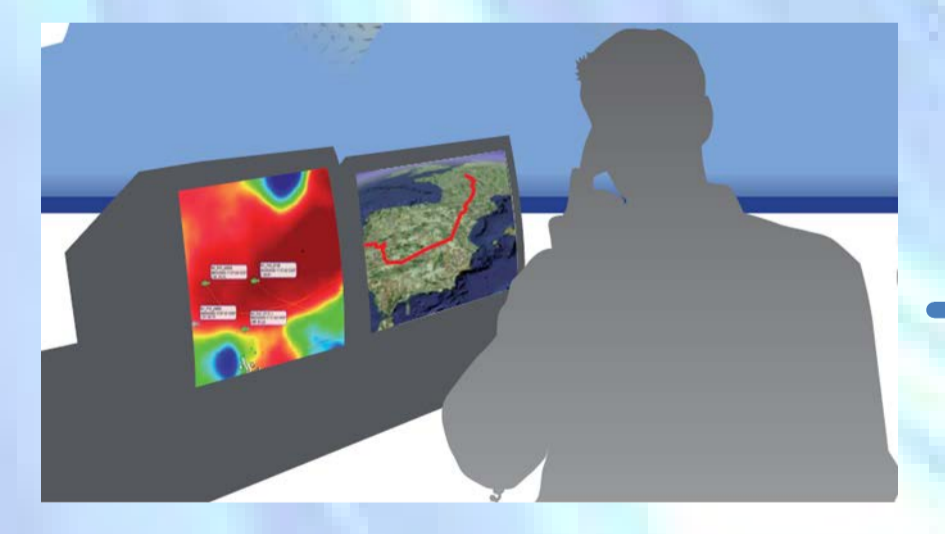
Every week (Thursday), at least 140 maps produced, 3.5 GB of ocean data used, 10 to 30 beacons tracked, of up to 10 different species (from Argo floats to albatrosses), about 1000 visitors per month for the data web site.

Ongoing every year, ~monthly reprocessing (during school year)  
An annual meeting for classes to present their work (from 6 to 20 year-old students)

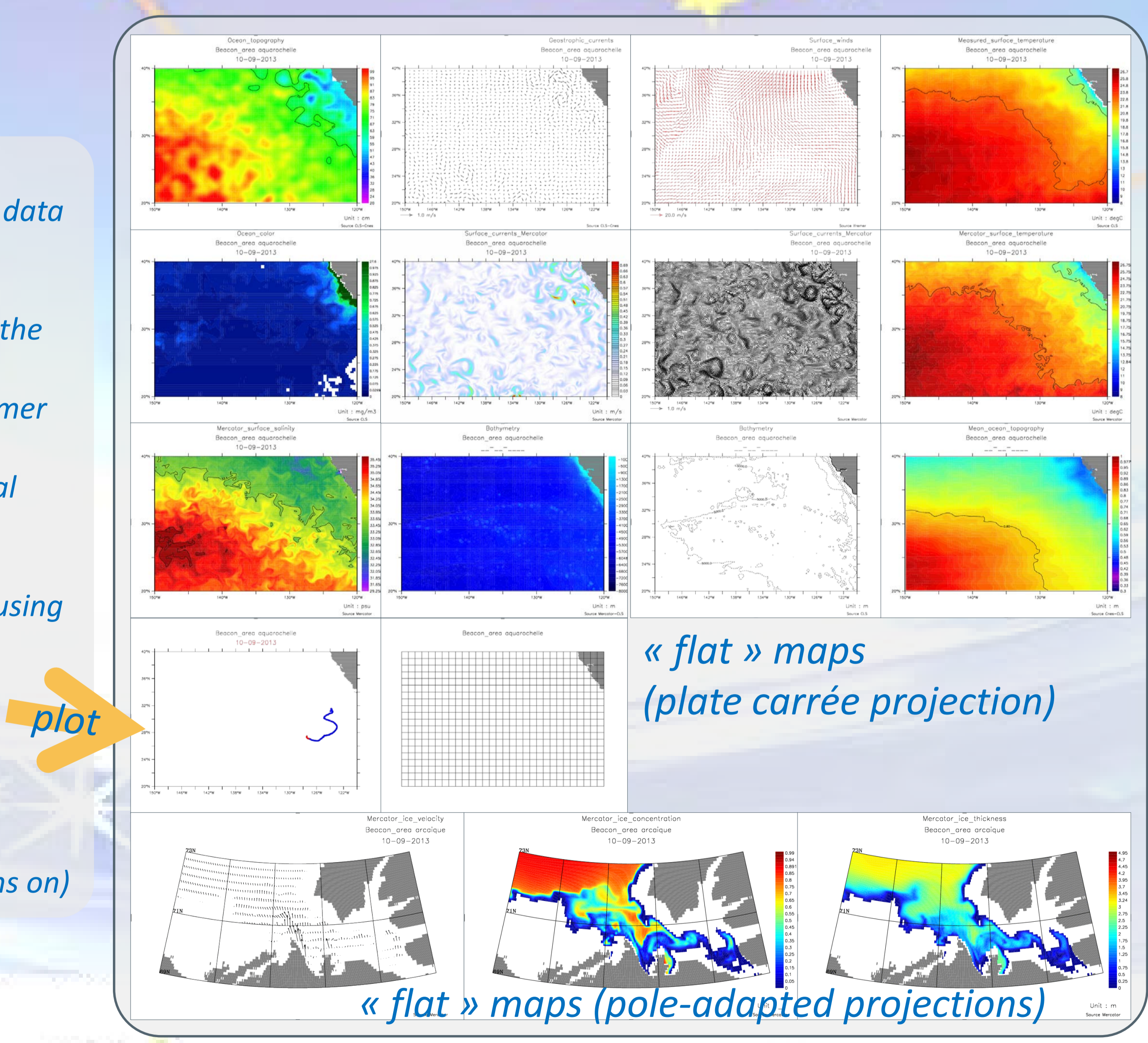
- Programming:**
1. Beacon number
  2. Name given to this beacon
  3. Area where it should move (fixed for the whole series of maps ; reprocessing if it goes out)
  4. Starting time
  5. Min/max color scale (fixed for the whole series of maps ; reprocessing if it proves unsuitable)
  6. Sea ice or not?
- And/or maps: flat, Google Earth, polar projection...

- 14 to 17 "ocean" maps**  
(3 specific maps on sea ice), made from 8 or 9 different data files
- Satellite (5 files)**
- Altimetry data (h & u,v): **Aviso** (to be retrieved on the Aviso FTP server)
  - Winds: **Cersat/Ifremer** (to be retrieved on the Ifremer FTP server)
  - Ocean color and SST : internal CLS production (local network)
- Model (1 or 2 (if sea ice) files)**
- Mercator data : **Mercator Océan** (to be retrieved using the Extraction tool)
- Static (2 files)**
- Bathymetry: **NOAA** (once)
  - mean dynamic topography: **Aviso** (once)
- + **Locations** (with the past week in a different color)
- Argos data : Argos service (delivered on FTP)
  - area map (for students to plot themselves the locations on)

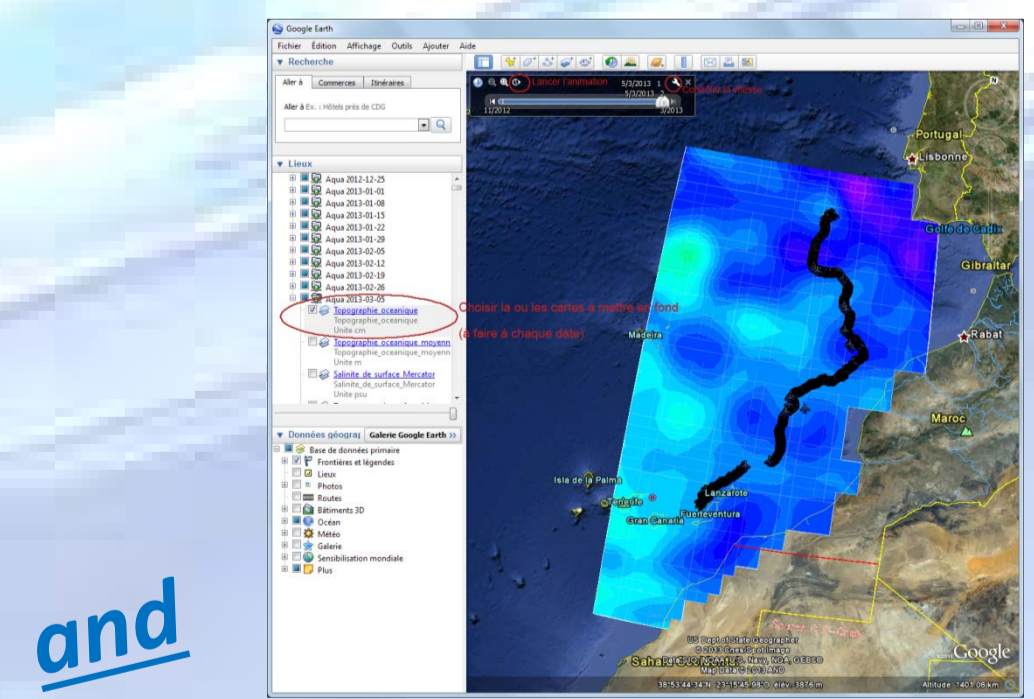
**Several services**



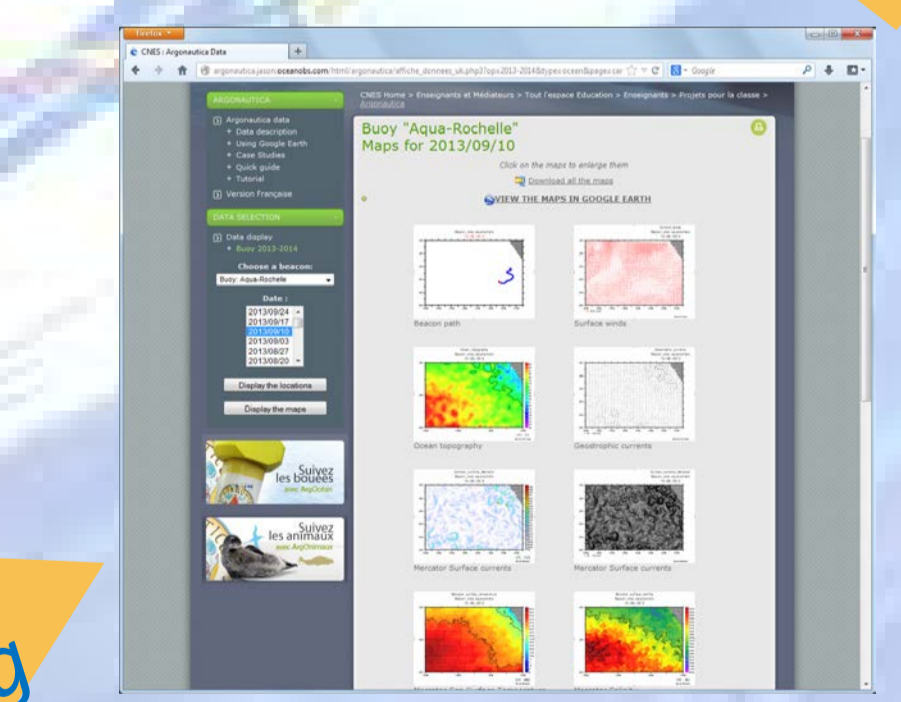
**to provide with "ocean" data**



**Schools' projects**



and  
Google Earth kmz



- Upgrade ideas**
- Flexibility to reprocess beacon per beacon
  - Nicer mapping outputs (Python?)
  - Use of integrated services (MyOcean?)
  - Real-time plots (if OK with the teachers)
  - Depth? (for e.g. Argo or elephant seals): data availability AND plots.
  - Sea ice satellite data (in addition to models)
  - Interactive mapping,...