Aviso users: what about them (you)?

Feedbacks & figures from the various questions we asked you to answer…

Forms, surveys & questionnaires…

- Aviso now requires users to register to access some (most) of the data, and proposes to do so for the rest.

- We ask systematically "why" people want the data (field(s) of interest + a "motivation" box), and enforce that request (requesting a sentence, no more – but not just "research" or "use altimetry")
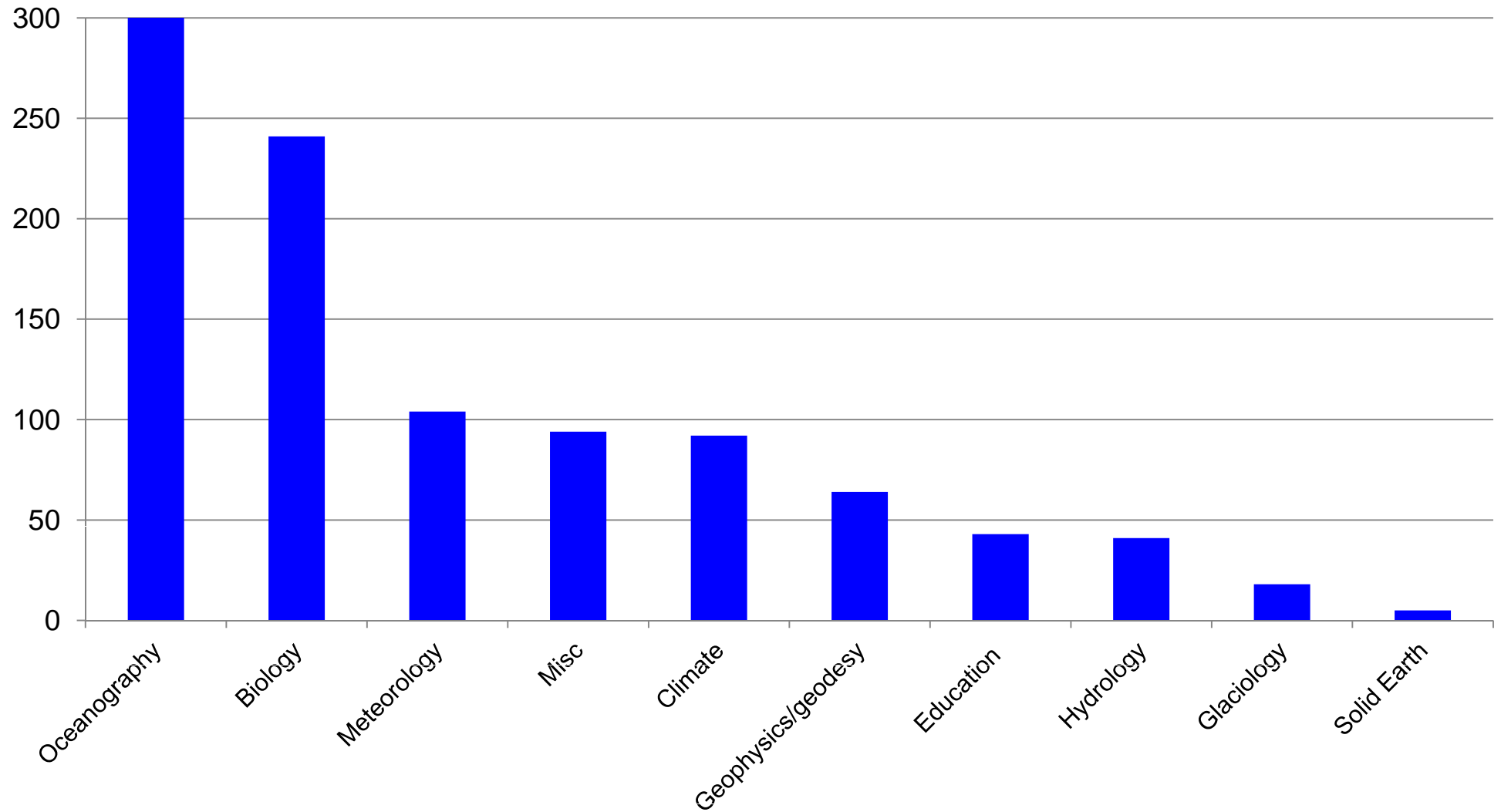
- We are making a yearly survey

Plus:

- FTP, LAS, Opendap, Extraction tool, web Logs analysis

- (mini) Literature survey

- Objective: trying to better know the users!
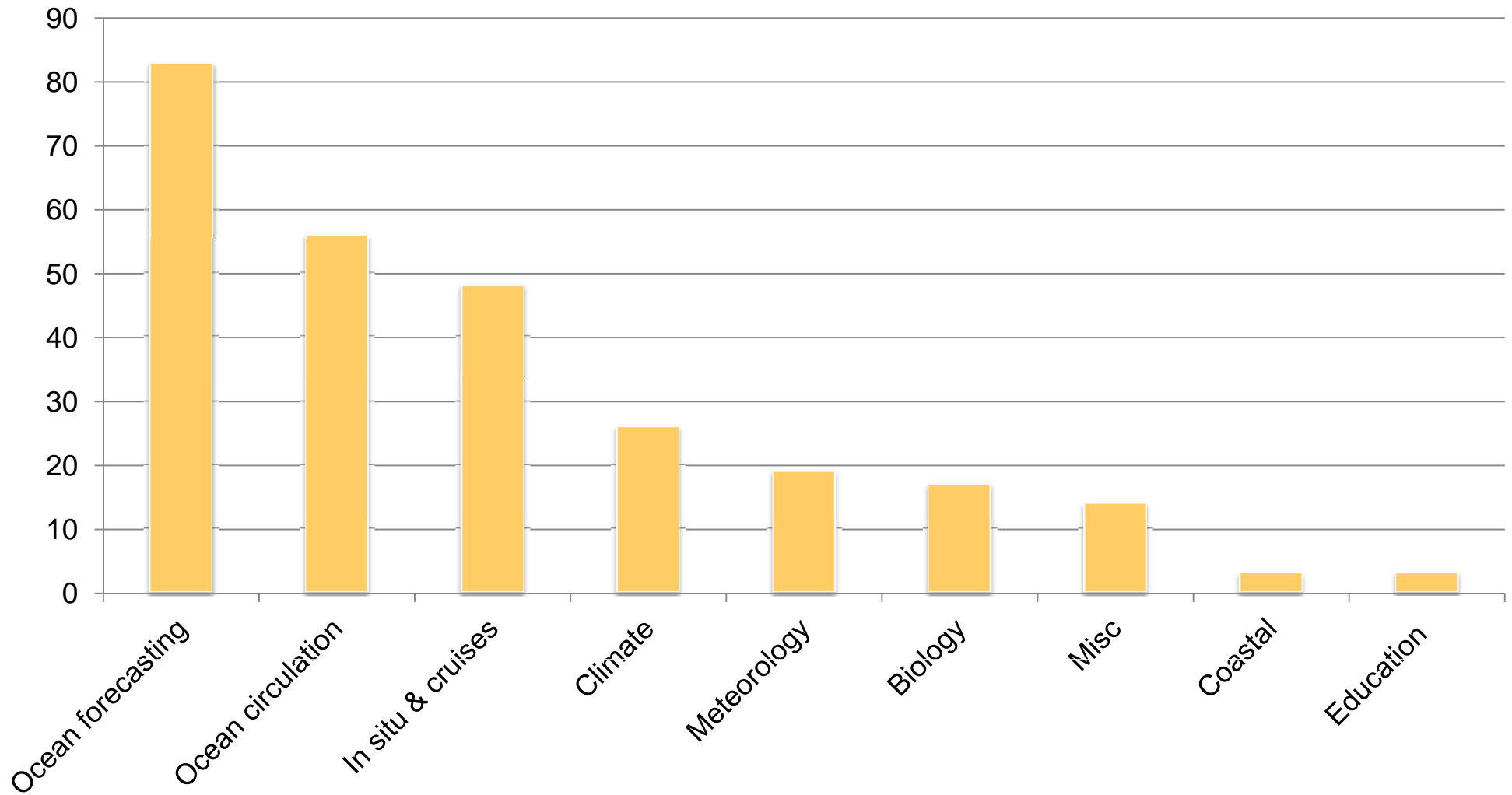 (so as to be able to better serve theirs needs)

Type of applications (science)
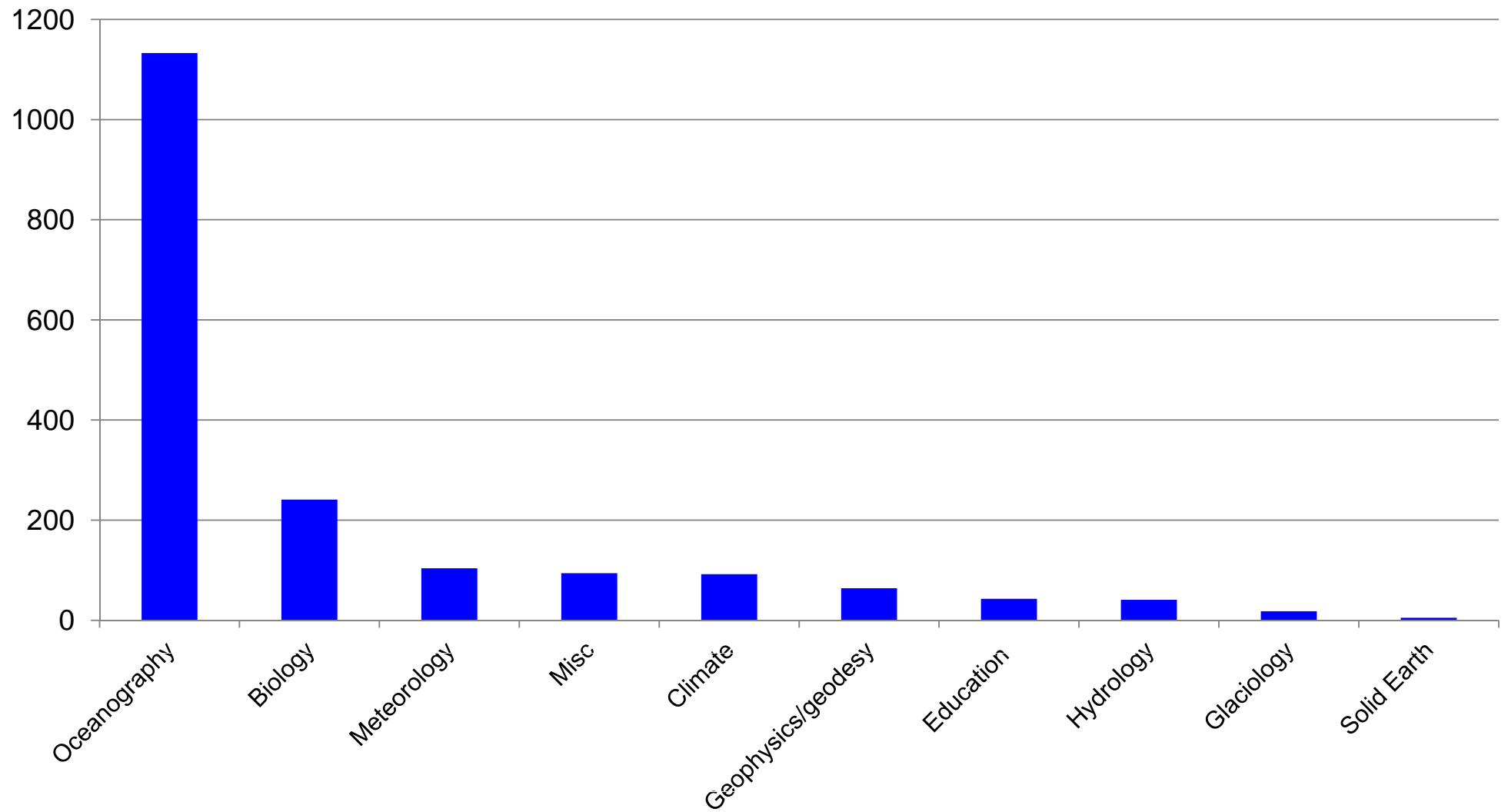
Type of applications (science) – zoomed

Type of application (operational)

Comments

- (physical) "oceanography": probably too wide a thematic!
- In the 2008 survey (SLOOP project), "biology" was checked only once as field of application.
  now 6% (operational) to 13% (science) users are involved in such application(s).
  NB: "biology" ranges from phytoplankton to whales through squids, nautiloids or larvae studies
- "Misc" (science): sediment transport, CO_2 absorption, multi-use, Calval…
- Meteorology: either wave modelling/studies or cyclone-related research/forecasts (the latter growing steadily)
- In situ instrumentation launches and cruise plannings are using NRT altimetry

Number of registered data users

User teams around the world
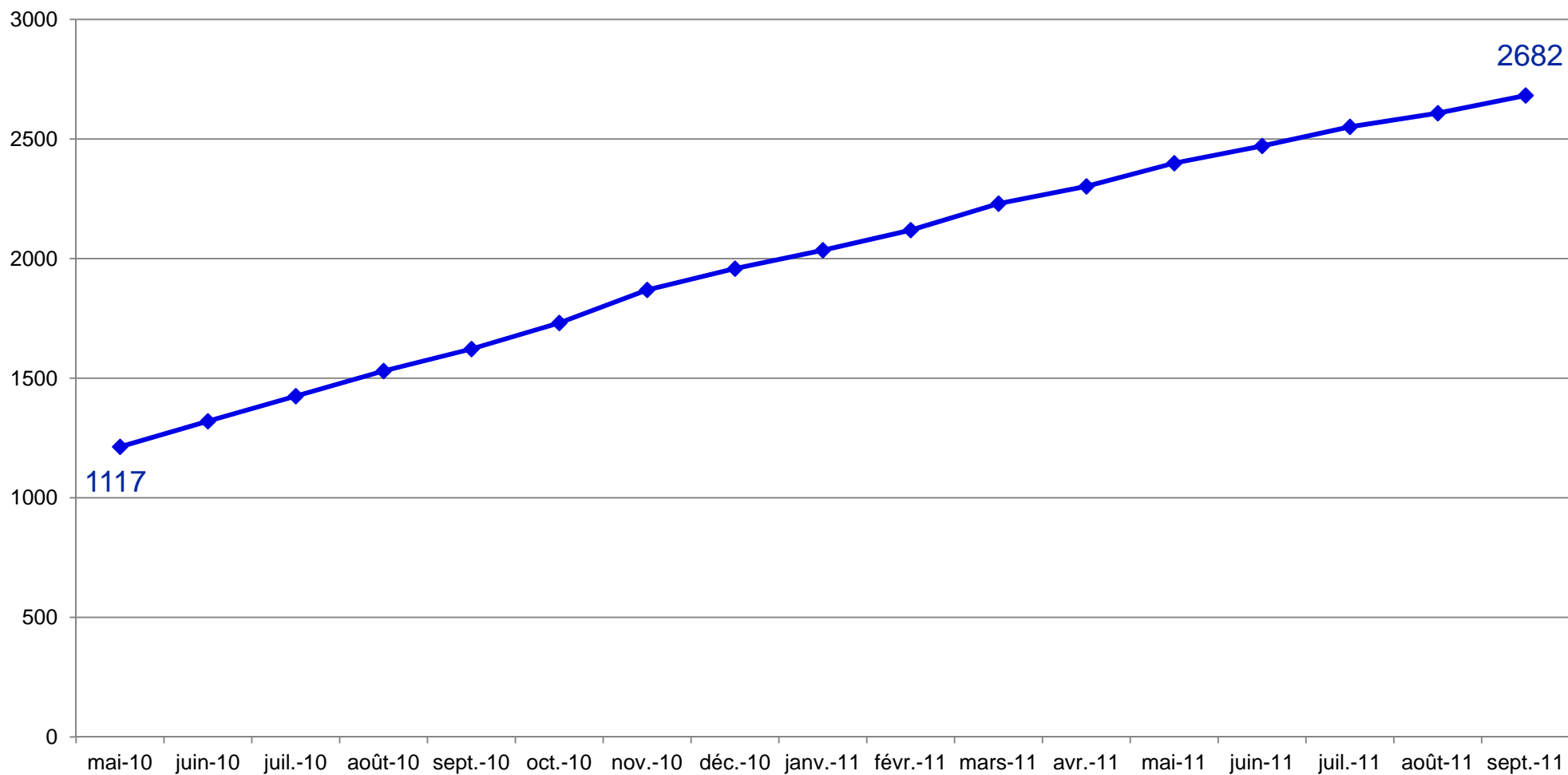
users
- 1
- 2
- 3 - 5
- 6 - 11
- 12 - 44
- 45 - 522
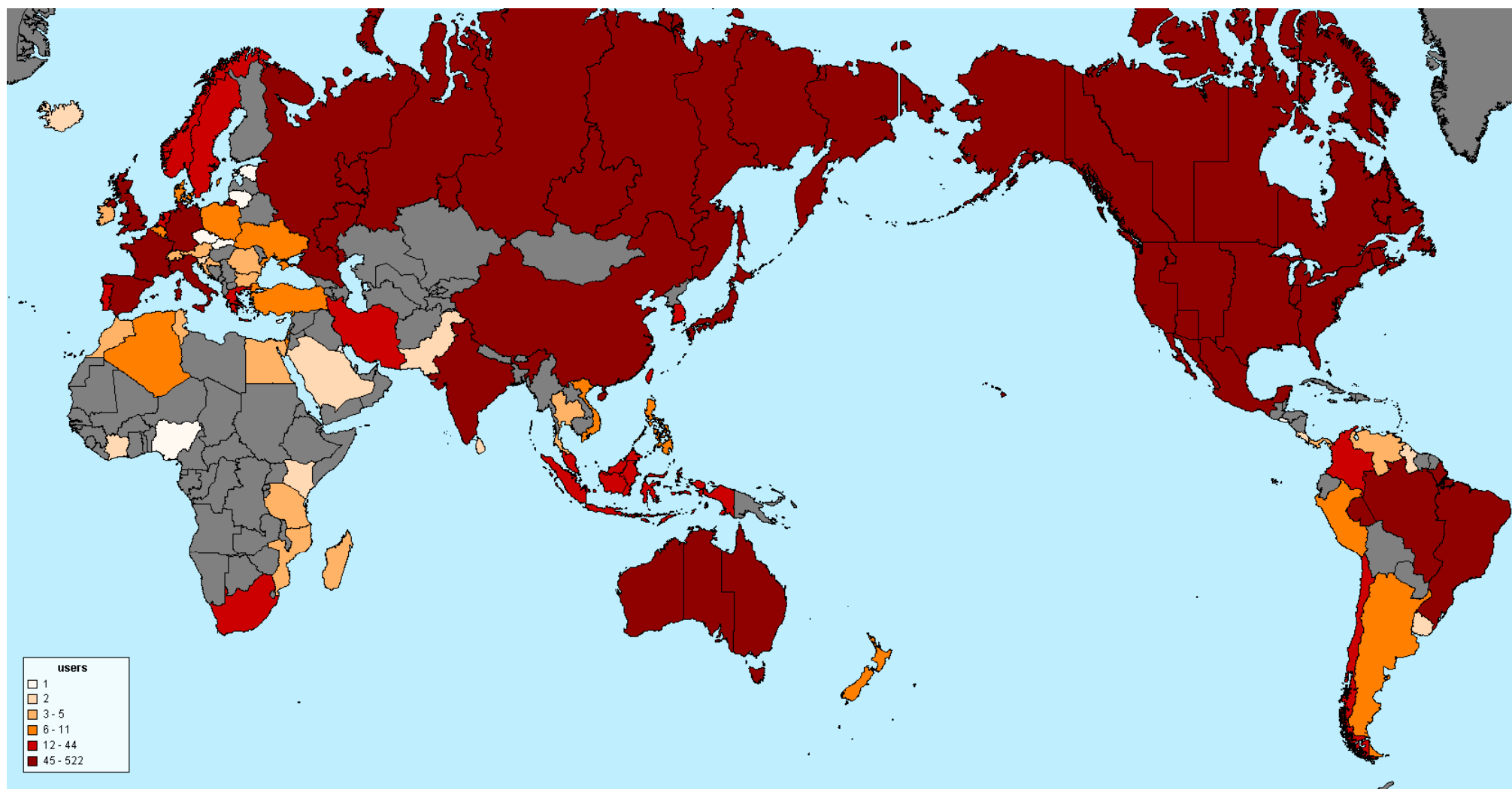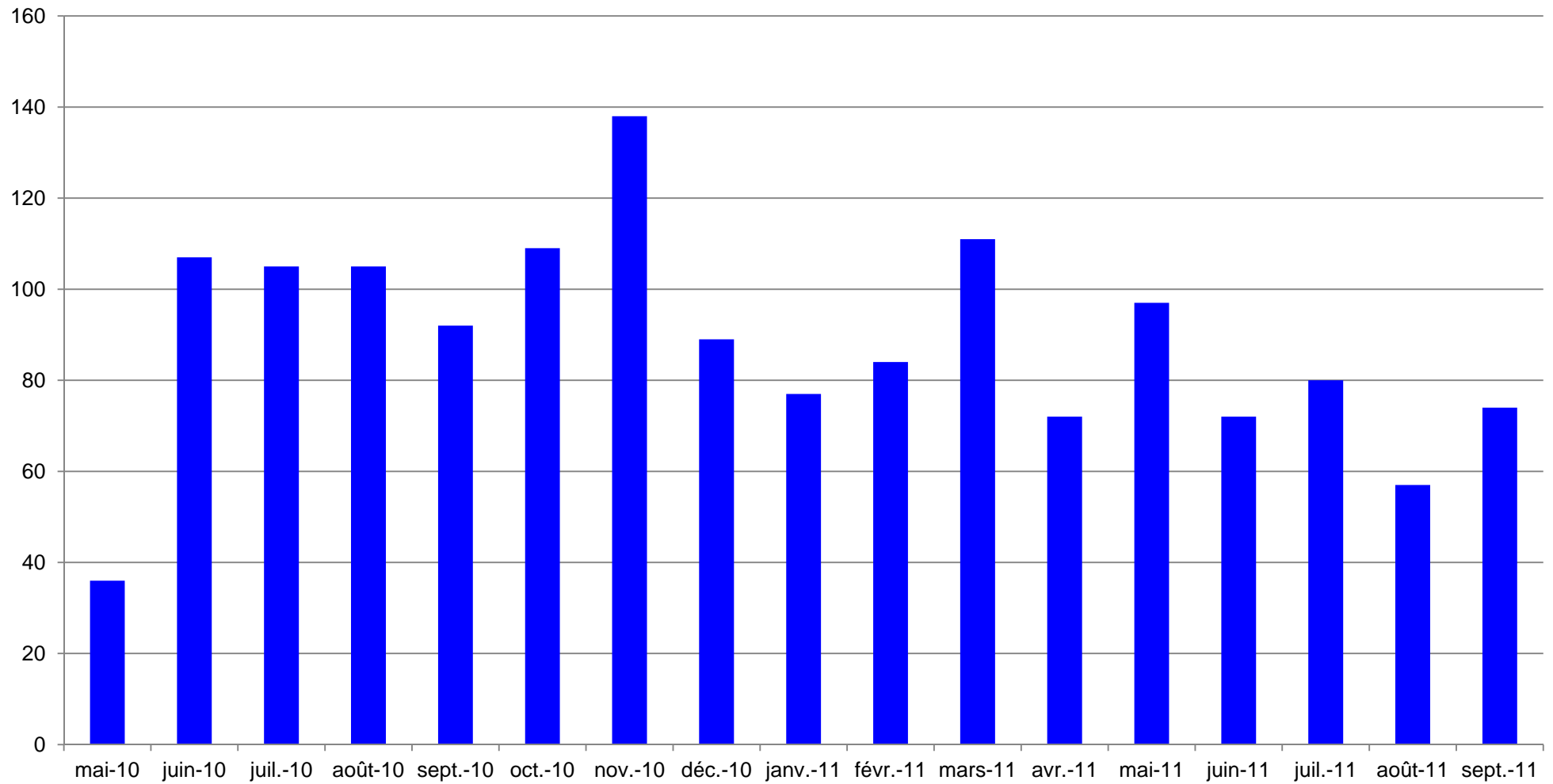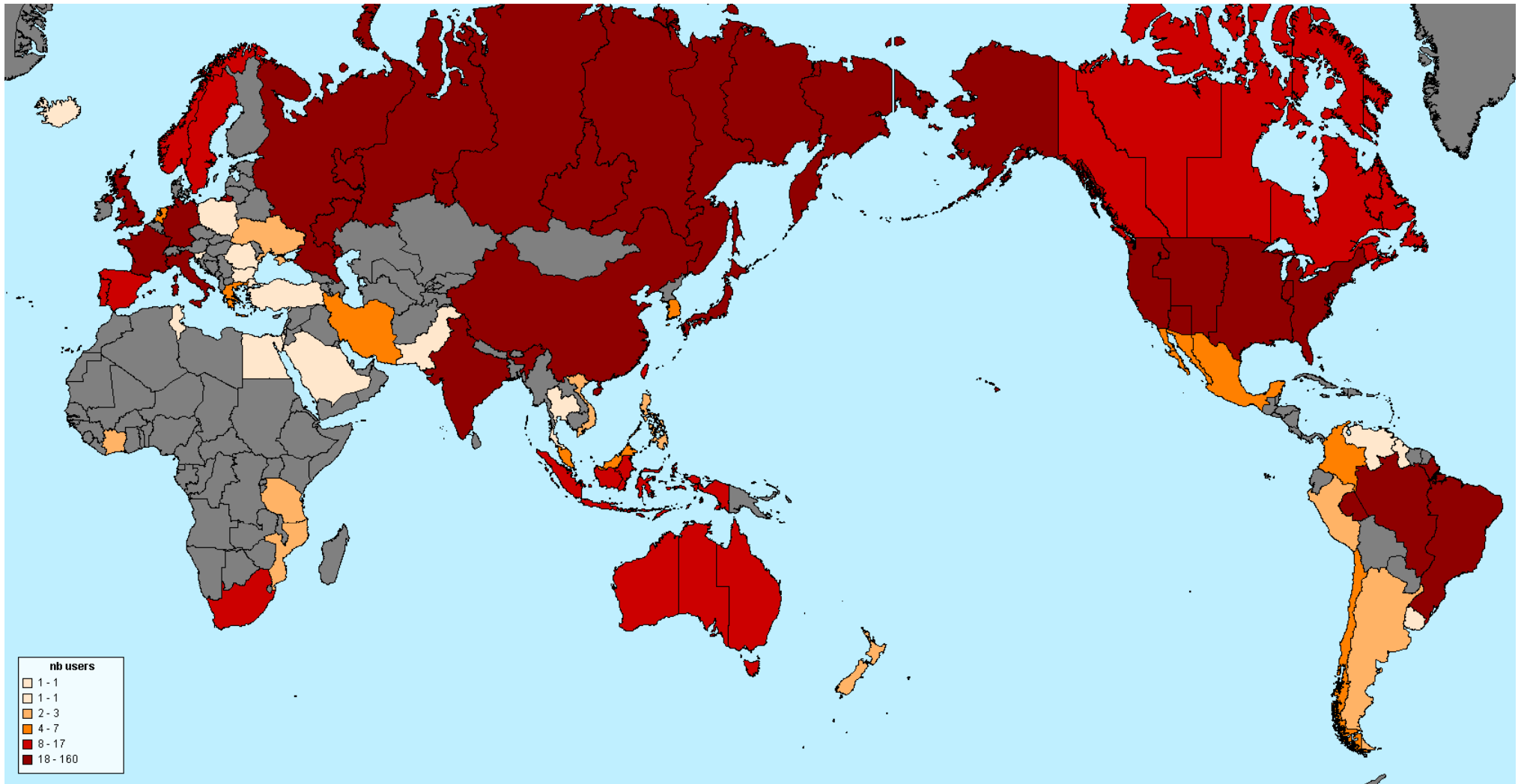
All Aviso **data** users: 2648 users, in 92 countries (3730 subscribers all in all)

New users per month

New user teams around the world in 2011

nb users
- 1 - 1
- 1 - 1
- 2 - 3
- 4 - 7
- 8 - 17
- 18 - 160

Before / after

- Before systematic registration, we listed about 1100 data users. Now, 2682 (~1500 new ones in 16 months)

- An enormous wave of interest for altimetry in 2010-2011??...
  More likely, we are now counting people that connected anonymously once or twice a year to access data (we saw them in the FTP Logs, but did not realize there were so many of them since they were not connecting all at the same time)

- Countries on the rise: China (now more than 10% of Aviso altimetry data users), Brazil…
  And new countries, in Africa mostly, but also Asia (Vietnam, Sri Lanka), Eastern Europe… (20 more countries listed since June 2010)

  ➔ the number of Aviso altimetry data users is (most probably) matching reality better now.

Are new users "real" users?
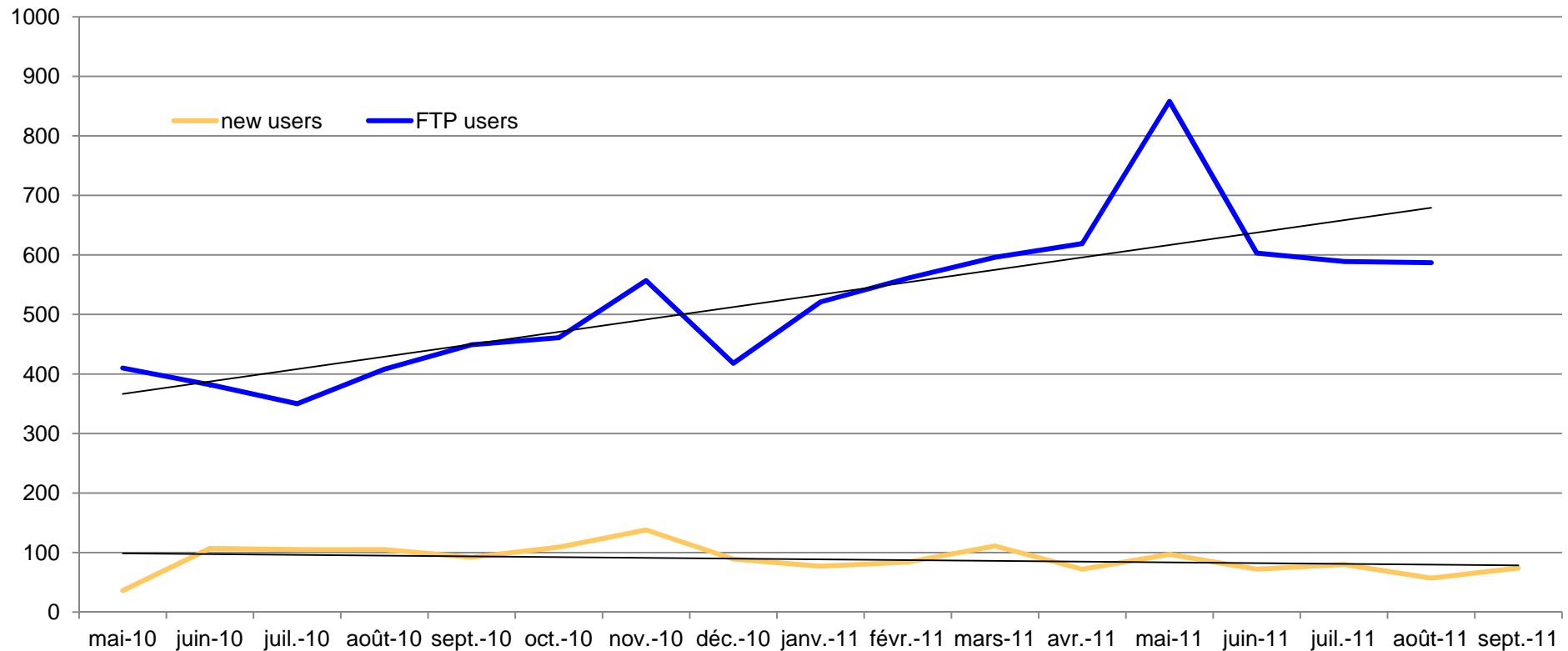
FTP users on the rise while the number of new users per month is slightly decreasing (➔ more and more users. And they are coming back.)

40% new users use their account in the month of their subscription, 10% in the month after [NB. No mention here of anonymous FTP data, Opendap or extraction service!]

And new users are not the only ones who register/ask for an access
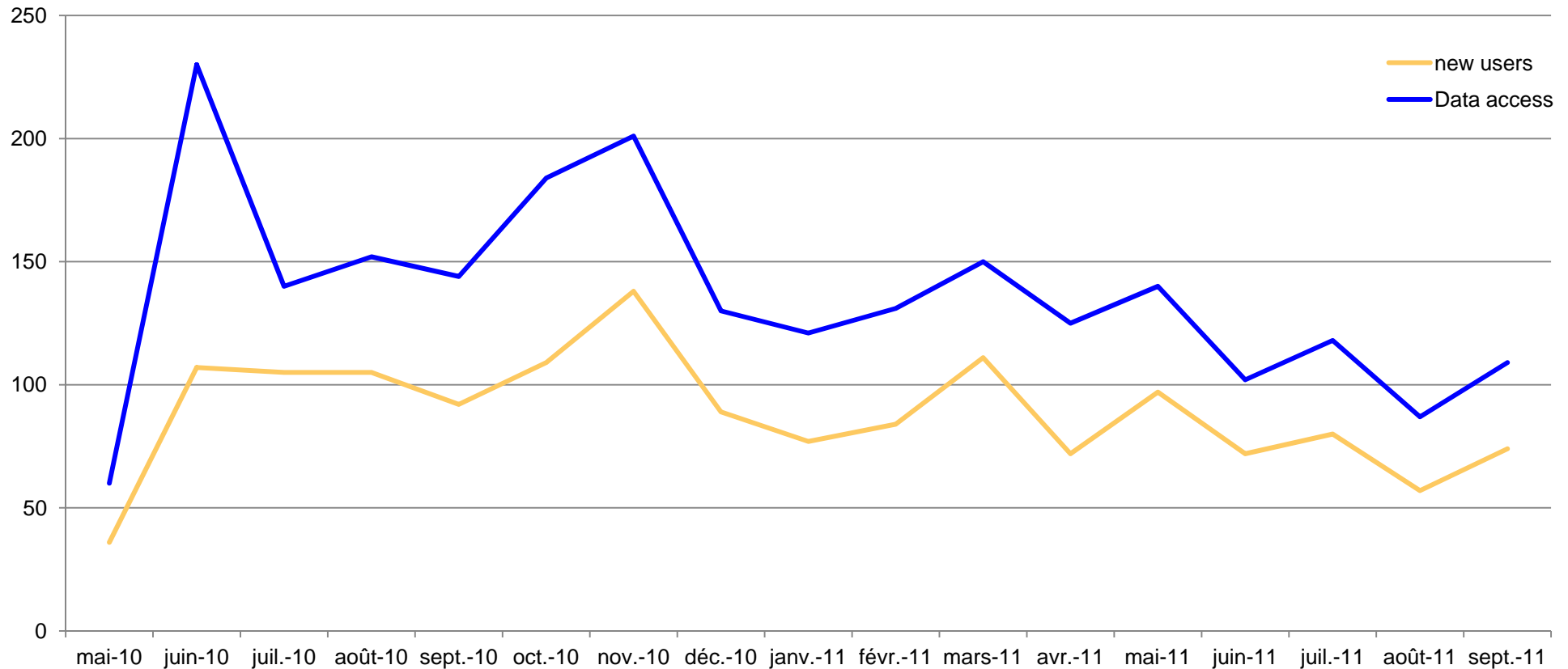
More data accesses (i.e. accounts and URLs sent) given than new users →
"oldtimers" request for access (still do, after more than one year)

Some ideas on the kind of data <u>downloaded</u> (accessed)
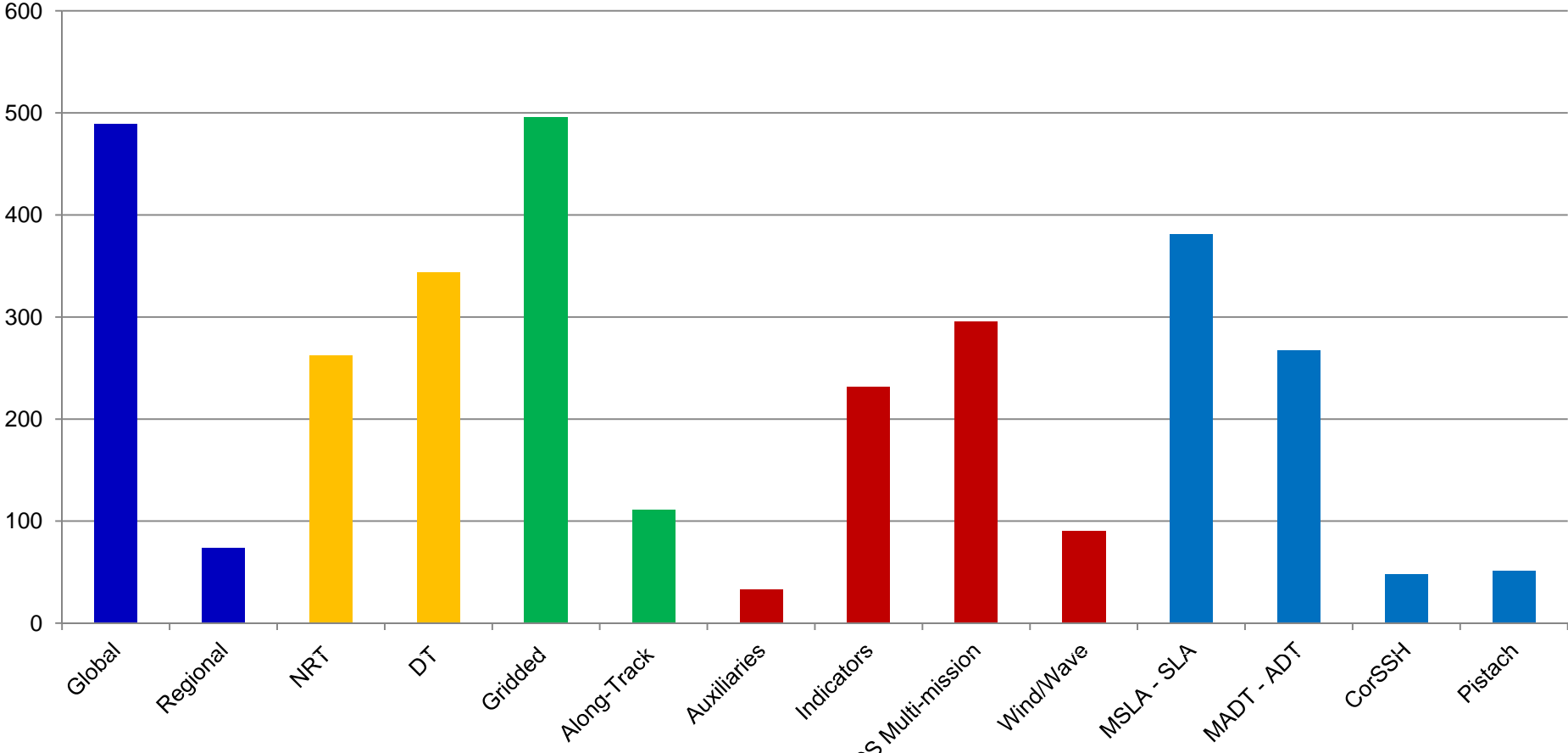
Average number of users per month on 2011 (NB. SGDR GDR not listed)

Accesses

- Grids vs along-tracks
  ~5 x more actual users (from access services Logs) than along-track data (500 vs 110 in average),
  ~10 x more downloads.
  (NB. Opendap, extraction service and LAS are "grid-only", which may count in the difference.)

- NRT have less users than DT, but not that much (260 vs 340 in average). Most are not using those data "operationally".

- 51 users downloaded Pistach data per month on average;
  42 coastal data, 24 hydrology data (some download both) vs 326 and 66 subscribers resp.

- MSL accesses very irregular in time: May (296), September (1054!) with an average of 100 (NB. Anonymous FTP/direct access from the web) (more accesses for the time series)

Duacs subscribed users

- 1853 subscribers for Duacs data access

- Much less access the data each month (but DT are NOT updated monthly, so it is logical, and NRT are often used to continue time series)

- Open access for climatologies, but a subscription is now proposed (to get information about updates)
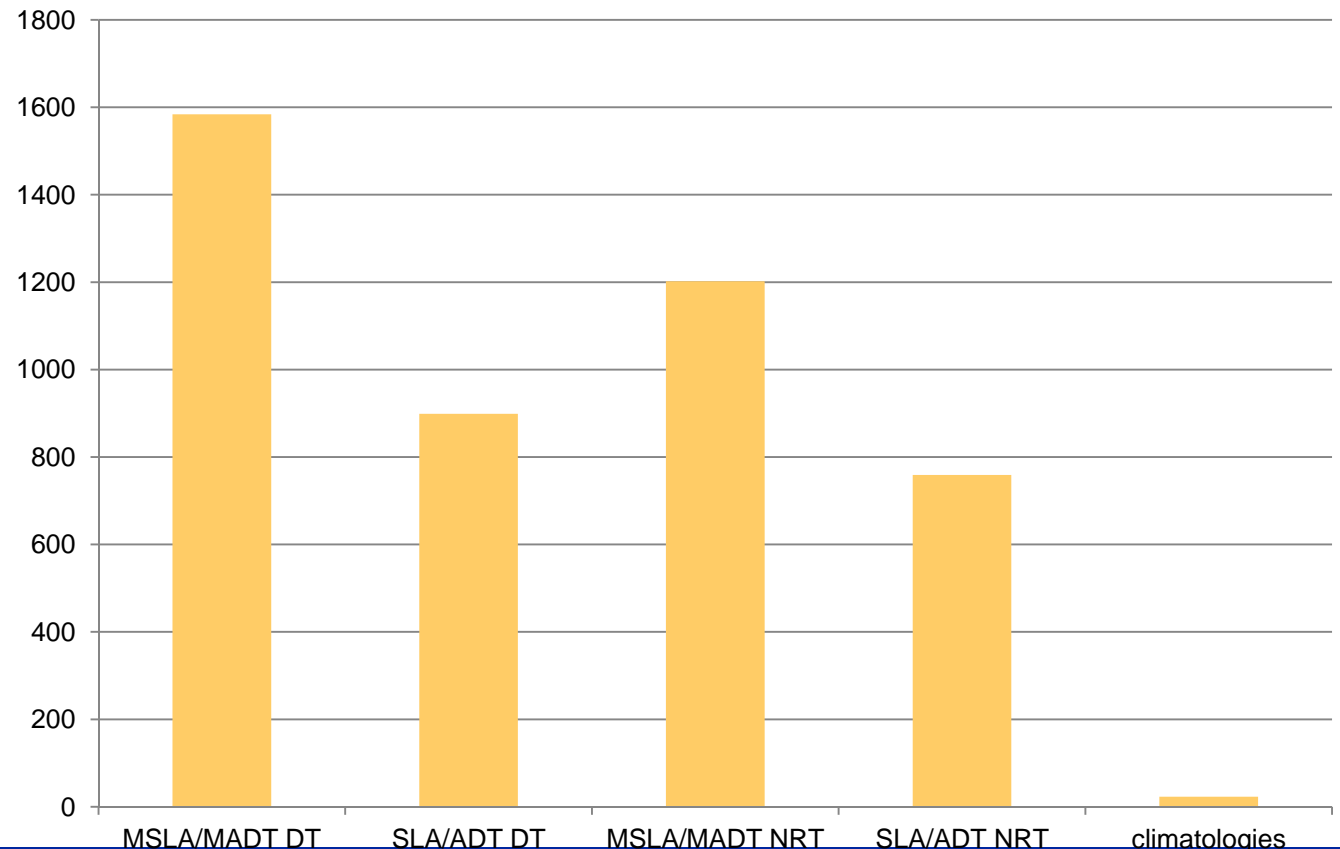
Auxiliary products subscribed users

- In June, more MDT users than FES ones. Now it is the reverse. MSS also got more users now than MDT (perhaps the recent upgrade)

- An average of 33 users download one of those each month (NB. Except for DAC, data are static, so no more than one download per user is needed)
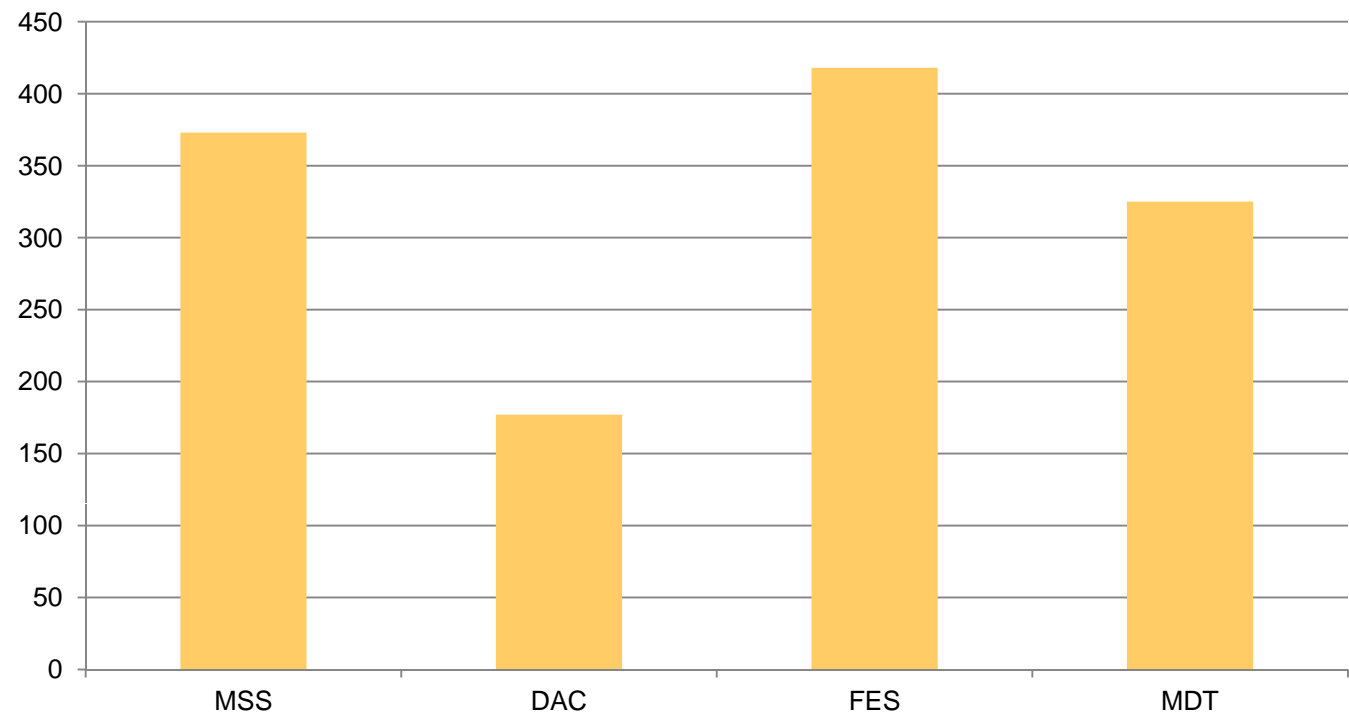
Other products subscriptions

- Quite a lot of people asking for waveforms; some (most?) probably don't really know what they are.
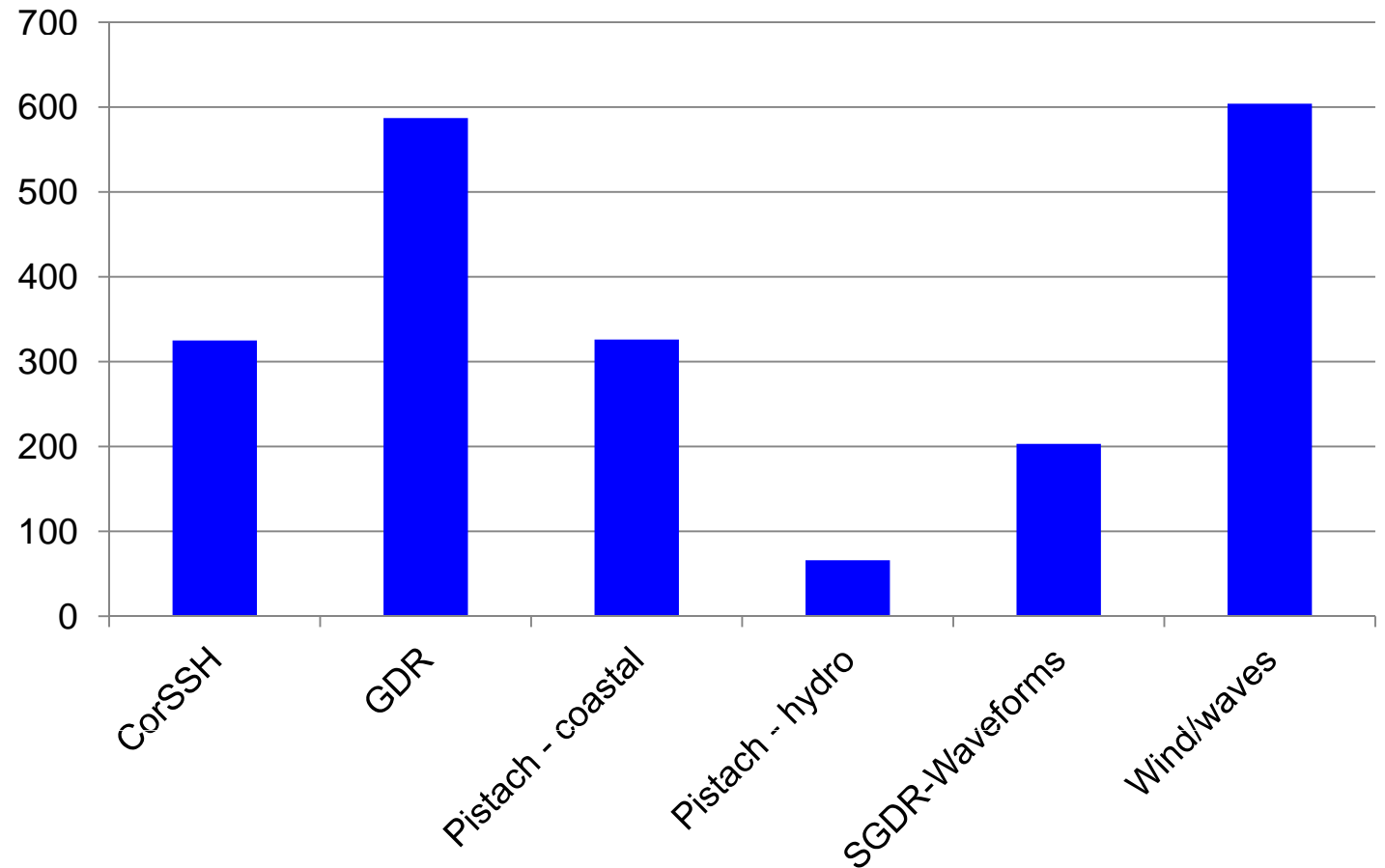
Distribution services

- FTP the most used
- LAS not far behind (visualization only)
- Opendap/extraction service ~20%
- (NB. Not listed: FTP for (S)GDR, Aviso data center)

Pie chart showing: 44% FTP users, 37% LAS users, 13% Opendap users, 6% Extraction users

Legend:
- FTP users
- LAS users
- Opendap users
- Extraction users
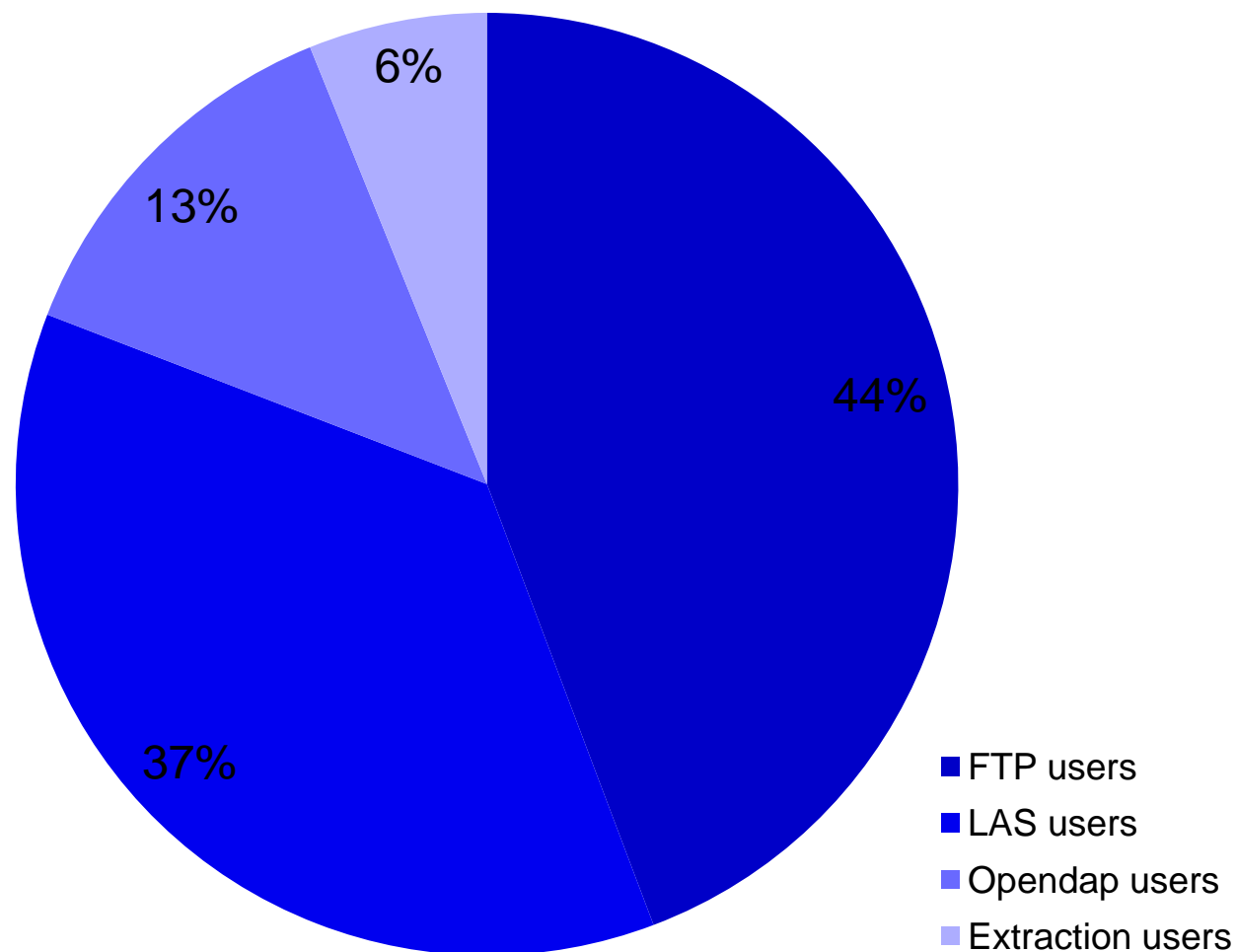
Science articles

- Survey of JGR Ocean/GRL (as indicator of ocean research applications) over the first half of 2011, 51 articles used either altimetry or auxiliary products.
  88% of those were data from Aviso
  72% of those were Ssalto/Duacs data

- Articles are mostly about
  coupled ocean-atmosphere phenomena (ENSO and the like)
  and/or
  ocean circulation.

Consequences

- Having those information provides us with ideas to improve the service. E.g.
  - In the past, we re-published CorSSH after stopping them, due to users'requests for them
  - Data tree is getting quite complex –> simplification??
  - Several Data access services are available (FTP, Opendap, extraction, Data Center…) → complexity. However, each has its own use.
  - Some data may be more frequently updated in the future.
  - Interactive access to the data?
  - Coastal data very much requested, but Pistach too complex for most users →L3 data are being made over some regions
  - 25% requests for data in ASCII (for now, MSL time series are also delivered in ASCII)
  - Etc.

Conclusion

- Asking questions provide us with information about the users's need AND about what altimetry is used for.
  Looking after what's done with the data within the scientific articles (and science meetings) complete this information.

- Looking at data accesses gives us an idea of what data are preferred / best from the users'point of view (and/or areas of improvements in organization, presentation, documentation…)
  And also which of the distribution services are preferred (even if ALL are used).