French Forecasters Workstation Synergie-Next

Synopsis Project

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METEO FRANCE
Toujours un temps d'avance

Context

Synergie is smoothly moving to Synergie-Next.

-

- 200 working positions in Meteo-France and main customers (e.g. Air France, Kourou Space Centre, French forces)

- 200 positions abroad (in more than 60 countries)

Synopsis Project

Meteo-France National Project

- Started in 2010, end planned in 2016
- Joint development by Météo-France and Météo-France International (MFI)
- Aim : a new workstation, developed in the form of interoperable services (SOA) for forecasters from
  - Météo-France
  - Institutional partners (French forces, hydrology, forest fires, …)
  - Commercial clients (CNES, French Electricity board, …)
  - Export with MFI
- 2 main phases :
  - Visualization functionalities (end 2013)
  - Production functionalities (end 2015)

Main functional specifications

1) **Interoperability**

2) **Zooming & panning free of geographic area (GIS functionalities)**

3) **Adaptive User Interface (lot of data !)**

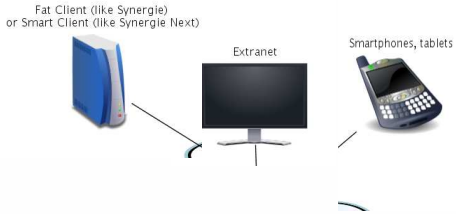
4) **GUI « customizable » (bookmark, preferences)**

5) **Continuous link between past and future data (seamless vision)**

Main technical specifications

1) « OGC » Rules and SOA (Service-Oriented Architecture)

2) Multi-platform GUI and automatic deployment



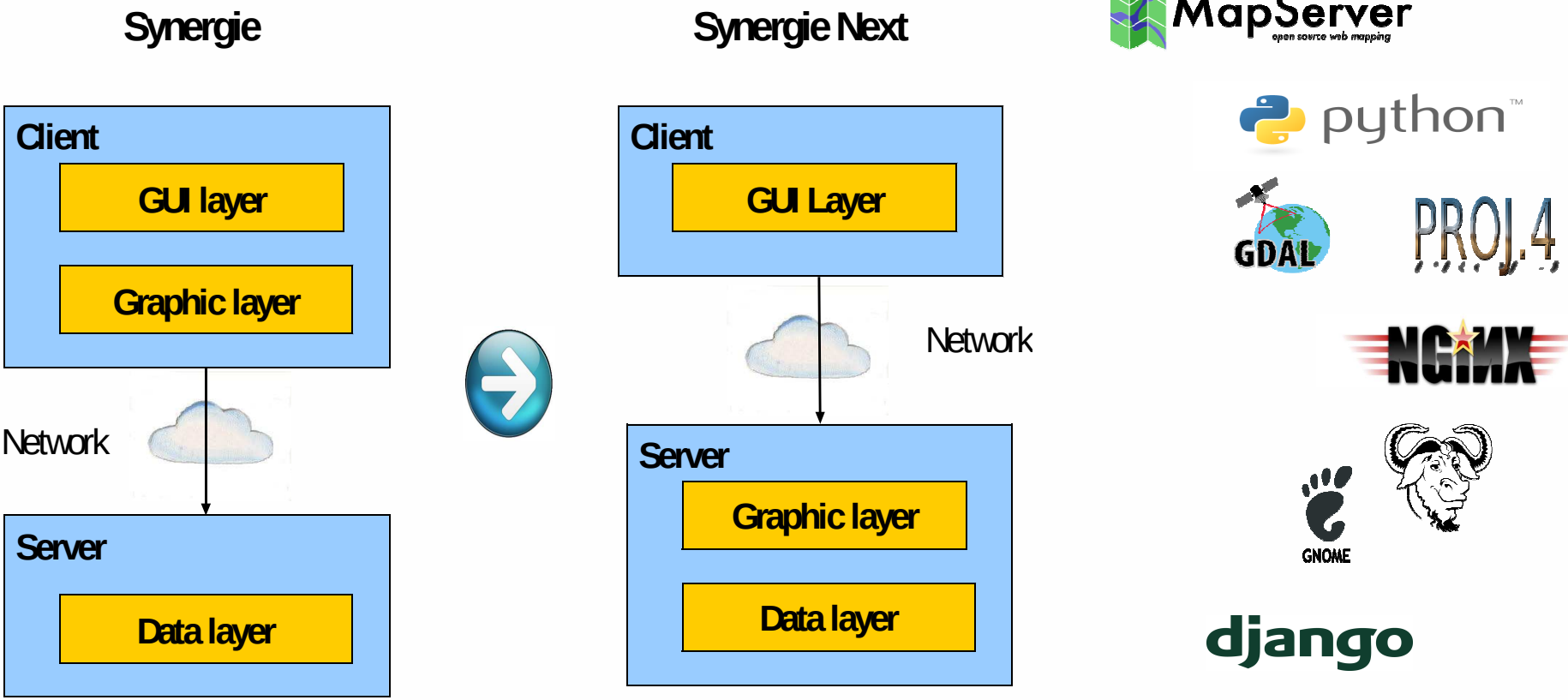
3) Flexible architecture server (eg standalone)

4) Horizontal Scalability and high performance (challenge !)

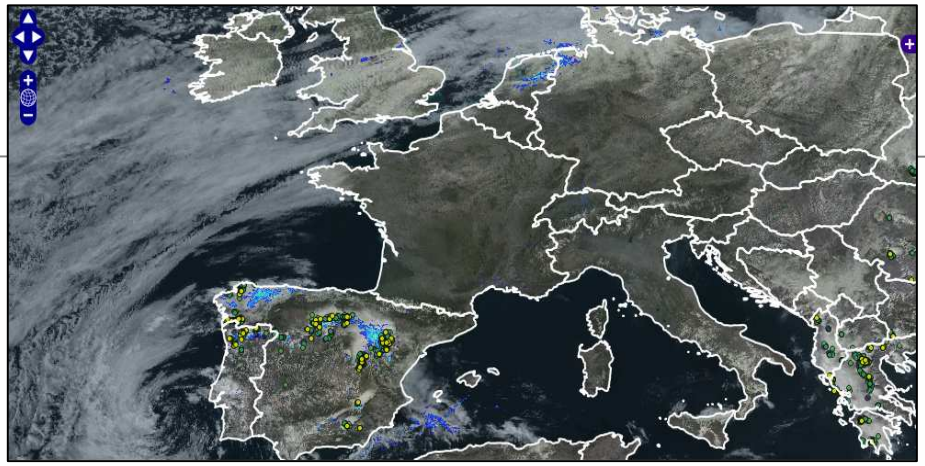
5) Dynamic adaptation to the data flow

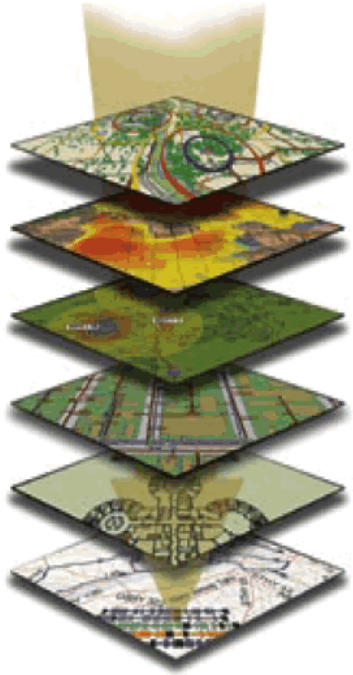
Technical choice

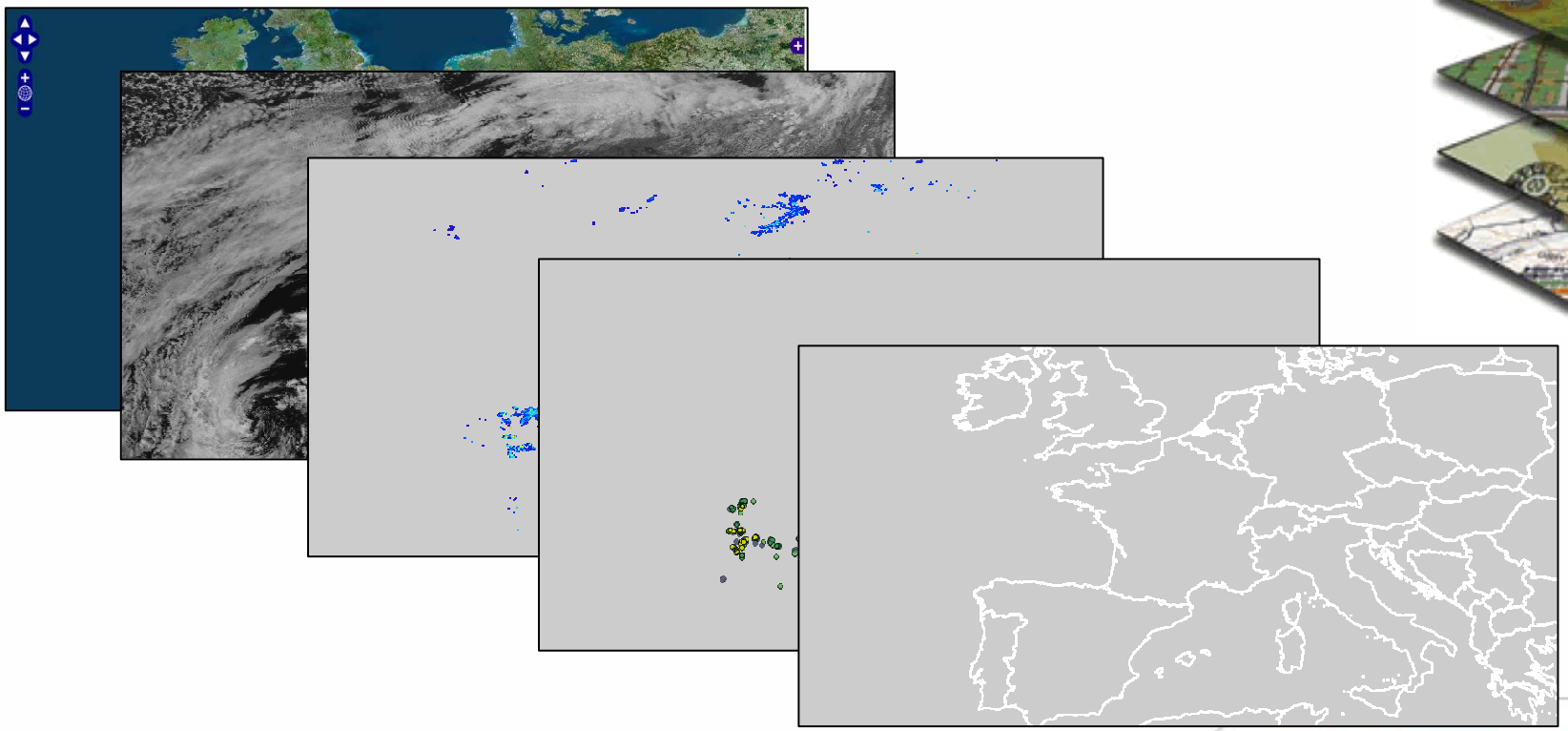
- A gravity center on the server side
- Many open source components…



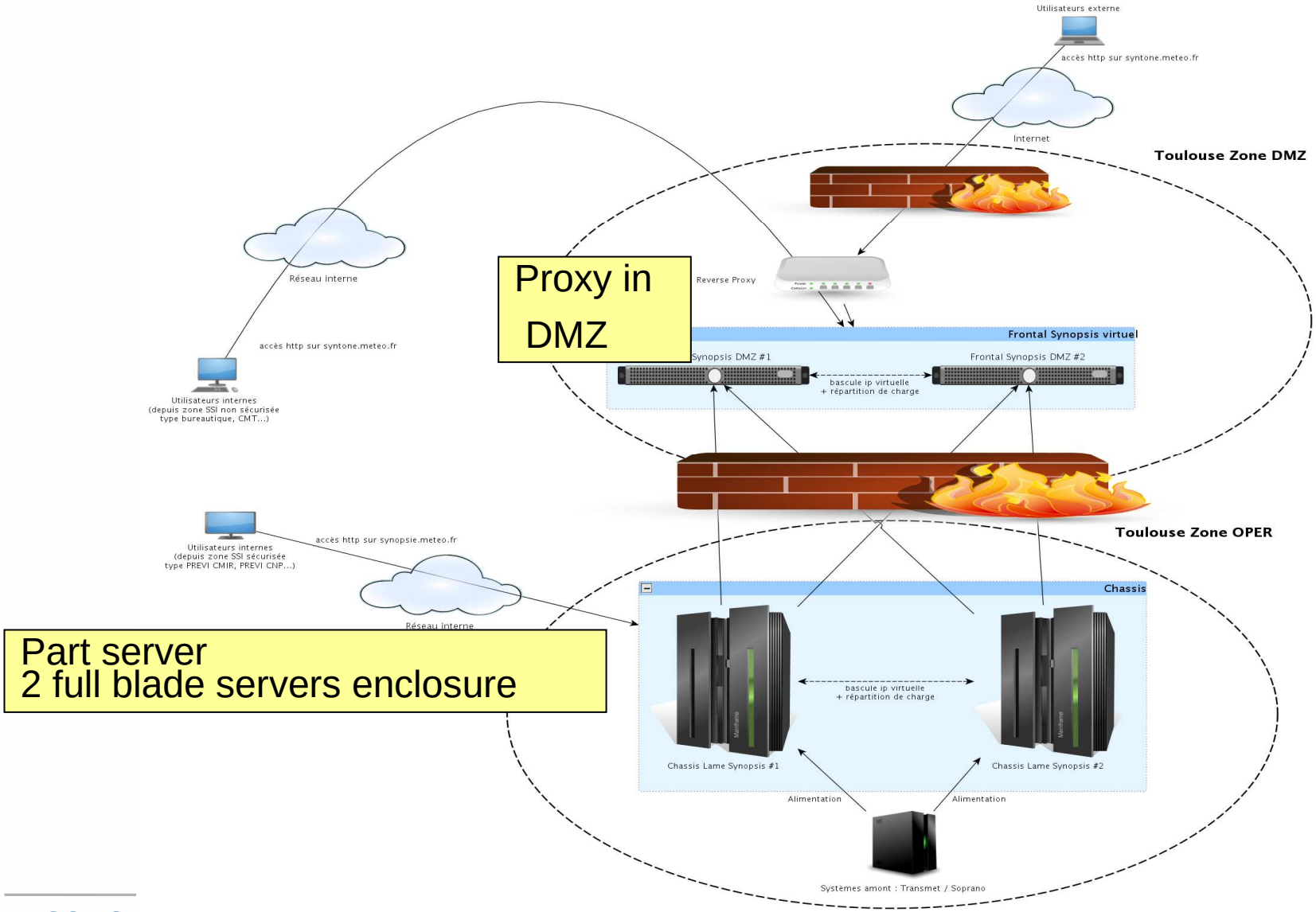
Several layers are requested from the client to the WMS server







Technical choice : *Hardware infrastructure*



Synopsis Users Group – G.U.S.

- Panel of users supporting the project

They :

- Test versions under development : performance, ergonomics, new functionalities and non regression
- Complete anomaly sheets
- Give precisions on some specifications upon request from developers
- Help to train other users

Users documentation

- Choice of an editorial process (SCENARI/DOKIEL)
- Production process of homogeneous structured documents
- Block Writing independent from the final look (WYSIWYM)
- Easy update
- Use of a documentary model which can be adapted to each client
- Easy versioning
- Different outputs (online web, pdf, ppt, …) → direct access from the GUI

Planning

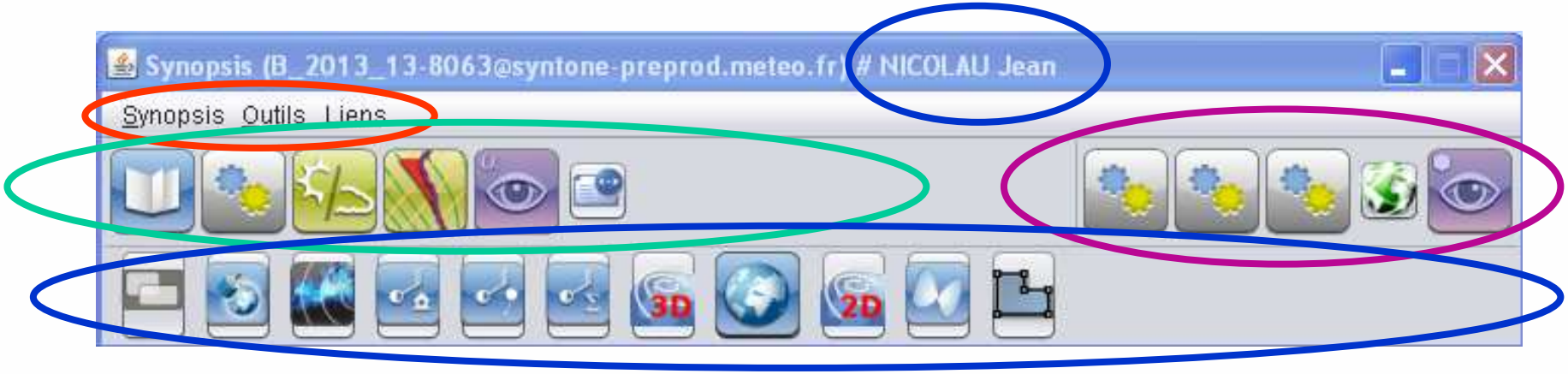
- ✓ – **End of 2013** : First dev release « Synergie-next » with visualization functionalities
- ✓ – **January-May 2014 :** Tests and verification
- ✓ – **March-June 2014 :** Users training
- – **June 2014 :** Operational use of the first version (“Forecast advisers”)
- – **October 2014 :** Specific functionalities for **s**now forecasting

PHASE 1

- – **Second half of 2014 :** Begin of production functionalities development
- – **End of 2015** : Last dev release (visualization and production functionalities)
- – **First half of 2016** : Complete replacement of SYNERGIE by SYNERGIE-Next in operational use

PHASE 2

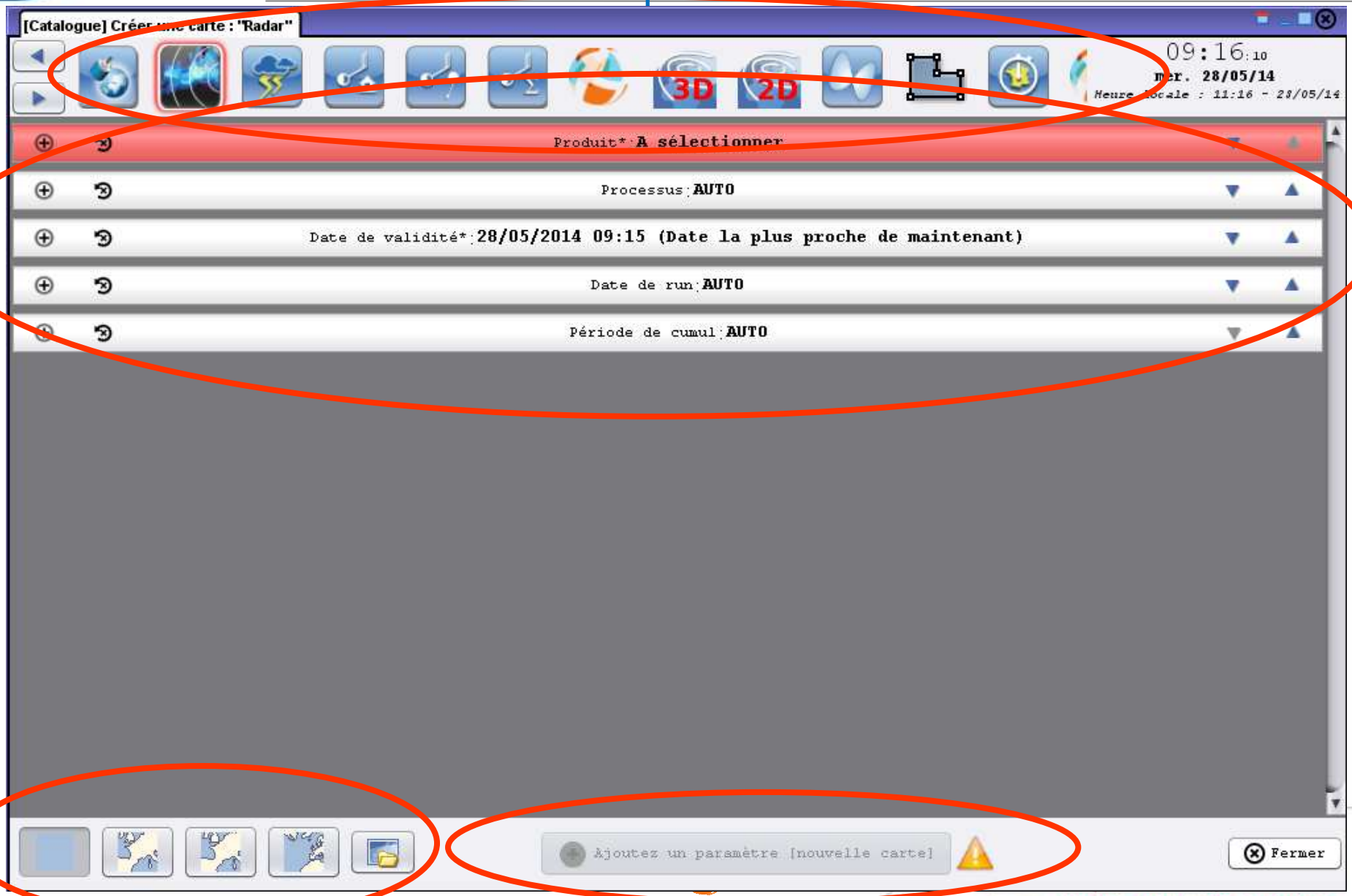
The home banner



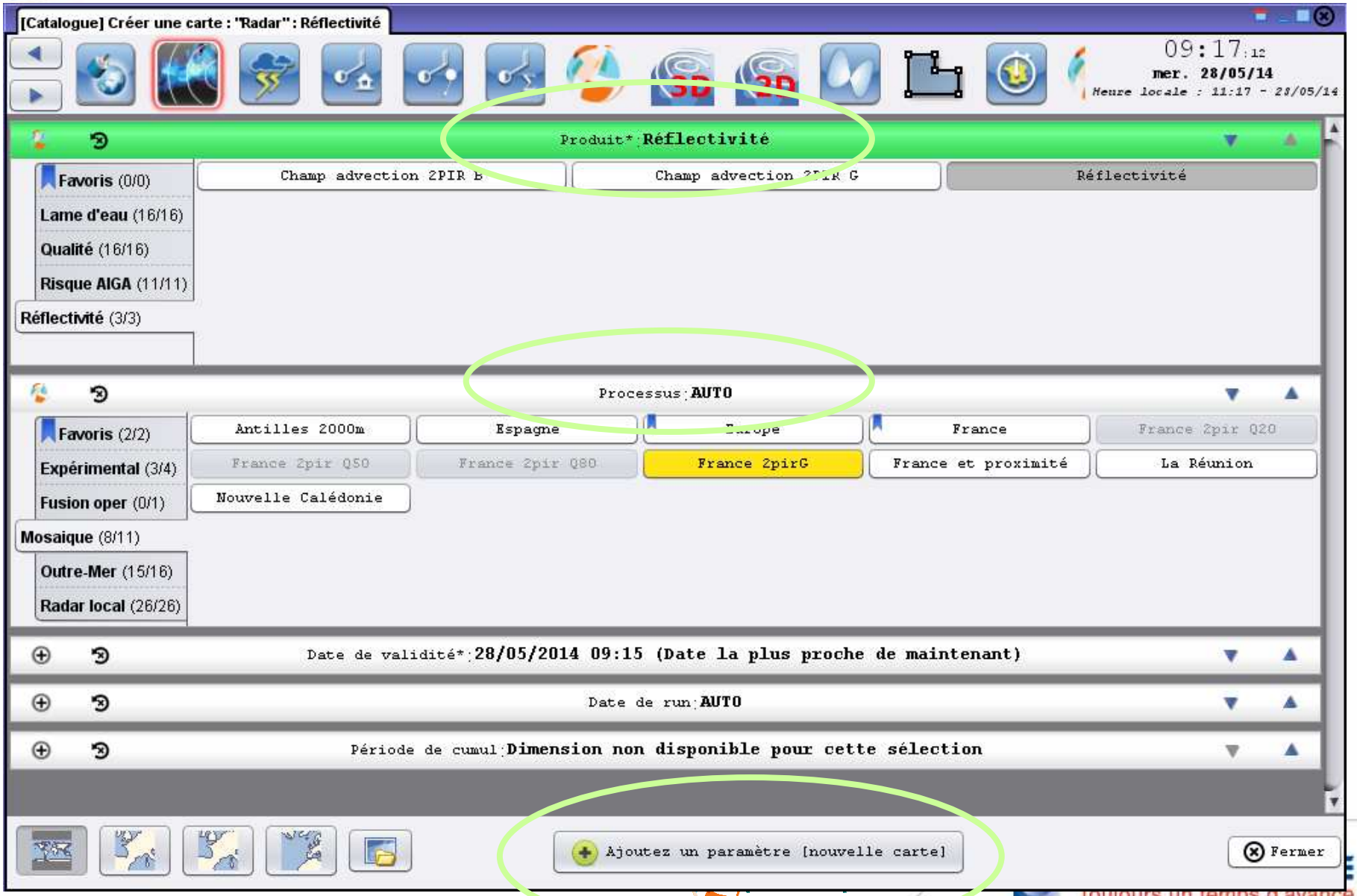
Shared into :

- Menu bars : in principle, all functionalities are available for all users !
- General functionalities area (all users)
- Specialized functionalities area
- Personal functionalities area → customization

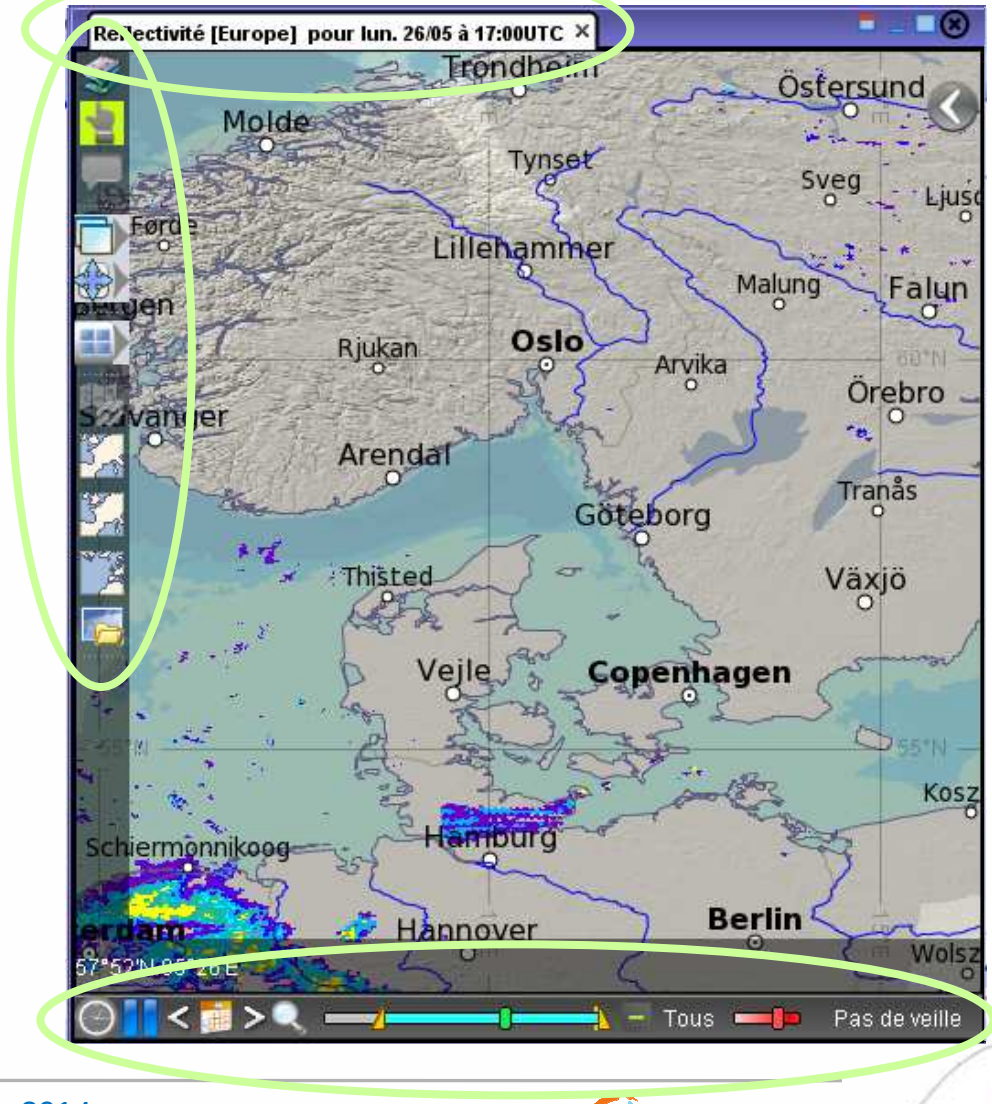
The catalog : a dynamical « get capabilities »



The catalog : a dynamical « get capabilities » function

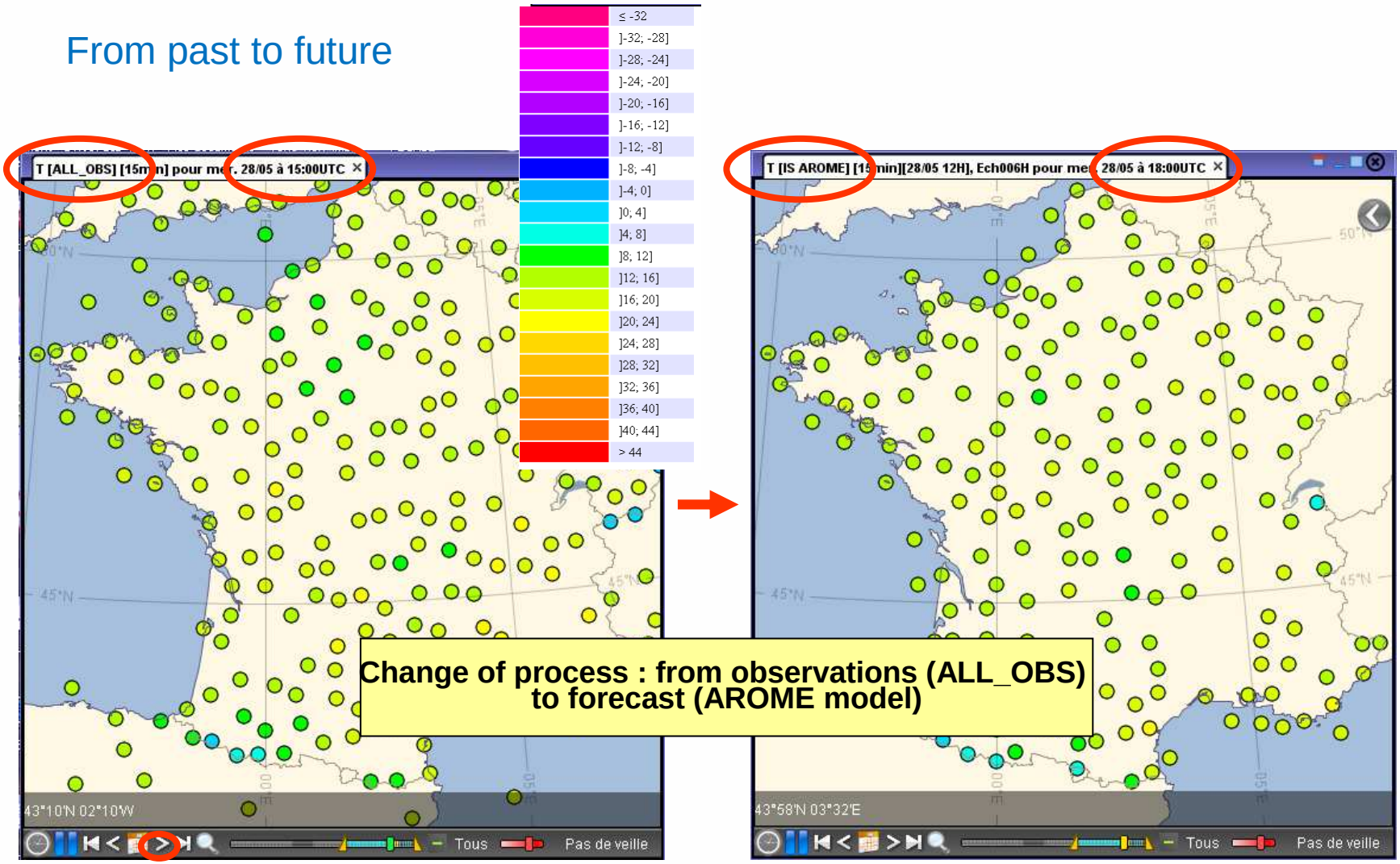


Map +Reflectivity RADAR



The Best Data Set …

From past to future

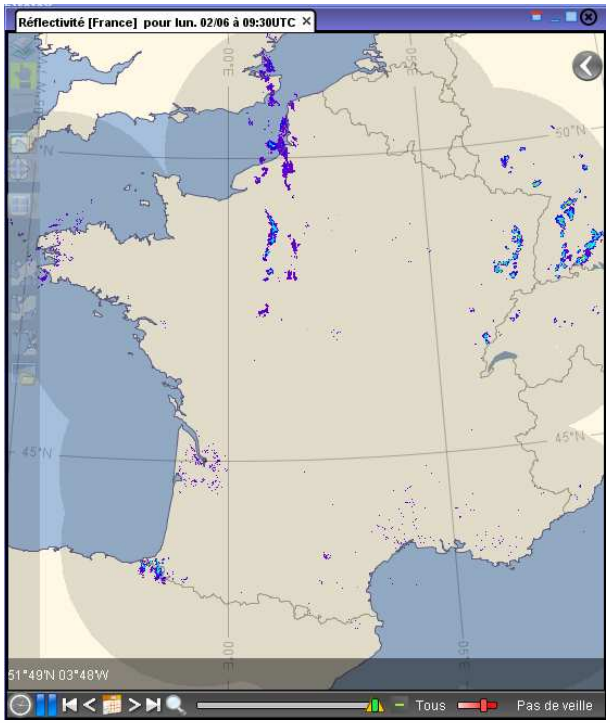


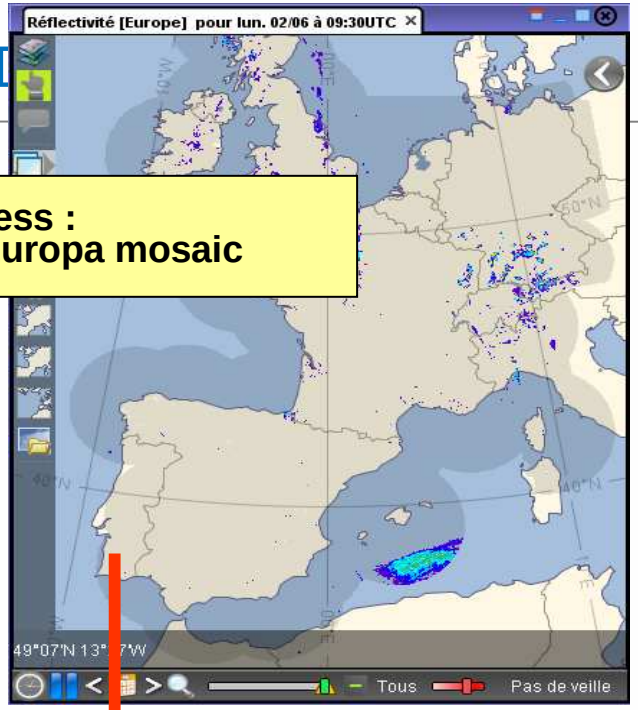
… to Europe

The Best D

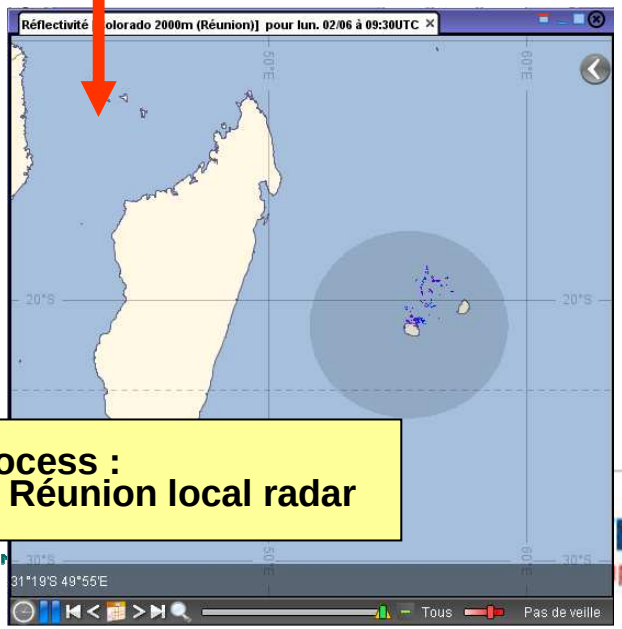
Change of process :
from French mosaic to Europa mosaic

From France …



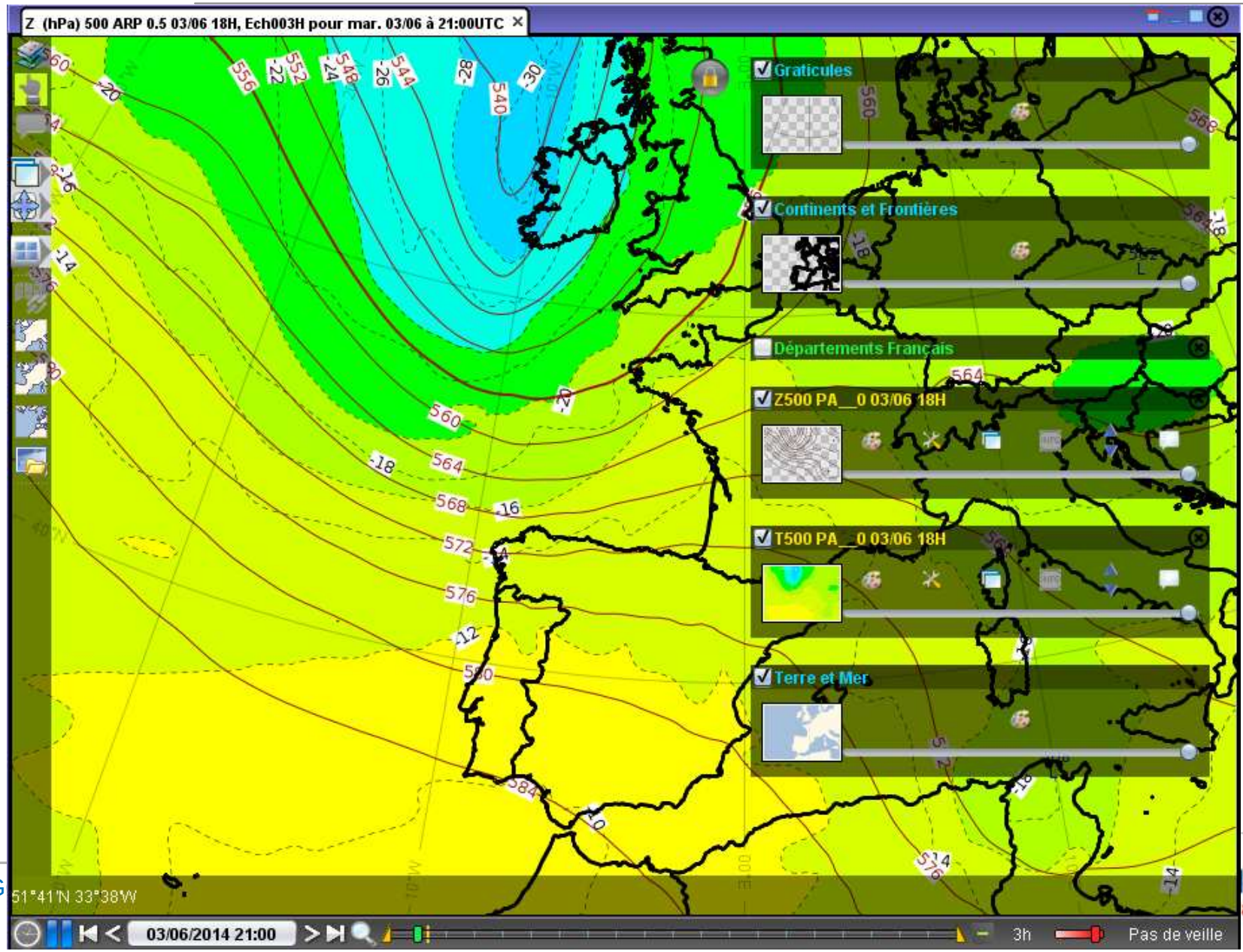


… to La Réunion

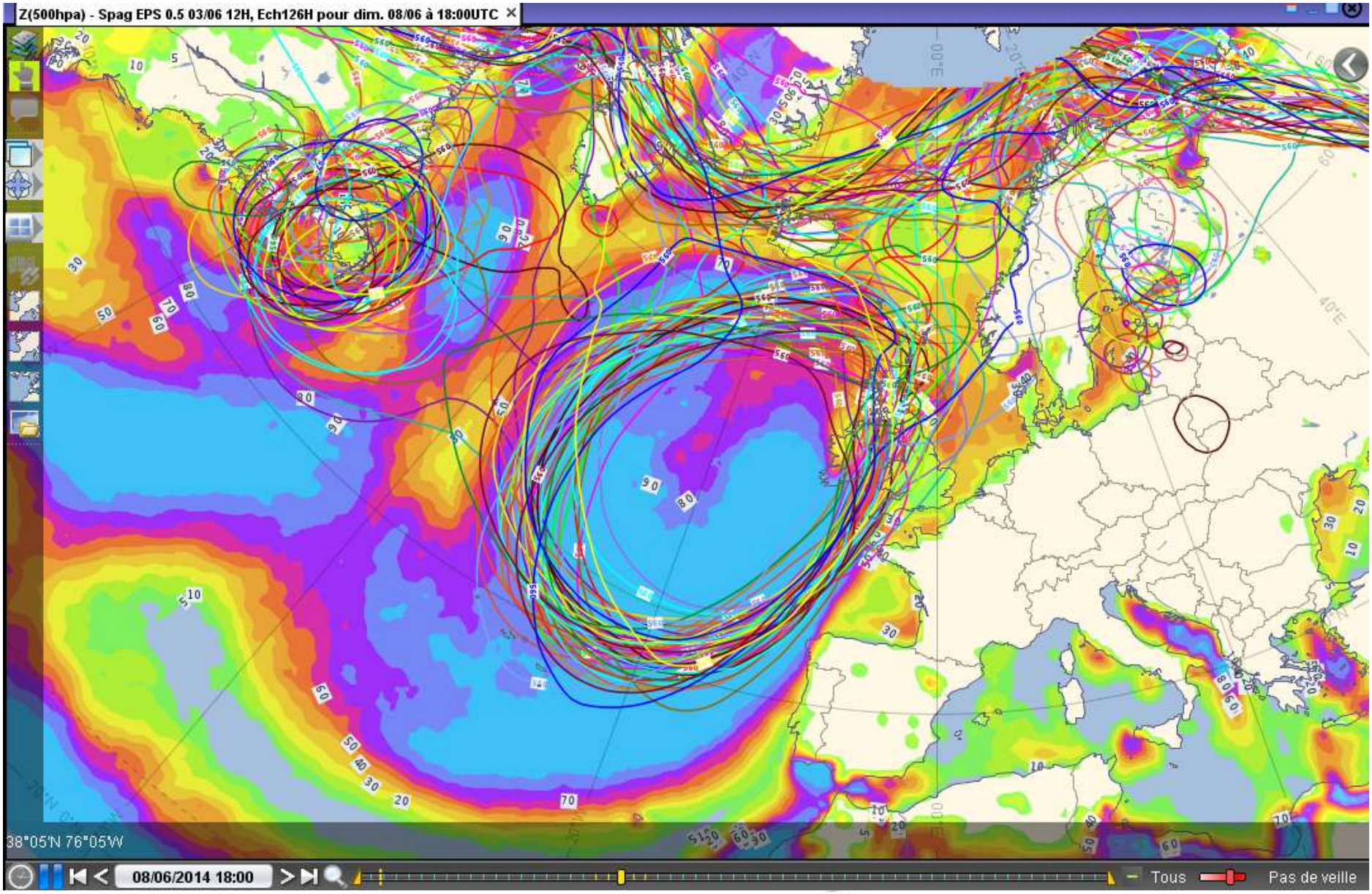


Change of process :
from Europa mosaic to La Réunion local radar

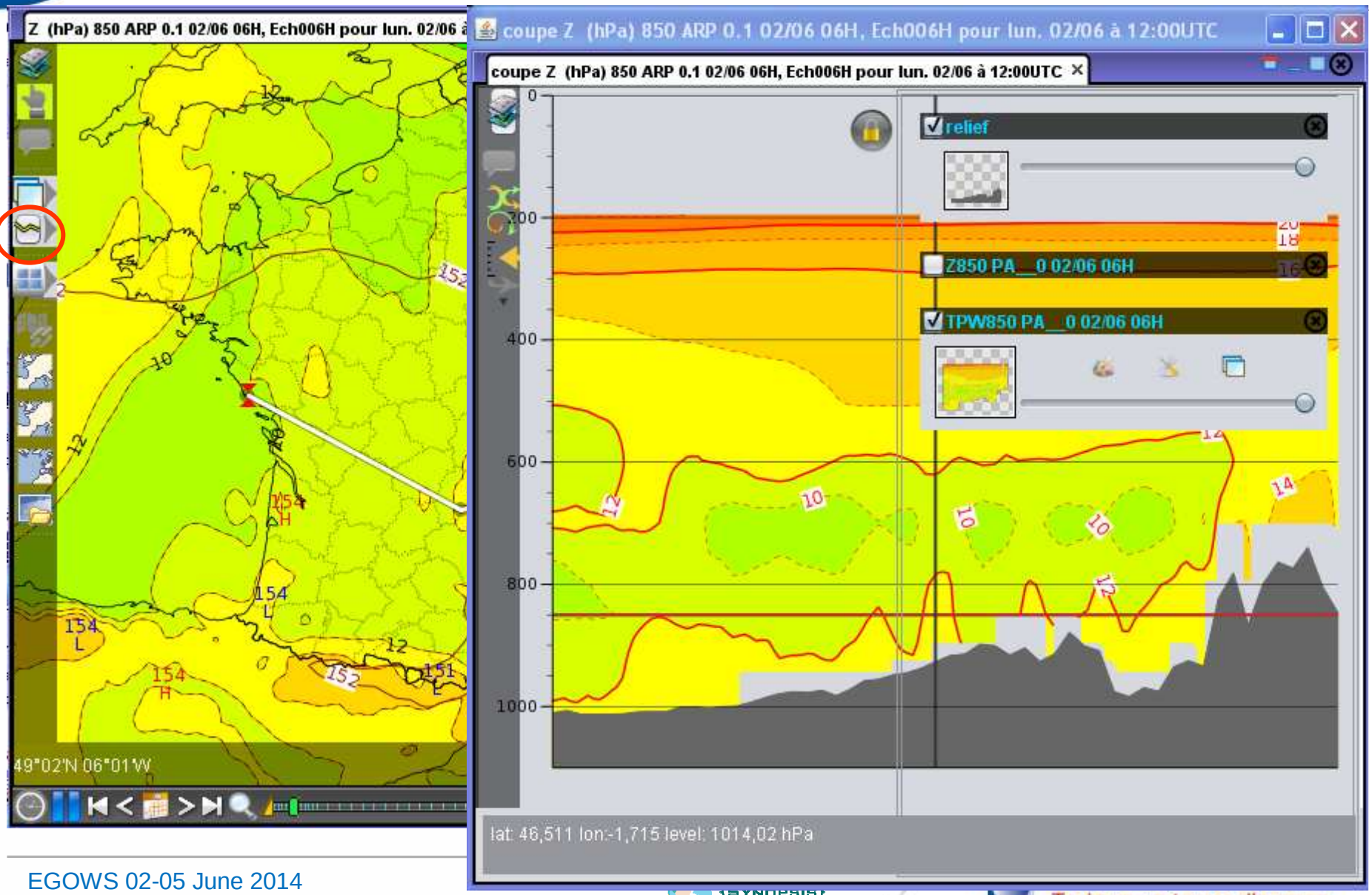
Model


Z (hPa) 500 ARP 0.5 03/06 18H, Ech003H pour mar. 03/06 à 21:00UTC
Graticules
Continents et Frontières
Départements Français
Z500 PA__0 03/06 18H
T500 PA__0 03/06 18H
Terre et Mer
51°41'N 33°38W
03/06/2014 21:00
3h
Pas de veille

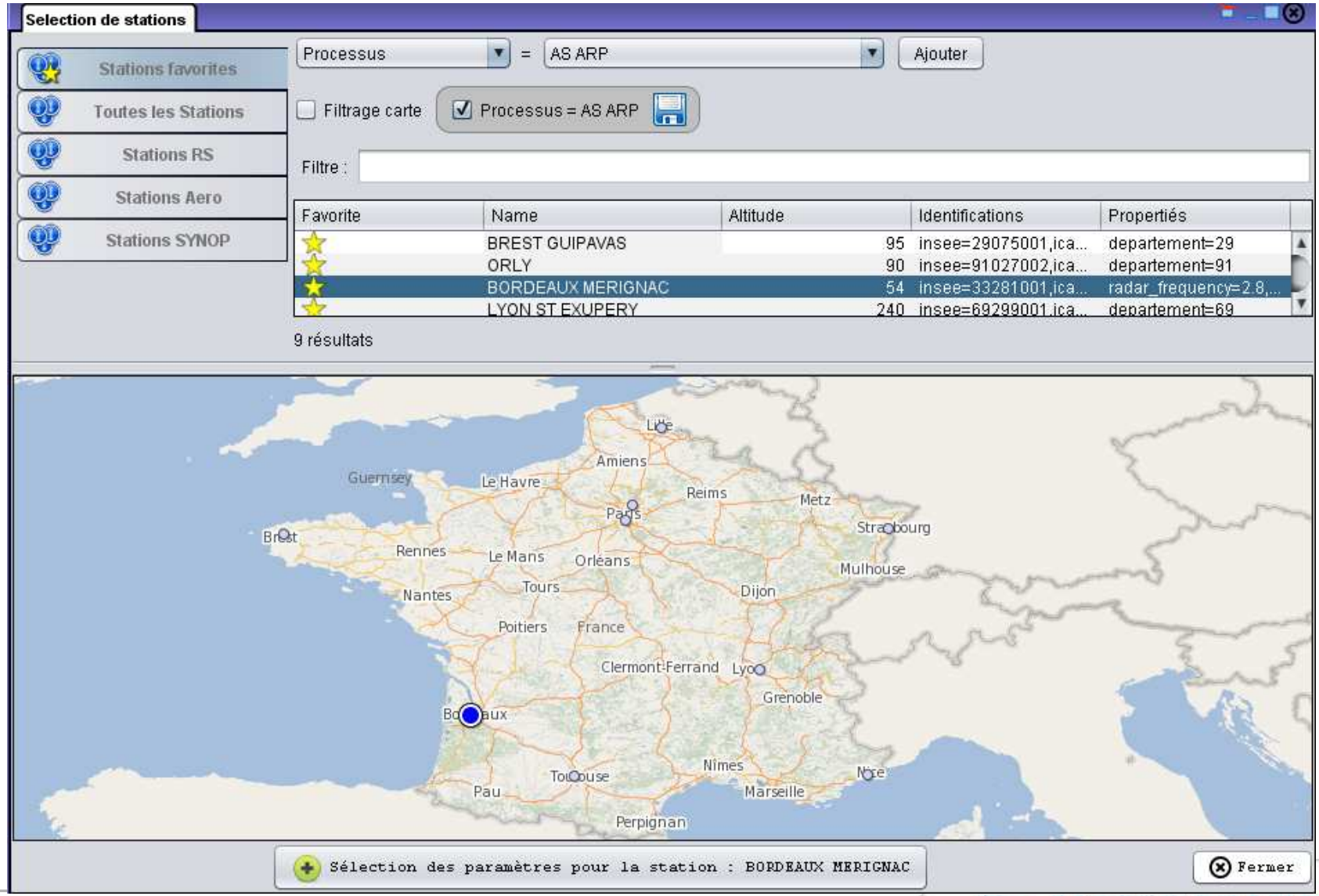
Ensemble forecasting



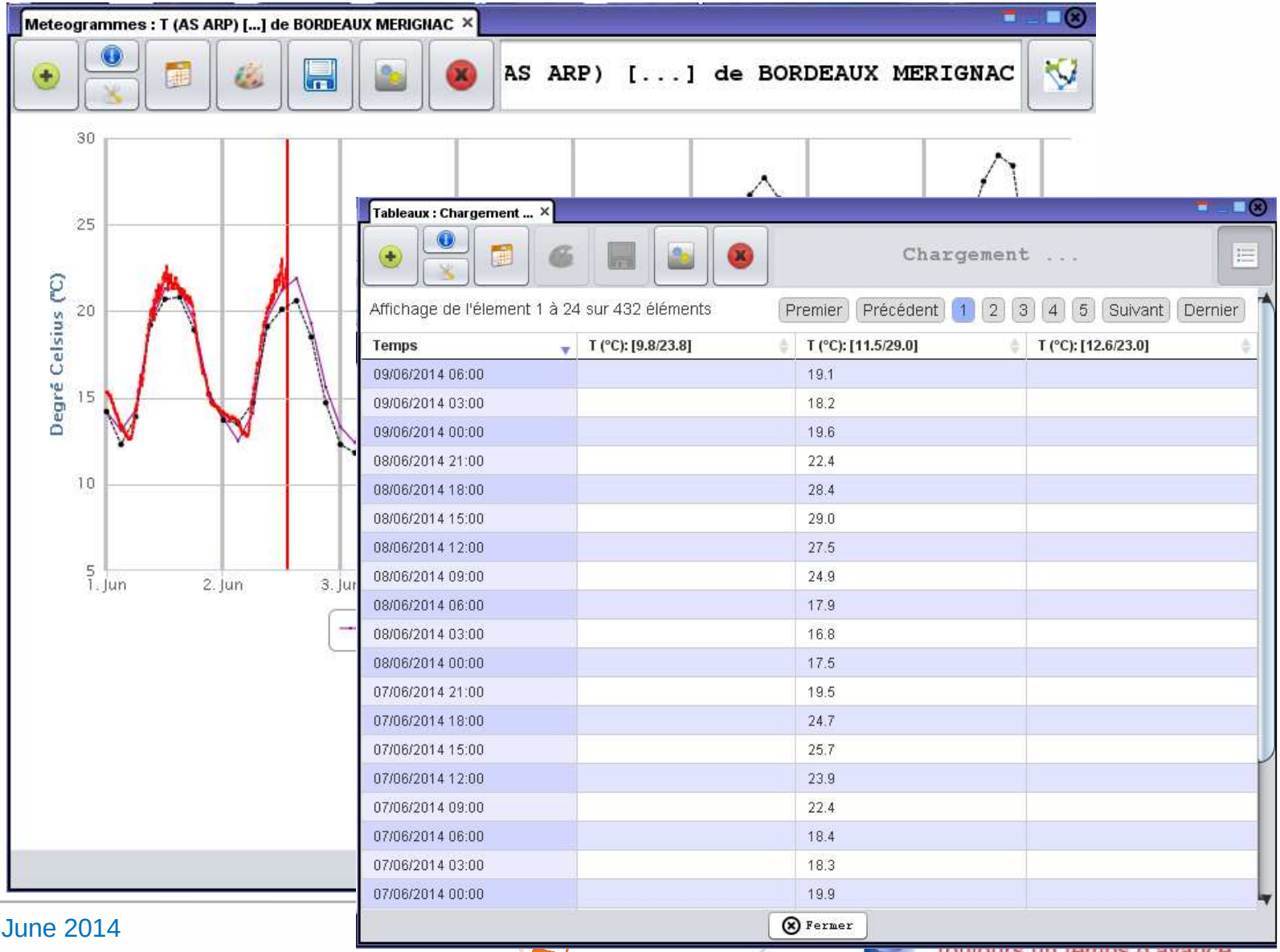
Cross section



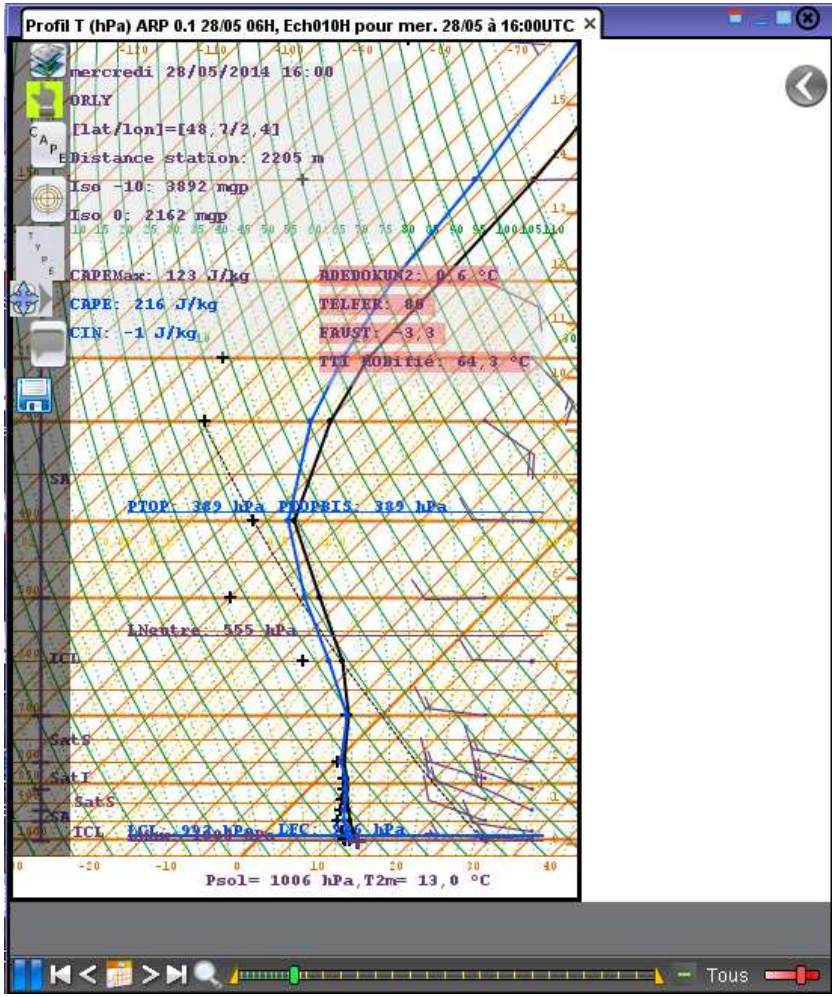
Stations selector

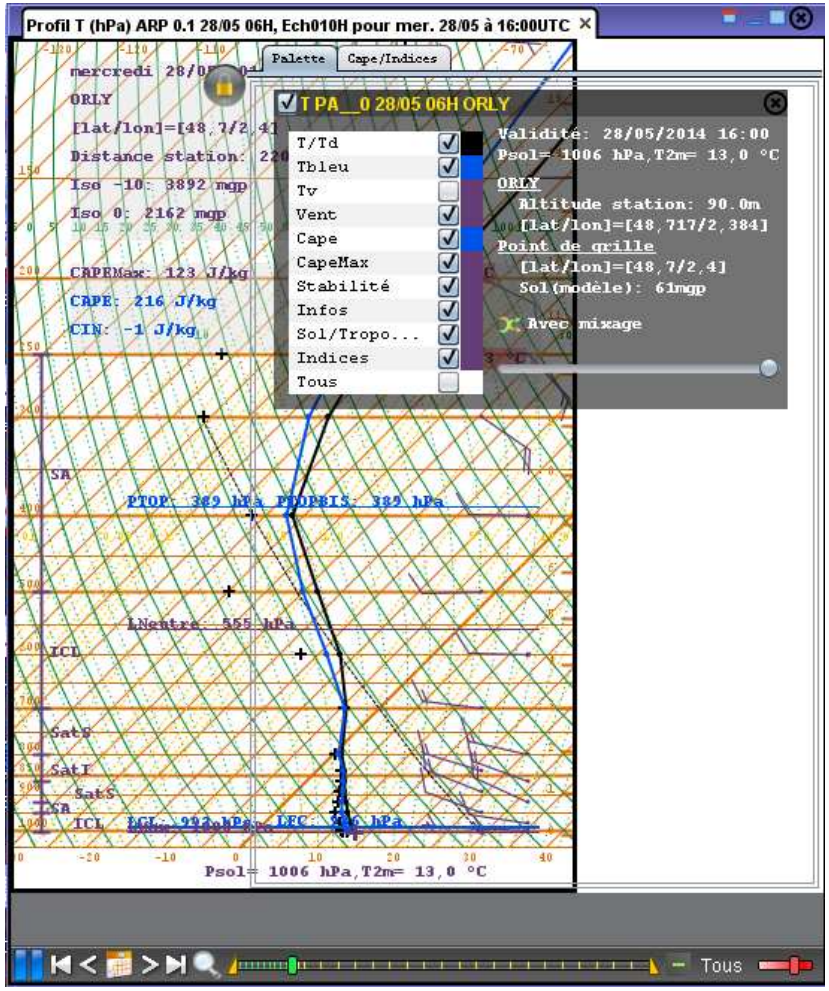


Time series

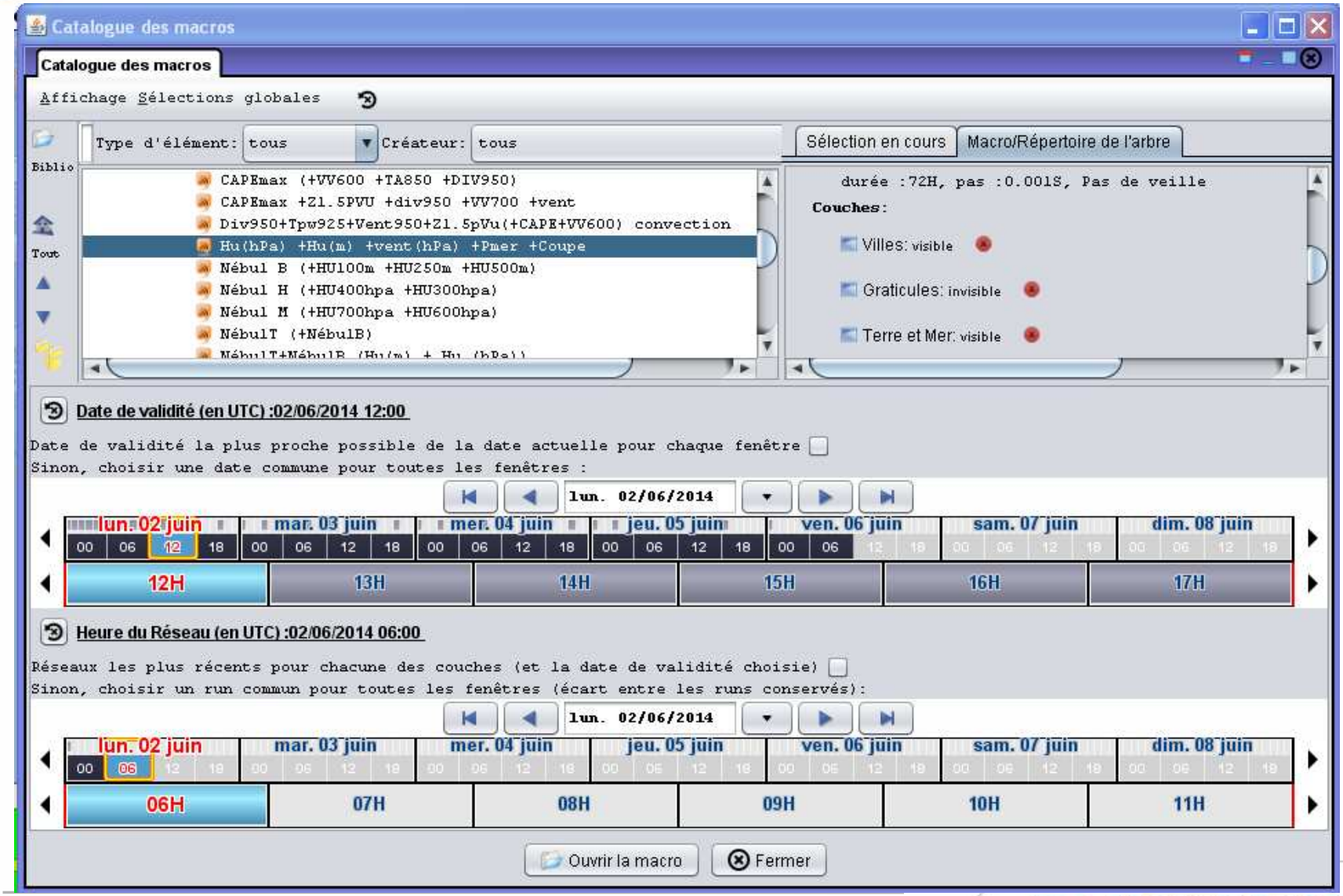

Meteogrammes : T (AS ARP) [...] de BORDEAUX MERIGNAC
AS ARP) [...] de BORDEAUX MERIGNAC
Degré Celsius (°C)
30
25
20
15
10
5
1. Jun
2. Jun
Tableaux : Chargement ...
Chargement ...
Affichage de l'élement 1 à 24 sur 432 éléments
Premier
Précédent
1
2
3
4
5
Suivant
Dernier
Temps
T (°C): [9.8/23.8]
T (°C): [11.5/29.0]
T (°C): [12.6/23.0]
09/06/2014 06:00 19.1
09/06/2014 03:00 18.2
09/06/2014 00:00 19.6
08/06/2014 21:00 22.4
08/06/2014 18:00 28.4
08/06/2014 15:00 29.0
08/06/2014 12:00 27.5
08/06/2014 09:00 24.9
08/06/2014 06:00 17.9
08/06/2014 03:00 16.8
08/06/2014 00:00 17.5
07/06/2014 21:00 19.5
07/06/2014 18:00 24.7
07/06/2014 15:00 25.7
07/06/2014 12:00 23.9
07/06/2014 09:00 22.4
07/06/2014 06:00 18.4
07/06/2014 03:00 18.3
07/06/2014 00:00 19.9
Fermer

Vertical profiles

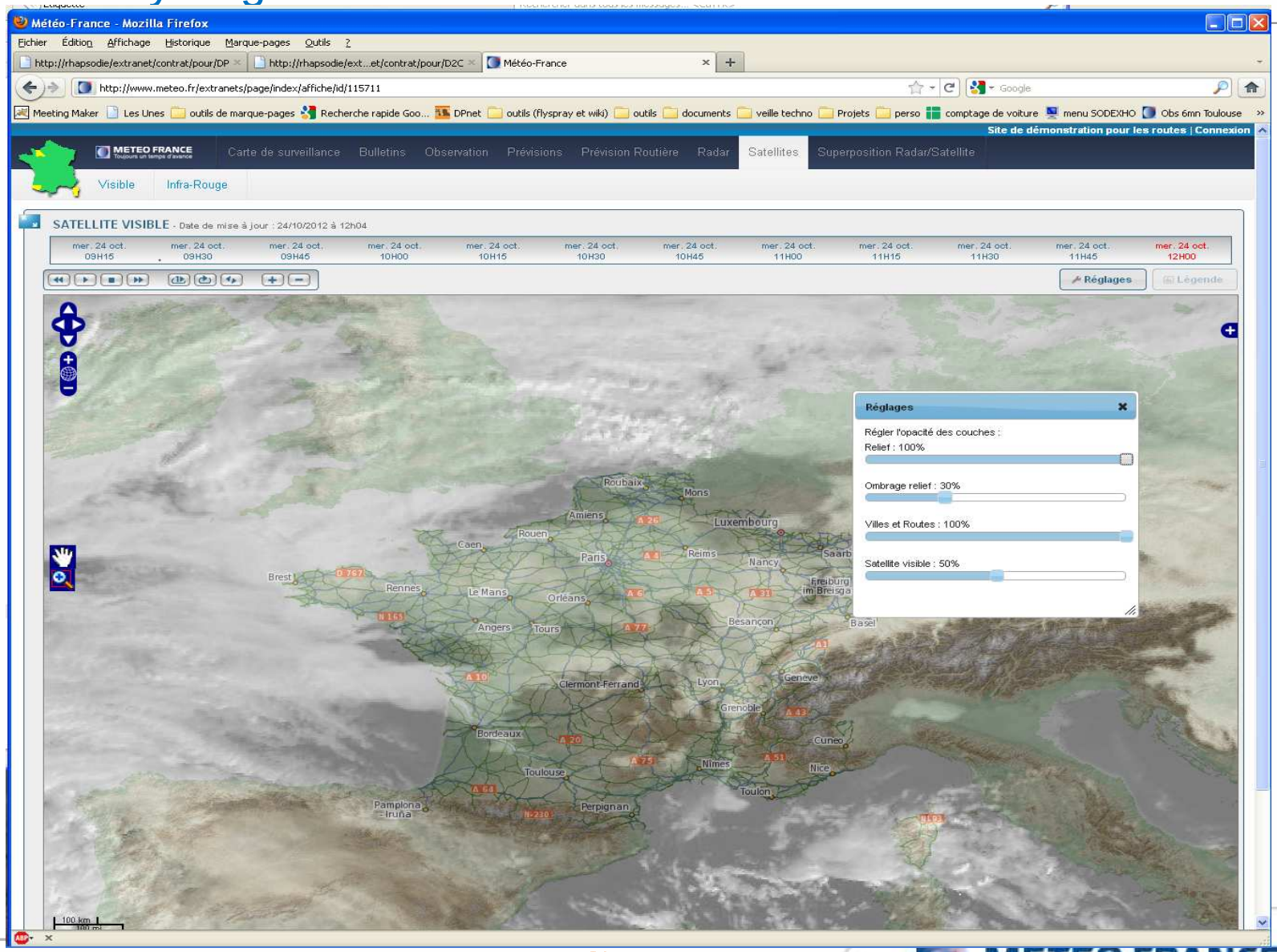




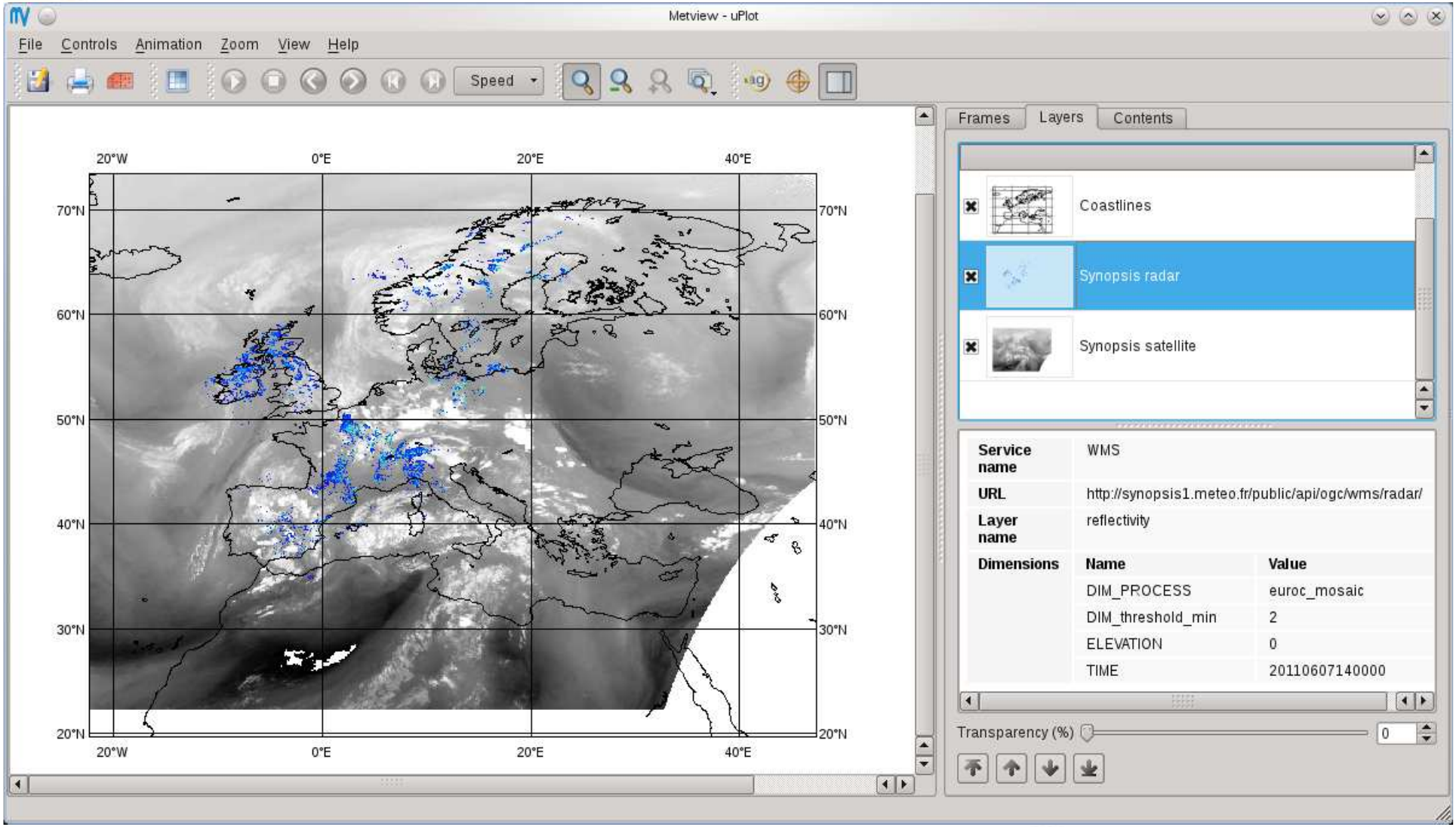
Macros


Catalogue des macros
Catalogue des macros
Affichage Sélections globales
Biblio
Tout
Type d'élément: tous
Créateur: tous
Sélection en cours
Macro/Répertoire de l'arbre
CAPEmax (+VV600 +TA850 +DIV950)
CAPEmax +Z1.5PVU +div950 +VV700 +vent
Div950+Tpw925+Vent950+Z1.5pVu(+CAPE+VV600) convection
Hu(hPa) +Hu(m) +vent(hPa) +Pmer +Coupe
Nébul B (+HU100m +HU250m +HU500m)
Nébul H (+HU400hpa +HU300hpa)
Nébul M (+HU700hpa +HU600hpa)
NébulT (+NébulB)
durée :72H, pas :0.001S, Pas de veille
Couches:
Villes: visible
Graticules: invisible
Terre et Mer: visible
Date de validité (en UTC) :02/06/2014 12:00
Date de validité la plus proche possible de la date actuelle pour chaque fenêtre
Sinon, choisir une date commune pour toutes les fenêtres :
lun. 02/06/2014
lun. 02 juin
mar. 03 juin
mer. 04 juin
jeu. 05 juin
ven. 06 juin
sam. 07 juin
dim. 08 juin
12H
13H
14H
15H
16H
17H
Heure du Réseau (en UTC) :02/06/2014 06:00
Réseaux les plus récents pour chacune des couches (et la date de validité choisie)
Sinon, choisir un run commun pour toutes les fenêtres (écart entre les runs conservés):
lun. 02/06/2014
06H
07H
08H
09H
10H
11H
Ouvrir la macro
Fermer

Synergie-Next server for our clients web site



Synergie-Next with Metview



Thanks for your attention !

More details in demo session