

Aims of reorganization of forecasting at Meteo France

Improve quality of forecast especially at very short range on dangerous phenomena

Services more fitted to consumer needs with forecasting advices et decision help



Upstream forecast

- Définition : forecast tasks done without focusing a particular use
 - For general forecast: models computing, observations analysis, weather forecast, conference calls, weather data bases filling etc...
 - For marine and aviation forecast, waves model, post processing tools for icing, turbulence etc...



The forecast advice

- Définition : *activity in order to help external customers to help making decisions that depend on meteorological conditions.*
 - Meteorological bulletins
 - Phone calls
 - Assistances (example: road icing)
 - Participation to crisis cells
 - ...
- It is not a new notion but an important motivation factor for forecasters



Present organization

- Upstream forecast
 - National Center: TSR definition and settings from short range to medium range forecast
 - Regional centers: immediate and short range forecast, data base filling
 - Local centers: data base filling for very short range
 - Conférence calls between CNP/CMIR and CMIR/CDM

- Advice forecast
 - National Center coordinates the vigilance chart + some big consumers products
 - Regional centers: first input in the vigilance charts + some consumers products
 - Local centers: advice is the main part of the job

Advantages et disadvantages of present organization

■ Advantages

- Interactivity
- Serial scale work
- Good knowlegde of local climatology in local centers but with fine mesh models, this advantage is less and less notable

■ Disadvantages

- Risk of inconsistency
- Weak reactivity to consumers needs
- Weak increase in value in local centers



New organization principles

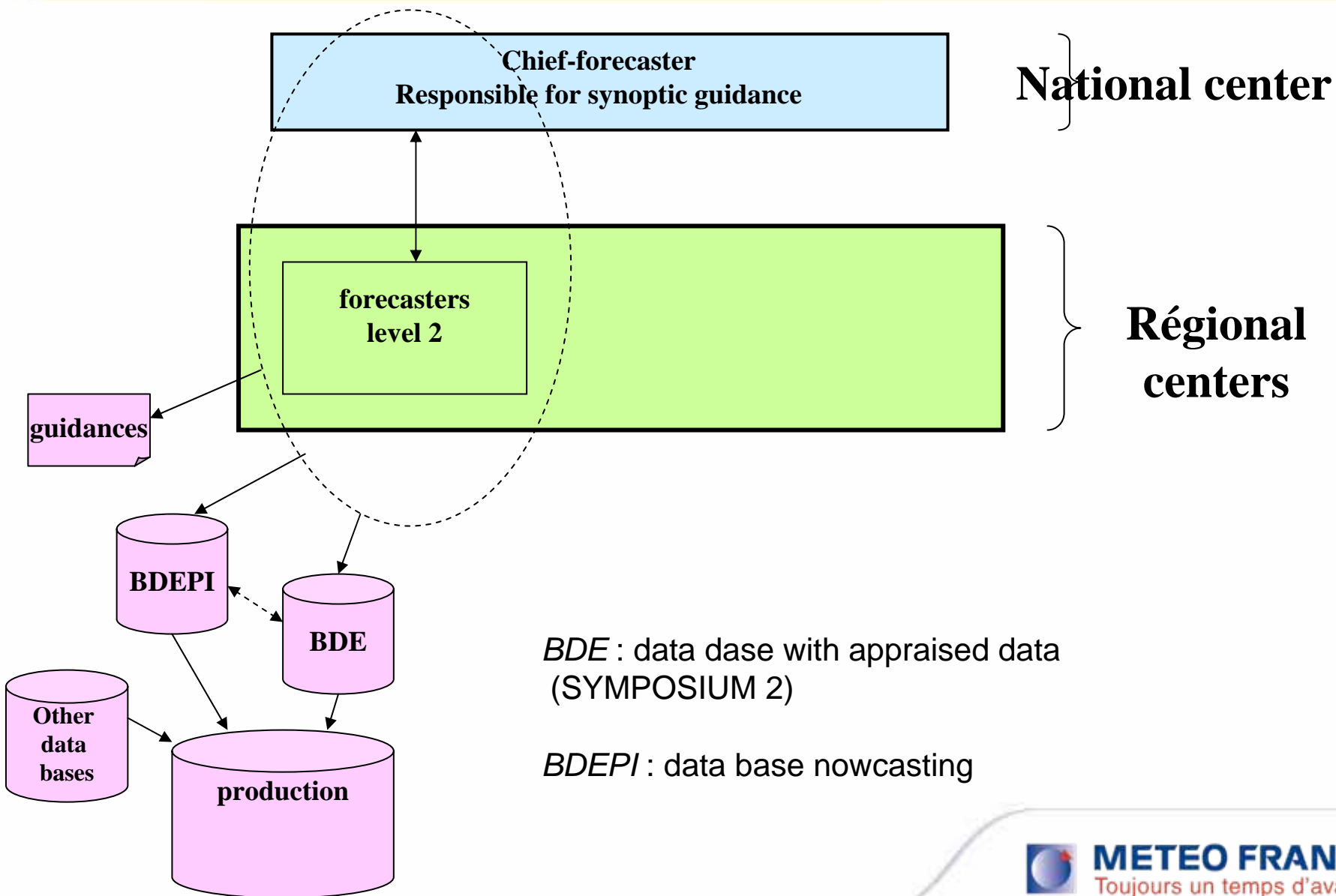
- Upstream forecast
 - In real time between national center/regional centers
 - Special attention to nowcasting
- Advice forecast
 - No fundamental change: distributed between national regional and local centers
 - optimizations with an increase of automated and supervized production but forecaster expertise will remained critical in crisis situation and for sensible customers
- Interactivity between upstream and advice forecast should be maintained



Upstream forecast



Upstream forecast chain



National center

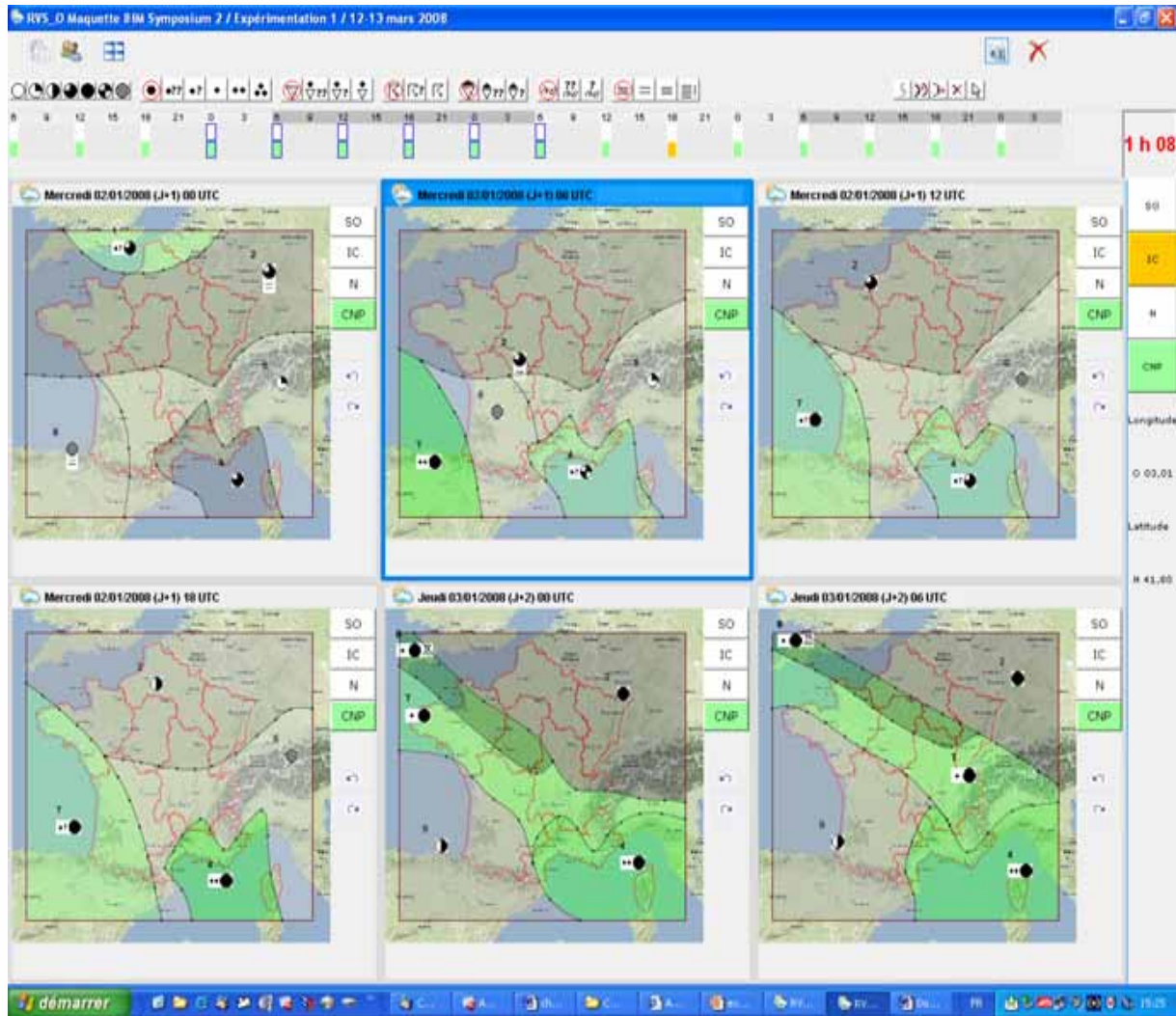
Régional centers

Upstream forecaster tasks in regional centers

- Ranges after nowcasting
 - Validation of new database SYMPOSIUM 2
- Nowcasting
 - 5 mn database automated
 - Supervision by forecaster

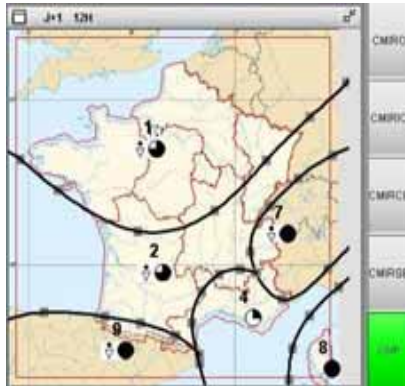


Upstream forecast collaborative work

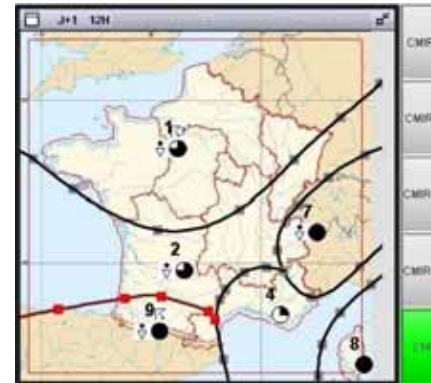


Collaborative work for data
base SYMPOSIUM 2

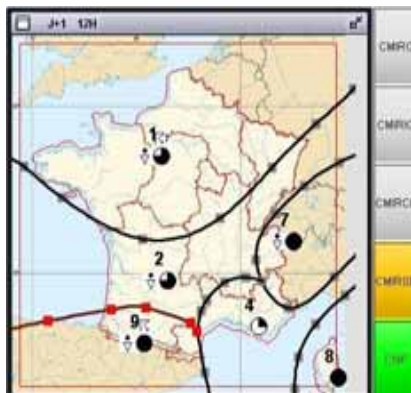
Upstream forecast collaborative chain



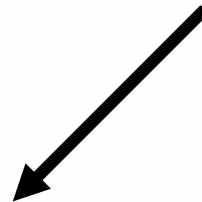
1. Start of process : issue of guideline by CNP



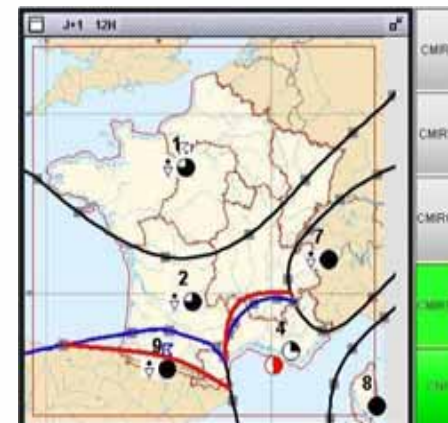
2. Regional center CMIRSO modify object 9



3. CMIRSE modify object 4



Orange = the modification by CMIRSE has an impact on SO



4. Forecaster in CMIRSO has visualized the changes in object 4

green = publication has been visualized

Advice forecast and assistance to authorities



Advice forecaster

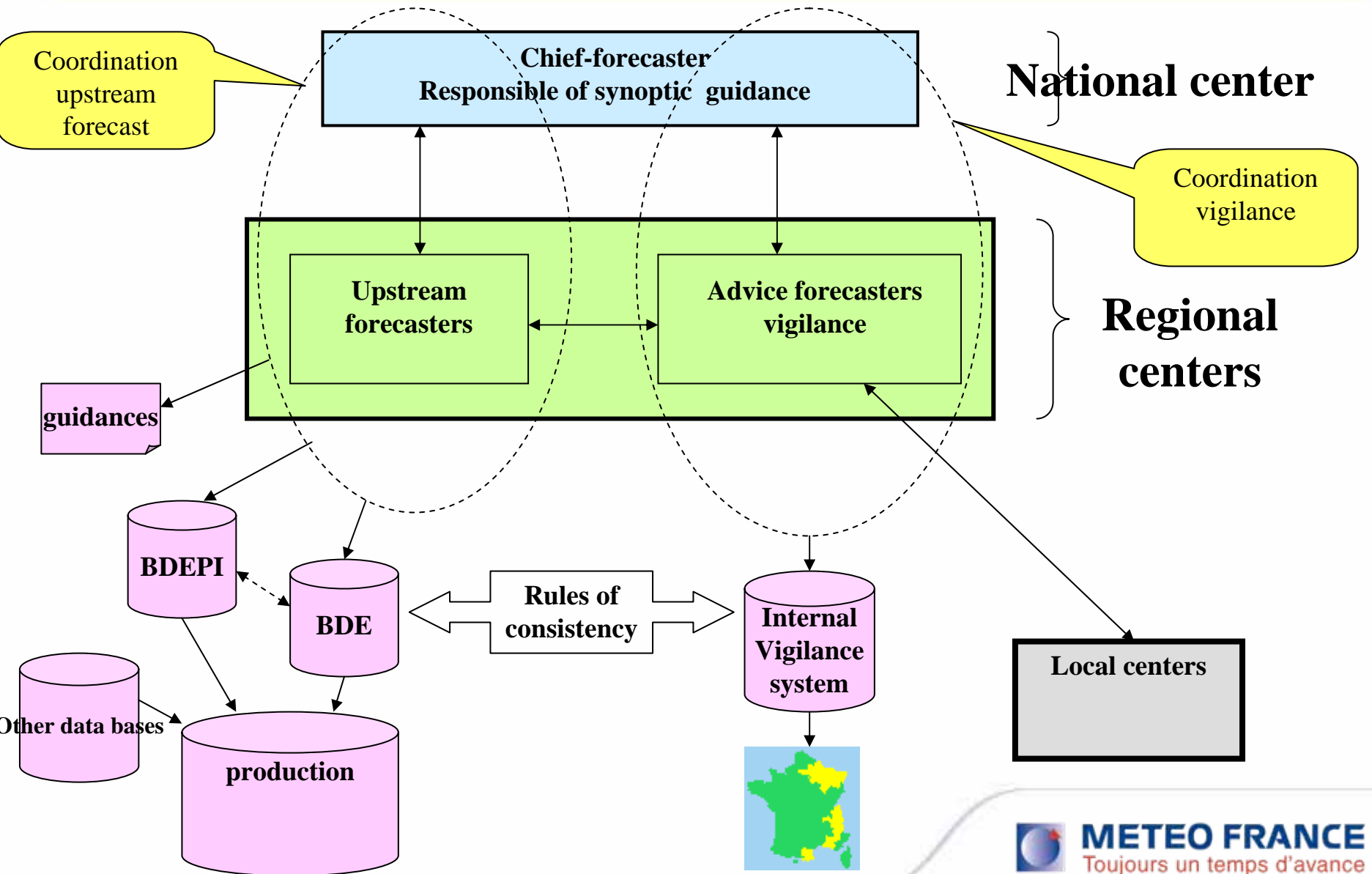
- Assistance to authorities (civil security, etc....) : vigilance procedure
- Forecast of rainfall and coordination with hydrologic services
- In potential dangerous situations, contacts with customers like motorway management, electricity companies, etc... are relevant of security
- Environnemental emergencies



Interaction upstream forecast / advice forecast



Interaction upstream forecast/ advice forecast



The reorganization of forecasting

- A separation between basic forecasting activities (made independently of users and customers) and forecast production activities (end-user products and services, advice to users, etc)
- Basic forecasting made on a limited number of geographic domains, of the order of 10 to 15, depending on the complexity of climate characteristics (mountainous areas, etc)
 - Including all time ranges, from nowcasting to medium-range forecasting
- Forecast production relying on a number of territorial offices, of the order of 40 to 50
- Should allow more efficiency and reactivity, especially in crisis situations

