



# Roadmap to Objective Seasonal Forecast

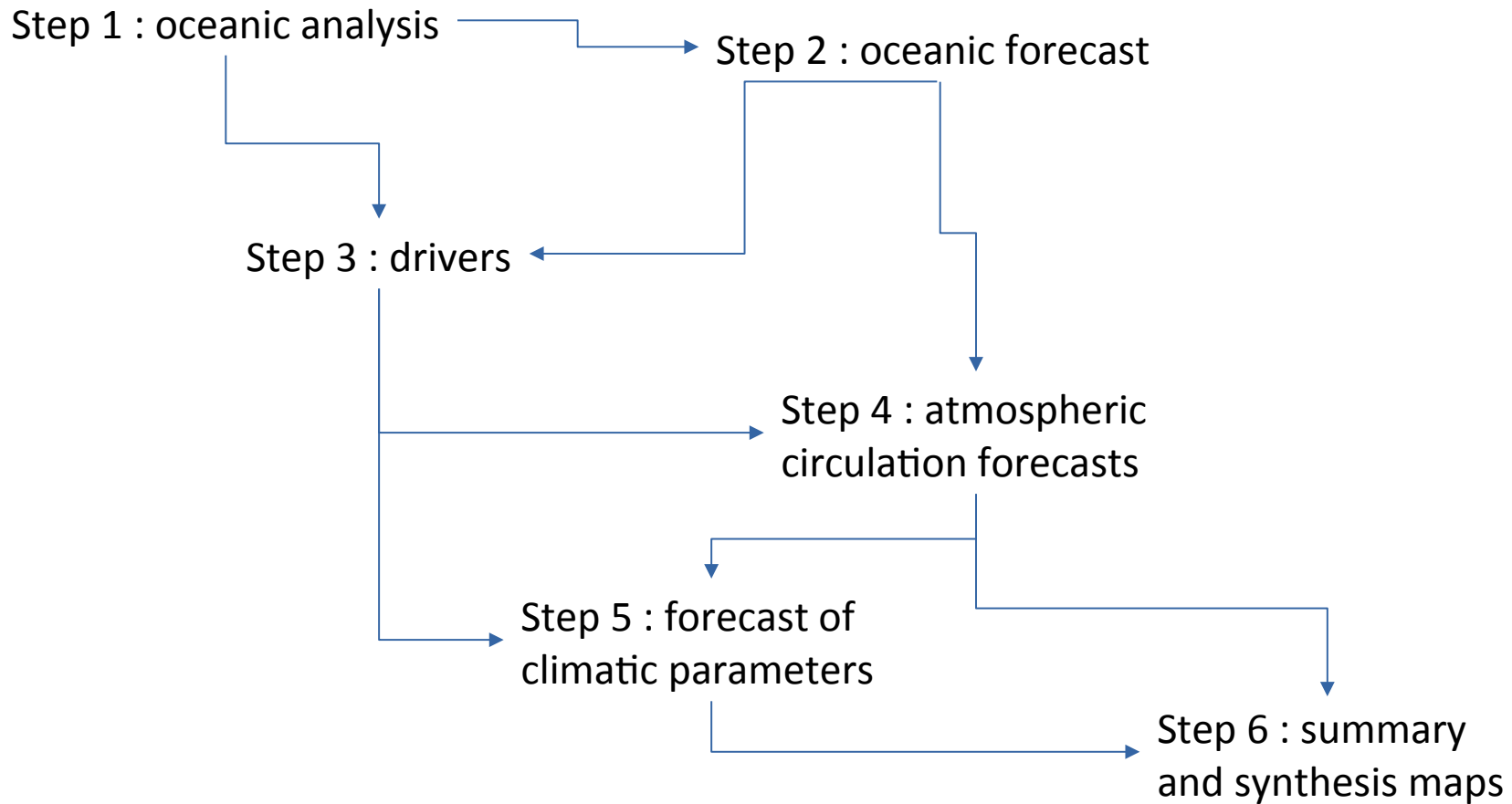
RA VI RCC LRF Current practice & Perspectives

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(Météo-France)

# Current practice

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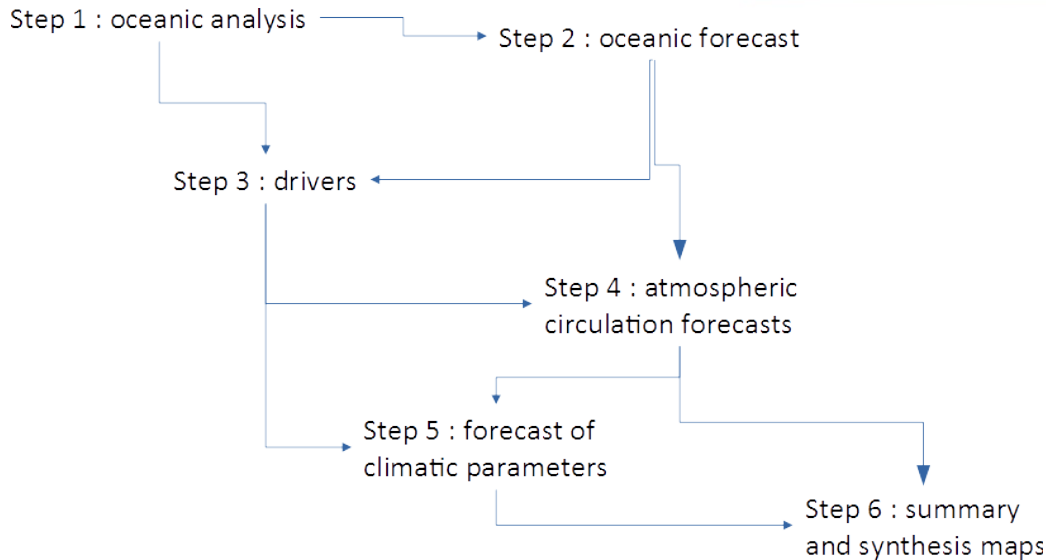
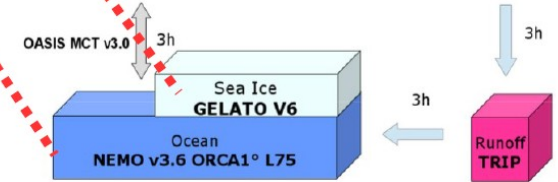
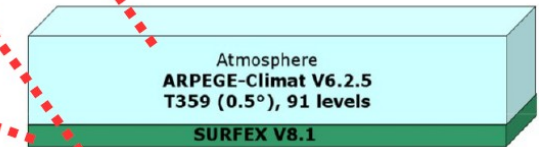
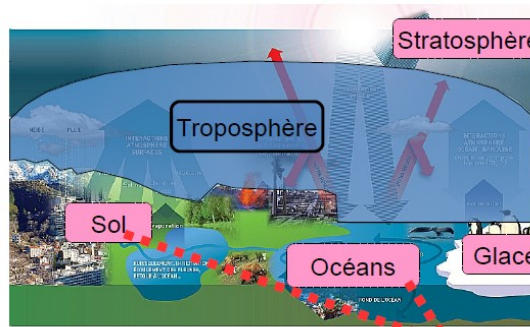
A subjective analysis, repeated each month, that follows a precise protocol :



# Current practice

Each step relies on climate models

→ a subjective protocol mainly based on objective tools



# <http://seasonal.meteo.fr/>

The latest bulletins

Models  
( forecast,  
climatology,  
scores )

Climate  
monitoring  
products

identification

Documentation

The screenshot shows the homepage of the Météo-France seasonal forecast website. At the top, there is a navigation menu with links for Home, Documentation, Bulletins, Models, and Climate monitoring. The main content area features a 'Welcome' message and a login form with fields for Username and Password, and a 'SE CONNECTER' button. Below the login form, there is a section titled 'Météo-France has been designated by WMO as Global Producing Centre (GPC) of long-range forecasts and as RA6 Regional Climate Centre node on Long Range Forecasts (RCC-LRF)'. This section lists the services provided: 'Météo-France system 6 model forecasts and scores' and 'Operational products and services within the RA6 RCC Network'. A 'RA6 RCC Network useful links' section follows, containing four boxes with logos and descriptions for: KNMI (RCC Network (RA6) De Bilt Node on Climate Data Services), Deutscher Wetterdienst (RCC Network (RA6) Offenbach Node on Climate Monitoring), Météo-France (RCC Network (RA6) Toulouse Node on Long-range Forecastings), and Росгидромет (RCC Network (RA6) Moscow Node on Long-range Forecastings). The footer includes the text 'Optimized for Firefox 52+, Edge, Chrome 55+' and '© Météo France - 2010-2019 | Contact | Legal'.

Contact us

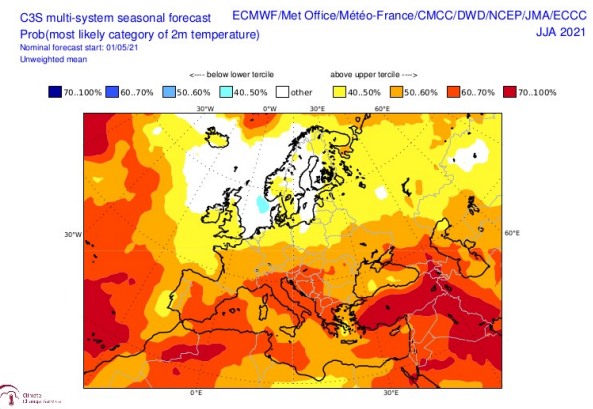
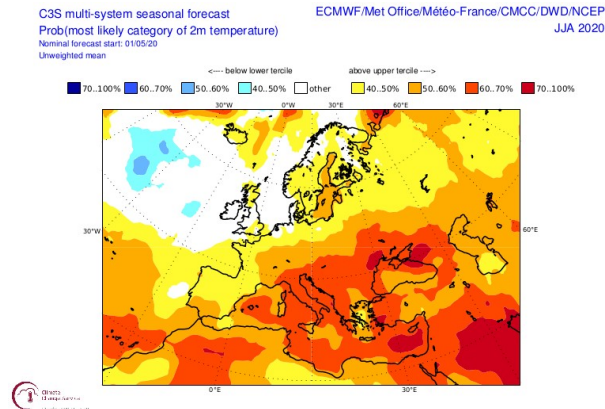
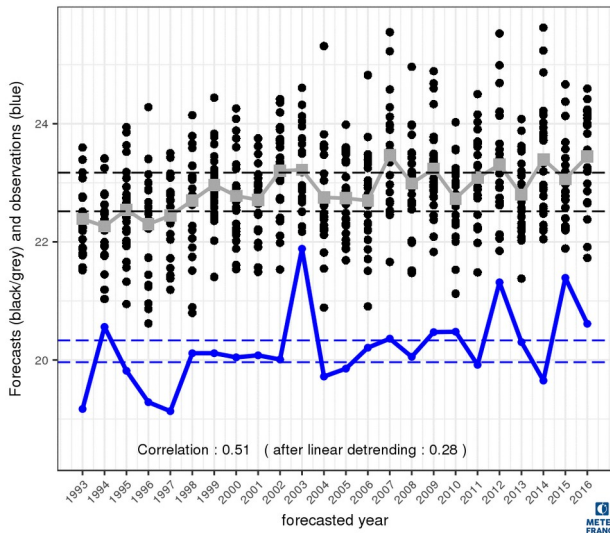


# Current practice

## Strengths :

- **On average**, weak signal over Europe and the Mediterranean region. But there are **windows of opportunity** in case of strong forcing
- Being able to extract **inter-annual variability signal** from climate trends
- Being objective = reproducible → **common protocol**  
= not “forecaster-dependant” → **meeting/discussion**

Meteo-France system 7 - T2m inland (dg C)  
zone Europe S ( lat. 35 to 50 lon. -10 to 30 )  
Init. : 5 - Lead Time : 1 (JJA)  
reference ERA5 1993-2016



# Toward objective forecasts : questions

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- “Human factor”, weakness or strength ? Does “*objective forecast*” mean “*automatic forecast*” ?
- Which role for climatologists : “doing” the forecast ? Choosing a model or a composition of models (depending on scores & context) ? Commenting/explaining the forecast ?
- Impact models needs :
  - corrected data (realistic local distributions), specific to each reference dataset (defined by its parameters, temporal and spatial resolution, historical period) → **no universal answer...**
  - to be **consistent with the forecast scenario**

# Toward objective forecasts

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- Better documentation of the process, including clarification of the role of the climatologist in the objective forecast process
- Identification/development of tools for a better extraction of the signal from models :
  - Common indices to describe large scale information and drivers
  - Develop products able to separate interannual variability from climate trends
- Development of tools for an objective translation of large scale circulation signal to local impacts (“Indirect forecast”):
  - Through statistical models ?
  - Through “toy models” ?
- Development of tools or methods for an objective combination or choice between “indirect forecasts” and model outputs (T, RR, wind....)
- Data for impact models: share downscaling/correction tools

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Thank you for your attention!

<http://seasonal.meteo.fr>