# EUPORIAS

#### **Highlights lessons learnt and recommendations**

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Met Office, Exeter ECOMS conference 2016 07/10/2016







### Prototypes and micro sites

RIMETS OUTCOMES MEDICARDS

**EUPORIAS** PEN, INCOMPANY, MILLION -----EUPORIAS start stress second imise uncertaint sonal prediction Ethiopia e-art se 1.1.1.0 ture wind pow r generation early warn EUPORIAS 0 00 White RESUBACE? What down 7850, 87402 day Who can RESURNCE help? Ó Supporting transport stakeholders' decision-making ahead of winter What is LEAP? from 2008, LEAP is the national fixed perce early-sarring system used by the Queerus B128-111 OUTCOME) ROUMER den and the Ó RFF prototype 0Ĉ **EUPORIAS** APPENDIX SPREATTY What down SPRINT du? Who can SPRINT I wash Marriel Law Better winter land management decisions for cover crops A tool to manage the reservo filling and draining Q° What is LMTool? What does LMTool do? Who-can LMTool help? Ô ¢° ENTroping a rese-density service to help/and old had presides a lower month winter analysi UMFord can help land managers, maker more managairs make sense decisions in South informed arrive decision by privating 1.46 Signember to the end of March information which can be used alongoide What is REF? What does RIFF do? Who can REFE he sharter term as after funcasis. By feeding a man-moting model by seasonal 1077 addresses throught or Nord 15 Revenues, 1977 provides man Row Revenues, at Propositio manage maker resolution at a management of the reservoir refilling is spring assured scale over lains Catchment and key period is articipate the conductor of scalar and distring in summar farming talks stands.





# Selection process

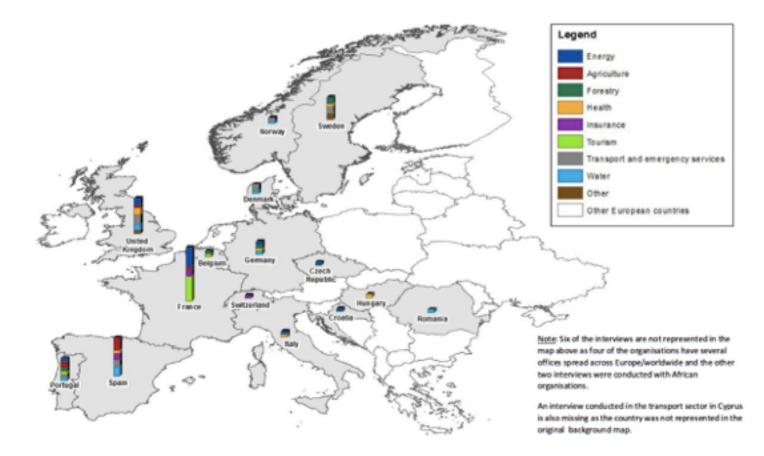
- 17 measures of prototypes fitness for purpose were agreed during the GA.
- Two overriding ones:
  - User's engagement (evidence)
  - Expected value given the expected skill

- A international panel made of three experts independent from the project was identified.
- The experts were asked to rank the proposal using the criteria we identified.
- 5+1proposals were selected for further development.

## Design as an opportunity

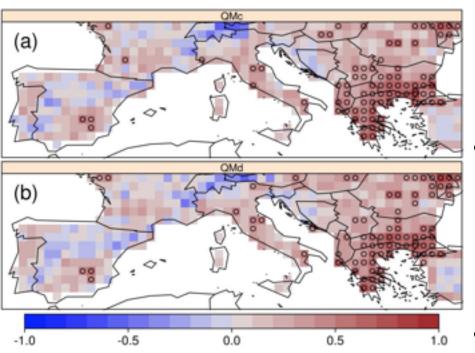






- The first comprehensive analysis of the use of seasonal climate forecasts in multiple sectors
- A new understanding of main barriers and enablers to the use of seasonal forecasts in users organisations;

### Science highlights



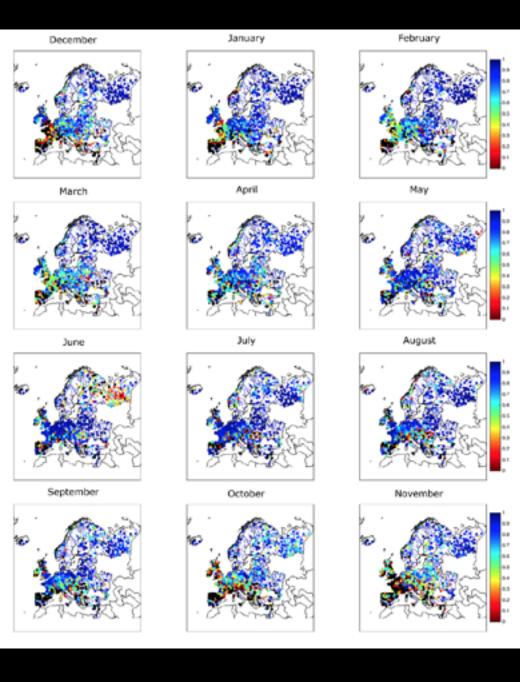
- Regionalisation and bias corrections are a must for many applications but prediction skill comes from large scale.
- Simple post-processing like aggregation through indices can be more relevant for users even if the skill is the same
- Easily accessible long-term observations are crucial to get most out of seasonal forecast

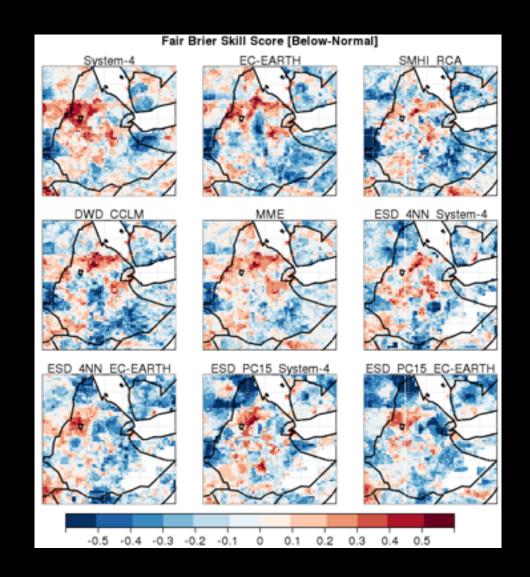




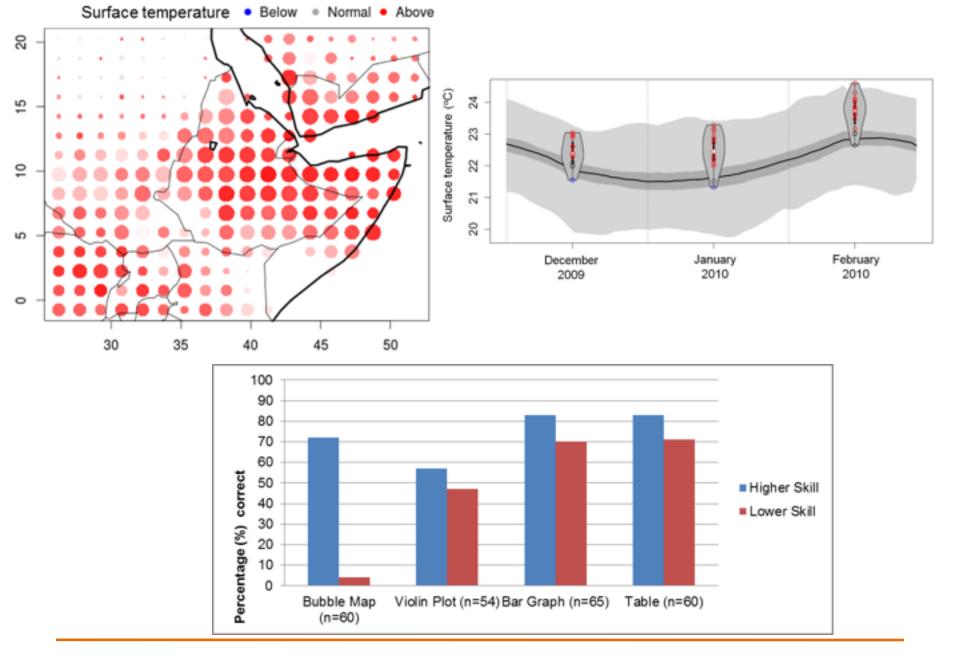
Euporias provided one of the first assessments of the skill in seasonal streamflow predictions in Europe for different lead times and start dates.

This suggests that the predictability of river flow in Europe for some basins (but not for others) can be much higher than the predictability of the atmospheric drivers.



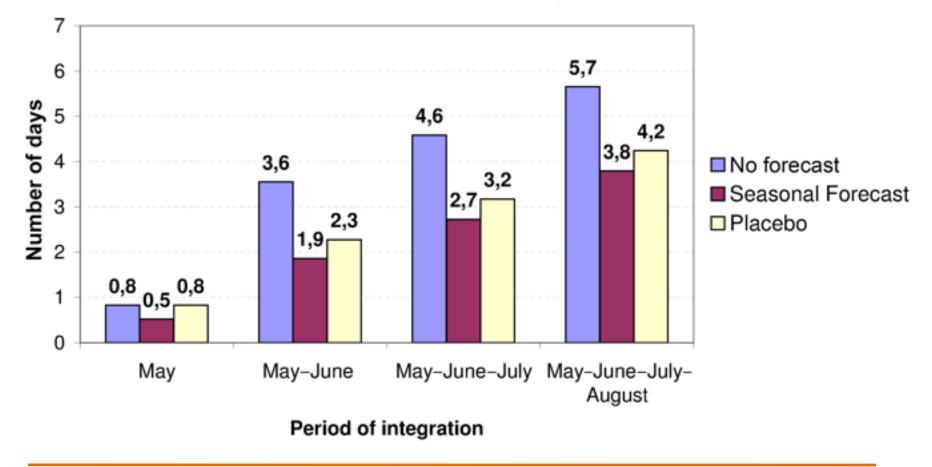


• A hi-resolution hindcast ensemble over East Africa.



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#### Number of days below the "vigilance" threshold May IC - assessment over 29 years Station : Gournay



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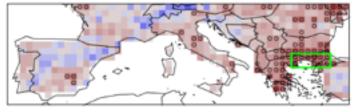
#### http://www.meteo.unican.es

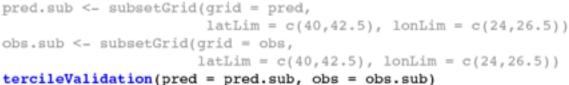
#### Worked example Visualization

#### **Tercile Validation Plot**

Santander Meteorology Group

A multidisciplinary approach for weather & climate





#### 1.0 ROCSS 0.8 0.6 go Above 0.58 0 0 Normal 0.63 0 0.21 Below -0.2 0.0 1983 1986 1989 1992 1995 1998 2001 2004 2007

Implementation of tercile validation as pesented by: Diez et al. 2011. doi:10.1111/j.1600-0870.2011.00523.x

### Users

There is not such thing as users; the landscape is heterogeneous and complex and generalisations are difficult to make.

•Different regulatory/institutional contexts;

- Complex organisational structures & myriad decisions...
- Role of individual in the org.: ≠ perceptions of needs;
- In-house capacity, expertise and resources available;
- Relative importance of climate information
- Continuum of information users see no barriers between weather and climate

# Entry points

- User-interaction during climate service developed is more of an opportunity for innovation than a rigid pre-defined contract.
- For funding this means:
  - promote project management practices that favours incremental development and allow for change in scope (e.g. Agile)
  - Focus should be put on enablers of conversations rather than solutions (e.g. discussion support systems)

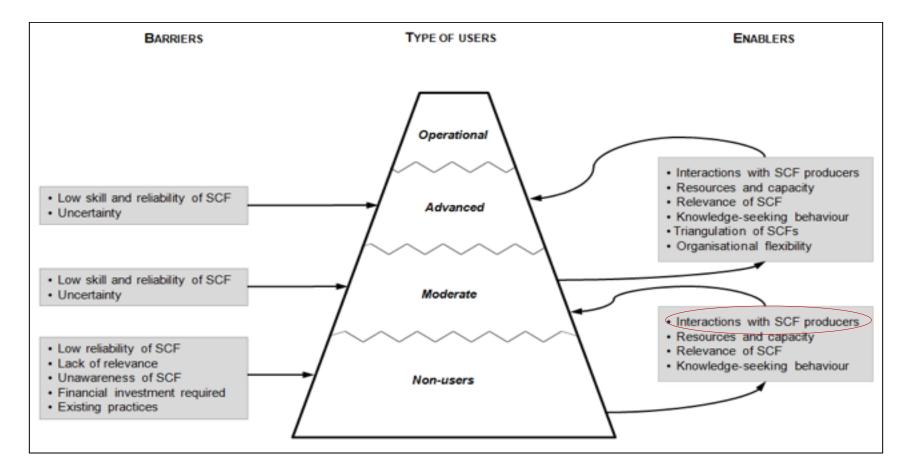


# **Open questions**

- How should we change the structure and the governance of projects to have more end-users without losing the need for generality?
- Innovation in climate services seems to occur on a tiny interface between users, providers and other actors: how can we mainstream this?
- Climate services development often require people with the right combination of skill-sets and experience. These are not easy to find nor to maintain in an academic environment that still prefer papers over user-experience. How can we define a new career path for climate service development?

### How to engage?





Bruno Soares and Dessai (2016)



Thank you

<u>www.euporias.eu</u> Twitter: @euporias