PannEx: lessons learned

J. Cuxart (UIB), Santiago de Chile, October 22nd, 2018

1. National communities lack size:

- *Idea: working together may help them reach the critical value to push bold aims.
- *Reality: not everyone adheres and for those willing to, the setting of the links takes time.
- *Foreseen evolution: a solid kern has been formed and activities are starting bilaterally.

2. Leadership is an issue

- *An RHP may start because somebody in the community pushes and people listens to him/her/them, then leadership is established.
- *Otherwise it can originate from a shared rational need to improve the status of things, but without clear leadership (more than the formal positions in the structure).
- *Splitted leadership (for each large unit of work) would be a good thing to push at a more lively way.

3. Scientific/societal subjects

- *The interested community identifies a number of potential issues.
- *Reality indicates that the committed individuals usually cannot cope with all of them.
- *Only the subjects with active members will probably progress.
- *Subjects with no active members will eventually be removed in the mid-range.

4. Common actions

- *Undertaking major activities such as field campaigns or setting coordinated networks takes the community together and attracts new participants.
- *PannEx is doubting on how to proceed on this, likely because the national aspect still dominates, although initiatives seem to be coming.

5. Funding

- *Existent at the bilateral level, induced/inspired by PannEx.
 - *ESA has released a PannEx call, just closed.
 - *European level funding is «under construction», pending the establishment of «task teams».

<u>PannEx</u> <u>conceptual structure</u>

CC1: Data and knowledge rescue and consolidation

 Special observations and data analysis

CC2: Process Modelling

- . Surface energy and water budgets
- · Atmospheric Chemistry
- · Land-surface interactions
- · Precipitation systems
- · Hydrological monitoring
- · Crop modelling

FQ1 Adaptation of agronomic activities to weather and climate extremes

- . Data collection and monitoring
- · Modeling of adaptive crop production technology
- Socio-economic evaluation and prediction

FQ3 Toward a sustainable development

- Preserving ecological services
- · Hydropower potential evolution
- · Wind and solar energy potential
- Building the infrastructure for forecasting and coordination of the energy production
- · Evolution of the energy needs

FQ2 Understanding air quality under different weather and climate conditions

- Urban-scale processes including measurements and models
- Scale-dependent meteorological and transport processes, air quality-planning
- Surface and boundary layer processes

FQ5 Education, knowledge transfer and outreach

- Education
- Knowledge transfer
- Outreach

FQ4 Water management, droughts and floods

- Harmonisation of the water balance estimations at Basin scale
- · Improving drought early warning system in the region
- · Possibilities and perspectives in flash flood forecasting

CC3: Development and validation of modelling tools

- . LAM & NWP
- · Regional seasonal forecasts
- Regional climate models (RCM)
- Urban weather and climate modelling



PannEx Task teams: intended to be the «scientific working units»

- Agro-climatological and biological systems
- Micrometeorology and agronomical process modelling
- ■Air quality and urban Studies
- ■Energy Production
- ■Ecological Services
- ■Water balance at the basin scale
- Modelling from climate to flash floods
- ■Special observations and data analysis
- Outreach and Education