

WCRP Grand Challenge on Near-Term Climate Prediction

Update for April 2017 JSC meeting

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GC-NTCP Mission

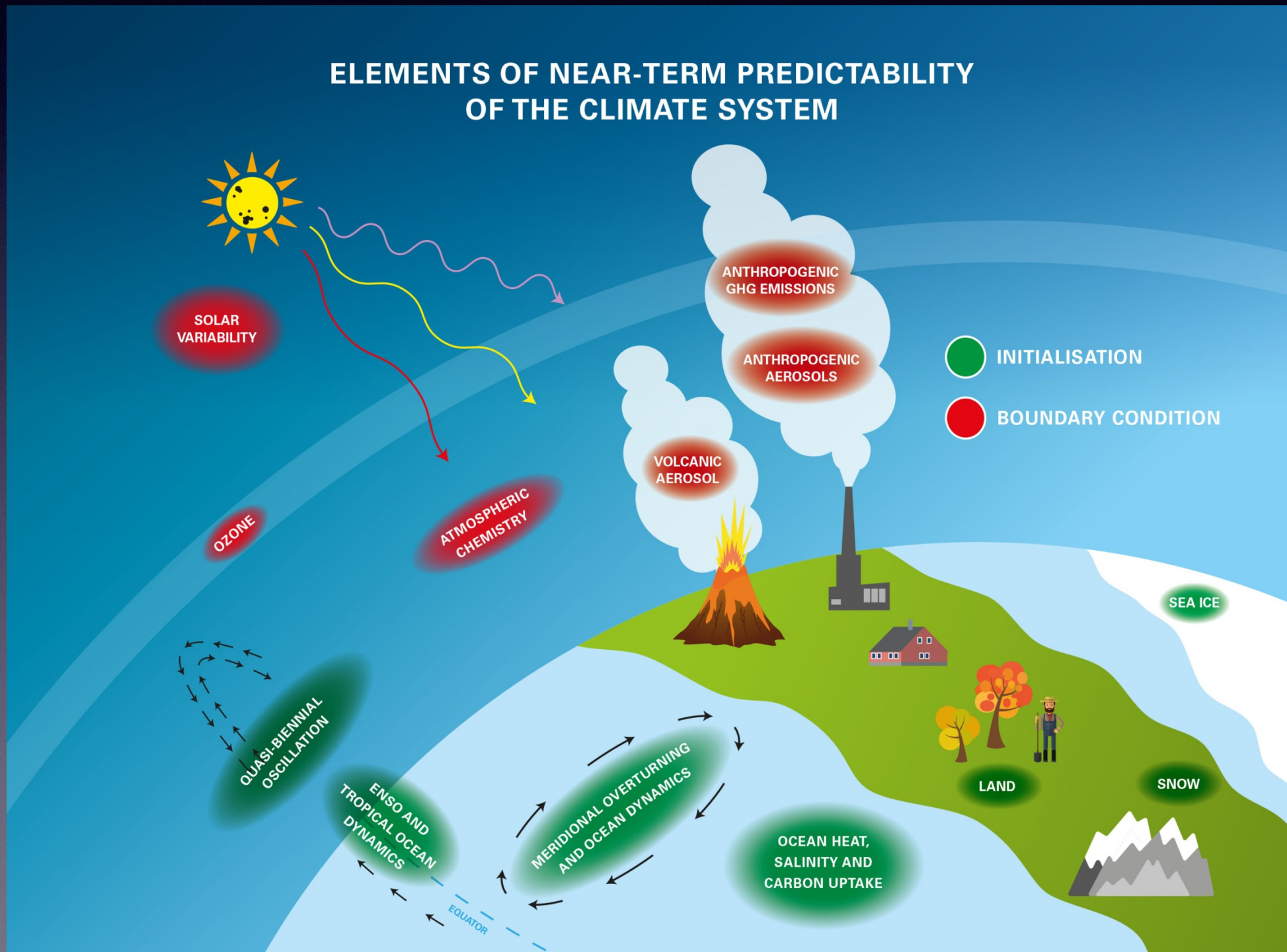
- Bridge the gap between seasonal-to-interannual (S2I) forecasting and IPCC-style century-scale climate projections, by facilitating the provision of near-term climate predictions.
- Build on past CMIP5 experience, ongoing decadal prediction research in WCRP projects and ongoing activities and upcoming plans under CMIP6, in particular the Decadal Climate Prediction Project (DCPP) and ...
- ...close collaboration with operational activities of the World Meteorological Organization (WMO), in view of Global Framework on Climate Services (GFCS) needs, to ...
- ... develop standards for near-term climate predictions and issue a routine “Annual-to-Decadal (A2D) Climate Update”.

HIGHLIGHTS

- Held regular -WCRP organized- team teleconferences every ~6 weeks to discuss pertinent issues & progress towards goals as well as invited presentations by WCRP Projects on their interest and contribution to the GC activities and goals.
- Defined and agreed on four objectives for this Grand Challenge:
 - ***Promote & provide new knowledge of climate mechanisms and climate forecasting systems***
 - ***Produce standards, verification methods and guidance for near-term predictions***
 - ***Promote & support the establishment of operational decadal predictions under WMO***
 - ***Initiate & issue real-time “Global Annual to Decadal Climate Update” each year***

HIGHLIGHTS

- Completed a draft **white paper**, led by co-chairs with active contributions from the 17 members of the international team – to be submitted shortly:

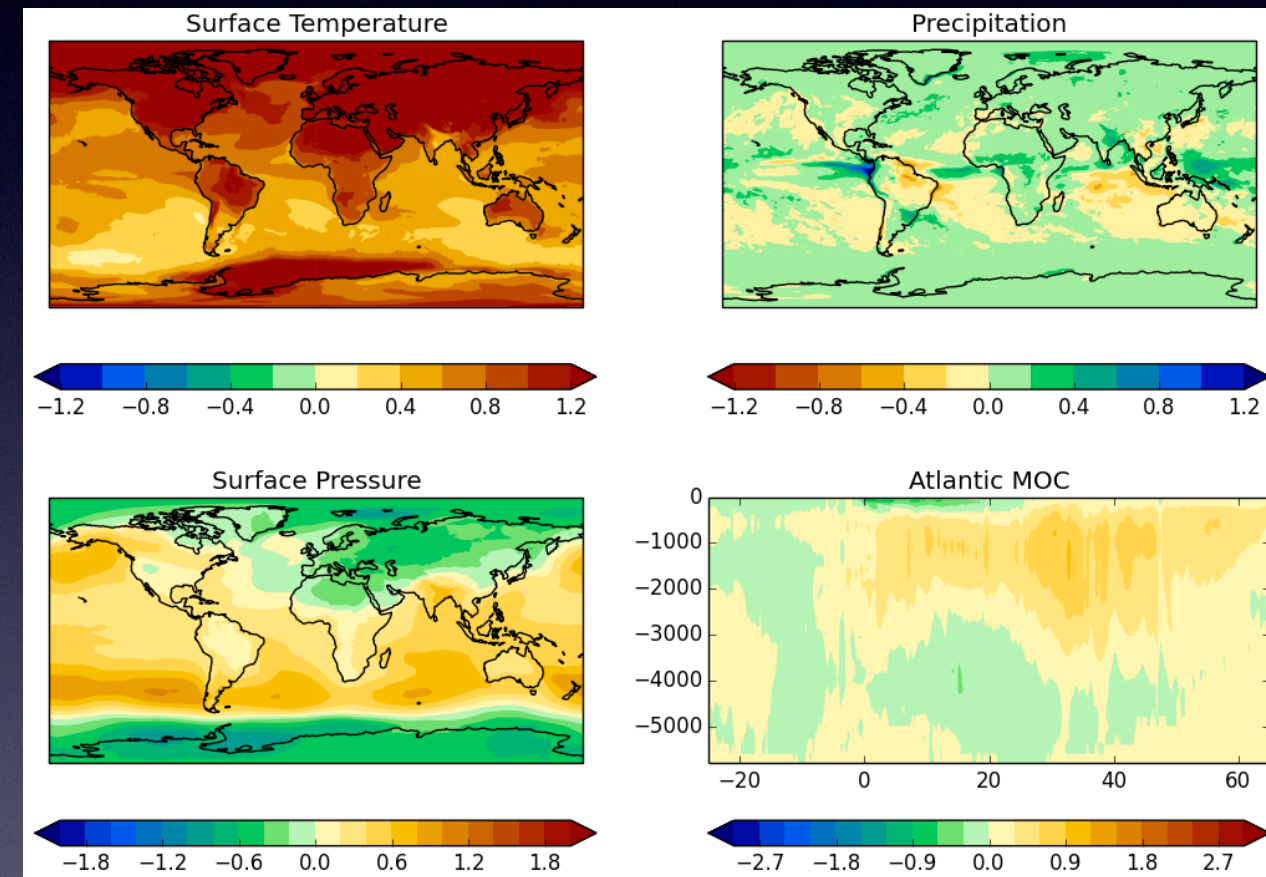


Early success and planned activities

- Worked to get the idea of a **WMO Lead Centre for near-term climate prediction (LC-NTCP)** endorsed at *CBS16* – this is a key element of our plan for operational decadal predictions
- Established the content of our “**Global Annual to Decadal Climate Update**” with input from the CBS/CCI Expert Team and GFCS (Global Framework for Climate Services)
- Coordinating the collection of real-time decadal predictions
- Discussed GC-NTCP support to UNFCCC Global Stocktake process and input to the IPCC 1.5° special report

Suggested content of “Global Annual to Decadal Climate Update”

- 1-page executive summary
- Current observations
- Indices: global SAT, AMV, AMOC, PDV, etc.
- Maps: Multi-model mean SAT, precip, SLP, etc.
Year 1, 1-5, ...
- Skill: verification of previous forecasts



Partners for GC implementation

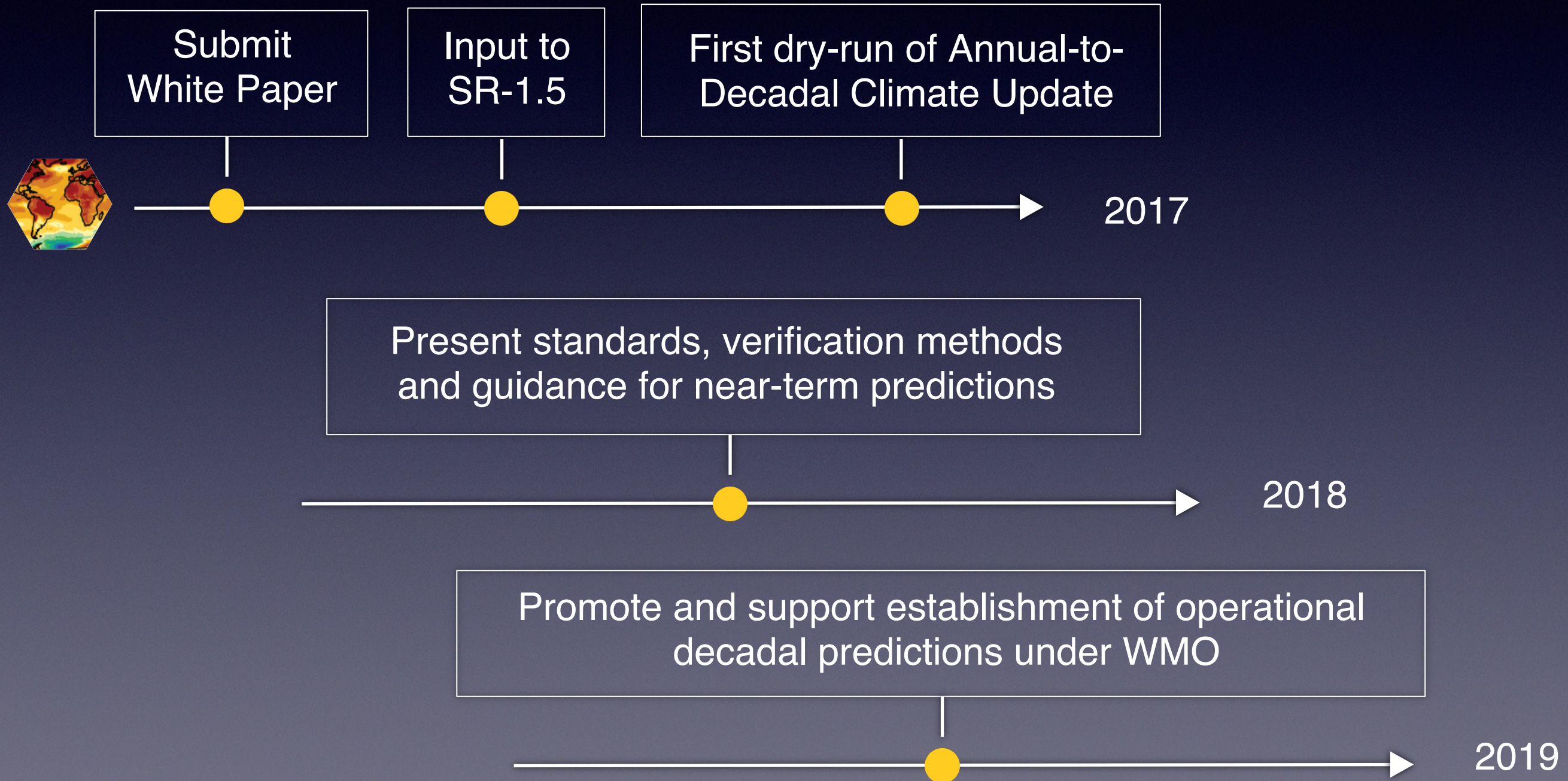


- 19 international members of the group; CLIVAR and SPARC core projects, with membership from CliC and GEWEX, as well as CORDEX
- Expert team members/liaisons from the CBS/CCI Expert Team (ET-OPSLS), GFCS and other relevant WMO departments.
- We have also recently applied for EU funding to support this activity as a small part of a much broader programme of work for the EU.

Timeline

Ongoing:

Promote & provide new knowledge of climate mechanisms and climate forecasting systems



Issues and challenges

- There is a particular issue around dealing with WMO infrastructure and meetings on all levels, from CBS-16, where we achieved a good degree of success in our aims but not a complete success, to the upcoming WMO EC meeting, where we need to rally other groups to our cause. This is being done through national WMO representatives but it is hard going, complicated and tiring!
- The white paper and other activities are gaining traction but as usual they are all being done alongside urgent day job activities.