

Objectives of TIGGE

- Facilitate all aspects of predictability research by creating a permanent and easily accessible archive of ensemble forecasts (=>support the science of DAOS and PDP)
- Explore the added-value of multi-model ensembles for forecasts of high-impact weather 1 to 15 days ahead (=>support the science of SERA)
- Enable a quick transition to an operational multi-model system in case sufficient added-value is proven (=>prepare the GIFS)
- Harmonize as much as possible with TFSP current efforts towards multi-model seasonal forecasts

Development in two phases

- **Phase-1:** data collected in near-real time (via internet ftp) at a small number of central TIGGE data archives. This can be implemented now at little cost and could handle the estimated 200 GB per day data volumes with current network and storage capabilities
- **Phase-2:** data archives distributed over a number of repositories, instead of all being held centrally, but efficient and transparent access to users will be maintained. This is a more flexible solution with the potential to eliminate routine transfers of large data volumes. But this will require substantial software development, in coordination with the WMO Information System, and will require additional funding

Achievements

- Defined and agreed the concept of a common database for global operational ensemble forecasts, which will become a large research infrastructure (S+T)
- Agreed the content (S), the standardized formats, the architecture and the data access policy (T)
- Finalized technical tests of data exchange (T)
- Explored a number of options for extension of the database content in the future (S)
- Established initial contacts with TFSP and strong relations with NAEFS (S)
- Now seeking formal commitments from 10 data providers (all the NWP centres running ensemble forecasts) and 3 archive and distribution centres (T)

Priorities for the coming year

- Start accumulating data (summer) (T)
- Start distributing data to scientists (autumn) (T)
- Advertise the effort and the scientific opportunities offered by TIGGE in a widely read journal (S)
- Secure funding for Phase 2 (developing a sustainable, distributed archive and distribution system) (S+T)
- Set up a sub-group to standardize the contents and formats of necessary initial and boundary data to enable forcing of any LAM-EPS by any Global EPS (S+T)
- Assess scientific issues of LAM-EPS (S, needs work from other THORPEX WGs)
- Determine the extent of TIGGE support for the upcoming demonstration projects (T)
- Share technicalities of data exchanges with TFSP (T)

Longer term objectives

- Agree formats and content for TIGGE-LAM (2007)(S)
- Agree common verification methods (S)
- Organize TIGGE Users Workshop (end 2007 or 2008, with SERA) (S)
- Develop and implement the concept of a point-to-point exchange of initial and boundary conditions for LAM-EPS (2008) (T)
- Technical transition to Phase 2 distributed data access, fully compatible with the WIS (2009) (T)
- Scientific evaluation of added-value of multi-model global medium-range forecasts (2009) (S)
- Subject to positive evaluation, transition to operational global multi-model system (2009) (T)
- Subject to positive evaluation, transition to operational global+regional multi-model system (2011) (S+T)