

GCOS • WCRP



Data Centres:

Conclusions of TOPC discussions and some suggestions



**GLOBAL CLIMATE
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



WMO



IOC

International
Science Council



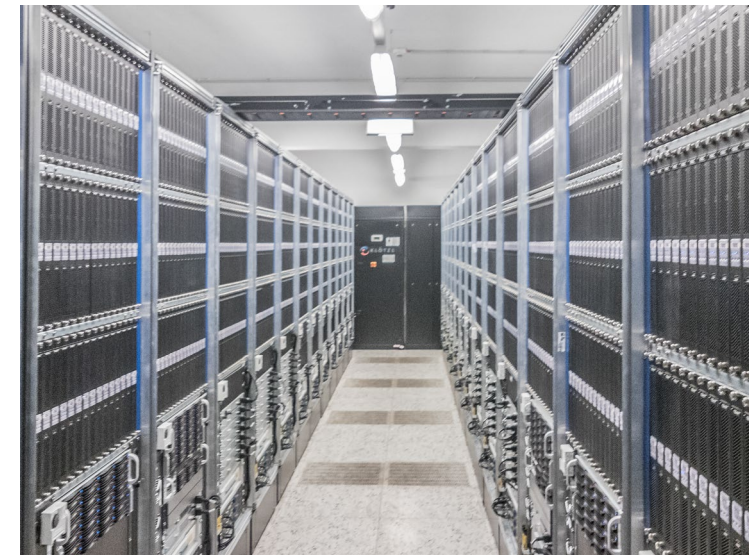
Supported by the European Union



Recent discussions by TOPC have highlighted the importance of Data Centres

Data Centres:

- It is essential to have a clear data policy: free, open and easily accessible
 - Allows development and distribution of improved global datasets, forecasts and projections
 - The value of data lies in it being widely used – providing user services
 - Currently some data has policies that restrict access (e.g. hydrology)
 - Other data providers want payment
 - Some data cannot be exchanged internationally
- Include all kinds of data for the same ECV (in-situ, satellite, UAV, citizen science)
 - Data centres should provide consistent, comparable data sets using as much data as possible
- Reprocess as needed (if applicable)
- Archive data indefinitely (ensuring accessibility of all data, backup and redundancy of storage)
- Increase the speed of delivery of data and information (to make it more climate action oriented)



In developing a system of Global Climate Data Centres

- Work with existing Data Centres – no duplication
 - Many Data Centres already exist although they may not focus on climate data needs
- Support existing data centres
 - Recently several data centres have been at risk due to funding difficulties: projects ending or host organisations switching priorities (e.g. permafrost and soil moistures)
 - There needs to be an institutional commitment to hosting a data centre
 - Support needs to cover all the functions of a data centre
- Support data acquisition
- Consider how to work with existing research Infrastructures (e.g. ICOS, eLTER, NEON, AmeriFlux, TERN, CERN)
- Ensure data centres support integrating observations from individual ECVs for more data driven synthesis on issues such as
 - GHG Fluxes
 - AFOLU
 - Biosphere indicator
- Develop systems that can routinely report on the status of observations
- Individual data centres may cover one ECV or a group of related ECV



GTN-G



1. Develop a set of requirements for GCOS Climate Data Centres (GCDC)
2. Develop a system to accredit data centres as GCDC, minimising costs
3. Include existing data centres as much as practical
4. Develop a system of audits of GCDC led by the GCOS Expert Panels
5. Use GCDC to provide near-real time reports on the status of the observing system (time lag will depend on EVC and its reporting cycle)
6. Explore options of data centre support



GCOS • WCRP



Thank you



**GLOBAL CLIMATE
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



WMO



IOC

International
Science Council



Supported by the European Union

