

La plateforme ICMC-DATA

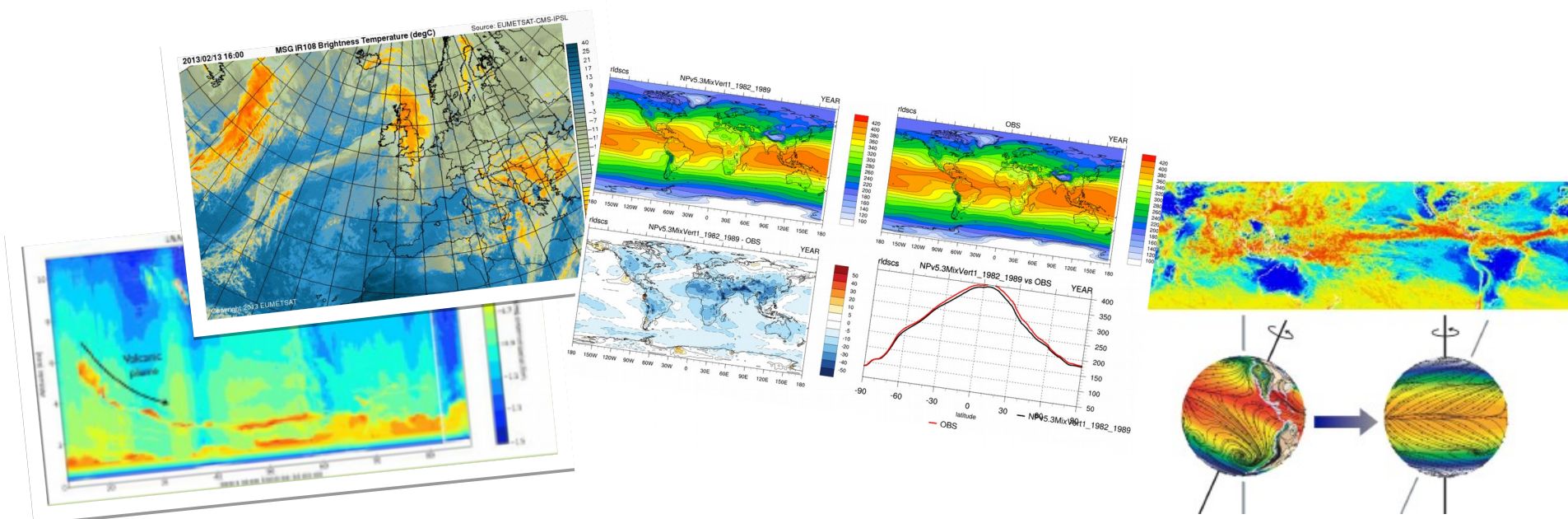
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2 sous contractants IPSL/ANR/H2020



- **National level**

- Coordination between french partners
- IPSL, Météo-France CNRM, CERFACS
- GENCI : TGCC, IDRIS, CINES
- **Accompanying** the community



- **European level**

- Coordination between European partners
- Heavy workload on **operational implementaiton** of ESGF (the biggest source of climate models results)
- *Strengthening the infrastructure*



- **International level.**

- Chair of CMIP Data Node Operation Team
- WGCM Infrastructure Panel
- ESGF Governance (Executive Commitee)
- ES-DOC Governance (Principal Investigator)



WCRP



World Climate Research Programme

CMIP



The World Climate Research Programme's
Coupled Model Intercomparison Project

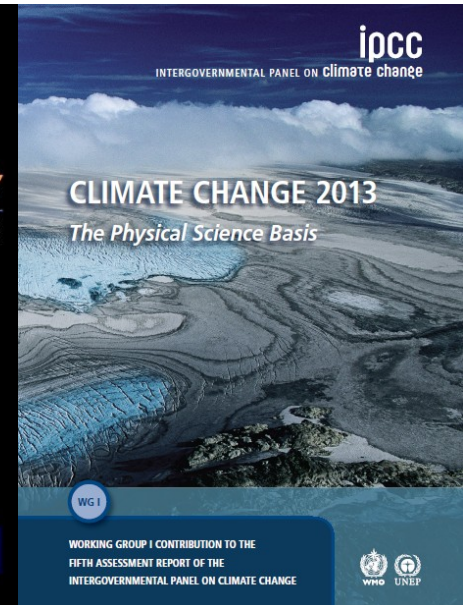
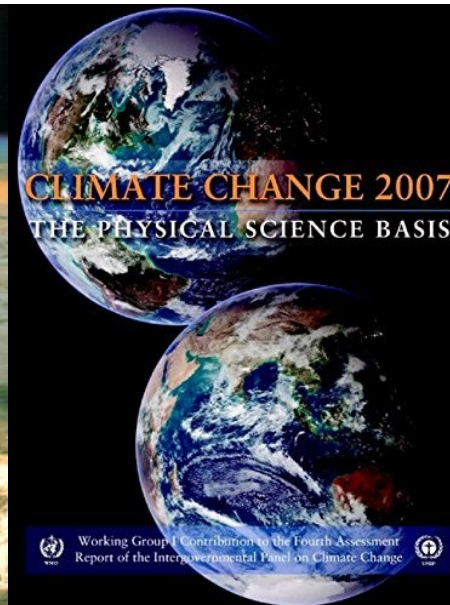
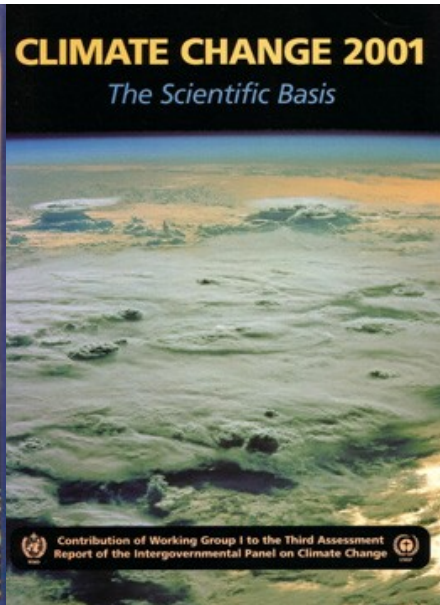
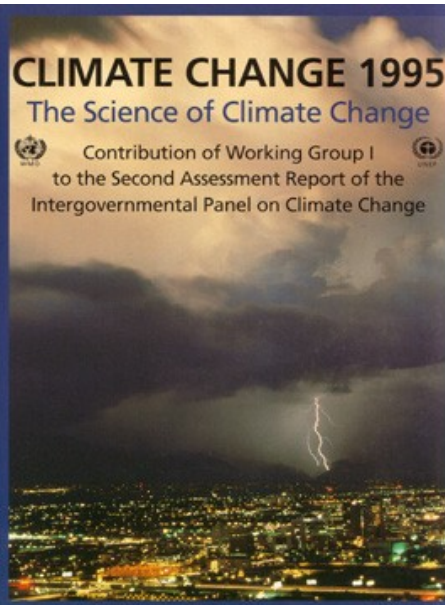
IPCC Assessment Reports

#2

#3

#4

#5



- **Status CMIP5 data archive:**
 - 1.8 PB for 59000 data sets, 4.3 Mio Files, 23 ESGF data nodes
 - CMIP5 data is **about 50 times** CMIP3

- **Extrapolation to CMIP6:**
 - CMIP6 has a more complex experiment structure than CMIP5.
 - Expectations: more models, finer spatial resolution and larger ensembles
 - **Factor of 10:** 18 PB in 43 Mio Files
 - **Factor of 50:** 90 PB in 215 Mio Files

Worldwide distributed system



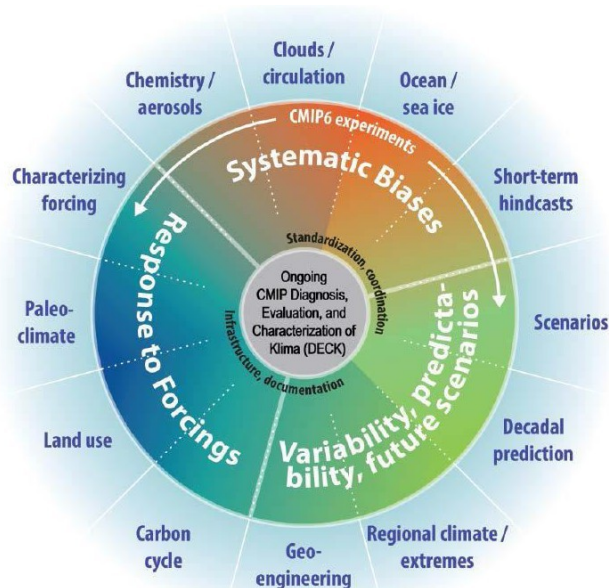
Support CMIP6

European models in CMIP6

Country	name of model (CMIP5)
Consortium	EC-EARTH
France	IPSLCM5
France	CNRM-Cerfacs
Germany	MPI-ESM
Italy	C-ESM
UK	HadGEM2
Norway	NorESM

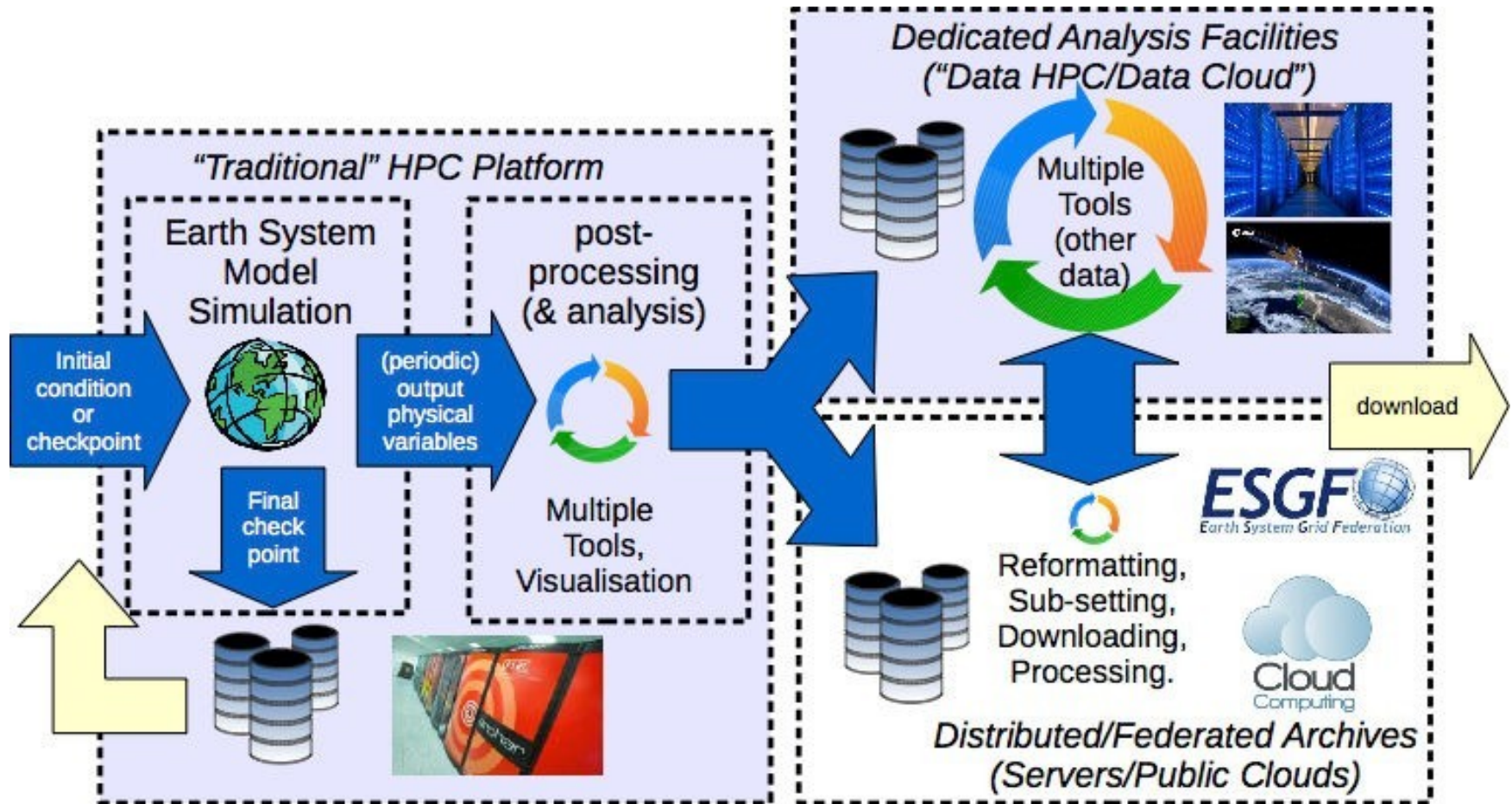
Germany:
AWI-CM
EMAC

Short name of MIP	AWI-CM	CMCC	CNRM	EC-Earth	EMAC	IPSL	MPI-ESM	NorESM	UKESM	HadGEM3
AerChemMIP	0	0	1	1	1	1	0	1	1	0
C4MIP	0	1	1	2	0	1	1	1	1	0
CFMIP	0	0	1	1	0	1	1	1	0	1
DAMIP	0	0	1	0	0	1	0	1	0	1
DCPP	0	1	1	1	0	1	1	1	0	1
FAFMIP	0	0	1	0	0	1	1	0	0	1
GeoMIP	0	0	1	1	0	1	1	2	1	0
GMMIP	0	1	1	0	0	1	1	0	0	1
HighResMIP	1	1	1	1	0	2	1	2	0	1
ISMIP6	0	0	1	1	0	1	1	0	1	0
LS3MIP	0	1	1	1	0	1	1	2	1	0
LUMIP	0	1	1	1	0	1	1	1	1	0
OMIP	1	1	1	0	0	1	1	1	1	0
PMIP	1	0	1	1	0	1	1	1	1	0
RFMIP	0	0	1	0	0	1	1	1	0	1
ScenarioMIP	0 ⁺	1	1	1	0	1	1	1	1	0
VolMIP	0	0	0	1	0	1	1	1	1	0
CORDEX	1	0	1	1	0	1	0	0	1	0
DynVar	0	0	0	1	0	1	1	0	0	1
SIMIP	1	1	1	1	0	1	1	1	1	0
VIACS AB	0	1	0	1	0	0	0	1	1	1



Source Veronika Eyring

Multiple type of storage & data interaction



Multiple Roles, at least:

Model Developer, Model Tinkerer, Expert Data Analyst, Service Provider, Data User



Merci de votre attention

