# Climate data processing for climate resilience

### Tajikistan and Kyrgyzstan

Data access, processing and methodological concepts

Webinar 17. - 27. 11.2020

DAY 04 Data Famillies



#### **FAIR Guiding principles**

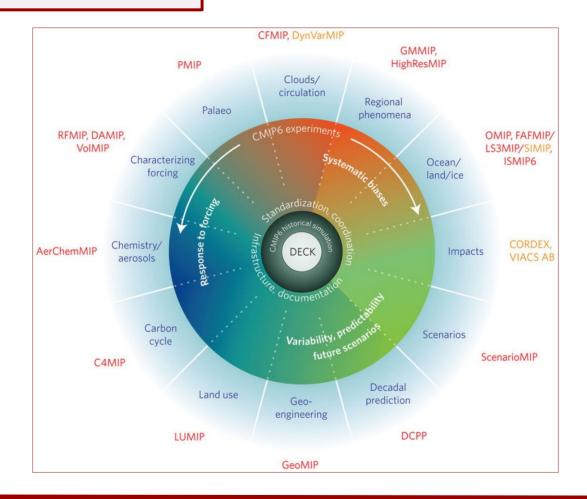
Data should be Findable	F1. (meta)data are assigned a globally unique and persistent identifier (DOI)  F2. data are described with rich metadata  F3. metadata clearly and explicitly include the identifier of the data it describes
	F4. (meta)data are registered or indexed in a searchable resource
Data should be Accessible	A1. (meta)data are retrievable by their identifier using a standardized communication protocol
	A1.1 the protocol is open, free, and universally implementable
	A1.2 the protocol allows for an authentication and authorization procedure, where necessary
	A2. metadata are accessible, even when the data are no longer available
Data should be Interoperable	I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
	I2. (meta)data use vocabularies that follow FAIR principles
	13. (meta)data include qualified references to other (meta)data
Data should be <b>Reusable</b>	R1. meta(data) are richly described with a plurality of accurate and relevant attributes
	R1.1. (meta)data are released with a clear and accessible data usage license
	R1.2. (meta)data are associated with detailed provenance
	R1.3. (meta)data meet domain-relevant community standards

https://www.nature.com/articles/sdata201618



Origin source:

#### **Climate Model Data**



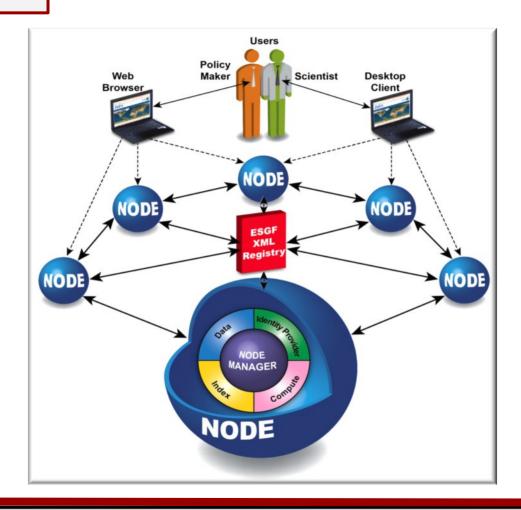


#### **Earth System Grid Federation (ESGF)**



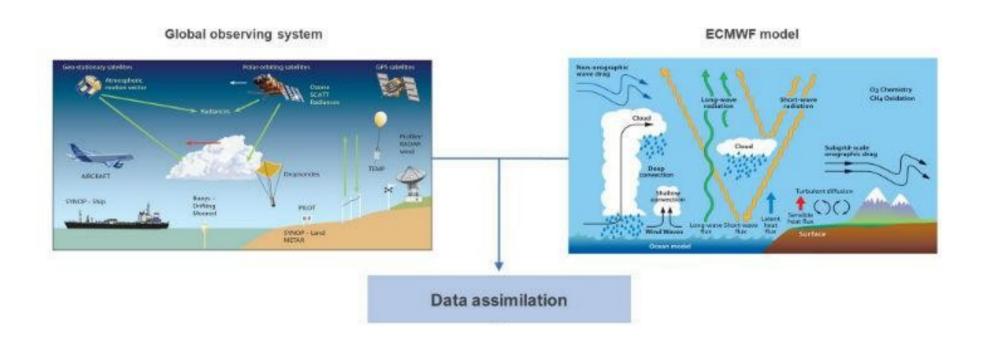


#### **ESGF - Nodes**





#### Reanalyses



#### Data sources:

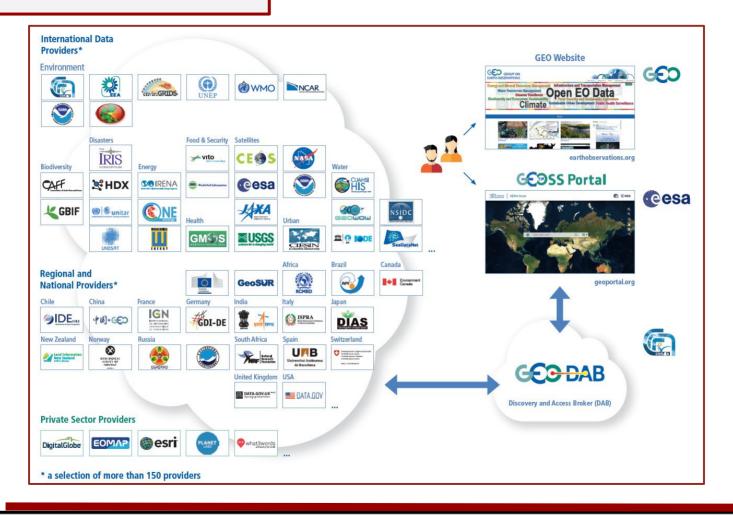
https://www.ecmwf.int/en/forecasts/datasets/browse-reanalysis-datasets



#### **Satellite Data**



#### **GEOSS Portal**





## Climate model Data Access DEMO

https://esgf-data.dkrz.de/projects/esgf-dkrz/







