

ГЛОБАЛЬНАЯ СИСТЕМА  
НАБЛЮДЕНИЙ ЗА КЛИМАТОМ  
НЕУСТААННО СЛЕДИМ ЗА КЛИМАТОМ

SYSTÈME MONDIAL  
D'OBSERVATION DU CLIMAT  
NOUS VEILLONS SUR LE CLIMAT

النظام العالمي  
لرصد المناخ  
لنضع المناخ نصب أعيننا

全球气候观测系统  
密切监视气候

SISTEMA MUNDIAL  
DE OBSERVACIÓN DEL CLIMA  
SIEMPRE VIGILANDO EL CLIMA

GLOBAL CLIMATE  
OBSERVING SYSTEM  
KEEPING WATCH OVER OUR CLIMATE



## Rationalisation of our ECVS



Supported by the European Union

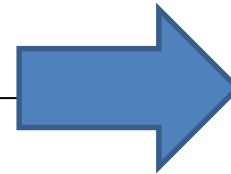


Copernicus  
Europe's eyes on Earth

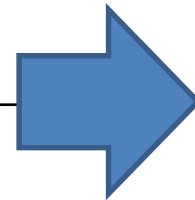
- Following the publication of the 2016 GCOS Implementation Plan one criticism was that there are too many ECV – why are they all needed? Currently there are 54 ECV, however, many of these are for parameters or related parameters differing only by where they are measured. Combining some of these ECV into a single ECV could, potentially, halve the number of ECV. Amalgamating ECV into logical groups without losing any observations will simplify this and making it clear what is being asked for.
- Each ECV has one or more “ECV Product” that are the quantities measured. These would remain but be allocated differently.
- Each new ECV would not be sole purview of a single panel, rather panels would look after individual ECV products.
- This list of 54 ECV is over-complex and obscures what we are asking to be measured. (Temperature is covered by 5 ECV!).

# An example: Temperature

Domain	ECV	ECV Product	NEW ECV	ECV Product	Panel
Atmosphere	Temperature (surface)	Temperature	Temperature	Surface Temperature	AOPC
		Daily maximum and minimum temperature		Daily maximum and minimum temperature	
	Temperature (upper-air)	Tropospheric Temperature profile		Tropospheric Temperature profile	
		Stratospheric Temperature profile		Stratospheric Temperature profile	
Temperature of deep atmospheric layers	Temperature of deep atmospheric layers				
Ocean	Sea Surface Temperature	Sea Surface Temperature	Sea Surface Temperature	OOPC	
	Subsurface Temperature	Interior Temperature	Ocean Subsurface Temperature		
Terrestrial	Land Surface Temperature	Maps of land surface temperature	land surface temperature	TOPC	



Domain	ECV	ECV Product		NEW ECV	ECV Product	Panel
<b>Atmosphere</b>	Water Vapour (Surface)	Water vapour		Water Vapour	Water vapour (Surface)	AOPC
	Water Vapour (Upper air)	Total column-water vapour			Total column-water vapour	
		Tropospheric profiles of water vapour			Tropospheric profiles of water vapour	
		Lower-stratospheric profiles of water vapour			Lower-stratospheric profiles of water vapour	
		Upper tropospheric humidity			Upper tropospheric humidity	



Terrestrial	Groundwater	Groundwater volume change
Terrestrial	Groundwater	Groundwater level
Terrestrial	Groundwater	Groundwater recharge
Terrestrial	Groundwater	Groundwater discharge
Terrestrial	Groundwater	Wellhead level
Terrestrial	Groundwater	Water quality
Terrestrial	Lakes	Lake water level
Terrestrial	Lakes	Water Extent
Terrestrial	Lakes	Lake surface water temperature
Terrestrial	Lakes	Lake ice thickness
Terrestrial	Lakes	Lake Ice Cover
Terrestrial	River Discharge	River discharge
Terrestrial	River Discharge	Water Level
Terrestrial	River Discharge	Flow Velocity
Terrestrial	River Discharge	Cross-section
Terrestrial	Snow	Area covered by snow
Terrestrial	Snow	snow depth
Terrestrial	Snow	snow water equivalent
Terrestrial	Soil Moisture	Surface soil moisture
Terrestrial	Soil Moisture	Freeze/thaw
Terrestrial	Soil Moisture	Surface inundation
Terrestrial	Soil Moisture	Root-zone soil moisture
Terrestrial	Total Water Storage	Total Water Storage

- The SC is asked to request the secretariat in consultation with the panel (chairs) to turn this preliminary version into a new grouping of ECVs that can be discussed in the panels and the next SC and form the basis of the new IP