The Global Observing System for Climate
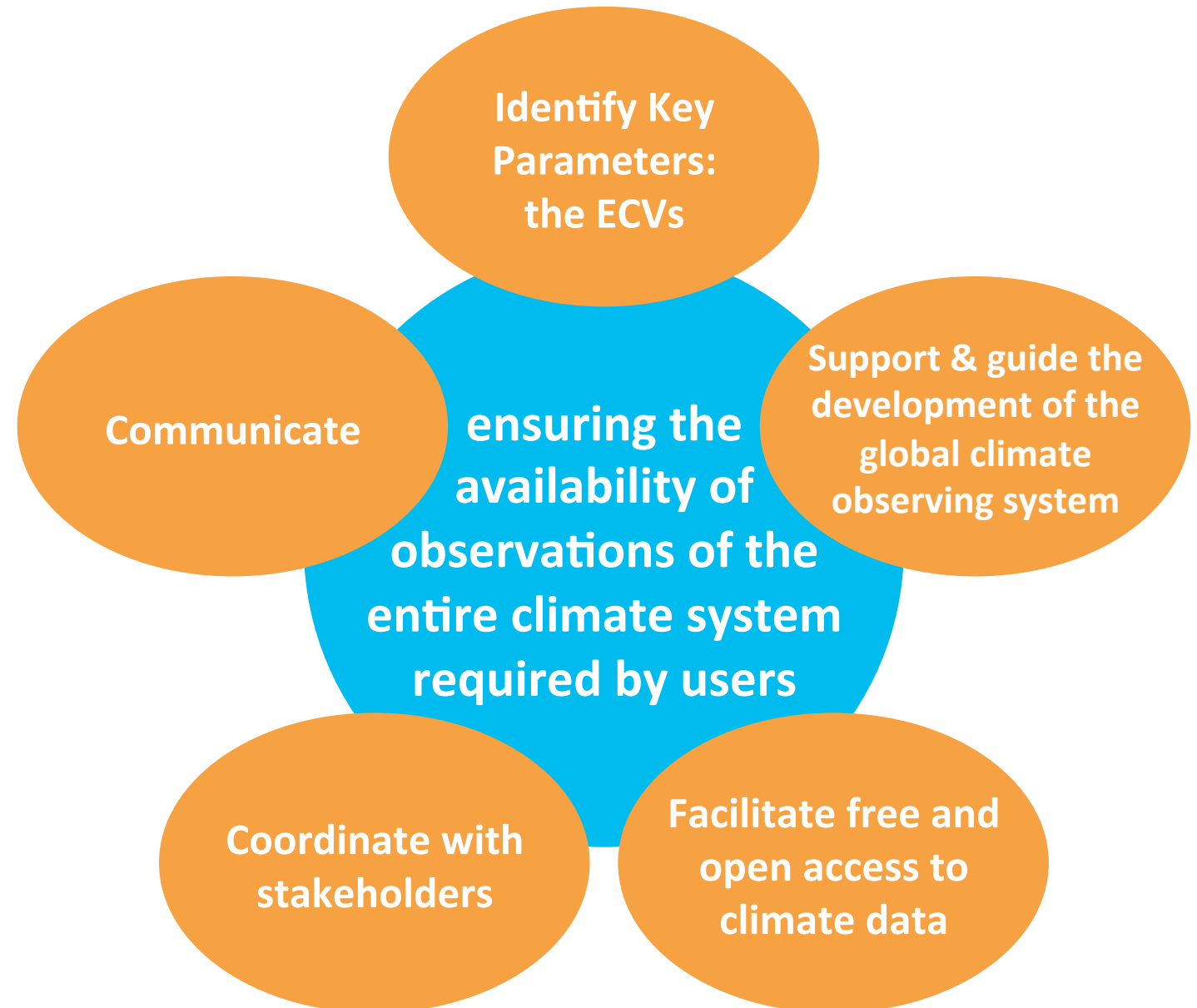
Update

*Essential climate variables, indicators and actions in the
2016 GCOS implementation plan to support the Paris Agreement goals*

**WCRP JSC
Paris, April 4th April 2017**

Performance Indicators (tbd)

- Availability of data, ECVs with global datasets;
- Coverage of observations of ECVs;
- Reports on adequacy of observing systems
- Preparation of plans to address gaps and deficiencies;
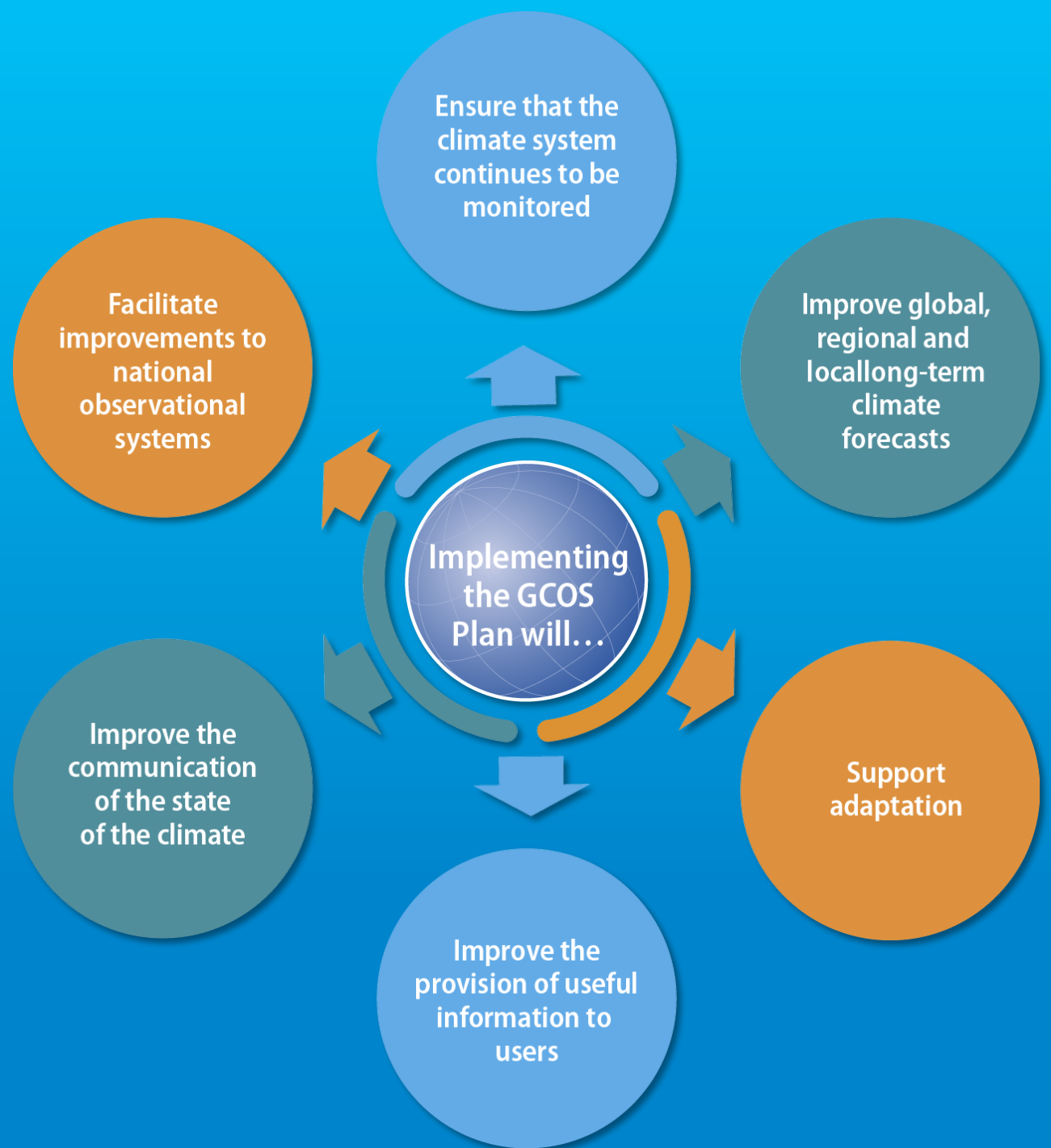- Use of data in climate services, assessments and adaption planning
- …

Identify Key Parameters: the ECVs

Communicate

ensuring the availability of observations of the entire climate system required by users

Support & guide the development of the global climate observing system

Coordinate with stakeholders

Facilitate free and open access to climate data

Implementation Aims

6

Facilitate improvements to national observational systems

Ensure that the climate system continues to be monitored

Improve global, regional and locallong-term climate forecasts

Implementing the GCOS Plan will…

Improve the communication of the state of the climate
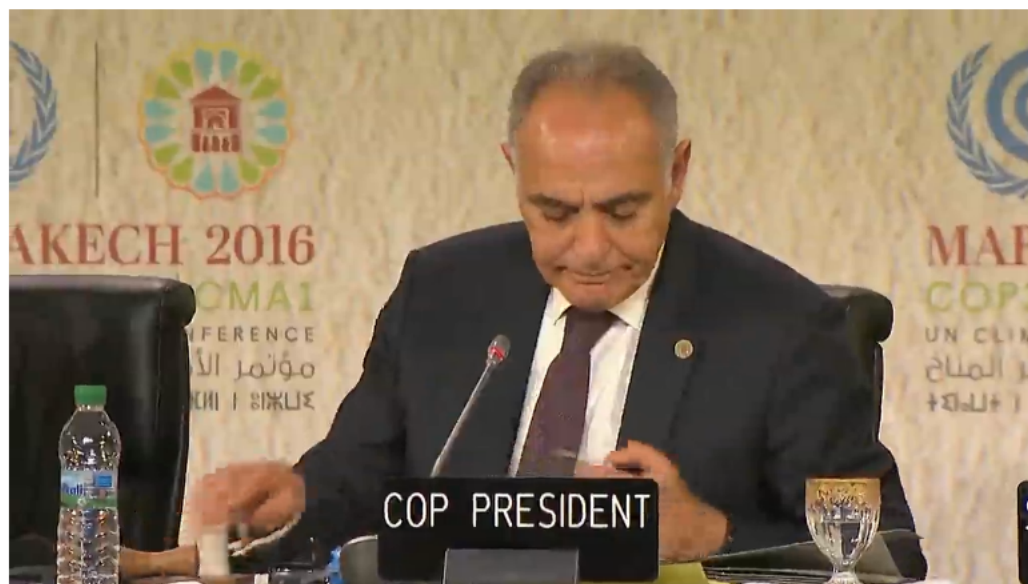
Improve the provision of useful information to users

Support adaptation

COP plenary (CMP plenary to start upon completion of the COP plenary)

Organizer: UNFCCC

Date: November 17, 2016 19:00 +01:00

Location: Plenary 1 Marrakech

Audio language: Floor English Arabic

Agenda

Conference of the Parties (COP)

Click here for the full COP agenda and all corresponding in-session documents

Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP)

Agenda

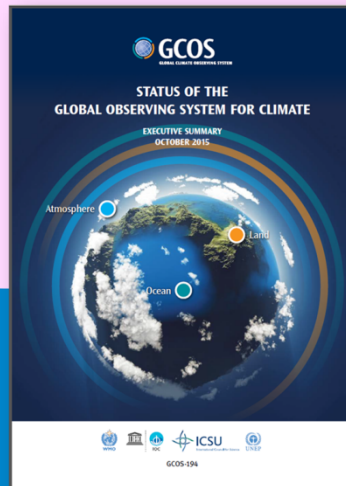|	
20:31:37 +01:00	Opening, Marrakech Action Proclamation - H.E. Mr. Salaheddine Mezouar, Minister of Foreign Affairs and Cooperation of the Kingdom of Morocco and President of COP 22, CMP 12 and CMA 1
20:49:38 +01:00	3. (a) Report of the Subsidiary Body for Scientific and Technological Advice - Carlos Fuller

GCOS Reports and Plans

Status

2015

United nations conference on climate change
COP21/CMP11

GCOS
STATUS OF THE
GLOBAL OBSERVING SYSTEM FOR CLIMATE
EXECUTIVE SUMMARY
OCTOBER 2015

Atmosphere
Land
Ocean

ICSU

GCOS-194

New Plan

2016

Adaptation & Mitigation **I**	Water, Energy and Carbon cycles **II**
Additional Essential Climate Variables **III**	Emphasis on networks in developing countries **IV**
Climate Indicators **V**	

Global Climate Cycles
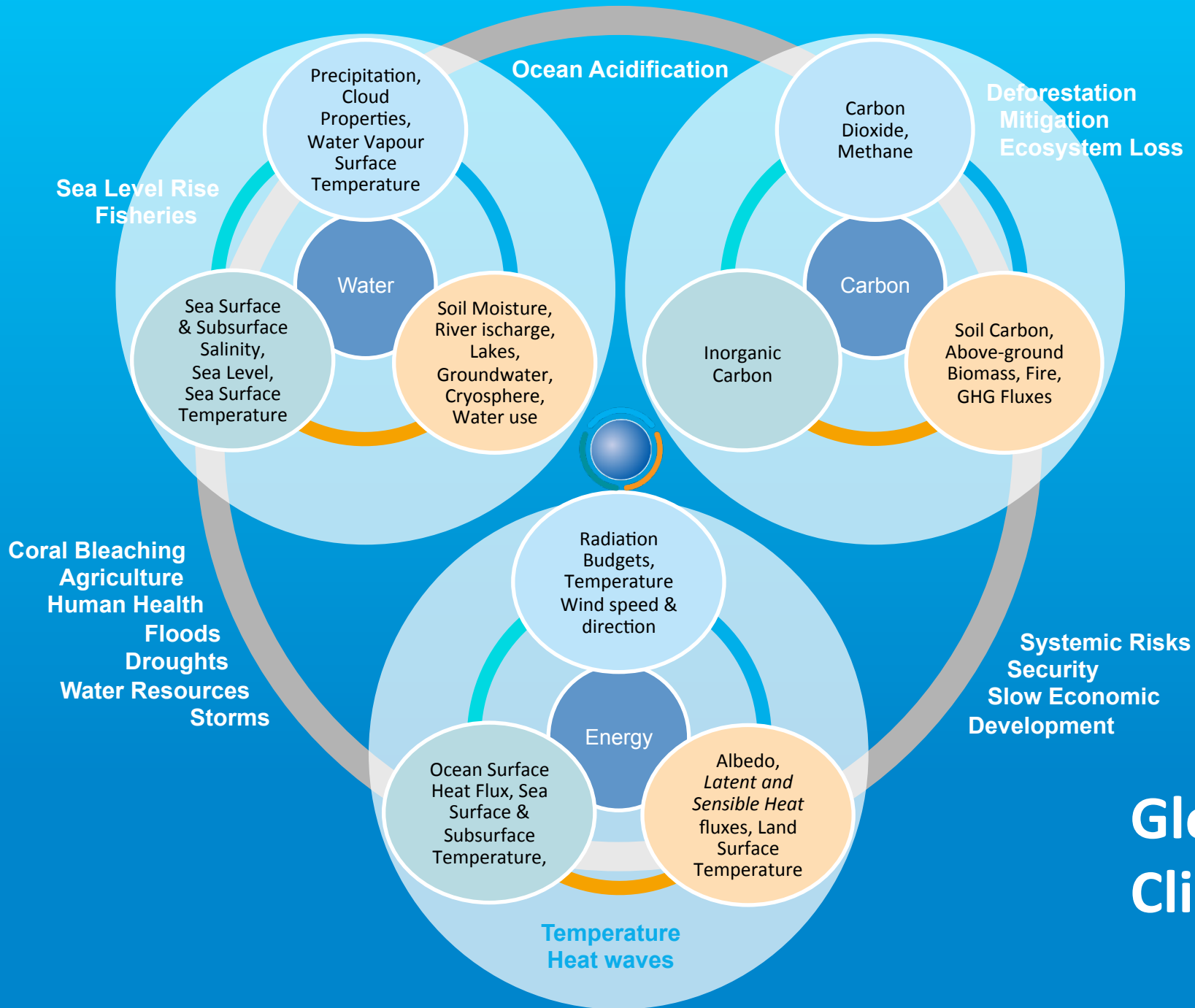
Possible Climate Indicators

Topic	Headline Indicator
Temperature and Energy	Global surface temperature, OHC
Atmospheric composition	Atmospheric CO2 (ppm)
Oceans	Sea Level Rise
Cryosphere	Sea Ice Extent
	Area of land covered by snow and Ice
Land use/ vegetation	Deforestation (area per year) ?
Extremes	Heatwaves +/or
	Extreme Rainfall+/or
	Drought…

- Main Objectives:
  1. **Assessing the current state of the global observing system** for climate, and identifying its gaps and inadequacies and designs to ensure long-term monitoring;
  2. **Advocating and promoting** the establishment and enhancement of **the systems** required to provide long-term and consistent data; securing the implementation of designated GCOS networks;
  3. **Promoting** the transfer and accessibility of **data to the user community**.
  4. **Identifying measurable key variables** that control the physical, biological and chemical processes affecting climate, and are indicators of climate change;
  5. **Coordinating activities** with other global observing systems, panels and task groups to ensure the consistency of requirements with overall programmes.

- Responsible for overseeing "their" actions

- Panels have flexibility in how to do this BUT there should be consistency in the outputs and timeline

GCOS · GOOS · WCRP
OOPC Ocean Observations Panel for Climate

GCOS · GTOS · WCRP
TOPC Terrestrial Observation Panel for Climate

AOPC Atmospheric Observation Panel for Climate
GCOS · WCRP

Timeline

	2017				2018				2019				2020				2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Panel Meetings	■				■				■				■				■				■				■			
Steering Committee				■				■				■				■				■				■				■
Uppdate new Implementation Plan														■	■	■	■	■										
Publish Updated Implementation Plan																				■								
Invite suggestions & comments on requirements		■	■	■																								
Panels to consider and prepare proposals						■	■	■																				
Agree Proposals									■																			
Public Review of requirements										■	■																	
Revised Requirements												■	■															
SecondPublic Review													■	■														