



EUMETSAT

Monitoring weather and climate from space

EU-12 PARTICIPATION IN GMES THROUGH EUMETSAT





Interest in EUMETSAT participation in this workshop

The workshop has a focus on:

- GMES **Operational** Capacity
- **EU-12 participation** in GMES

On these 2 items, EUMETSAT is a key partner with regard to the GMES Space Component



GMES OPERATIONAL CAPACITY





EUMETSAT objectives

- The primary objective is to establish, maintain and exploit European systems of **operational meteorological** satellites.
- A further objective is to contribute to the operational monitoring of the **climate** as well as the detection of global climatic changes.
- Furthermore, **environmental issues** which drive or are driven by meteorological conditions are considered.



The purpose of an operational agency

To be the link with user communities particularly:

- To **define their needs** in terms of satellite data
 - To **plan for end-to-end systems** meeting their needs
 - To ensure that the **systems** developed by others (R&D agencies for satellites, industry for ground segment) **are meeting user requirements**
 - To **operate** these systems, ensure reliable and operational data delivery and adapt the systems to evolving requirements
- This requires perpetual interaction, dialogue and strong links with user communities. EUMETSAT can support EC which is responsible in GMES for this user interaction.

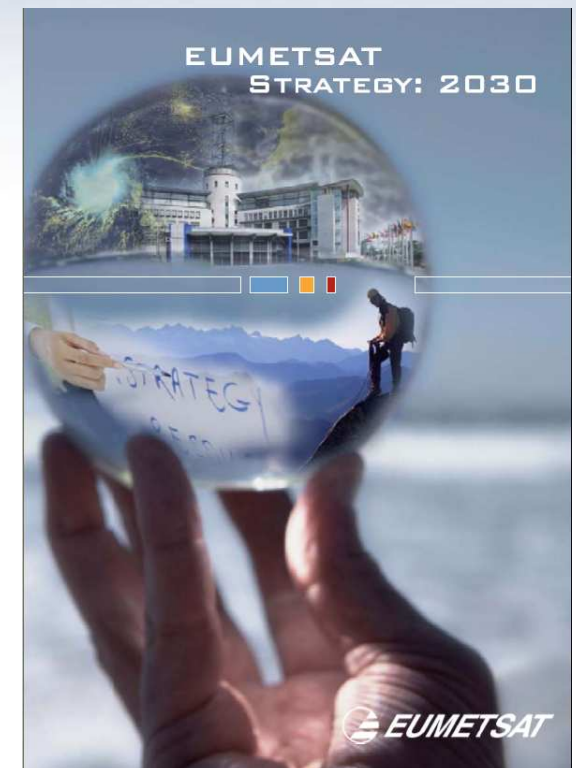


EUMETSAT's overall objective in GMES

The strategic importance of GMES for EO activities in Europe, the "EUMETSAT Strategy:2030" foresees that:

"EUMETSAT foresees a role [in GMES] by capitalising on its existing assets and through participation in the setting up and operations of relevant new operational satellite capabilities funded by the EC and developed by ESA. "

EUMETSAT aims to be the leading operational agency serving the needs of space data of the GMES services relevant to the EUMETSAT Convention





EUMETSAT thematic focus in GMES

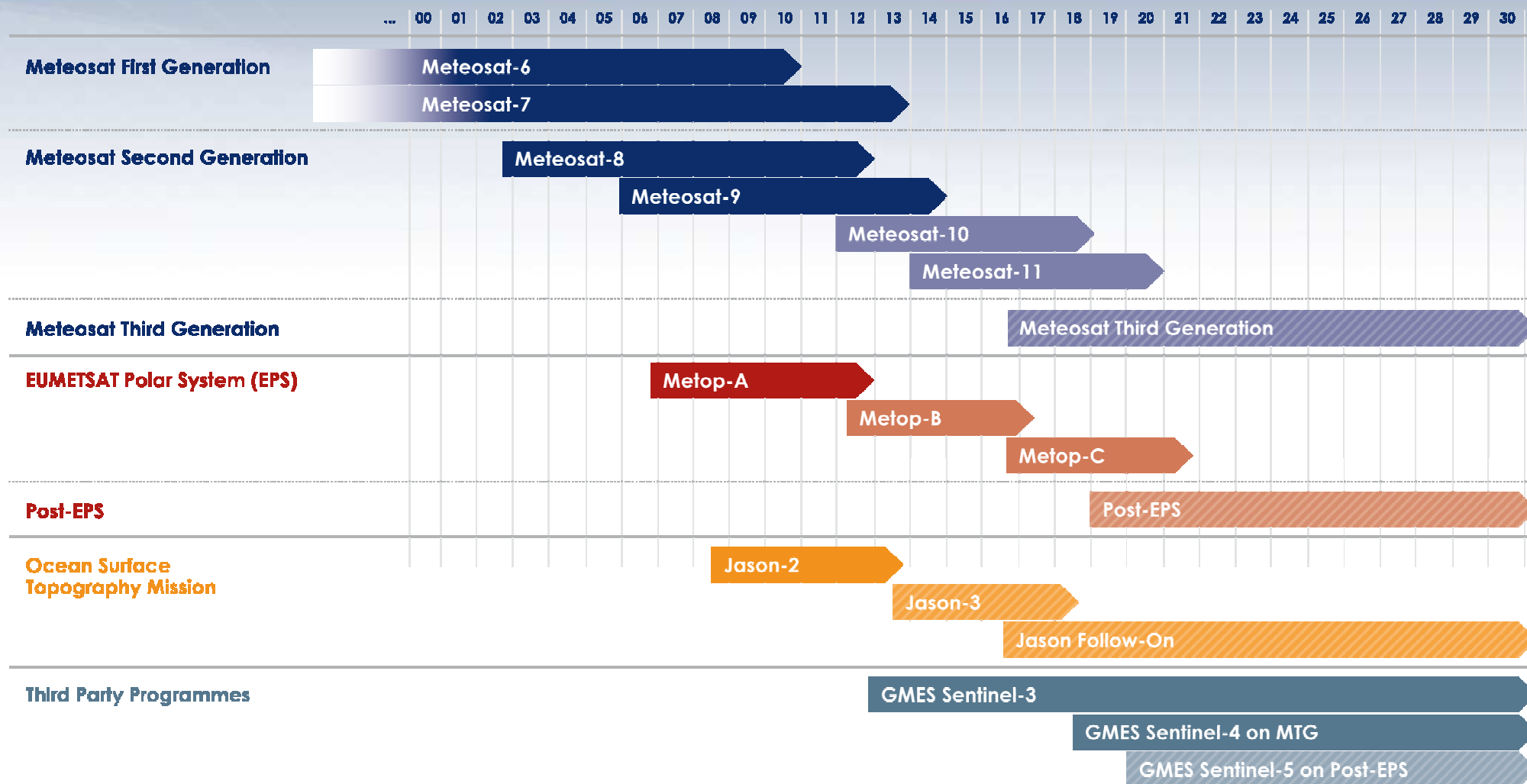
Considering the themes covered by GMES, EUMETSAT has established clear priorities.

The aim is to be a key satellite data provider for:

- The **Oceanography** community
- The **Atmosphere** community
- The **Climate** community
- The **Global Land** Community



EUMETSAT space segment





EU-12 participation in GMES



Evolution of EUMETSAT Membership Policy

In **1997** EUMETSAT's Council agreed a set of framework conditions for the countries of Central Europe and the Baltic to become EUMETSAT **Cooperating States**.

The framework conditions were amended over the years taking into account lessons learned and as a result of discussions with these States.

A **key element of this policy** is to match the EU Membership as soon as possible.

→ Objectives were to have a **smooth transition** towards membership and to **trigger real operational benefits** for EU-12

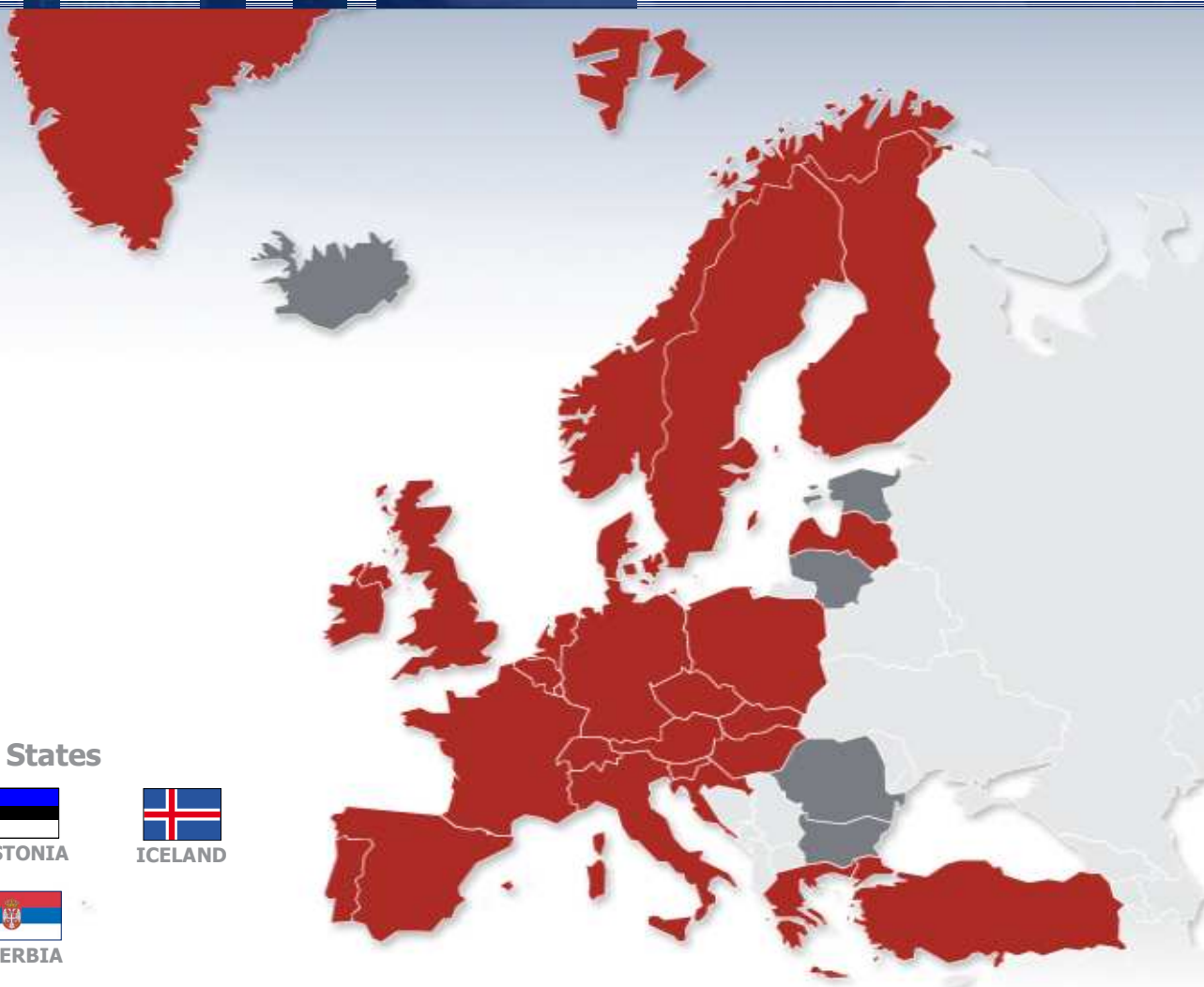


26 Member States & 5 Cooperating States

Member States



Cooperating States



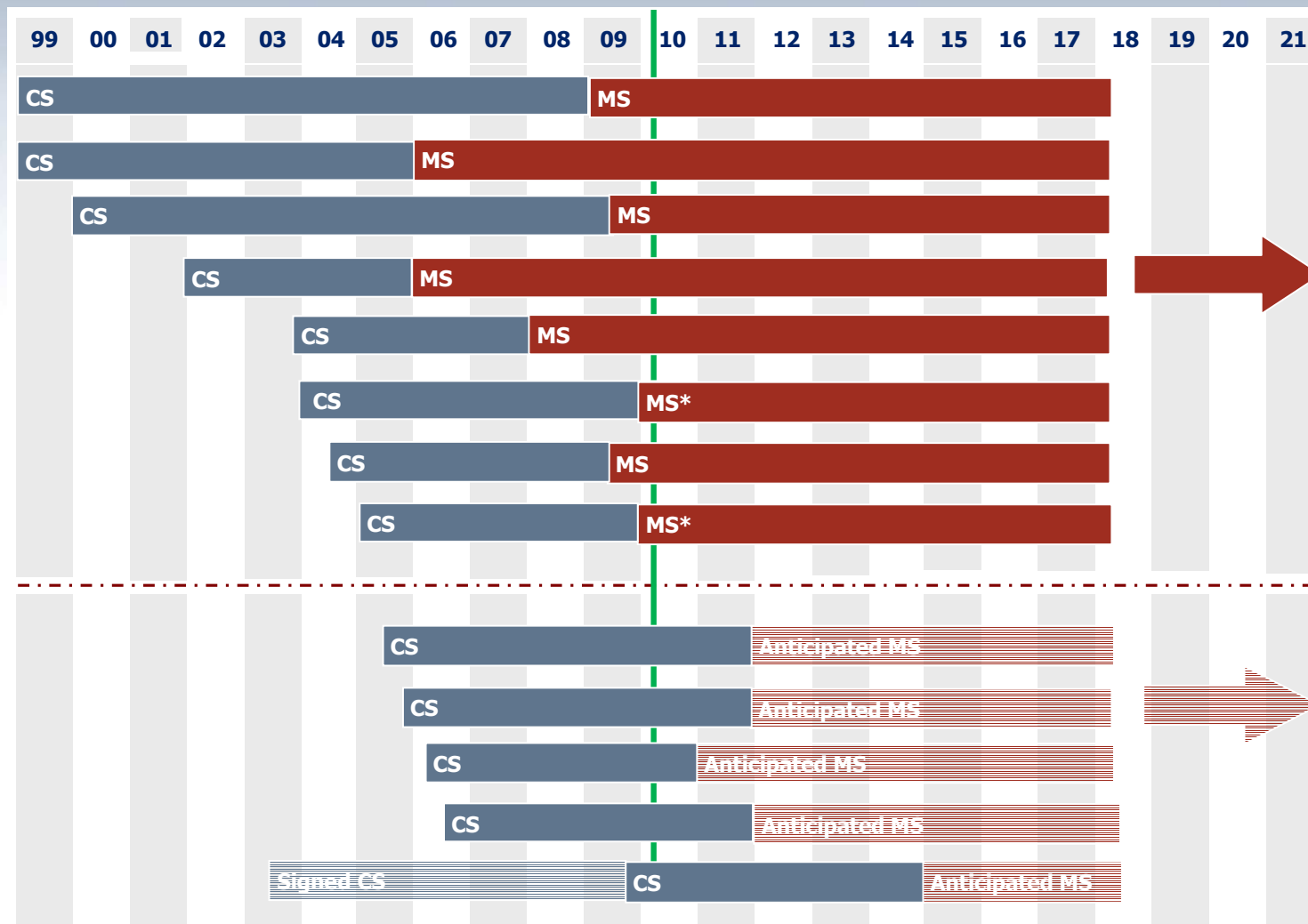


EU-12 and EUMETSAT: Membership

- Seven EU-12 countries are EUMETSAT Member States
Czech Republic, Hungary, Latvia, Poland, Romania, Slovak Republic and Slovenia
- Three EU-12 countries are EUMETSAT Cooperating States, planned to become full Member States in the coming years
Bulgaria (2012), Estonia (2012), Lithuania (2012/2014)
- Two further countries have access to EUMETSAT data and products
Malta and Cyprus



Cooperating - Member State Transition



* pending ratification

Slide: 13 GMES Operational Capacity Workshop, Bulgaria, 25-26 March 2010





Link EU-12 participation in EUMETSAT and GMES

EU-12 relations with EUMETSAT

- A leveraging effect for deeper involvement in GMES Space Segment and contribution to the GMES Core Services.
- Take part in the **decision making process** for GMES Space Segment as EUMETSAT will operate Sentinels – 3, -4 and -5 (i.e. EUMETSAT funding in S4 and S5)
- Gaining experience and expertise in **application of satellite data** for Meteorology, Climate and Environment
- Contribution to **provision of data to the GMES Core Service** (e.g. through the SAF activities).
- Data access is granted to universities, research institutions, private users





EU-12 and EUMETSAT: deeper integration in GMES

3 examples:

- Participation in **EUMETSAT SAFs**
- EUMETSAT **DAWBEE** project
- Activities of **Bulgarian Institute of Meteorology and Hydrology** on Droughts and Fire Monitoring



Satellite Application Facilities (SAFs) in Europe

Member State	Cooperating State
1 Support to Nowcasting and Very Short Range Forecasting	
2 Ocean and Sea Ice	
3 Climate Monitoring	
4 Numerical Weather Prediction	
5 Land Surface Analysis	
6 Ozone and Atmospheric Chemistry Monitoring	
7 GRAS Meteorology	
8 Support to Operational Hydrology and Water Management	
● SAF Consortium Member	
● Additional Met Service Users	



Poland, Hungary and Slovenia are part of the Hydrology SAF



An example: Hydrology SAF (H-SAF)

Hydrology SAF Objective:

To develop operational products for Numerical Weather Prediction and operational hydrological applications.

- Poland, Hungary and Slovenia contribute to develop and operate Level 2 products for users in Europe.
- H-SAF products: Precipitation Rate products; Cumulative Precipitation; Soil Moisture; Snow Cover and Water Equivalent.
- H-SAF products are integrated in the **GMES Land and Emergency** Core Services.

This afternoon the **O3 SAF** will also present its activities related to the **GMES Atmosphere** Core Service



DAWBEE (Data Access for Western Balkan and Eastern European countries)

DAWBEE - A EUMETSAT initiative with the support of EU-12 partners - NMSs of **Bulgaria, Slovenia, Romania, and Slovakia**:

- Objective: Promotion of operational access to Earth Observation data and products in the countries of the Western Balkan and Eastern European regions.
- Activities: Installation of EUMETCast stations, including training, by the EU-12 partners in the Western Balkan and Eastern European countries. This allows for Near Real Time reception of various Earth Observation Data and products.
- Benefit for EU-12 countries: Creation of a regional network of expertise for Earth Observation data reception and processing.



Drought and Fire Monitoring from Bulgarian NIHM



MSG Land Surface Applications: Drought & Fires

SOFIA 7-10 September 2009



EUMETSAT

Monitoring weather and climate from space
Surveiller le temps et le climat depuis l'espace

[Home](#) | [General information](#) | [Programme](#) | [Image](#) | [Venue and accomodation](#)

Advanced Training Workshop



NIMH of Bulgaria and EUMETSAT will be holding this Workshop, aimed to provide a forum for exchange of advanced knowledge and experience between meteorologists, developers of satellite products and primary end-users of Meteosat Second Generation data for Land Surface Analyses related to the natural hazards of Drought and Vegetation fires. Experts in meteorological products developers, experienced forecasters, experts in satellite data interpretation and land surface analyses will attend the workshop. (http://oiswww.eumetsat.org/WEBOPS/msg_interpretation/index.html).

Further details about the Workshop are given in the [Information](#) page and the [Programme](#).

National Institute of Meteorology and Hydrology, Bulgarian Academy of Science (NIMH-BAS)

E-mail us: [Julia Stoyanova](mailto:Julia.Stoyanova@meteo.bg), [Christo Georgiev](mailto:Christo.Georgiev@meteo.bg) <http://info.meteo.bg/conferences/EUMETSAT07092009/>

Data relevant for GMES Land and Emergency Core Service



EUMETSAT

Conclusions

For the domains related to its mandate, EUMETSAT will be a key partner of GMES in its operational phase and should be an important contact with space data users

Thanks to the long experience we have gained with EU-12, these countries will directly benefit from their participation in EUMETSAT to be directly involved in GMES activities.



EUMETSAT

Monitoring weather and climate from space

Thank you for your attention!





EUMETSAT's mission is....

To deliver operational satellite data and products that satisfy the meteorological and climate data requirements of its Member States - 24 hours a day, 365 days a year, through decades.

This is carried out taking into account the recommendations of the World Meteorological Organization (WMO).



Prospective Cooperating States

Prospective EUMETSAT Cooperating States:

- Malta, Cyprus (ongoing discussions)
- Albania, Bosnia & Herzegovina, Former Yugoslav Republic of Macedonia, Kosovo, and Montenegro (initial contacts made)



courtesy of Google maps

What we do





Data applications



To assist the human forecaster in diagnosing and monitoring the development of hazardous weather systems...



For daily weather forecasting, to save human life and property...



For industry, aviation, maritime transport ...



... and for climate and environmental monitoring.

Climate record generation – an overview

