

**Federal Ministry of Transport and
Digital Infrastructure**

Opening statement by Dr. rer. nat. Dirk Engelbart given at the

**4th Satellite Application Facility on Climate
Monitoring (CM-SAF)**

User Workshop

Grainau, Germany

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**Dear Mr. Director General,
distinguished international guests,
Ladies and Gentlemen,**

The Satellite Applic.Facility on Climate Monitoring invited all of us to its 4th International User Workshop andas it is obvious....many have come.

On this occasion and on behalf of the German Federal Ministry of Transport and Digital Infrastructure, I'd like to give you a very warm welcome here to Grainau and I'm happy to convey best regards also from Minister Alexander Dobrindt to this community.

You all surely know, that Climate Change has now become a core issue in international and national politics, and human impacts on earth have become one of the key challenges for our planet, our society and for future generations.

The Intergovernmental Panel on Climate Change recently concluded¹ that ***“warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.”*** It is evident that ***“human influence on the climate system is scientifically undisputed”*** and ***“warming will continue”***.

Hence, as warming will continue, the essential question is, how fast and noticeable the climate system will change? Are we able to limit the greenhouse gas emissions significantly and how can we adapt to the inevitable climate change? – Hence, knowing and understanding climate change is an essential basis for sound decision making – not only in politics.

Ladies and Gentlemen,

Today, we can project future climate change based on different intervention scenarios and on base of this knowledge, we are then able to take measures to mitigate the causes of climate change **and** to adapt to the unavoidable consequences of this change.

Well, while we are here now to meet in Garmisch-Partenkirchen, some consequences of climate change are also obvious already in Bavaria: The Bavarian government had predicted that nearly all glaciers in the Bavarian Alps will vanish in near future and only one small glacier, the *“Höllentalferner”* near the top of mount Zugspitze, next to our venue might fractionally remain². However, in order to project successfully this kind of future climate alterations, we surely need to understand the climate system as a whole as much as

¹ http://www.climatechange2013.org/images/uploads/WG1AR5_Headlines.pdf

² http://bayerischegletscher.userweb.mwn.de/Literatur/Bayerische_Gletscher_im_Klimawandel_2012.pdf

possible. And for this purpose, a systematic observation of the climate system is an essential and indispensable prerequisite.

And right here, **satellite observations** have its crucial function, as they are a precious and unique source of information about our planet earth. The climate data collected by **satellite remote sensing** is invaluable for climate analysis.

In recent years, satellite-based remote sensing has become an important element of the German as well as the European space policy **and** it rightly deserves its special position, because it generates significant benefit information for ensuring that the earth remains livable.

Ladies and Gentlemen,

In Europe, EUMETSAT, the European Organization for the Exploitation of Meteorological Satellites, has an outstanding role in continuously providing space-based remote-sensing information covering the whole planet.

It is therefore consequent, that since the year 2000, **EUMETSAT** had started a strategic long-term objective to contribute to the operational monitoring of the global climate and the detection of climate change. – The EUMETSAT Central Facility and the network of eight Satellite Application Facilities are encouraged to contribute to this mandate, where the Satellite Application Facility on Climate Monitoring in this respect **is in first place**.

Many European satellites for earth observations have already been launched and many more are to come; and the **corresponding** satellite **programs** have to form a sound basis for continuous earth observations.

Amongst others in this framework, the European Space Agency ESA has launched the ESA Climate Change Initiative that will provide stable and long-term, satellite-based, climate-relevant data products.

The assets stemming from the ESA Climate Change Initiative, advise to continue this activity in an operational environment with an independent long-term funding scheme, contributing to climate services and research.

For a sustained and efficient exploitation of these climate-monitoring data from earth-observation satellites, there is a need for an **international architecture** that ensures delivery of these observations over the required very long time frames.

However, the full benefit of all satellite programmes will not come into effect, **unless** the application side can keep up: Therefore, evaluation and interpretation of satellite data need a reliable and continuous foundation.

EUMETSAT with its national member states already is and will stay the primary organization to host this reliable and continuous environment. They already have developed and

implemented essential parts of the infrastructure being necessary for the exploitation of satellite data for climate monitoring.

Ladies and Gentlemen,

Nowadays, the Satellite Application Facility on Climate Monitoring already shows high importance for the objectives of several international programs —such as the Global Climate Observing System, GCOS, the World Climate Programme and the World Climate Research Programme— as well as for the Group on Earth Observations and the European Copernicus Initiative.

Since many years, there have been discussions on an *European Climate Change Service* in the framework of *Copernicus*. Today, we are finally on the verge of implementing this service - and observations from satellites will then form a key element of this service.

→ The *Copernicus Climate Change Service* is well suited to complement existing European activities performing climate monitoring from space. In addition and in particular *–in the sense of providing a climate service–* the interpretation and analysis of these data shall be a prominent task of the ***Copernicus Climate Change Service*** for the benefit of all of our fellow European citizens.

Ladies and Gentleman

Global problems call for global solutions, and international cooperation is right at the top of the international agenda for earth observation.

With the 4th User Workshop of the Satellite Application Facility on Climate Monitoring here in Grainau we are now making an important step into the future of international cooperation helping to facilitate the right decisions to a better understanding of the climate system.

On behalf of the *German Federal Ministry of Transport and Digital Infrastructure*, I wish you a successful conference and a pleasant stay here in Grainau.

Thank you very much!