



EUMETSAT in Estonia

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EMHI dep. of development

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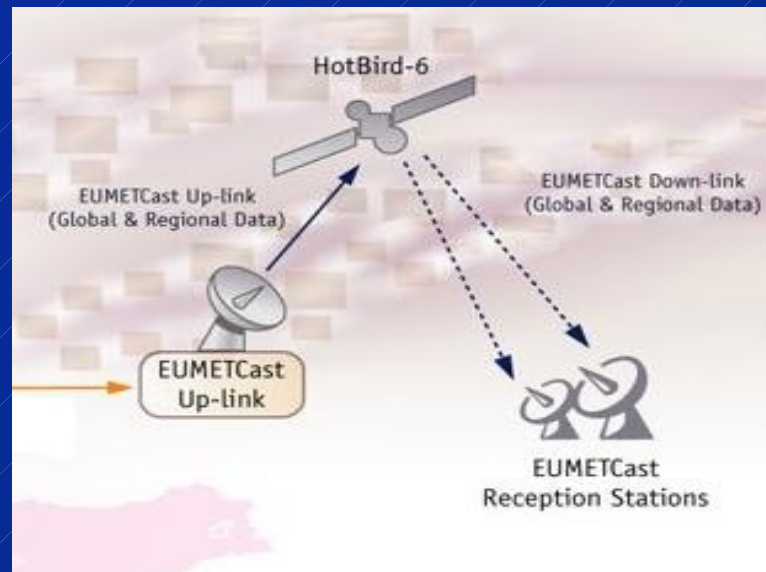
Introduction

- Estonia is the cooperating member of EUMETSAT starting from 2006
- Participation costs (ca 2 million EEK) are paid by the Ministry of Environment
- 2011 will end the period of cooperating member status. Estonia must decide quickly how to continue. Participation costs to triple depending on year
- EMHI represents EUMETSAT locally in Estonia
- Three EUMETSAT seminars have taken place in EMHI (2002, 2005, 2008)
- Operational use of EUMETSAT information since the end of 2006
- Since then gradual increase of operational usage of EUMETSAT images and products
- EMHI is practically the only user of EUMETSAT information so far
- Department of development is responsible for application and development work of EUMETSAT information in EMHI



Channel to EMHI - EUMETCAST

- EUMETSAT server sends processed and quality-controlled information to telecommunication satellite (HotBird-6)
- Clients receive the data through EUMETCast reception station (antenna, computer, card, key)





What has been achieved

- Main tool for disseminating the images is EMHI's internal web portal
- Usual products and channels from geostationary satellites (visual, infrared, water vapor channel, RGB, fogs and air masses)
- Visual channel and cloud top temperatures from polar orbiting satellites
- NWC-SAF products – mainly cloud mask and types
- OSI-SAF products – sea ice
- Winds on Baltic Sea MetOp ASCAT



Main users

- Aviation meteorology
- Duty forecasters
- Development for data ingestion to HIRLAM numerical weather prediction model
- ETV evening animation (produced by EMHI)
- 1 h interval RGB and infrared images on public display in EMHI web
- University of Tartu started development of receiving station



Future plans in EMHI

- Application of satellite information in numerical weather prediction model input
 - Temperature profiles over sea
 - Winds over sea
- Nowcasting system where satellites are one input
- Find opportunities to increase efficiency using satellite measurements



For EMHI only?

- It is extremely important to widen user basis for EUMETSAT information in Estonia to use participation costs with maximum efficiency
- These are not only special interests of EMHI and Ministry of Environment
- Potential users
 - military
 - Global information (NATO missions)
 - Environmental monitoring
 - Transport
 - Wind energetics
 - agriculture



Investment not service

- It is very important to find ways to use EUMETSAT information in business solutions
- Great opportunity to develop knowledge-intensive economy
- As the information is global the applications created locally can be implemented in global range
- EUMETSAT itself is an opportunity for knowledge-intensive production and development companies
- Full membership in EUMETSAT creates opportunity to participate in invitations to tender (not only satellite related)