H SAF
Support to Operational Hydrology and Water Management

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H-SAF: achievements and future perspectives

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Achievements and status of the Programme

Operational Achievements

- to guarantee **operational provision** of high quality level 2/3 satellite-derived products and services for:
  - 5 Precipitation products :

H01	PR-OBS-1	Precip. rate at ground by MW conical scanners (DMSP)
H02A	PR-OBS-2A	Precip. rate at ground by MW cross-track scanners (EPS-NOAA)
H03A	PR-OBS-3A	Precip. rate at ground by GEO (MSG)/IR supported by LEO/MW
H04A	PR-OBS-4A	Precip. rate at ground by LEO/MW supported by GEO (MSG)/IR
H05A	PR-OBS-5A	Accumulated precip. at ground by blended MW and IR (H03)

Achievements and status of the Programme

Operational Achievements

- to guarantee **operational provision** of high quality level 2/3 satellite-derived products and services for:
  - 2 Soil Moisture products:

H08	SM-OBS-2	Small-scale surface soil moisture by radar scatterometer (EPS)
H14	SM-DAS-2	Soil Moisture Profile Index in the roots region retrieved by surface wetness scatterometer assimilation method (EPS)

Achievements and status of the Programme

Operational Achievements

- to guarantee **operational provision** of high quality level 2/3 satellite-derived products and services for:
  - 4 Snow products:

H10	SN-OBS-1	Snow detection by VIS/IR radiometry (MSG)
H11	SN-OBS-2	Snow status (dry/wet) by MW radiometry (DMSP)
H12	SN-OBS-3	Effective snow cover by VIS/IR radiometry (EPS-NOAA)
H13	SN-OBS-4	Snow water equivalent by MW radiometry (DMSP)

Achievements and status of the Programme

Development Achievements

- to perform **development of 14 new products**:
  - Precipitation products on **full disc**
  - Precipitation and Snow products based on **MTG**
  - New precipitation products: from **new MW instruments** and **specialized for convection**
  - **Improved version** of Large Scale surface Soil Moisture
  - Soil Moisture **Time Series** (surface and soil index)

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Achievements and status of the Programme

Accomplishment of requirements

- in terms of **quality of products** and **quality of operational performances**, through:
  - Consolidation/maturity of operational services, also via the **reengineering of Central Services**
  - Improvement of **algorithms, criticalities detection and recovery**
  - Structuring of **Quality Monitoring and Assessment process (Validation):** procedures, methodologies, interfaces with hydrological modeling

Achievements and status of the Programme

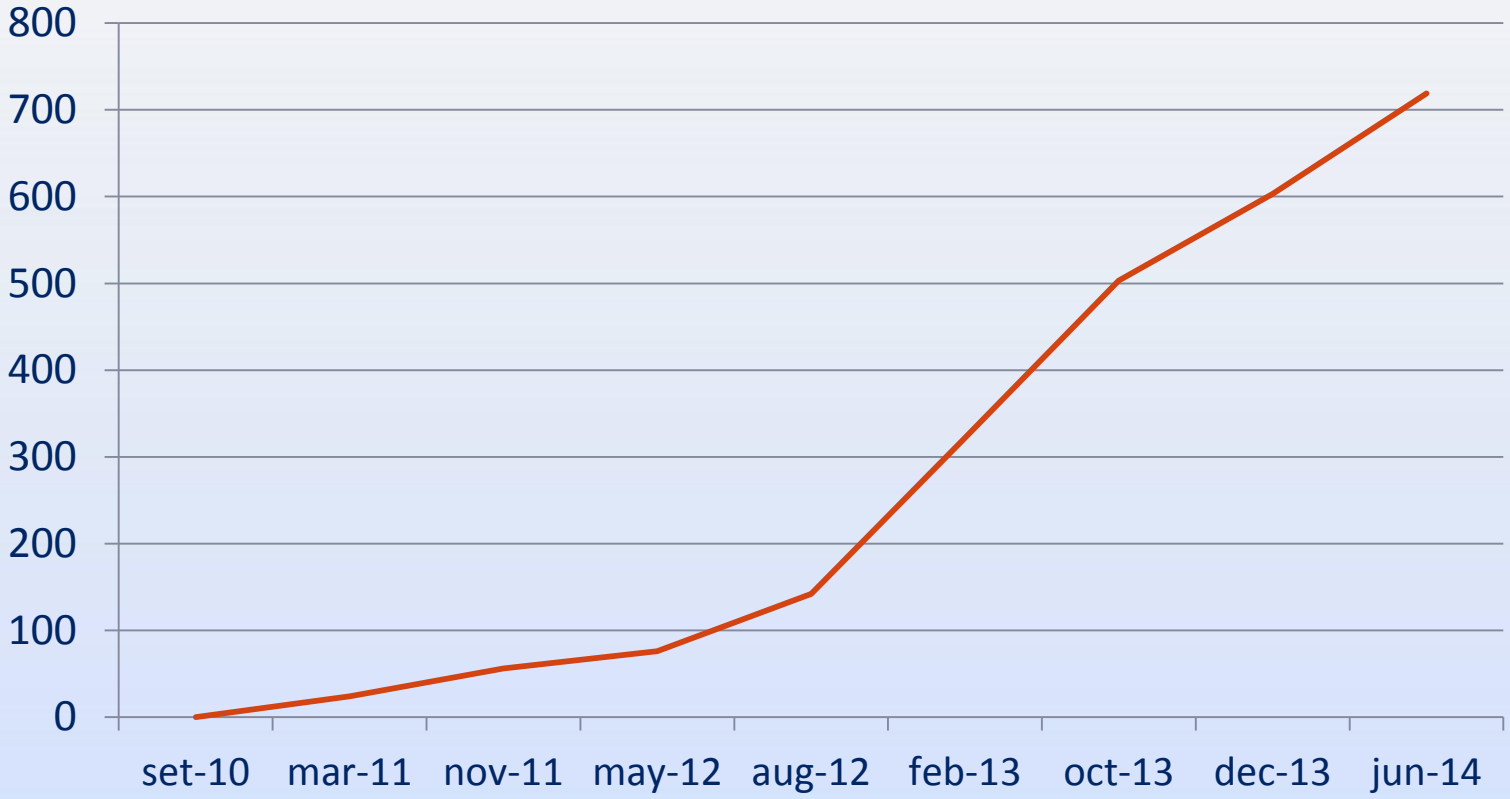
Establishment of user community

- A consolidated user community has been set up: registered users are continuously increasing
- Contact with users has been enforced, through user survey, user conference

Achievements and status of the Programme

Establishment of user community

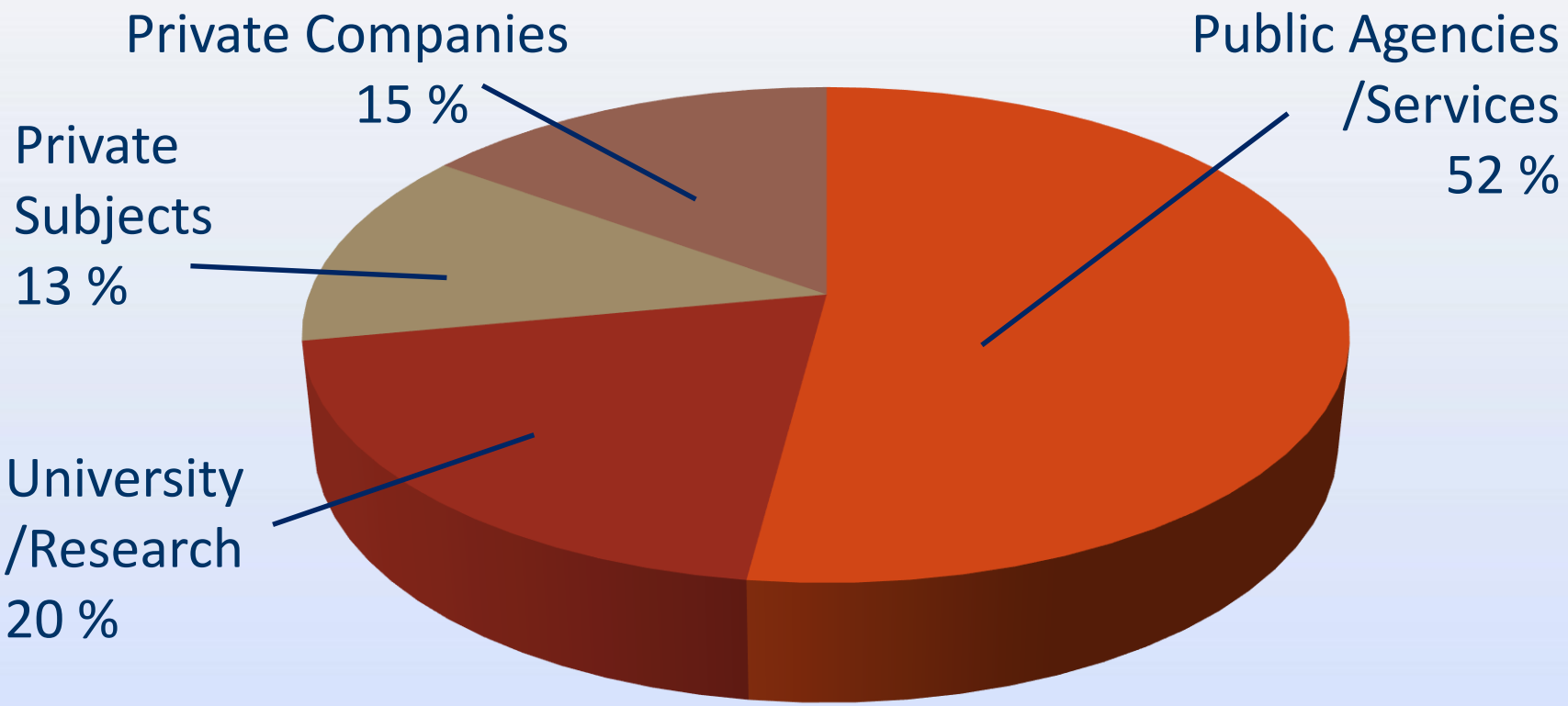
Trend in user registration:



Achievements and status of the Programme

Establishment of user community

categories of users



Future objectives

Short/medium term Objectives (current phase)

- To enlarge products' area from **Europe** to **full disc**
- To bring the cooperation with **GPM into products**
- Enlargement of **user community** and further increasing in user contact (user meetings)
- Improvement of **central services**
  - New User Tools (i.e. map tool)
  - Coordination with EUMETSAT Central Services

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Future objectives

Vision and Future Perspectives (CDOP3)

- to move to **operations MTG-based products**
- To **develop new products for EPS-SG** (for operations in CDOP4)
- To **increase contributions** to Quality Monitoring/Hydrovalidation (ground data availability, hydrological basins)

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Future objectives

Vision and Future Perspectives (CDOP3)

- To enlarge products area from full disk up to **Global coverage** for precipitation and snow cover
- To consolidate the impact of **GPM data** in precipitation products
- To capture requirements for **areas with scarcity of ground data**

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Future objectives

Vision and Future Perspectives (CDOP3)

- To exploit and refine the **integration between precipitation and soil moisture** parameters
- To capture operationally requirements for **Water Scarcity Areas**
- To satisfy Oceanography requirements on **Water Balance** (precipitation over oceans)

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Thank you for your attention