

Driving Policies Geoland OFM

- ❑ **Prime User FAO**
 - **Same as in GMFS related to Food Security and Food Aid**
 - World Food Summits (1996, 2002)
 - “Rome Declaration on World Food Security” (1996) 7 commitments

- ❑ **Prime User European Commission repr by JRC-MARS Unit (Geoland partner)**
 - **Parliament Council Decisions**
 - on the area frame sampling and remote sensing techniques for agriculture statistics 1999-2003 and its extension 2004-2007. Users are DG-Agri, Eurostat.
 - on food aid policy and the special operations in support of food security (1996). Users are DG-Aidco, DG-Dev, Echo, Relex (same as for GMFS)

- ❑ **Future Commercial Users (e.g world cereal trade)**
 - **information needs on supply of agricultural commodities on the world market**

Geoland Crop Production Information Service

❑ Final Service

- **Production = yield * harvested acreage**
 - within-season forecast of crop yields and production
 - at the scale of countries and parts of countries
 - world wide, for major annual field crops
 - based on crop-environment interactions

❑ Geoland-OFM project aim

- **To develop pre-operational European capability to launch a global Crop Production Information Service**

❑ Comparison GMFS

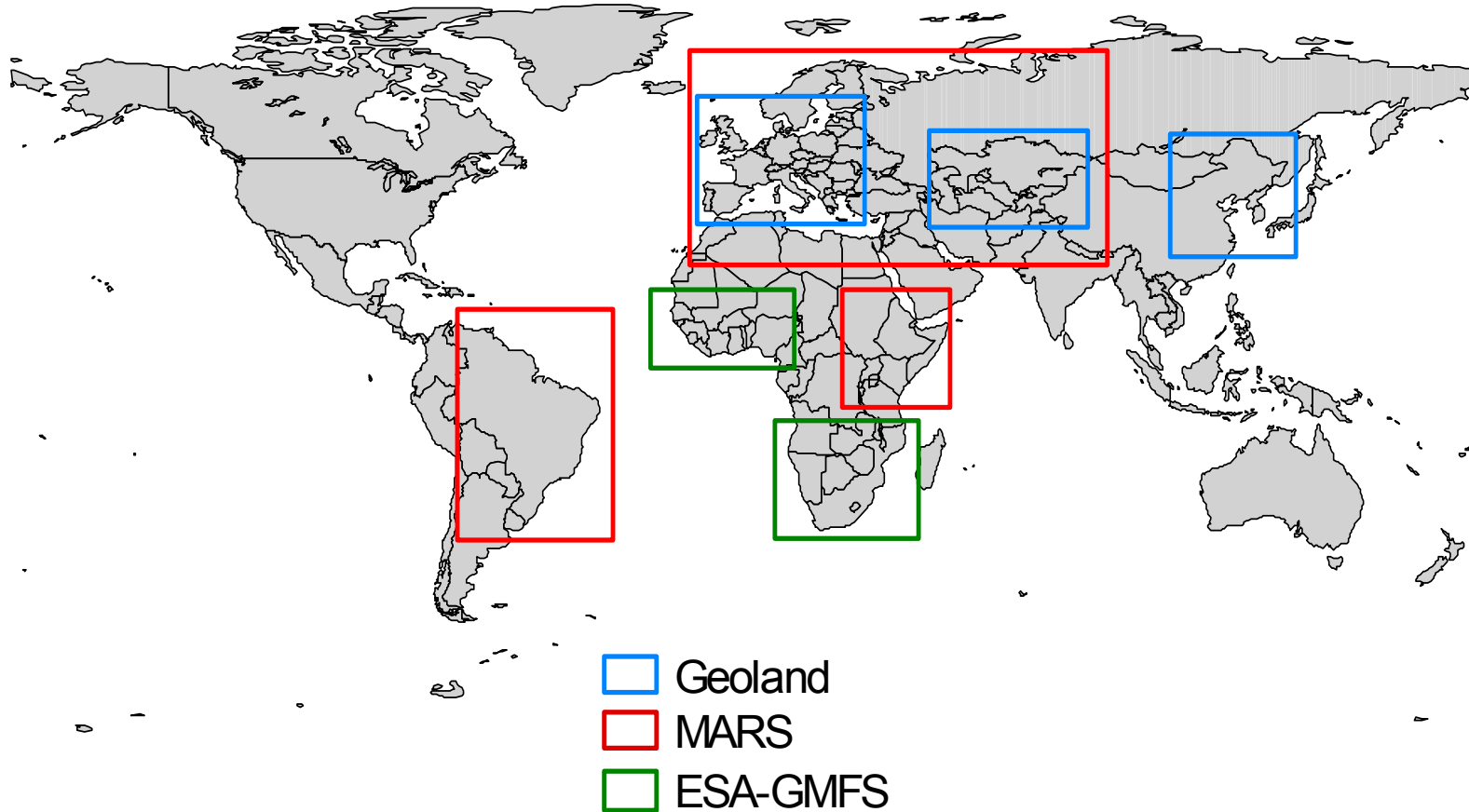
- **similar use of EO, crop model and reference data on agriculture**
- **Geoland :**
 - no field surveys, no household surveys
 - no analysis of socio-economics and market
 - no account of political conflicts
 - (current local data from other suppliers)
 - (analysis is core competence of users)

Geoland User Needs

- ❑ **Objective data as basis for the timely assessment of crop yield and production in any country**
 - Yield and area estimates in physical quantities
 - Reproducible
 - Timely
 - Independent
 - Reliable
 - Known accuracy
 - Geo-referenced

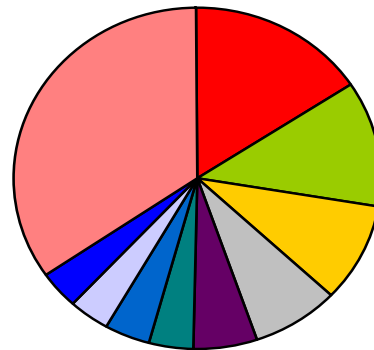
- ❑ **Integral information analysis by the users themselves**

Geoland, GMFS, and MARS geographic coverages



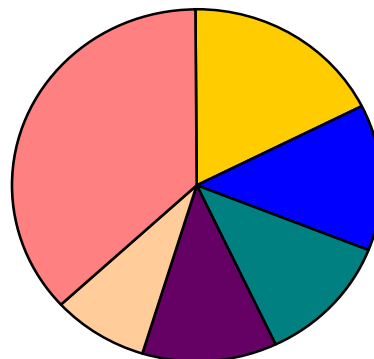
World Wheat Production and Export

Major wheat producing countries



- China
- India
- USA
- Russia
- France
- Australia
- Germany
- Ukraine
- Canada
- Rest

Major wheat exporting countries



- USA
- Canada
- Australia
- France
- Argentina
- Rest

Geoland phasing

- ❑ **Phase 1 (18 months) improvement and innovation of methods in data rich European cases**
 - Yield estimation methods
 - Do performance contest of 6 methods in 3 European countries over 12 past years
 - Compare and evaluate methods using yield statistics
 - Define best mix of methods
 - Area estimates
 - Improve methods using data from new MR sensors
 - Validate with data from existing ground surveys in a few sites across Europe

- ❑ **Phase 2 (18 months) extension to Central Asia and N-China**

Geoland phasing

❑ **Difference with GMFS Phase 1**

- Geoland seeks to improve methods for the future, based on tests on historic time series
- GMFS focuses on fast implementation of mature and proven methods using current year real time data

❑ **Difference with GMFS Phase 2**

- Geoland seeks extension and method development in new regions, implementation not defined yet
- GMFS aims at roll out of service at global scale

❑ **Synergy GMFS-Geoland**

- **GMFS can incorporate Geoland results as 2nd generation of GMES products**

GMFS and Geoland-OFM partners

Partners ESA-GMFS

- ❑ **VITO** (LR processing)
- ❑ **Synoptics** (agromet model)
- ❑ **EARS** (Meteosat based processing)
- ❑ **SARMAP** (HR and radar)
- ❑ **ESYS** (C/B analysis)
- ❑ **IBIMET** (Early W S)
- ❑ **GIM** (training)
- ❑ **TRASYS**, (infrastructure)
- ❑ **AVIA-GIS** (software, MR)

Major task division **Set up**
Operational Processing

Partners EU6FW Geoland-OFM

- ❑ **Alterra** (agromet modeling)
- ❑ **EARS** (Meteosat based modeling)
- ❑ **IGiK** (LR yield indices)
- ❑ **IPF** (ERS-Scat soil moisture)
- ❑ **NEO** (ERS-Scat soil moisture, training)
- ❑ **VITO** (LR yield indices + *area*, *MR*)
- ❑ **JRC** (evaluation + *area*, *MR*)
- ❑ **Astrium** (*area*, *MR*)

Major task division

Method development, Innovation