### **Hearing on EO data Access**

Preliminary list of data sets



#### Considered user needs

- Needs of the FP7 Core services over the post 2010 period. (i.e. until end 2012 for Geoland2, end 2011 for the other projects)
- Needs of the operational services to be initiated under GIO:
  - § emergency service over the period 01/2012 to 12/2013.
  - § land monitoring services.
- Fulfilment of the needs of the Downstream services over the post 2010 period.
- Fulfilment of the needs of other institutional actors (EEA, EMSA, JRC...).
- Support to Member States in their GMES related activities



#### **Preliminary data sets**

- Two categories:
  - § Core data sets: Data sets with fixed specifications representing the common needs of a broad user category
  - § Additional data sets with flexible specifications (e.g. geographical coverage), with predefined quotas

# Data sets and licensing scheme synthesis

Optical and SAR HR and VHR new acquisitions in rush mode Optical and SAR HR and VHR archive retrieval in rush mode Optical and SAR HR and VHR new acquisitions in normal mode Optical and SAR HR and VHR archive retrieval in normal mode HR Sub-Saharan African Coverage **EU VHR coverage** EEA 38 optical HR coverage in 2011/2012 and access to previous archives Daily MR and LR land doverage Bi-monthly HR composites

FP7 projects

EU, agencies and contractors

C-Band SAR coverage

**Member States** and contractors

NGOs and international org.

#### **Core Data sets**

#### EEA 38 Optical HR coverage (Core\_001)

- Characteristics:
  - § Optical high resolution (~4-10m) EEA 38 coverage 2 coverages
  - § Image2009 compatible
  - § SWIR
  - § Backup: ~20m resolution
  - § Orthorectification preferred
- Needs to be covered
  - § Land cover/land cover change activities under GIO and FP7
  - § EEA work programme

#### European VHR coverage (Core\_002)

- Characteristics:
  - § Optical very high resolution (1-3 m) EU27 coverage 1 coverage over 3 years (2012±1)
  - § SWIR VNIR
  - § Backup : Selected EU27 sites
  - § Orthorectification
- Needs to be covered
  - § Dedicated applications under GIO and FP7
  - § Urban Atlas continuation (Prio. 1)
  - § Monitoring of coastal areas, risk areas, protected areas...

## Daily worldwide LR/MR coverage (Core\_004 to Core\_007)

- Characteristics:
  - § Optical MR/LR resolution (>100 m) Worldwide coverage – NRT-3h
  - § MIR VNIR SWIR
  - § Access to mission archive
- Needs to be covered
  - § Production of biophysical parameters and ECVs under GIO and FP7

#### Bi-monthly EU HR coverage (Core\_008)

- Characteristics:
  - S Optical HR/MR resolution (~ 60 m) EU coverage– AWIFS type
  - § Generation of composites orthorectification
  - § Vegetation season (March October)
  - **§ VNIR SWIR**
- Needs to be covered
  - § Seasonal vegetation monitoring under GIO and FP7

#### Sub-Saharan coverage in HR (Core\_009)

- Characteristics:
  - § Optical HR (~ 20 m)
  - § Sub-Saharan Coverage
  - § VNIR SWIR preferred
  - § Backup: 20\*20 km² grid
- Needs to be covered
  - § Support to GMES in Africa
  - § Level of priority to be discussed



#### C- Band SAR coverage (Core\_011)

- Characteristics:
  - § C-Band MR (~ 100 m) L1b
  - § Zones as currently defined by MyOcean (Baltic, Greenland, Davis Strait/labrador Sea, Eurarctic, Antarctica)
- Needs to be covered
  - § Continuation of FP7 projects future FP7 projects

#### VHR view service (TBC)

#### Characteristics:

- § Access to a view service (e.g. through Web Map service, data streaming protocols)
- § Access to a representation of the image, no download of the image itself
- § Optical VHR < 1m, pan sharpened images
- Needs to be covered
  - § Emergency base mapping
  - § Land and security applications
  - § Support to orthorectification

#### Other

- Characteristics:
  - § Data provided by public missions for Marine and Atmosphere support as defined under the DA grant
  - § Includes SST, Ocean color, altimetry data, data for aerosols, SO2, HCHO, O3, CO2, CO, CH4, NO2... monitoring
- Needs to be covered
  - § Continuation of FP7 projects future FP7 projects

#### **Additional Data sets**

#### Rush/normal mode data access

- Characteristics:
  - § 28 combinations of data
    - Rush/normal mode
    - Optical X-Band
    - 4 resolution types (HR2, HR1, VHR2, VHR1 optical only-)
    - Archive rush retrieval / rush satellite tasking
  - § Each data type has fixed characteristics (timeliness, preprocessing, quality)
  - § Flexible quota mechanism sought
- Needs to be covered
  - § Emergency and security activities under GIO and FP7, additional needs of FP7 projects

#### **Quota management**

- Definition of quotas after assessment of costs
- Quota per category of data but allowing flexibility between the categories
- Quota per category of users
- Need to define annual breakdown to ensure provision over the three years of the DA. Yearly adjustment necessary
- Need to define priorities between beneficiaries for data set ordering

