

# Earth Observation data supporting the CAP implementation

*Support to EU Policies*

## Controls with Remote Sensing

Since 1993, DG Agriculture and Rural Development (DG AGRI) has promoted the use of “Controls with Remote Sensing” (CwRS) as an appropriate method to check if European Union Common Agricultural Policy (CAP) area-based aids are correctly granted.

CwRS is performed using Satellite Remote Sensing (SRS) data which are provided to the European Union Member States (MS) administrations or their CwRS contractors, in order to carry out all or part of their On-The-Spot checks (OTS) in accordance with current legislation. The task of acquiring satellite images and making them available to MS is performed by the JRC for the European Commission.

Very High Resolution (VHR) Satellite Remote Sensing data are used for parcel measurements. High Resolution (HR) SRS data are used to support the checks of land cover type or checks of Cross Compliance [i.e. Statutory Mandatory Requirements (SMRs) and/or Good Agricultural and Environmental Conditions (GAECs)].

Another purpose of the Satellite Remote Sensing data is to allow MS to assess the quality of their Integrated Administration and Control System ([IACS](#)) Land Parcel Information System ([LPIS](#)). For this purpose, only VHR images may be used; either those acquired for the OTS checks or “extra” images specifically acquired for this exercise.

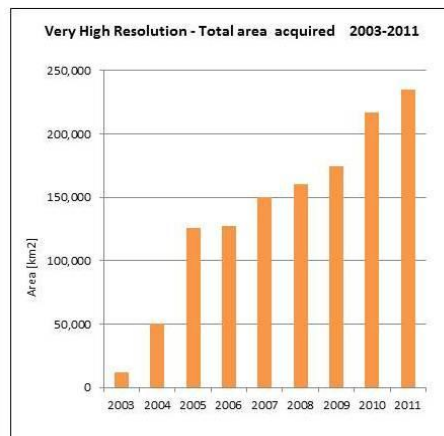
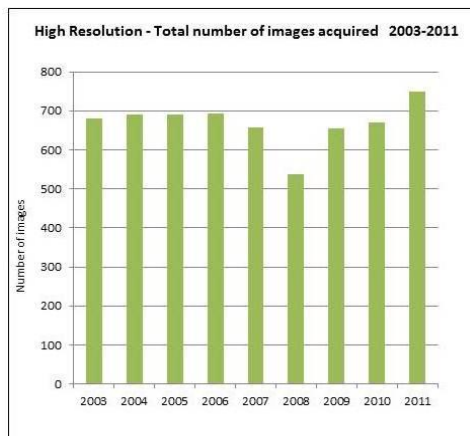
**The standard scenario:** one Very High Resolution image + n. High Resolution

**The Very High Resolution / Rapid Field Visit scenario:** efficient, and independent from farmer



*Example of the Common Agricultural Policy Controls with Remote Sensing*

In 2010, the CAP Control with Remote Sensing programme enabled control of 410.000 farmers for their area-aid applications. This represented approx. 70% of the total EU 27 required controls. 278 zones (671 images) were covered by HR imagery (e.g. SPOT, IRS, Rapid Eye, Landsat, etc.) and more than 210.000 km<sup>2</sup> of VHR resolution data were used (e.g. Worldview, GeoEye, Ikonos, Quickbird, etc.). The graphs below show the evolution of image acquisition (2011 forecasted figures) since 2003.



*Evolution of CwRS imagery through the years*

**The CID portal**

The CID (Community Image Data) Portal is an online catalogue and archive of satellite remote sensing data. The main entry point to the portal is via a Web application through which searches in the archive catalogue can be carried out, and the archive data can be viewed and accessed. Data can be accessed via OGC (Open Geospatial Consortium) web services and direct file access, depending on the individual user credentials. Most of the datasets can be freely searched and previewed by the public. Access to the image data via the data services application is restricted to authorised and registered users. Further data-sharing can be made as specified in the End User Licence Agreement (EULA). All data used in the CAP Controls with Remote Sensing programme is stored in the CID portal from where it is available to the stakeholders of the programme.



*The CID portal*

The CID portal was established to improve the acquisition, pre-processing, access, storage and dissemination of satellite and aerial remote sensing data at the JRC. It currently (2010) stores 30 Terabytes of image data: some 15 000+ satellite HR images (5 – 50 m resolution), and approx. 800 000 km<sup>2</sup> satellite and aerial VHR data (< 5 m).

The regulatory basis for the Control with Remote Sensing program is given in article 20 of [Council Regulation \(EC\) 73/2009](#) and article 33 to 35 of [Commission Regulation \(EC\) 1122/2009](#), which allow Member States to use remote sensing techniques as a means of carrying out OTS on agricultural parcels.

## **Publications**

- Eyraud F, Burger A, Aastrand P, Di Matteo G. (2011). Community Image Data portal: sharing licensed Earth observation data. International Journal of Spatial Data Infrastructures Research 6, 2011. p. 187-205. JRC61486
- Gervasini E, Vajsová B, Aastrand P, Breunig J, Aspinall C, Gentilini S. (2011). Satellite imagery programming for the 2011 CwRS Campaign. Presentation in: Satellite imagery programming for the 2011 campaign, 29 March 2011. Centro Congressi De Filippi - Varese (Italy); JRC - IES - MARS Unit (Organiser). 2011. JRC64571
- Gervasini E, Vajsová B, Gentilini S, Aspinall C, Breunig J, Aastrand P. (2010). Summary Report of 2010 CwRS Image Acquisition Campaign. Publications Office of the European Union, 2010. JRC62616

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Quelle:

<http://ies.jrc.ec.europa.eu/our-activities/support-for-eu-policies/control-with-remote-sensing.html>