



**19-20 November 2014**  
**Dresden - Germany**


  
 European Commission

## Overview of the JRC's tools and future challenges

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**MARS (Monitoring Agricultural Resources) Unit**  
**DG Joint Research Centre**



*Evidence-based scientific and technical support*  
*Cooperation with policy Directorates-General*  
*Sharing its know-how with the Member States*


[www.jrc.ec.europa.eu](http://www.jrc.ec.europa.eu)




  
 European Commission


## MARS-CAP → GeoCAP → GTCAP 'role':

The GTCAP Action has a unique role in policy development and implementation.

Long standing **scientific and technical support to DG AGRI and Member States' agricultural administrations** for the effective implementation of all components of the CAP First Pillar legislation.

→ **Administration and control of CAP direct aids**

**Assist administrations of candidate and potential candidates' countries** to introduce the components of their future Integrated and Administrative Control System to be in line with EU standards.


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**WE DID IT...**







Use of GNSS devices for measurements during On-The-Spot checks (since 2007)

Use of satellite imagery for On-The-Spot checks (CwRS) (since early 90's)



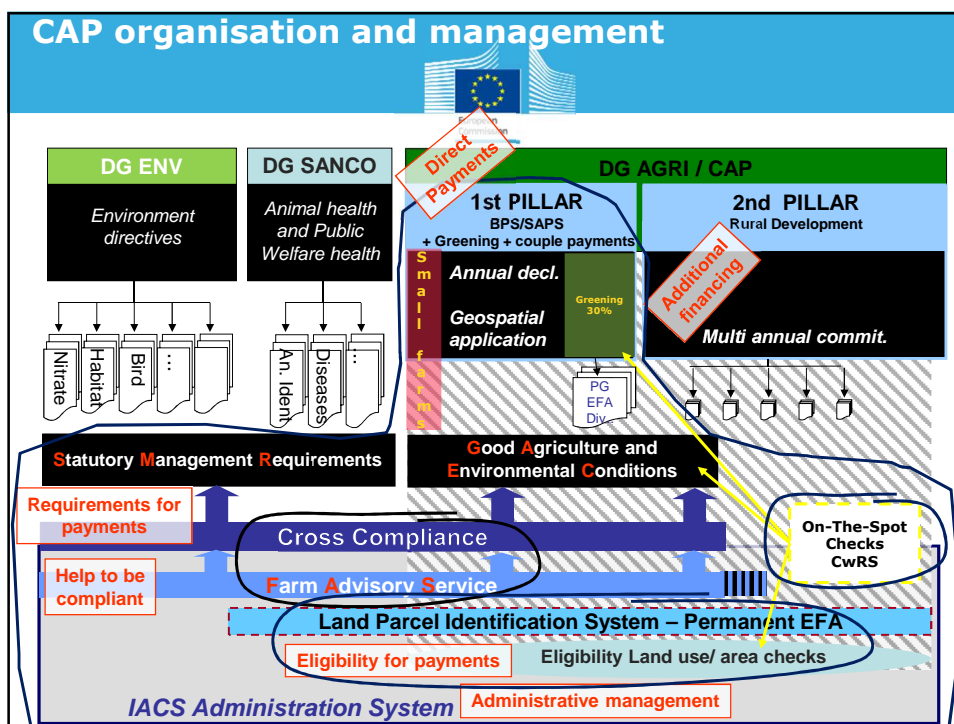


LPIS Quality Assessment (since 2010)

Digital Land Parcel identification System (LPIS) (since 2004)

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## Cross-compliance - FAS

- Information gathering
- Information sharing
- Web Databases
- Official notification to the Commission



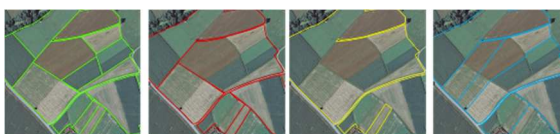
- FAS low profile



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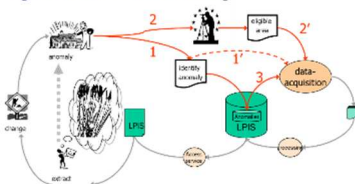
## LPIS

- LPIS creation (2004)
- Compliance with INSPIRE



- LPIS upkeep

e.g. farm land converted to building



- LPIS QA (2010)
  - Assessing LPIS performance
  - Remediate actions for weaknesses found



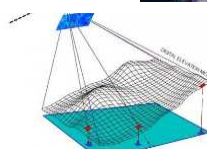
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## On-The-Spot checks



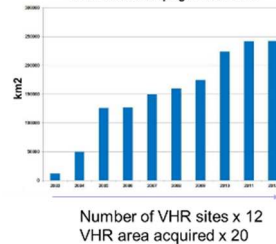
CwRS (early 90's)

- Image benchmarking
- Image processing specifications
- Image acquisition and provision to Member States



Lio.Dot.Net  
NG-LIO.NET

Area in km<sup>2</sup> of Very High Resolution images acquired for the CwRS campaigns 2003 - 2013



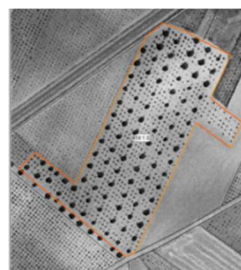
Number of VHR sites x 12  
VHR area acquired x 20

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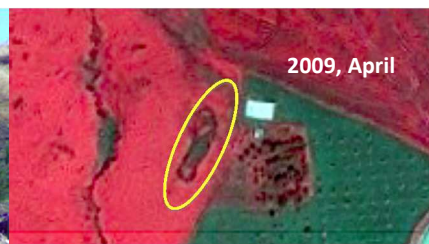
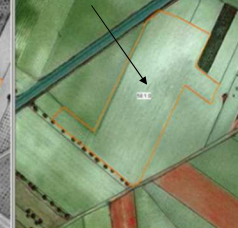
## On-The-Spot checks



CwRS and GAEC check (2007)



Olive trees removed



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## On-The-Spot checks



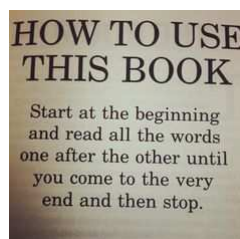
### Quality Check (QC)

- Assessing CwRS performance
- Remediate actions for weaknesses found
- Stopped in 2010



### Common Technical Specifications (CTS)

- Technical implementation of OTS checks
- Taken over DG AGRI (2013)



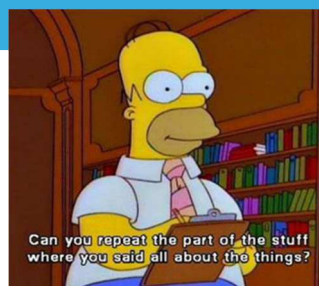
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## WikiCAP

### Support to IACS implementation

- Up to date information
- Contribution of stakeholders
- Q&A



## Exchange of information

Workshops (with or without field visit)

Training

Bilateral (JRC or in Member States)



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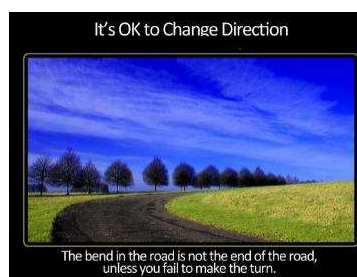
## Future?



- New CAP (obsolete guidelines, outdated tools)
  - Revision needed
- New DG Agriculture organigram
  - Implementation and support Unit
- Change of JRC context (staff cut, revised work programme)

Need for a 'long term' work program

- Direct policy support still required and
- More reengineering, innovation
- Training



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## Future Challenges



### Environmental aspects of Direct payments

Annual status survey (GAEC, EFA)

Need for impact assessment

Environmental performance of defined feature  
Provision of Calculators (EFA, ...)

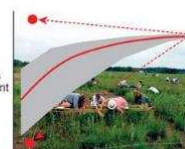
Joint interest with Rural development

Evolution toward FAS



Carbon  
Calculator

Ecosystem  
function  
(resource capture,  
biomass production,  
decomposition, nutrient  
recycling)



Biological diversity  
(variation in genes, species,  
functional traits)

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## Future Challenges



### On-The-Spot checks

OTS checks methods performance

- Quality Assessment protocol



Benchmarking of new tools

RPAS

- measurement, whole farm check, check outside main check period, ...



Area and length measurement method (validation? Tolerance?)

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## Future Challenges



### On-The-Spot checks

Ancillary data assimilation in IACS processes

- Photos, precision farming captured data ...



Availability and use of COPERNICUS data

Set Copernicus Free  
HR data

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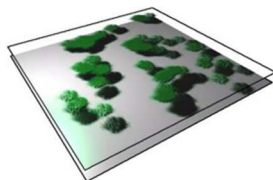
## Future Challenges



### LPIS – Permanent EFA information

LPIS upkeep

New LPIS QA



Land cover characterization and common nomenclature

- Features catalogue



Hedges, LCCS code:  
10176(3)[Z1] //  
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"Hedgerows"

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## Future Challenges



### General IACS

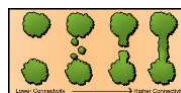
Conceptual model

- Assessing IACS appropriateness and entirety



Extent use of LPIS data

- FAS (Farm level calculators)
- Management of Rural Areas (green corridors ...)



Collection of additional information (Geospatial application)

- GHG estimation (Kyoto protocol)

WikiCAP?

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## Conclusion



**“EACH NEW SITUATION REQUIRES A NEW ARCHITECTURE.”**

New CAP has introduced many changes  
Many challenges ahead  
Need for tools and methods upkeep, upgrade or creation

- Direct policy support continues  
(New DG AGRI “Implementation and support” Unit)
- More reengineering, innovation
- Long term development needs



*DANKESCHÖN*

