



11th ANNUAL CONFERENCE ON CONTROL WITH REMOTE SENSING OF AREA-BASED SUBSIDIES

VOLUME 1
PLENARY SESSIONS (S1 - S4)



EUR 22351 EN

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EUR 22351 EN

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JOINT RESEARCH CENTRE – ISPRA
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Agrifish Unit

11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
23th – 25th of November, 2005
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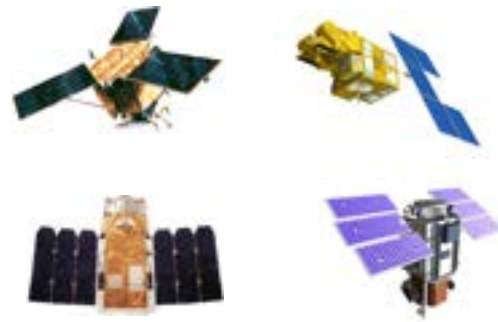
11th Annual Conference on Control with Remote Sensing of Area-based Subsidies Kraków, Poland

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Plenary Sessions (S1 - S4)



Prepared by: Mihaela Fotin	Status: Proceedings of Conference
Approved by: Pär-Johan Åstrand, Jacques Delincé	Diffusion: Internal: JRC, Agrifish Unit/ DG AGRI National Administrations Participants to the Conference
Date: August 2006	





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23th – 25th of November, 2005
Kraków, Poland



Jacques Delincé, Olivier Léo, Pär Åstrand

INTRODUCTION

The 11th yearly CwRS Conference on "*Controls with Remote Sensing of area-based subsidies*" was organized by the JRC (Institute for the Protection and Security of the Citizen, AGRIFISH Unit, MARS PAC) on 23-25 November 2006 in Kraków, Poland.

The Conference was organized in cooperation with the ARMA (Polish Paying Agency) and the Polish Ministry of Agriculture. It was held at the Sheraton Hotel, in Kraków.

For the first time part of the conference was successfully organized with five parallel sessions plus poster session. The number of the participants registered to the event was 309, representing 36 countries (EU25, AC (BG, RO), CCs (HR, TR), and representatives from Albania (AL), Serbia Montenegro (SCR), Kosovo (KS), Macedonia (MK), and Switzerland, Israel, USA.

Some registered participants (7%, mainly from PL) had to cancel their participation leading to a final number of 287 participants, which is a similar audience as last conference in Budapest. A specific agreement with DG ELARG (TAIEX office) allowed the participation of above mentioned representatives from the CARDS countries.



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An important point was the involvement of the D1 Unit of DG AGRI who accepted to (co) chair 2 sessions. DG AGRI was in all present with 6 participants. JRC (Public Relations and IPSC AgriFish Unit) participated with 13 staff.

The Conference in general gave input on the 2005 achievements, the new legislation, the problems and the solutions by the Member States, some approaches and considerations from the DG Agriculture, the technical progress, and the plans for 2006. Moreover, the EU, the MS Administrations, the Image Providers, and the contracting companies had a chance to meet each other and have discussions.

I sincerely believe it was an interesting event for all of us, and all of this in the beautiful city of Kraków; very rich in cultural heritage.

I would like to thank the Polish Ministry of Agriculture, and the whole ARMA staff for a very well co-hosted conference. It was a fruitful collaboration between two efficient teams and I think that the organisation of the conference was excellent.

For your information, these proceedings are divided into two volumes (Volume 1 and Volume 2): the 1st one including all Plenary Sessions S1-S4, the 2nd one including all Parallel Technical Sessions T1-T6 ^{*)}.

Jacques Delincé,
AGRIFISH Unit Head

^{*)} All abstracts, presentations, poster and software demonstrations are on the website: http://agrifish.jrc.it/marspac/cwrs/meetings/2005-11_kraków.htm and have also been published on CD ROM on April 2006. Please contact Pär Åstrand if you need any information.



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Margitsziget Hotel, Budapest, Hungary**



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INTRODUCTION TO THE CONFERENCE

Pär Åstrand - Coordinator of CwRS Project, Agrifish Unit, JRC, IPSC



Joint Research Centre

11th Annual Conference

REMOTE-SENSING CONTROL OF AREA-BASED SUBSIDIES

Krakow, PL, 23-25 of November 2005

Introduction to the Conference and Logistics

1 intro / logistics – Pär Johan Åstrand

11th Annual CwRS Conference, November 2005, Krakow, PL



Joint Research Centre

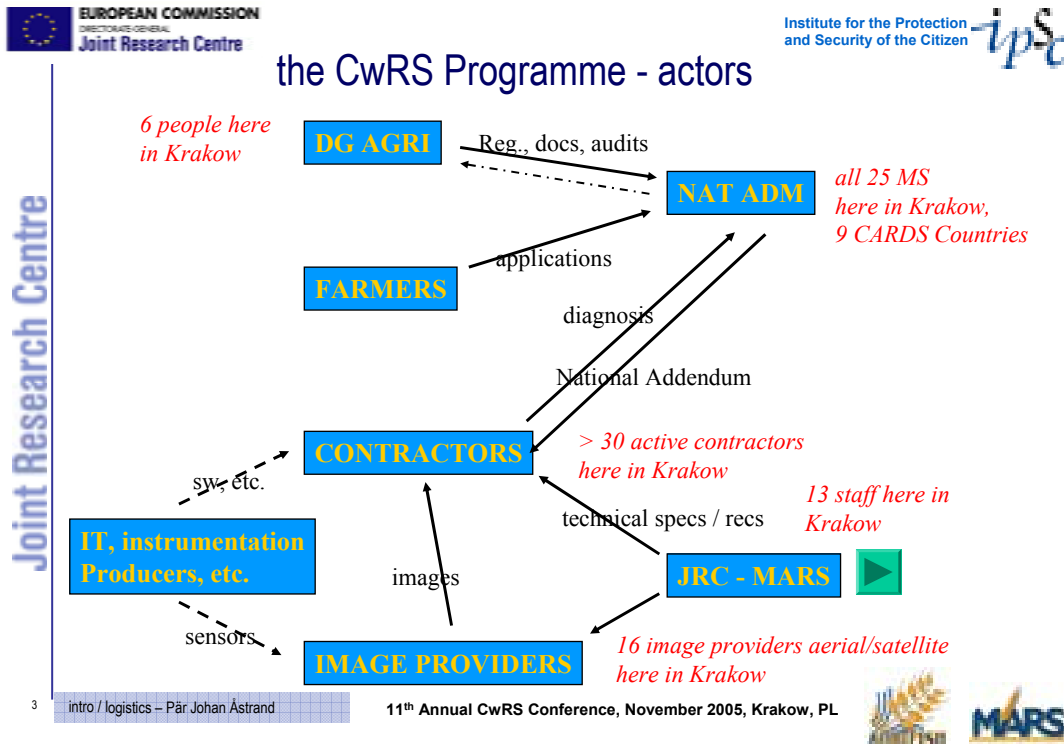
main themes of the Conference


- the CAP Reform in 2005, introducing the Single Payments Scheme (SPS)
 - adopted by 10/15 MS
- cross compliance rules with Good Agricultural and Environmental Conditions (GAEC)
 - applicable to all 25 MS
- the Single Area Payment Scheme (SAPs) (since 2004)
 - adopted by 8/10 MS
- IACS / GIS implementation, and parcel measurement/GPS techniques
- the CwRS Campaign 2005/2006
 - CwRS was performed by a total of 24/25 in 2005
 - VHR 2003 – 2004 – 2005 - 2006; 15,000 - 50,000 - 130,000 km² with the MS requests for 140,000 km² in 2006
- the Enlargement continues

2 intro / logistics – Pär Johan Åstrand

11th Annual CwRS Conference, November 2005, Krakow, PL





- participants**
- 287 participants !!! (309 registered; 7% no-shows)
 - 115 (96), 126 (97), 140 (98), 135 (99), 174 (00), 160 (01), 160(02), 216(03), 286(04)
 - introduced new event-registration system
 - 43 Invited experts
 - EU25, CCs (BG, RO, HR, TR)
 - 2 Professors
 - 19 Commission representatives
 - 6 DG-AGRI
 - 13 DG JRC MARS
 - 36 countries total
 - Representatives from Albania (AL), Serbia Montenegro (SCR), Kosovo (KS), Macedonia (MK), and Switzerland, Israel, USA
- 
- Joint Research Centre**
- 4 intro / logistics – Pär Johan Åstrand
- 11th Annual CwRS Conference, November 2005, Krakow, PL
- Logos: Agrifish, MARS, ipsc



program – 10 sessions (introduction of parallel sessions)

1. **S1 - "Introduction & CAP Reform Implementation"**
 (6 presentations) (chair J Podlewski) (translation 6/4)
2. **S2 - "Review of the 2005 CwRS Campaign"**
 (chair P Åstrand) (5) (translation 6/4)
3. **S3 – "Restricted Session for MS National Administrations"**
 (chair JJ Jaffrelot) (translation 6/4)
4. **T2 - "Control of GAECs and other schemes "**
 (chair Olivier Léo)(6)(translation 6/4)
5. **S4 – "2006 Campaign and Future Evolution"**
 (chair J Delincé, JJ Jaffrelot)(4)(translation 6/4)
6. **T1 - "Remote Sensing, IACS GIS and Parcel measurement"**
 (chair Miguel Miranda)(6)(EN only)
7. **T3 - "New Sensors and Image handling"**
 (chair Tamme van der Wal)(7) (EN only)
8. **T4 - "Image Acquisition and LIODOTNET"**
 (P Åstrand)(6) (EN only)
9. **T5 - "Image Processing, CAPI and (IACS) GIS"**
 (chair J Orlinska)(7) (EN only)
10. **T6 - "poster" (x)**
 intro / logistics – Pär Johan Åstrand



5

11th Annual CwRS Conference, November 2005, Krakow, PL



program – cont.

- **47+** presentations
- **≈ 30** posters (22 abstracts !)
- **6** sw presentations
- **best poster /sw demo contest**
 – see bags for voting rules
- **written proceedings**
 – abstracts/PPTs soon on web



if you have not provided us with a digital copy of your presentation contact chairman of your session or Pär Åstrand a.s.a.p.

6

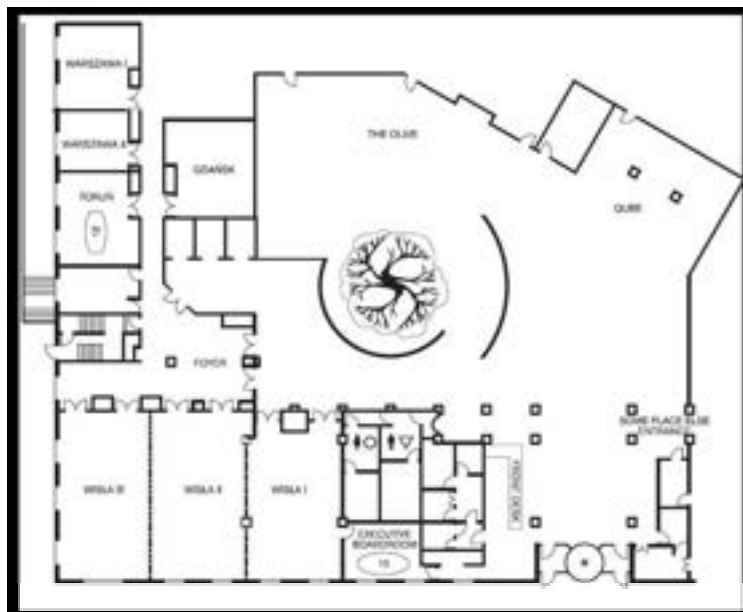
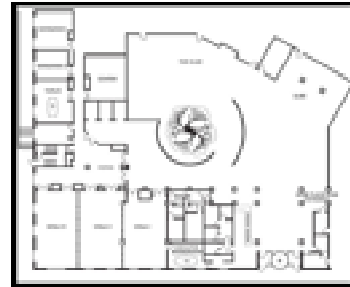
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logistics at the Krakow, Sheraton

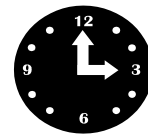
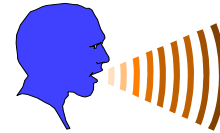
- parallel sessions
 - all Sessions S1, S2, T2, S4 video transfer to GDANSK, WARSZAWA, TORUN and Board Meeting Room
- posters
 - In rooms GDANSK, WARSZAWA, FOYER, and...
- sw demonstrations
 - GDANSK, number given by registration desk
 - 8 high-speed Internet connections (contact ARMA), PC available for browsing, printing etc.
 - 1 high-speed Internet connection in each lecture room for presenter (contact ARMA)
- lunches
 - The Olive Restaurant, (show your lunch ticket)
- Ice breaker
 - Folkwark Zalesie Bus at 18.30 23/11
- gala dinner 24/11/2004
 - host ARMA Bus at 18.00 24/11
- sightseeing
 - Wednesday (23/11; 17.00), Friday (25/11;17.00), Saturday(27/11;whole day) (payment to ARMA, see stand in Atrium)





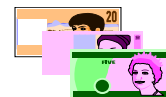
logistics - translation

- translation
 - 6 languages in (spoken): EN, FR, DE, ES, IT, PL
 - 4 languages out: EN, FR, DE, PL
 - please be careful with the equipment
 - Identity Card required for headphones
 - please do NOT talk with headphones on!
 - all Sessions S1,S2,S3,T2, and S4 translated
 - Sessions S1,S2,T2, and S4 video transferred
- please, try to follow schedule
 - there should be the possibility to move from one session to another when a presentation ends...
- please, switch off mobile phones



logistics - reimbursement

- Administration Delegates from MS, invited experts (43)
 - please go to registration desk: Nathalie MAGONETTE, Ulrike WINTER
 - please bring your
 - pre-filled reimbursement and financial forms
 - ticket and BOARDING PASS (for copy)





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SPONSORS – thank you !

1. Kongsberg Satellite Services – lunch 23/11
 2. European Space Imaging (EUSI) - Ice breaker 23/11
 3. Eurimage / DigitalGlobe / ImageSat - lunch 24/11
 4. SPOTImage - lunch 25/11
- all have small stands, posters, brochures, and here to give information...



thank you also !!!

- to ARMA for hosting us in such a beautiful location Krakow
- especially to Maciej²
 - [Maciej Jamrozik](#)
 - Maciej Ziemak





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the MARS CwRS Team

Joint Research Centre



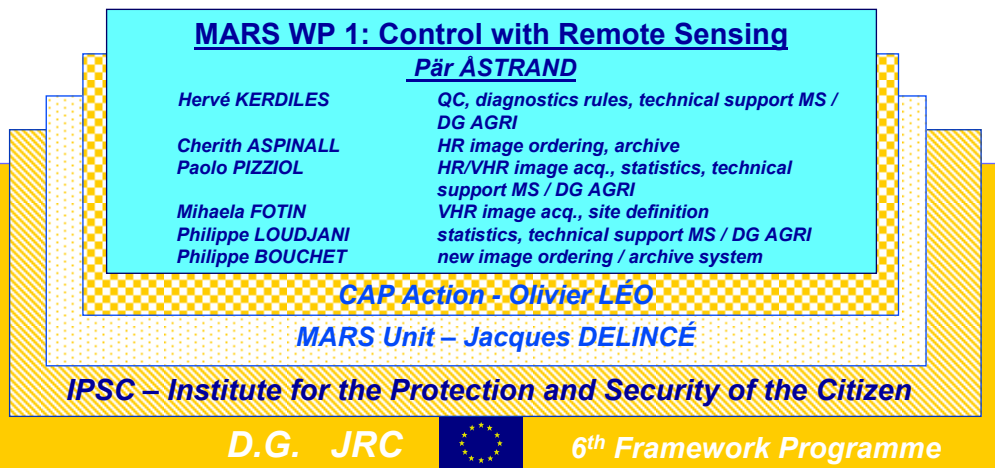
13 intro / logistics – Pär Johan Åstrand

11th Annual CwRS Conference, November 2005, Krakow, PL



the MARS CwRS Team

Joint Research Centre



14 intro / logistics – Pär Johan Åstrand


11th Annual CwRS Conference, November 2005, Krakow, PL






INTRODUCTION TO THE CONFERENCE

Ansa Norman-Palmér, European Commission, DG AGRI D1



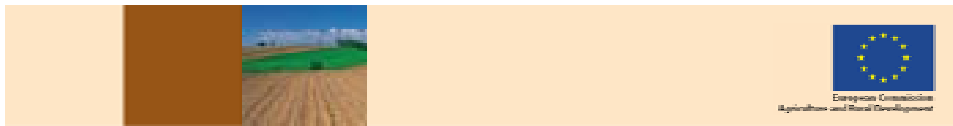
**Directorate General
for Agriculture and Rural Development**

**Unit D.1. – Direct Support
Presentation of the Unit
By Mr. J.J.Jaffrelot - HoU**



Content of this presentation

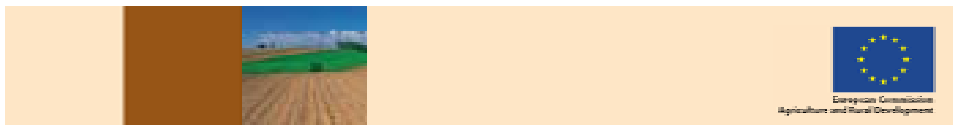
- D1 - What do we do ?
- D1 - Who are we ?
- D1 - What are our responsibilities ?
- D1 - Our planning for the future ?
- D1 - More information ?



Unit D1 – What do we do ? (1)

- Implementation the CAP Reform 2003 -2004
- Management of direct aid schemes representing around 35 billion euros/year distributed to 6 million farmers
- Responsible for the Management Committee for Direct Payments
- Support to the MS and monitoring of the implementation of the direct payments

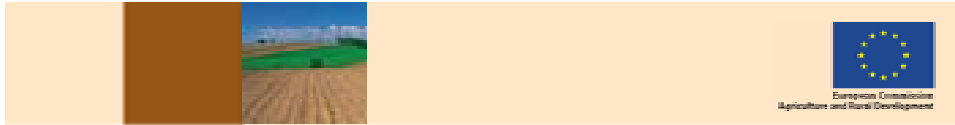
3



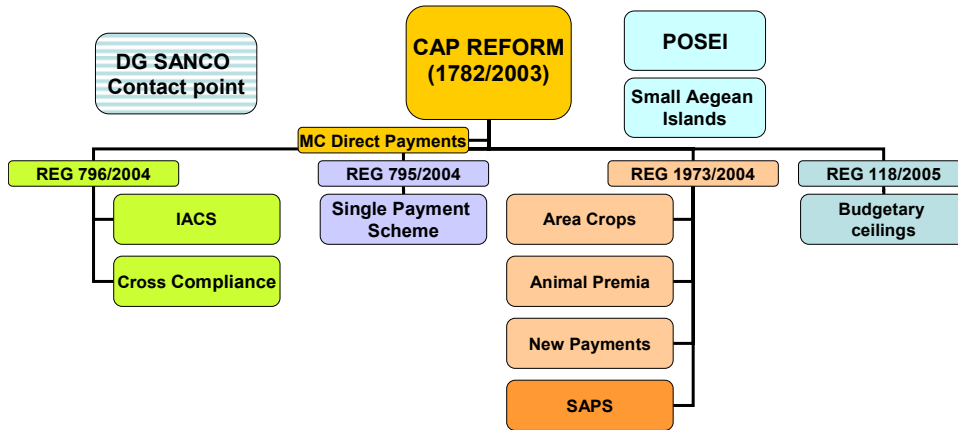
Unit D1 – What do we do ? (2)

- Manage the Regulations involved :
 - Council Regulation (EC) 1782/2003
 - Implementing Regulations: (EC) 795/2004 (SPS), 796/2004 (IACS), 1973/2004 (Direct payments other than SPS), 118/2005 (national budgetary ceilings)
- Support for the outermost regions and the small Aegean Sea Islands
- DG AGRI's contact with DG SANCO

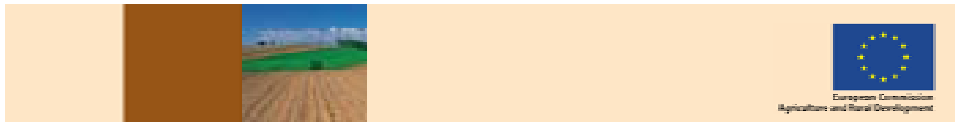
4



Unit D1 Responsibilities



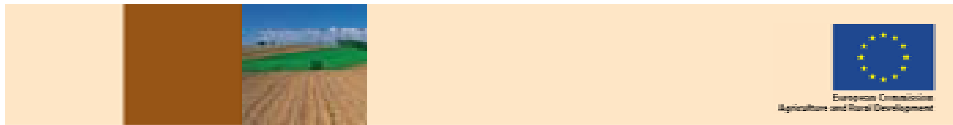
5



Overview of geographical desk officers in D1

- | | |
|----------------------------|--------------------------------|
| ▪ BE Dominique Lottefier | ▪ LU Paola Momoli |
| ▪ CZ Pavel Povolny | ▪ HU Ivan Jozsef |
| ▪ DK Ansa Norman Palmer | ▪ MT Renata Grochowska |
| ▪ DE Michael Pielke | ▪ NL Willemien Boersma |
| ▪ EE Tamas Bori | ▪ AT Manfred Prosenbauer |
| ▪ EL Periklis Kairis | ▪ PL Bart Strojwas |
| ▪ ES Javier Maeztu Nieva | ▪ PT Juan Alvarez de la Puente |
| ▪ FR Marc Osborne | ▪ SL Roland Feral |
| ▪ IE Willemien Boersma | ▪ SK Pavel Povolny |
| ▪ IT Aymeric Berling | ▪ FI Carl Sterner |
| ▪ CY Vassiliki Tsilikas | ▪ SE Carl Sterner |
| ▪ LV Tamas Bori | ▪ UK Periklis Kairis |
| ▪ LT Jesus Melero Martinez | |

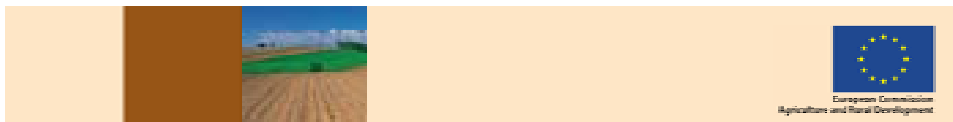
6



D1 – Planning for near future (AMP)

- Cross Compliance experience gained *Jan. 2006*
- Implementation of the sugar reform *Begin 2006*
- Decisions authorising Complementary National Direct Payments *Begin 2006*
- Amending Regulation (EC) No 118/2005 *2006*
- Report on aid for energy crops *End 2006*
- Reform Fruit & Vegetables *End 2006*
- Reform Wine *End 2006*
- Rules related to Farm Advisory System *2006*
- Report Cross Compliance *End 2007*

7



AGRI.D.1 – More information

European Commission DG AGRI Website:

http://europa.eu.int/comm/agriculture/markets/sfp/index_en.htm

Unit D1 ELECTRONIC MAILBOX:

AGRI-DIRECT-SUPPORT@cec.eu.int

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SESSION 1 – Introduction & CAP Reform Implementation

**Chairman:
Jacek Podlewski
ARMA, PL**



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Presentation 1 – CAP implementation in Poland, SAPS

Jacek Podlewski

Agency for Restructuring and Modernisation of Agriculture (ARMA), PL

Abstract

Presentation will shed light onto Polish agricultural statistics including the number of potential applicants, average area of agricultural farms. Having presented basic agricultural data the presentation will then move onto the accreditation process of ARMA with special attention drawn to practical aspects of the process itself. Moreover information on the organizational structure of ARMA in the light of its new responsibilities will be presented. The lecture will be finished off by an overview of CAP mechanisms administered by ARMA.

Keywords: agri-statistics, accreditation, organizational structure, CAP, SAPS.



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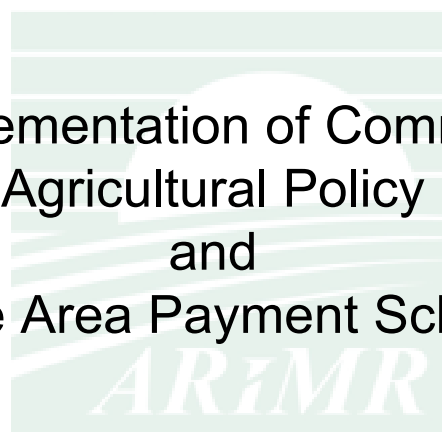
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**Agency for Restructuring
and Modernisation of Agriculture**



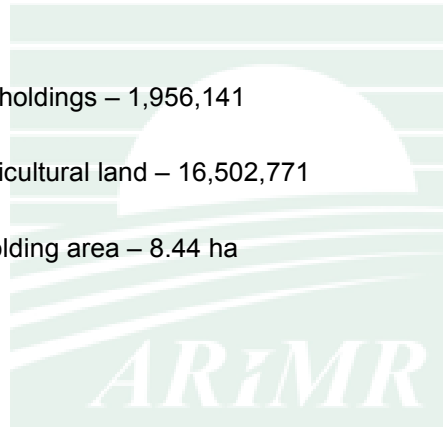
Implementation of Common
Agricultural Policy
and
Single Area Payment Scheme



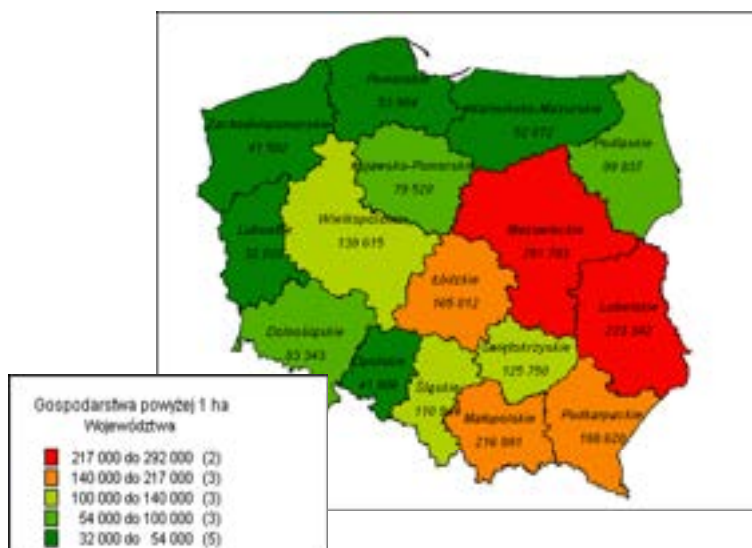


Characteristics of holdings in Poland – statistical data

- Number of holdings – 1,956,141
- Area of agricultural land – 16,502,771
- Average holding area – 8.44 ha

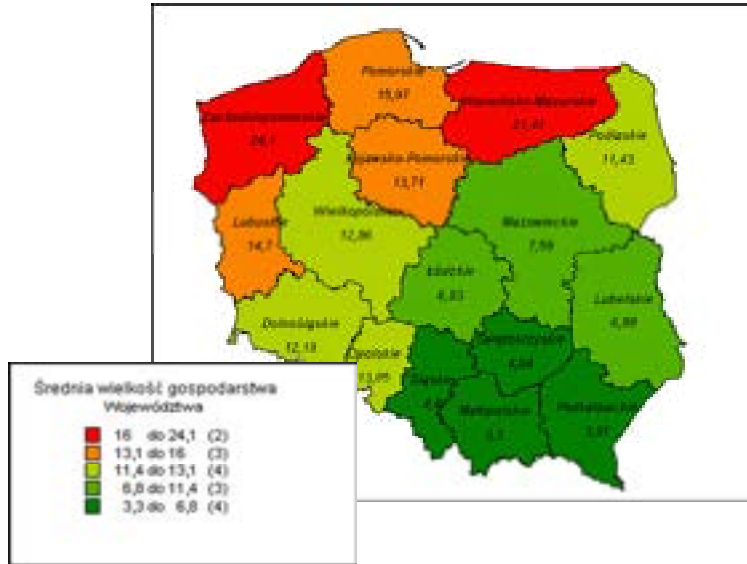


Number of holdings in voivodships





Average area of holdings in voivodships



Number of applications submitted in 2004 and 2005



YEAR	number of registered agricultural producers	number of submitted applications
2004	1,646,710	1,399,819
2005	1,777,713	1,485,833





Preparations for the implementation of CAP instruments

- Information and promotion actions for farmers were carried out in the period 15.10.2003 – 30.06.2004
- ARMA organized **40,327** meetings throughout Poland (in addition, **24,622** complementary meetings were held during application submission period) – **1,059,471** farmers participated in the meetings
- ARMA printed **4 million** information brochures and over **300 thousand** posters
- **303** television spots were broadcast
- ARMA activities were discussed in many radio programmes, articles in national, regional and local press



Accreditation of the Paying Agency

ARMA has currently a conditional accreditation for the following **tasks under Common Agricultural Policy**:

- Direct payments to agricultural land
- Mechanisms within the market of fruit and vegetable products
- Mechanisms within the fruit and vegetable market
- RDP
- Common Fisheries Policy



Organization structure of ARMA – 3 administration levels



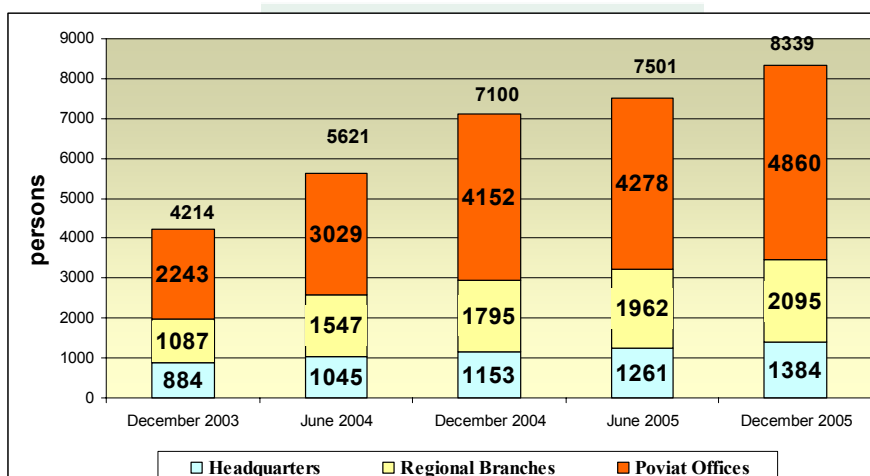
ARMA Headquarters

Regional Branches of ARMA in every voivodship (16)

Poviat offices – in every poviat, excluding towns and cities functioning as poviats (314)



Employment structure in ARMA





System of direct payments in Poland

Single Area Payment (SAP):

- in 2004 – 25%
 - in 2005 – 30%
 - in 2006 – 35%
- of payment whereto EU farmers are currently entitled

Complementary Area Payment (CAP)

may increase SAP up to the amount of.

- in 2004 – 55% (36%)
- in 2005 – 60% (39%)
- in 2006 – 65% (42%)

of payment whereto EU farmers are currently entitled



Direct payments in Poland in 2004 r.

- **Single Area Payment (basic)** to agricultural land in good agricultural condition
arable land, permanent pastures, multiannual plantations, kitchen gardens
- **Complementary payments – four sectors:**
 - tobacco (AMA)
 - starch potatoes (AMA)
 - hop
 - **other plants** (cereals, oil plants, fibre plants, leguminous plants, forage plants, grasslands, pastures – in accordance with the list provided in the Ordinance of the Council of Ministers)

Lack of animal premiums



Requirements for persons applying for direct payments in Poland in 2004 r.

- possession of an agricultural holding with at least 1 ha of agricultural land in good agricultural condition, consisting of agricultural parcels of at least 0.1 ha
- possession of a single identification number of an agricultural producer allocated through IACS system
- possession of a bank account

ARiMR



Administrative control

Administrative control consists of the examination of:

Simple control:

- date of submitting the application
- personal data
- data concerning cadastral parcels included in the application
- data concerning the holding
- agricultural parcels within a given application in order to prevent double payment
- examination whether the size of an agricultural parcel does not exceed the size of cadastral parcel within which it is located

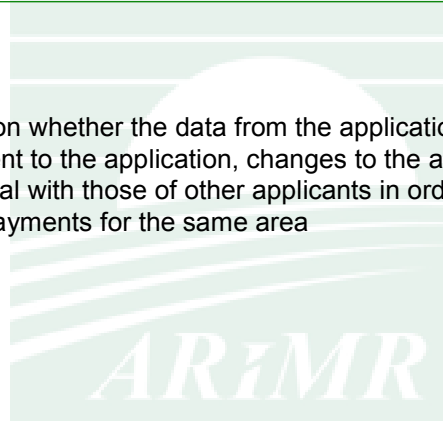
ARiMR



Administrative control

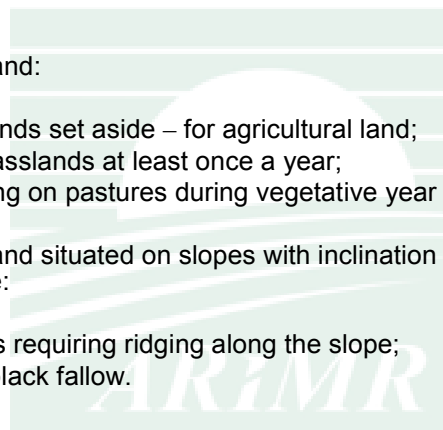
Cross-check:

- examination whether the data from the application, complement to the application, changes to the application are not identical with those of other applicants in order to prevent multiple payments for the same area



Requirements for good agricultural conditions - I

- Agricultural land:
 - 1) cropping or lands set aside – for agricultural land;
 - 2) mowing of grasslands at least once a year;
 - 3) pasture grazing on pastures during vegetative year
- Agricultural land situated on slopes with inclination exceeding 20 ° should not be:
 - 1) used for crops requiring ridging along the slope;
 - 2) set aside as black fallow.



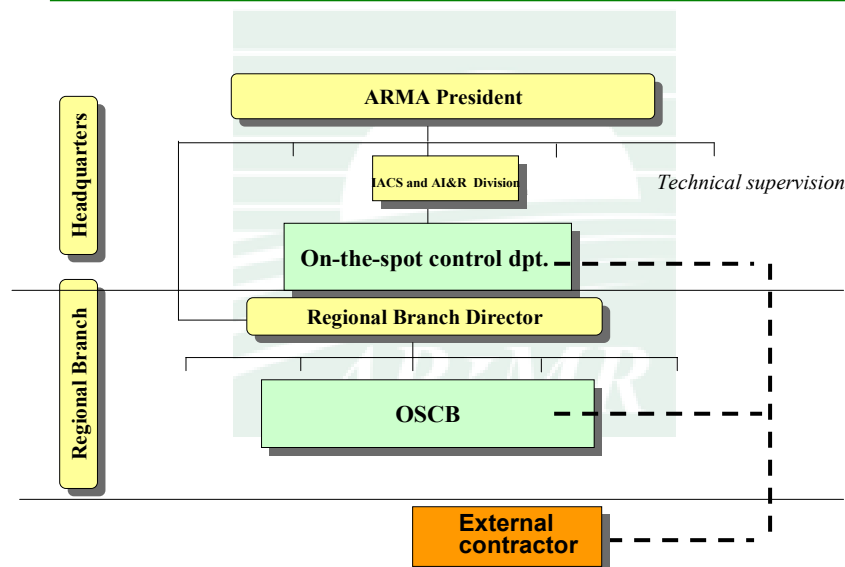


Requirements for good agricultural conditions - II

- **Agricultural land is assumed to be set aside if:**
 - 1) it has not been cultivated for more than 6 months or
 - 2) it is not mown at least once a year before 15 June.
 - 3) the land should not be set aside for more than 5 years.
- **Grasslands and pastures should not be burnt**
- Agricultural land should not be afforested or shrubbed except for trees and shrubs important for the protection of water and soil.



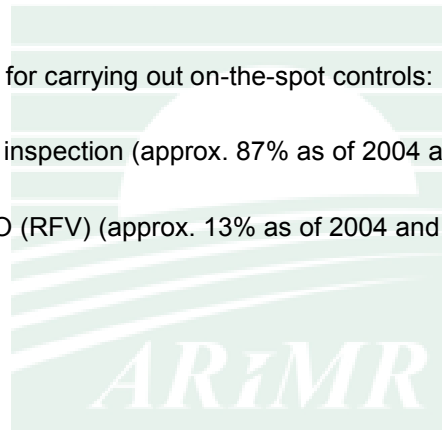
Solutions for on-the-spot control adopted by ARMA





On-the-spot control – methodology

- Methods for carrying out on-the-spot controls:
 - Field inspection (approx. 87% as of 2004 and 2005)
 - FOTO (RFV) (approx. 13% as of 2004 and 2005)



On-the-spot control – number of holdings selected for control



voivodship	Total number of producers in 2004	Total number of producers in 2005
dolnośląskie	2,958	3,575
kujawsko-pomorskie	3,306	3,898
lubelskie	8,253	10,257
lubuskie	1,451	1,343
łódzkie	10,895	7,432
małopolskie	6,297	7,976
mazowieckie	14,304	12,381
opolskie	1,885	3,383
podkarpackie	6,227	7,262
podlaskie	3,836	4,686
pomorskie	2,006	4,490
śląskie	2,555	3,184
świętokrzyskie	4,281	10,643
warmińsko-mazurskie	3,069	4,758
wielkopolskie	5,910	6,943
zachodniopomorskie	1,842	3,808
Total	79,075	96,019



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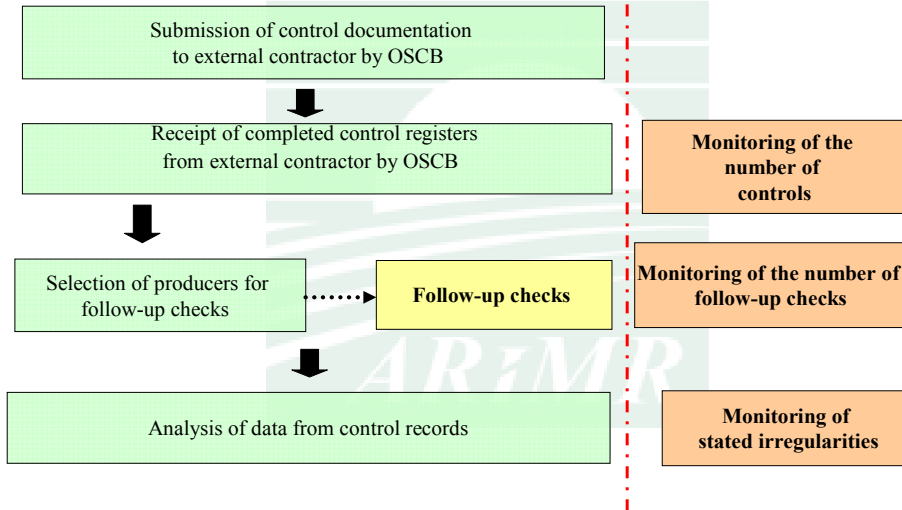


Costs of delegating control functions in 2004 and 2005

Method for on-the-spot control	Unit cost 2004 (EUR)	Unit cost 2005-2006 (EUR)	2005-2006 costs to 2004 costs ratio
Method of field inspection [1 ha]	14.60	7.13	48.74%
FOTO (RFV) method [1 holding]	102.90	51.5	50.13%



Rules for monitoring of delegated functions



Total employment for on-the-spot control services

- Headquarters employees supervising on-the-spot control of direct payments – 23 persons
- Head of OSCB – 16 persons
- Documentation Preparation and Service Unit – 95 persons
- Field inspectors (+ heads of sections) – 262 persons
- Temporary field inspectors – 236 persons
- External Contractors – 2400 persons

Total employment approx. 3000



On-the-spot control – inspectors' equipment

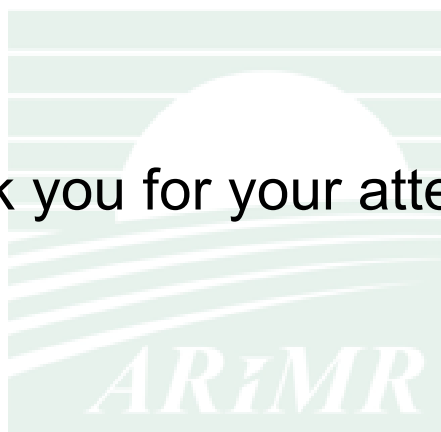


	DOLNOŚLĄSKIE	KUJAWSKO-POMORSKIE	LUBELSKIE	LUBUSKIE	ŁÓDZKIE	MAŁOPOLSKIE	MAZOWIECKIE	OPOLSKIE	PODKARPACKE	PODLASKIE	POMORSKIE	ŚLĄSKIE	ŚWIĘTOKRZYSKIE	WARMINSKO-MAZURSKIE	WIELKOPOLSKIE	ZACHODNIOPOMORSKIE	TOTAL
Cars	10	10	22	8	18	22	28	8	20	12	10	14	12	10	16	8	228
Tachimeters	2	2	3	2	2	3	3	2	3	3	2	2	3	2	3	2	39
GPS	8	8	20	6	16	20	26	6	17	9	8	12	9	8	13	6	192
Digital cameras	20	20	22	12	20	22	28	18	20	20	20	20	20	20	20	16	318
Auxiliary measurement equipment (measuring tape, rolling tape measure etc.)	15	17	34	7	21	37	43	11	24	24	10	19	21	21	25	8	337

Works on improvement of in-field communication – Mobile Inspector project implementation planned for the end of 2005



Thank you for your attention



Jacek.Podlewski@arimr.gov.pl



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Presentation 2 – Implementation of the CAP reform

Ansa Norman-Palmér
European Commission, DG Agriculture and Rural Development

Abstract

The presentation covers the implementation of the CAP Reform and the Single Payment Scheme and the individual choices made by the Member States. The presentation also includes the chosen implementation of the so called second wave of the reform, the regimes for cotton, olive oil and tobacco. Ten of the old Member States implemented the reform as from 2005 the remaining five will implement it in 2006. The new Member States will implement the Single Payment Scheme in 2009 at latest.

Keywords: CAP Reform, Single Payment Scheme



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Implementation of the CAP reform

Ansa Norman Palmér, DG AGRI D1
Krakow 23-25 November 2005

*Disclaimer CE DG-AGRI:
 This information represents solely the views of its author and can not in any circumstances be regarded as the official position of the Commission.*




When will the reform be implemented?



Year	Member States
2005	Austria, Belgium, Denmark, Germany, Ireland, Italy, Luxemburg, Portugal, Sweden, UK
2006	Finland, France, Greece, Netherlands, Spain
2007	Malta, Slovenia
2009 at the latest	Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia




Which model have the MS chosen?



Historical model	Regional model	
	Static Hybrid	Dynamic Hybrid
Austria, Belgium, France, Greece, Ireland, Italy, Netherlands, Portugal, Spain, UK-Scotland, UK-Wales	Denmark, Luxemburg, Sweden, UK-Northern Ireland	Finland, Germany, UK-England

3

(1) How will the historical models be implemented?



Member States	Regions	Re-coupling National envelope (art 69 of R.1782/2003) Deduction for work program (art 110i of R. 1782/2003)
Austria	No	-suckler cow premium 100% -slaughter premium for bovine 40% -slaughter premium for calves 100% -hops payments 25%
Belgium	Flanders + Brussels	-suckler cow premium 100% -slaughter premium for calves 100% -seeds (partial) 100%
Belgium	Wallonia	-suckler cow premium 100% -seeds (partial) 100%

4



(2) How will the historical models be implemented?



Member States	Regions	Re-coupling National envelope (art 69 of R.1782/2003) Deduction for work program (art 110i of R. 1782/2003)
France	No	-suckler cows 100% -slaughter premium for bovine 40% -slaughter premium for calves 100% -ewe premium 50% -cereals 25% - <i>seeds partial</i> - tobacco 60% -outermost regions 100% Art 110i, 10 % deduction
Greece		-seeds 100% Art 69: 10% arable crops and bovine sector, 5% ovine sector, 4 % olive oil and 2% tobacco Art 110i, 5 % deduction
Ireland	No	None

The text in *italics* are based on informal information

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(3) How will the historical models be implemented



Member States	Regions	Re-coupling National envelope (art 69 of R.1782/2003) Deduction for work program (art 110i of R. 1782/2003)
Italy	No	-seeds 100% -tobacco 60%, except the region for Puglia Art 69: 7% in arable, 8% in bovine and 5% in ovine sector Art 110i, 5 % deduction
Netherlands	No	-slaughter premium for bovine 100% -slaughter premium for calves 100% -seeds for linseed 100%
Portugal	No	-suckler cow premium 100% -slaughter premium for bovine 40% -slaughter premium for calves 100% -ewe premium 50% -seeds 100% -tobacco 50% -outermost regions 100% Art 69: 1% arable crops, rice, bovine and ovine sector and 10% in olive oil sector

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(4) How will the historical models be implemented



Member States	Regions	Re-coupling National envelope (art 69 of R.1782/2003) Deduction for work program (art 110i of R. 1782/2003)
Spain	No	-suckler cow premium 100% -slaughter premium for bovine 40% -slaughter premium for calves 100% -ewe premium 50% -arable crops 25% -seeds 100% -olive oil (rate to be confirmed) -tobacco (rate to be confirmed) -outermost regions 100% Art 69: 5% tobacco sector, 7% bovine sector, 10% dairy payments and cotton sector
UK	Scotland	None Art 69: 10% in bovine sector
UK	Wales	None

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(1) How will the static/hybrid models be implemented?



Member States	Regions	Model	Re-coupling National envelope (art 69 of R. 1782/2003)
Denmark	One region	Initially lower amounts for permanent pasture, will increase and be equal for all areas in 2001 Historical basis for top-ups: -ewe premium 50% -suckler cow premium 64%, 28% in 2012 -special premium 16%, 7% in 2012 -slaughter premium 64%, 28% in 2012 -dairy premium 59.5% in 2005 and 73% in 2006	-special premium 75% -ewe premium 50%
Luxemburg	One region	Historical basis for top-ups: -area payments 65% -special premium 65% -slaughter premium 65% -additional payments for bovines 65% -ewe premium 65% -seeds 65% -suckler cow premium 85% -dairy payments 85%	None

8



(2) How will the static/hybrid models be implemented?



Member States	Regions	Model	Re-coupling National envelope (art 69 of R. 1782/2003)
Sweden	5 Regions	Lower amount for pasture land Historical basis for top-ups: -dairy 67.5% (in 2007) -suckler cows 50% -extensification premia 50% -slaughter premium 40% -supplementary area payment 100%	-special premium 74.55% Art 69: 0.45% for all sectors
UK	Northern Ireland	Historical basis for top-ups: -suckler cow premium 100% -special premium 50% -slaughter premium adults 50% -slaughter premiums calves 100% -dairy premium -ewe premium 65% -ewe premium LFA top-up 20% -area payments 80% -dried fodder 80%	None

9

(1) How will the dynamic/hybrid models be implemented?



Member State	Regions	Model	Re-coupling National envelope (art 69 of R. 1782/2003)
Germany	Bundesländer	Moving to a total flat rate Different amount for grassland initially Historical basis in 2005 for top-ups: -suckler cow premium 100% -special premium 100% -slaughter premiums for calves 100% -extensification premium 50% -ewe premium 100% -dairy premium 100% -de-coupled part of dried fodder -de-coupled part of starch 25%	-hops payments 25% -tobacco payment (until 2009) 60%


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(2) How will the dynamic/hybrid models be implemented?



Member States	Regions	Model	Re-coupling National envelope (art 69 of R. 1782/2003)
UK	England normal	Moving to a total flat rate starting with 90% historical to be 0% in 2012	None
UK	England SDA non moorland	A lower flat rate than England normal	None
UK	England SDA moorland	A lower flat rate than England non moorland	None
Finland	3 Regions	Historical basis for top-ups: -special premium 30% -dairy payments 100% -de-coupled part of starch 40% To be transferred to flat rate by 2016	-special premium 75% -ewe premium 50% -seeds Art 69: 2.1% arable sector and 10% bovine sector



Presentation 3 – Controls in CAP reform (SPS, and cross-compliance)

Marc Ricker

European Commission, DG Agriculture and Rural Development

Abstract missing

Reform of the CAP

Effect on the On the spot checks (via RS)

Nothing new ! ?

(Re-)orient the controls

- No need to produce but to keep in GAEC - exclusion of certain crops
- Set-aside remains
- Specific crops – conditions remain
F&V: not authorised / authorised / authorised in a certain period



(Re-)orient the controls (ctd)

=>Timing of the OTS

crops on field / no longer on field
after certain dates

=> Change in the selection of parcels to visit / to measure.

Points of attention

- Inclusion of special features - Art.30(3) of R.796/2004
- The need to determine the area for the same parcel twice
cf. re-coupling crops + olive trees / aid for a specific crop
- Olive trees:
 - based on position not area
 - new trees planted after 1998



The Cross-compliance

- Permanent Pasture – check of authorisation to plough / obligation to reconvert.
- Specific GAEC (area in general / olive trees in particular) => Control via RS ?

Recent findings

- Selection of parcels to visit is not always « risk » oriented.
 - Not always a RFV when doubts at photo-interpretation.
 - RFV are sometimes too « rapid visit »
 - Photos are too old.
- => ??



Presentation 4 – Implementation of the Single Payment Scheme (SPS) in England

Gillian Mann
Rural Payments Agency, UK

Abstract

The presentation will give an overview of how SPS is being implemented in England within the UK. While it will not specifically cover the implementation of SPS in the other countries within the UK (i.e. Scotland, Wales and Northern Ireland), it will highlight those key areas where these countries have adopted different approaches and what those approaches are.

The presentation will cover the following areas:

Decoupling – why England has adopted full decoupling.

Regionalisation – why SPS is being implemented differently in different parts of the UK.

Entitlements – brief explanation of the role of entitlements.

National Reserve – role of the Reserve and the categories under which farmers can apply.

Payments – why England had adopted dynamic hybrid model, i.e. leading to flat rate model.

10 month rule – dates adopted in England.

National envelope – why England has not adopted this option.

Modulation – why England has set a higher rate than the minimum compulsory rate.

The application process – brief details of the application deadline and what farmers declared on the application.

Cross compliance – a list of the SMRs and GAECs adopted in England and how they are being controlled, including brief mention of the pilot use of remote sensing as a control mechanism.



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SINGLE PAYMENT SCHEME

Gillian Mann,
Rural Payments Agency



CAP Reform Agreement

- Broke link between production and subsidies
- Farmers paid for cross-compliance: environment, animal welfare, food safety and good agricultural practice
- Payments modulated
- Set aside retained





English model

- UK operating SPS separately in 4 regions, i.e. England, Scotland, Wales and N. Ireland
- 3 English areas: Moorland/ SDA/Non-SDA
- England de-coupled in 2005, including dairy
- Flat rate payments based on 2005 area
- 8 year transition – 10% flat rate in 2005, then 15; 30; 45; 60; 75; 90. 100% flat rate in 2012
- Balance allocated on historical basis
- **Modulation Rates:**

Year	Compulsory EU rate	Additional national rate	Overall rate
2005	3%	2%	5%
2006	4%	6%	10%
2007	5%	Not yet set	Not yet set



Other UK regions

- Also de-coupled from 1 January 2005
- Scotland
 - Pure historic option
 - National envelope for quality calf production
 - Voluntary modulation
- Northern Ireland
 - Static, vertical hybrid option
 - Flat rate 20% arable, 50% SAPS,BSPS,SPS
- Wales
 - Historic option
 - Voluntary modulation





Timeline for introducing SPS in England

- **22 July 2004:** Minister's announcement
- **July – August 2004:** Sending out of information statements completed
- **1 October 2004:** First date for start of 10 month period for farmers to have land at their disposal
- **Autumn 2004:** Information booklets sent out on set-aside & cross-compliance
- **1 Jan 2005:** Scheme year started. Cross-compliance began



Timeline for introducing SPS in England (cont.)

- **15 Jan 2005:** Set - aside period began
- **March 2005:** Application forms & Scheme Rules sent out
- **16 May 2005:** Deadline for receipt of application forms
- **31 August 2005:** Set-aside period closed
- **December 2005:** Payment window opens





Entitlements

- Establishment- creation of the asset giving right of entry to the scheme
 - Activation – using the entitlement to generate a payment
- Establishing an entitlement:**
- Must be a farmer carrying out an agricultural activity
 - Must be ‘managing’ eligible ha –
“The agricultural area of the holding taken up by arable land and permanent pasture except area under permanent crops, forests or used for non-agricultural activities” (Article 44.2 of 1782/2003)
- Activating an entitlement:**
- Land must be at farmer’s disposal for at least 10 months starting from a date not earlier than 1 September of preceding calendar year and not later than 30 April (in England, period restricted to 1 October – 30 April) – in 2006, farmers can use 2 different 10 month periods.
 - Need to activate an entitlement once in 3 years



Agricultural activity:

“...the production, rearing or growing of agricultural products including harvesting, milking, breeding animals and keeping animals for farming purposes, *or maintaining the land in good agricultural and environmental condition as established under Article 5.*” (Article 2(c) of 1782/2003)





Penalties

Two types –

- Eligibility
- Cross – compliance

Eligibility Penalties:

- Late receipt
- Over claiming
- Wrong crop
- Land held for less than 10 months
- Failure to declare all agricultural land

Cross-compliance penalties:

- Based on a matrix, with breaches classified according to:
 - **Intent** (negligent or intentional)
 - **Extent** (on-farm effect or off-farm effect)
 - **Severity** (minimum, medium or high effect)
 - **Permanence** (rectifiable or permanent)
 - **Repetition** (1st breach or 1st – 6th breach)



Cross-compliance

“farmer receiving direct payments shall respect the statutory management requirements referred to in Annex III.....and the good agricultural and environmental conditions established under Article 5”

(Article 3, 1782/2003)

Scope of Cross-compliance:

- *Farmers in receipt of direct payment will be required to respect 3 types of cross compliance:*
 - Statutory Management Requirements (SMR)
 - Presumption of retaining the overall area of permanent pasture
 - Good Agricultural and Environmental Conditions (GAEC)
(Defined by the Member State *on the basis of* the framework set out in **Article 5 and Annex IV**, with an emphasis on **soil protection, and protection of habitats/landscape features.**)





Statutory Management Requirements (SMR)

9 EC Directives and Regulations applicable from 1 Jan 05

Environment	SMR 1	Wild bird cover
	SMR 2	Ground water
	SMR 3	Sewage sludge
	SMR 4	Nitrate vulnerable zones
	SMR 5	Habitats
Public and animal health	SMR 6	Animal identification and registration – Pigs, goats and sheep
	SMR 7 SMR 8	Cattle registration
	SMR 8a	Animal identification and registration – sheep and goats



Good Agricultural & Environmental Conditions (GAEC)

The context: “...to avoid the abandonment of agricultural land and ensure that it is maintained in GAEC...”

GAEC defined:

- Regionally – England, Scotland, Wales and N. Ireland
- Without prejudice to existing Good Farming Practice under RDR and existing agri-environment schemes
- Covers whole holding but only agricultural activities

In England we have 17 GAECs, covering the following areas:





GAEC categories

Soil Management and protection	GAEC 1	General requirements
	GAEC 2	Post-harvest management of land after combinable crop (from harvest to 1 March)
	GAEC 3	Waterlogged soil
	GAEC 4	Burning of crop residues
Management of habitats	GAEC 5	Environmental Impact Assessment – uncultivated land and semi-natural areas & forestry
	GAEC 6	Sites of Special Scientific Interest (SSSI)
	GAEC 7	Scheduled monuments
	GAEC 8	Public rights of way
	GAEC 9	Overgrazing and unsuitable supplementary feeding
	GAEC 10	Heather and grass burning
	GAEC 11	Control of weeds
	GAEC 12	Eligible land which is not in agricultural production
	GAEC 13	Stone walls
	GAEC 14	Protection of hedgerows and water courses
	GAEC 15	Hedgerows
	GAEC 16	Felling of trees
	GAEC 17	Tree preservation orders



Remote sensing pilot check of GAECs

- Our aim: to pilot the concept of undertaking checks using satellite imagery in 2005, rather than to actually control a proportion of our 1% sample.
- Selected 2 zones (BRIG and KILN) for the pilot. Chosen as contain good representation of landscape features covered by GAECs, e.g. include areas of heather and stone walls not found in all parts of England.
- Mike Wooding from RSAC will be presenting some findings of this pilot in a later session.





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Session 2 – Review of 2005 years CwRS Campaign

Chairman:

**Pär Johan ÅSTRAND
JRC, IPSC, Agrifish Unit**



Presentation 1 – Summary Statistics 2005

Paolo Pizziol

JRC, IPSC, Agrifish Unit

Abstract

In 2005, about 163000 applications have been controlled with Remote Sensing in 339 sites, 210 out of them provided with satellite-borne imagery. This year, taking into account the substantial increase of applications and OTS controls, the large majority of MS has increased the rate of CwRS, in particular UK, DK, CY, NL. The use of VHR satellite imagery, compared to the use of aerial-borne VHR photos, prevails on most sites and this has resulted in a higher cost/site rate and a lower number of images/site rate as well. The sites in CZ,DK,ES,UK are more expensive compared to the others (due to the size and to the number of satellite images required) and 73% of the overall EC images budget is used for 7 MS (F,D,E,I,UK,IE,H) collecting the 56% of the total sites.

As preliminary conclusions, in a context of an increasing number of controls wRS, there is a higher rate of rejects compared to the past years, probably due to the increased use of VHR data and also to the stricter rules on area measurements tolerances implemented in some MS.

Keywords: Control with Remote Sensing, sites, satellite-borne imagery, aerial-borne imagery, EC images budget



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Control with Remote Sensing Campaign 2005

Summary statistics
Paolo PIZZIOI
JRC Agrifish



Outline

- General
- Tables delivery status
- 2005 vs 2004 figures
- Charts
- Preliminary conclusions





General

- 24 Member States involved
- 27 Contractors
- 5.5 M applications (4.8 M in 2004), > 163 000 checked with RS
- 339 sites (210 controlled using satellite-borne imagery)
- *Novelties:*
 - CAP reform enforced (e.g. SPS in 10 MS)
 - LPIS GIS available in all MS
 - Cross compliance implemented in all MS (i.e. GAEC controls)
 - 2003 ref.year eligibility checks
 - New management IT tool at JRC: LIODOTNET

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Status

Date of delivery	MS	Contractors	Tables delivery status																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14a	14b	15a	15b	16	17	18	19	20	21	22	23	24
15-oct	BE	AR KL																										
14-nov	BE	CTS																										
04-nov	CZ	GIS AT																										
26-oct	DE	ET AS																										
17-oct	DE	G AF																										
14-oct	DK	D IAS																										
17-nov	EE	AR IB																										
31-oct	EL	LD IBTA																										
15-nov	ES	D AP																										
15-oct	ES	TR AGSATEC																										
21-oct	FR	ON IC et al.																										
17-nov	IE	IC ON																										
24-oct	IT	AG R I S I A N																										
01-nov	CY	GE O I K O N																										
04-nov	LV	L AD																										
17-oct	LT	AI R B C																										
13-nov	HU	F O M I																										
21-oct	MT	AR DC																										
18-nov	NL	GE O R AS																										
18-nov	PL	AR MA																										
15-oct	PT	GE O M E T R A L																										
18-nov	SI	IA FF																										
18-nov	SK	V U P U																										
28-oct	FI	M M M																										
08-nov	SE	M E T R I A																										
08-nov	UK	RS AC																										

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Summary statistics available to date

- **> 90%** controlled applications covered
- 23 tables sets collected (4 contractors missing)
- 4 delivered in time, 4 within the following week
- Avg delivery delay: **2 weeks**
- **Feedback** field inspection: results missing
- **Cost tables** empty 9/23, partial 4/14

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2005 vs 2004: sites and controls

- Sites 339 > 284 (with sat images EU financed: 210 > 155)
 - The increase (+35%) is due to VHR/HR sat/sites
- Number of OTS checks
 - 6.7% < 7% (but total applications + 14%)
- Number of dossiers CwRS:
 - 163 000 > 153 000 (+6.5%)
- EU: 44.5% of OTS are performed with RS(46% in 2004)
 - 4 MS this rate is below 5% (SI,LT,EE,FI)
 - 3 MS this rate is between 12-34% (PL,EL, LV*)
 - 17 MS this rate is above 50%

6

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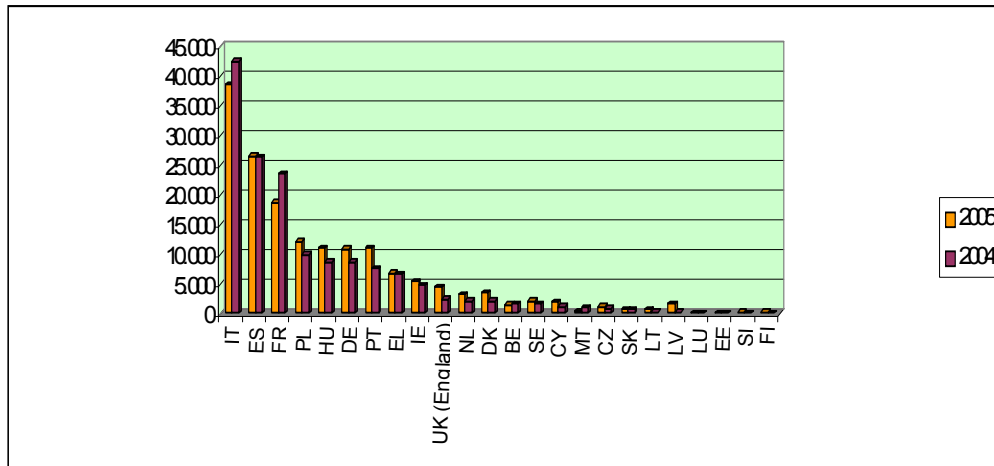
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2005 vs 2004: CwRS dossiers

Joint Research Centre



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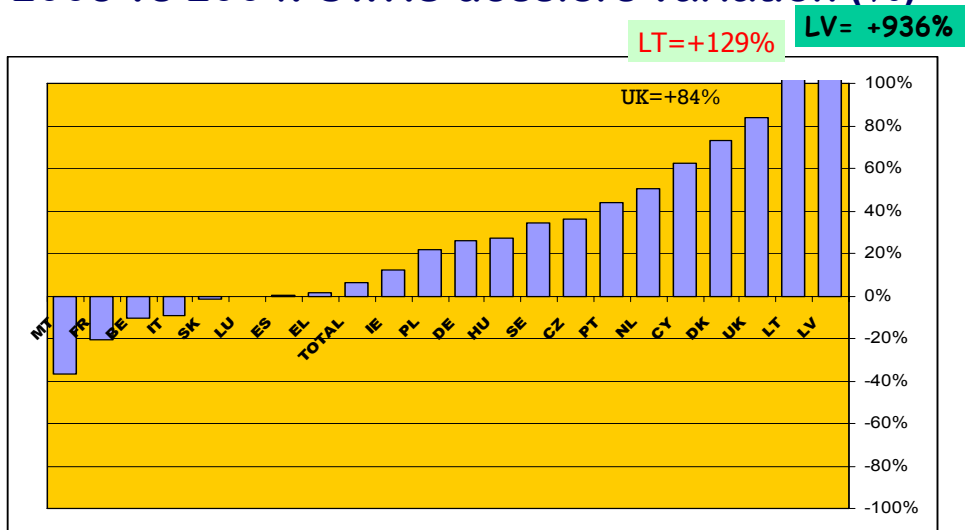
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2005 vs 2004: CwRS dossiers variation (%)

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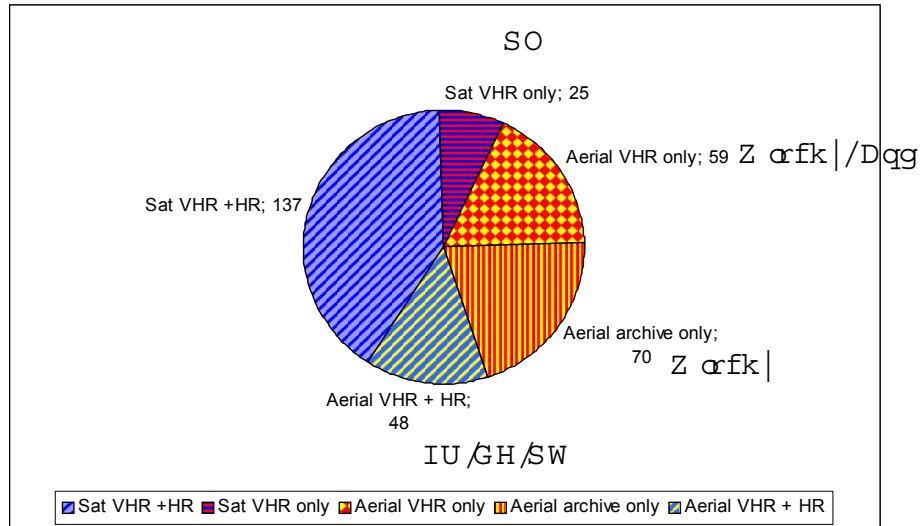
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Methodology/site



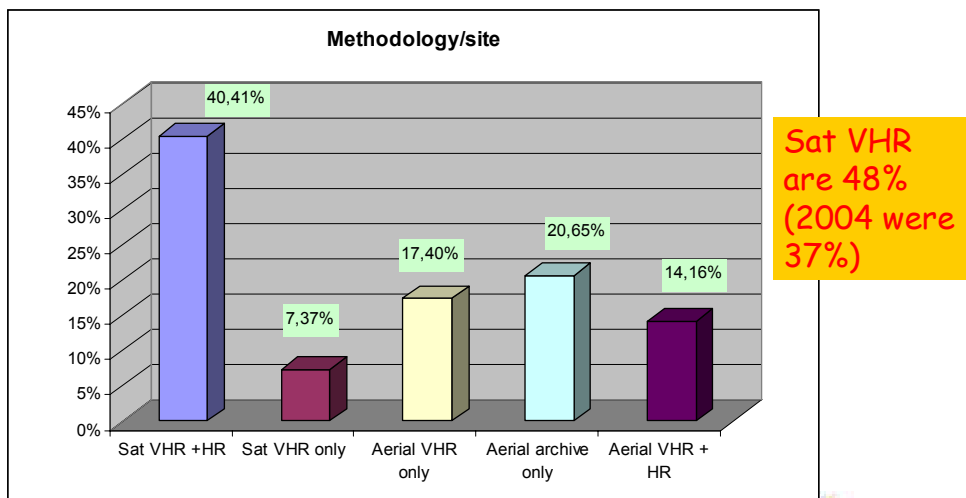
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Methodology/site (%)



Sat VHR are 48% (2004 were 37%)

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2005 vs 2004: image budget (EC DG AGRI)

Total budget (EU)

5 M > 3.3 M Euros (+51%!)

Avg cost/site (EU)

24 000 > 20 900 (+15%)

Avg n.images/site (total number almost stable > 950)

4.5 < 6.2

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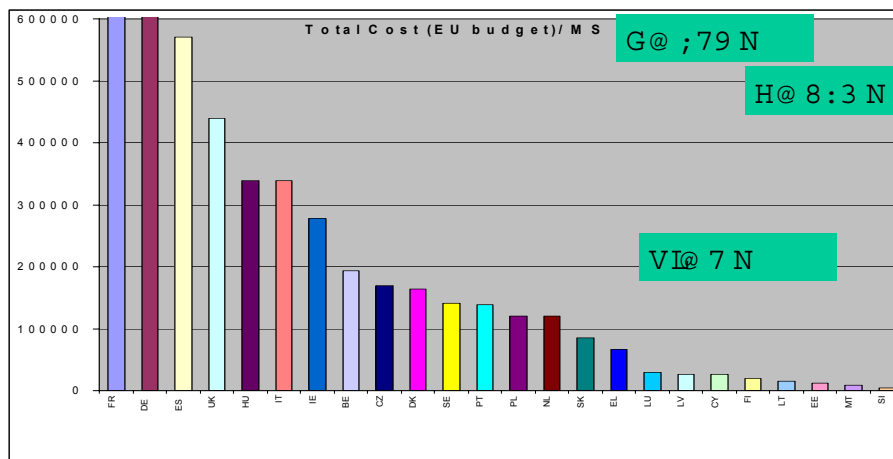
EU CwRS budget repartition:

F= 17,6% (21% of sites)

D=16.7% (13% of sites)

E+I+E+UK+H= 39% (21.9% of sites)

I@ ; <4 N



12

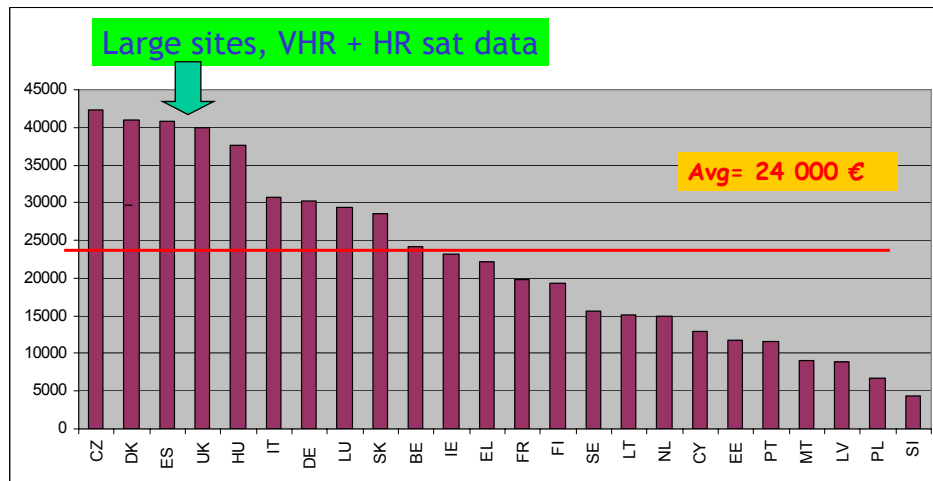
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Cost/site (images)



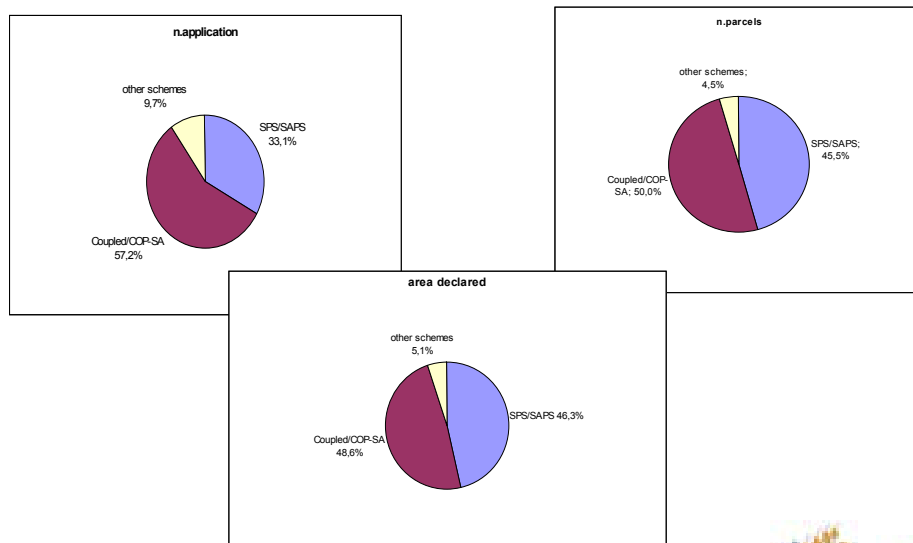
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Schemes rate (150 000 dossiers)



14

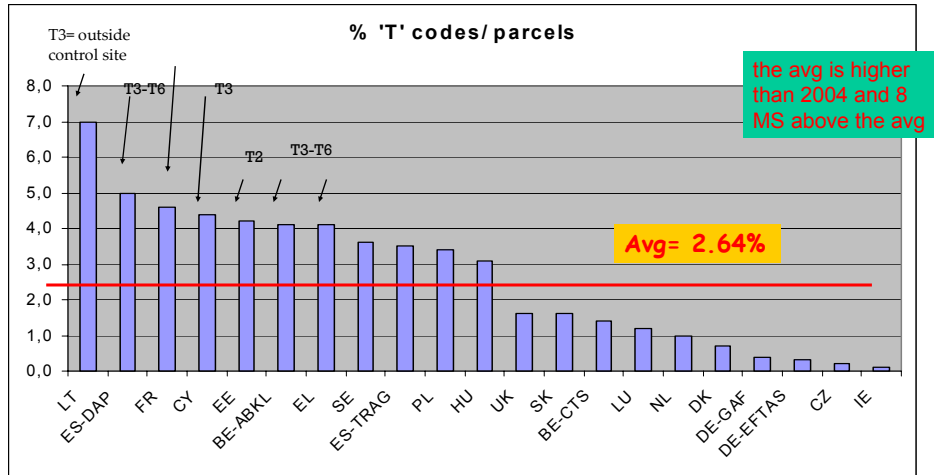
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'T' codes

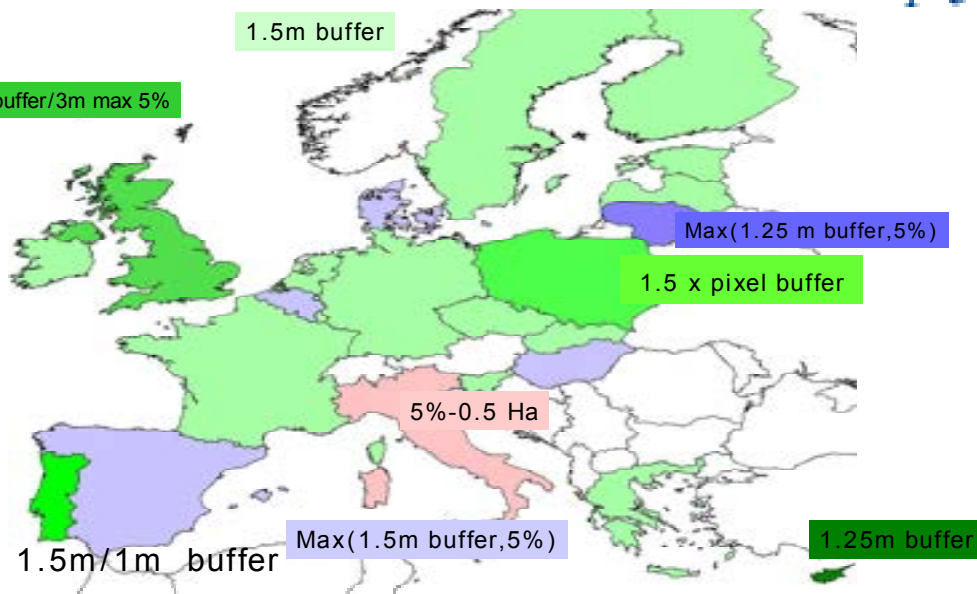


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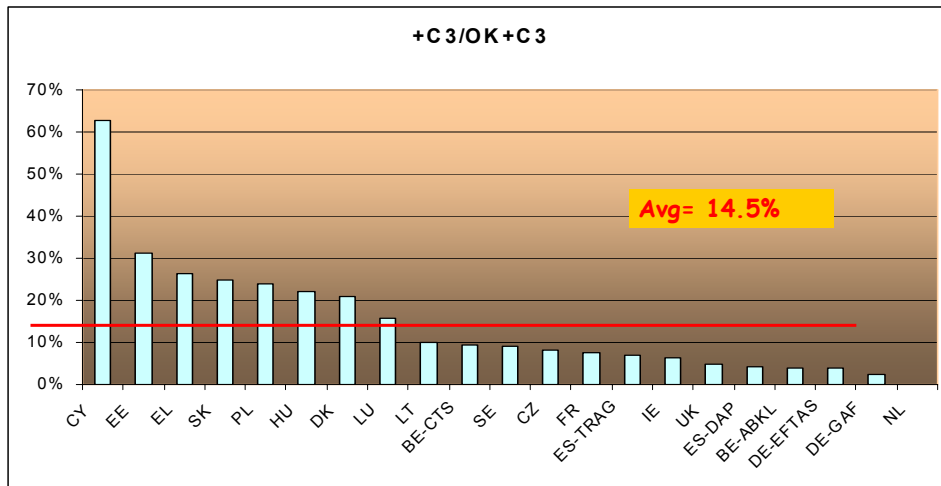
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'C3+' codes (at parcel level)

Avg much lower than 2004



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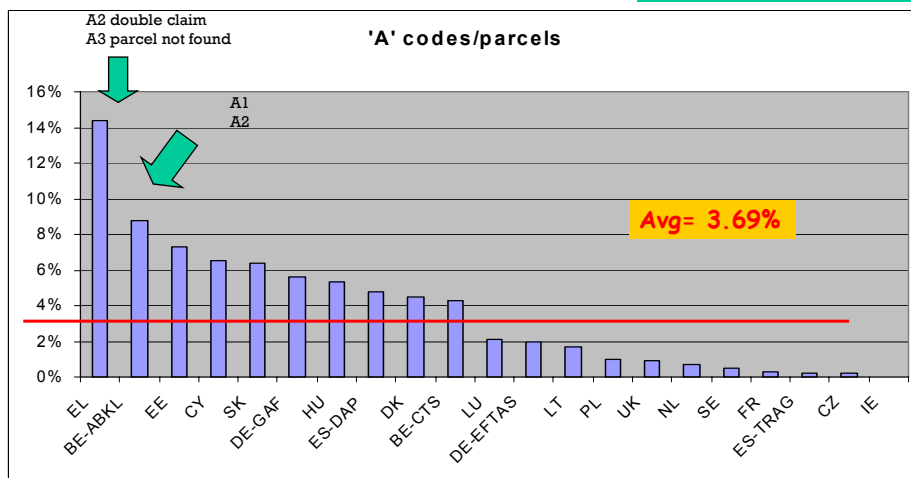
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'A' codes

Very close to 2004



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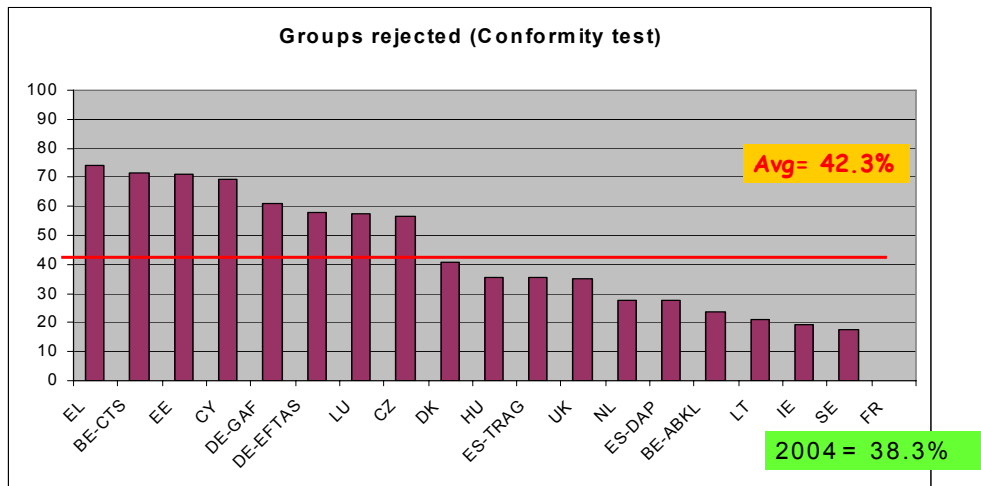
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Conformity test (1)



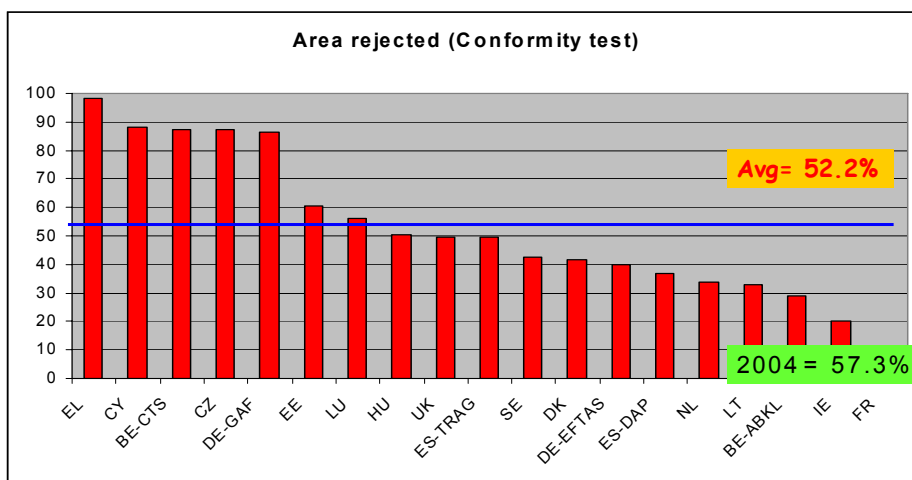
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Conformity test (2)



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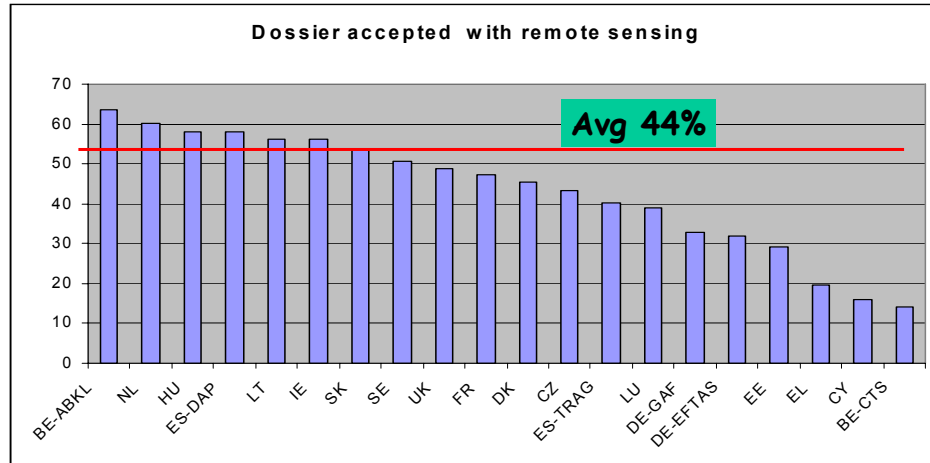
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Global results (main schemes): accepted dossier



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Conclusions (preliminary)

- **Higher rate of rejects compared to 2004 (trend of last 3 years confirmed)**
- **Increasing** (compared to 2004):
 - n.applications,
 - n.controls with RS
 - n.sites,
 - DG AGRI budget x RS,
 - images cost/site
- **Stable:** overall image number
- **Decreasing:** n.image/site
- **GAEC checks:** CwRS only by IE?

Thanks for your attention!!

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Presentation 2 - Results of the Quality Control of 2004 Campaign

Hervé Kerdiles

JRC, IPSC, Agrifish Unit

Abstract

Since the 1996 campaign, each CwRS contractor has to provide the data used and his control results (imagery, vectors and DB in a predefined format) every year on a site selected by the Administration. A quality control (QC) of the contractors' work is then performed on a sample of QC sites by the MARS group in support to the Member States Administrations.

For the 2004 campaign, priority has been given to the new Member States (MS) and contractors from the seven new MS having applied CwRS in 2004 were quality checked against only one (new) contractor from the EU 15. The simplified QC approach which is based on a quick analysis of the QC databases provided followed by a 3-4 days visit at the contractor's premises has been widely used: 6 of the 8 contractors were subjected to this type of QC which is not only limited to checking the contractor's work but also examines the whole control chain and allows to better understand the specific context of each MS.

The results of the QC 2004 will be presented to show all MS non optimal practices and potential problems due to particular systems so that corrective action can be taken where relevant.

Keywords: QC, CwRS.



Results of the Quality Control of the 2004 campaign

Hervé Kerdiles, Andrew Rowlands
JRC IPSC AGRIFISH

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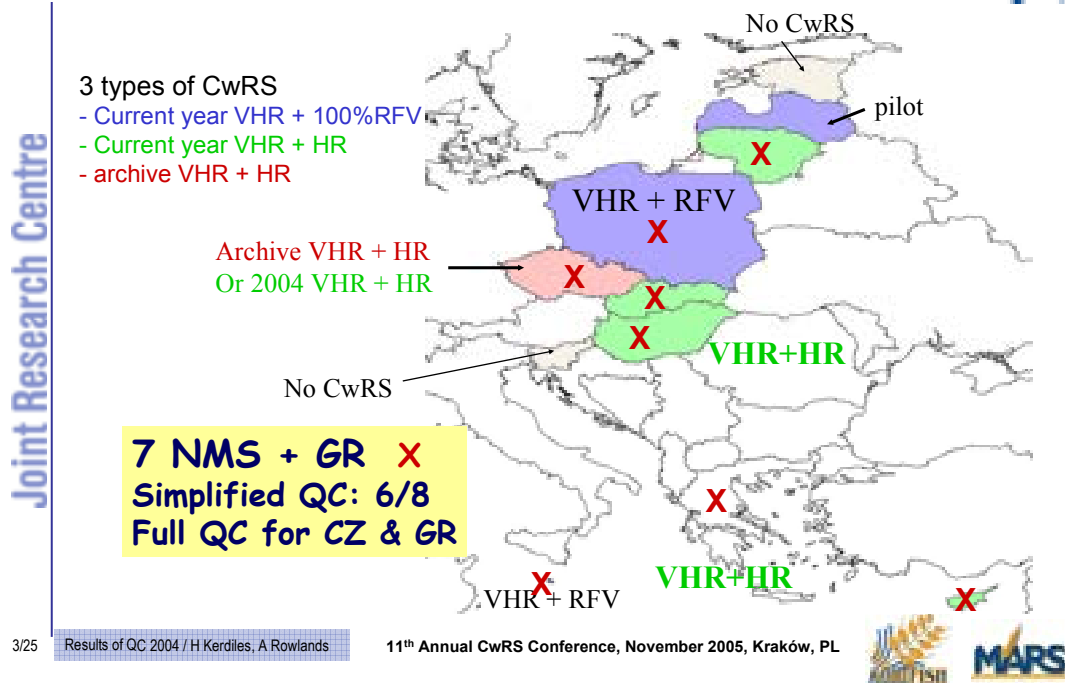
Outline

- **Introduction:** QC data delivery dates, contractors selection and type of QC
- **Findings**
 - Sites and dossiers selection
 - Inaccurate LPIS
 - Overlaps not detected
 - Poor use of (VHR) imagery
 - False over / under-claims
 - Miscellaneous
 - Lack of consistency checks
 - Treatment of parcels below min size
 - CAPI errors





Contractors selected for 2004

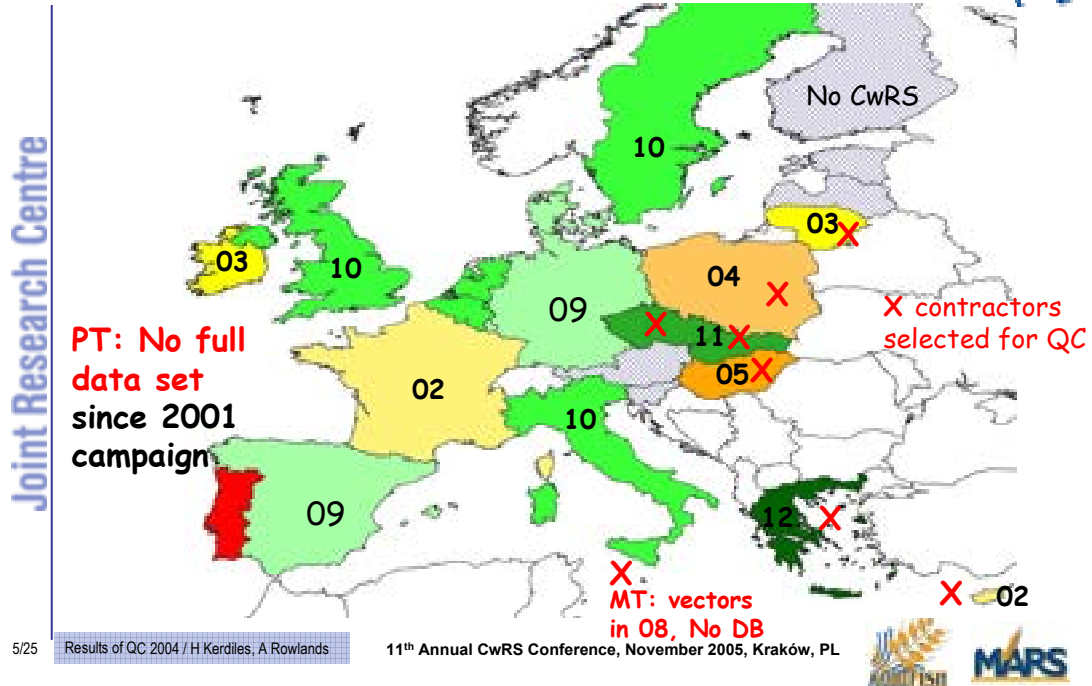


QC checks: **simplified QC** for 6/8 contractors

- Joint Research Centre
- + **Automatic** queries run on QC DB at the JRC
 - control of anomalies
 - consistency checks Remote office check
 - diagnosis checks
 - + **3-5 days visit** at the contractor's premises Rapid Contractor Visit
 - ↳ clarification of anomalies found (lighter reporting)
 - CAPI checks (diagnosis at parcel level) on a sample of dossiers/parcels **on the contractor's system**
 - ↳ avoid artefacts of DB export, better understanding of context
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QC 2004 data delivery



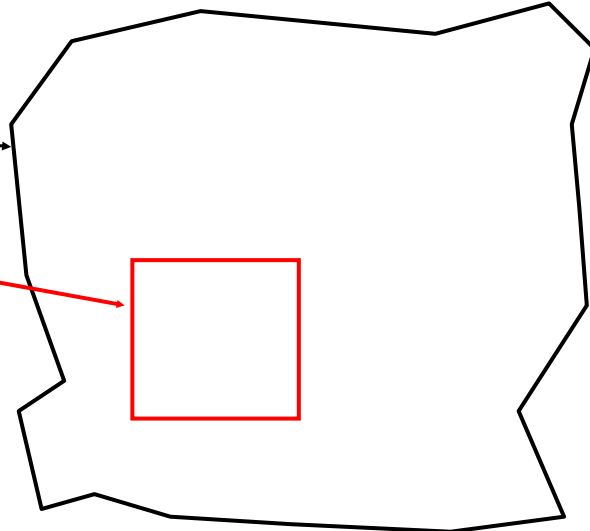
Outline

- QC data delivery dates, contractors selection and type of QC
 - **Findings**
 - **Sites and dossiers selection**
 - Inaccurate LPIS
 - Overlaps not detected
 - Poor use of (VHR) imagery
 - False over / under-claims
 - Miscellaneous
 - Lack of consistency checks
 - Treatment of parcels below min size
 - CAPI errors
- 6/25 Results of QC 2004 / H Kerdlies, A Rowlands 11th Annual CwRS Conference, November 2005, Kraków, PL



PL site selection

1. Selection of poviats in a region (voivoidship)
2. Positioning of **VHR frame** inside poviats



7/25

Results of QC 2004 / H Kerdlies, A Rowlands

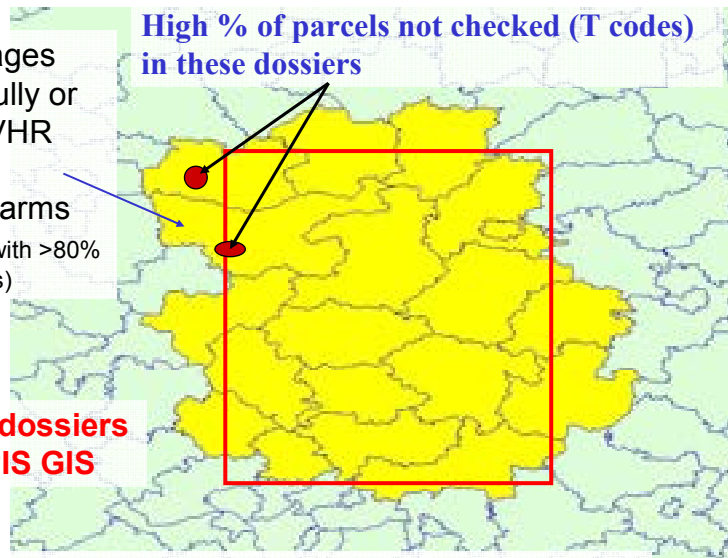
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PL

3. Selection of villages (cadastral districts) fully or partially inside VHR frame
4. Selection of all farms inside villages (with >80% of area inside villages)

High % of parcels not checked (T codes) in these dossiers



➤ **Need to refine dossiers selection with LPIS GIS**

Site = intersection between selected villages & image frame

8/25

Results of QC 2004 / H Kerdlies, A Rowlands

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Sites & dossiers selection (3/4)

SK 12 400 applications
 Control rate: 7.4% -> 913 dossiers
 CwRS: 786 (86%)
 Field insp: 127 (14%)



CwRS: 2 sites selected by **risk analysis** include 2200 dossiers > 786

↳ sampling needed inside sites to select 786 dossiers: 23% random, 77% risk

↳ Total random sample = 23% x 913 = 210 dossiers

Remark 1: Random sample should be 23% of 5% of applic = 143 dossiers instead of 210

Remark 2: 86% of random sample in 2 sites selected by risk analysis
 at MS level, number of random dossiers expected to be in the 2 CwRS sites is
 $210 \times 2 \times 200 / 12\,400 = 37$ dossiers << 186

Reg. respected but random sample may be biased, risk analysis may look poor

9/25

Results of QC 2004 / H Kerdiles, A Rowlands

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Sites & dossiers selection (4/4)

- CY: 5.1% OTS checks
 - Classical inspections: 40% of OTS checks, 20% random, 80% risk analysis
 - CwRS: 60% of OTS checks on 2 sites selected ... at random, all dossiers with 80% area falling inside site selected

↳ random sample = **68% of OTS checks** >> 20-25%

- MT: 20% OTS checks
 Random sample 25% of 20% sample = **5%** of all applications
 instead of 1 - 1.25% of all applications

10/25

Results of QC 2004 / H Kerdiles, A Rowlands

11th Annual CwRS Conference, November 2005, Kraków, PL



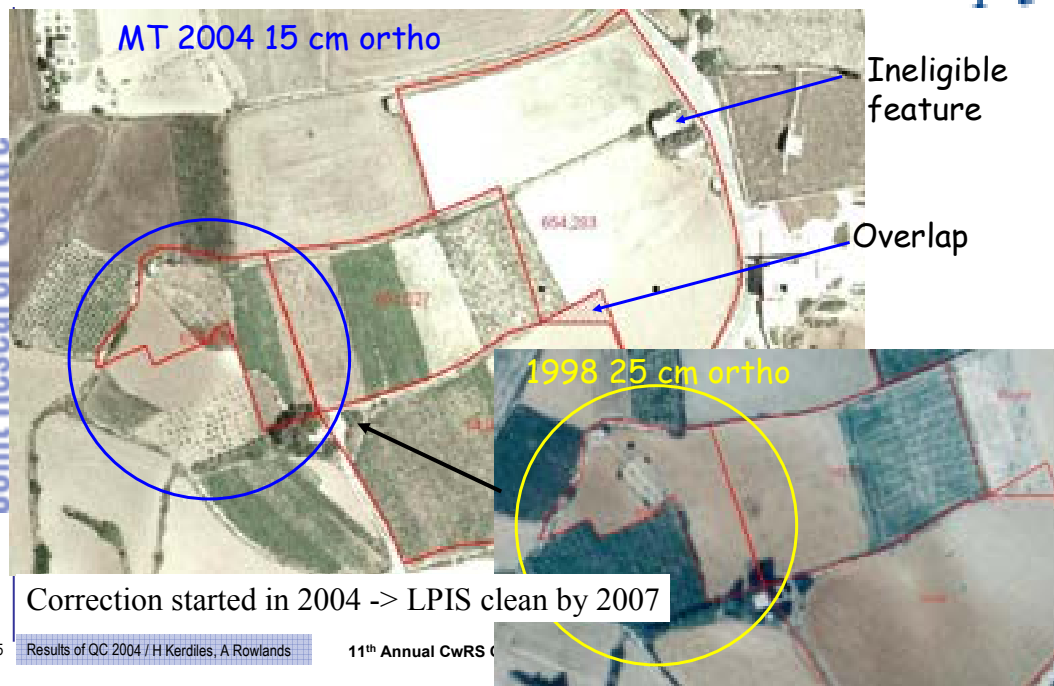


Outline

- QC data delivery dates, contractors selection and type of QC
- **Findings**
 - Sites and dossiers selection
 - **Inaccurate LPIS**
 - Overlaps not detected
 - Poor use of (VHR) imagery
 - False over / under-claims
 - Miscellaneous
 - Lack of consistency checks
 - Treatment of parcels below min size
 - CAPI errors



LPIS updating needed





Overlap in LPIS

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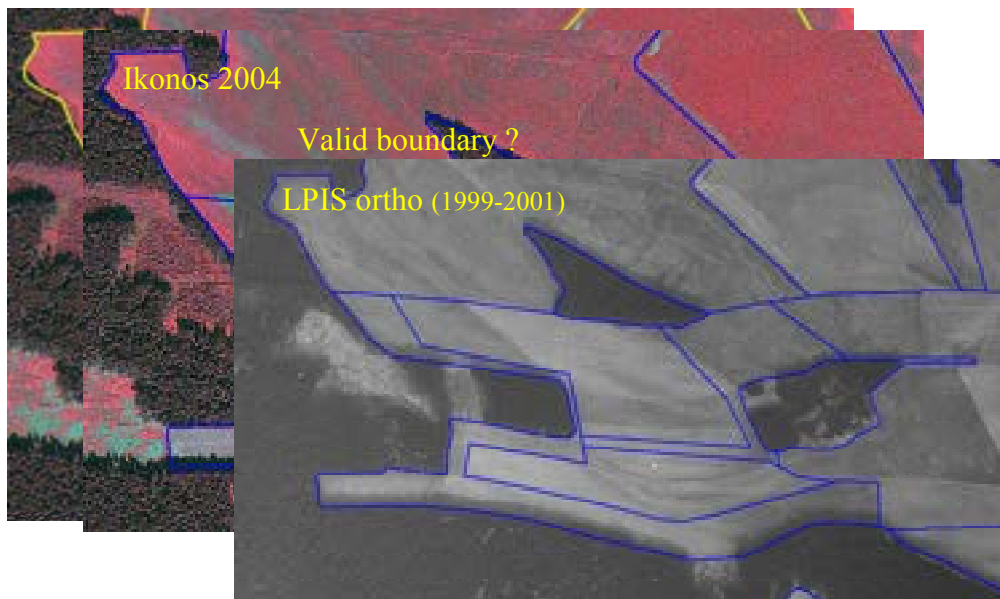
MT 2004 15 cm orthophoto

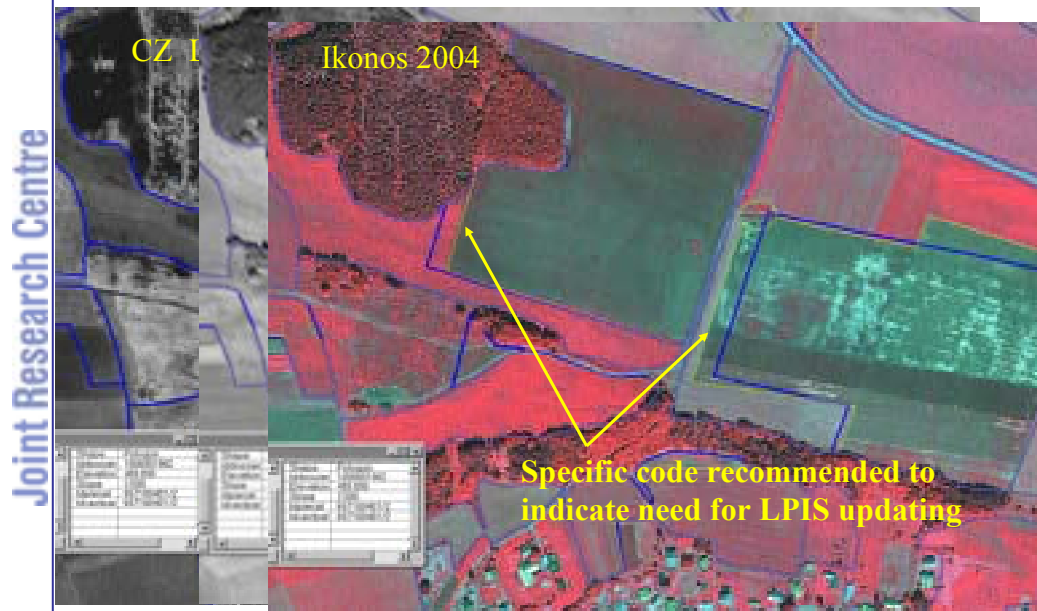
- Overlaps in LPIS should be automatically detected



Inaccurate LPIS boundaries (CZ)

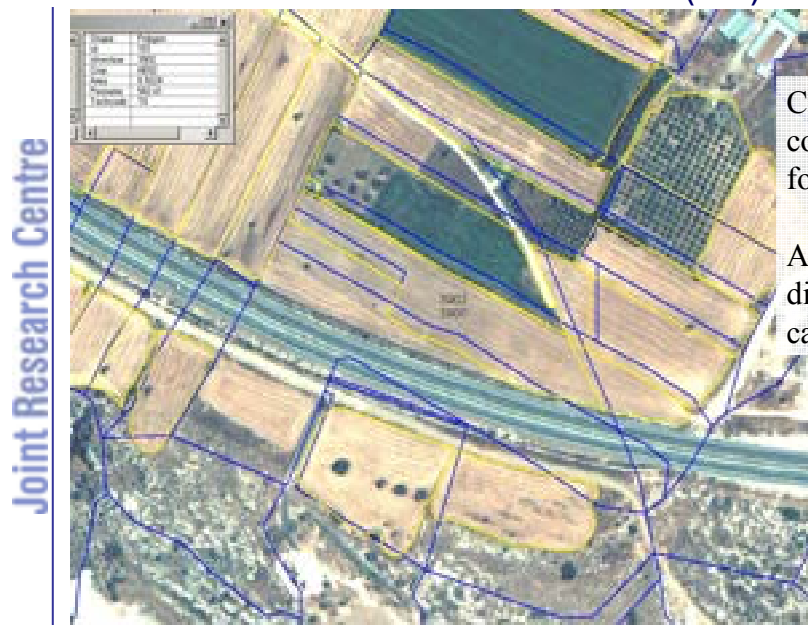
Joint Research Centre





15/25 Results of QC 2004 / H Kerdiles, A Rowlands

11th Annual CwRS Conference, November 2005, Kraków, PL



Cadastre (blue line) considered as support for parcel location

Agri parcels may be digitized outside cadastral boundaries

Risk: “overlap” between parcel checked with RS and parcel not checked OTS

16/25 Results of QC 2004 / H Kerdiles, A Rowlands

11th Annual CwRS Conference, November 2005, Kraków, PL





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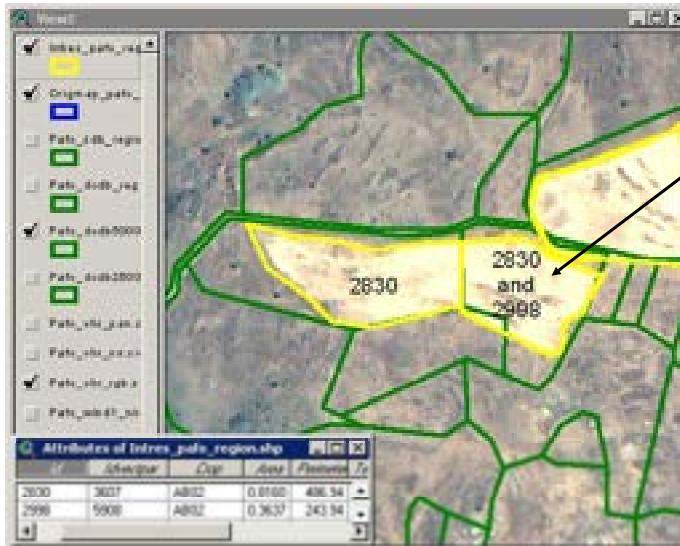
Overlaps

- **Overlaps not detected (SK, CY)**
 - ↳ CAPI operators work with 1 dossier at a time without displaying the interpretation of other dossiers claiming area in the same LPIS parcel
- **Overlaps should be systematically detected** e.g. at end of dossier check
- ❖ Additional risk in CY: cadastral boundaries not reliable, interpreter goes outside cadastral boundaries -> multiple claim on same piece of land possible





Overlap in CY

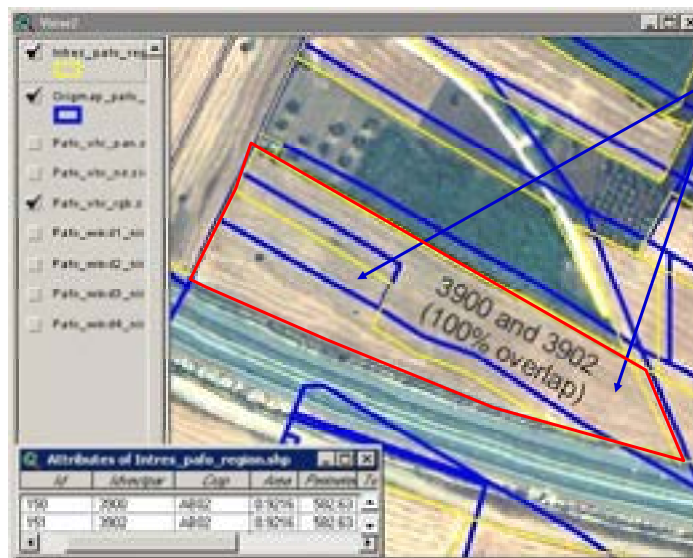


Cadastrate in green,
 CAPI in yellow

Area of 0.4 ha assigned to 2 parcels of barley and retained twice



Overlap in CY



2 cadastral parcels declared as barley for 1.34 and 0.27 ha (total 1.61 ha)

1 parcel interpreted and assigned to both declared parcels (yellow); retained area = 2 x 0.92 = 1.84 ha

Agricultural parcel area = 1.5 ha (?)

Pb: correctness of cadastral boundaries

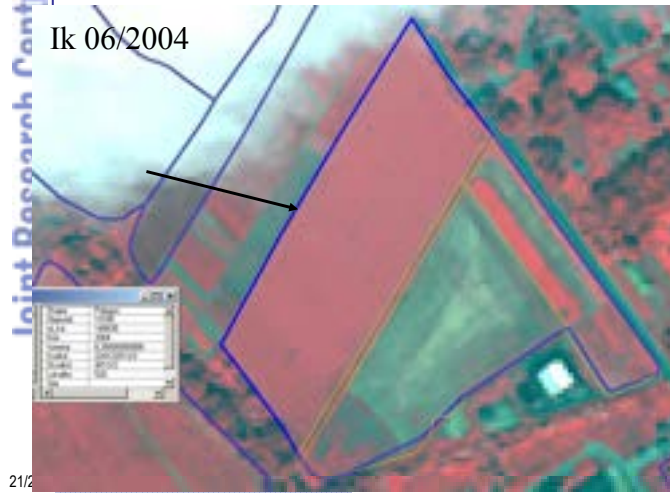




CAPI error inside a block

- Farm A declares 3.14 ha of rape in block 4013/2
- Farm B declares 2.12 ha of alfalfa + 1 ha of oats

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21/2

Contractor's interpretation



Rape is here (3.02 ha)
 Overlap should be detected automatically at end of CAPI of each dossier

22/25

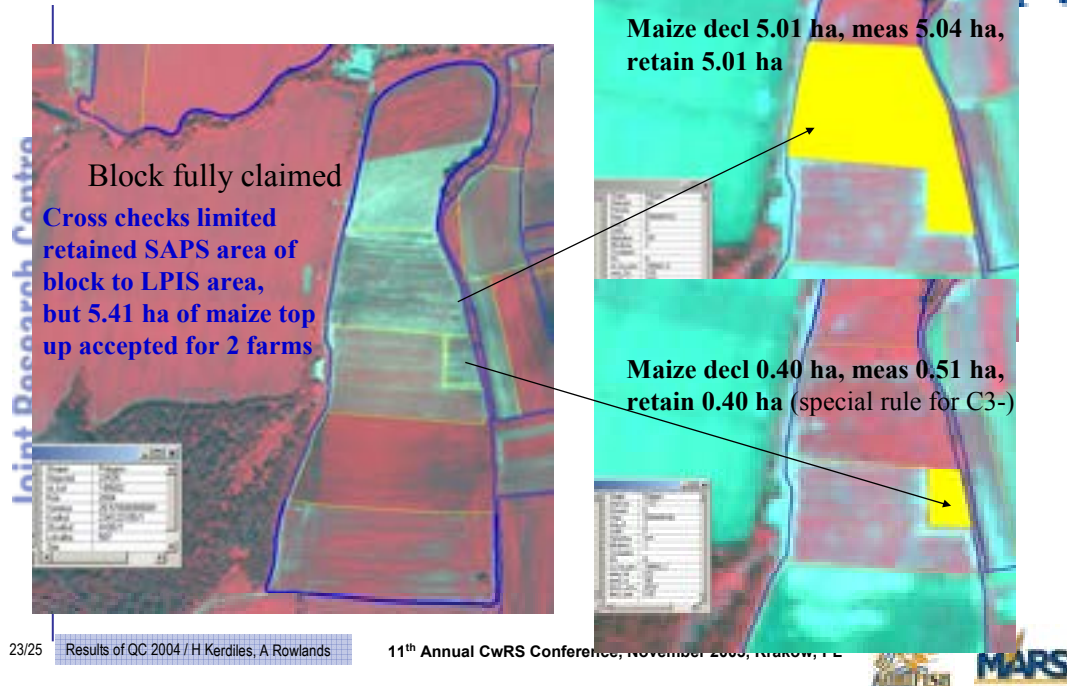
Results of QC 200

ember 2005, Kraków, PL





Overlap not detected (SK)



23/25 Results of QC 2004 / H Kerdiles, A Rowlands

11th Annual CwRS Conference, November 2005, Kraków, PL

Overlaps

- **Importance of problem in SK**
 - 59 parcels involved in significant overlaps (overlap area >10% parcel area) out of 1293 interpreted parcels in QC site
 - For 26 parcels, no problem: at least 1 parcel disallowed by changing LPIS land use to “unknown land use”
 - For 20 parcels: operator error (lack of awareness of other polygon), but enough area in the block to accommodate all claims (to be checked with Admin cross checks)
 - For 12 parcels: real overlap (incorrect parcel location), of which 8 were in blocks with some underclaims -> retained area reduced to declared (special rule) -> retained block area not overestimated. Excess retained area = 3.5 ha CNDP
- **GR:** duplicate claims identified (A2 code) but area retained twice for 20 parcels (excess retained area of 50 ha)

24/25 Results of QC 2004 / H Kerdiles, A Rowlands

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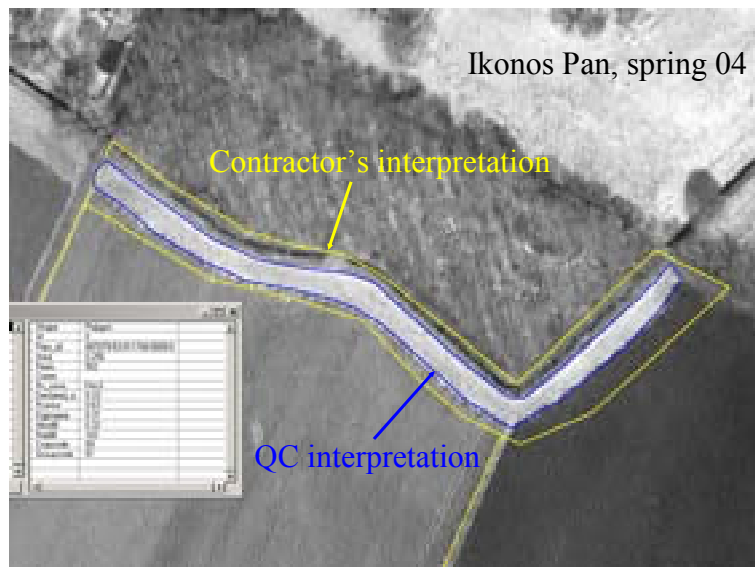


Outline

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Use of VHR imagery ?



Declared 0.33 ha
waste seed (SA)

Measured
 -0.63 by contractor
 -0.26 by QC
 -0.31 by GPS





Use of VHR imagery ?

Joint Research Centre



Declared 14.20 ha
 Winter barley

Measured
 -15.51 by contractor
 -14.20 by QC and by GPS

Pansharpen VHR image !

27/25

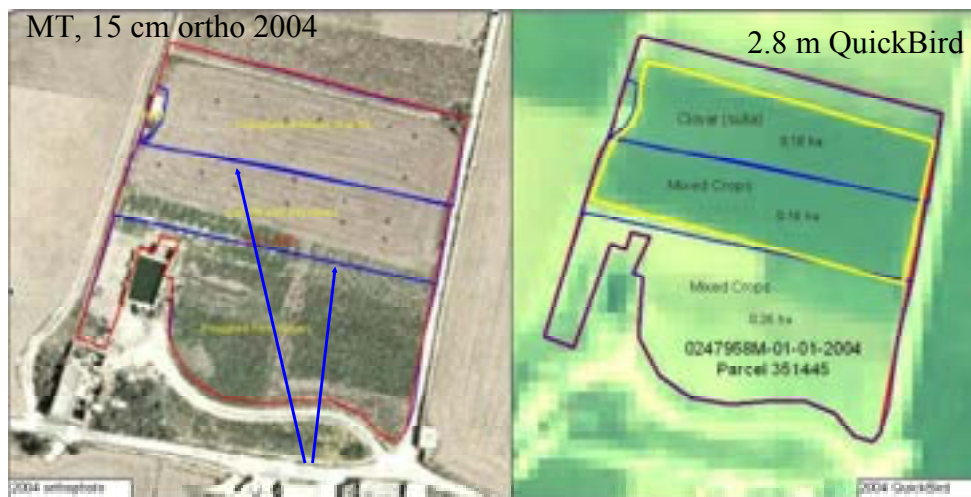
Re:

005, Kraków, PL



Use of VHR imagery ?

Joint Research Centre



Limits digitized from inspector's report

Inspectors should use the VHR pansharpened imagery in the field

28/25

Results of QC 2004 / H Kerdiles, A Rowlands

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Use of VHR imagery ?



Outline

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False over / under-claims: measured object \neq declared object

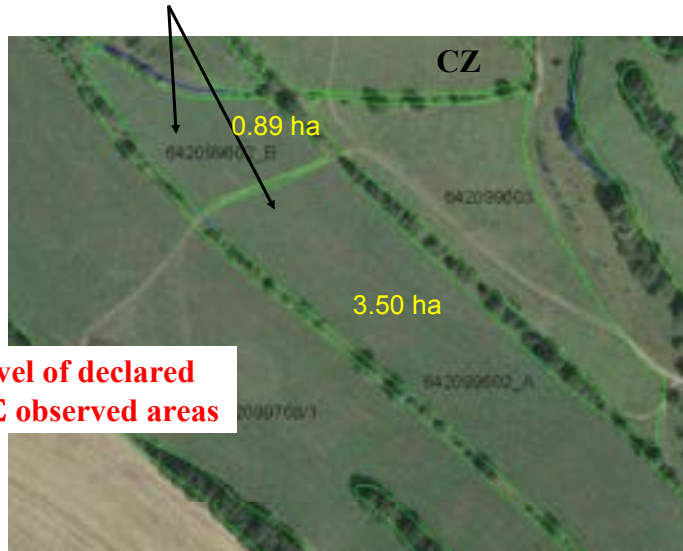
- CZ: SAPS only in 2004, farmer's block (~agricultural parcel)
 farmers declare crop category (arable, forage...) in LPIS parcel
 - when 1 agri parcel observed in LPIS parcel, no pb
 - when $n > 1$ sub-parcels observed in LPIS parcel
 - ↳ declared area is compared to measured area of each sub-parcel
 => **n overclaims** (C3+)
 - ↳ **Low impact on retained area** (contractor stricter than QC), but method leads to **false rejected dossiers**



Subdivision of LPIS parcel (1/2)

Declared parcel (4.44 ha grassland) split in 2 sub-parcels A & B of the same use

Declared area (4.44 ha) compared to measured area of each sup-parcel:
 -> **2 false overclaims**
 Since total measured area = 4.39 ha



Check tolerance at level of declared parcel: decl. area vs Σ observed areas





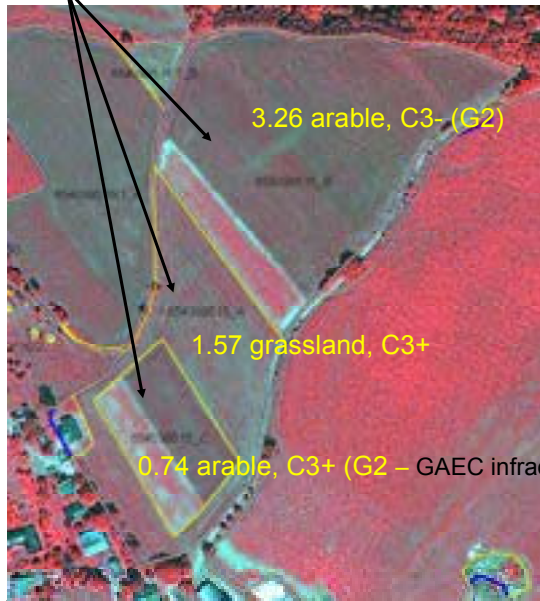
Subdivision of LPIS parcel (2/2)

Declared 2.09 ha of grassland split in 3 sub-parcels of different uses by contractor

Declared area (2.09 ha) compared to measured area of each sub-parcel:
 -> 3 C3 codes

Pb due to **declaration error**: >1 crop category should be declared even if same payment

Recommendation:
 declare crop



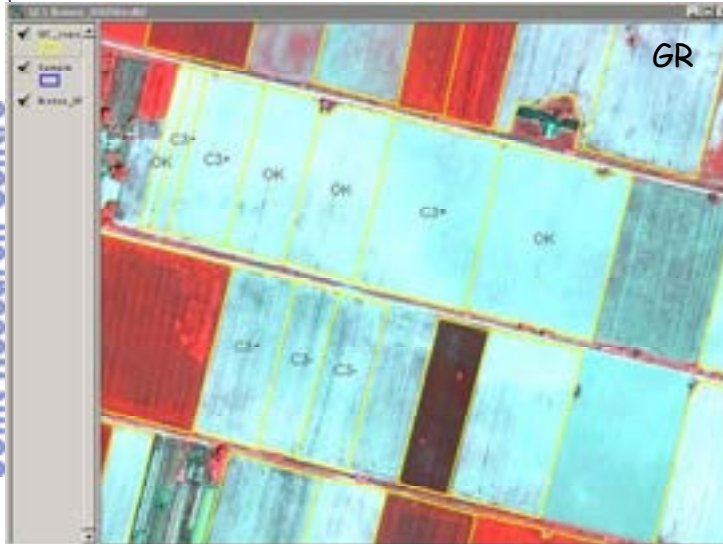
CZ

What to do when declared parcel boundaries are not visible ?

- Classical mistake: try to measure it (on the basis of sketch map...)



Parcel limits not visible on imagery



Maize parcels found inside tolerance, over-claimed, under-claimed...

but boundaries cannot be determined from imagery -> **area check at agri parcel level not valid**



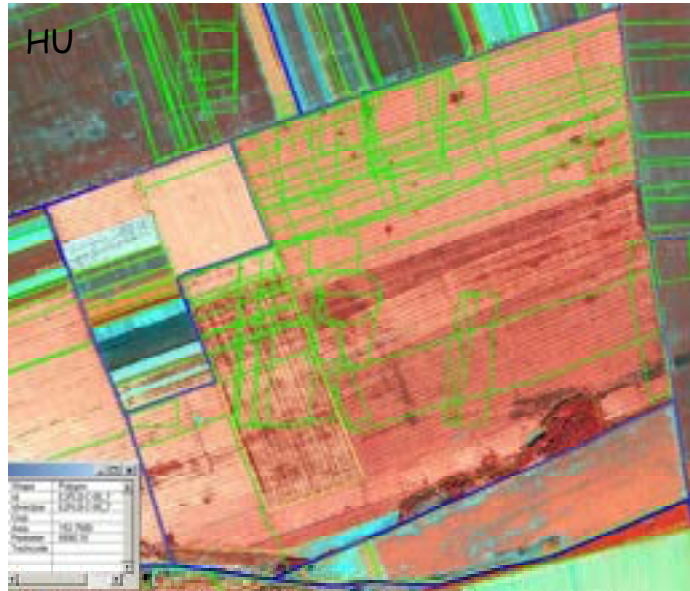
What to do when declared parcel boundaries are not visible ?

- Classical mistake: try to measure it (on the basis of sketch map...)
- Measure the “physical” parcel (group of parcels with the same response), then compare the measured area to the sum of declared areas in the OTSC sample...





Underclaims & joint cultivations (JC)



33 parcels of wheat declared by 33 farmers for a total of 103 ha

Measured area 153 ha
 ⇒ 33 "underclaims"

JC = 16% of physical parcels but 37% of claimed parcels of site. Nearly 50% of JC found underclaimed!

Special rule in 2004: compensation in a group limited to under and overclaims

37/25 Results of QC 2004 / H Kerdiles, A Rowlands

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Underclaims & joint cultivations



Solution: check all claims in the parcel (if info available from applications) or in the block

Measured area vs
 Σ declared areas

Declaring JC as physical parcels would reduce # of claimed parcels by 27% in site

38/25 Results of QC 2004 / H Kerdiles, A Rowlands

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Lack of consistency checks

- CY: vector area sometimes not equal to DB measured area
- GR: Many inconsistencies in DB (1% of parcel with invalid crop group combination)
- GR: reference area = area of digitized sketch maps !
- GR: Disagreement on technical code for 7% of parcels, mainly on **tolerance application**: 671 OK should be C3, 153 C3 should be OK due to artefact (correct code in PARCELM changed in CATEGPARC) -> 138 groups changed to reject and 15 to accept by QC





Treatment of small parcels

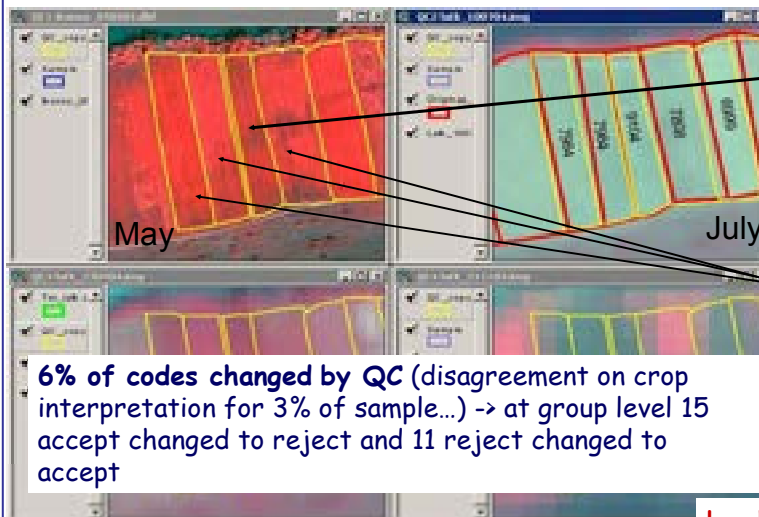
- CY: A1 code should be given to parcels < min size (0.05 ha) and not T6
- PL: Acceptation of 700 parcels found below min parcel size (0.1 ha) over 2 sites due to error in Admin SW -> 48 ha SAPS, 30 ha CNDP unduly accepted
- However, in some cases, very strict application of rule

Cad parcels J and P declared as 0.11 ha of pastures each by same farmer;
 ditch removed at CAPI
 ↳ 4 subparcels < 0.1 ha each !
 (0.06 to 0.09 ha)



Parcel acceptable if J and P declared as 1 parcel

Inconsistent CAPI



Parcel declared and observed as durum wheat and given C1 code (reject) by contractor

Neighbouring durum wheat parcels were accepted

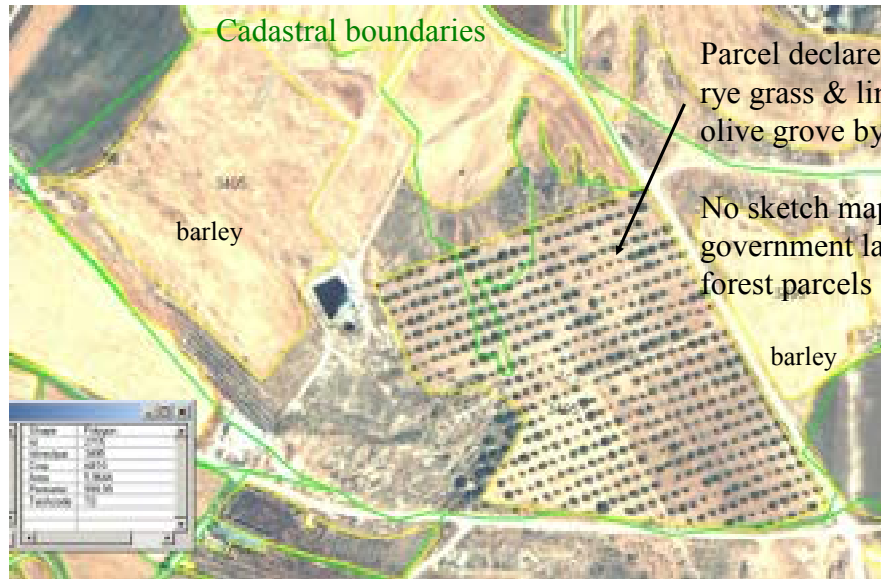
6% of codes changed by QC (disagreement on crop interpretation for 3% of sample...) -> at group level 15 accept changed to reject and 11 reject changed to accept

Lack of internal QC



Doubtful CAPI, Lack of sketch map

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Parcel declared as 2 ha rye grass & linked to 6 ha olive grove by contractor

No sketch map except for government land & ex-forest parcels

43/25 Results of QC 2004 / H Kerdiles, A Rowlands

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CAPI impossible, RFV needed

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LPIS parcel declared with almond trees, peach trees, olive grove and vineyard.

Contractor accepted the 4 parcels, but considered them as eroded

RFV needed !

44/25 Results of QC 2004 / H Kerdiles, A Rowlands

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Poor check of GAEC



Parcel declared as 10 ha barley correctly rejected by contractor

2 sub-parcels considered as eroded (G3)

Likely building area to be confirmed by RFV



Conclusions

- Some new problems, but “classical” errors still present (contractors selected on basis of risk analysis with no element of representativeness)
- Administrations should QC & monitor closely their contractors, especially new contractors
- Trend towards **simplified QC**: less CAPI but better understanding of whole system, artefacts clarified, preliminary conclusions at end of visit
 - ↳ QC not only of contractor’s work but also of Administration strategy ...
 - ❖ In case of any doubt during campaign, JRC available
- QC reports on problems found, not on good points and progress with respect to previous campaigns





Presentation 3 - CwRS 2005: High resolution data

Paolo Pizziol
JRC, IPSC, Agrifish Unit

Abstract

In 2005, in support of the Control with Remote Sensing Campaign 2005, 745 high resolution images have been acquired over 184 sites, at cost of about 2 M Euros. The sensors operating were Spot 2, Spot 4, Spot 5, Landsat 5 TM , IRS P6 Liss and Radarsat-1.

Respect to 2004, sites increased of 20%, number of images of 10 % but costs increased of 19%. Bad weather in summer has lowered the general success rate of 94%., similar to previous campaign. This year, radar data programming has been stopped over certain sites upon acquisition of good optical Spring 1 data.

In general, the campaign has been positive. For some images the delivery has been delayed due to bad processing or data corruption problems. This year, all players (JRC; contractors and providers) have been supported by a new management database, called LIODOT NET., created to streamline the communication and the overall management. However, this new system has required some extra work for adaptation (all) and fine-tuning (JRC).

Keywords: Control with Remote Sensing, High resolution Imagery, Spot 2, Spot, Spot 5, Landsat 5 TM, IRS P6 Liss, Radarsat-1, LIODOTNET



EUROPEAN COMMISSION
 DIRECTORATE GENERAL JRC
 JOINT RESEARCH CENTRE – ISPRA
 Institute for the Protection and Security of the Citizen
 Agrifish Unit

11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
 25th – 27th of November, 2004
 Margitsziget Hotel, Budapest, Hungary



Joint Research Centre

Control with Remote Sensing Campaign 2005

High Resolution Data
Paolo PIZZIOL, Cherith ASPINALL
JRC Agrifish

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P.Pizziol/C.Aspinall

11th Annual CwRS Conference, November 2005, Kraków, PL



Joint Research Centre

Outline

1. Sites
2. Windows
3. Sensors
4. Images
5. Budget
6. Success rate
7. Windows interaction
8. Problems HR
9. Problems SAR

2

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Sites

- **183** sites planned to be covered by HR sensors (+20% compared to 2004)
- **49** sites programmed only for HR
- **61** sites (in BE, DE, DK, IE, LT and UK, above 50° parallel), planned for SAR back-up (**17 completed - cfr.ahead**)
- AT did not participate in the CwRS Campaign
- PL, SI, MT, FI and LV required only VHR (Sat) data
- PT required only HR (sat) data

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Windows

- **7** windows pre-defined for HR optical data collection:
 - Autumn
 - Winter
 - Spring 1
 - Spring 2
 - Summer 1
 - Summer 2
 - Summer 3Total of 694 windows opened
- **2** time series (first choice *triplet* and second choice *triplet*) defined for 'radar' sites

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Sensors

- 6 HR sensors:
 - SPOT2, SPOT4 and SPOT5
 - IRS P6 LISS
 - Landsat 5 TM
 - Radarsat-1

5

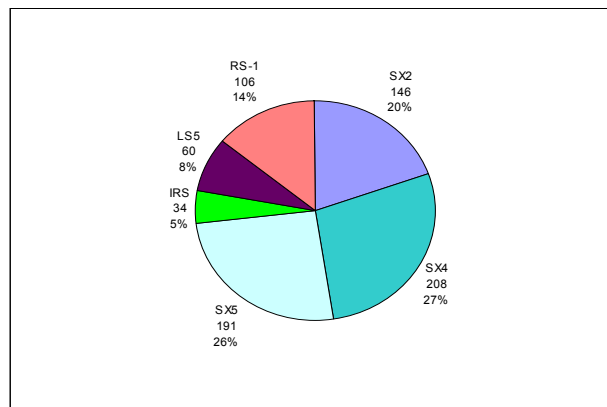
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Images

- **745** images acquired: 639 optical and 106 radar (+10% compared to 2004)



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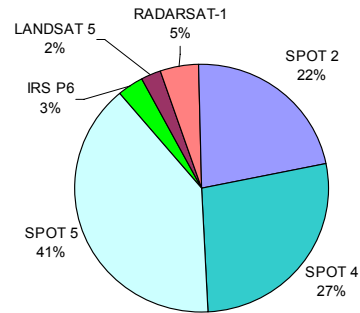
11th Annual CwRS Conference, November 2005, Kraków, PL





Image Budget (only HR)

- **>2 M €** spent (+19% compared to 2004):
- Avg. number of images/site: **4** (including radar)
- Avg. cost of an image: **2.755 €** (including radar)
- Avg. cost/site: **11.218 €** (including radar)



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Success rate (optical HR)

- The average success rate was **94%** (same as 2004): bad weather during summer over Central Europe!

Window/sensor	Success						closed (optical available)	failed	Total Windows	Success rate (success+ closed)
	SX2	SX4	SX5	IRS	LS5	Total				
Autumn	11	63	48	3	14	139	1	7	147	95%
Winter	3	6	7		1	17		1	18	94%
Spring1	32	56	38	11	16	153	6	5	164 (*)	97%
Spring2	37	43	44	11	17	152	3	12	167 (*)	93%
Summer1	55	36	38	7	11	147		16	163 (*)	90%
Summer2	5	4	10	2		21		4	25	84%
Summer3	3		6		1	10			10	100%
Total Images Available	146	208	191	34	60	639	10	45	694	94%

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Windows ‘interaction’

- As last Campaign, VHR data acquisition could close an HR window, with contractor’s agreement : this occurred **5** times (AACH,HESK,HOOV Spring 1; GRIE,TREB Spring 2)
- **4** windows closed due to aerial and RFV back-up availability
- This Campaign - excluding DK and BE sites - optical data acquisition could also **stop radar programming**: this happened for 44 out of 61 sites! Result: only **17** time series have been completed.

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Comments/problems during the Campaign: optical data

- **4** images processed with incorrect coordinates (e.g. autumn DE_FLEC)
- **14** LS5 TM scenes (e.g.BE_FERN, DE_ZBDW), affected by Landsat5 processing failure [end May/early June 2005] which caused (in some cases) extensive delays in production.
- **3** images with saturated bands
- **3** incorrect images & **3** corrupted files uploaded in LIODOTNET
- **1** site cancelled after acquisition. Reported non-use of HR data due to VHR data availability (e.g.EL_TIDA VHR images used in place of SX4 Spring 1)

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Comments/problems during the Campaign: SAR data (1)

- In the beginning of the Campaign, urgent replacement of second choices triplets required on 11 sites out of 61
- Satellite anomaly on the site BE_HORE caused the cancellation of the site
- Due to the availability of good optical images, only 17 triplets have been completed.
- 3 MS downloaded the data (IE,DK,BE) but only BE Wallonie used them

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Comments/problems in the campaign: SAR data (2)

- **Slow** communication flow JRC-Provider
- **Late** information on images' availability
- JRC committed **SARMAP** to carry out a study on SAR data processing (orthorectification and filtering) but data were delivered late (K-SAT had SW problems in SLC pre-processing)

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Administrative problems

- Adaptation to the new system LIODOTNET (all)
- Problems in accessing/using LIODOTNET (K-SAT)
- Chasing people for LIODOTNET updating (contractors)
- Late delivery of some products (Eurimage)
- Late start of invoices' payment (JRC)
- Late nomination of contractors [EL (1st June) and PT (11th Aug.)]

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Thanks for your attention!!

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Presentation 4 - Acquisition of VHR satellite data

Mihaela Fotin
JRC, IPSC, Agrifish Unit

Abstract

The presentation gives a summary of the 2005 Very High Resolution (VHR) satellite image acquisition campaign as part of the operational Control with Remote Sensing activities.

At the 2005 CwRS Campaign 23 Member States with 27 contractors participated. The number of the VHR sites controlled was 161, with size between 190 and 2000 km², of which: 61 QuickBird, 97 Ikonos, 1 Eros only and 2 SPOT5 supermode only. Were acquired and distributed 335 images.

The total area planned was 130,833 km² and 129,587 km² was acquired.

The presentation gives detailed statistics on the, number and distribution of sites, total area planned and acquired per sensor, country and acquisition window success rates. An analysis is provided for all image providers for the period between window opening dates and the final image acquisition dates.

The image acquisition campaign 2005 was successful due to the proficiency of all the parties involved: image providers, contractors, national administrations and CwRS image acquisition team.

Keywords: Very High Resolution (VHR) Satellite Image Acquisition, CwRS



Summary statistics of 2005
VHR Image Acquisition Campaign

- **VHR acquisition 2005**
 - budget, sites, acquisition windows, cloud cover
- **Results (detailed statistics per provider)**
 - success rates
- **Conclusions**

1



VHR image acquisition 2005 – budget, sites

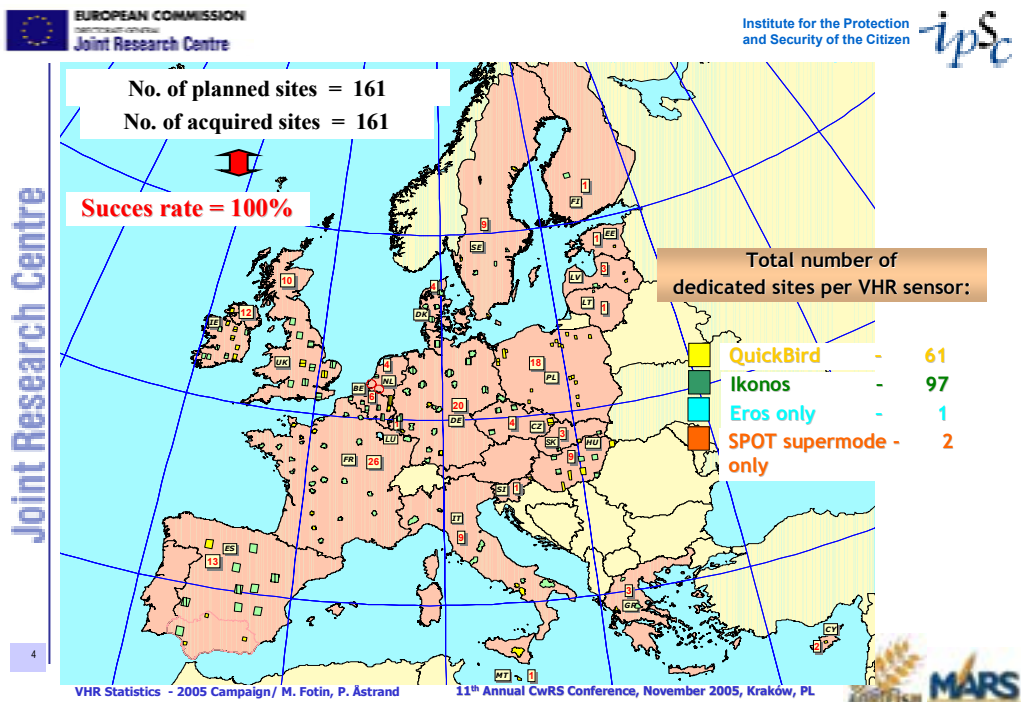
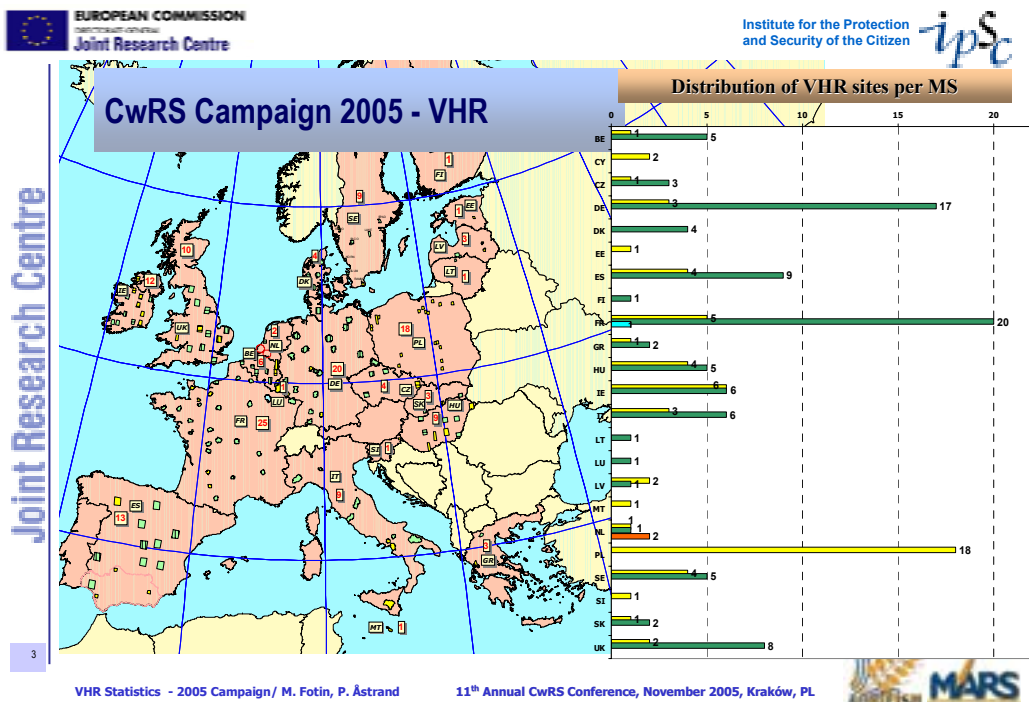
DG AGRI finances imagery through:

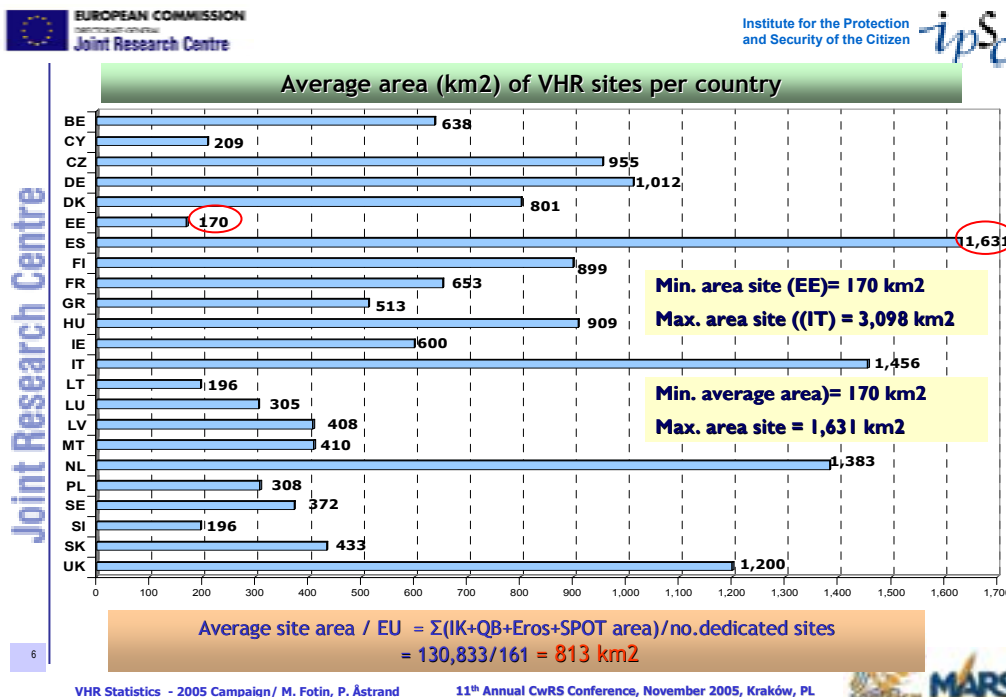
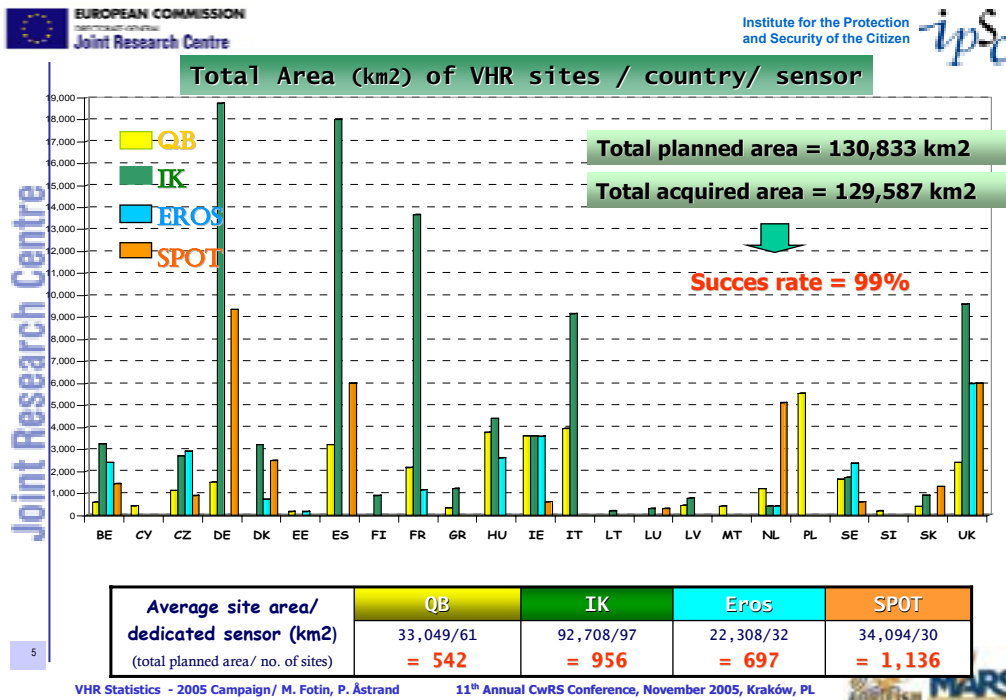
- Council Regulation (EC) 165/94 and
- Commission Regulation (EC) 601/94

HR/ VHR budget	4.989.000 euro
- VHR budget	2.995.000 euro
Participants	23 Member States (AT,PT not participating)
No. of sites controled	161

2









Acquisition windows
2005

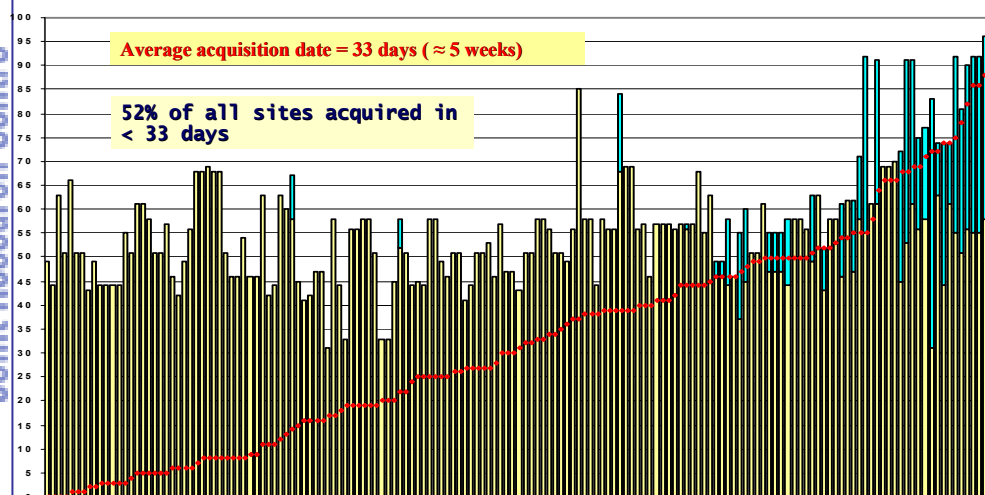


VHR Statistics - 2005 Campaign/ M. Fotin, P. Åstrand

11th Annual CwRS Conference, November 2005, Kraków, PL



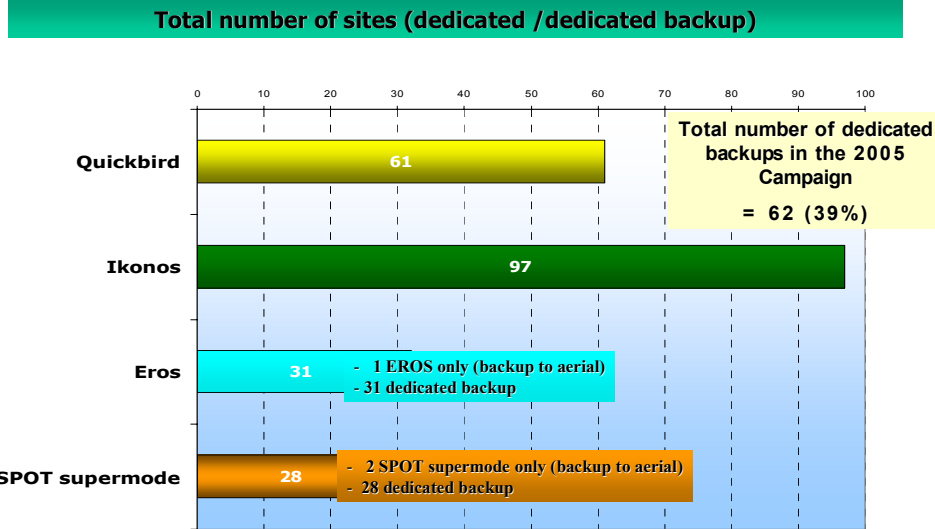
- Initial window length
- 35 ARs extended
- No. of days between window opening and last acquisition date which closed the AR with full or partial coverage



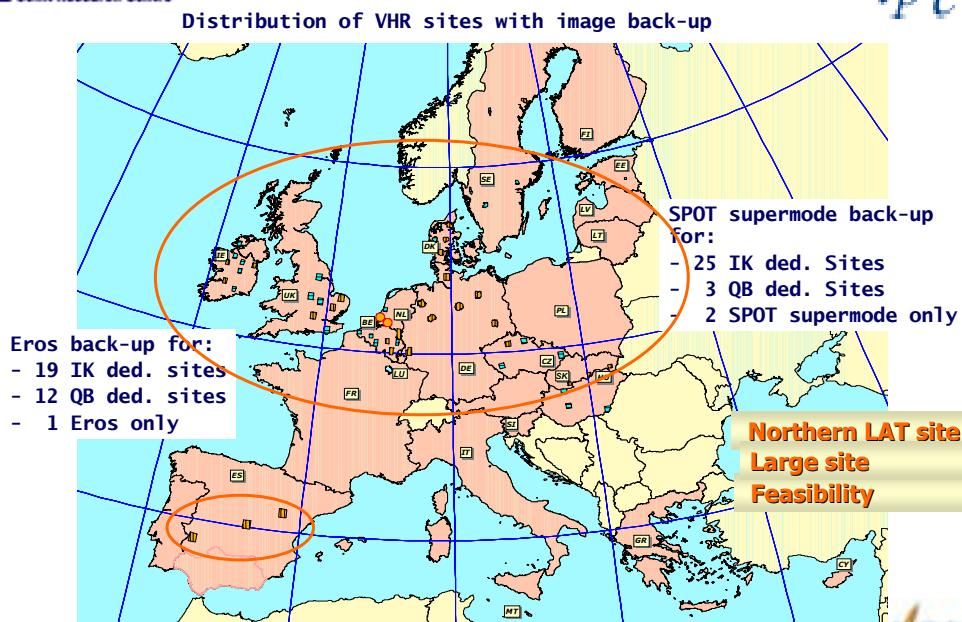
VHR Statistics - 2005 Campaign/ M. Fotin, P. Åstrand

11th Annual CwRS Conference, November 2005, Kraków, PL



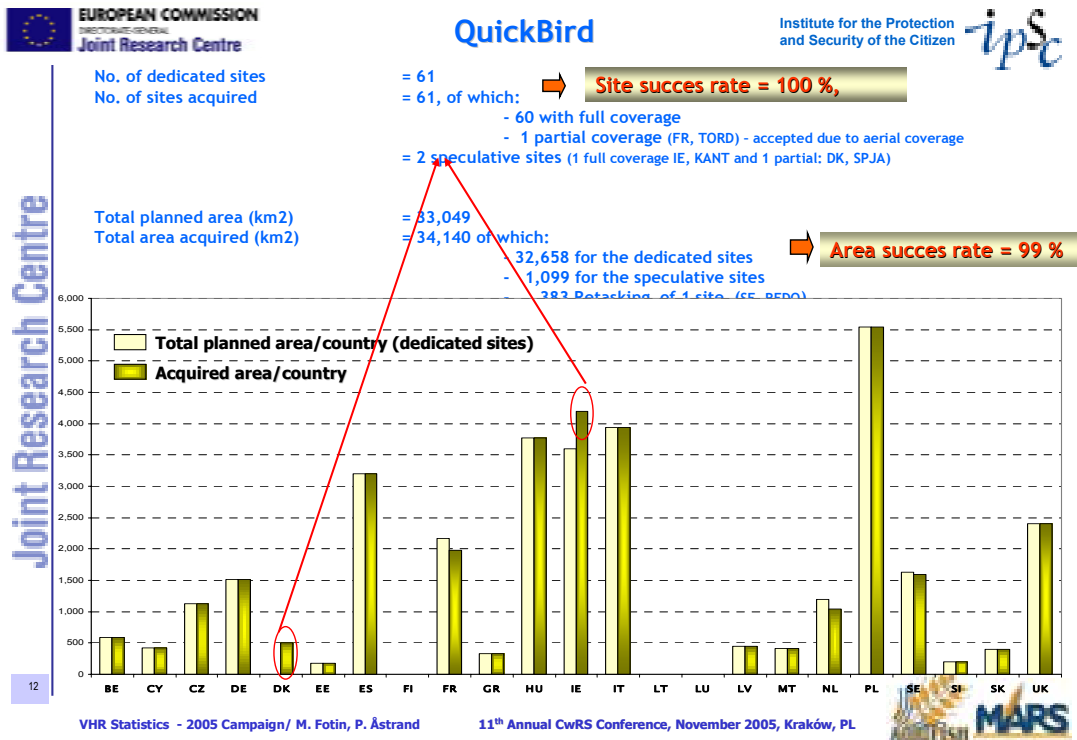
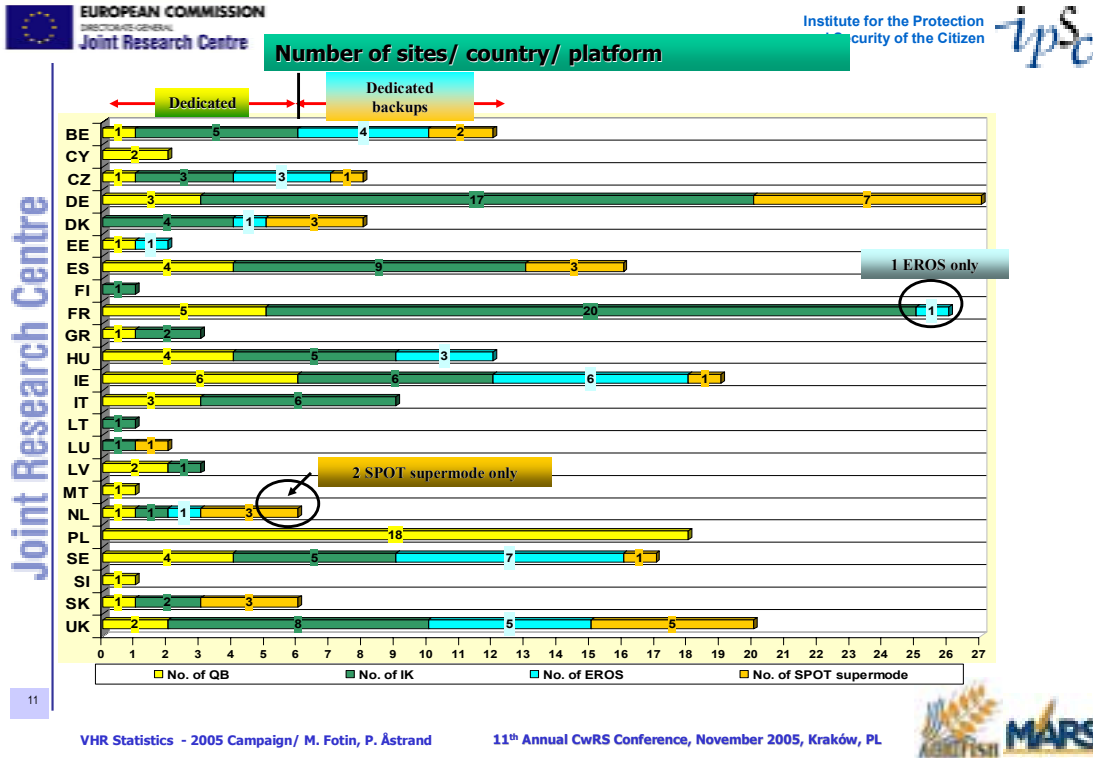


9



10

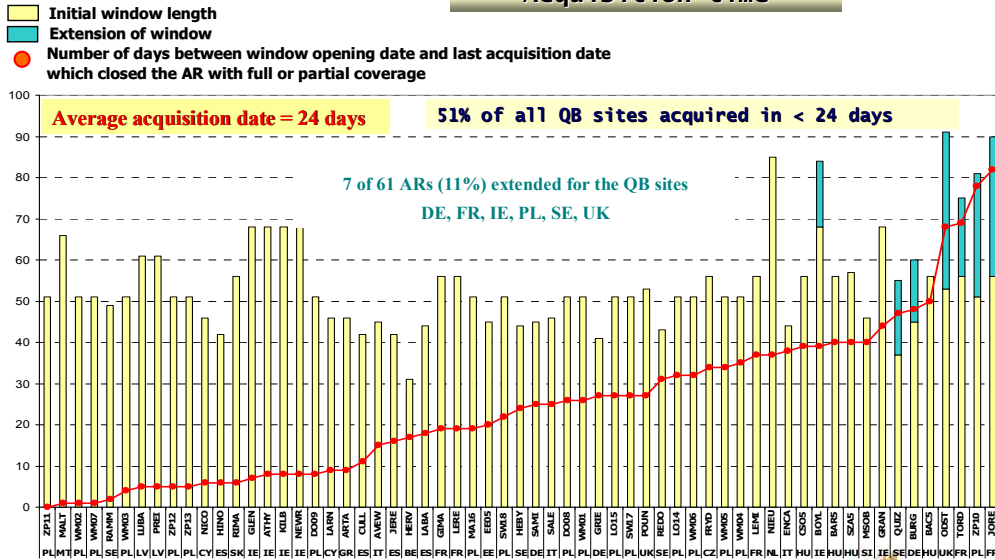






QuickBird

Acquisition time



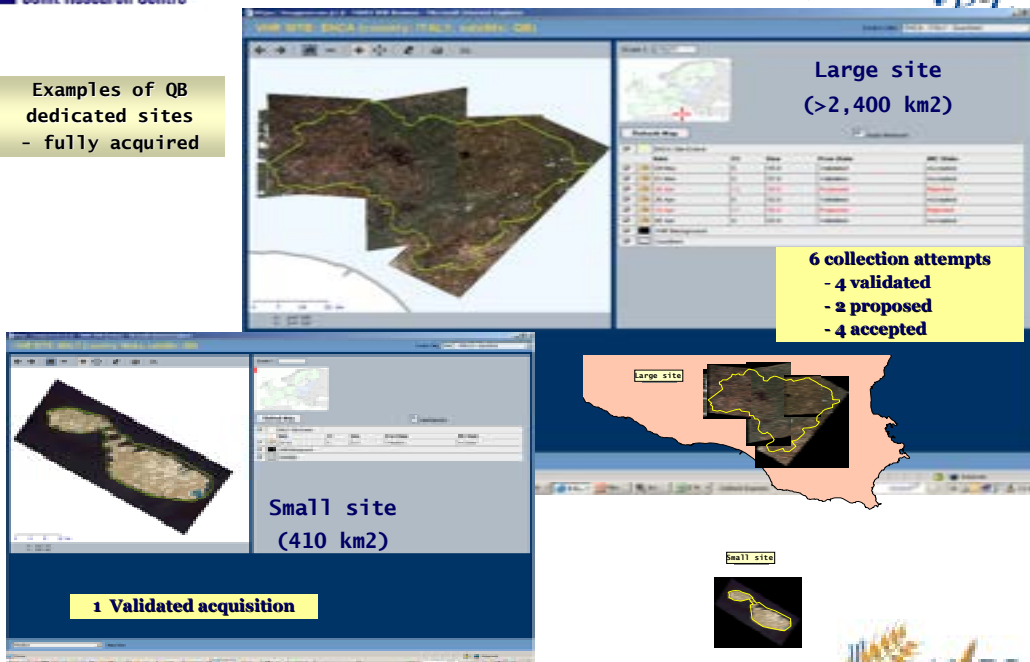
VHR Statistics - 2005 Campaign/ M. Fotin, P. Åstrand

11th Annual CwRS Conference, November 2005, Kraków, PL



Examples of QB dedicated sites - fully acquired

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VHR Statistics - 2005 Campaign/ M. Fotin, P. Åstrand

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Example of QB dedicated site acquired with:

- > dedicated QB – partial acquisition
- > ded. SPOT supermodebackup- full acquisition
- > dedicated QB – full acquisition but with CC
- > ded. backup Eros – full acquisition

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IKONOS

- No. of dedicated sites = 97
- No. of sites acquired = 96, of which:
 - 94 full coverage
 - 2 partial coverage (DK, SPJA- accepted due to speculative coverage and DE, GUTE)
- No. of sites failed = 1 (IE, KANT)
- Total planned area (km²) = 92,708
- Total area acquired (km²) = 90,914

Site succes rate = 99%

Area succes rate = 98%

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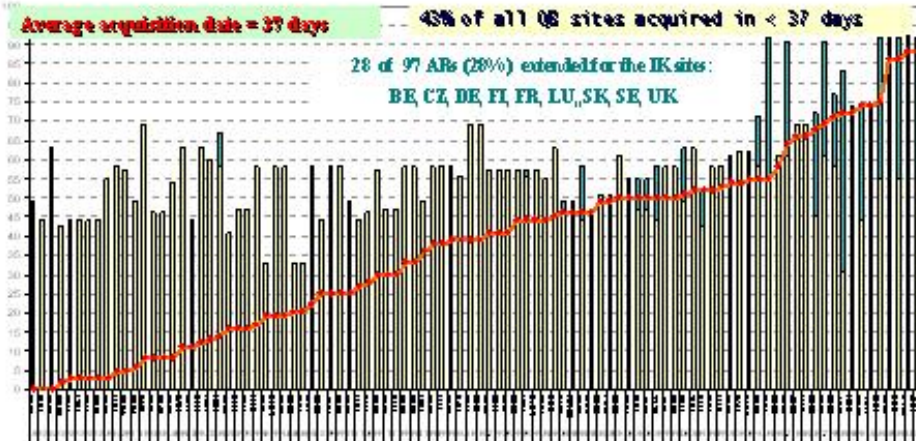


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IKONOS

Acquisition time

- Initial window length
- Extension of window
- Number of days between window opening date and last acquisition date which closed the AR with full or partial coverage



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Examples of IK dedicated sites

- fully acquired -

Small site ~500 km²

3 collection attempts
 - 1 validated
 - 2 proposed
 - 1 accepted

Large site (>3,000 km²)

6 collection attempts
 - 1 validated
 - 3 proposed
 - 2 accepted

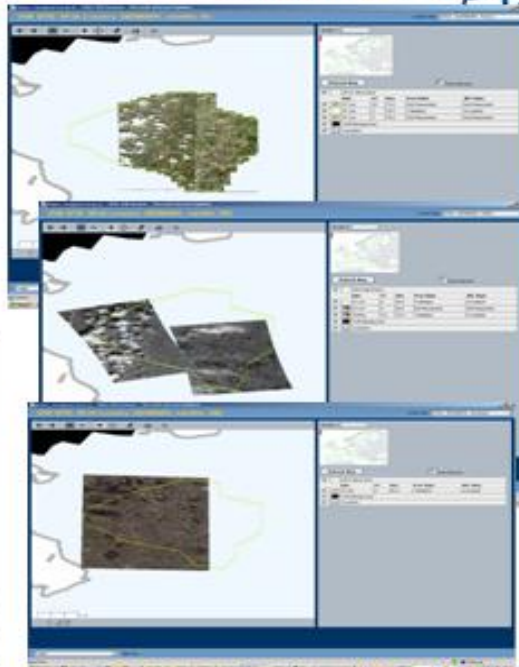
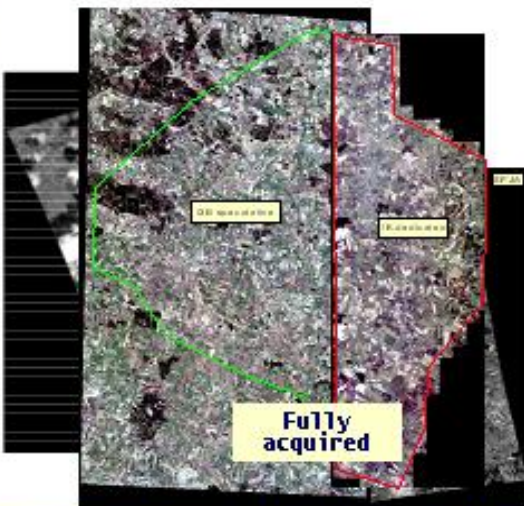




Example of IK dedicated site acquired with:

- dedicated IK - partial acquisition
- ded. backup Eros - partial acquisition
- speculative QB - partial acquisition

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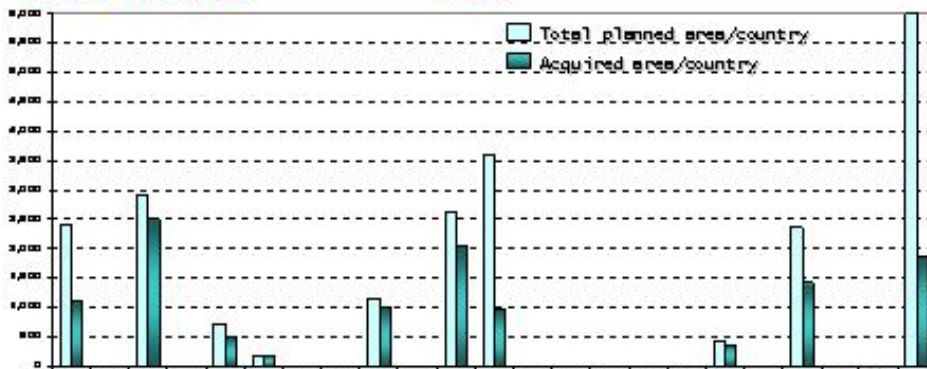
YHR Statistics - 2005 Campaign / M. Itzin, P. Åstrand

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No. of dedicated sites	= 32	➔ Site success rate = 72%
No. of sites acquired	= 23 of which:	
	- 6 full coverage	
	- 17 partial coverage	
	- 9 failed	
Total planned area (dedicated sites)	= 22,308	
Total acquired area (m2)	= 11,862	➔ Area success rate = 53%

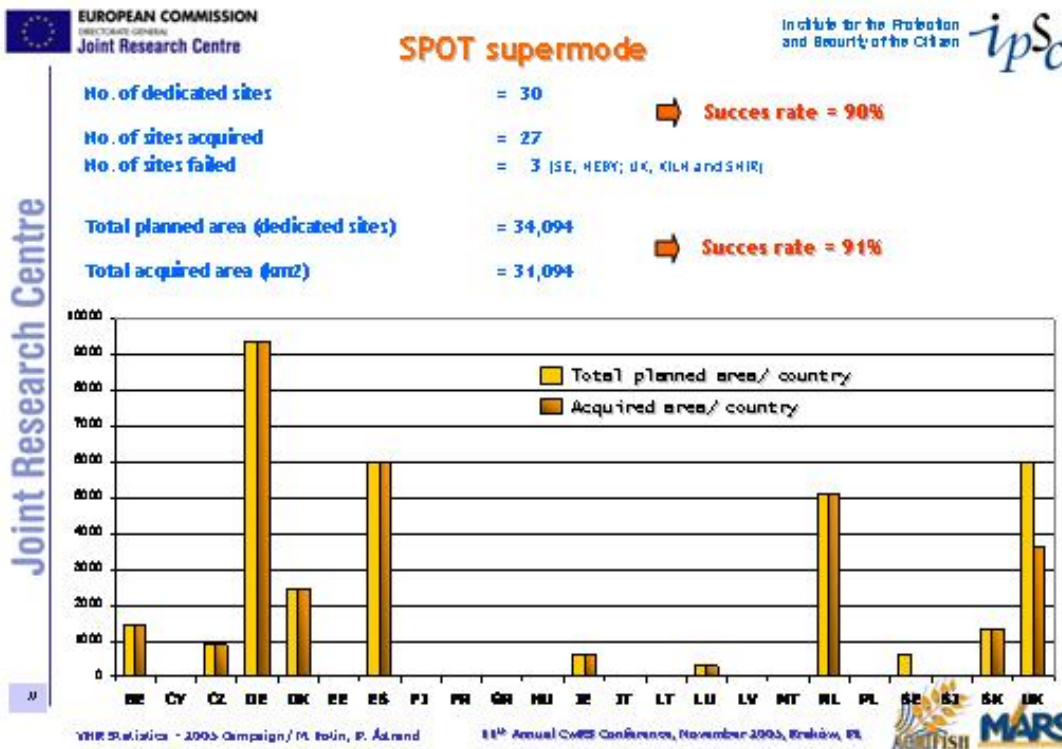
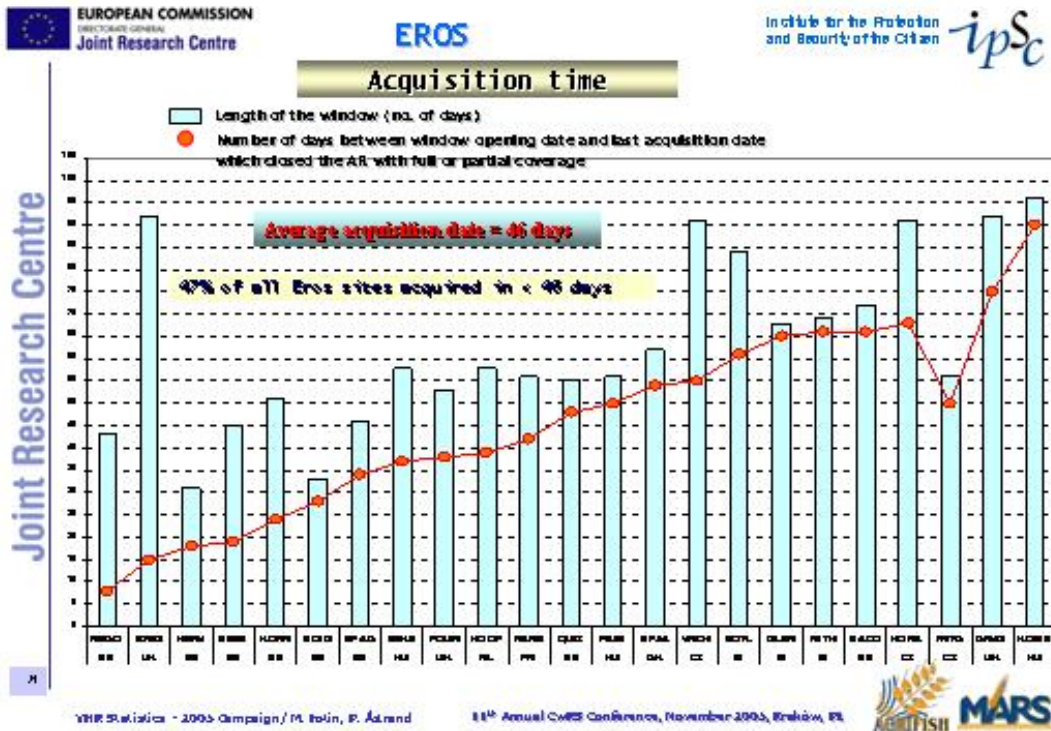
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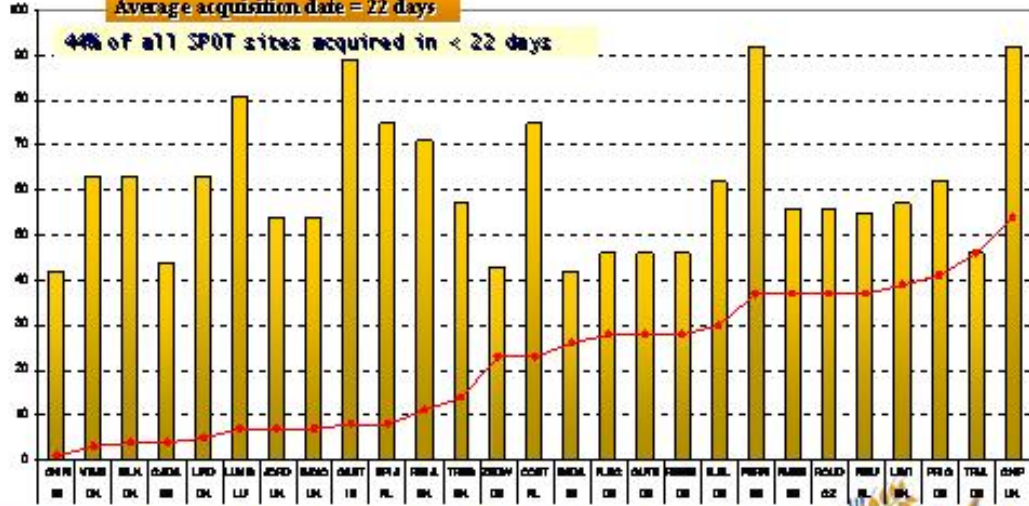
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SPOT supermode

Acquisition time

- The final length of the window (no. of days)
- Number of days between window opening date and last acquisition date which closed the AR with full or partial coverage

Average acquisition date = 22 days
 44% of all SPOT sites acquired in < 22 days



YHR Statistics - 2003 Campaign / M. Toim, P. Åstrand
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EUSI	The status of the image			EURIMAGE	The status of the image		
	Validated (0-5%)	Proposed (> 5%)	Accepted and ordered		Validated (0-10%)	Proposed (> 10%)	Accepted and ordered
The number of notified acquisitions	157	43	174	The number of notified acquisitions	91	22	94

IMAGESAT	The status of the image			SPOT IMAGE	The status of the image		
	Validated (0-10%)	Proposed (> 10%)	Accepted and ordered		Validated (0-10%)	Proposed (> 10%)	Accepted and ordered
The number of notified acquisitions	38	4	40	The number of notified acquisitions	27	0	27

The total number of the uploaded images : = 382

The total number of the accepted and ordered images = 335 (88%)

YHR Statistics - 2003 Campaign / M. Toim, P. Åstrand
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Images uploaded by Provider - Cloud Cover

All Image Providers used LIODOTNET server to upload : validated, proposed, backup, and speculative backup imagery (in case of VHR image with their related shapefiles)

Images uploaded/ CC	< 5%	5 - 8%	8 - 10%	10 - 12%	> 12%	TOTAL
EURIMAGE	82 (75%)	8	1	10	12	113
EUSI	157 (79%)	12	10	5	16	200
IMAGESAT	25 (60%)	9	4	4	0	42
SPOTIMAGE	27 (100%)	0	0	0	0	27
TOTAL	291	29	15	19	28	382

CC < 5% = 76.0 % of total uploaded (291)

CC 5-10% = 11.6 % of total uploaded (44)

CC > 10% = 12.4 % of total uploaded (47)

	Proposed	Accepted	
EURIMAGE <CC> 10%	22	3	13.6%
EUSI <CC> 5%	43	17	39.5%
IMAGESAT <CC> 10%	4	2	50.0%

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x

Conclusions

- ✓ **Successful campaign**
- ✓ **High success rate maintained (100% for sites & 99% for area)**
- ✓ **Expenditure within budget**
- ✓ **Use of VHR satellites at a maximum technical capacity**
- ✓ **Good collaboration between all actors involved in image acquisition campaign (image providers - JRC - contractors - MS Administrations) - Importance of quick reaction of all actors within LioDotNet**
- ✓ **Cloud cover assessment still needs to be homogenized**
- ✓ **Use of multiple CC imagery to mask out clouds**

In reality, the image providers acquired approximately 3-5 times as much area as was accepted

➔

More imagery could be provided to contractors to deal with cloud cover
- ✓ **VHR backup ~ 40% will be maintained in the 2006 Campaign - how useful?**
- ✓ **Use of LioDotNet server and MARS VHR Browser to ensure a good interaction for the acquisition management of the 2006 Campaign**

x



Presentation 5 – Organising 130.000 km² of VHR image acquisition for the CwRS Campaign 2005, part 1

Pär Johan Åstrand

AgriFish Unit, European Commission JRC

Abstract

This presentation will give an introduction to whole process of the VHR Satellite Remote Sensing data image acquisition in the 2005 years Campaign from an organisation, and resources perspective, before giving the word to two typical image providers (EUSI, Eurimage) deeply involved in the technical aspects related to image acquisition for the Campaign.

As preamble it is important to stress two main issues;

- 1.) VHR image acquisition within the CwRS of area-based subsidies is done to provide the MS Administrations with imagery (a tool) to be able to adhere to Regulatory parcel measurement tolerances required in the controls process; the Commission Regulation (EC) 796/2004 § 6 states that "*MS shall ... ensure that agricultural parcels are reliably identified...and enable each agricultural parcel to be located and measured*", further § 30 of same regulation on determination of areas, states "*that a measurement tolerance may be defined by the competent authority that shall not exceed either 5% of the agricultural parcel area or a buffer of 1.5 m applied to the perimeter of the agricultural parcel*"
- 2.) On the basis of the Council Regulation (EC) 165/94 and of the Commission Regulation (EC) 601/94, Commission Services are required to centralize the satellite images acquisition. This task has been transferred to DG JRC since 1999 (ref.17 September 1998/VI/34942). This is, since 2002, managed through a subdelegation of signature by DG AGRI to DG JRC. i.e. Satellite imagery for the CwRS programme is financed by the Commission Services (DG AGRI).

Having said this, the presentation will briefly detail the CwRS workflow, the Image Acquisition workflow (with respective player, and action), the human resources involved, and mention some numbers on IT technology (LIODOTNET) transactions.

Keywords: VHR Very high resolution, CwRS Control with remote Sensing, tolerance, IT technology, and LIODOTNET (a WEB based informatics application).



Organising 130.000 km2 of VHR image acquisition for the CwRS Campaign 2005

JRC part 1;
 the VHR Satellite Remote Sensing data image acquisition in the 2005 years Campaign from an organisational, and resources perspective

1 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand



preamble

- VHR image acquisition within the CwRS of area-based subsidies is done to provide the MS Administrations with imagery (a tool) to be able to adhere to Regulatory parcel measurement tolerances required in the controls process
 - Commission Regulation (EC) 796/2004 (§ 6, § 30)
- Satellite imagery for the CwRS programme is financed by the Commission Services (DG AGRI)
 - Council Regulation (EC) 165/94, Commission Regulation (EC) 601/94
 - managed through a subdelegation of signature by DG AGRI to DG JRC.

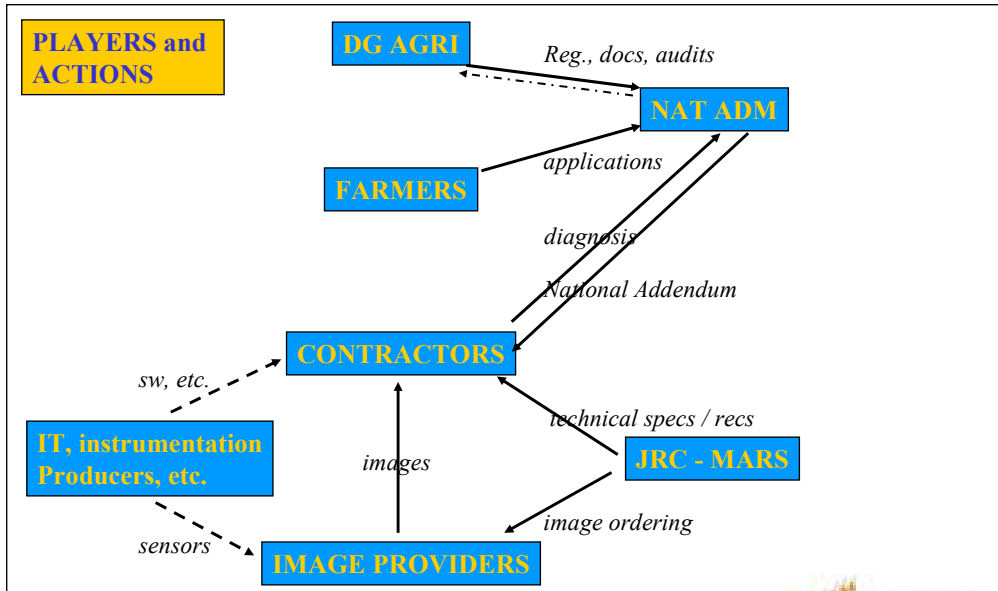
2 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand





the CwRS workflow

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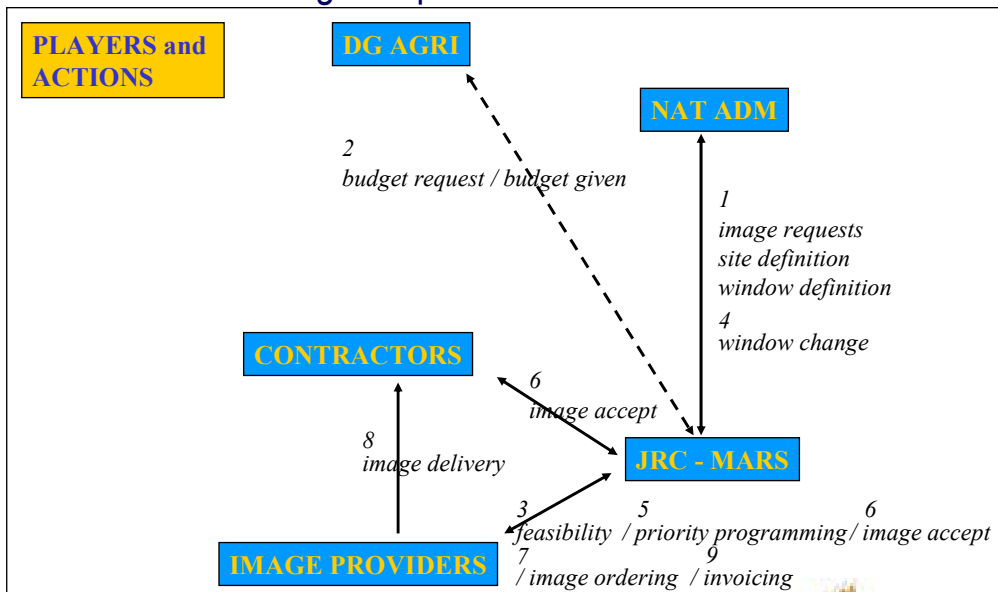


3 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand



the Image Acquisition workflow

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4 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand





the Image Acquisition – sample actions

1
image requests
site definition
window definition

6
image accept

- 161 sites
 - dedicated prime QB, IK
 - 62
 - dedicated backup EROS, SPS (39%)
 - total area 130,000 km²
 - 35 extended windows
- 382 images uploaded
 - validated or proposed
 - 335 images accepted
 - image providers manage a volume of approx 3-5 times the volume they sell
 - i.e. total VHR area acquired is 3-5 times the 130.000 km²

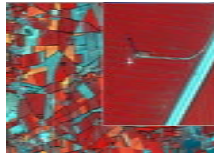


Image Courtesy Eurimage

5 130.000 km² VHR images - CwRS Campaign 2005 / P Åstrand



Human Resources

- DG AGRI
 - 1-2 staff active part time: 0.5 mm
 - National Administrations
 - 23/25 MS; 1staff 1 mm on image acquisition, risk analysis etc.: 23 mm
 - JRC – MARS
 - 3-4 staff full time during campaign (6+ month): 24 mm
 - Image providers
 - 6 providers with 2-3 staff each through Europe, Israel, US full time during campaign (6+ month): 72 mm
 - Contractors
 - approx 30 contractors with 1 staff working ½ time on image acquisition/validation during campaign (6+ month): 90 mm
- Total ≈210 mm**



6 130.000 km² VHR images - CwRS Campaign 2005 / P Åstrand





IT Technology – LIODOTNET (and VHR Browser)

- 120 Interactive users
- 9,757 Acquisition Request published
- 221 Sites defined
- 621 Windows defined
- 2,023 Uploaded acquisitions
- 450 Orders
- 10,230 Mails sent



What is LioDotNet ?
 WEB based informatics application to manage acquisition request, validation, ordering, invoicing, archiving images.
 Automatic Email exchange synchronizes actions between different actors.

Note – statistics valid for HR/VHR Campaign

7 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand



VHR Image Acquisition

- How does all this work, or detailing some aspects of this work:
 - EUSI (a typical image provider)
 - order entry through to image acquisition, including order feasibility checks, weather forecasts, direct tasking, and collection strategies
 - Eurimage (another typical image provider)
 - CC assessment, notifications of full/partial acquisition with LIODOTNET, validated and proposed acquisitions, image production and delivery, invoicing procedure

Image acquisition and LIODOTNET - Session T4

LIODOTNET poster and sw demonstration – Session T6

8 130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand





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- thank you !
- par-johan.astrand@jrc.it

9

130.000 km2 VHR images - CwRS Campaign 2005 / P Åstrand





Presentation 5 – Organising 130.000 km² of VHR image acquisition for the CwRS Campaign 2005, part 2

George Ellis

EUSI GmbH

Abstract

Following part 1 presented by JRC, in part 2 EUSI will focus on the procedures from order entry to image acquisition, including order feasibility checks, weather forecasts, direct tasking, and collection strategies.

In detail this will expand on

- geometric and resource order feasibility using order priorities, historical weather data, and collection capacity over Europe
- weather forecast models for pass selection
- collection schedule editing for direct tasking using real-time weather information
- collection strategies specific to the 2005 VHR campaign

Keywords: VHR, weather forecast, image acquisition, direct tasking



Organizing 130.000 km² of VHR image acquisition for the CwRS Campaign 2005

European Space Imaging Part 2:
 The VHR Satellite Remote Sensing data image acquisition in the 2005 years Campaign: from order entry to image acquisition

1 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



From Order Entry to Image Acquisition

1. Feasibility study
2. Weather forecast
3. Direct tasking
4. Collection strategies
5. Efforts

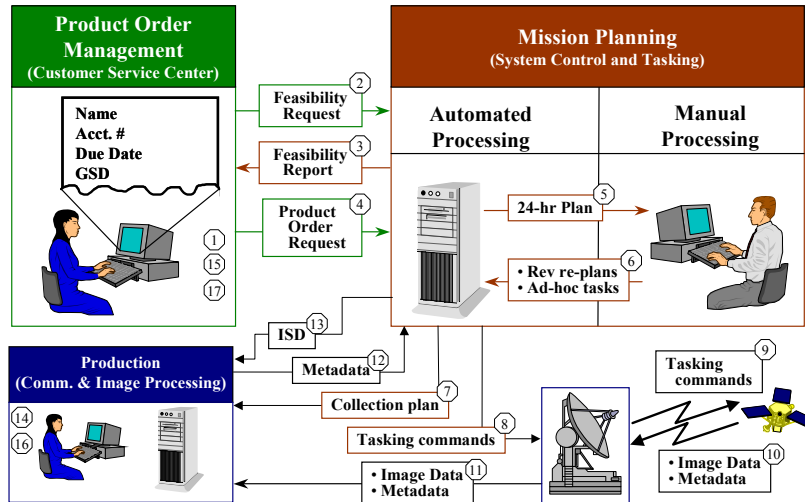
2 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





Ground Segment Interfaces

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3 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



1. Feasibility Study

- Geometric feasibility
 - Repeat rate
- Resource feasibility
 - Historical weather
 - Regional demand

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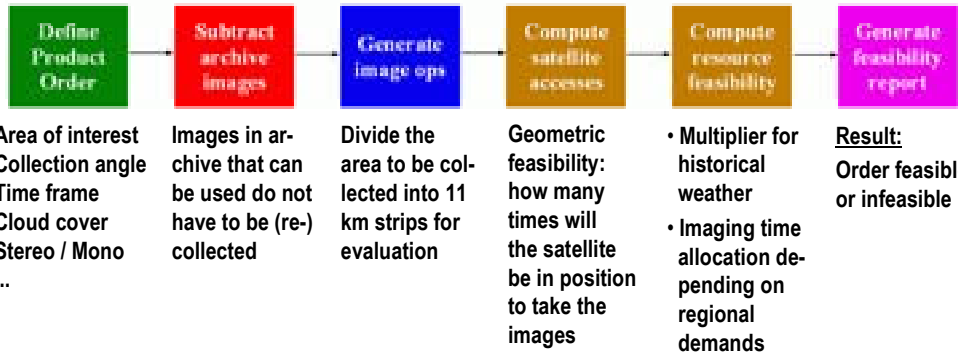
4 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





Feasibility Study Procedure

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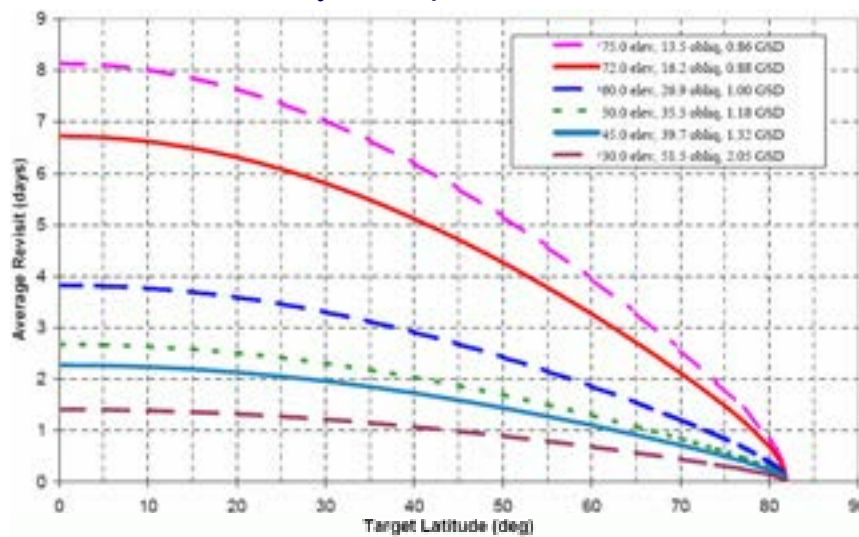


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Geometric Feasibility – Repeat Rate

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6 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI

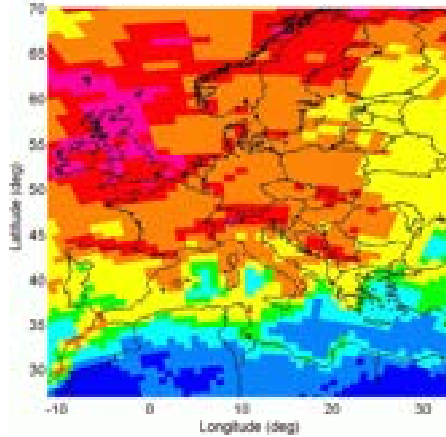




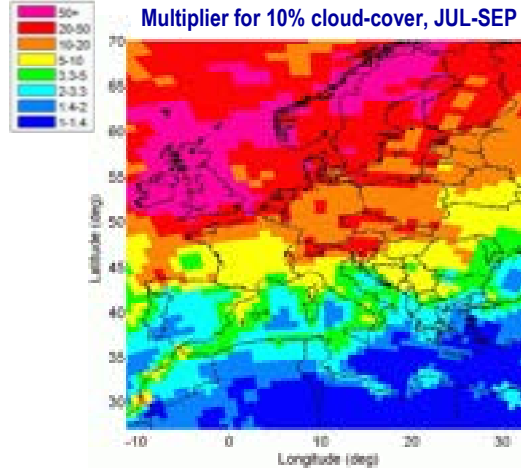
Resource Feasibility – Historical Weather

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Multiplier for 10% cloud-cover, APR-JUN



Multiplier for 10% cloud-cover, JUL-SEP

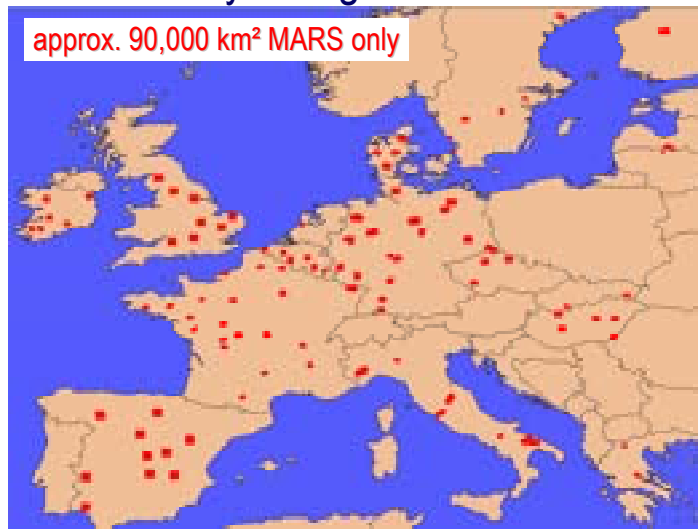


7 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



Resource Feasibility – Regional Demand CwRS 2005

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8 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





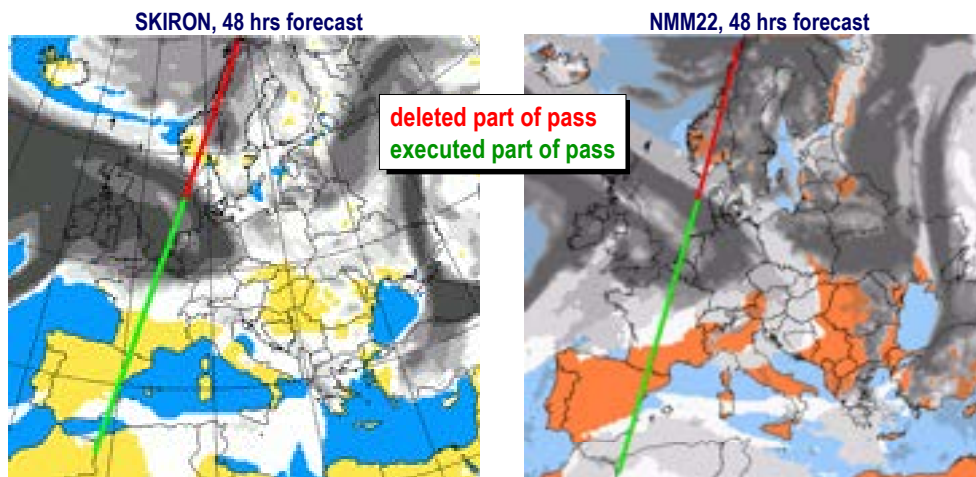
2. Weather Forecast

- Time line
 - up to 1 month prior to pass: pass request (no weather forecast)
 - 48 hrs prior to pass: pass confirmation
 - 48 to 36 hrs prior to pass: exact activity window determination
- Forecast models
 - Freely available (SKIRON, BOLAM, NMM22...)
 - Commercial services

9 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



Different Forecast Models for the Same Pass



→ Activity window change 02-JUN-2005

10 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





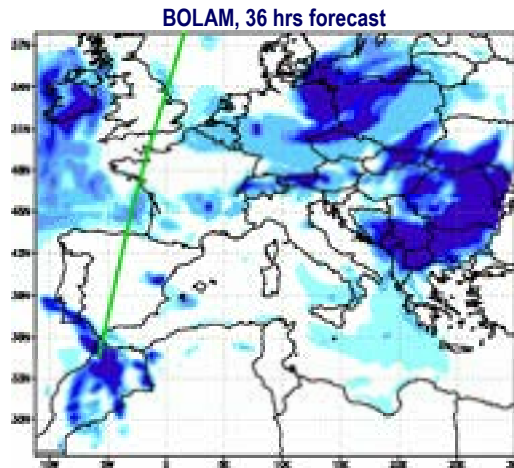
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Forecast Model



→ Activity window confirmed 07-JUN-2005

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Forecast Model



→ Activity window east extended, west cancelled, 15-JUN-2005

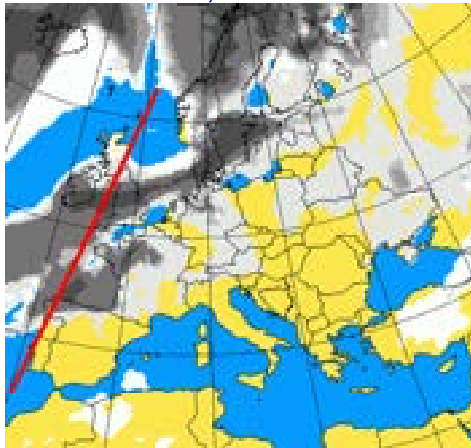
12 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





Different Forecast Models for the Same Pass

SKIRON, 48 hrs forecast



NMM22, 48 hrs forecast



→ Activity window cancel 25-JUN-2005

13 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



3. Direct Tasking

- Time line
- Collection opportunity
- 24-hr scheduler
- Near-real-time weather
- Schedule editing process

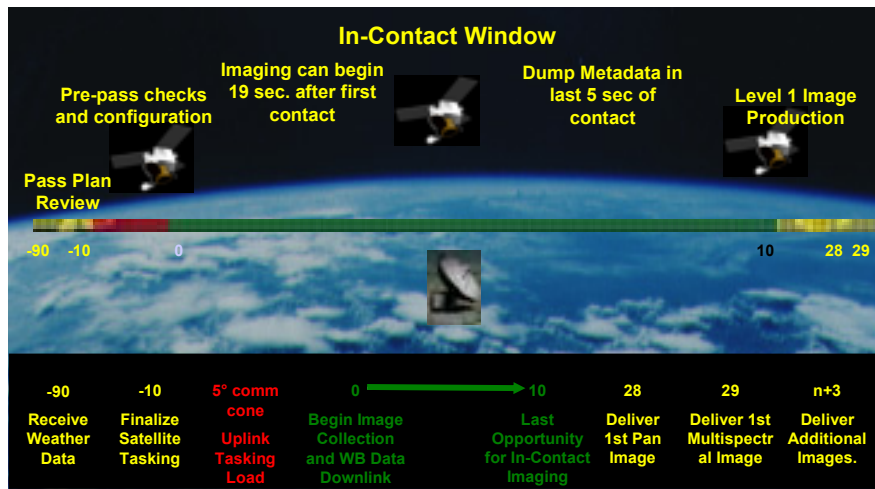
14 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





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Time Line for Direct Tasking

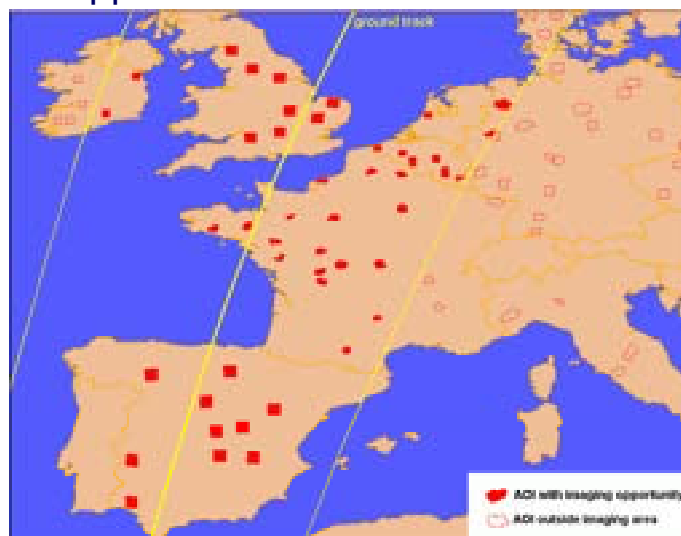


15 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



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Collection Opportunities on a Pass



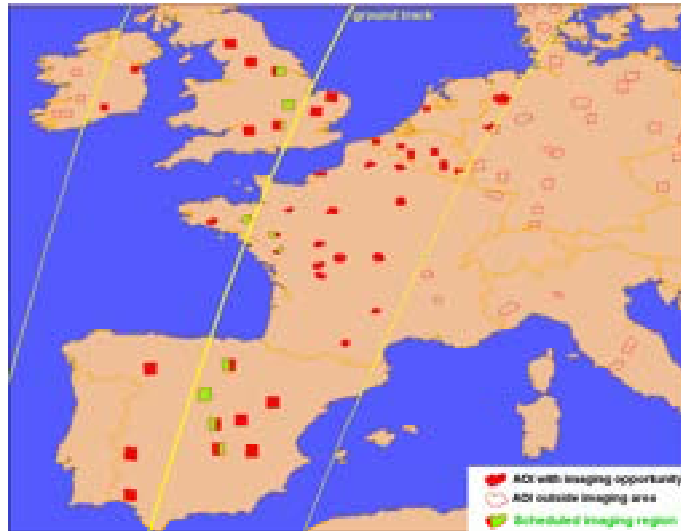
16 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





Initial Schedule 2:30 hrs Prior to Pass

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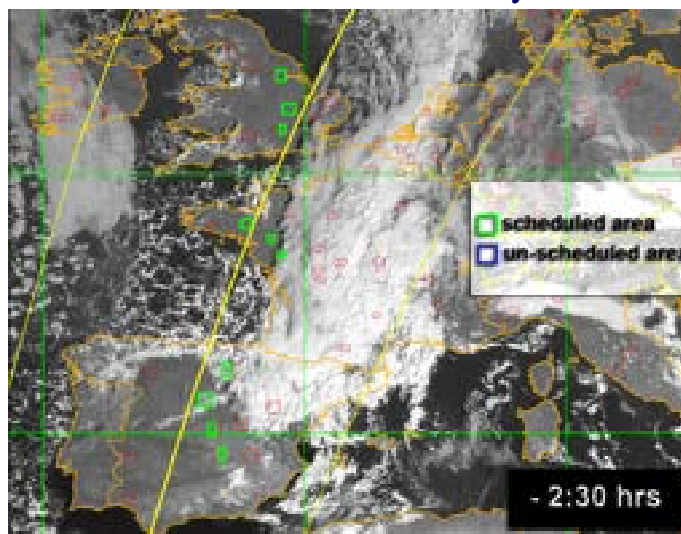


17 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



Initial Schedule with Weather Overlay

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18 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



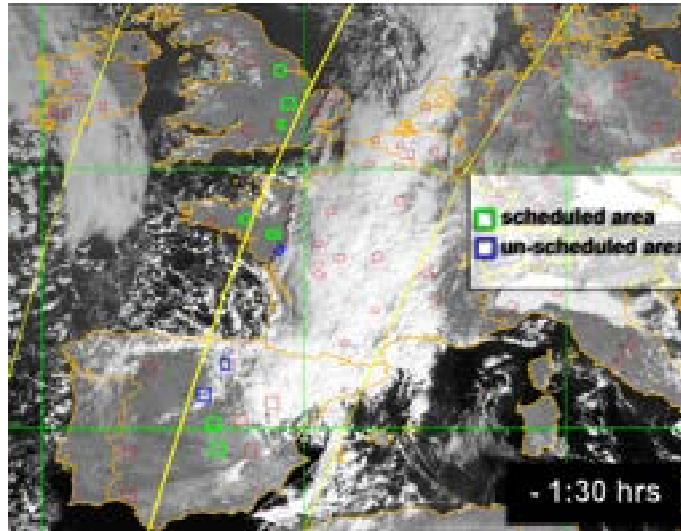


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First Schedule Editing Iteration

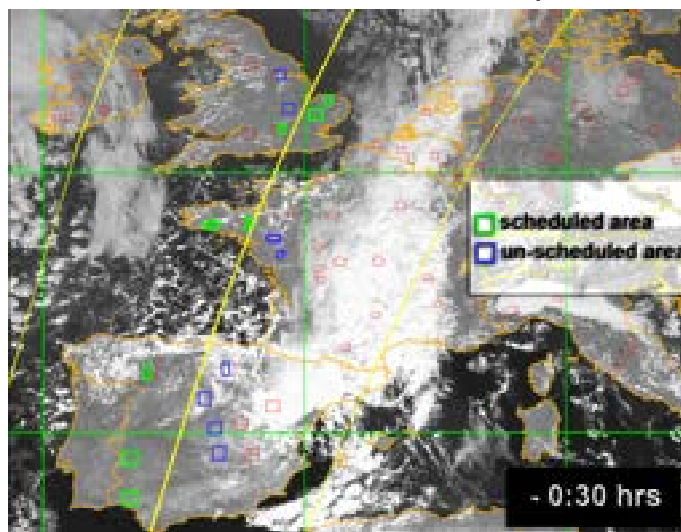


19 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



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Final Collection Schedule 30 Minutes prior to Pass



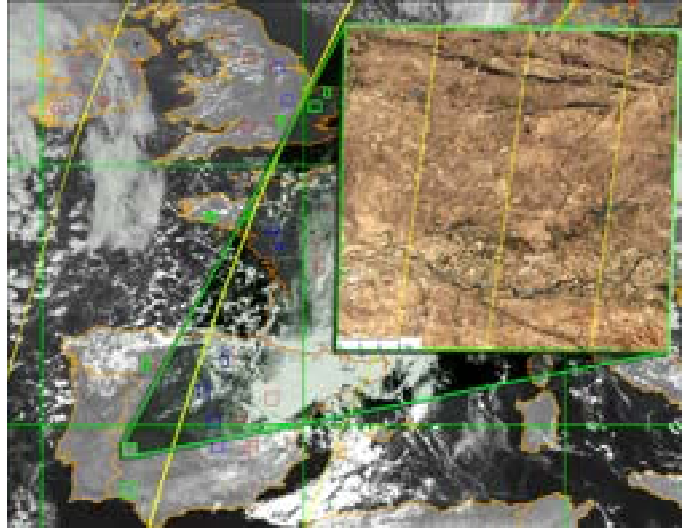
20 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





Example Result of Collection

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21 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



4. Collection Strategies

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- Single pass collections
 - Standard strategy
 - Strategy for CwRS Campaign
- Multiple pass collections
 - Standard strategy
 - Strategy for CwRS Campaign

22 130.000 km2 VHR images - CwRS Campaign 2005 / G. Ellis - EUSI

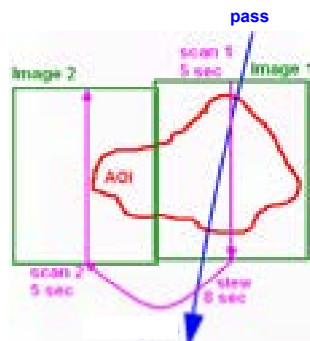




Single Pass Collection

Standard strategy

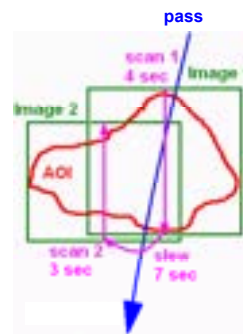
- Maximize generic area
- Minimal imaging overlap



e.g. 440 km², 18 sec scan + slew

CwRS strategy

- Minimize satellite time usage
 → Saved time is used to point satellite at next target



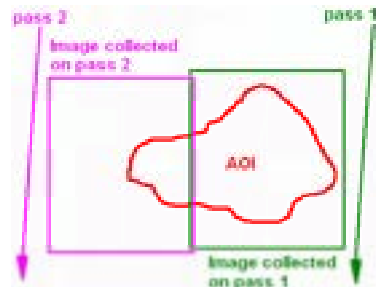
e.g. 340 km², 14 sec scan + slew



Multiple Pass Collections

Standard strategy

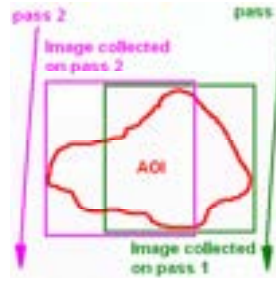
- Maximize generic area
- Minimal imaging overlap



e.g. 440 km² collected, 20 km² overlap

CwRS strategy

- Maximize imaging overlap
- Minimize cloud cover
 → Overlap eliminates clouds



e.g. 370 km² collected, 110 km² overlap





5. Efforts for CwRS 2005

- Persons operationally involved at EUSI

- Operations Manager 2 @ 50 % each
- Satellite Tasking Controller 1 @ 70 %, 3 back-up
- Ground Station Software Administrator 1 @ 70 %, 3 back-up
- Ground Station Hardware Administrator 1 @ 70 %, 3 back-up
- Product Order Manager 1 @ 100 %, 2 back-up
- Production Manager 1 @ 40 %, 3 back-up
- Administration Manager 1 @ 50 %
- Sales Manager 1 @ 20 %
- General Manager 1 @ 10 %

- Collections

- Number of collections: 344
- Total area collected incl. overlap & recollections: 355900 km²

25 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI



Thank you for your attention

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26 130.000 km² VHR images - CwRS Campaign 2005 / G. Ellis - EUSI





EUROPEAN COMMISSION
DIRECTORATE GENERAL JRC
JOINT RESEARCH CENTRE – ISPRA
Institute for the Protection and Security of the Citizen
Agrifish Unit

**11th Annual Conference on Control with Remote
Sensing of Area-based Subsidies
25th – 27th of November, 2004
Margitsziget Hotel, Budapest, Hungary**

Presentation 5 – Organising 130.000 km² of VHR image acquisition for the CwRS Campaign 2005, part 3

Axel Oddone

Eurimage SpA

Abstract

Following part 1 and 2 presented by JRC and EUSI, in part 3 Eurimage will focus on the final working procedure for the 2005 VHR campaign, after that an image has been acquired.

This will include: CC assessment, notifications of full/partial acquisition through upload in LIODOTNET, validated and proposed acquisitions, image production and delivery, invoicing procedure. All the intensive interactions between JRC-suppliers-contractors, especially through the use of the LIODOTNET and VHRBrowser on-line tools, will be clearly shown.

Keywords: VHR, Cloud Cover, LIODOTNET, VHRB, image delivery



Organising 130.000 km² of VHR image acquisition for the CwRS Campaign 2005

Eurimage part 3;
the VHR Satellite Remote Sensing data image acquisition in the 2005 years Campaign: from acquisition to image delivery and invoicing

Axel Oddone - Eurimage

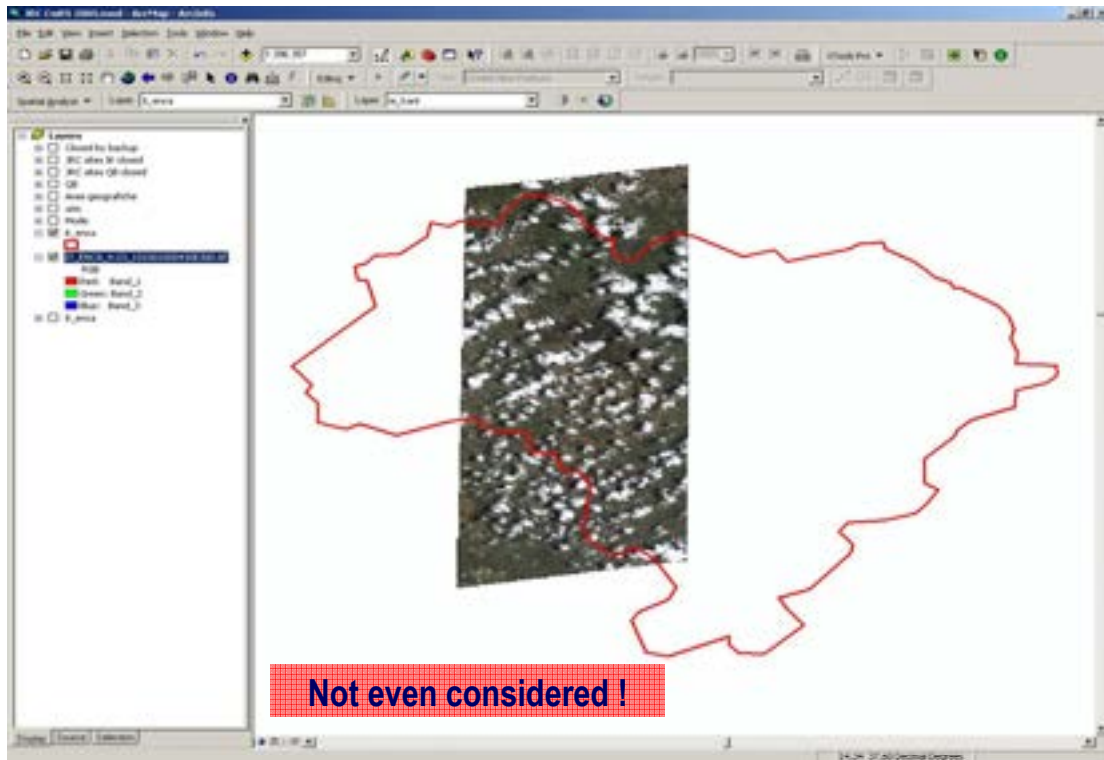


After the acquisition has been made...

- Few hours after acquisition we receive via FTP from the US a Browse Image, level 2A processing in Natural Colors, with 16 m resolution in GeoTIFF format
 - File size between 5 and 180 MB, depending on viewing angle and strip length
 - Overall 2005 VHR campaign QuickBird Browse Images data volume: 8 GB
- We load the Browse Image into ArcGIS 9, to perform Cloud Cover evaluation

Axel Oddone - Eurimage





Cloud Cover evaluation

- Pixel-based classification of clouds, on the area intersection between:
 - Acquisition strip and Site area
 - Exclusion of areas of acquisitions already validated by JRC
- Importance of human operator to understand value of:
 - Clouds and Haze
 - Distribution of clouds

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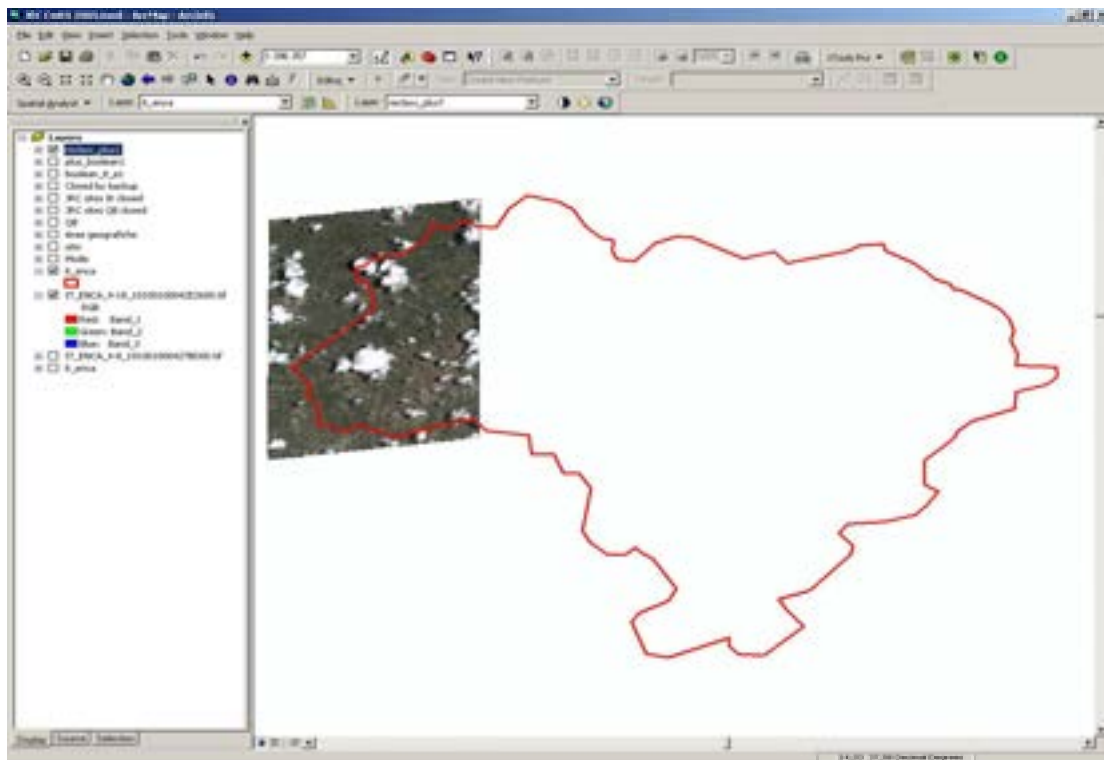


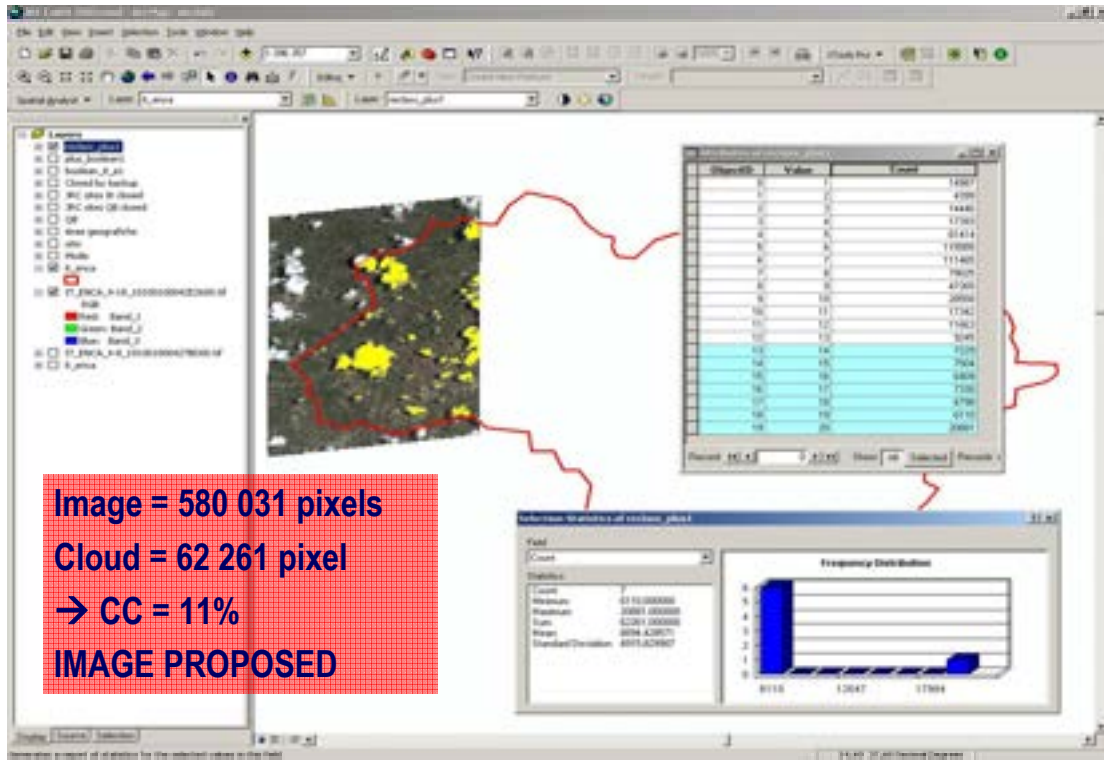
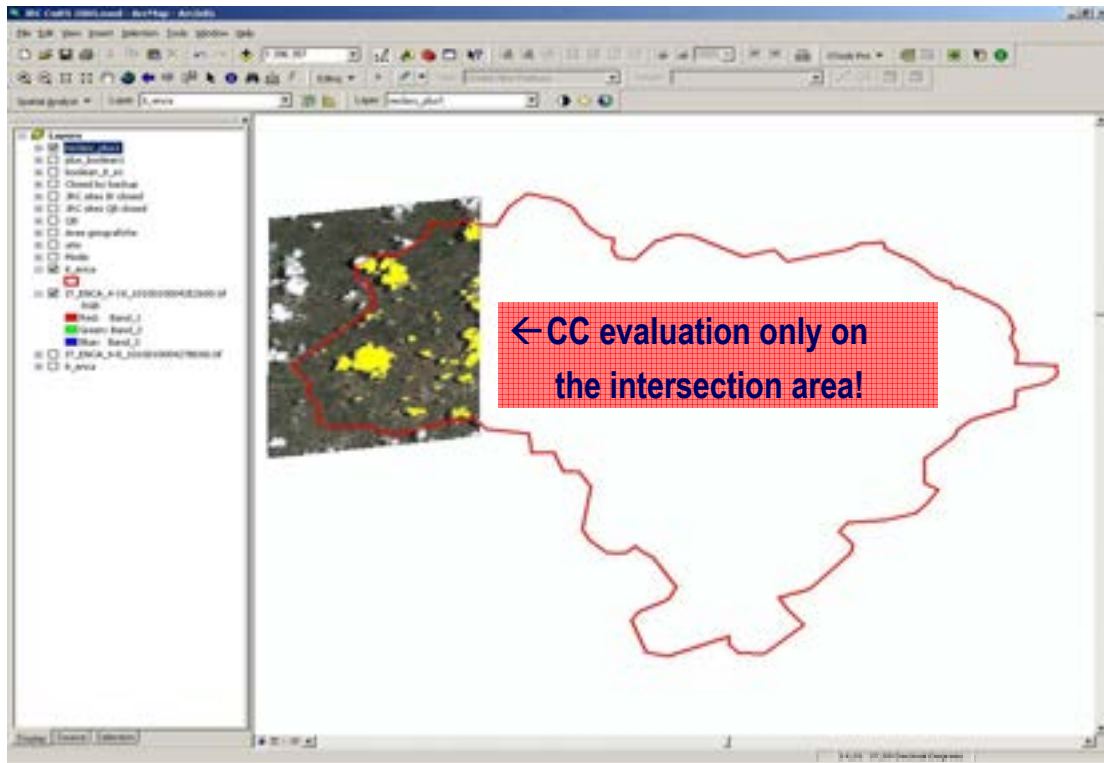


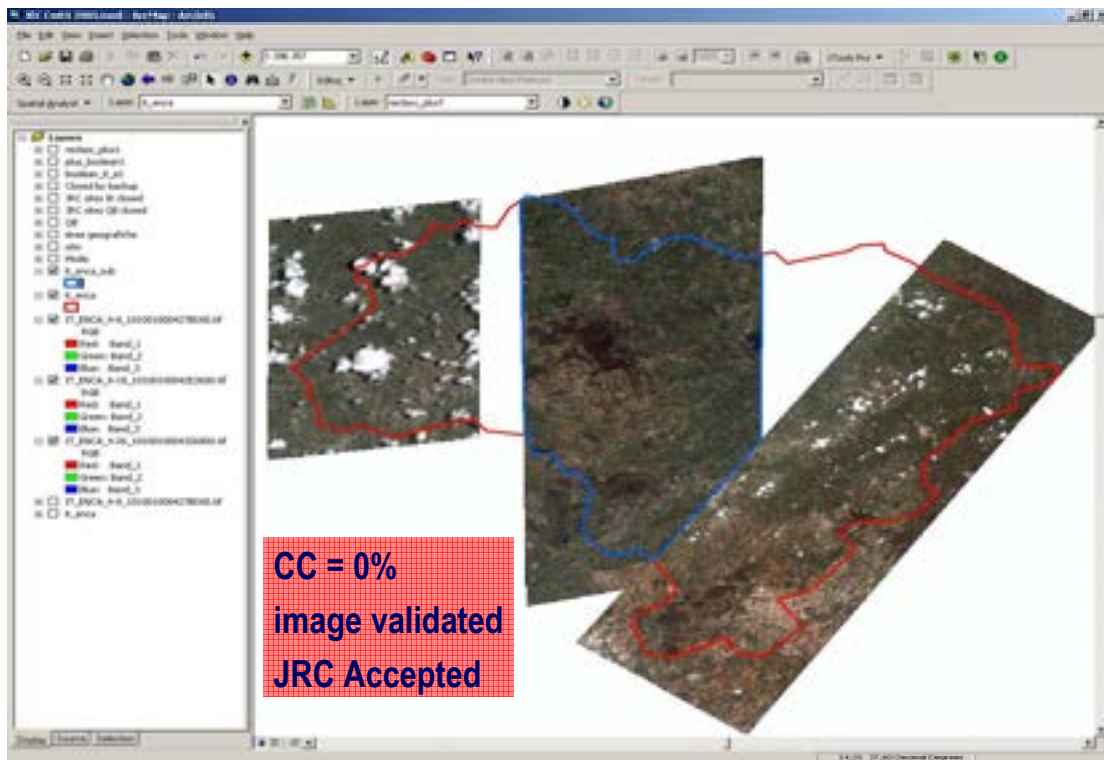
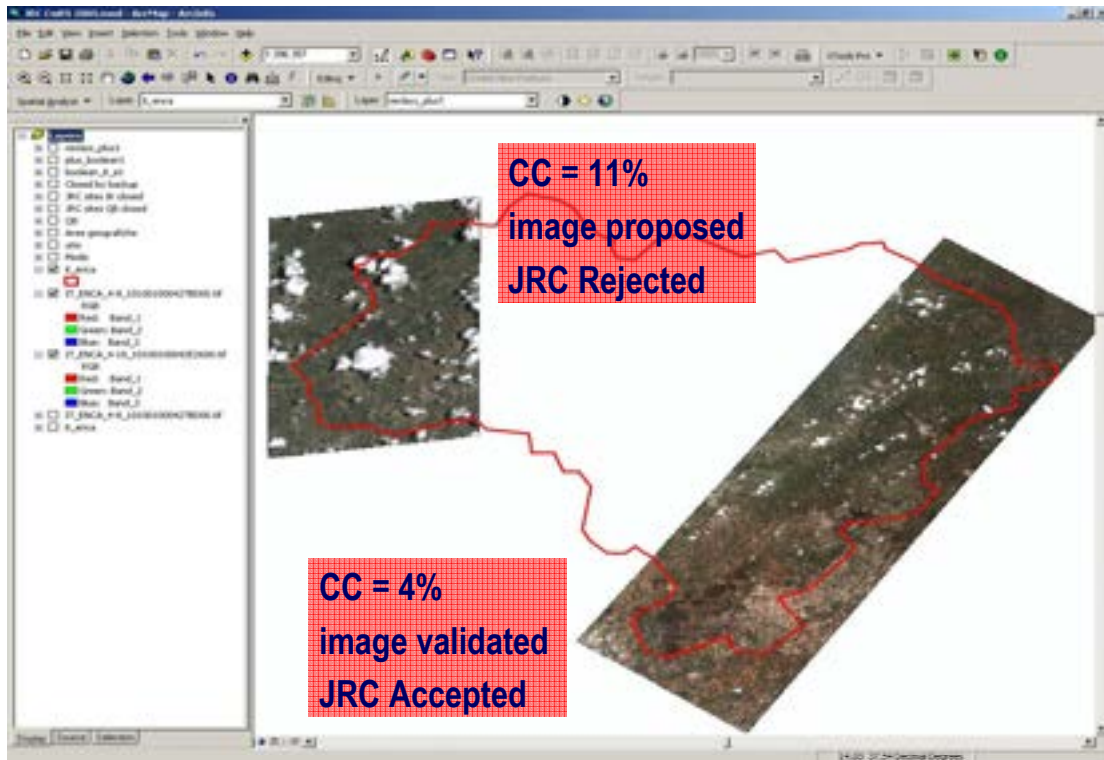
Cloud Cover evaluation

- 3 possibilities:
 - if $CC < 10\%$ → image validated
 - if $11 < CC < 30\%$ → image proposed
 - if $CC > 31\%$ → image discarded
- Subareas may be validated/proposed for each acquisition, if $> 100 \text{ Km}^2$

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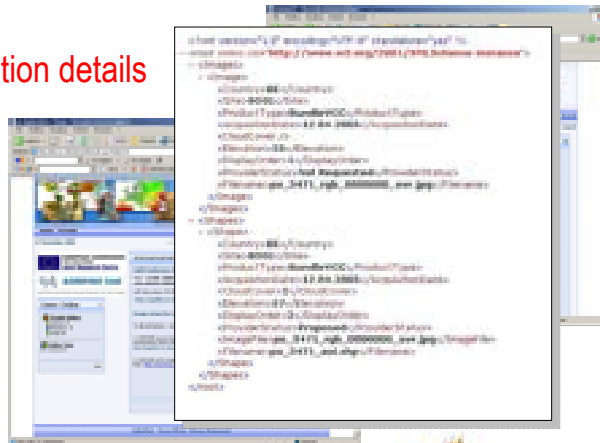






Upload of acquisition into LIO DOTNET

- We find the site page into the system and we upload a zip file containing:
 - XML file with acquisition details
 - Browse Image
 - shape file if needed
- We receive an upload confirmation by LIO via e-mail @

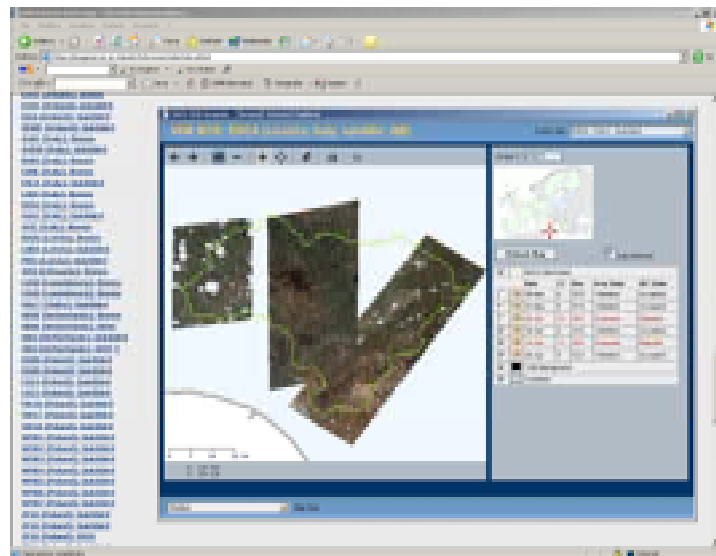


Axel Oddone - Eurimage



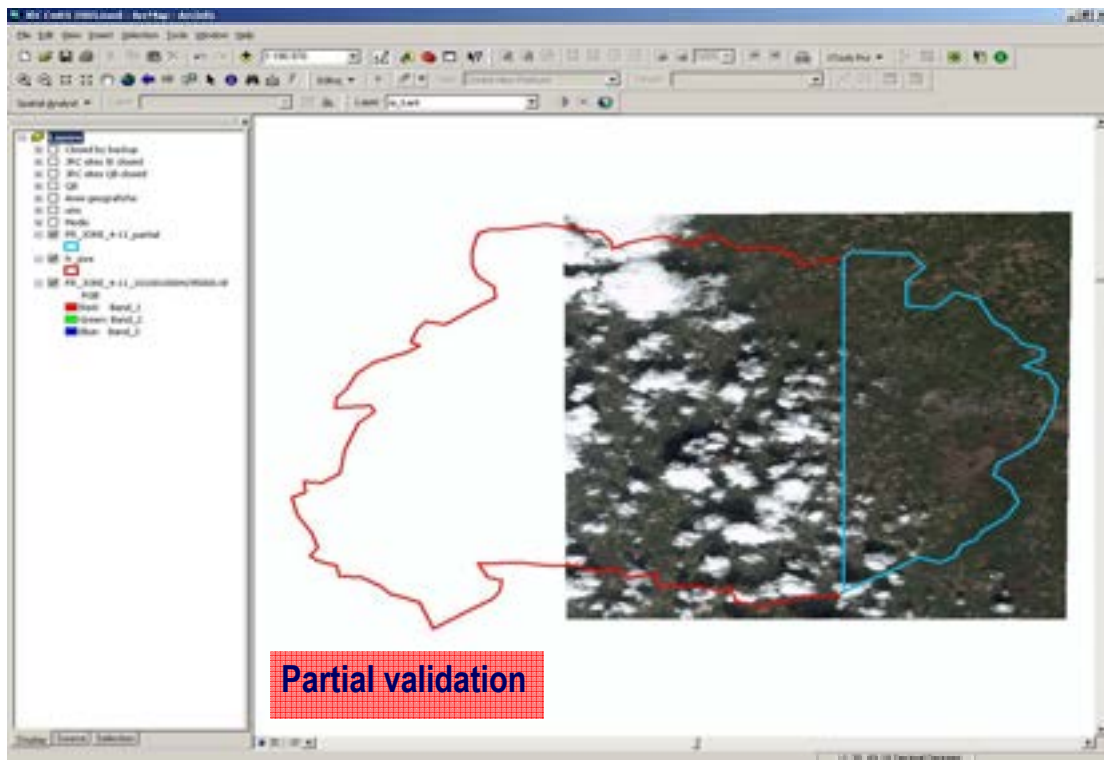
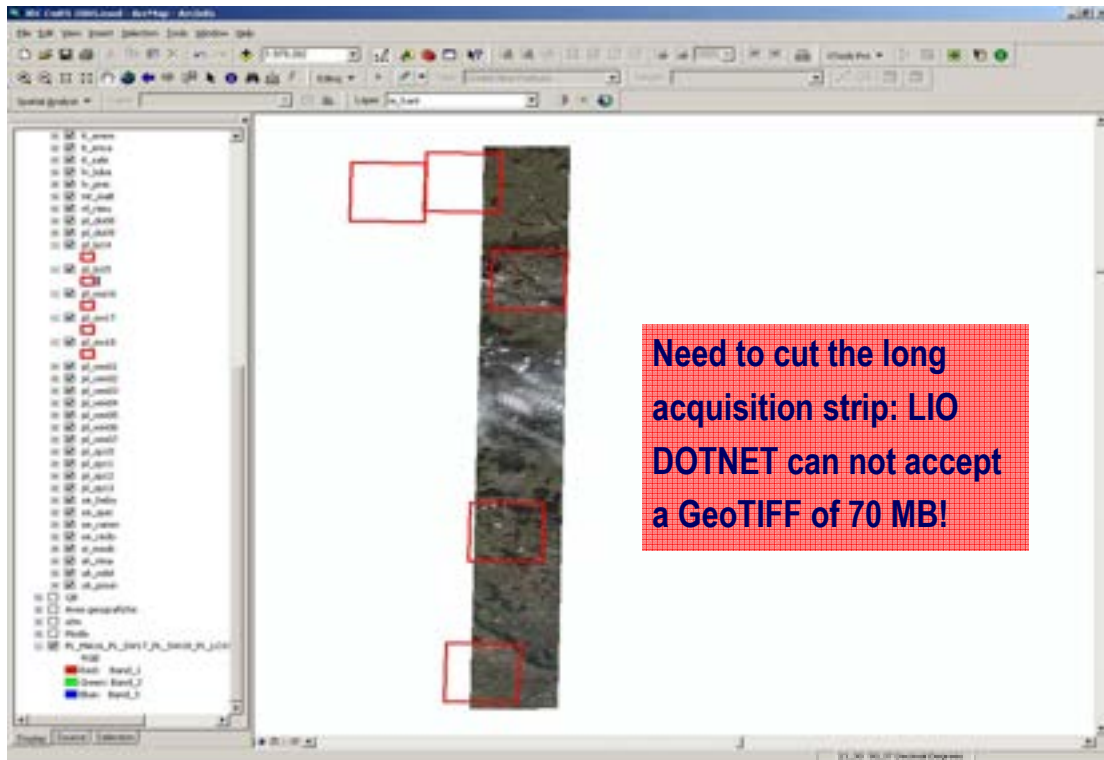
VHR Browser

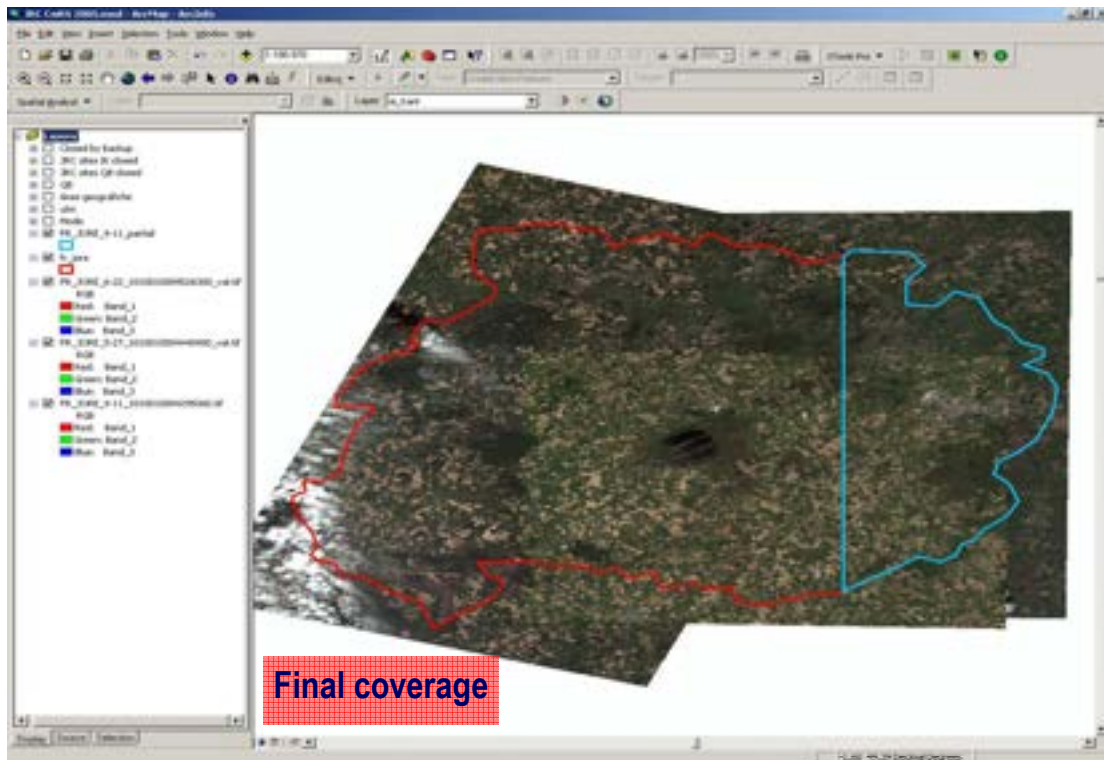
- The acquisitions can be seen and downloaded from the VHRB, the JRC on-line GIS application



Axel Oddone - Eurimage







Procedures 1

- After having uploaded acquisitions into LIO, we need to wait LIO e-mail with JRC acceptance/rejection:
 - Acceptance if acquisition validated @
 - Acceptance/rejection for proposed acquisitions, after contractor comments (through LIO) @
- After order completion (or in case of partial shipment):
 - LIO sends closing e-mail @
 - JRC sends Order Letter via fax
 - we start an immediate and quick production of the images

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Procedures 2

- JRC clicks into LIO for every Order Letter:
 - Creation date
 - Signature date
 - Sent date
- We click into LIO the date when we receive the OL

The screenshot shows a form titled "Order Status" with four date fields, each with a "Calendar" button to its right:

- Created Date: [15/09/2005]
- Signed: [15/09/2005]
- Sent: [14/09/2005]
- Received: [14/09/2005]

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Procedures 3

- Shipment :
 - DVD via international courier
 - FTP download
- We click into LIO the shipment date and add a delivery note if needed (LIO sends upload notification) @
- Contractors click into LIO the receiving date

The screenshot shows two sections: "Provider Image Status" and "Contractor Image Status".

Provider Image Status: Includes a "Delivery note" field with a "Browse" button and a "Contract" button.

Contractor Image Status: Includes a "Received" date field with a "Calendar" button.

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Procedure 4

- Invoicing procedure for each Order Letter:
 - We send an e-mail to JRC with a simulated invoice
 - JRC replies for acceptance or changes
 - We send the final invoice via priority mail
 - JRC certifies reception
- All these actions require a click in the LIO



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Other automatic LIO notifications via e-mail:

- Opening of every Acquisition Request @
- Window extensions:
 - Acceptance of any partial acquisition @
 - Closing old AR @
 - Opening New AR @
- Closing of speculative backup sites @
- Dedicated backup acquisitions @
- Disabled acquisitions @

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How many @ @ @ @ have you seen?

- Definitely we handled a lot of e-mails this year !
 - More than 1,000 automatically received from LIO !
 - A lot of others due to discussions and invoicing
 - Everything in a few campaign months only...
- We are only a little slice of the overall cake...
- I can only imagine how many E-mails are in JRC mailboxes!



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Persons operationally involved during the VHR Campaign

- Eurimage:
 - 1 fully dedicated CSR (with at least 1 backup)
 - 1 dedicated technical support
 - 1 Project Manager
 - 1 dedicated Commercial responsible Officer
- DigitalGlobe:
 - 1 Strategic Account Specialist
 - Planning, Production & Shipment departments

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Overall volumes:

- 396 acquisitions
- 8 GB of Browse Images
- > 350 GB of images shipped to contractors
- Adding all the other satellite providers, the VHR campaign has really worked with big numbers this year!

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Thank you for your attention !

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Presentation 6 – Organisation and strategy of image acquisition for the 2006 CwRS campaign in France

Fleur Francois-Chemery

ONIC, FR

Abstract

In 2005, CwRS has been performed in 45 different sites. For each of them, four high resolution satellite images and one 1-meter resolution have to be provided. All these images have to be acquired and processed as quickly as possible to be able to finish the CAPI on the 15th of August.

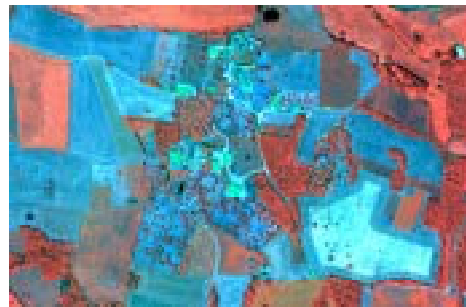
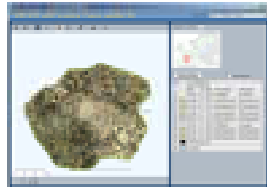
As a consequence it is necessary to imagine –especially for the 1-meter resolution image- solutions in order to guarantee the supply of the image for each site.

Three main actions will be developed in this presentation: the prioritisation of sites in order to enlarge the programmation acquisition windows, the use of different sensors (satellites and airborne) and choice of more than one contractor for the orthorectification to maximize the production capacity.

The implementation of alert procedures minimizes the risk of missing an image or receiving it too late. This presentation will also describe the organisation of the different actors in the orthoimagery supply chain.

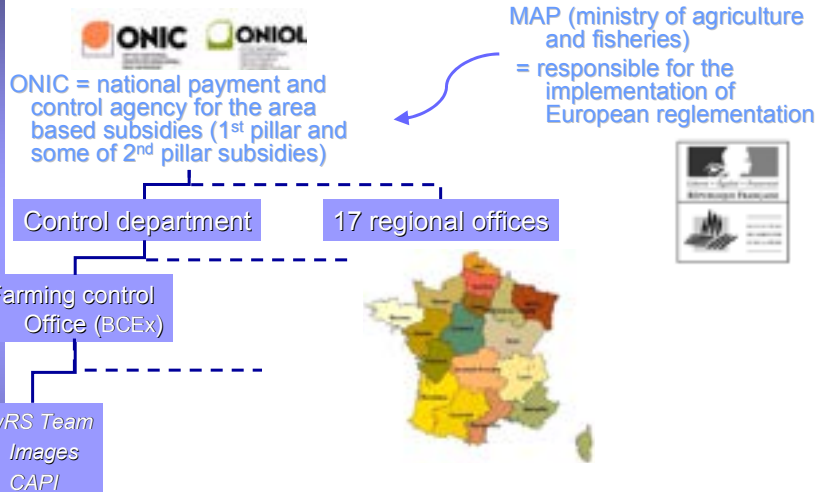


STRATEGY AND ORGANISATION OF THE IMAGE ACQUISITION IN 2005 IN FRANCE



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The team presentation



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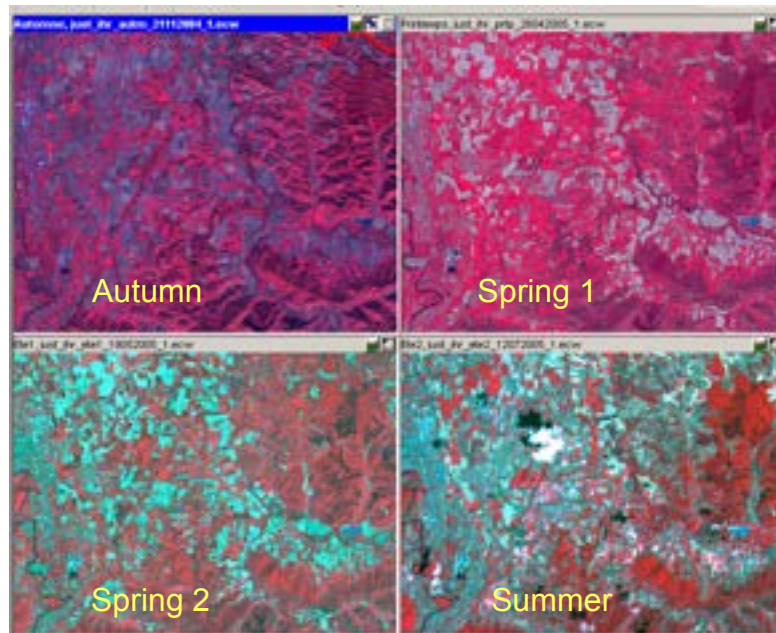
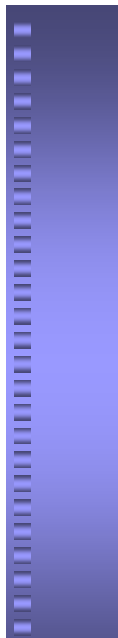


The image requirements

- 45 control sites (33 142 Km²)
- For each :
 - ◆ 4 HR satellites image
 - Autumn
 - Spring 1
 - Spring 2
 - Summer



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The image requirements

- 45 control sites (33 142 Km²)
- For each :
 - ◆ 4 HR satellites image
 - Autumn
 - Spring 1
 - Spring 2
 - Summer
 - ◆ 1 one-meter resolution image (to measure the parcels)



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The image requirements



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Objectives

- Paying controlled applications at the same time as the others, after the 1st of December
 - Ground inspections for rejected applications before the end of September
- ⇒
- Finishing the CAPI before 15th of August (official date for CAPI contractors)



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Constraints

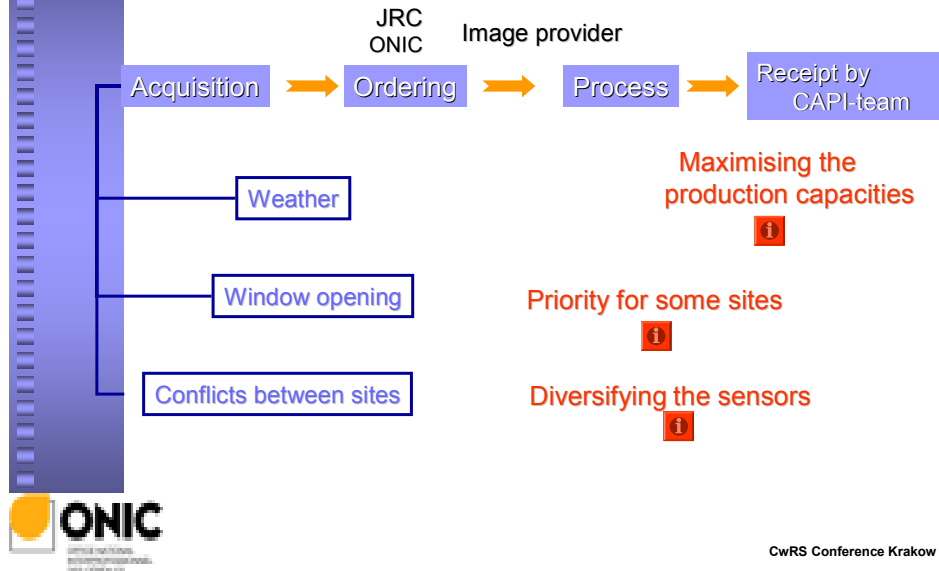
- Mid-June : beginning of the CAPI in 19 different CAPI-teams
 - ◆ with at least autumn, spring 1 & 2 images
 - ◆ and if possible the 1-meter image
 - 👍 **Schedule constraint**
- Providing the CAPI-teams with products which correspond to the technical recommendations
 - ◆ Accuracy
 - ◆ Internal Quality Check
 - 👍 **Quality constraint**



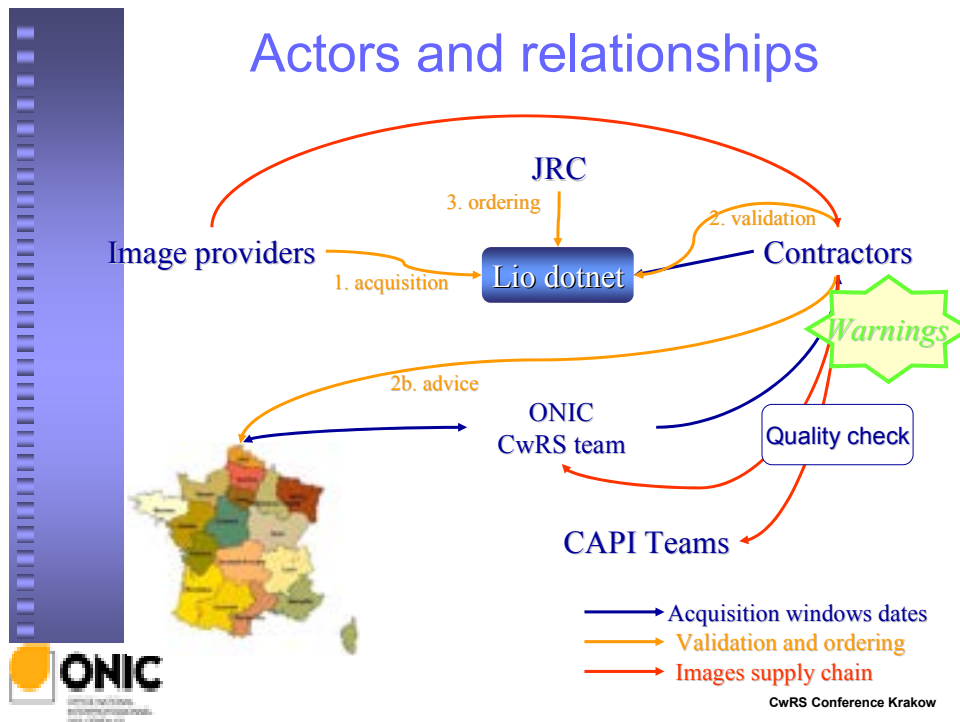
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Images delivery workflow case of VHR satellite images



Actors and relationships





The CwRS team actions

- Implementation with the JRC of acquisition strategy for the campaign.
- Defining the acquisition windows according to theoretical vegetative schedules
- Coordinating the different contractors in charge of image processing
- Reacting to requests from contractors, CAPI-teams, JRC ...
- Deciding priorities if necessary



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Contractors' actions

Satellite images:

- Proposing if necessary acquisition window adjustments to the ONIC regional offices
- Communicating all the acquisition windows to the JRC
- Quality check for a CAPI use
- Searching, proposing and validating archive images in case of acquisition difficulties
- Informing the ONIC regional offices of each validated acquisition.
- Receiving, processing and delivering within the deadline images to CAPI-teams



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Contractors' actions

Aerial photographs:

- Proposing an acquisition strategy according to the ONIC CwRS team acquisition windows already decided
- Carrying out some flight plans
- Taking the aerial photographs
- Informing the ONIC team of each acquisition and validation
- Processing and delivering the orthophographs



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ONIC regional offices actions

- Validating the opening acquisition dates.
- Giving their opinion about quicklooks
- Carrying out the ground data collection after each validated acquisition



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Results

■ HR :

28/04 : 1st order by JRC

January	February	March	April	May	June	July	August
Autumn : 28/10 – 26/02				Delivery	01/06		
		Spring1 : 16/03 – 11/05		Delivery	07/06		
				Spring2 : 18/05 – 09/06	Delivery	22/06	
					Summer : 02-27/07	Delivery	03/08 (11/08)

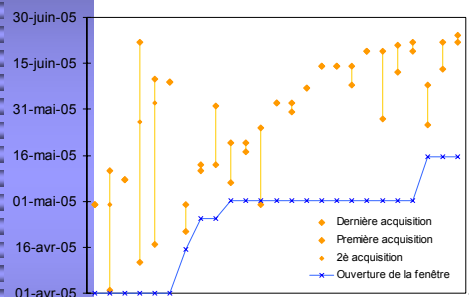
15/06 : beginning of CAPI



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Results

■ VHR :



- 8 sites acquired in one day (average size = 482 km²)
- 14 sites acquired in 2 days, 10 days between the 2 dates (average size = 563 km²)
- 3 sites acquired in 3 days, 55 days between the 2 dates (average size = 676 km²). Unfortunately only priortary sites concerned

■ Aerial photographs :

- 20 + 1 sites acquired on an average of 29 days
- Only 1 site with 2 acquisition dates
- Average size = 854 km²



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To conclude, a few questions to improve our 2006 strategy and organisation :

- Which criteria should we retain in the choice of sensors (localisation, site area ...) to maximize the chance of having one day-acquisitions ?
- How will the given priorities and the conflicts between sites be monitored ? Could we expect to have programation plannings or estimated dates for the VHR acquisitions ?
- What about the estimated date for the first order in 2006 ?



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Priority for some sites

- High rate of forage sites
 - Work load of regional offices
 - Field characteristics
- ⇒ one month earlier opening window



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Diversifying the sensors

- VHR / airborne orthophotos
- IKONOS / Quickbird

according to :

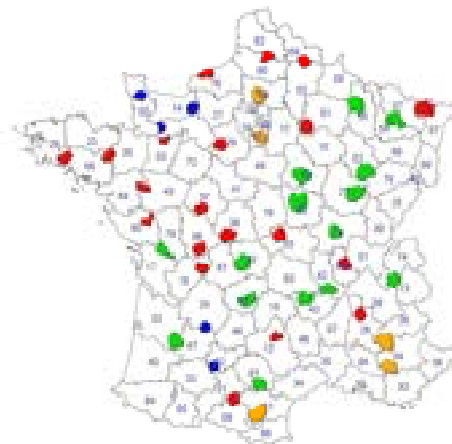
- Site area
- Climate
- Rugged surfaces



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Diversifying the sensors

- VHR / airborne orthophotos
- IKONOS / Quickbird



VHR satellite image

■ Quick-Bird

■ IKONOS

Aerial photographs

■ Silver-film camera

■ Digital camera

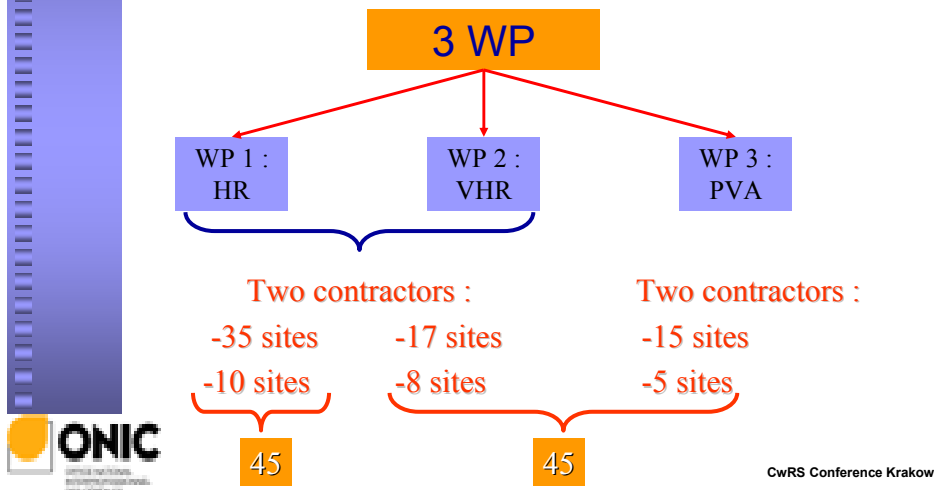


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Maximising the production capacities

Specific ITT about image acquisition monitoring and processing



Maximising the production capacities

- ◆ Delivery times :
 - ◆ Aerial photographs : 3 + 20 days
 - ◆ HR: 3 days
 - ◆ VHR : 7 days
- ◆ Quantities of images to process
 - ◆ According to production capacities shown in the tenderers' offer
 - ◆ Possible change of balance for the following campaign





Presentation 6 – HORUS: a new centralised CAPI software in France.

Alain Petitjean

ONIC, FR

Abstract

Why new software? For three principal reasons:

The increasing part of the control with remote sensing above 80% of the checks,

The new CAP reform and the added difficulty in France with the decision of “recoupling” 25%

We are convinced of the capacity of remote sensing to prepare the GAEC controls and environmental controls of the 2nd pillar.

The decision to set up the new software was taken in July 2003 and after tender the company SWORD ESRI was chosen in June 2004. After eight months of specification and development Horus was born in February 2005.

The architectural scheme of the software is centralised in ONIC Paris with images on the local CAPI site. The 19 CAPI sites (17 ONIC and 2 Contractors) are linked in real time to the central data base.

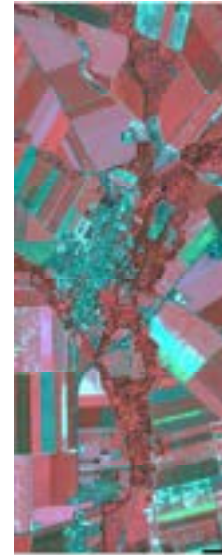
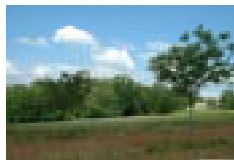
Other than the classic CAPI area the software is able to control nuts or prepare the GAEC spot check and the rural development spot check (PHAE). There is also an annual images referencing control site for operator training, and tools for the control campaign management.



HORUS



A new centralised CAPI software in France



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3 reasons for a new software

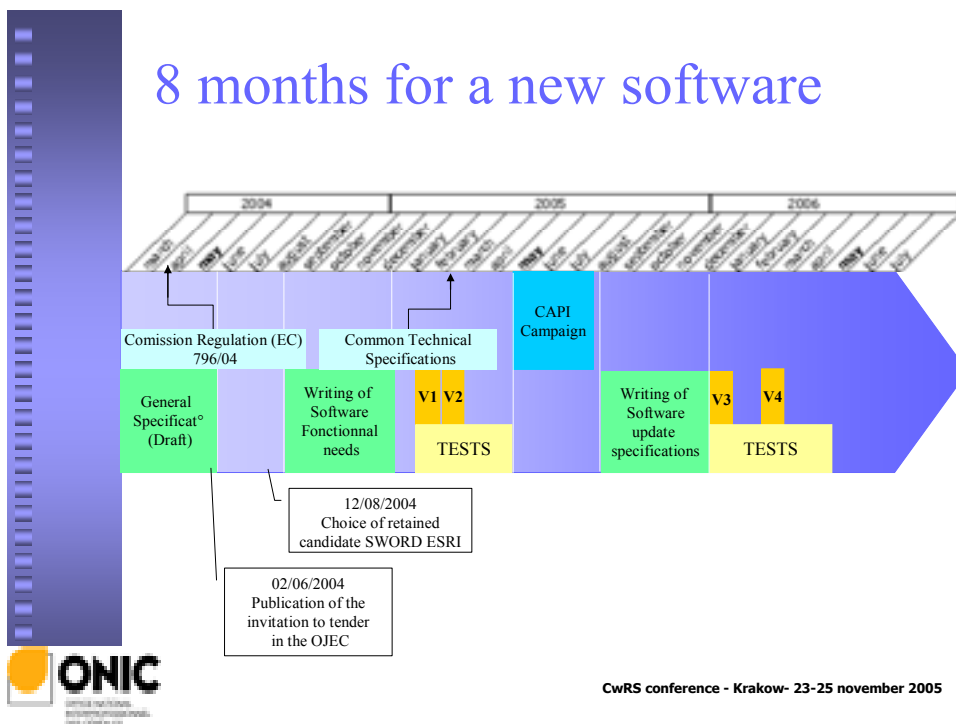
- CAP reform from 2005 → no easy way to upgrade existing CAPI software
- Complication of national regulation → decision of “recoupling” 25%
- Majority part of RS controls (85% in 2005), → the solution must be centralized, easy to manage



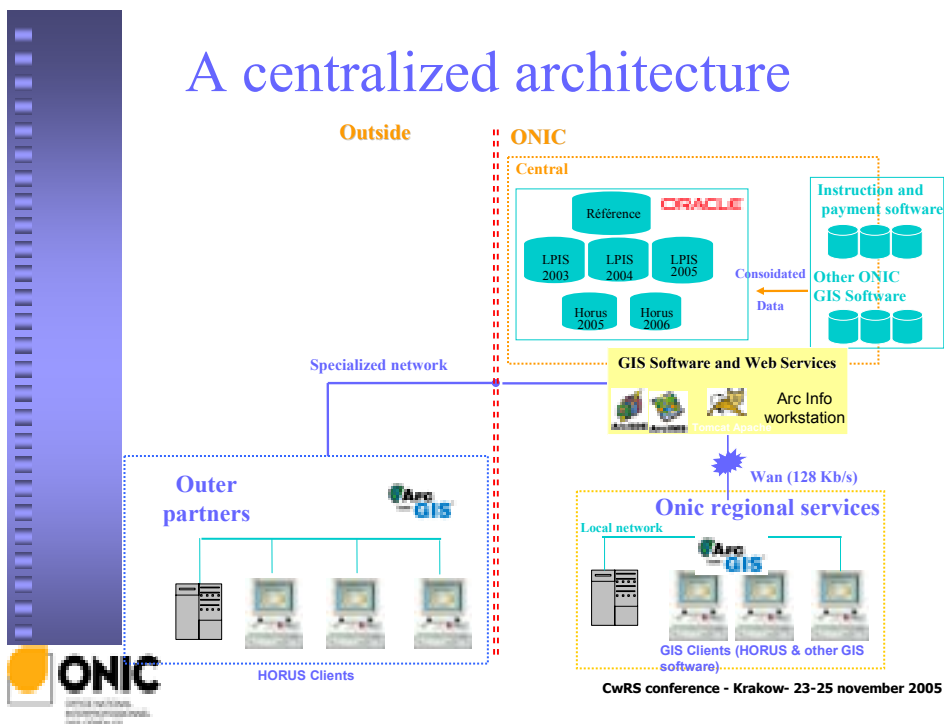
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8 months for a new software

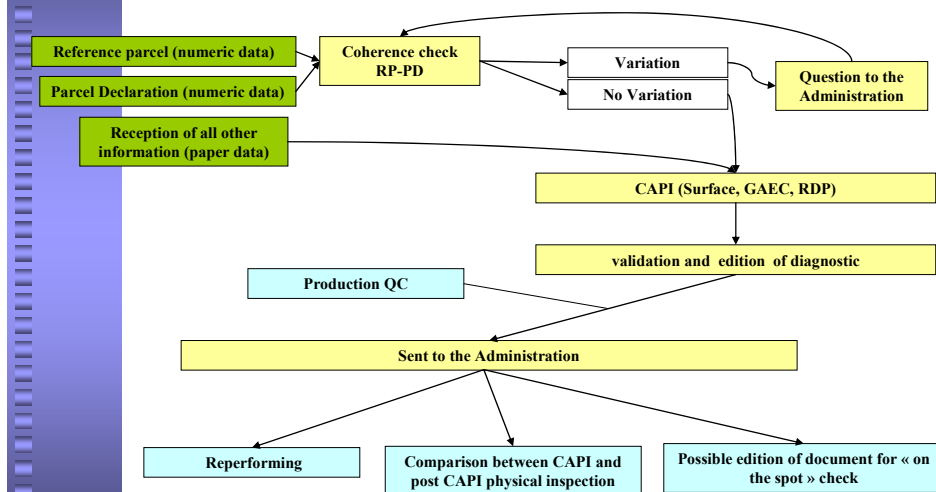


A centralized architecture





Application's road book



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The CAPI screen

A table of contents (TOC) allowed to modify the posted layers and their order...
 ... but also to add other layers (measurement GPS, particular zoning, etc...)

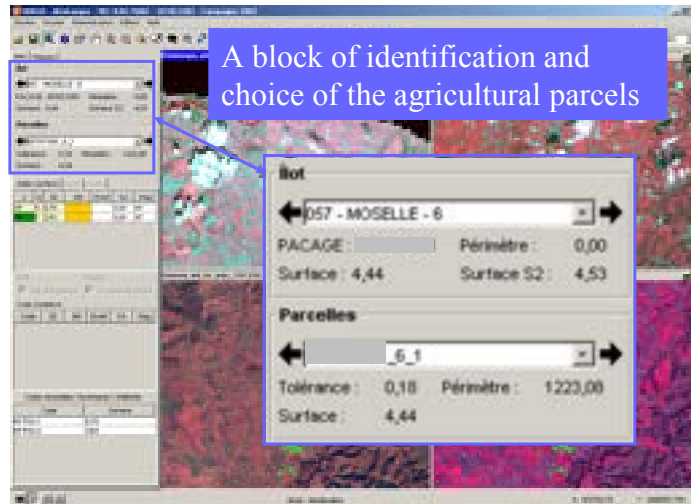
intercha with mult



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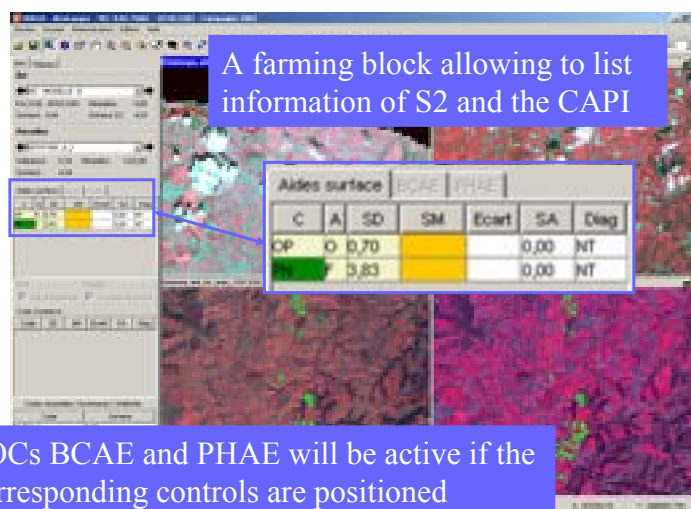
The CAPI screen



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The CAPI screen

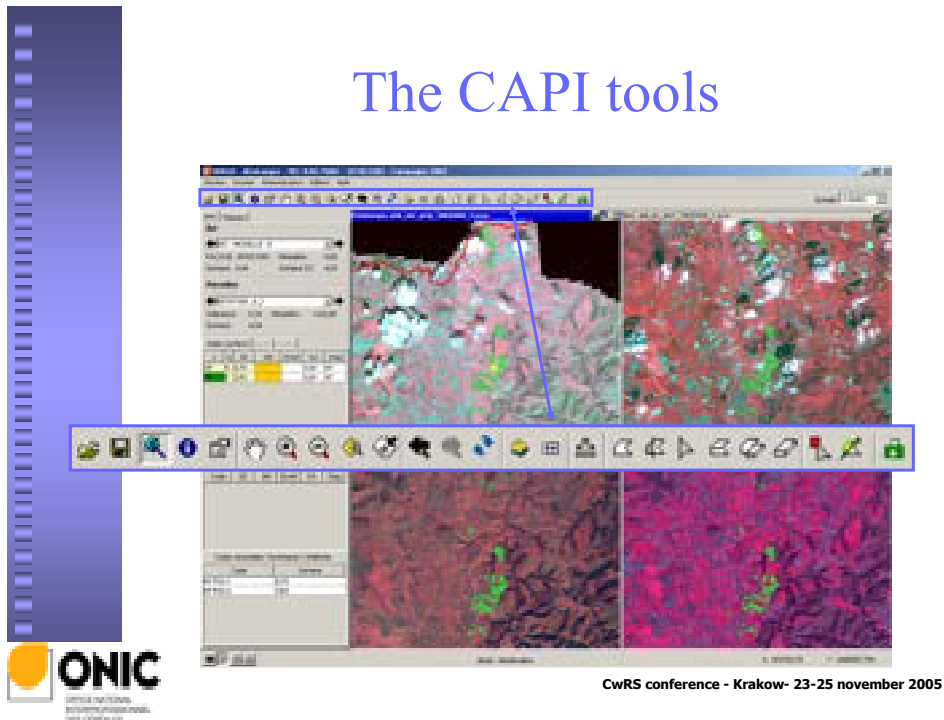


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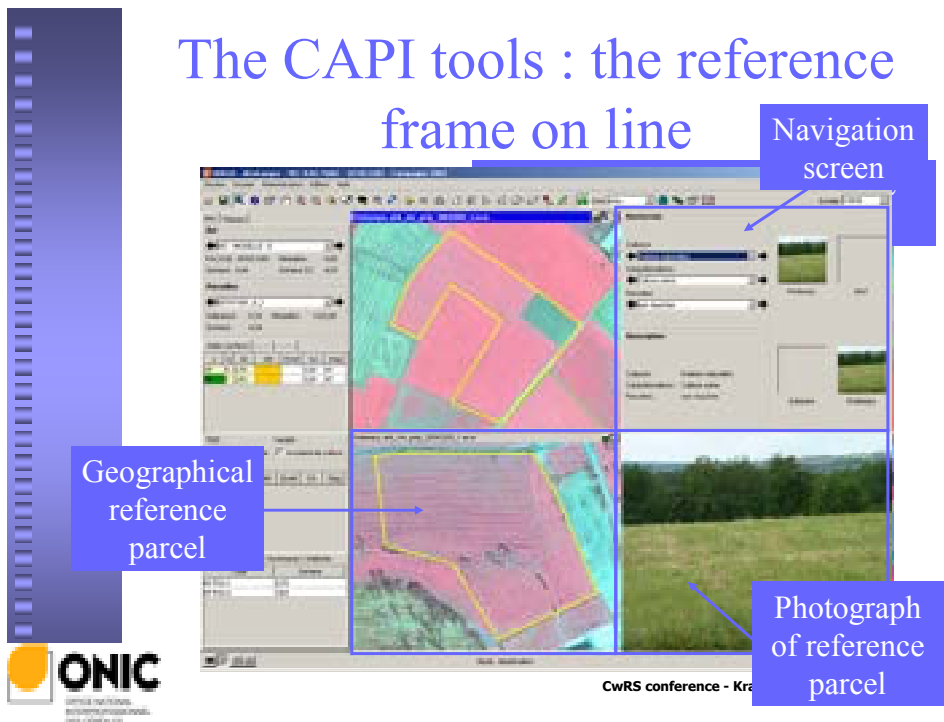




The CAPI tools

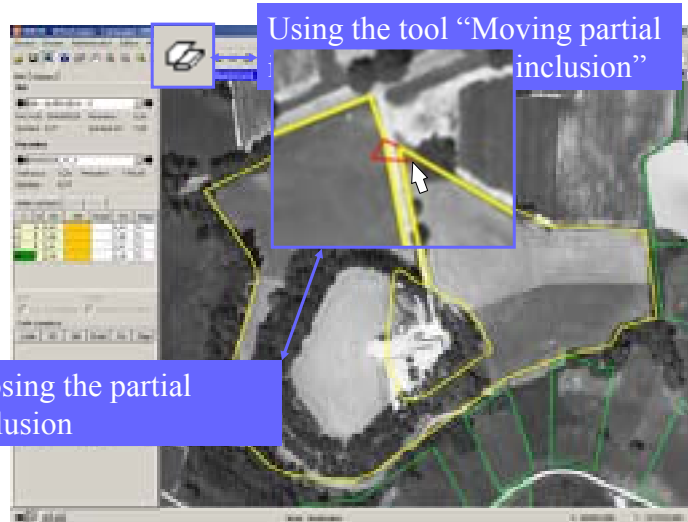
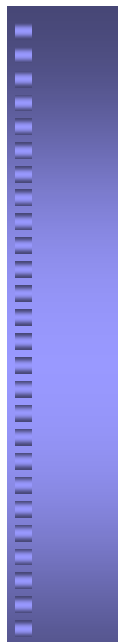


The CAPI tools : the reference frame on line



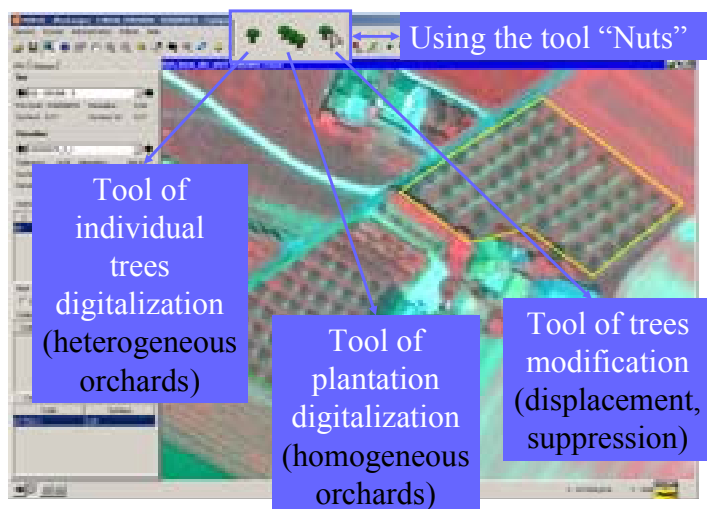
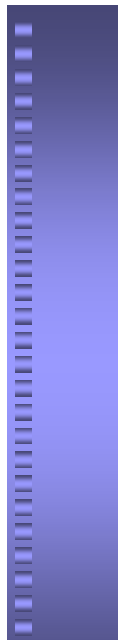


The CAPI tools : Inclusion



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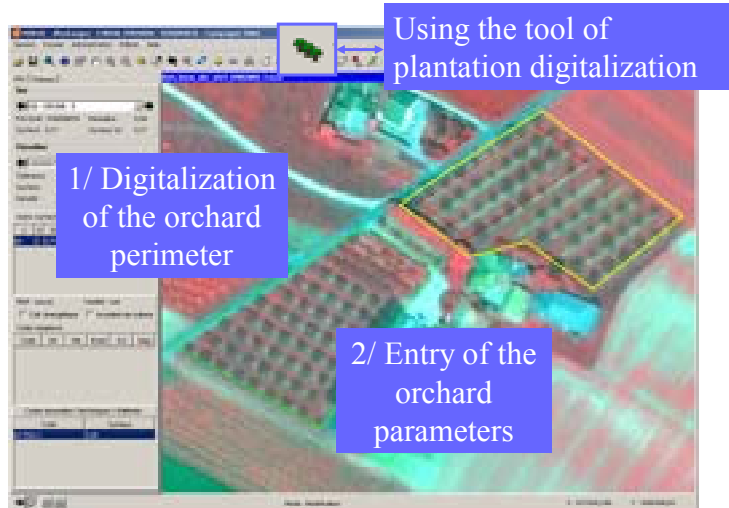
The CAPI tools : Nuts



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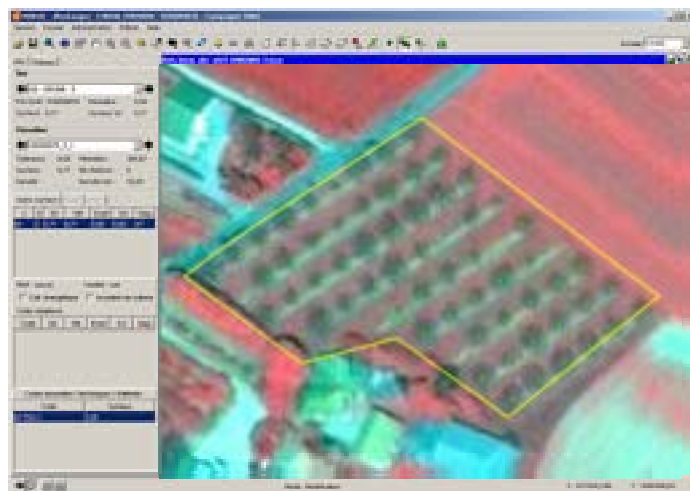


The CAPI tools : Nuts



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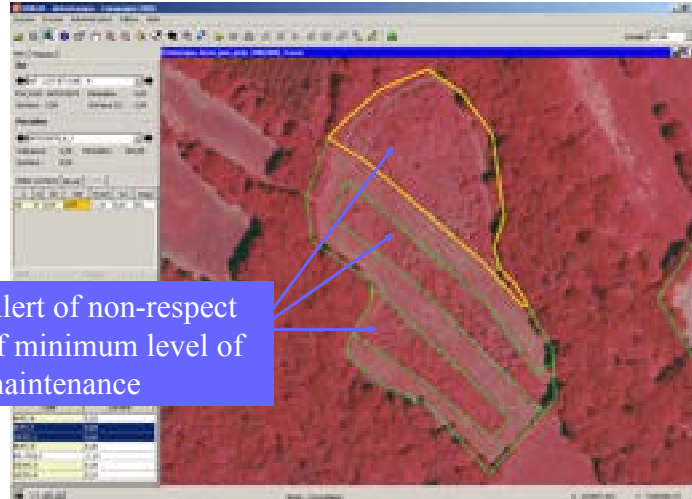
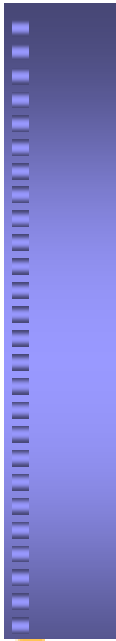
The CAPI tools : Nuts



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CAPI Good Agricultural and Environmental Conditions

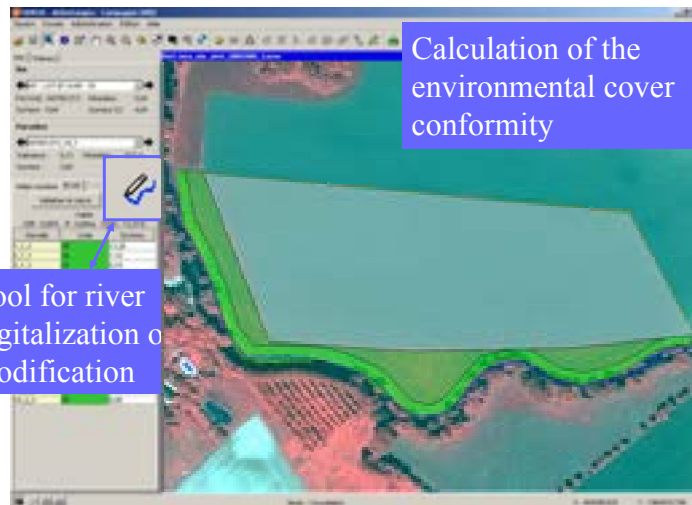
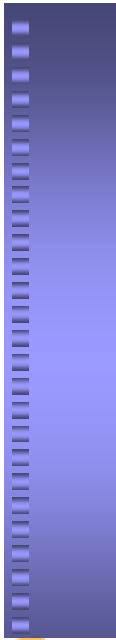


Alert of non-respect of minimum level of maintenance



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CAPI Good Agricultural and Environmental Conditions



Calculation of the environmental cover conformity

Tool for river digitalization or modification



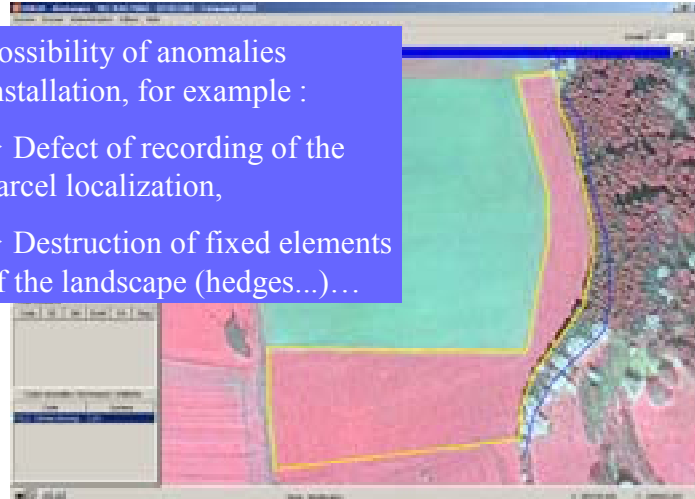
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CAPI Rural Development Policy

Possibility of anomalies installation, for example :

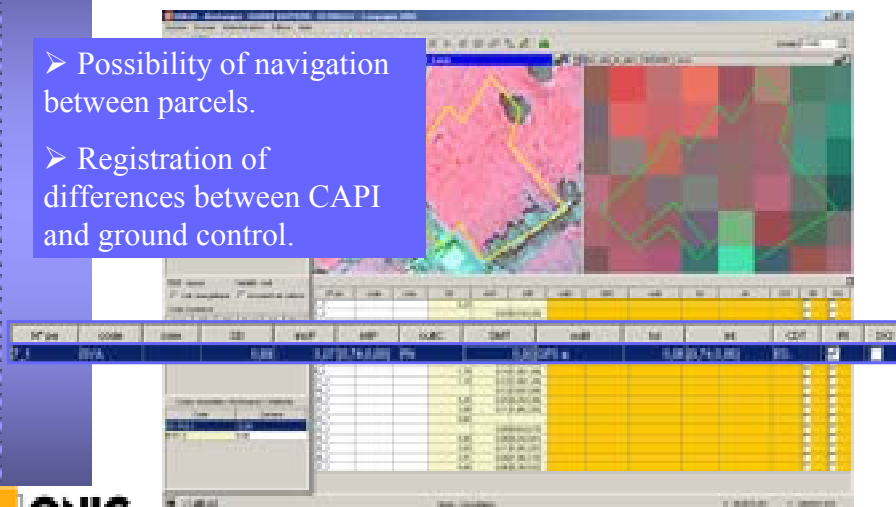
- Defect of recording of the parcel localization,
- Destruction of fixed elements of the landscape (hedges...)...



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Analysis of the ground control feed back

- Possibility of navigation between parcels.
- Registration of differences between CAPI and ground control.



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Other modules and possibilities

- Diagnosis (with the dossier, the parcel, the financial compartment and various comments) ;
- Documents of ground control (cartographic...) ;
- Questions to the administration ;
- Integrated tools for supervision : Quality checks, Reperforming, Follow-up of dossier ;
- ...



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Production management

- Easy way to produce weekly mainboard
- Every project manager in CAPI unit can also look at real time information with a specific request tool.



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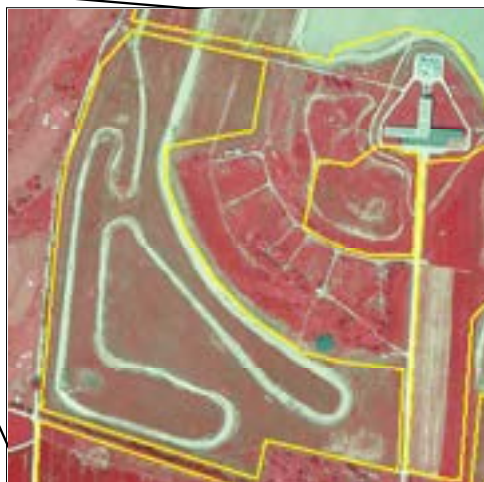
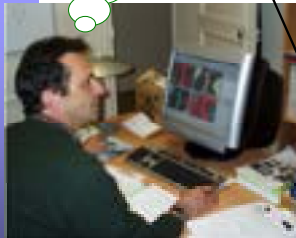
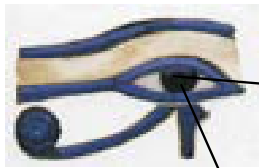
First campaign report

- > Positive :
 - ◆ A very good CAPI tool
 - ◆ Distant support
 - ◆ Distant quality checks
 - ◆ Flexibility of organization, easiness of zone treatment management
 - ◆ Real time statistics
 - > Negative :
 - ◆ Sensitive to server's breakdown
- Security and maintenance guaranteed by specialized service**



CwRS conference - Krakow- 23-25 november 2005

Warning : HORUS is watching You....





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Institute for the Protection and Security of the Citizen
Agrifish Unit

11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
25th – 27th of November, 2004
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SESSION 3 – Restricted Session for MS National Administrations

**Chairman:
Hervé KERDILES
JRC, IPSC, Agrifish Unit**

Presentations of SPS by MS: BE, IT, DE, DK, SE



Presentation 1 – Overview of JRC questionnaire **Hervé Kerdiles - Agrifish Unit, IPSC, JRC**

Summary of the answers to the questionnaire on SPS implementation

Hervé Kerdiles, Olivier Léo
JRC IPSC AGRIFISH

11th Annual CwRS Conference, 23-25 November 2005, Kraków, PL



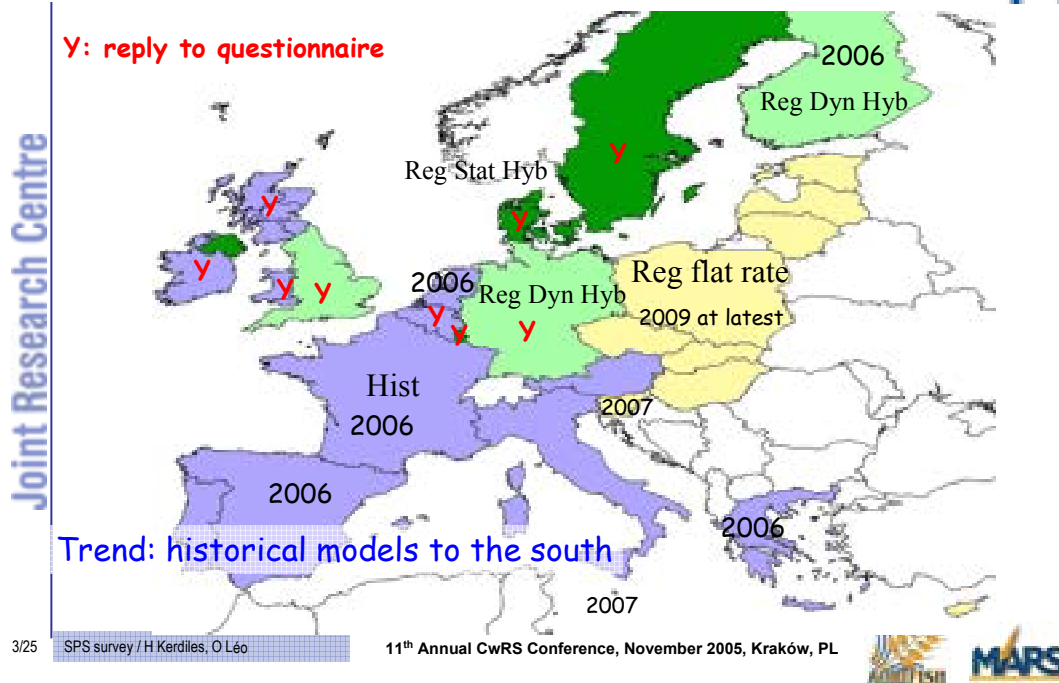
Presentation outline

- Variation in number of applications
- Calculation of entitlements – eligible ha, values
- eligible crops in SPS
- Agricultural parcel declaration
- Crop groups
- Importance of coupled payments
- New criteria in risk analysis

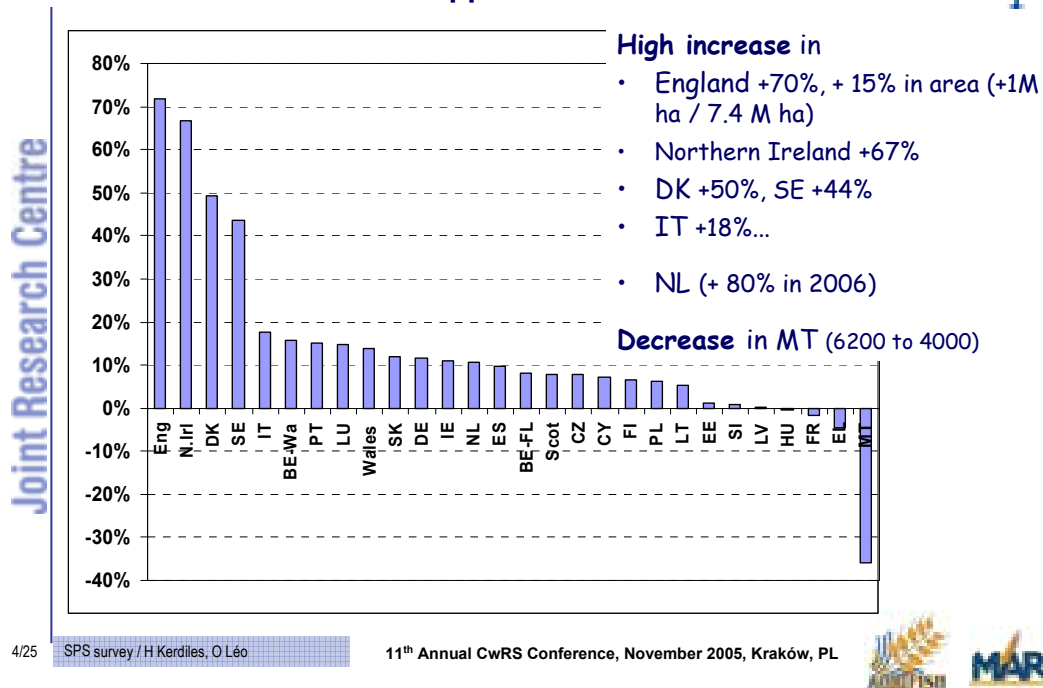




SPS types (present or future)



Number of applications: 2005 vs 2004





- Observed increase due to change in eligibility rules
 - Livestock farms: dairy farms & farmers < 15 LU (IE, BE, Scotland, SE)
 - Small farms in DK (grasslands), SE (small landowners), England (6 parcels on avg vs 24 for IACS applicants): horse keepers, horticulturists, pig farmers (now eligible)
 - Potatoes, vegetables and fruit producers (regional model, with sticker)
 - Farmers with no claim in 2004 and activating entitlements (IE, N Ireland, BE-Wa)

- Consequences on administrative controls ? On risk analysis ?
 (new applicants likely to make more errors, but may receive relatively low amounts of subsidies...)



- **Regional** SPS: # entitlements = # eligible ha declared on 1st year
- **Historical** SPS: # entitlements = avg # of ha paid over 2000-2002
 # entitlements < # eligible ha = Σ of crops now eligible for SPS (sugar beet, starch potatoes, grasslands not declared in the past...)
 - Scotland: 5.8 M ha claimed – 4.2 M standard entitlements, 50 000 Set-Aside (73%)
 - BE Wallonie: 675 000 ha claimed – 600 000 ha standard, 16 000 SA, 900 special (91%)
 - IE: 4.707M ha claimed – 4.648 M entitlements (98%)

Consequences on risk analysis ?

↳ Risk of a 100 ha farm with 80 entitlements ?

- Notification: temporary entitlements (March in IT, May in IE), definitive entitlements: Aug-Nov (IT), December (DK, LU, BE, Scotland, SE), not yet fixed (England, Wales, N Ireland, DE)





Entitlements values

- **Regional model:**
 - normal entitlements ~ 300 €/ha (DE, DK, LU), 117 €/ha (N SE) -250 €/ha (S SE)
 - Variations:
 - permanent grasslands ~ 70-80 €/ha (DE, DK), 117 €/ha (SE)
 - Set-aside: 80 € / ha (DE, LU), flat rate (? €/ha) in England (standard SPS = 90% historical + 10% flat rate)
 - Authorized entitlements (vegetables, potatoes, fruit)
- **Historical model: large variations due to “history”**
 - normal entitlements: 0.03-5000 €/ha (BE Wa), 4 -1900 €/ha (Wales), 0.9-4300 €/ha (Scotland)
 - On average 312 €/ha in IT
 - Set-aside: 230-425 €/ha (BE Wa), 315-360 €/ha (Wales), 25-360€/ha (Scotland)



SPS eligible crops

- **Historical:** All crops except **permanent crops** (nuts excluded but hops OK, olive grove OK in 2006), **vegetables, table potatoes and fruit**
- **Regional:** All crops except **permanent crops**.
 Vegetables, potatoes and fruit may be accepted (if authorized i.e. “with sticker”)
 - ↳ Still need to identify vegetables, potatoes and fruit (before checking entitlement)
- Regional flat rate (in 10 NMS): all crops ?
- Consequence on the need of HR images ?





- **Agricultural parcel**: continuous piece of land, 1 farmer, 1 single crop **group** (last amendment to Com Reg 796/04 of Nov 2005)
- ↳ **Farmer may declare crop or crop group**
 - England: perm pastures (4 types), set-aside (8 types), energy crops (8 types, some with precise crop), 3 protein crops, vegetable-fruit-potato, flax, hemp, hops, 4 types of nuts, temporary grass (3 types) & **other** (i.e. arable)
 - CZ: **arable**, grasslands, vineyard, orchard, vegetable garden
- It's a simplification, but declaring crop useful for
 - Cross compliance (crop rotation in IT - art 69 of 1782/03; control of manure in BE, broad row crops forbidden on steep parcels)
 - LFA aid based on calculation of profit margin = function of crop
 - OTS check when LPIS parcel is shared by >1 farmer (block, cadastre)
 - statistics

9/25

SPS survey / H Kerdiles, O Léo

11th Annual CwRS Conference, November 2005, Kraków, PL



- **SPS**:
 - standard entitlement, set aside, permanent pastures (DE, DK, IE), forage (fodder beet and rape)
 - Vegetables & fruit, potatoes
 - special (?)
- **Direct aids (title IV)** :
 - Energy crops, protein crops, nuts, starch potato, durum wheat, rice, seeds, hops (when not included in standard entitlements), tobacco, (cotton, part of olive in 2006)...
 - ↳ How important are these crops ?

10/25

SPS survey / H Kerdiles, O Léo

11th Annual CwRS Conference, November 2005, Kraków, PL





Importance of coupled payments

	BE FL	DK	LU	UK En	UK Scot	UK Wa	UK N Irl
Protein	100 ha (0.02%)	0.8% area	5% appl 0.4% area	7% appl 0.3% parc	453 appl (2.1%)	116 appl (0.6%)	20 appl (0.05%)
Energy crops	0	0.6% area	1% appl 0.2% area	1% appl 0.1% parc	147 appl (0.7%)	9 appl (0.05%)	45 appl (0.1%)
Nuts	2 parc		0.05% appl	102 appl 127 parc			
Starch potatoes	0	0.7% area					

- Other coupled crops more important in southern MS
 - Coupled payments: 6-8% of applications in DK (18-23000 ha / 2.7 M ha) SE (1.2% of parcels, 2.5% of area) and England, 0.5% in BE
- ↳ If minority of (scattered) farmers, consequences for CwRS ?



New criteria in Risk analysis

- Coupled payment crops (starch potato, protein crops, energy crops, nuts, seeds, tobacco)
- Fruit and vegetables (DK, BE FL, UK En)
- Permanent pastures (BE FL, UK En)
- permanent crops, sugar beet (IE)
- Entitlements close to declared area (historical model)
- # of set-aside entitlements (BE Wa)
- # of special entitlements (BE Wa), applications without area (DE)
- Decrease in area (BE FL)
- Parcels on blocks registered in 2004 or 2005
- Land adjacent to watercourses (IE)
- Organic production (UK En)
- New applications, new LPIS parcels claimed (SE)





- Time for presentations by 6 MS
 - Complementary information in particular by southern MS
- Round table to get more insight on SPS and discuss the future of CwRS

Thank you





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Presentation 2 - Single Payment Scheme in Flanders (BE) - 1st year of implementation

***Jos De Smedt, Gilbert Maesschalck - Ministerie van de Vlaamse
Gemeenschap, BE***

Single Payment Scheme in Flanders (BE)

1st year of implementation

by
Jos De Smedt
Gilbert Maesschalck



Part I Implementation procedures

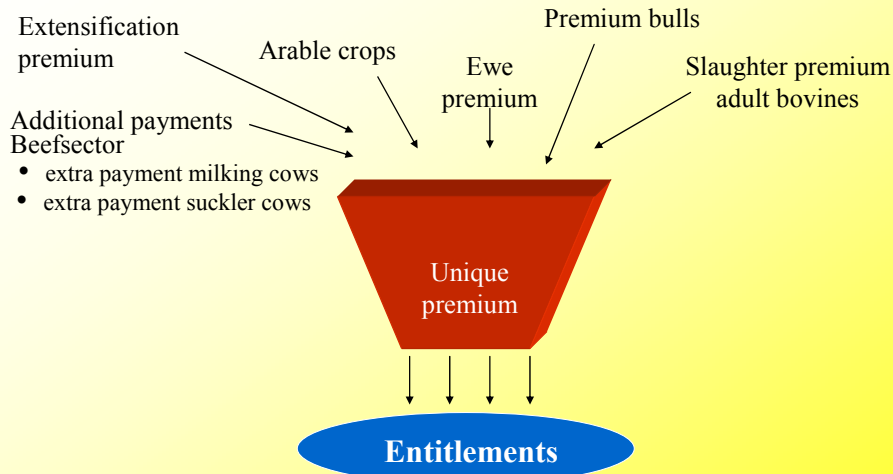
Historical Model





Single Payment

decoupled schemes



Single payment (euro) = sum of all activated entitlements



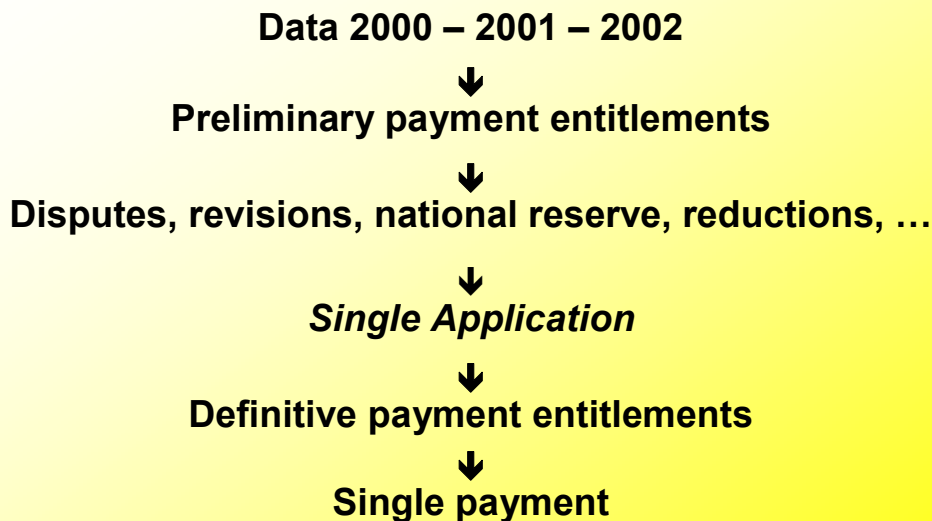
Overview of coupled schemes

Sector	Scheme	Specification	Remark
Milk	milk premium + extra payment	First application in 2004	Decoupled in 2006
Animal	Suckler cows	Basis + supplementary premium	100 %
	Slaughter premium	Calves	100 %
Arable	Seeds	Linseed, spelt	100 %
	Tabacco		Decoupled in 2006

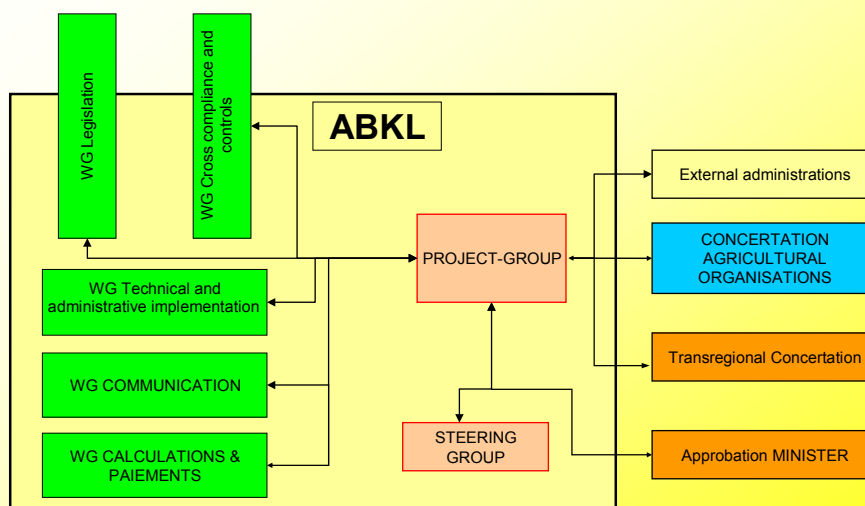




General steps implementation



Practical implementation of Single Payment Scheme Cross-compliance & GAEC

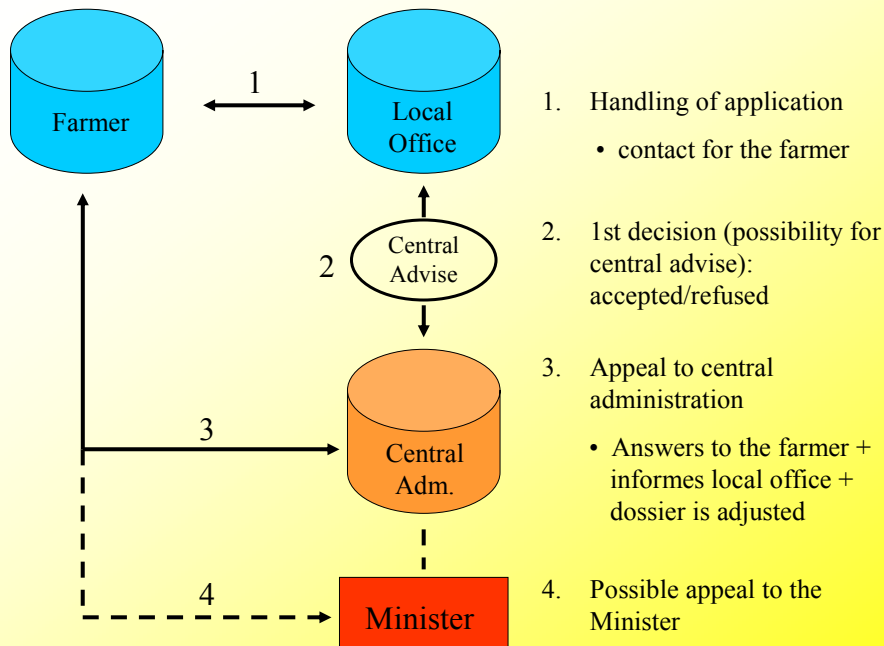




Handling of claims, applications and disputes

24.11.2005 | 11th Conference on Control with Remote Sensing

Administratie Beheer en Kwaliteit Landbouwproductie



24.11.2005 | 11th Conference on Control with Remote Sensing

Administratie Beheer en Kwaliteit Landbouwproductie





Results claims for revision



Different categories

Category	OK	KO	DO	Total	OK (%)	Rel (%)
1 Dispute of reference data	126	372	19	517	28,1	6,1
2 Starting farmers in reference period	200	80		280	71,5	3,3
3 Hardship cases	158	192	1	351	45,3	4,2
4 Transfer of total holding (merge/change in names/heritance)	2998	94		3092	97	36,4
5 Transfer of part of holding (partial take-over/scissions)	102	13	0	115	88,7	1,4
6 Private contract clause (sale)	3826	214		4040	94,8	47,5
7 Private contract clause (lease)	82	30		112	73,3	1,3
TOTAL	7492	995	20	8507	88,4	100

OK : accepted
 KO : not accepted
 DO : partly accepted





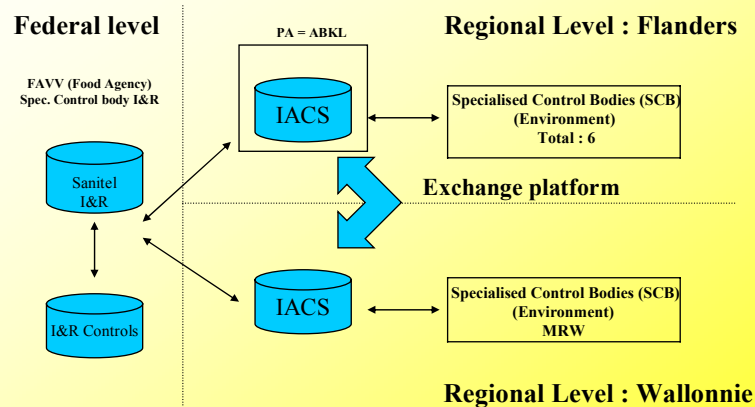
Cross-compliance

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Administratie Beheer en Kwaliteit Landbouwproductie



Competence levels involved in CC & GAEC in BE



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Administratie Beheer en Kwaliteit Landbouwproductie





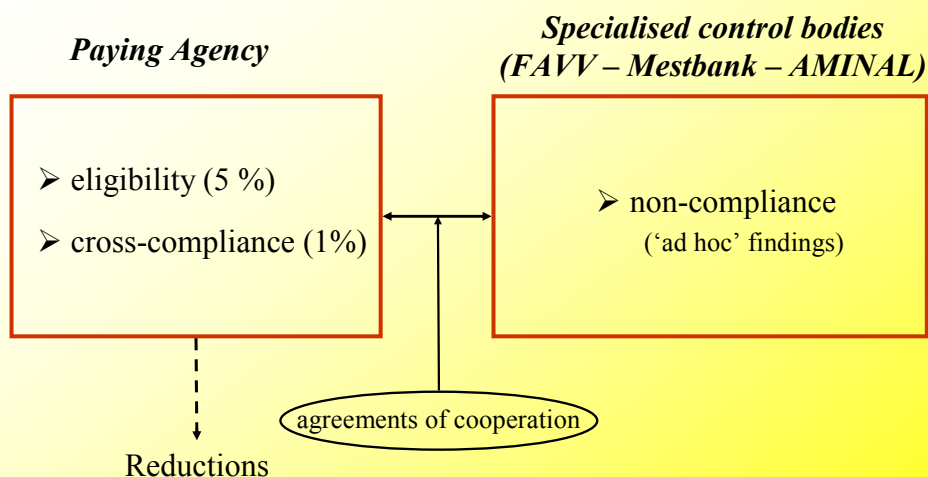
Strategy Cross-compliance & GAEC

Strategy in Flanders

- ✓ Paying agency (PA) = competent authority for controls CC & GAEC
- ✓ Specialised control bodies (SCB) = competent for specific measures
- ✓ Cooperation between PA & SCB
- ✓ Search for integrated controls (1 control-team)
- ✓ Simplification for farmers

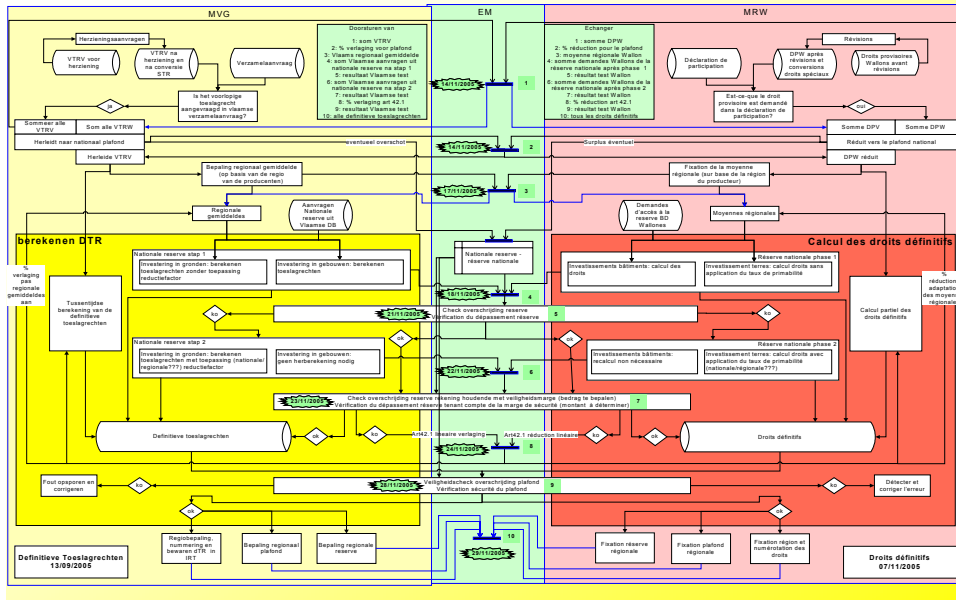


Who controls what?





Calculation of entitlements



Notification of definitive entitlements to farmers



4/1 Samenstelling van een toelagenrechten

Plaats	Regio	Definitieve toelagenrechten (in definitieve rechten)	Totaal aantal (in ECU)
1. Toelagenrechten in gebieden met speciale omstandigheden			
Landbouwgebieden	1	1,00	100,00
Landbouwgebieden	2	1,00	100,00
Landbouwgebieden	3	1,00	100,00
Landbouwgebieden	4	1,00	100,00
Landbouwgebieden	5	1,00	100,00
Landbouwgebieden	6	1,00	100,00
Landbouwgebieden	7	1,00	100,00
Landbouwgebieden	8	1,00	100,00
Landbouwgebieden	9	1,00	100,00
Landbouwgebieden	10	1,00	100,00
Landbouwgebieden	11	1,00	100,00
Landbouwgebieden	12	1,00	100,00
Landbouwgebieden	13	1,00	100,00
Landbouwgebieden	14	1,00	100,00
Landbouwgebieden	15	1,00	100,00
Landbouwgebieden	16	1,00	100,00
Landbouwgebieden	17	1,00	100,00
Landbouwgebieden	18	1,00	100,00
Landbouwgebieden	19	1,00	100,00
Landbouwgebieden	20	1,00	100,00
Landbouwgebieden	21	1,00	100,00
Landbouwgebieden	22	1,00	100,00
Landbouwgebieden	23	1,00	100,00
Landbouwgebieden	24	1,00	100,00
Landbouwgebieden	25	1,00	100,00
Landbouwgebieden	26	1,00	100,00
Landbouwgebieden	27	1,00	100,00
Landbouwgebieden	28	1,00	100,00
Landbouwgebieden	29	1,00	100,00
Landbouwgebieden	30	1,00	100,00
Landbouwgebieden	31	1,00	100,00
Landbouwgebieden	32	1,00	100,00
Landbouwgebieden	33	1,00	100,00
Landbouwgebieden	34	1,00	100,00
Landbouwgebieden	35	1,00	100,00
Landbouwgebieden	36	1,00	100,00
Landbouwgebieden	37	1,00	100,00
Landbouwgebieden	38	1,00	100,00
Landbouwgebieden	39	1,00	100,00
Landbouwgebieden	40	1,00	100,00
Landbouwgebieden	41	1,00	100,00
Landbouwgebieden	42	1,00	100,00
Landbouwgebieden	43	1,00	100,00
Landbouwgebieden	44	1,00	100,00
Landbouwgebieden	45	1,00	100,00
Landbouwgebieden	46	1,00	100,00
Landbouwgebieden	47	1,00	100,00
Landbouwgebieden	48	1,00	100,00
Landbouwgebieden	49	1,00	100,00
Landbouwgebieden	50	1,00	100,00
Landbouwgebieden	51	1,00	100,00
Landbouwgebieden	52	1,00	100,00
Landbouwgebieden	53	1,00	100,00
Landbouwgebieden	54	1,00	100,00
Landbouwgebieden	55	1,00	100,00
Landbouwgebieden	56	1,00	100,00
Landbouwgebieden	57	1,00	100,00
Landbouwgebieden	58	1,00	100,00
Landbouwgebieden	59	1,00	100,00
Landbouwgebieden	60	1,00	100,00
Landbouwgebieden	61	1,00	100,00
Landbouwgebieden	62	1,00	100,00
Landbouwgebieden	63	1,00	100,00
Landbouwgebieden	64	1,00	100,00
Landbouwgebieden	65	1,00	100,00
Landbouwgebieden	66	1,00	100,00
Landbouwgebieden	67	1,00	100,00
Landbouwgebieden	68	1,00	100,00
Landbouwgebieden	69	1,00	100,00
Landbouwgebieden	70	1,00	100,00
Landbouwgebieden	71	1,00	100,00
Landbouwgebieden	72	1,00	100,00
Landbouwgebieden	73	1,00	100,00
Landbouwgebieden	74	1,00	100,00
Landbouwgebieden	75	1,00	100,00
Landbouwgebieden	76	1,00	100,00
Landbouwgebieden	77	1,00	100,00
Landbouwgebieden	78	1,00	100,00
Landbouwgebieden	79	1,00	100,00
Landbouwgebieden	80	1,00	100,00
Landbouwgebieden	81	1,00	100,00
Landbouwgebieden	82	1,00	100,00
Landbouwgebieden	83	1,00	100,00
Landbouwgebieden	84	1,00	100,00
Landbouwgebieden	85	1,00	100,00
Landbouwgebieden	86	1,00	100,00
Landbouwgebieden	87	1,00	100,00
Landbouwgebieden	88	1,00	100,00
Landbouwgebieden	89	1,00	100,00
Landbouwgebieden	90	1,00	100,00
Landbouwgebieden	91	1,00	100,00
Landbouwgebieden	92	1,00	100,00
Landbouwgebieden	93	1,00	100,00
Landbouwgebieden	94	1,00	100,00
Landbouwgebieden	95	1,00	100,00
Landbouwgebieden	96	1,00	100,00
Landbouwgebieden	97	1,00	100,00
Landbouwgebieden	98	1,00	100,00
Landbouwgebieden	99	1,00	100,00
Landbouwgebieden	100	1,00	100,00



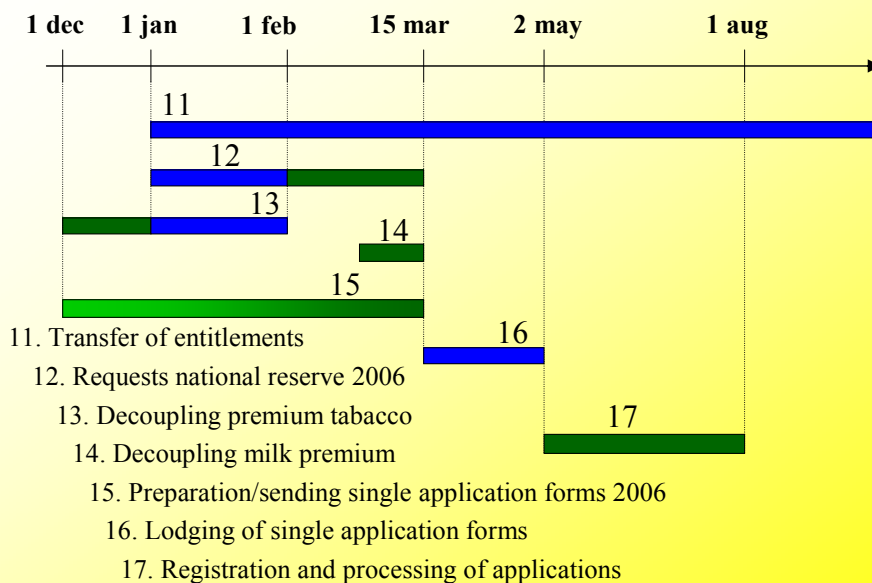
Notification of definitive entitlements to farmers (2)

ID-number **Obligatory activation until** **Area equivalent** **Sale** **Lease**

Identificatie nr.	Type	Blad	Vrijwillige activatie tot op heden	Oppervlakte equivalente (ha land)	Locatie activatie	In afgedrukt kaart	Blauw veld	Verkocht	Verkast
500-0000-000-10	heide	T	2000	200,000	0,000		00-00-2000	*****	
500-0000-000-11	heide	T	2000	500,000	0,000		00-00-2000	*****	
500-0000-000-12	heide	T	2000	500,000	0,000		00-00-2000	*****	
500-0000-000-20	heide	T		500,000	0,000		00-00-2000	*****	
500-0000-000-11	heide	T		500,000	0,000		00-00-2000	*****	
500-0000-000-50	heide	T		500,000	0,000		00-00-2000	*****	
500-0000-000-00	heide	T	2000	500,000	0,000		00-00-2000	*****	
500-0000-000-07	heide	T		500,000	0,000		00-00-2000	*****	
500-0000-000-50	heide	T		500,000	0,000		00-00-2000	*****	
500-0000-000-01	heide	-		1000,000	0,000		00-00-2000	*****	



Timing 2006





Part II

Single application



Single application form

- ✓ Single application (for SPS, AEM,... schemes)
- ✓ Crop requested at parcel level
 - Easier for farmer
 - Crop necessary for automatic CAPI
 - Crop needed if claim for 2nd pillar
(manure limitation as a function of crop & zone)
 - Crop useful for regional, national and Eurostat stats.





Single application form

The image shows a screenshot of a 'Single application form' with several sections highlighted by red circles. The top section is labeled 'Section 1' and contains identification reference data. The middle section is labeled 'Section 2' and contains information on second pillar measures. The bottom section is labeled 'Section 3' and contains reference parcels and areas.

Section 1

Identification reference data of farmers, production units, herd numbers etc... are pre-printed

Section 2

Reference area of permanent pasture

Information on **second pillar** measures



SECTION 3

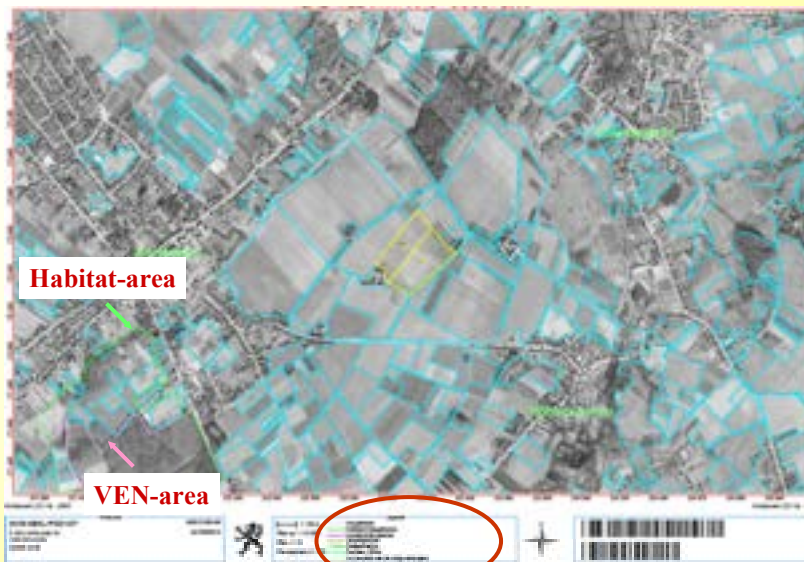
reference parcels and areas + permanent crops are preprinted

The image shows a screenshot of a table for Section 3, which contains reference parcels and areas. The table has several columns and rows, with some cells highlighted in yellow and pink. Red circles and lines point to specific areas of the table, which are labeled with text boxes: 'AEM', 'SPS - Activation of entitlements', 'GAEC - erosion', and 'Cross-compliance Vulnerable areas'.

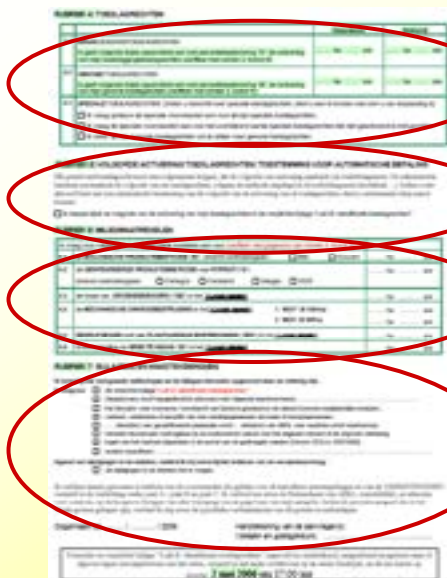




Photoplan



SECTIONS 4, 5, 6, and 7



Section 4

- Total area activated for the SPS (ordinary and set-aside) and special entitlements

Section 5

- Order of activation of entitlements

Section 6

- Total area declared for the 2nd pillar measures

Section 7

- Annexes
- Signature
- Date





Crop code – Crop group – AEM - GAEC

	Hoofdtypeit	Code hoofdtypeit	Bestemming		Bijkomende bestemming											Erosievoeligheid teit								
			A	X ¹	EN	PR	GB	MO1	MO2	EIW	VW/BN	PRB ² /KLE/	BW	ER ⁴	DI		BB ⁵	HAM	Regeneratie beveiliging Wiering erosiegevoelig Erosiegevoelig					
Gebouwen	Stallen en gebouwen	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Andere gebouwen	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mais	Silomais	201	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Korrelmais	202	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
Andere granen	Wintertarwe	311	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Zomertarwe	312	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Wintergerst	321	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Zomergerst	322	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Winterrogge	331	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Zomerrogge	332	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Haver	34	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Triticale	35	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Spelt	36	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Boekweit	37	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Gierst, sorgho, kanarie-zaad en harde tarwe	38	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
Andere granen (bvb. mengkoren)	39	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-	
Oliehoudende zaden	Winterkool- en zaapzaad	411	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-
	Zomerkool- en zaapzaad	412	x	-	x	x	-	x	x	x	-	-	x	x	x	x	-	-	-	-	-	-	-	-

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Combination of SPS/other payments with AE measures

Code aangifte	Agro-milieumaatregel of landbouwpremie	Beheersdienst of administratie	premie biologische teit	premie g/in/gerente p/fruit	gewone local/gerchten	braak/leggingstoel/gerchten	zoogkoeienpremie	zaai/zaad	energie/legwassen	gedroogde vee/lers	be/withoudende gewassen	fauna/brak	non-food brak	noten
WV	WV beweiden	VLM	332 euro/ha											
WV	WV maaien	VLM	363 euro/ha											
WV	WV nestbeschermers of nestmarkerders	VLM	25 euro/ha, maximaal 75						2					
WV	WV omzetten akkerland en beweiden	VLM	438 euro/ha		1									
WV	WV omzetten akkerland en maaien	VLM	465 euro/ha		1									
PRB	PRB houtige landschapselen: en wegberven	VLM	0,04 euro/m ²											
PRB	PRB waterlopen (gras of spontaan)	VLM	0,13 euro/m ²		1									
PRB	PRB waterlopen (spontane evolutie)	VLM	0,13 euro/m ²											
PRB	PRB waterlopen (grasweide)	VLM	0,06 euro/m ²											
PRB	PRB waterlopen (hooiweide of hooiland)	VLM	0,06 euro/m ²											
PRB	PRB holle wegen	VLM	0,13 euro/m ²											
KLE	KLE aanplanten heg	VLM	0,5 euro/m, max. 200 euro/ha											
KLE	KLE aanplanten houtkant/wal	VLM	0,14 euro/ha											
KLE	KLE (her)aanleg poel	VLM	max. 300 euro/ha											
KLE	KLE onderhoud heg	VLM	0,5 euro/m, max. 200 euro/ha											
KLE	KLE onderhoud houtkant/wal	VLM	0,5 euro/m, max. 200 euro/ha											
KLE	KLE onderhoud poel	VLM	12,5 euro/poel, max. 37,5 euro/ha											
ER	ER grasbufferstrook	VLM	0,13 euro/m ²											
ER	ER grasgang	VLM	0,13 – 0,16 euro/m ²											
ER	ER dam met erosiepoel	VLM	1,00 – 4,40 euro/m											
ER	ER niet-kerende bodembewerking	VLM	80 euro/ha											
ER	ER directe inzaai (niet ploegen)	VLM	200 euro/ha											
BB	BB grasland (maaien 16 juni)	VLM	max. 695 euro/ha											

Geen cumulatieve mogelijk
 Financieel beperkte cumulatieve mogelijk
 Cumulatieve mogelijk



Groups & crops to be checked

● Main groups

- SPS normal: all crops (including hops, grasslands) but excl. perm crops, vegetables, potatoes, fruits
- SPS Set-aside
- Perm. grasslands (separate to assess maintenance of 2003 ratio – interdiction to reduce the perm grassland area at farm level)
- Title IV (0.5% of applications, 0.3% of area)
 - protein crops +/- 100 ha
 - nuts (2 parcels)
 - Seeds (flax, spelt)
 - No claim for hemp, starch potato, energy crops



Statistics 2004 ↔ 2005

- Number of claims: + 10 %
25.000 in 2004 to 27.500 in 2005
- Area claimed: + 25 %
 - 408.000 ha in 2004 to 515.000 ha (2005)
 - due to inclusion of sugar beet parcels and parcels from small cattle farmers (< 15 LSU) which were not obliged to declare their parcels before + areas previously not claimed for payment + milk producing farmers
- Number of parcels: +3.4%
 - 381.000 (2004) – 394.000 (2005)
- Coupled payments (title IV)
= 0.5% of applications and 0.3% of area





Controls

- **Control: No change in methodology** (crop and area reported by inspector as before) **but changes in calculation of sanctions wrt groups**
 - 1 ha of protein crop declared, 1 ha of cereals found
 - > OK for SPS group, reject for protein group
- **Reference year check:** set aside can not be claimed on a parcel with permanent crop in May 2003 (check based on IACS GIS)
- **Special check on permanent grasslands**
- **New criteria in risk analysis:**
 - Entitlements close to declared area
 - Presence of permanent pastures
 - Decrease of declared area
 - “sensitive” crops (annual horticulture, endive)



Risk analysis for remote sensing sites 2005

- average amount of aid paid in a region
- number of referenceparcels / km²
- average size of a parcel in a region
- number of sanctioned producers in the region in the previous campaign
- share of large farms
- region controlled with remote sensing in the previous years (2001-2004)

+ factors for definitive location:
situation of urban areas, national borders, distribution over the provincial offices





Controls

- **Controls eligibility**

- 6% of 28.000 applications
- Random selection (20%): over the whole region
- Risk analysis selection (80%): Within the CwRS sites

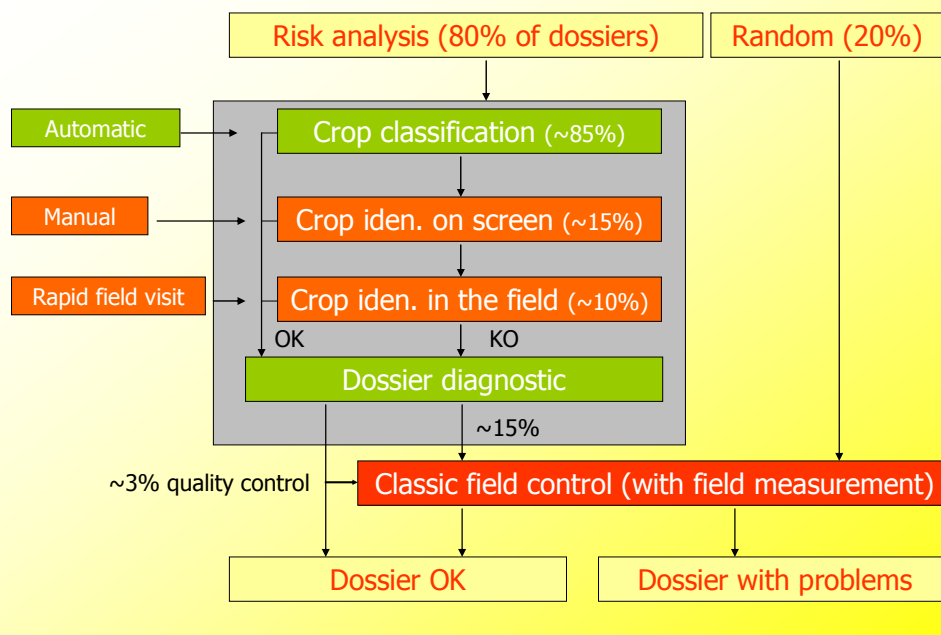


- **Controls Cross Compliance**

- 20% of the above selected applications



Controls - types





Risk Analysis – Criteria (15)

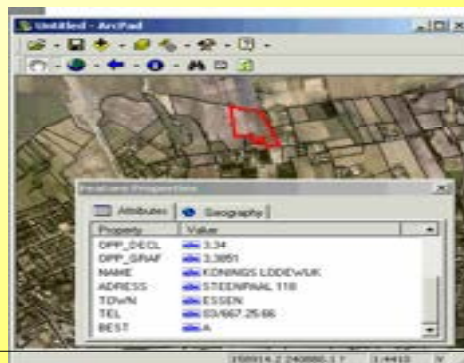
- high subsidies
- incoherences between declared area and graphic system
- applications with many small parcels
- applications with set-aside parcels
- applications with parcels close to lower limits (area/width)
- applications with 'sensitive' crops
- applications with a strong decrease in number of parcels
- complete activation of entitlements
- permanent pasture
- producers with sanctions in the previous year(s)
- producers of seeds
- large increase in area
- new producers
- producers with sanctions in the animal sector
- producers not yet controlled in the previous years

Controls – Field measurements

- **Field measurements**
 - Automatically preprinted forms and orthophotoplans
 - Very accurate (< 1m) professional GPS
 - Aerial photographs as background for the whole of Flanders
 - Complete information for all parcels in Flanders
 - Measured parcels are visualised on screen and directly copied into the dossier on PC



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25th – 27th of November, 2004
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Thank you for your attention Questions ?



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Presentation 3 - ITALY - 1st year of implementation of SPS

Maurizio Piomponi - AGEA, IT



ITALY

1st year of implementation of SPS

2005 CwRS Campaign

Krakow – 23/25 November 2005



Italian Governmental Decisions



Starting year	2005
Decoupled model	Historical model on national basis
Arable crops	Decoupled income support
Seeds	Coupled income support
Beef and veal	Decoupled income support
Sheeps and goats	Decoupled income support
Specific type of farming and quality production	<ul style="list-style-type: none"> • 8% arable crops • 7% beef and veal • 5% sheeps and goats
National Reserve	Member State
Olive Oil	Decoupled income support from 2006
Tobacco	40% Decoupled income support from 2006
Milk and dairy products	Decoupled income support from 2006

2005 CwRS Campaign

Krakow – 23/25 November 2005



Applications....



Single application model for:

- Single Payment Scheme
- Coupled schemes
- Forage



... Applications ...



SINGLE PAYMENT SCHEME

According to Title III of Regulation EC n° 1782/2003
(Historical Model)



... Applications ...



COUPLED SCHEMES

Payment schemes according to Title IV of EC Reg. 1782/2003 as:

- Specific quality premium for durum wheat;
- Protein crop premium;
- Crop specific payment for rice
- Area payment for nuts
- Aid for energy crops
- Seed aid
- Dairy premium and additional payments

...



... Applications ...



...

Specific type of farming and quality production as art. 69 EC Reg. 1782/2003 and applied in Italy by DM 2026/04 for:

- durum wheat;
- Other wheat and meslin other than durum wheat
- Maize
- Multiannual rotation



... Applications



FORAGE

Dried fodder, in accordance with art. 15 of (EC) regulation n° 382/2005 (as article 14, paragraph 1, EC reg. n. 796/2004, as well as use of area listed in Annexe V of EC reg. n. 1782/03)



How to declare the land use



- Use of area for each cadastral parcel
- Uses or area codified as classifications in EC Regulations n° 1444/02 and n° 1810/04.

Opportunities:



... How to declare the land use



Opportunities:

- Easier use for farmer
- Simplified controls for National Base Areas
- Crop useful for Eurostat stats
- CwRS simplified



Statistics



- Total Number of applications received in 2005: 714.000 (of which about 50.000 claimed only dairy premium)
- Total Number of applications received in 2005 for SPS : 650.000 (+8% in front of claims for aid surface of 2004 (602.000))
- Total Area claimed in 2005 for SPS (ha): 7.960.000 (+11% in front of 2004 (7.196.000))



...Statistics



- Coupled payments for surface:
 - title IV : 206.000 (30%) applications e 1.660.000 ha (21% of SPS area)
 - art. 69 = 357.000 (53%) application e 3.027.000 ha (54% of SPS area)
- Forage:
 - 7% of applications and 11% of SPS area



Controls



- New criteria in risk analysis:
 - Risk criteria for GAEC
- Reference year check: set aside can not claimed on a parcel with permanent crop in May 2003 (check based on IACS, GIS DB)
- Special check on permanent grasslands
- Checks of eligibility
- No change in CwRS methodology (crop and area reported by inspector as before) but changes in calculation of sanctions.
For instance:
 - 1 ha of protein crop declared, 1 ha of cereals found:
OK for SPS group, but rejected for protein group



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Calculation of entitlements

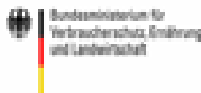


- Temporary entitlements for the 1° wave of CAP reform sent to farmers from January to March 2005
- 50.000 applications to access the National reserve
- Definitive entitlements notified to farmers from August to November, 30th
- Approximately 700.000 farmers involved
- Approximately 7,5 millions of entitlements calculated
- 2,345 Mio€ Italy's budget in 2005
- Approximately value for each hectar: 312 €
- Working in progress: Farmers identification for the 2° wave of CAP reform (1,3 million farmers involved: dairy, olive oil, tobacco)
- Prevision: Temporary entitlements for the 2° wave of CAP within March 2006



Presentation 4 – SPS 2005 in Germany

**Axel Heider - Federal Ministry of Consumer Protection,
Food and Agriculture, DE**



SPS 2005 in Germany

**11th CwRS-Conference
in Krakow
23. – 25. November 2005**

Dr. A. Heider, Federal Ministry of Consumer Protection, Food and Agriculture

Implementation of decoupling in Germany

- **General beginning of decoupling 2005¹⁾**
- **Maximum use of the existing options of decoupling¹⁾**
- **Limited redistribution of the payment volume among the regions**

1) In the case of tobacco 40% decoupling as from 2006;
as of 2010 decoupling of a further 10 % of the coupled tobacco aid as
well as transfer of the remaining 50 % of the coupled aid to a
restructuring aid



SPS 2005 in Germany

Type of SPS (regional, historical, static/dynamic hybrid)	Dynamic Hybrid
List the different entitlements and their value in € / ha (mean value)	<p>set aside, normal (arable, grassland) special permits for vegetables, potatoes (other than starch) and fruits</p> <p><u>average:</u> permanent pasture ca. 80 € arable land ca. 300 €</p>
Total number of applications received in 2005	<p>ca. 389.250 applications = +13%</p> <p><u>there of:</u></p> <ul style="list-style-type: none"> • Hardship cases (i.e. natural disaster, epizootic affecting, ...) ca. 4% (15.000 applications) • farmers in a special situation (i.e. investments, milk hardship cases, transfer of least land, ...): ca. 4% (15.000 applications)

SPS 2005 in Germany

Reasons identified	<p>Slight increase in number of applicants (+13%) <u>because of</u></p> <ul style="list-style-type: none"> • farmers with pasture land (without animal subsidies in 2004), in particular horse farmers • producers of vegetables, fruits and potatoes (others than starch)
allocation of payment entitlements	December 2005 (if possible)
Time of payment	<ul style="list-style-type: none"> • first instalment (80%): in December 2005 • final payment: intended between March and June 2006



New IT-developements

■ New central IACS database in Munich

- cross checks of datas about farmers
- cross checks of agricultural parcels among the *Länder*
- **administering payment entitlements**
- **data exchange between premium and specialized authorities (cross-compliance)**
- monitoring the ceilings
- monitoring the modulation
- statistical reports, if required

Control aspects

■ Parcel identification

- LPIS / GIS
- remote sensing or traditional on-the-spot check on 5 % of the farms

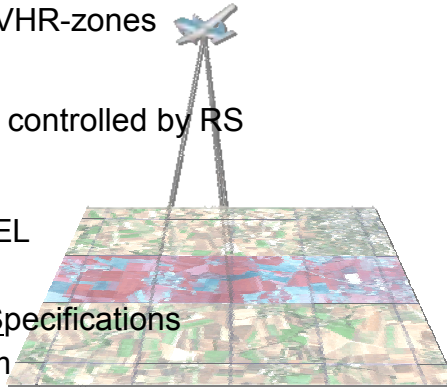
■ Use of agricultural parcels, in particular

- set-aside (special payment entitlements)
- areas under fruit/vegetable/"table"-potato cultivation (special "stickers" for these entitlements)
- specific coupled crops: energy crops, protein crops, starch potatoes, tobacco, nuts; hops (only for producer associations)
- cross-compliance (in particular preservation of permanent pasture, GAECs)



Use of Remote Sensing 2005 Germany

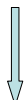
- 11 (of 16) Länder used RS
- 28 control zones; 17 VHR-zones
(Ikonos, Quickbird)
- ~ 11.000 applications controlled by RS
- 2 private contractors
- coordination by BMVEL
(Federal Ministry)
Common Technical Specifications
+ National Addendum



Use of Remote Sensing 2005 Germany

Control of CC - GAECs by RS:

- 7(11) Länder



➤ Maintenance of landscape features (various forms and conditions;
depending on the actual application procedure and GIS)



- 5 Länder

➤ *first tests of control for the following standards:*

1. Soil erosion
→ **Minimum soil cover (during winter time)**
2. Soil organic matter / soil structure
→ **Standards for crop rotations → use of land**
3. Protection of permanent pasture and avoiding the
encroachment of unwanted vegetation on arable land
→ **Conditions of the land taken out of production**



Thank you for your attention



Presentation 5 – Implementation of SPS in Denmark 2005

***Nielsen Tom Damgaard - Directorate for Food, Fisheries
and Agrobussines, DK***

Implementation of SPS in Denmark 2005

Basic information

- Hybrid model
- 70.760 applications (47.391 in 2004)
- 2.736.731 hectares (2.329.078 ha in 2004)
- Application contains 4 main groups
 - Cultivated/non cultivated land (300,22 € / ha)
 - Set aside (300,22 € / ha)
 - Permanent pasture (67 € / ha)
 - Others – non eligible

Crops is to be declared for control purposes



Coupled payment

- Energy crops
(17.445 ha = 0,6% of total area)
- Protein crops
(23.146 ha = 0,8% of total area)
- Starch potato
(18.976 ha = 0,7% of total area)

Entitlements

2005	2006
1. Normal entitlement	1. Normal entitlement
2. Set aside	2. Set aside
3. Permanent pasture	3. Above with stickers for fruit and vegetables
4. Grass combined with agri-environmental measures	4. Special without land
5. Above mentioned with stickers for fruit and vegetables	5. Stickers from Nat. R.
6. Special ent. without land	
7. Stickers from Nat. R.	
10 types in 2005	6 types in 2006



General problems:

- IT – support
 - How to implement SPS ? - Solution: Development of new software programs to support the existing programs
- Number of applications ?
 - 80.000 application forms were distributed to farmers + additional 4.000
 - 70.760 applications (47.391 in 2004)
 - 2.000 phone calls per day
 - Staff (120 man years – 70 in 2004)

New applicants - how do they look like ?

- Small farms
 - 10 ha/dossier
 - 49 ha “normal” dossier
- Field size
 - 2,46 ha
 - 3,72 ha “normal” dossier
- Parcel/dossier
 - 4,18
 - 13,36
- Pasture land



New applicants

- Many incomplete applications
 - No maps
 - No crop
 - Not familiar with LPIS-system
- Result: 130 incomplete dossiers ->
Classical Control (9 in 2004)

Problems with regard to OTSC

- What is to be controlled ?
 - First impression: One crop category - this is going to be easy
 - Reality: Nothing was easy = long and difficult year
- Number of controls ?
 - 5,3 % normal control rate
 - Population unknown (84.000 application forms)
 - Only 85 % returned as real applications
 - Result: 6 % control rate in 2005



Problems with regard to OTSC

- New rules to be understood by administration / RS contractor / inspectors
 - Experienced late interpretation of rules, especially with regard to sanctions
 - Entitlements as a second layer (Defined as perm. pasture for entitlement, but crop is wheat – OK)
 - Same field can occur in several categories (ex. rape as decoupled payment and coupled payment energy)
- Result: 12 categories for RS

Declared and controlled groups

Declaration groups:

1. Cultivated/uncultivated
2. Set aside
3. Perm. Grass
4. Other

A	Cultivated/uncultivated
AIF	SPS without Perm. Grass
B	Fruit, vegetables and table potatoes etc..
C	Protein crops
D	Energy crops
E	Starch potatoes
EB	SPS
F	Perm. grass pr. 21. April 2003
G	Perm. grass after 21. April 2003
H	Set aside
I	Agricultural area, not cultivated
J	Only entitlement
K	Other parcels
P	MB&OM - organic farming
Q	Organic farming



How to calculate sanctions ?

- **New approach:**
 - One big crop category, including set aside
 - The measured area for a field is used for different purposes:
 - Establishing entitlements
 - Decoupled payment
 - Coupled payment

Example:

If parcel is accepted for decoupled payment but only part of parcel is sown with right crop and therefore not accepted for coupled payment. Result – extra measurement required.

How to calculate sanctions ?

- **Example 1:**
- | <u>Declared</u> | <u>Measured</u> | <u>Diff.</u> |
|-----------------|-----------------|--------------|
| 90 ha wheat | 85 ha | -5 ha |
| 2 ha protein | 2 ha | |
| 8 ha set aside | 8 ha | |

Over declaration $(5 \cdot 100 / 95) = 5,26 \%$
Sanction $(2 \cdot 5) \cdot 100 / 95 = 10,53 \%$
Entitlements: Set aside 8 % of 95 = 7,6
Normal (rest) = 87,4



How to calculate sanctions ?

- Example 2 – coupled payment

<u>Declared</u>	<u>Measured</u>	<u>Diff.</u>
90 ha wheat	85 ha	-5 ha
2 ha protein	1,8 ha	-0,2 ha
8 ha set aside	8 ha	

Decoupled over declaration: $(5,2 * 100 / 94,8) = 5,49 \%$

Decoupled sanction: $(2 * 5,2) * 100 / 94,8 = 10,97 \%$

Coupled over declaration: $(0,2 * 100 / 1,8) = 11,11 \%$

Coupled sanction: $(2 * 0,2) = 0,4 \text{ ha}$

How to calculate sanctions ?

- Example 3 – set aside

<u>Declared</u>	<u>Measured</u>	<u>Diff.</u>
90 ha wheat	85 ha	-5 ha
2 ha protein	1,8 ha	-0,2 ha
8 ha set aside	7 ha	- 1

Short of set aside compared to entitlements: 0,51 ha

Decoupled over declaration: $(6,2 + 0,51) * 100 / (93,8 - 0,51) = 7,19 \%$

Decoupled sanction: $(2 * (6,2 + 0,51)) * 100 / (93,8 - 0,51) = 14,39 \%$

Entitlements: Set aside 8 % of 93,8 = 7,51
Normal (rest) = 86,29



Presentation 6 – CwRS and the hybrid model in Sweden

Arne Andersson - Swedish Board of Agriculture, SE

Abstract

The hybrid model

Sweden has chosen to implement the Single Payment Scheme in 2005. It is designed as a hybrid model with 5 regions based on historic yield levels. The value of an entitlement consists of :

- Basic entitlement value, a regionalized value where entitlements for arable land varies between 117 €/ha in the low-yield regions to 250 €/ha in the highest yielding regions. The entitlement value for permanent grassland and pastures is not regionalized. It is set to 117 €/ha for the entire country.
- Additional value, a historical per-farm value, based on earlier received animal premia.

Farmers growing vegetables, berries or potatoes must have a special authorization, or "sticker" attached to their entitlements in order to receive SPS payments. These stickers have been given to farmers growing these crops in 2003. The entitlements with stickers have the same payment value as those without.

The applications

The Swedish farmers apply on one single, integrated application form covering SPS, Coupled schemes, LFA and AEM:s. The crop should be declared since it is of importance in most of the Swedish AEM:s, and for statistical reasons. Over thirty percent of the application are sent in through the SAM Internet web service and from 2006 onwards, we will introduce the possibility to apply by sending an SMS confirming that the application has not changed since previous year.

The controls

The overall control methodology has not changed significantly due to the SPS. One new element is the inspection of not declared parcels (Art.14 Reg. 796/2004).

In the SPS itself, there are very few payment groups. In order to make it possible to make correct decisions on the value of different entitlements, in the CwRS work we have had to use artificial crop groups to trigger actual field inspections where the correctness of the application can be questioned. Sweden has also decided to control most AEM:s by Remote Sensing with 100 % RFV.

Keywords: Hybrid model, Sweden, SPS, Remote Sensing



CwRS and the hybrid model in Sweden








Arne Andersson

Swedish Board of Agriculture

11th CwRS Conference, Kraków, 23-25 nov 2005

Regions and entitlement value

Region		Preliminary value	Final value
1		255 €	250 €
2		240 €	234 €
3		200 €	194 €
4		155 €	149 €
5		125 €	117 €
Grassland		125 €	117 €





Entitlements in the hybrid model

- Basic entitlements
 - Regional (CAP Arable, SAP, 50% SCP, 25% SBP)
 - Historical (SP, EXT, 50% SCP, Suppl arable)
- Set-aside entitlements
- Vegetable, berries and table potato permit

Annual declaration

- One single integrated application form:
 - SPS
 - Coupled schemes (e.g. energy, proteins)
 - AEM:s
 - LFA
- Farmer still declares all crops.
- Declarations on paper forms, Internet and SMS



Payment groups

- SPS – only one payment group but...
 - Arable
 - Permanent grassland/pasture
 - Set-aside
 - Vegetables, berries and potatoes, 40 000 ha
- Protein crops, 39 000 ha
- Energy crops, 31 000 ha
- Starch potatoes, 7 300 ha
- AEM:s

GAECs

- Arable land
 - Maintenance of agricultural suitability
 - No bushes or scrubs
 - Proper drainage
 - Green cover
- Permanent pastures
 - Yearly grazing
 - Encroachment control



Control consequences of SPS

- Classical OTS controls
 - Less focus on crop unless AEM:s
 - Undeclared parcels
- CwRS
 - Crop still important
 - Artificial crop groups
 - One parcel can exist in several payment groups. Problems in reporting.
 - GAECs not suitable for CwRS
 - AEMs included in CwRS (not SPS related)

Risk analysis

- No entitlement-related risk in 2005
- Focus on
 - New applicants
 - New blocks or blocks not previously included in applications



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Thanks for your attention

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Risk analysis for CwRS: HU and IE

Presentation 7 – The risk analysis in the site and dossier selection in the year 2005 CwRS campaign in Hungary

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Agricultural and Rural Development Agency (ARDA), HU

István László, Miklós Lelkes, Irén Hubik, Gábor Csornai
Institute of Geodesy, Cartography and Remote Sensing (FÖMI), HU

Abstract

The presentation gives an overview on the site and dossier selection method in the year 2005 Hungarian remote sensing control program.

In 2004 and 2005, the Institute of Geodesy, Cartography and Remote Sensing (FÖMI) carried out the Control with Remote Sensing of Area-based Subsidies. From the 208 000 submitted claims, 8 660 was controlled with remote sensing. In 2005, similar number of applications has been submitted, but the overall control rate was significantly increased, which yielded that the target number of the remote sensing checks grew to 11 000.

Based on the year 2004 experience, a larger set of risk factors and a sophisticated GIS method have been elaborated to appropriately select the sites and the dossiers to be controlled. The same 14 factors were used in both the site selection and the dossier selection. The majority of them were calculated at dossier level, the others at physical block level.

During the site selection, the dossier level risk values were calculated first. Following this, each block was assigned with the combination of its block level risk factors and the risk values of the dossiers referring to that block. The site centres were determined in GIS, using a “sliding window” technique. Using a grid, the risk values of the blocks have been summarized over a rectangle. The 9 sites were determined with appropriately selected rectangles.

In the case of 5 sites, all the dossiers falling into the site were selected. In the remaining 4 sites, the control sample was defined with further risk analysis and with a special procedure that is the consequence of the way we handle the joint cultivations in CwRS.

Keywords: control with remote sensing, control sample, risk analysis, site selection, dossier selection



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11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
25th – 27th of November, 2004
Margitsziget Hotel, Budapest, Hungary

The risk analysis in the site and dossier selection in the year 2005 CwRS campaign in Hungary

Mónika Magyar, Péter Horváth, Anna Kovács,
Tamás Pribela, Szabolcs Iván, József Nagy
Agricultural and Rural Development Agency (ARDA)

István László, Miklós Lelkes, Irén Hubik, Gábor Csornai
Institute of Geodesy, Cartography and Remote Sensing (FÖMI)



11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
Krakow, Poland, 23-25 November 2005



Institutional background

The Institute of Geodesy, Cartography and Remote Sensing (FÖMI)

carries out CwRS as a *delegated task* from the

Agricultural and Rural Development Agency (ARDA).



11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
Krakow, Poland, 23-25 November 2005





Features of controls in 2005, Hungary

Total number of the dossiers submitted: 207456

(similar to the number in 2004)

Overall control rate: 7%, 14473

„Large” sample of dossiers subject to remote sensing controls: 11002 in 9 sites

(it was 8662 in 2004 in 9 sites)



“Filling up” blocks

Special characteristics of Hungary: **joint cultivation**





“Filling up” blocks

Special characteristics of Hungary: **joint cultivation**

Hard OTS checks, all parcels have to be processed at the same time

Technical recommendations 3:

“7.3 In order to improve the efficiency of the control, applications sharing a reference parcel with any application from the control sample should be included.”

Auxiliary applications



Site selection

A compound risk value is calculated for every block.

Risk factors:

- Determined by the OTSC Department of ARDA
- 2 factors are calculated directly for the blocks
- 12 factors are calculated for the dossiers





Site selection

Risk factors (1/2):

- Subsidy amount (dossier) ↗
- Sum declared area (dossier) ↘
- Number of declared parcels (dossier) ↘
- Number of different declared crops (dossier) ↗
- Number of different physical blocks (dossier) ↗
- Number of different payment groups (dossier) ↗
- Average parcel size (dossier) ↘↗
- Minimum parcel size (dossier) ↘



Site selection

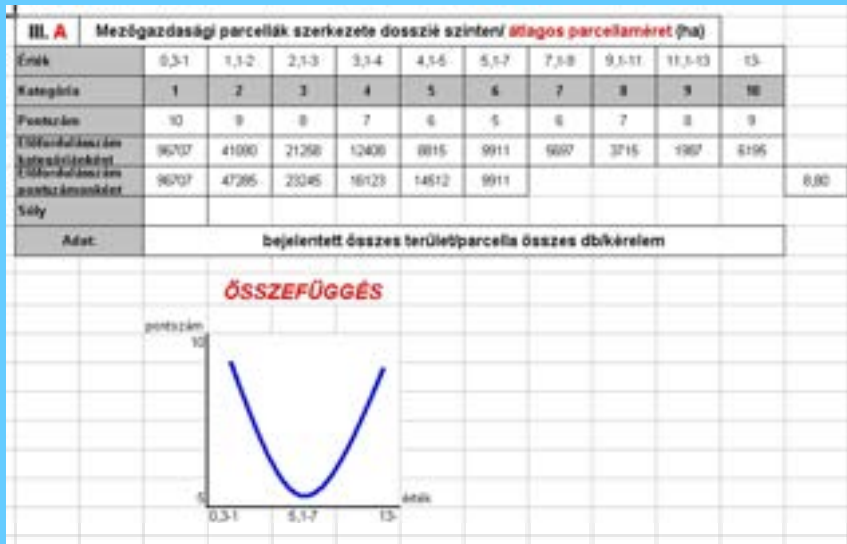
Risk factors (2/2):

- Ratio of parcels close to the eligibility limit (dossier) ↗
- Sum area of the dossier is close to the eligibility limit (dossier) Compound
- Ratio of parcels declared as pasture (dossier) ↘↗
- Results of the year 2004 OTSC: ratio of the erroneous parcels (dossier) ↗
- Area coverage: ratio of the declared and the eligible area (block) ↘↗ (min@100%)
- Probability of presence of joint cultivation (block) ↗





Example of risk factor calculation





Site selection

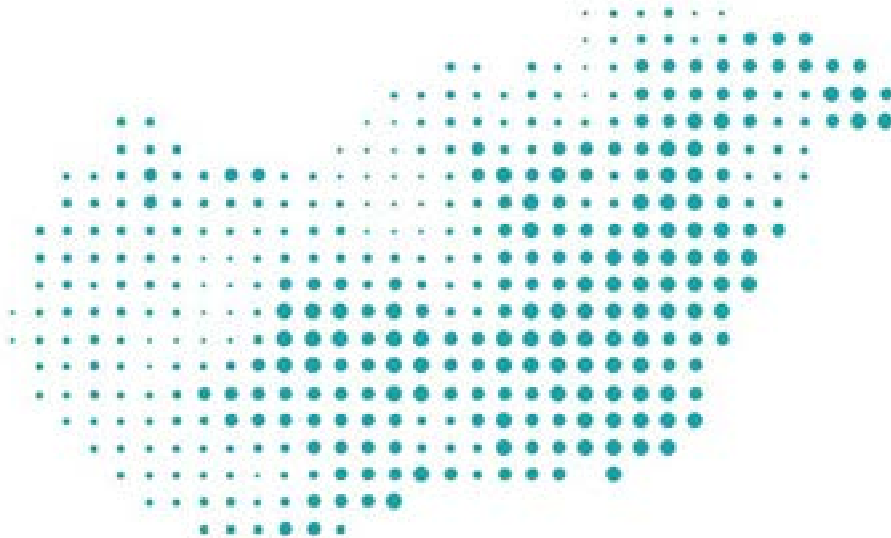
A compound risk value is calculated for every block.

Risk factors:

- Determined by the OTSC Department of ARDA
- 2: calculated directly for the blocks
- 12: calculated for the dossiers

“Sliding window” technique, using IACS-GIS.

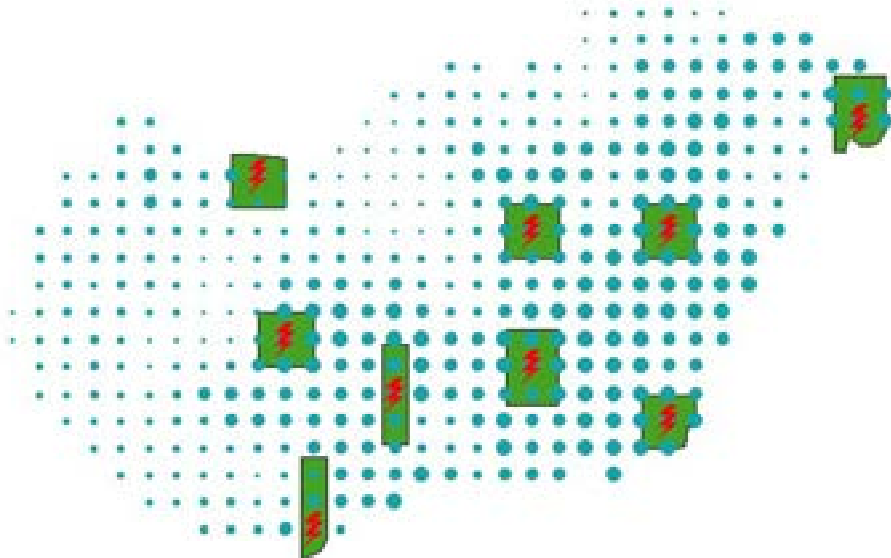
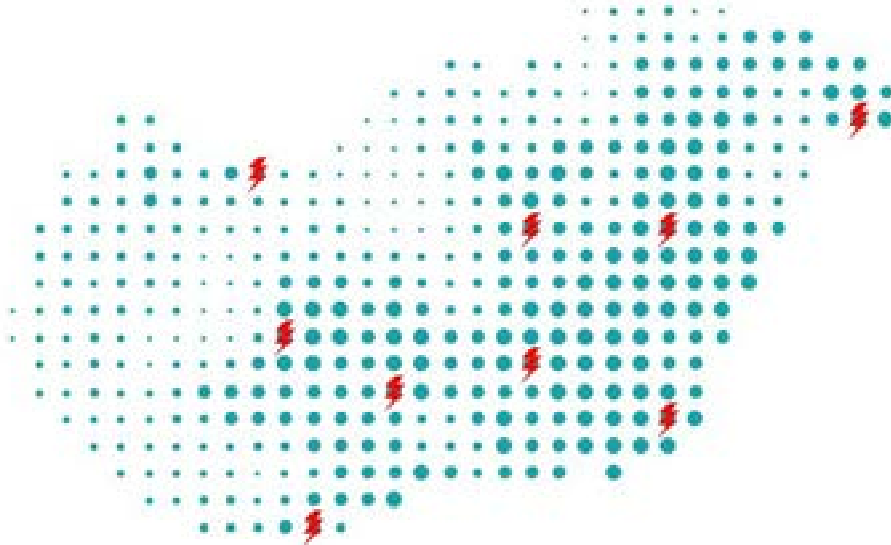
Constraints for the sites, e.g. buffer





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Dossier selection

- 5/9 sites with the 80% rule
- 4/9 sites with further risk analysis: similar criteria as in the site selection
- Implicit enlargement of the sample via auxiliary applications
- Refinement of the sample:
 - Direct applications
(80% sites + risk analysis sites, apps over risk threshold): 7611
 - “Auxiliary” applications
(risk analysis sites, under risk threshold, the parcels sharing block with the direct applications cover $\geq 80\%$): 3391
- This refinement did not significantly weaken the risk analysis, (the overall risk value of the sites did not decrease significantly)



Conclusion


- Second year of EU subsidies in Hungary – both in application and control
- Very big sample (11000 target dossiers for RS) compared to similar MS
- Fulfilment of the requirements of the regulations
- The findings of the DG AGRI Audit (Nov 2004) and the QC Mission (Jul 2005) have been taken into account.
- Improved efficiency of the controls






Presentation 8 – Risk Analysis 2005 Ireland

Jack Creaner - Department Agriculture and Food, IE

 **Risk Analysis 2005 Ireland**

Jack Creaner
Department Agriculture and Food, Ireland.


CwRS Conference KRAKOW 23/25 November 2005

 **Risk Analysis 2005 Ireland**

- **Inspection Requirements**
- **General overview of process**
- **Datasets used**
- **Selection of Risk categories**
 - **Eligibility**
 - **Das**
 - **SMR's**
 - **GAEC's**
- **Selecting for Cross compliance**
- **Entitlement Calculation**

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 **Risk Analysis 2005 Ireland**

Requirements

■ ELIGIBILITY	5% of full population
■ DAS & GFP	5% of population LFA's
■ ENVIRONMENT	1% of eligible population
■ PUBLIC & ANIMAL HEALTH	5% of eligible population
■ GAEC	1% of full population

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 **Risk Analysis 2005 Ireland**

Overview of Process

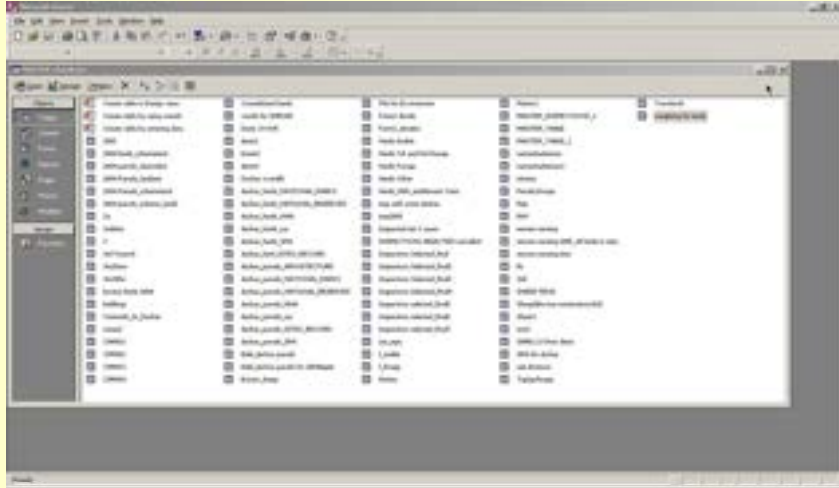
- Identify Population
- Identify the Risk Categories
- Select Remote Sensing sites
- Identify herds with >80% land in each site
- Devise queries to extract data from GIS to create datasets
- Explore other datasets pertaining to identified risks
- Rank risk categories to reflect potential impact
- Apply weighting values to datasets
- Create database, build matrix table of query results & investigation

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Risk Analysis 2005 Ireland

Database Tables



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Risk Analysis 2005 Ireland

Selection of Files

- **Random**
 - ⌘ **Between 20 and 25% are randomly selected**
- **Remote Sensing**
 - ⌘ Position sites having regard to
 - **Large Farms**
 - **DAS inspection requirements**
 - ⌘ Identify those chosen by random selection
 - ⌘ Select 400 applications per site approximately
- **Risk Categories**

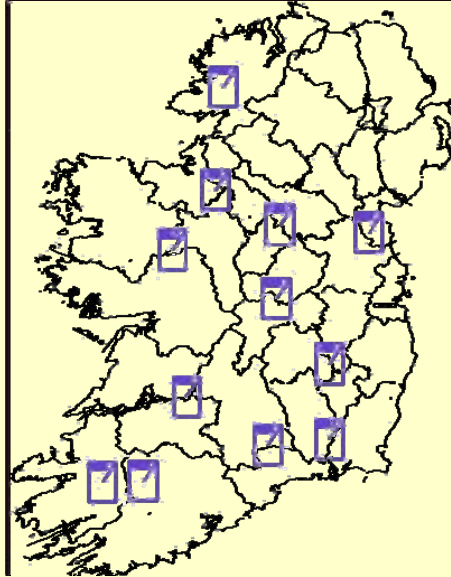
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Remote Sensing Sites

- 12 sites
- 30km x 20km – 720,000 Ha
- 15,800 herds have land in sites
- 12,000 have >80% in site
- 450 approx chosen per site
- Selected by risk and weighting
- 5,400 Inspections
- 70% of Eligibility inspections



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Risk Analysis 2005 Ireland

Datasets

Dataset	weight	Dataset	weight
Arable penalty of 20%+ in 2004	10	Applicant with sub-divided parcels	7
Forage penalty of 20%+ in 2005	10	In CA scheme	7
Remote Sensing herd	10	Applicant in high nitrate area	6
Applicant adjacent to lakes, rivers etc.	8	Applicant with a Sheep flock	6
Applicant with SAS	8	Applicant with address change	6
Applicants with >15% change in 2004	8	Applicant with commonage parcels	6
Applicants with 3-20% Arable penalty	8	Applicant with name change	6
Applicants with 3-20% Forage penalty	8	Potato producer	6
Top Arable applicants (area)	8	SAC	6
Top Forage applicants (area)	8	SPA	6

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Risk Analysis 2005 Ireland

Datasets

Dataset	weight	Dataset	weight
Sugar beet grower	6	CMMS2	4
Applicant with > 11 parcels	5	CMMS3	4
Applicant with grant aided forestry	5	CMMS4	4
Applicants with > 100 hectares	5	Dual claimed in 2004	4
Arable applicant	5	Number of sheep tags >100	4
Claimed area is < 85% of gross area of parcel	5	Overclaim in 2004	4
Applicant not in REPS	4	Stocking density > 1.4lu/ha	4
Applicant with <5 hectares	4	Applicant in peat area	3
Applicant with new parcel in 2004	4	Applicant in sandy area	3
CMMS1	4	Applicant who declared scrub	3

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Risk Analysis 2005 Ireland

Datasets

Dataset	weight	Dataset	weight
Applicant with > 45 hectares	3	Applicant with pigs	2
Land in Less favoured area	3	National Parks	1
NHA	3	S+M	1
Overlap in 2004	3	Stocking density < 1.4lu/ha	1
Stocking density < 3lu/ha	3	Stocking density < 1lu/ha	1
Applicant with goats	2	Applicant in REPS	-5
Applicant with habitat	2	Inspected in previous 3 years	-15

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InvzID	Hierarchy	QC/Control	R/Sherata	MC	CA	weight	RiskNo	SMR1	SMR2	SMR3	SMR4	SMR5	SMR6	SMR7	SMR8	SMR9	SMR10	GARC1	GARC2	GARC3	
1	A101001X		Y			526	RA05														
1	A1010070		Y			1229	RA05														
	A1010080		Y	Y	Y	1755	RA34	Y				Y	Y								
1	A1010096		Y			352															
	A1010100		Y	Y		1361	RA05	Y				Y	Y								
1	A1010118		Y			833	RA05														
1	A1010126		Y			330	RA05														
1	A1010134		Y			1054	RA05														
1	A1010207		Y			1239	RA05														
1	A1010215		Y			1405	RA05														
1	A1010240		Y			571	RA05														
1	A1010258		Y			1185	RA05														
1	A1010304		Y			878	RA05														
	A1010312		Y	Y		1093	RA25														
1	A1010383		Y			834	RA05														
	A1010410		Y	Y		1317	RA11						Y	Y							
	A1010452		Y	Y	Y	1769	RA09						Y	Y							
	A1010460		Y	Y		1239	RA09														
1	A1010479		Y			1843	RA05														
1	A1010509	Y	Y			1273	RA05														
	A1010517		Y	Y		1755	RA09	Y													
1	A1010525	Y	Y			1405	RA05														
1	A1010533		Y			2261	RA05														
	A1010550		Y	Y		1800	RA09	Y			Y	Y	Y					X			
	A1010564		Y	Y		1874	RA09				Y	Y	Y								
1	A1010592	Y	Y			1755	RA05														
	A1010720		Y	Y		1273	RA13	Y				Y	Y								
1	A1010746		Y			1009	RA21														
	A1010754		Y	Y	Y	1824	RA01						Y	Y							
	A1010797		Y	Y	Y	1843	RA09					Y	Y	Y							
	A1010800		Y																		




Risk Analysis 2005 Ireland

Risk categories & Selection of Files

Risk number	Risk description	selected
RA01	Random selection (25%)	1439
RA02	Top 2% of arable claims (money) not inspected in previous 3 years	51
RA03	Top 2% of forage claims (money) not inspected in previous 3 years	55
RA04	Applicants (100) claiming > 100 hectares of forage not inspected in previous 3 years	206
RA05	Applicants with greater than 11 parcels	635
RA06	Penalty of between 3% & 20% in 2004	85
RA07	Penalty of 20 % or more in 2004	20
RA09	Applicants with parcels temporarily subdivided for different crop types	101
RA10	Claiming setaside and not inspected in previous 3 years	252
RA11	Applicants with building in parcel but claims gross area for parcel	117




 **Risk Analysis 2005 Ireland**

Risk categories & Selection of Files

Risk number	Risk description	selected
RA12	Arable herds not inspected in previous 3 years	263
RA13	Forage herds not inspected in previous 3 years	455
RA14	Claimed area is 10% lower than gross area	410
RA16	New parcels created in 2004 not inspected in 2004	356
RA20	Applicants with permanent crops	56
RA34	Applications where the area changed > 15% from previous year	272
RA58	Applicant picked from remote sensing and weighting table	466
RA72	Applicants inspected in previous 3 years	40
RA73	Applicants applying for Consolidation (sub set of other inspections)	120
RA74	Applicants applying for PCC (sub set of other inspections)	60

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 **Risk Analysis 2005 Ireland**

Risk categories & Selection of Files (especially for LFA)

Risk number	Risk description	selected
RA21	Applicants claiming close to minimum stocking density	168
RA22	Applicants claiming CA on 40+ hectares	343
RA23	Applicants with a name change from previous year	28
RA24	Applicants with an address change from previous year	17
RA25	Applicants close to minimum area for CA i.e. <5 hectares	252

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Risk Analysis 2005 Ireland

**Risk categories & Selection of Files
 (with a view to X Compliance)**

Risk number	Risk description	selected
RA26	Herds with > 10 births and > 20% of the births recorded on the same day (Nominated by CMMS)	483
RA27	Herds with > 10 births in the year where > 80% of the births are female (Nominated by CMMS)	124
RA28	Herds with > 10 births in the year where > 80% of the births are male (Nominated by CMMS)	216
RA29	Herds with > 10 births where number of late registrations is > 50%. (Nominated by CMMS)	813
RA60	Bovine/Sheep penalties + other nominations (Nominated by Castlebar)	
RA17	Herds with sugar beet crop	82
RA19	Applicants with Forestry grant aided land	66
RA32	Applications containing commonage shares	227
RA33	Applications with land adjacent to lakes or rivers	140

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Risk Analysis 2005 Ireland

Weight to risk

Average weight on total population = 826

RA01	823	RA25	1385
RA60	965	RA16	1436
RA28	1061	RA19	1455
RA29	1067	RA11	1458
RA27	1108	RA34	1475
RA26	1110	RA22	1519
RA13	1170	RA23	1544
RA38	1223	RA06	1584
RA20	1226	RA10	1659
RA14	1254	RA32	1674
RA12	1284	RA07	1679
RA21	1294	RA24	1701
RA05	1299	RA02	1742
RA17	1306	RA04	1744
RA33	1335	RA03	1746
RA09	1383		

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Risk Analysis 2005 Ireland

Selection of files for Cross Compliance

SMR 1 Conservation of wild birds

SPA dataset used for selection under this category with importance given to overgrazing with cattle & sheep especially on commonage and stressed land.

- SPA (Special Protection Areas)
- Cattle farmers
- Sheep farmers
- Commonage users

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Risk Analysis 2005 Ireland

Selection of files for Cross Compliance


SMR 2 Protection of ground water against pollution

Datasets to use will identify potential problem areas such as sheep dip, herbicides and fungicides, waste oil, effluent, slurry etc.

- Sheep farmers
- Arable farmers
- Non REPS farmers
- Adjacency to watercourses
- Nitrate areas > 150kg/hectare
- Greater than 15% change from previous year (potential abuse of leased land)

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance

SMR 3 Use of sludge

- Dataset of farmers and contractors who spread sludge
- Adjacency to watercourses
- Nitrate sensitive areas

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance


SMR 5 Habitats and flora and fauna

Datasets used to identify possible overgrazing or supplementary feeding of animals within the SAC areas especially on stressed land such as commonages.

- Special Areas of Conservation (SAC) dataset
- Cattle and sheep farmers
- Commonage areas
- Non REPS farmers
- Farms with small acreage

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 **Risk Analysis 2005 Ireland**


Selection of files for Cross Compliance

SMR 6, 7 & 8 Identification and Registration of Animals

Datasets used are

- Cattle, sheep, goats and pigs
- Bovine and sheep penalties
- Separate RA from CMMS on above datasets

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance


GAEC 1 Soil erosion

Risk on this standard includes ploughed land, poaching and non adherence to Commonage Framework Plans (CFP)

- Arable farmers
- Herds with commonage
- Applicants with high stocking density – especially cattle on commonages

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 **Risk Analysis 2005 Ireland**


Selection of files for Cross Compliance

GAEC 2 Soil Organic matter

Risk here is seen on arable land especially in sensitive areas.

- Arable farmers
- SAC areas
- SPA areas
- Heritage areas

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance


GAEC 3 Soil Structure

Ensure that soils are not unduly rutted or compacted by machinery or poached by livestock especially where soil is wet.

- Disadvantaged areas
- > 15% change on previous year
- High stocking density
- Small farm area
- Arable farmers

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 **Risk Analysis 2005 Ireland**


Selection of files for Cross Compliance

GAEC 4 Minimum level of Maintenance

Land to be maintained to ensure that agricultural activity may continue into the future

- Disadvantaged areas
- SAC, SPA, NHA
- Commonage herds
- Low stocking density

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance


GAEC 5 Protection of Permanent Pasture

Permanent Pasture in State should not decrease significantly.

- Arable herds
- Herds with Permanent Crops
- Change >15%

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance

GAEC 6 Retention of Sites, Monuments and Habitats

- SPA (Special Protection Areas)
- Sites & Monuments
- National Heritage Areas
- Special Areas of Conservation
- Herds with Habitats

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 **Risk Analysis 2005 Ireland**

Selection of files for Cross Compliance


GAEC 7 Unwanted Vegetation

Prevent spread of invasive species, noxious weeds etc.

- Herds who declare scrub
- NHA's
- SAC's
- SPA's
- More Severely Disadvantaged Areas

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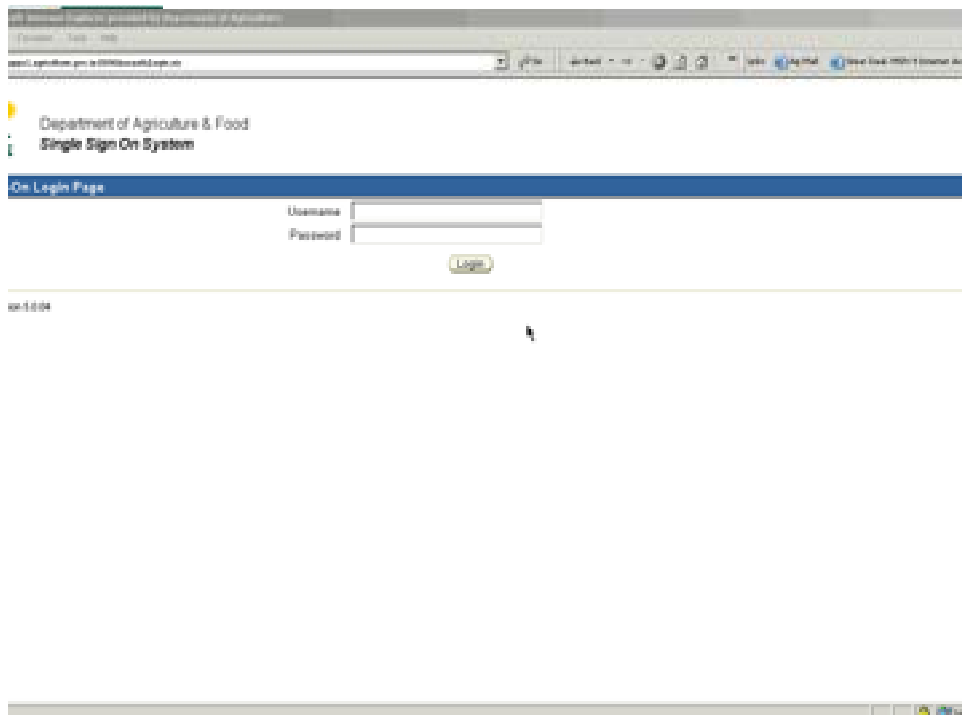


 **Risk Analysis 2005 Ireland**

The Entitlements database

Short demonstration of how entitlements are calculated

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**11th Annual Conference on Control with Remote
Sensing of Area-based Subsidies
25th – 27th of November, 2004
Margitsziget Hotel, Budapest, Hungary**

SESSION 4 – 2006 Campaign and future evolution

Chairman:

Jaques Delincé
Agrifish Unit Head, JRC, IPSC



Presentation 1 - Status of the Implementation of the Land Parcel Identification System in Bulgaria

Pavel Milenov
Remote Sensing Application Center – ReSAC, ASDE, BG

Abstract

The presentation is focused on the current activities and projects, related to the preparation of the LPIS in Bulgaria. A short description of the status of orthophoto production and coverage is provided. Special attention is given to a Pilot Project, supported by MARS-PAC at JRC in the region of Assenovgrad, Bulgaria. The main aims of the project are to complete results obtained during Pilot Study for CwRS of Area-based Subsidies for the region of Isparih (financed by JRC) in a different context (smaller agriculture, mountains areas) and to support the definition of the overall strategy for LPIS in Bulgaria. Another important point is the preparation of the technical recommendations for the block CAPI. Archive VHR satellite imagery from Quickbird was used together with two types of DEM – SRTM and Ref3D.

One of the crucial questions for the Bulgarian Administration is it possible to use the existing cadastre during implementation phase as ancillary information. This approach is needed due to the risks on orthophoto coverage and time constraints for the building of a completely new LPIS for the whole country before January 2007. The preliminary results from the project in Assenovgrad, combined with the previous findings, showed that the overall good geometric quality of the agriculture cadastre, even in mountainous areas, could be considered as outstanding. After the LPIS workshop, organized by JRC in ISPRA (September 2005) it was decided that the Bulgarian Administration could use the cadastre as LPIS for the 1st year(s) with the support of orthophoto, then migrating to physical blocks or farmer's blocks (ilots). Priority should be given to the important agricultural areas in the delivery / processing of orthophotos, in order to create in advance the physical blocks, using the cadastral layer to optimize the block creation. The use of satellite imagery as alternative of the aerial orthophoto production is also discussed, taking into account the slow procedures in tendering and contracting the different lots, as well as the flight authorisation of the border areas. A specific IACS procedure for LPIS and control in the areas not covered by orthoimages should be prepared.

Finally, a current research of another pilot project, supported by the Ministry of Agriculture and Forestry (in the frame of FP6 SAFIR) is briefly presented. The project methodology combines voice and graphic user interface within a compact mobile GIS/GPS enabled system to facilitate and speed up the work of the field inspectors for data collection for LPIS and validation of the results from the CwRS. The voice activated portable GIS/GPS systems, based on VQL perform verbal dialog with the field user, guiding him and allowing easy ways for alphanumeric data collection and vector data creation/update, without the need of complex training in IT and especially the specifics of GIS.

Keywords: LPIS, IACS-GIS, orthophoto, block creation, VHR, CAPI, parcel measurement, data integration, VQL



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11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
23rd - 25th of November, 2005 - Sheraton Kraków, Poland

Status of the Implementation of the Land Parcel Identification System in Bulgaria

Pavel Milenov, ASDE/ReSAC
Mihail Kassabov, Directorate LPRIT, MAF

11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
23rd - 25th of November, 2005 - Sheraton Kraków, Poland

Challenges of the Bulgarian LPIS

- **Geographic data**
 - Better than 1:10,000 map specification (*RMSE <2.5m*)
 - *UTM instead of the existing geodetic system BNCS 1970*
- **Parcel area measurement (SAPS Scheme)**
 - Minimum parcel size of *0.1 ha*/ minimum farm size of *1 ha*
 - Accuracy 1,5m -buffer tolerance
- **Ortho-image**
 - minimum specifications: *< 1m pixel, natural color*
 - DEM should be delivered
- **Other requirements**
 - Definition of eligible zones for *LFA*;
 - Information on environment / sensitive zones based *on NATURA 200*;
 - Information on *Slope and erosion*

- **The Ministry of Agriculture and Forestry is responsible for the creation and maintenance of the LPIS**
- **Approximately 400 000 eligible farmers**
- **Up to now 100 000 farmers registered**



The LPIS Dilemma

Due to the risks on orthophoto coverage and time constraints,
it is not realistic to think to building a completely new LPIS for the whole country before January or February 2007 (sending forms to farmers)

1. Should we use Cadastre or not during implementation phase as an ancillary information ?
2. Will it be more efficient to start IACS with Cadastre then to migrate to real parcels/ blocks? or to establish since the beginning a new system?



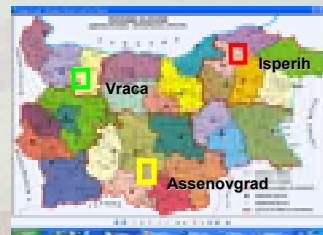
Cadastre as support to the declaration process

- Already available and covers *94% of the territory*
- Known by farmers and *used in the existing state funded schemes*
- Already digital in the *national geodetic projection*
- Replace costly and long *meeting with farmers*
- Good geometric quality, which is *claimed to be less than 1 meter*
- Quite recent, *created between 1995 and 2000*

- The adequacy to refer agricultural parcels had to be *evaluated*
- Might generate additional source of *confusion with farmers*
- Could open Pandora's box on *problem on cadastre*

The cadastre was clearly a point to assess in Pilot project

Two pilot project supported by MARS-PAS at JRC in 2004-2005



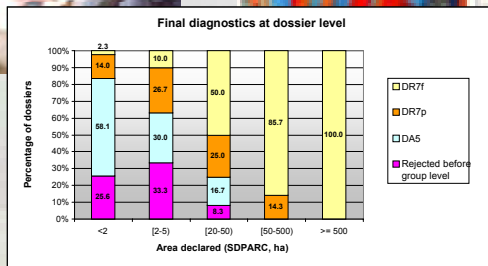
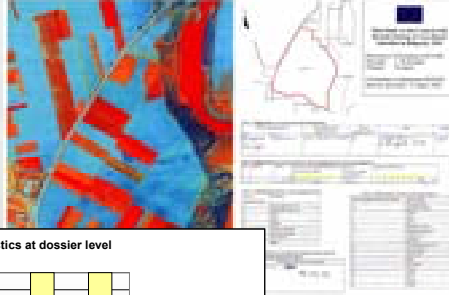


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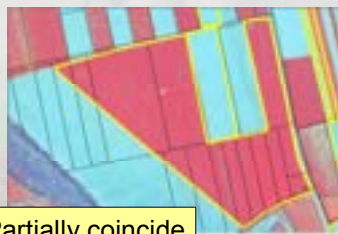
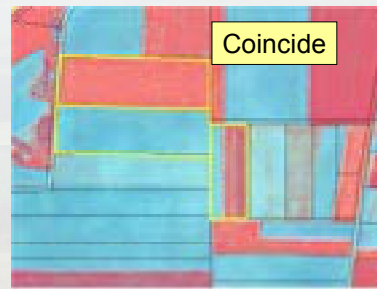
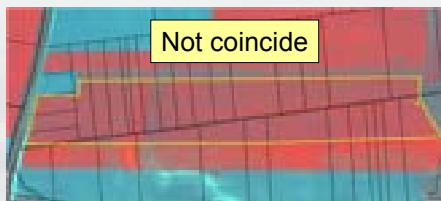
Cadastre as support to the declaration process Test Farmer Declaration



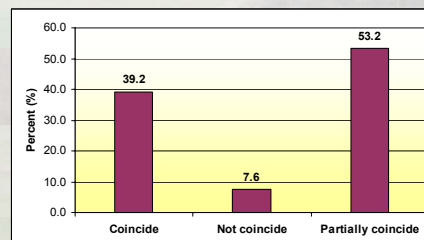
Agricultural parcels digitized on the base of VHR satellite data from IKONOS.
 Declared area - based on cadastre.

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Cadastre as support to the declaration process Farmer Declarations - Parcel Identification

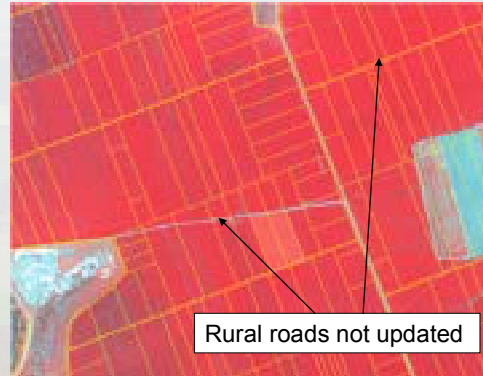
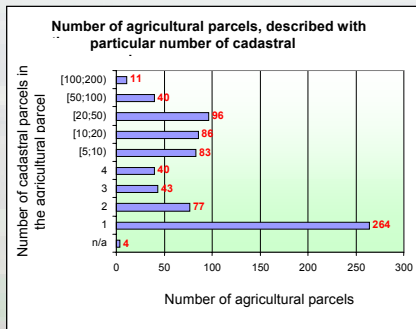


Agriculture parcel





Specific constraints using the cadastre



The 740 agricultural parcels sampled in ISPERITH municipalitie are identified by about 10600 cadastral parcels, i.e a mean value of 14 cadastral parcels for one agricultural parcel.

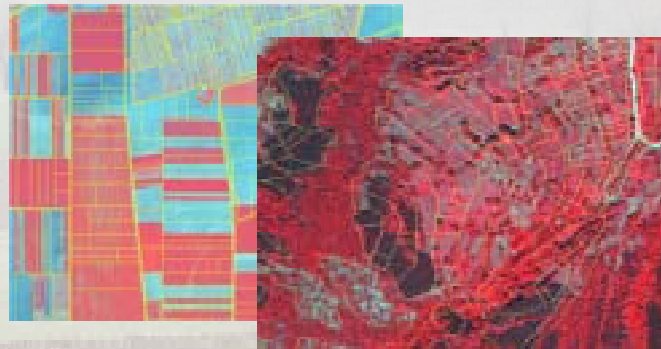


Conclusions on the use of the cadastre

The overall good geometric quality of ALIS, even in mountainous areas, can be considered as outstanding

New blocks will replace many cadastral parcels in intensive agricultural plains

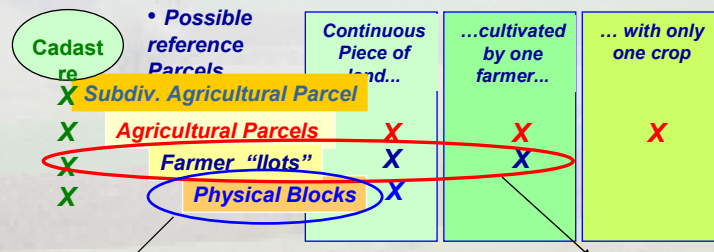
Existing cadastral boundaries with updated land use will be used in mountainous / hilly marginal areas





Definition of the Reference Parcel

- keep in IACS GIS the full digital cadastre as an ancillary information to locate and identify the small agricultural parcel;
- use only the Block number to locate the large parcels (and avoid applicants to list 50 or 150 cadastral parcels to locate their fields)



Will be sufficient for the first years of the campaign with a combination with the cadastre

Target of the Bulgarian Administration

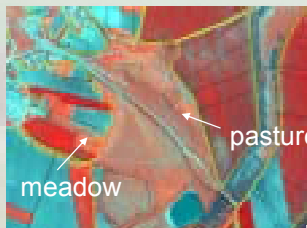
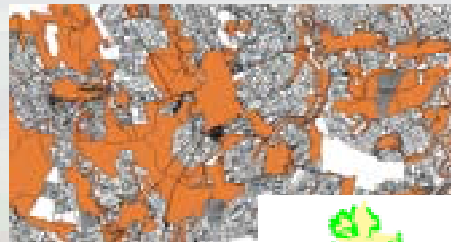


Definition of the Eligible Land

Definition of Land Use

- Bushes
- Forest in agriculture land
- Forest permanent plantations
- Forest roads
- Salted arable land
- Grazed arable land
- Abandoned arable land due to small size
- Used natural meadow
- Pasture with bushes
- Forest meadow
- Permanently abandoned meadow for other reasons.....

The existing nomenclature of land uses cannot be used directly and should be simplified (there are more than 100 classes).



- Agriculture Land
- Non-agri Land





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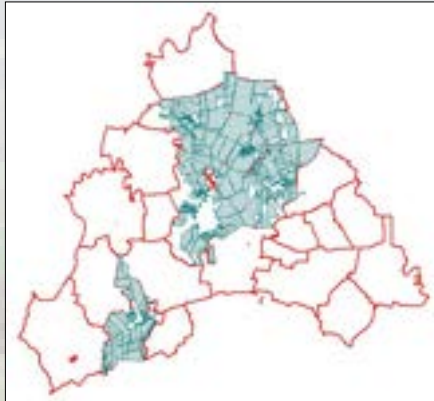


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Creation of Physical Blocks

Average Number of Physical Block created for 10 000 ha: **500**
 Mean area of the Physical Block : **20 ha**
 Total Number of Block expected: **400 000 –500 000**



Field name	Type
Reference parcel ID	Integer
No of massifs fully or partially included	Char
Land use	Char
Village land	Char
Features presented (trees, buildings)	Char
Area in hectares	Double
Number of agriculture parcels	Char
EKATTE	Integer
Notes	Char

Physical blocks were created on the base of VHR satellite images from IKONOS and Quickbird

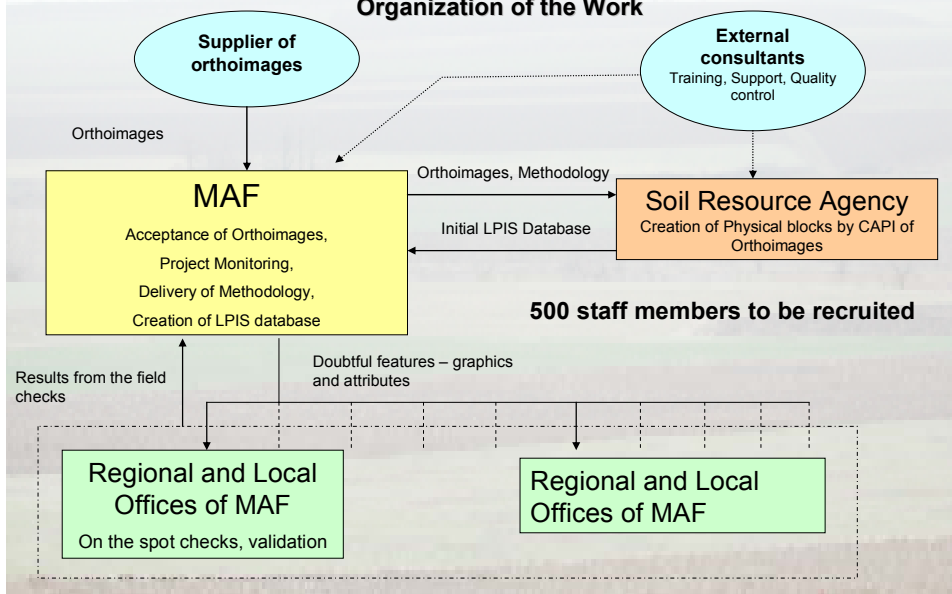


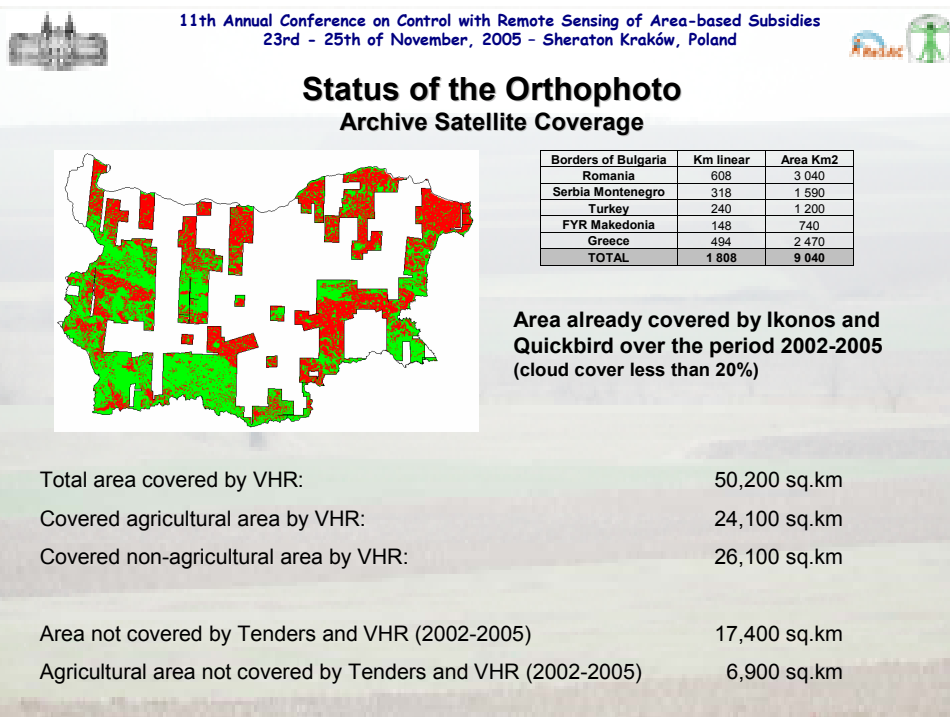
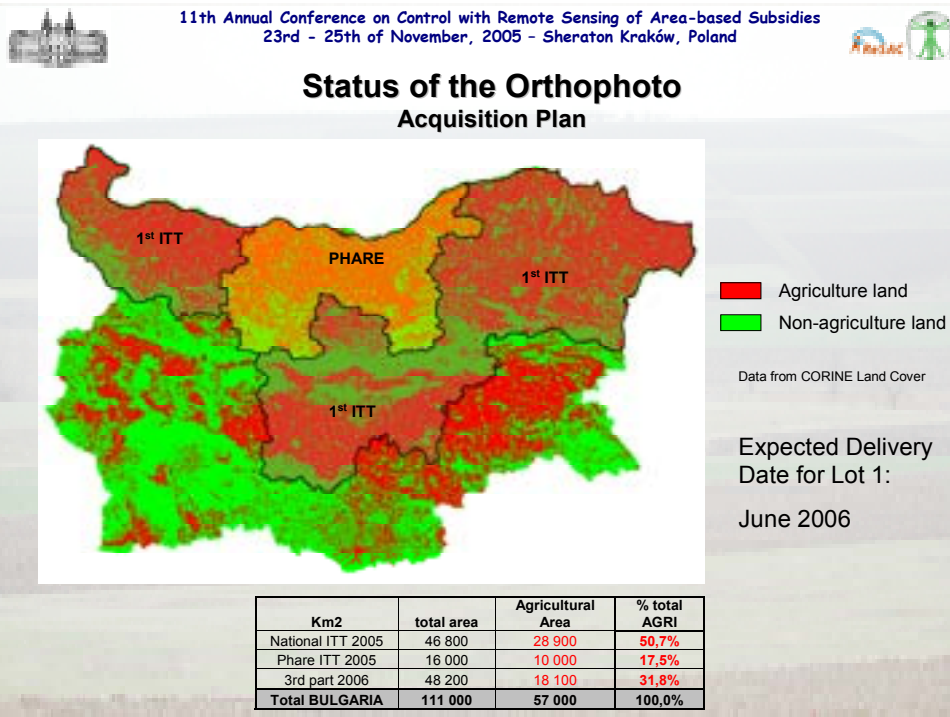
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Creation of Physical Blocks

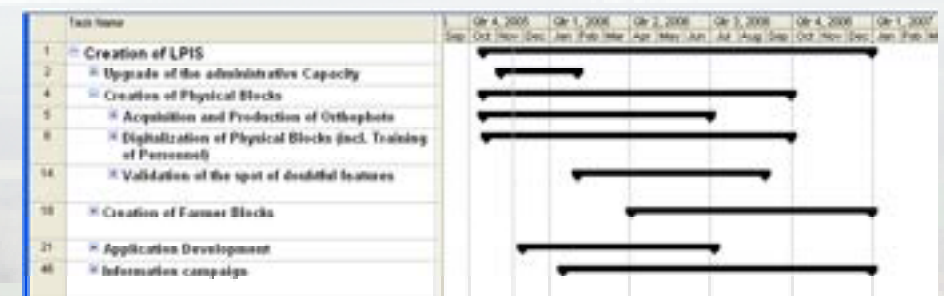
Organization of the Work







Action Plan



In the next two months:

1. Test of pre-registration of farmer blocks in the Pilot ASSENOVGRAD area.
2. Aggregation and simplification of the ALIS land use nomenclature
3. Preparation of training program and manual for the local staff, initial training
4. Preparation of procedures for the block generation in LPIS and database maintenance
5. Finalization of prototype for voice activate mobile device for field data collection



Thank you for your Attention!



Presentation 2 - LPIS Creation in Romania - Current Status and Future Developments

Filip Razvan GHITESCU
Ministry of Agriculture and Rural Development, RO

Abstract

Romania has taken important steps in the establishment of LPIS. The presentation covers the plan, the status, the challenges and the future developments in the construction of LPIS. The main topics discussed refer to the share of responsibility among various institutional actors, the methodology used/type of reference parcel, status of provision with ortho-images, digitization of physical blocks, establishment of the link between the physical blocks and the farmers, actualization of the initial digitization and consolidation of LPIS.

Romania decided to establish its LPIS based on orthoimages and physical blocks. After the accession, Romania will apply the Single Area Payment Scheme, with an eligibility threshold of 1ha/farm and 0.3ha/lot. The responsibility for the LPIS creation, implementation, administration and development is held by the Paying and Intervention Agency for Agriculture. The National Agency for Cadastre and Real Estate Publicity is responsible for the acquisition of orthoimagery covering the entire territory of the country and for transferring this orthoimages to PIA. This year (2005), PIA tendered the digitization of the physical blocks and launched the nationwide "Farm Registration" project, whose purpose is to pre-register all the potential applicants for direct payments and to serve as data input in the establishment of a link between the physical blocks and the farmers.

Keywords: Romania, LPIS, IACS, orthophoto, physical blocks, digitization, paying and intervention agency, linkage, preparation, creation.



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MINISTRY OF AGRICULTURE, FORESTS AND RURAL DEVELOPMENT

ROMANIA
Paying and Intervention Agency

Status of LPIS Creation in Romania

Filip Razvan GHITESCU
Counsellor of European Integration

CwRS Krakow 23-25 November 2005

ROMANIA
Paying and Intervention Agency

CONTENTS

- LPIS Framework
- Methodology Used/Reference Parcel
- Provision of orthophotos
- Digitization of physical blocks
- Establishment of Link to the Farmers
- Updating and maintenance of LPIS



LPIS Framework

- Romanian Paying and Intervention Agency has the full responsibility for the creation and maintenance of LPIS.
- The ortho-images needed for the creation of LPIS are provided by National Agency for Cadastre and Real Estate Publicity
- Government Memorandum: Romania will apply SAPS, with the eligibility threshold of
 - 1ha/farm and
 - minimum parcel size of 0.3ha
- Approximately 1.8-2.0 eligible farmers
- Intended GAECs for 2007 to be announced by MAFRD in December.



METHODOLOGY USED

- LPIS based on ortho-images and Physical Blocks
- Ortho-images
 - 240.000 sqkm
 - 6 different photogrametric flight campaigns, various stages of processing
 - Expected Delivery Date of the last batch: 15.02.2006
- Physical Blocks
 - Estimated number of PB: 2-3 million

YEAR / PROJECT	PERCENTAGE OF TOTAL AREA COVERED BY FLIGHTS
2001 (Aero 01)	2%
2002 (Aero 03)	7%
2004 (Aero 05, Matra, Aero 06)	34%
2005 (Aero 07)	57%



DIGITIZATION OF PHYSICAL BLOCKS

- Tender for digitization of physical blocks and print-outs.
 - Tender was closed on the 14th of October
 - 4 lots covering the entire country
 - Expected Results: physical block system and print-outs for the linkage process
- Tender for Quality Control of the digitization and print-outs.
 - Still open until the 6th of December
 - Expected Results: Small GIS, Coordination support, Quality Control of the digitization and print-outs



ESTABLISHMENT OF THE LINK TO THE FARMERS

- Pre-requisites
 - Nationwide Farm Registration
 - Print-outs from the Digitization of Physical Blocks
 - Farm Registration started 1st of October
- ✓ So far 350.000 farms registered
- ✓ Expected to end in March 2006
- ✓ 2.000 staff members of PIA, NAAC and ARDD.



Training of Farm Registration teams



ESTABLISHMENT OF THE LINK TO THE FARMERS

- Expected Result: contact information and parcel list for all potentially eligible farmers
- The parcel list contains a column with geographical indications concerning the parcel and an additional column with the physical block ID number.
- The physical block ID number corresponding to each parcel will be filled-in during the linkage process.
- Linkage process to start in April 2006



Linkage: assigning PB IDs to the parcels declared by farmer

ESTABLISHMENT OF THE LINK TO THE FARMERS

- Objective: establish a correspondence between the parcels declared by the farmers during the farm registration and the corresponding physical block ID number.
- Target: at least 70% of the eligible area (approx. 10,5 mil. ha). Ideally:
 - All Large Farms (>20 ha): 24.000 farms covering 52% of UAA
 - All Medium Farms (5-20ha): 130.000 farms covering 14% of UAA
 - And 30% of the small farms (1-5ha): 550.000 farms covering 9,5% of UAA
- Expected Results of Linkage:
 - Correction of Physical Block Boundaries and
 - Crosschecks/Early Warning System



UPDATING AND MAINTENANCE OF LPIS

- First correction of the physical block boundaries to be performed after the linkage process,
- From 2007 on, annually, following the on-the-spot controls
- Maintenance of LPIS will be performed by PIA staff



WHAT COMES NEXT?

- IACS Software, Hardware and Network Tenders, expected in January 2006.
 - 3 separate tenders.
- Establishment of 168 local offices of the PIA, the third level of the organizational structure.



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THANK YOU!

QUESTIONS?



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Presentation 3 - Integrated Administration and Control System – IACS-GIS Land Parcel Identification System – LPIS in TURKEY

Eyüp Köksal, İ. Hakan ERDEN

Ministry of Agriculture and Rural Affairs (MARA), General Directorate of Production and Development, Agricultural Land Evaluation Department, TK

Abstract

The Presentation deals with an analysis of the current situation and preparatory period of Integrated Administration and Control System – IACS, Land Parcel Identification System – LPIS and Geographic Information System – GIS in Turkey.

The Presentation has been prepared in the scope of giving brief information on three main issues; i) The short history of regarding IACS initiative works in Turkey, ii) The works/results similar or related with above mentioned subjects, responsible bodies, infrastructure etc. iii) The EU Project named “Formation of Integrated Administration and Control System (IACS) and Establishment of Land Parcel Identification System (LPIS) in Turkey” under the “Preparation for the Implementation of EU Common Agricultural Policy”
Consequently; the expectation from this presentation, as a Candidate Country, besides giving information, is sharing the experiences of MSs.

Keywords: EU harmonization period, legislation and legal basis (EU&TR) public administration, common agricultural policy, land parcel information system, Integrated administration and control system, geographic information infrastructure.



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INTEGRATED ADMINISTRATION AND CONTROL SYSTEM - IACS- GIS LAND PARCEL IDENTIFICATION SYSTEM - LPIS in TURKEY

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INTEGRATED ADMINISTRATION AND CONTROL SYSTEM (IACS)

INITIATION OF THE STUDIES REGARDING IACS IN TURKEY AND PERIOD UP TO NOW

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- Studies related to IACS in EU harmonization period have started in 1998 under the coordination of EU General Secretariat and State Planning Organization (SPO)



Several Bodies/Institutions out of MARA have been interested with IACS (1998 - 2003)

Throughout the period:

- Meetings with EU General Secretariat,
- Studies with EU consultants,
- Under the present coordination, subcommission studies realized by the participation of related institutions and agencies and evaluation of these studies,
- Work on legislation research studies,
- Organization of various seminars and meetings,
- Under the frame of providing the participation to related meetings,



As a result of the evaluation of these studies as a whole;

It has been decided that studies related to IACS and the establishment of the system should be carried out under the coordination of Ministry of Agriculture and Rural Affairs.



Under the direction of the commitments taking place in National Program and this decision;

Coordination and establishment of the System studies are carried out actively by the Department of Agricultural Land Evaluation which is bound to the Directorate of Agricultural Production and Development functioning in the structure of our Ministry starting from August 2003.



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In Resolution no 2003/5930 and 2003 participation Membership Document (Legal Base in Turkey)

Completion of Animal Identification and Registration System to be linked to the "Integrated Administration and Control System" and initiation of preparatory studies for other components such as Land Parcel Identification System ***short term***.

"Integrated Administration and Control System - IACS" were mentioned among mid term priorities.

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STUDIES CARRIED OUT UNTIL NOW AND CURRENT SITUATION

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First of all, studies carried out till now have been examined and works to be done have been determined.

As it is foreseen in existing legislation, at the beginning of 2004 Standard Project Fiche preparation covering the subjects of, "**Establishing Integrated Administration and Control System and Land Parcel Identification System**" started.

In the basic frame of Project, a PILOT PROJECT related to the formation of Land Parcel Identification System was planned to take place.

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In line with the given decision, the Standard Project Fiche was prepared and sent to EUGS on March 2004 to be submitted to EU Commission.

During the preparation phase of Project, contributions of EUGS and EU Joint Research Center in Italy have been made use.

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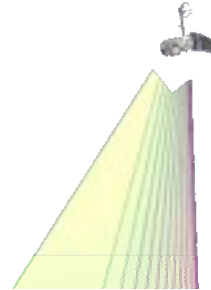


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THE PROJECT



TEKİRDAĞ



AĞRI



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The name of the project :

Formation of Integrated Administration and Control System (IACS) and establishment of Land Parcel Identification System (LPIS) in Turkey

Beneficiary of the Project :

Ministry of Agriculture and Rural Affairs
General Directorate of Agricultural Production and Development - GDAPD
Department of Agricultural Land Evaluation -ALED

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Aim Of The Project:

To provide support for Ministry of Agriculture and Rural Affairs in establishing the main elements of IACS according to EU norms,

To increase the capacities of beneficiaries about legal and institutional issues related to IACS and Land Parcel Identification System - LPIS in accordance with the EU legislation and applications,

To initiate the preparations for establishment of an Integrated Administration and Control System which operates in the medium term,

To establish the elements of a system, which operates in harmony with the EU, in order to make rational agricultural plans and supports.

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Budget of the project : 1.075.000.-Euro (grant)

PROJECT'S IMPLEMENTATION SCHEDULE

Preparation Period : Nov. 2004 – Jan 2005

Forecast Published : March 2005

Start of Implementation (Expected) : End of Feb 2006

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THE PLANNED RESULTS OF THE PROJECT

The basic elements of the Integrated Administration and Control System will be defined, and present activities and frame related to the basic elements will be drawn. Institutional frame will be drawn in this direction and necessary cooperation and coordination will be provided.

Designing a functioning Integrated Administration and Control System (IACS) and Land Parcel Identification System in Turkey

System Establishment oriented investment needs will be determined.

All breakdowns will be removed before nation-wide implementation via tests of the pilot project implementation.

Land Parcel Identification System will be established by the help of pilot project, useful data related to implementation will be received.

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Thanks for your attention

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Presentation 4 - Integration of the second wave and following steps in the Cap reform

Ansa Norman Palmér
DG Agriculture and Rural Development

Abstract

The reform of the Common Agriculture Policy and the introduction of the Single Payment Scheme adopted by the Council in 2003 were followed by a "second wave" that included the regimes for cotton, olive oil and tobacco. As the first part of the reform the payments are decoupled from the obligation to produce. However, there is a possibility for the Member States to let a part of the payments to farmers remain coupled to the obligation to produce in order to entitled to the aid.

The rules for the implementation of the reform are to be found in three Commission Regulations ((EC) No 795/2004, (EC) No 796/2004 and (EC) No 1973/2004), which had to be adopted to comply with this second wave. This was completed whilst keeping the next steps of the CAP Reform in mind, such as the reform of the sugar regime, all in order to facilitate their introduction in the Single Payment Scheme at a later stage.

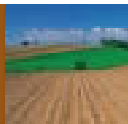
Keywords: Single Payment Scheme, CAP Reform



Implementation of the second wave and the next steps of the CAP reform

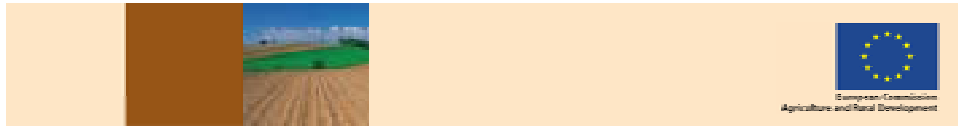
Ansa Norman Palmér, DG AGRI D1
Krakow 23-25 November 2005

Disclaimer CE DG-AGRI:
This information represents solely the views of its author and can not in any circumstances be regarded as the official position of the Commission.



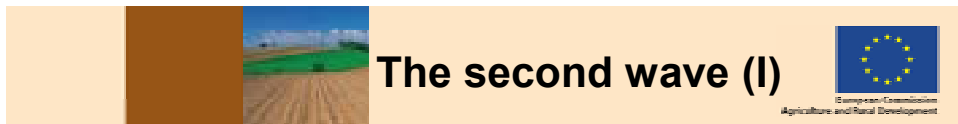
Content

- The second wave of the reform, Regulation (EC) No 1782/2003 as amended by Regulation (EC) No 364/2004
- The decoupled part, Regulation (EC) No 795/2004
- The re-coupled part Regulation (EC) No 1973/2004
- IACS, Regulation (EC) No 796/2004
- Next steps of the reform



The second wave of the reform, Cotton, olive oil and tobacco.

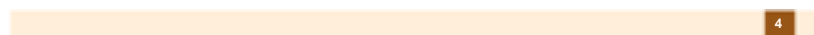
Regulation (EC) No 1782/2003



The second wave (I)

The reform in summary

- Enter into force 1 January 2006
- Minimum de-coupling
 - Cotton
 - Fixed at 65 %
 - Olive oil
 - Minimum 60 %
 - Tobacco
 - Minimum 40 %, from 2010 fully de-coupled





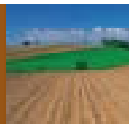
The second wave (II)



The reform in summary

- Cotton
 - A national base area established
 - Possible differentiation of aid for members of approved inter-branch organisations
 - An extra payment to farmers that are members of approved inter-branch organisations
 - From 2007 an amount should be available for restructuring programmes under Rural development in the cotton producing regions

5



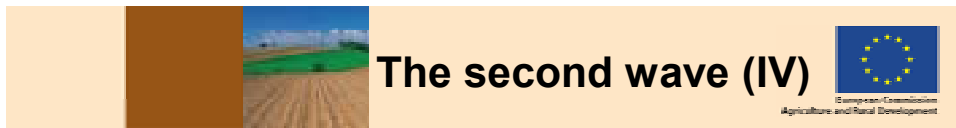
The second wave (III)



The reform in summary

- Tobacco
 - Transfer to the Community Tobacco Fund
 - 4 % in 2006 and 5 % in 2007 of the aid granted for information actions
 - When fully de-coupled 50 % of the initial reference amount will be transferred to the Single Payment Scheme and 50 % to restructuring programmes under Rural development in the producing regions concerned

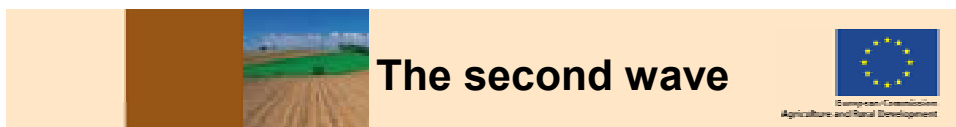
6



The reform in summary

- Olive oil
 - Contribute to the maintenance of olive groves of environmental or social value
 - Granted per Olive GIS-ha
 - Only for areas with olive trees planted before 1 May 1998 or replacing trees or surfaces covered by a programme approved by the Commission
 - MS shall fix an aid per olive GIS-ha for up to maximum of five categories
 - MS may withhold up to 10 % of the tobacco component of Annex VII ceiling to ensure community finance of work programmes drawn up by approved operators' organisations.

7



The de-coupled part

Regulation (EC) No 795/2004

8



The Decoupling part (I)



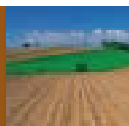
European Commission
Agriculture and Rural Development

Recalculation/establishment of Payment Entitlements (PE)

- Historical model

- Member States that implement the reform in 2006
 - No specific measures, included in the first establishment

9



The Decoupling part (II)



European Commission
Agriculture and Rural Development

Recalculation/establishment of Payment Entitlements (PE)

- Historical model

- Member States that already implemented the reform 2005
 - Farmers who do not have any PE
 - No specific measures, reference amount divided by the number of corresponding hectares
 - Farmers who had PE in year 2005
 - The number of PE he owns plus the amount and the number of hectares established in the reference period

10



The Decoupling part (III)



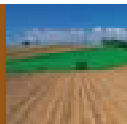
European Commission
Agriculture and Rural Development

Recalculation/establishment of Payment Entitlements (PE)

- Regional/Hybrid model

- Regional model
 - All PE increase its value with the same amount resulting by dividing the increase in the National Ceiling with the number of PE
- Hybrid model
 - An flat rate part distributed to all PE
 - The historical part distributed as a “Top-up” to farmers concerned
 - Set-aside PE receives only the flat-rate

11



The Decoupling part (IV)



European Commission
Agriculture and Rural Development

Special rules for Olive oil

- The number of hectare to be taken into account when calculating the PE should be the so called Oligis hectare defined in Annex XXIV of Regulation (EC) No 1973/2004
- Malta and Slovenia have special rules for 2006 where they may grant aid for Oligis hectares in 2006. These two Member States will implement the single payment scheme in 2007

12



The Decoupling part (V)

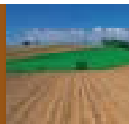


European Commission
Agriculture and Rural Development

General rules

- The linear reduction of a possible overshoot of the national ceiling should effect all PE, “old and new”
- Reduction of the National reserve should be done
- The five years period for PE received from the National Reserve will not restart

13



The second wave



European Commission
Agriculture and Rural Development

The re-coupled part

Regulation 1973/2004

14



The Re-coupled part (I)

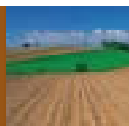


European Commission
Agriculture and Rural Development

Implementing rules

- Mainly detailed implementation rules for the provisions in the Council Regulation
- The calculation of the Olive GIS-ha
- Communications from MS to the Commission

15



The second wave



European Commission
Agriculture and Rural Development

The Integrated Administration and Control System, (IACS)

Amendments of Regulation (EC) No 796/2004

16



IACS (I)

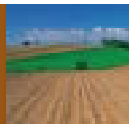


European Commission
Agriculture and Rural Development

Applications (Article 12-13)

- Decoupled part covered by existing rules
- Re-coupled aid
 - Cotton
 - The name and variety of cotton seed used
 - The name and address of the approved inter-branch organisation of which the farmer is a member

17



IACS (II)

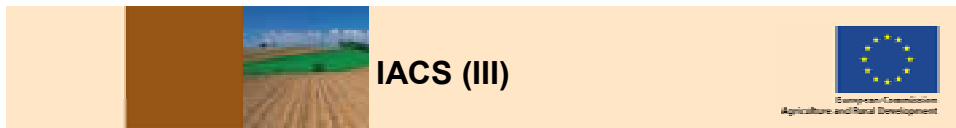


European Commission
Agriculture and Rural Development

Applications (Article 12-13) cont.

- Re-coupled aid
 - Olive groves
 - The number and positioning in the parcel
 - of the olive trees grubbed up and replaced
 - of the olive trees grubbed up and not replaced
 - of supplementary olive trees planted
 - Tobacco
 - a copy of cultivation contract
 - an indication of the tobacco variety grown on each parcel
 - a copy of the supporting control certificate issued by the competent authority indicating the quantity of dried tobacco leaves delivered to the first processor

18

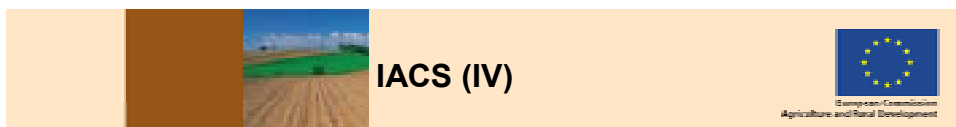


IACS (III)

Cross-checks (Article 24)

- Between agricultural parcels declared and parcels authorised by the Member State for cotton production
- Between declarations of farmers to be a Member of an approved inter-branch organisation and the information provided by those organisations

19

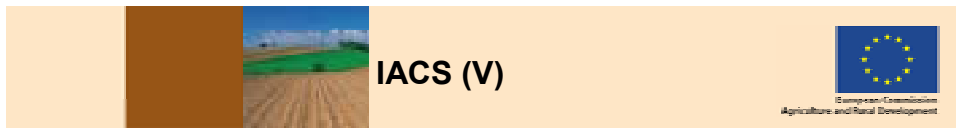


IACS (IV)

Control rates (Article 26)

- 5 % of all farmers applying for the re-coupled tobacco aid
- 20 % of the approved inter-branch organisations in the framework of the crop specific payment in accordance with Chapter 10a of Title 4 of Regulation (EC) No 1782/2003
- 5 % of the first processors as regards checks during first processing and market preparation

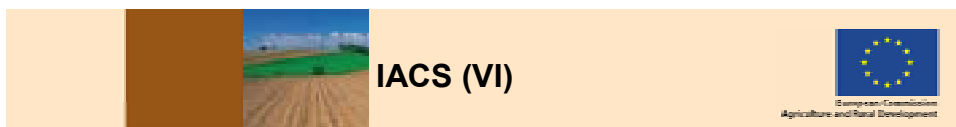
20



Risk analyses (Article 27)

- For re-coupled tobacco aid,
 - quantities of raw tobacco, by variety, covered by contracts in relation to areas declared as under tobacco;
 - different sizes of first processing undertakings

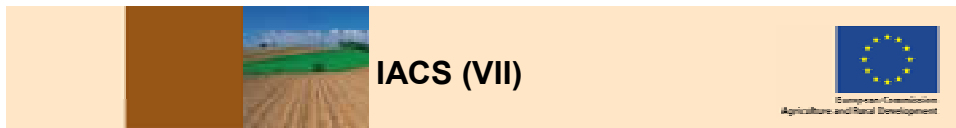
21



Specific requirements for on-the-spot checks

- Checks on approved inter-branch organisations for cotton (Article 31a)
- Checks on deliveries of tobacco (Article 33b)
- Placing under supervision and checks during first processing and market of tobacco (Article 33c)

22

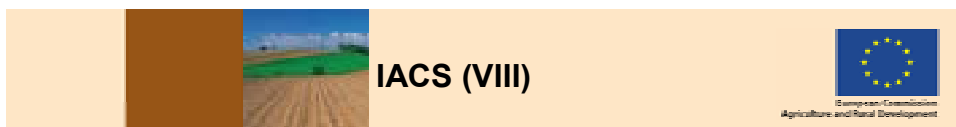


IACS (VII)

Basis of calculation of areas and possible reductions (Articles 50-52)

- Tobacco falls into the existing rules for starch potatoes and seeds, the same derogation is given

23

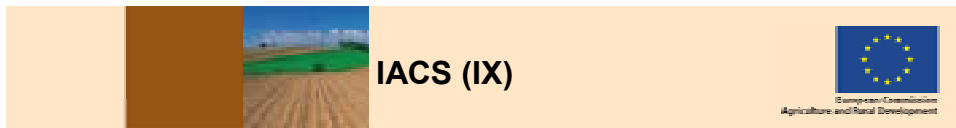


IACS (VIII)

Reductions (Articles 54a-54b)

- Specific rules for re-coupled tobacco aid and the crop specific aid for farmers belonging to an approved inter-branch organisation for cotton

24

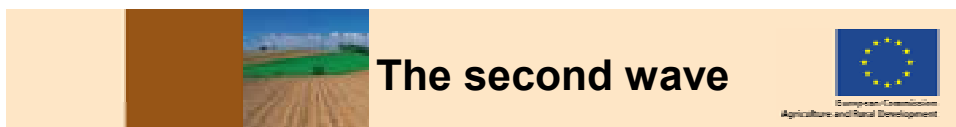


IACS (IX)

General amendments done, not explicit for the second wave

- Definition of agricultural parcel re-introduced, slightly modified (Article 2(1)(a))
- Decreased control rate for nuts, following a feasibility study (Article 25(1)(d))
- Possibility to proportional administrative corrections when over declarations within the limits of the tolerances
- Tolerances for parcels smaller than 0.1 hectares (Article 30(1))
- Special provisions for additional payments, Articles 69 and 119 of Regulation (EC) No 1782/2003 added (Articles 38 and 63)

25



The second wave

Next steps of the reform

26



Next steps of the reform (I)

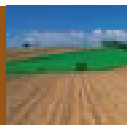


European Commission
Agriculture and Rural Development

The Sugar reform

- What are the objectives ?
 - Improve the competitiveness and market orientation
 - Create a sustainable market balance in consistency with the EU's international obligations
 - Bringing the sugar sector in line with the CAP reform process (decoupling)
 - Provide a long-term policy framework, with no review in 2008
 - Budget neutrality

27



Next steps of the reform (II)



European Commission
Agriculture and Rural Development

The Sugar reform

- Intervention abolished
- Replaced by a reference price
- Price cut by 39%
- Cut of Minimum Sugar Beet Price by 42,6%:
- Price reporting system

28



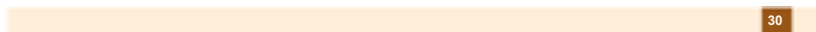
The Sugar reform

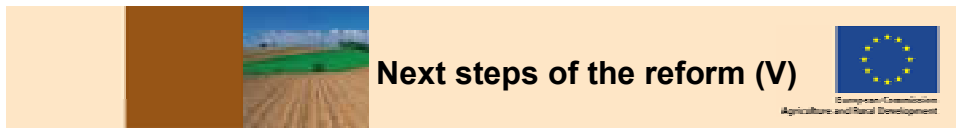
- Direct payments for sugar beet growers will:
 - Represent 60% of the estimated revenue from the proposed price cuts – applicable for EU-25
 - Be decoupled and thus become part of the single payment scheme, including respect of Cross Compliance standards



Coming reforms

- On the agenda are:
 - Processed Fruit and vegetables
 - Wine





Reviews foreseen in Regulation (EC) No 1782/2004

- At end of 2006 at latest
 - On the implementation of the energy crops scheme (Article 92)
- At end of 2007 at latest
 - on the possible consequences in terms of market and structural developments of the implementation of the so called stickers for Fruit and vegetables (Article 60)
 - on the application of the system of cross-compliance (Article 8)
- At end of 2009 at latest
- On possible consequences in terms of market and structural developments of the implementation of the re-coupling and the transitional period (Article 64)
- At end of 2010 at latest
 - On the application of the Farm advisory System (Article 16)



Presentation 5 - Future Evolution of the control with Remote Sensing

Olivier LÉO

DG JRC- IPSC Agriculture and Fisheries Unit

Abstract

For the past 2 years, MARS PAC has tried to figure out what will be the changes introduced by the CAP reform and will the simplified Scheme will generate some simplifications in the control procedures?

But the Control with remote sensing procedure is a heavy mechanism with some inertia. Changes were prudently introduced and this was useful to fully consider the diversity introduced by the different Models of SPS, their progressive implementation by the Member States and the successive waves of amendments to the CAP Regulations...

This presentation clarifies some of the present vocabulary and concepts of the controls with remote sensing, strongly justifying the analysis of future optimisation of the method as an integrated evolution of the On-the-Spot-Checks, to be driven by the users requirements (and not only by the technique), and optimised, in terms of control strategy, according to the specific regional context (type of model, importance of coupled schemes).

Area measurements are presently well specified by a coherent set of rules and technical tolerances which are applicable both at the LPIS, for field measurement or control with remote sensing. The SPS and the simplified definition of agricultural parcel (single payment group) may reduce in some situations the number of measurements to perform and will reinforce the use of IACS GIS, especially the interest of farmer blocks systems. Further requirements on IACS GIS are introduced for the control of the Nuts (2005) and the reform of the Olive oil sector (2006).

Requirements in terms of control of land use will become much more regional specific: Traditional use of HR imagery time series will remain fully appropriate in situations cumulating a number of coupled subsidies, but will become questionable in others, especially if declarations by farmers do not provide detailed information on the different crops within the SPS parcels.

In some cases, an interesting "reverse" approach would be to try to detect candidate non eligible crops (potatoes, vegetables...) instead of interpreting the declared crops.

In other cases, a single VHR image should be sufficient to check non eligible feature or to trigger possible rapid field visits to doubtful or suspicious land use. More generally, the land use check may require a specific expertise of the photo-interpreters (distinction between different types of grasslands, check of maintenance), reinforcing the interest either to involve field inspectors in CAPI, or to associate interpreters in Rapid field visits.

Tests of supporting the control of GAECs with RS indicates in 2005 the high potential of CwRS and GIS tools in this field. The general efficiency remains questionable if the operational use is restricted to the 1% scattered sample in an Audit approach. A number of orientations are provided to consider ambitiously the implementation / control of GAECs and as a whole (possible inputs in the declaration, Administrative controls and FAS) but also to imagine possible additional control strategies to detect infringements on the less tangible requirements.

Keywords: CwRS, IACS GIS, CAP Reform, Single Payment Scheme, GAECs.



11th conference on Control with Remote Sensing
Krakow, 23-25 November 2006

*Mid term evolutions of
Controls with Remote-sensing*

Olivier LEO
DG JRC – IPSC- AGRIFISH Unit
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General context

- **Since 2 years (Köln conference) we try to figure out**
 - What will be the main changes in CwRS by the CAP Reform ?
 - Will the “SPS” generate some changes? some simplifications?
- **CwRS is a heavy machinery ⇒ some inertial effect**
 - Technical specifications carefully adapted, no dramatic changes,
 - idem for Image requirements by MS for 2006 ...
- **Easier to add new control requirements (ex GAECs), than to withdraw some others ...**

*But CwRS as OTSC will have to be optimised according
to your national/regional implementation of CAP...*

How ?





General context

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How ?



Clarify the vocabulary & concepts (1)

- **+ Controls with / without Remote Sensing**
 - doesn't replace traditional inspections!
 - No opposition between modern sophisticated tools and “archaic” inspections, where
 - First step was to meet the farmer
 - Spend half a day on the kitchen table to discover paper maps
 - Then select fields to visit and measure some of them
 - and final reporting to farmer ...
 - because such archaic inspection should not more exist
- **We need to consider the technique(s) in the general OTS control process**

The techniques are a support to perform efficient controls





Clarify the vocabulary & concepts (2)

- **CwRS requires indeed rather technical skills**
 - involvement of «contractors» to process Imagery
 - but technology become more and more user friendly
for the real users: Field inspectors /Control agency
 - **Risks of separation between technical operators/ users requirements**
 - Some recent examples
 - in 2003- 04. Poor ortho-correction of VHR image by some contractors used only in HR image processing
 - In 2005. Automatic classification and diagnostic with VHR?
Field inspectors not using VHR or not even aware that satellite VHR is as good as airborne imagery...
- The main challenge for the future is to combine the best tools available for the new requirements*



Clarify the vocabulary & concepts (3)

- **“Rapid” field visits?**
 - Defined in 94-95, to mean « *direct visits of fields, following a preparation by CwRS*»
 - Direct i.e. without the farmer and without preliminary visit to the farm.... (cf «*Kitchen table GIS*»)
- **The main idea was not to be «rapid», but**
 - to be efficient and independent from farmer
 - And more important
 - *to avoid guessing/ deciding what’s unclear on the image...*
 - *Or waiting for another image...*





Clarify the vocabulary & concepts (4)

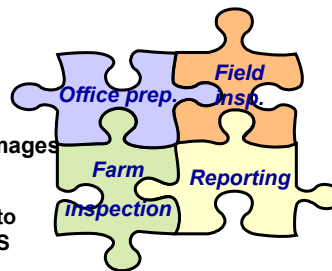
- “Rapid” field visits
 - Are used on large scale in ITALY, POLAND, SPAIN (Andalusia)
 - With the support of one single VHR image (Aerial or satellite)
- So called VHR+RFV approach*
- VHR + “Rapid” field visits
 - is an efficient & pragmatic way of combining
 - RS (Office work preparation + mainly area measurement)
 - and field visit (check of land use and other requirements)

VHR+RFV is definitely one of the most credible Control approach, providing a good training & supervision of inspectors



Different components of any OTSC (1)

1. Preparatory office Work
 - Logistical preparation
 - LPIS and IACS GIS
 - Selection of fields / methods
 - Measurement of parcels / Ortho images
2. Field inspection (s)
 - With support of LPIS and orthophoto
 - Parcel measurement and Mobile GIS
 - possible “rapid” field visit
3. Farm inspection (s)
 - Other elements to check: Documentation, invoices,
 - Cross compliance (animals, equipments, GAECs etc)
 - RDP (investments, etc...)
4. Control reporting
 - Transmission of findings to the farmers
 - Notification of adjustments / penalties, IACS feed back



These components are complementary and have to be integrated in a pragmatic way for a efficient OTSC





Different components of any OTSC (2)

- **With the availability of IACS GIS, All the OTSC**
 - be prepared in office before visit
 - take benefit of IACS GIS information
 - be supported by the most recent available ortho-images.
- **Useful data from CwRS should be available in IACS GIS**
 - Ex. Ortho images of CwRS for next-year declaration
- **The “rapid” field visits are also possible for controls without remote sensing**
 - With interesting Mobile GIS / GPS equipments



Evolution of the control requirements?

- **Usual separation between**
 - **Area checks**
 - Parcel measurement
 - *Closely linked to the IACS GIS*
 - **Land use checks**
 - Controls of eligibility of crops and Land uses
 - *Closely linked to the type of SPS model, but also to the detail of crops in the declarations*
- **NB: Controls of Cross compliance will be developed separately**





Area measurement in SPS (1)

Coherent approaches between sources and tools

- cf LPIS, CwRS, Field measurements with GPS
- Buffer approach & technical tolerances are similar
- **Also accessible to farmers with same accuracy (GPS) !**

According to the permanence /definition of the object

Inspectors should be in position to decide between...

- keeping the reference area of the IACS GIS
- Performing a GIS measurement on archive Ortho (LPIS)
- Use campaign VHR ortho to measure the actual parcel
- Visit the parcel and perform a field measurement ...

Standardise methods and quality insurance should allow to trust measurements



Area measurements in SPS ? (2)

- **Not necessary to measure all individual parcels, but only the group of contiguous parcels of a single payment group.**

cf new definition of the agricultural parcel in 796/04 Article 1

- “... contiguous area of land for which a single crop group is cultivated by a single farmer”

Consequences:

1. **Less work , especially in case of field inspection/measurement**
In CwRS may be still cost efficient /useful to digitise all crops
2. **More compensation between parcels / ilots (larger group).**
3. **But indeed stricter tolerances for buffer approach**
CF: Internal boundaries between crops do not generate extra technical tolerances...





Area measurement in SPS? (3)

- **Regional Models. Entitlements to be activated are similar to the total area eligible**
 - **Importance of accurate area measurements.**
- **Historical Models. Eligible crops areas may be basically larger than the entitlements to be activated.**
 - SPS payments will be in any case ceiled to available entitlements
 - **Area measurement less critical in some circumstance**
 - **Take into account in Risk analysis Δ total declared /entitlements !**
 - **Reinforce more LPIS & IACS GIS than CwRS ?**



Evolution of the LPIS & IACS GIS (1)

- **General content of LPIS**
 - Farmer blocks or ilots become theoretically the best reference parcel system
 - Provide a basis area for SPS Blocks
 - Importance of sketch maps by farmers in case of physical blocks !
- **But LPIS should be able to clearly identify**
 - Whole farm area, submitted to cross compliance
 - And GAECS features included/ attached to parcels





Evolution of the LPIS IACS GIS (2)

- LPIS should be able to record/ manage

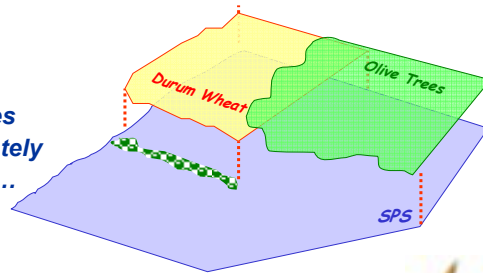
- Total area eligible for SPS
 - Including possible GAECs elements

Cf article 30.2 of 796/04

- Area eligible for Coupled Aid schemes (title 4)

- SPS area strictly ceiled to the total area of the block.
- But area of other aid schemes Are taken into account separately And may overlap each others...

Cf Article 49.3 of 796/04.



Evolution of the LPIS IACS GIS (3)

- Reform of the Olive Oil sector

- OLI GIS integrates LPIS: Migration from Olive tree to areas...

OLIAREA (©JRC) base for calculation of entitlements

Cf Annex XXIV of last Amendment to Reg. 1973/04 (October 2005)

- In almost all the MS total decoupling. Olive oil payments enter in amount and area of farm entitlements.

Partial coupling 5 % SP, ITA TBC ?

- Specific control requirements

- Reference eligibility: *Olive Tree (groves) planted after May 1998 are not eligible for SPS or coupled (Dec 01 for CY, MT)*

- Specific GAECs for Olive/Trees

- Maintenance of Olive Trees (Pruning, etc)
- Possible Conservation of Olive trees (interdiction of uprooting)

➤ *Interest of OLIGIS historical info & orthophoto for controls !*





Evolution of the LPIS IACS GIS (4)

- **Introduction of DRY NUTS**
 - Already integrated in IACS GIS
 - But excluded from SPS
 - On going pilot study by JRC
 - DG AGRI propose possible simplifications (ongoing discussion with Member States)
 - *MARS intend to organize 1-2 Workshop(s) on practical implementation of Olive Tree and Nuts in IACS*
- **Future reforms of 2006 ?**
 - Vineyard GIS ?
 - Fruit trees ?
 - *The general result is likely to rely on the IACS GIS general specifications, same thing for area measurement.*

ISPRA, April 2006



Land use checks (1)

- **The full catalogue of possible control requirements is quite exhaustive**
 - (Title 4, partial re-coupled, Top ups for SAPS...)
- **but the real control requirements / CwRS strategy will differ**
 - According to the remaining coupled aids
 - Real importance in % of dossiers, areas, payments?**
 - The exact definition of SPS
 - What is included ? What is excluded ?**





Land use checks (2)

- **Regional models:** Almost all land uses can be eligible in SPS (outside «permanent» crops)
- **Historical models.** A number of crops are not eligible in SPS (Permanent crops, but also vegetable & fruits)
- **Limited interest of multi-temporal imagery to check land use or Set aside**
Especially if declaration do not provide the detail of the crops !
- **Present HR Time-series can be justified according to the importance of Title 4 and re-coupling schemes**
 - *less relevant when marginal*
 - *Mainly centre and south Europe (more coupled aids, mediterranean package)...*
 - *Change in 2007 with Sugar beet in central-north Europe?*



Land use checks (3)

- **New controls requirements ?**
- **Farmers may not declare some of their parcels for different reasons (non compliance, grassland ,etc)**
 - *More likely in Historical models*
 - *Totally new controls mechanisms, (Parcels “disappearing” from IACS declarations)*
 - *But mainly based on IACS GIS, Remote sensing could be used in case of presumption*

- **Monitoring of the ratio of permanent pastures ?**
 - *Mainly a IACS statistical procedure*

JRC carry out a pilot study on monitoring of permanent grassland Ratio in 2006





Land use checks (4)

- In some SPS-only situation, HR imagery will become almost useless
 - 1 VHR sufficient to detect non-eligible features
 - RFV to address doubtful case & marginal coupled schemes.
 - Interest to reinforce LPIS and IACS GIS cross controls...
- In some other SPS situation, interest of opposite approach for CAPI
 - Focus CAPI of the candidate non eligible crops (cf potatoes)
 - Select most appropriate date/ image,
 - and automatic classification to trigger field inspections?
- More generally, possible requirement to reinforce CAPI expertise to distinguish between different types of grasslands, type of maintenance, etc...
 - Interest of close follow up of contractors or involvement of the field inspectors in CAPI



Control of cross compliance & GAECS (1)

- First tests in 2005 indicate strong interest of RS data (Cf session T2)
 - To control some of the GAECS.
 - to be completed in any case by field inspections !

But cost benefit of operational controls is still an issue for a scattered sample of 1% dossiers...
- DGAGRI accepts continuing on similar basis in 2006
 - Provision of HR satellite imagery (Radar?)
 - But results have to be clearly evaluated: control feasibility & efficiency compared with simple field visits

JRC will pay a specific attention on this in 2006 !
There is no reason to provide images if there are not used
Testing methods should not prevent performing real checks





Control of cross compliance & GAECs (2)

- **A need for a more basic reflexion on controllability/ implementations of GAECs**
- *Some of the techniques presented could be deployed in IACS GIS (for Administrative controls)*
- *Some tools could be also useful to support the farmers (Pre-printed information, FAS)*
- *Some specific control strategies may be imagined*



Control of cross compliance & GAECs (3)

- **A very heterogeneous list of detailed requirements to check (SMR, Standards)**
- **A difficult exercise**
 - Difficulties to make a unique risk analysis ?
 - How to perform complete & efficient checks ?
 - Without useless burden to the 1% farmers selected ...
 - How to justify incomplete checks to Audit?





Control of cross compliance & GAECs (4)

- **Case of GAECs with deadline**
 - “*Something has to be done before xx/xx (date)*”
 This “something” has a controllable evidence.
- **In term of control results:**

– Positive	→	Fail or non compliant .
– Negative	→	OK.
– False positive	→	Controlled positive but in fact OK.
– False negative	→	Controlled OK but in fact positive.



Control of cross compliance & GAECs (5)

“Something has to be done before xx/xx (date)”



- If you control before the deadline... you may confirm compliant cases, but non compliant farmers still have time to correct before deadline
No penalties applicable... or need to return
- If you control after the deadline... you identify real positive (Penalties applicable) but you may miss non compliant cases

Best date should be as soon as possible after the deadline

Can be useful for CWRS windows

But a more general concern for a efficient control

NB: Opposite results if “something should not be done before”





Control of cross compliance & GAECs (6)

- **Requirements to be controlled**
 - can be rather *permanent and tangible (Visible, documented)*
 - may also be rather *intangible*
 - cf infringement without traces,
 - involving time periods and deadline...
- **Tangible requirements are satisfactorily controllable by an Audit approach**

1. Selection of beneficiary on risk analysis
2. Control of all cross compliancy issues (as exhaustive as possible)

- *But multiplication of controls visits for a given farmer raise questions of efficiency, if not of use .*



Control of cross compliance & GAECs (7)

Two main questions

- How can we better deal with less tangible requirements?
- How can we better ensure efficient and acceptable controls ?

1- Define as much as possible requirements by their documented evidence

2 - What could be the additional controls approaches to cover less tangible requirements?

- *For instance, applicable to some of the GAECs requirements?*





Control of cross compliance & GAECs (8)

• The Breach (or Fraud) detection ?

- Select a sensitive place and the right time period
- Screen the whole population for this specific requirement
- Detect and report breaches / infringements ...

Probably a usual approach by some control bodies

• Advantages / Constraints?

- **PRO** : More efficient than a xth inspection to the 1% selected
- **CONS** : Report only positive cases (breaches)

• Many possibilities

- GAECs such a stubble burning, soil cover, soil structure, Water logging, etc
- But also transverse field visits in specific periods (Habitat, bird, Nitrate)
- *Provide LPIS (access to LPIS) to other control bodies ?*



Conclusions

- Optimization of future CwRS is a real challenge
- Most of the techniques and approaches are already available
- Solutions requires close collaboration
 - between final users (inspectors) and technical contractors
- But also a stronger involvement of the Commission (AGRI + JRC) in Support to MS
- We have to be more ambitious in term of Control of GAECs





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11th Annual Conference on Control with Remote Sensing of Area-based Subsidies
25th – 27th of November, 2004
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Thank you for your attention!

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Presentation 6 - CTS and Recommendations 1 – 2006 Campaign

Pär Johan Åstrand, Hervé Kerdiles
AgriFish Unit, EU JRC

Abstract

This presentation will give an overview of the main changes to the CTS, and the Recommendations 1 on Site Selection, Satellite Programming and Image Acquisition and Delivery; the role of the National Addendum as a place where MS can introduce new rules will be discussed, and further the other new issues will be summarized:

New HR imagery DMC

New VHR backup imagery OrbView3, and Formosat2

Finally the Annex 1 to the Recommendations 1 will be introduced giving VHR area quota and preliminary # of sites requested by each MS for the Campaign 2006.

Keywords: Common Technical Specifications (CTS), VHR, Disaster Monitoring Constellation (DMC)



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Changes to
 the Common Technical Specifications 2006
 and
 the Technical Recommendations 1 on Site Selection,
 Satellite Programming and Image Acquisition and
 Delivery

JRC IPSC Agrifish
 Pär Åstrand
 Hervé Kerdiles

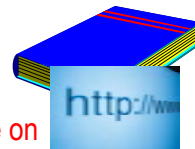
11th Annual CwRS Conference, 23 – 25 November 2005, Kraków, PL



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CwRS ITT participation

- Publication date
 - Official Journal 2005/S 233 - 229332
<http://ted.publications.eu.int/official/>
 - 2005 years CTS and Recommendations 1 will be available on
<http://agrifish.jrc.it/marspac/CwRS/default.htm>
- 5 MS participating in this years CwRS Campaign ITT
- MS/sites/approx # of applications
 - CY/2/3000, DE/13/5500*, GR/3/6800, PT/18/15000, UK (Wales)/1/500
 - more details will be defined in the Member State's National Addendum



(*) - Baden-Württemberg (4), Hessen (3), Mecklenburg-Vorpommern (3), Schleswig-Holstein (2), and Bayern (1)

² CTS 2006 / P Åstrand, H Kerdiles

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CTS 2006 - emphasis on National Addendum

- Role of CTS:
 - To define common rules & methodologies for CwRS
 - No guiding for situations that may be very specific e.g. no “compulsory” strategy for checking cross compliance issues (freedom to define and check GAEC left to MS);
- National Addendum: place where MS can introduce new rules e.g.
 - Define payment groups, control strategy (e.g. RFV), codes for GAEC non compliancy, management of parcels belonging to several groups, follow up procedures (sorting of minor and major rejects)....
 - Define control strategy for olive groves, cotton, tobacco...

↪ National Addendum may “derogate” from CTS

Questions received

- Can we treat parcels declared below min size as ineligible and avoid A1 code ? **Yes** no CTS change needed (what matters is ensuring that such parcels are rejected, whether in administrative controls or by the contractor).
- Can we measure 2 (or more) contiguous “agricultural parcels” (2 crops as per the old definition) of the same payment group as 1 parcel ?
Yes
 - these 2 parcels from the same crop group may be considered as 1 parcel in some MS
 - ↪ Cf. last amendment of Com. Reg 796/2004



CTS 2006 – imagery issues

- HR data
 - inclusion of DMC (Disaster Monitoring Constellation) imagery (32m) on competitive basis
 - max 1 DMC image / site
- VHR data
 - inclusion of Orbview3 (1m B/W), Formosat2 (2mB/W) possibly EROS B as backup imagery,



Recommendations 1 – 2006

- continued extra autumn, winter HR image for partial check of cross compliance / GAEC
 - no. of images/site increases from average 3.5 (2005) to 3.9 (2006)
- use of DMC (HR), OrbView3, Formosat 2 (VHR backup)
- geometric correction
 - DMC
 - levels L1R (radiometrically corrected), and L2G (orthorectified) data available (*)
 - OrbView 3
 - Levels Express (include satellite telemetry, RPC) or Enhanced (as Express plus post processed GPS data and metadata for rigorous photogram. triangulation)(*)
 - Formosat 2
 - levels 1A and 2A available (*)
- radar (as 2005)
 - if Spring 1 VHR/HR successful no radar image 2, 3
- VHR
 - CC, and multiple image delivery
- continued/increased use of LIODOTNET for image acquisition management



Formosat 2 - Image courtesy SPOTImage

(*) – FC has still to be signed for DMC, Formosat, and OrbView provision (early 2006), pricing ?





Recommendations 1 – Deadlines / Deliverables

- **deadline for delivery of all sites, and shapefiles 31/12/2005**
 - HR scene centres (Lat/Long DD WGS84)
 - Vector shape files of control sites (Lat/Long DD WGS84) (max 500 vertices...)
 - DE, ES have already delivered => thank you !
 - JRC need to perform VHR feasibility in January 2005
 - Window (opening/closure dates)
 - including extra windows for cross compliance
 - autumn windows and sites should already have been handled to us...
 - Windows at this point already open for DE, DK, ES, FR, and GR

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Annex 1

DG AGRI has agreed to these amounts

- Recs 1 includes Annex giving VHR area quota and preliminary # of sites requested by each MS
- 22/25 MS participate to CwRS Campaign 2006
 - AT, FI, LU do not
 - VHR sites 198 (+23%), area 140,000km² (+11%)
 - VHR Backup requested 59% (cf. 2005 40%), will be maintained at approx 40%
 - HR sites stable (+5%), HR images up (17%), no. of images / site 3.9 (cf. 3.5 in 2005)
 - radar imagery requests slightly down

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Annex 1

Total Sites	AP + RFV	VHR + RFV	HR + VHR	HR + AP	TOTAL (*)	APPLICATIONS
2004	128	13 (**)	64 (**)	82 (**)	287	160,000
2005	59	27	134	49	269	158,000
2006	47	60	138	54	299	156,000

(*) excluding use of archive VHR or satellite

(**) including risk sites DE, and extra HU sites (6)

VHR sites	198	
total area requested (km2)	140,000	
HR sites	192	
HR images	744	
sites with 3 windows	42	
sites with 4 windows	132	
sites with 5 windows	18	
average no. of windows / site	3.9	(3.5 in 2005)
radar backup requested	54	(61 in 2005)

2006



- Thank you !



European Commission

EUR 22351 EN – DG Joint Research Centre, Institute for the Protection and Security of the Citizen

Luxembourg: Office for Official Publications of the European Communities

2006 – 877 pp. – 21 x 29 cm

Scientific and Technical Research series

Abstract

The 11th yearly CwRS Conference on Controls with Remote Sensing of area-based subsidies was organized by the JRC (Institute for the Protection and Security of the Citizen, AGRIFISH Unit, MARS PAC) on 23-25 November 2006 in Kraków, Poland.

The Conference was organized in cooperation with the ARMA (Polish Paying Agency) and the Polish Ministry of Agriculture. It was held at the Sheraton Hotel, in Kraków. For the first time part of the conference was successfully organized with five parallel sessions plus poster session. The number of the participants registered to the event was 309, representing 36 countries (EU25, AC (BG, RO), CCs (HR, TR), and representatives from Albania (AL), Serbia Montenegro (SCR), Kosovo (KS), Macedonia (MK), and Switzerland, Israel, USA. Some registered participants (7%, mainly from PL) had to cancel their participation leading to a final number of 287 participants, which is a similar audience as last conference in Budapest.

A specific agreement with DG ELARG (TAIEX office) allowed the participation of above mentioned representatives from the CARDS countries. An important point was the involvement of the D1 Unit of DG AGRI who accepted to (co) chair 2 sessions. DG AGRI was in all present with 6 participants. JRC (Public Relations and IPSC AgriFish Unit) participated with 13 staff. The Conference in general gave input on the 2005 achievements, the new legislation, the problems and the solutions by the Member States, some approaches and considerations from the DG Agriculture, the technical progress, and the plans for 2006. Moreover, the EU, the MS Administrations, the Image Providers, and the contracting companies had a chance to meet each other and have discussions.

These proceedings are divided into two volumes (Volume 1 and Volume 2): the 1st one including all Plenary Sessions S1-S4, the 2nd one including all Parallel Technical Sessions (T1-T6).



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