Session 5: Les principales limitations actuelles

Les limitations de l'outil (2)

• *Discrimination des cultures et contrôle des occupation des sols*

→ *Des limitations mieux connues*

Limitations absolues:

- *Blé dur / blé tendre.*
- *Variétés éligibles ou non.*
- *Entretien des retraits...*

Contraintes diverses:

- *Oléagineux d'été / Mais → images d'été.*
- *Jachères industrielles ou semées.*
- *Cultures fourragères → nomenclature précise.*
- *Cultures extensives de faible rendement ou conditions climatiques anormales....*

→ *Le contrôle par télédétection reste toutefois possible:*

- ***Parce que non effectué "en aveugle"***

  → pour certaines occupations contrôle de plausibilité et non identification des cultures....

- ***Peu d'amélioration à attendre (en dehors visite rapide) mais nécessité impérative de mieux clarifier :***

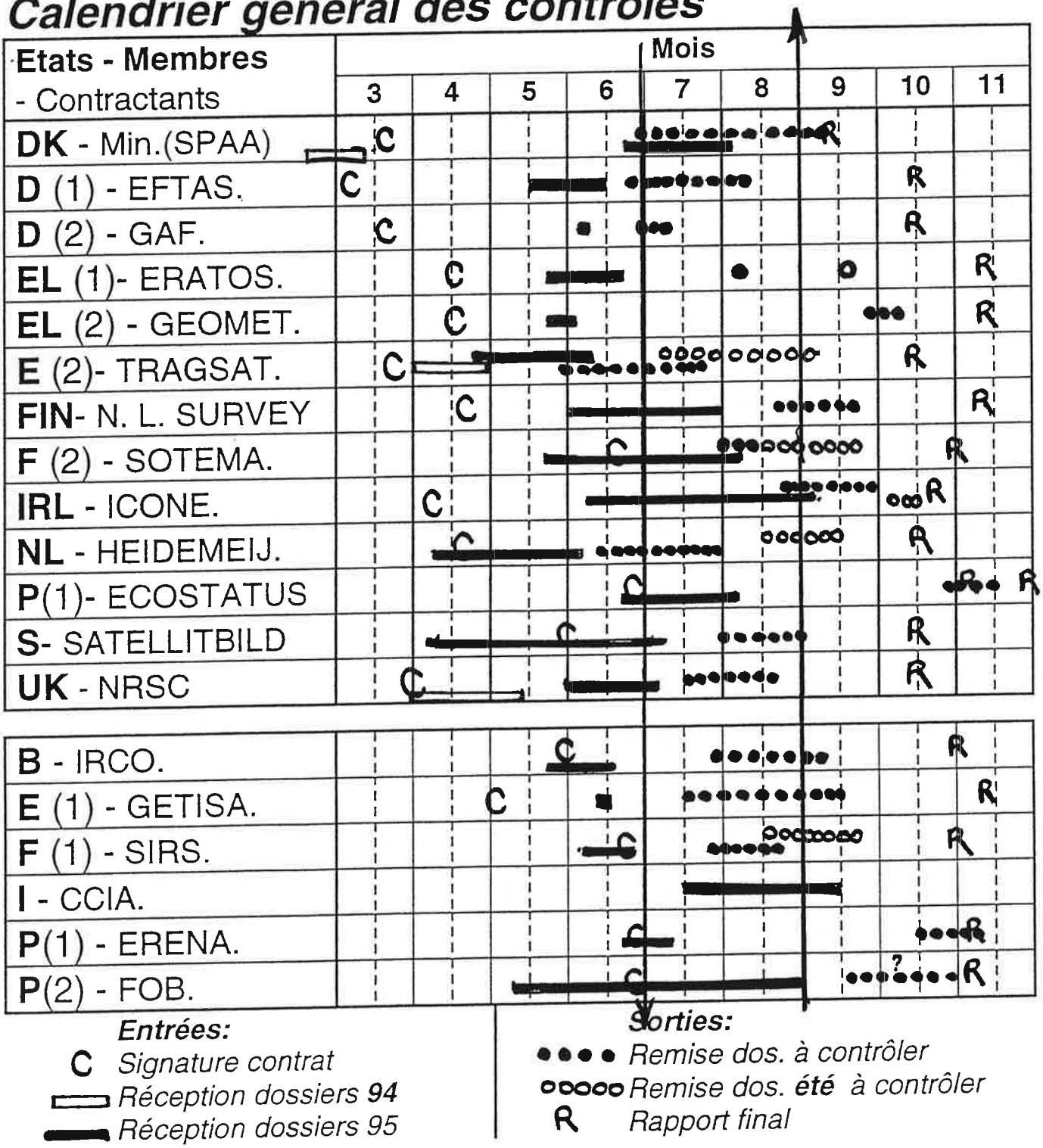
  → les règles d'acceptation / rejet d'une occupation des sols déclarée....

  → l'utilisation du code T1 (occupation non identifiable).

Session 5: Les principales limitations actuelles

Les Contraintes de mise en oeuvre (1)

Calendrier général des contrôles



Session 5: Les principales limitations actuelles

Les Contraintes de mise en oeuvre (2)

Le calendrier général des contrôles

reste l'un point le plus critique des opérations....

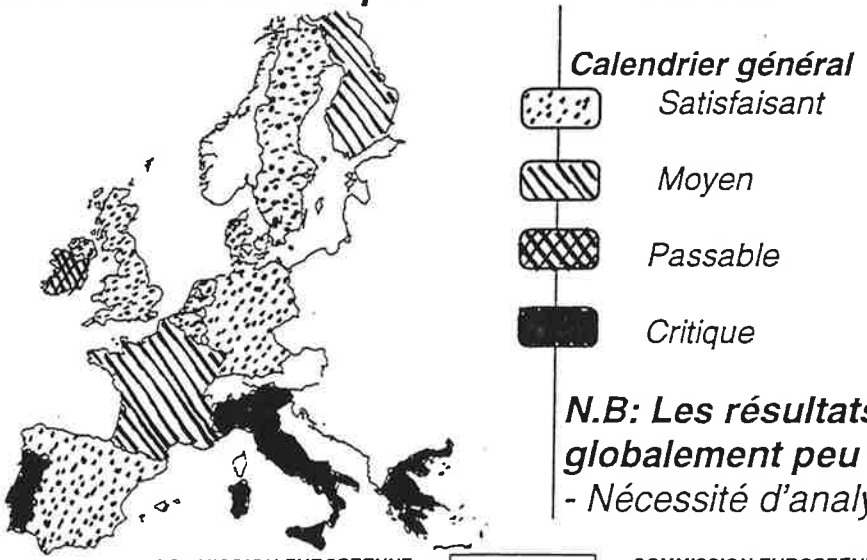
Problèmes:

- des dossiers remis tardivement (qualité des contrôles sur place?)
- des risques de dérapage: gestion des ressources humaines (contrôleurs)

La méthode "Photos aériennes + visites rapides" n'a pas vraiment amélioré les délais....

Les solutions semblent se situer plutôt au niveau de

- ***la gestion du projet et de la bonne collaboration avec les Administrations régionales....***
  - *remise précoce des dossiers et cartes,*
  - *gestion prioritaire des dossiers (remise échelonnée hiver - été).*
- ***Mais aussi de la qualité des données d'entrée...***



N.B: Les résultats moyens sont globalement peu significatifs:
- Nécessité d'analyse par sites!

COMMISSION EUROPEENNE
Direction Générale de l' Agriculture
DG VI - G4 - FEOGA.

COMMISSION EUROPEENNE
DG XII - RECHERCHE, C.C.R. d' ISPRA.
I.A.T.D. - Projet MARS.

Session 5: Les principales limitations actuelles
La qualité des données d'entrée

- ***Le contrôle par télédétection est pénalisé:***

→ *par les données manquantes ou erronées dans les déclarations (ces données ne peuvent être corrigées sans contact avec l'exploitant)*

→ *par la qualité et l'adaptation des référentiels cartographiques utilisés (échelle, mise à jour, correspondance entre parcelles agricoles et parcelles de référence: cadastrales, îlots physiques ou d'exploitation)*

Nombre moyen de Cartes de référence / dossier

Etat membre Contractant	Nombre moyen	Observations
BELGIQUE	1/ 40	*Cartes régulières 1/10 000*
Allemagne Nouv. Lander	10 *(4-20)*	*Cadastre grande échelle Grande exploitations*
Allemagne B- W	1/ 2	*Cadastre coupures régulier*
Espagne	1 / 2	*"Polygones" cadastraux*
France	1 *(0.7- 1.8)*	*Cadastre*
Irlande	1/ 40	*Cartes régulières*
Pays Bas	1/ 20	*Cartes régulières 1/10 000*
Royaume Uni	1/ 20	*Cartes régulières 1/25 000*

- ***Une situation encore très hétérogène, qui doit globalement s'améliorer ?***

→ *par la mise en place du SIGC: contrôles croisés, correction des anomalies des déclarations, établissement d'un référentiel cartographique...*

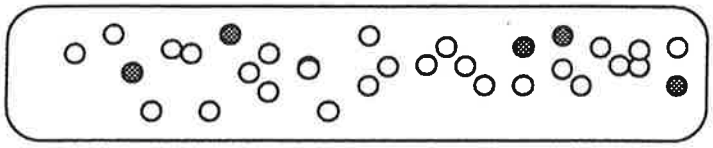
→ *par l'implication croissante des Administrations nationales et régionales: sélection des sites, des dossiers, fourniture des données à temps...*

Session 5: Les principales limitations actuelles
L'efficacité du "filtre" télédétection ... (1)

Efficacité globale du filtre?
Ratio dossiers en entrée / sortie.

Qualité du tri? Nécessite d'évaluer:
- ***les "confusions"**: le taux de dossiers conformes rejetés par la télédétection.*
- ***les "omissions": le taux de dossiers non conformes acceptés par la télédétection.***

Globalement quelle est la "concentration" des dossiers non conformes par rapport à la population d'origine?

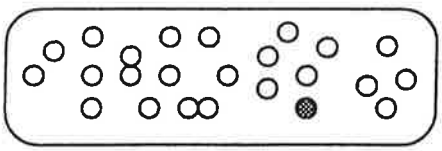


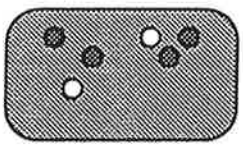
↓

***Contrôle par télédétection** (30, 100%)*

↓ "Acceptés" 24 (80%)

↓ "Refusés" 6 (20 %)





***"Omissions"** 1/ 24 = 4%*
(1 /5 refusé 20 %)

"Confusions"
2/ 6 = 30%

		Contrôle par télédétection		Total
		Accepté	Refusé	
Contrôle sur place	Accepté	23	2 *(conf.)*	25
	Refusé	1 *(omis.)*	4	5
	Total	24	6	30

Matrice de confusion

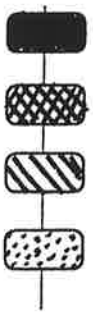
Exemple ci dessus:
- **Efficacité de la télédétection:** 30/6 = 5.... *Les contrôles sur place ont pu être réduits par un facteur 5.*
- **Qualité du tri:** 4/6 : 5/30 = 4 ..... *La télédétection a été 4 fois plus efficace qu'un simple échantillonnage.*

Session 5: Les principales limitations actuelles
L'efficacité du "filtre" télédétection ... (2)

Etats - Membres - Contractants	**% des dossiers Contrôlés par télédétection**		
	Accepté	**Refusé**	**Incertain** *("douteux")*
DK - Min.(SPAA)	77.0	20.4	2.6
D (1) - EFTAS.	89,9	**1.4**	8.7
D (2) - GAF.	83.9	3.8	12.3
EL (1)- ERATOS.	**38.6**	18.4	**43.1**
EL (2) - GEOMET.	50.9	34.6	14.5
E (2)- TRAGSAT.	47.2	**48.3**	4.5
FIN- N. L. SURVEY	76.1	18.6	5.3
F (2) - SOTEMA.	52.2	21.1	26.7
IRL - ICONE.	83.7	7.4	8.9
NL - HEIDEMEIJ.	87.7	11.2	1.1
P(1)- ECOSTATUS	65.3	7.9	26.8
S- SATELLITBILD	78.8	12.9	8.3
UK - NRSC	**95.8**	3.7	**0.5**
B - IRCO.	55.9	**18.2**	**25.9**
E (1) - GETISA.	**18.5**	**81.5**	**0**
F (1) - SIRS.	54.3	25.2	20.5
I - CCIA.	-	-	-
P(1) - ERENA.	**62.8**	19.4	17.8
P(2) - FOB.	52.3	37.0	10.7

Session 5: Les principales limitations actuelles
L'efficacité du "filtre" télédétection ... (3)

Efficacité globale pour l'utilisateur



> 6.5 *(acceptés > 85 %)*

4 - 6.5 *(acceptés : 75 - 85 %)*

2.5 - 4 *(acceptés : 60 - 75 %)*

1.7 - 2.5 *(acceptés: 40 -60 %)*

- ***Une analyse difficile:***

→ *Les résultats moyens sont globalement peu significatifs...*
→ *Nécessité d'analyse détaillée par sites.*
→ *Nécessité d'analyse détaillée des résultats par parcelles ou groupes de cultures.*

- ***Mais résultats pouvant indiquer***

→ *Une application peu homogène de la méthode (tables de décision)*
→ *Une mauvaise adaptation des critères de ces tables aux caractéristiques de certains sites.*

→ *Intérêt d'effectuer des simulations sur des jeux de données réelles et de définir une méthode d'optimisation des diagnostics.*

Session 5: Les principales limitations actuelles
Trois présentations 1995 (1)

- ***Respect des délais: coordination avec Adm. régionales et organisation du contrôle : GAF,*** *Baden Wurtemberg.*
- ***Problèmes de qualité des données: ERATOSTHENES,*** *Grèce.*
- ***Efficacité de la télédétection:*** *NRSC, Royaume Uni.*

Session 5: Les principales limitations actuelles
Le "problème" des dossiers "douteux"

- **Les dossiers "douteux" sont en fait des dossiers incertains car incomplètement traités par télédétection.**

- **Les recommandations techniques définissent différents codes "T" correspondant aux différents problèmes techniques pouvant être rencontrés.**

- **Nécessité d'analyser de façon détaillée les différents code T rencontrés:**
  → identification, par sites des problèmes techniques,
  → en tirer des conséquences pour corriger le tir.

Code T	Définition	*Actions possibles*				
		Méthode	Choix des sites	déf. des sites	Choix des dossiers	SIGC et SIPA
T1	interprétation Occupation des Sols	X (enq. rapide)	X			
T2	hors image			X	X	
T3	hors site			X	X	
T4	nuages	X (SAR)				
T5	Parcelle non localisée		X			X
T6	Limites de parcelles non visibles	X (Photo)				X
T7	Parcelle inférieure à 0.3 ha	X (Photo)	X		X	

BAVENO Conference 21-22 November 1995
Session 5: Current Technical and Operational Constraints
Respect of Project Deadlines

Remote Sensing Control in Baden-Württemberg, Germany, 1995

Cadastral Maps

	BIBE	ROTE
no. of maps	190	120
scale	1 : 2 500	
provision	local boards of Agriculture	
receipt of maps	1.03.95	
digitization	6.03.95 - 12.05.95	
digitized polygons	11,568	28,309
∅ area of polygons	1.46 ha	0.40 ha
∅ polygons/map	59.6	235.9

Declarations

	BIBE	ROTE
receipt of dossiers	08.06.95	
no. of dossiers interpreted	285	263
categorisation		
accepted	262 (92.0 %)	198 (75.3 %)
refused	13 (4.5 %)	8 (3.0 %)
doubtful	10 (3.5 %)	57 (21.7 %)
ground document delivery • **deadline** • **realization**	 30.06.95 30.06.95	 07.07.95 07.07.95

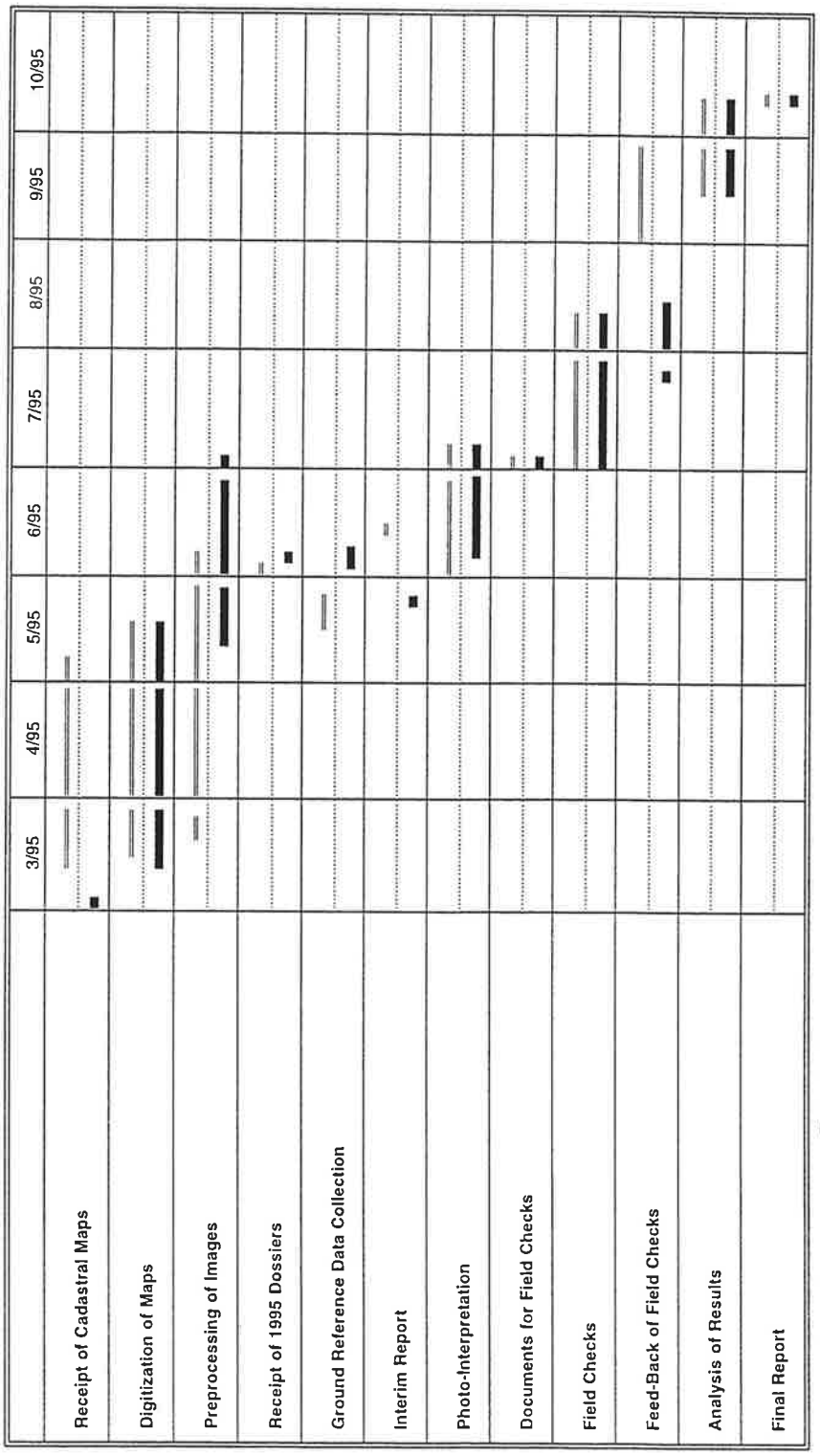
GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

EUROPEAN COMMISSION
DIRECTORATE GENERAL XII
JOINT RESEARCH CENTER; IRSA
Agriculture Information Systems Unit

EUROPEAN COMMISSION
DIRECTORATE GENERAL VI
Agriculture
EAGGF, IV-G-4

BAVENO Conference 21-22 November 1995
Session 5: Current Technical and Operational Constraints
Respect of Project Deadlines

Time Framework: Schedule and Realization



GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

Specific Requirements for a timely execution of the Remote Sensing Controls

- close co-operation with authorities
- realization of all tasks within the time constraints

GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

Close Co-operation with Authorities

Objective:

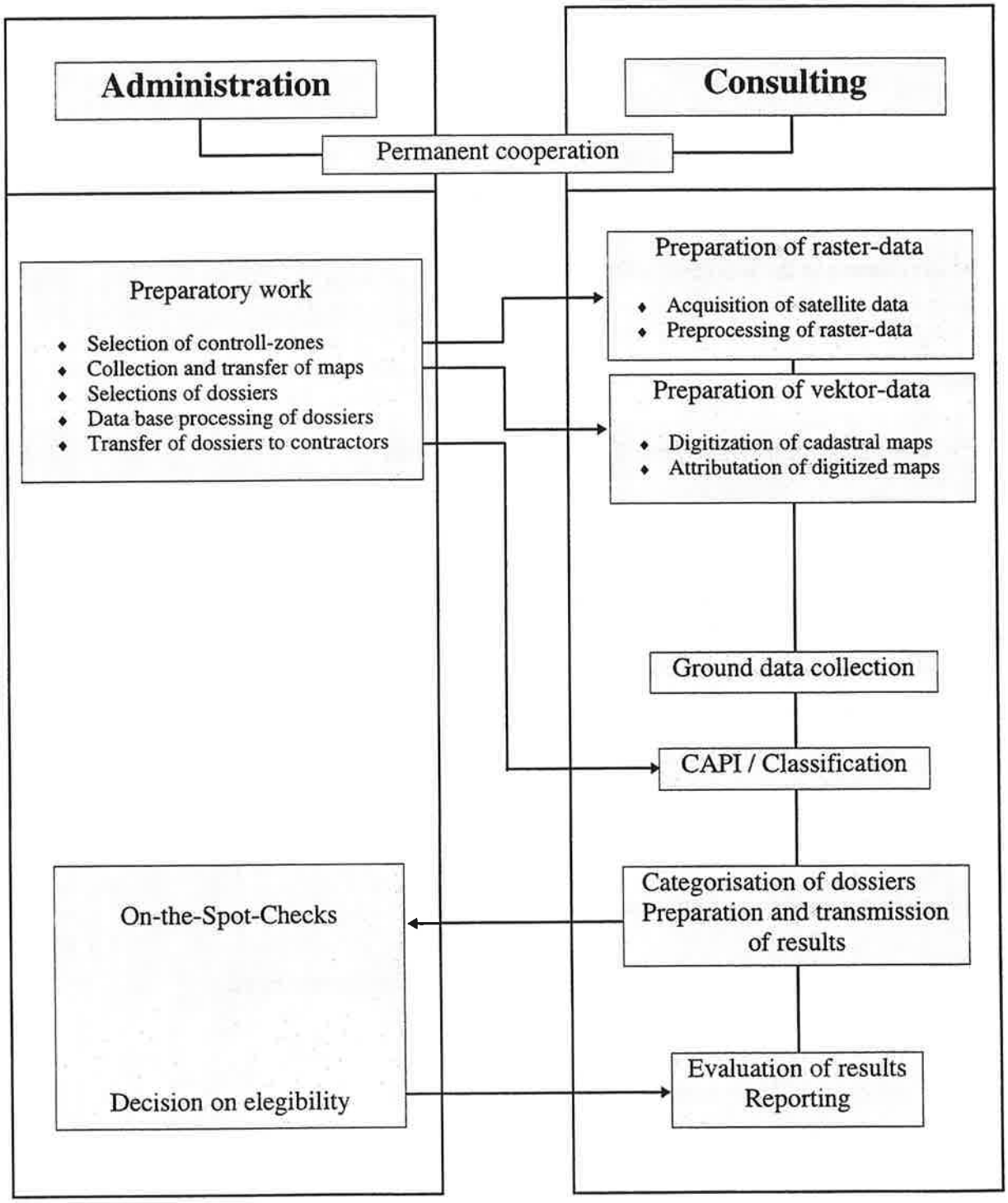
- establishment of a trustful and flexible co-operation between consulting and authorities
- familiarization with the new control techniques
- confidence in the service of a third party

Actions:

- early kick-off meeting (after signature of the contract)
  - presentation of the company, methodology and timetable
  - fixing of contact persons on both sides
  - definition, assignment and timing of mutual deliverables
    key points to be discussed:
    - importance of early delivery of maps
    - definitions of file formats
    - receipt of dossiers from the preceding year
    - time of receipt of dossiers
    - time of delivery of results
- constant exchange of information
- timely and personal delivery of results with detailed explanations of:
  - how the results were derived
  - content of the documents
  - how to work with the documents

BAVENO Conference 21-22 November 1995
Session 5: Current Technical and Operational Constraints
Respect of Project Deadlines

Distribution of Workload



GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

BAVENO Conference 21-22 November 1995
Session 5: Current Technical and Operational Constraints
Respect of Project Deadlines

Realization of all tasks within the time constraints

organization of work:

- experienced assessment of the work-load
- employment of a sufficient number of experienced staff, especially for the 2 work peaks (digitisation, CAPI) multi-annual contracts would be beneficial to keep the staff
- no vacations for staff during the project execution
- co-operation with other companies
- project organisation and execution on the basis of a quality management system

digitisation:

- early receipt of maps (march)
- anticipation of the digitisation
- appropriate number of units

CAPI/Classification:

- separate treatment of summer crops
- working in shifts
- appropriate number of units
- dedicated SW environment

GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

Quality Management

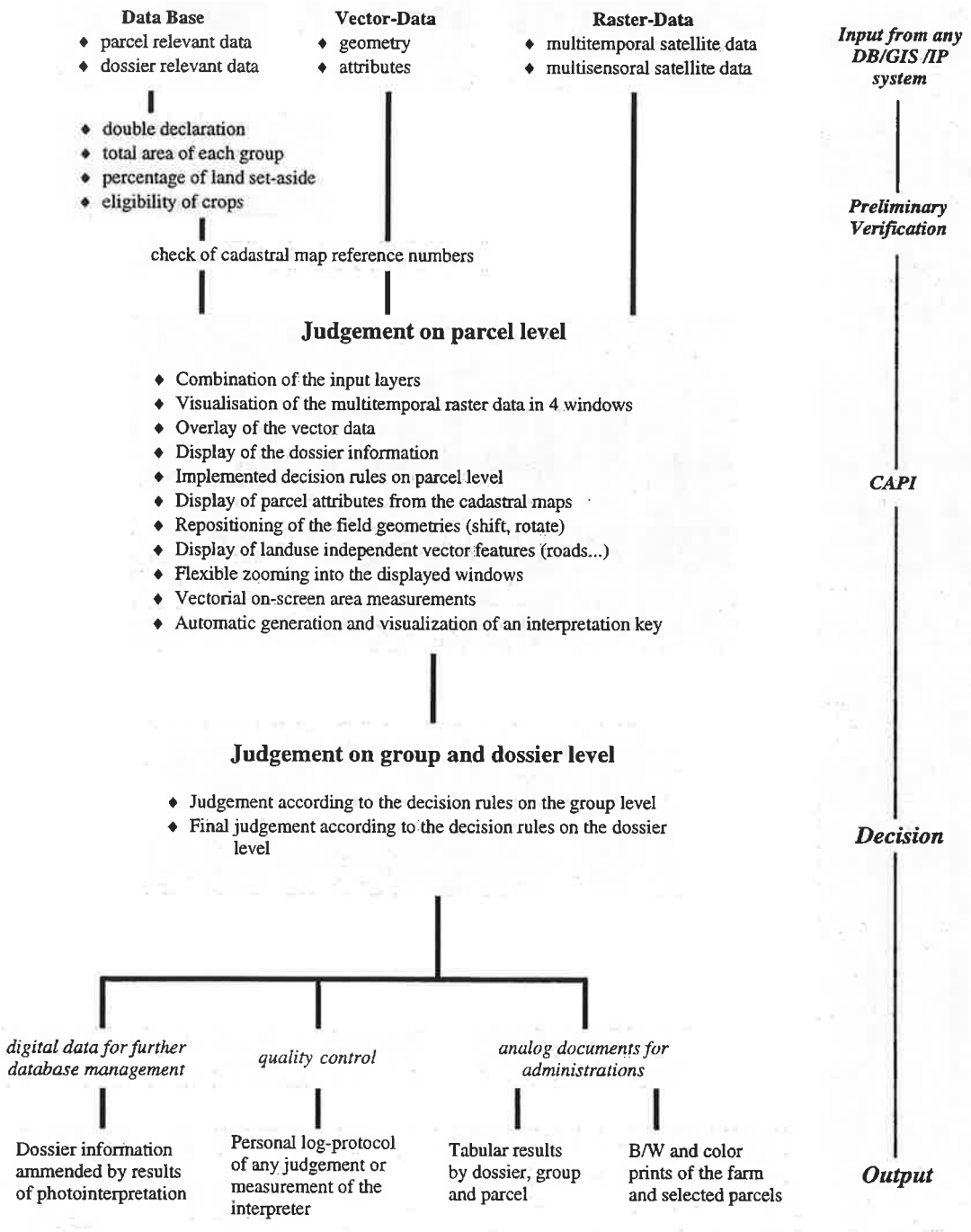
Project was fully carried out according to DIN EN ISO 9001 Standards

- planning and realization according to "Procedures"
- detailed and written instructions for sensitive tasks (→ CAPI)
- regular meetings
  - ° information
  - ° standardization
  - ° motivation
- quality checks for all sensitive tasks
  - ° control for digitization:
    → control plots overlaid cadastral maps
    → digital comparison of declared (1994) and digitized cadastral map reference numbers
    results: 179 (0.7 %) mistakes detected and corrected
  - ° control for CAPI:
    → all dossiers judged to be correct or doubtful have been interpreted twice (cross check between interpreters, standardization of judgements) under the supervision of the technical manager
    → all dossiers judged to be incorrect have been evaluated by the project manager
    results: final judgement of 18 declarations was changed (3.3 %) of which 4 (0.7 %) were changed from "correct" to "wrong"
- documentation of work carried out (who did what and when)

BAVENO Conference 21-22 November 1995
Session 5: Current Technical and Operational Constraints
Respect of Project Deadlines

ZEUS: GAF Interpretation Software

- **PC-based (recommended: 16MB RAM, 4MB VRAM, 1GB, 21" Screen)**
- **no software-licences (GIS, image processing, data base) required**



GAF Gesellschaft für Angewandte Fernerkundung mbH, Company for Applied Remote Sensing
Leonrodstr. 68, D-80636 München, Tel.: +49/89/12 15 28 0, Fax.: +49/89/123 31 48

The Quality of Input Data: Declarations, Maps

Session 5: Current Technical and Operational Constraints

Mr. Nick Sekouris
ERATOSTHENES Ltd.
Athens, Greece

Baveno
22 November 1995

Remote Sensing Controls

- Quality control of declarations time-consuming (return to admin.)
- 70% of dossiers had winter crops
- Last batch of declarations received 21.06.95
- Winter crop field checks documents delivered 03.08.95

Dossiers

- Pre-printing (1995)
  - Editing by hand
  - Each group on new page
  - Errors propagated
- Missing Data
  - Cartographic ID
- Doubtful Data
  - 'Agrokteema' vs. commune
- Erroneous Data
  - Cartographic ID
- Control Sample Selection

Maps

- M.o.A. Land Distribution and Consolidation maps (no Land Registry in Greece yet)
- 1929 - 1991 date range
- Different projection system
- Require updating
- Multiple maps for same area - problems when combining
- "Agrokteema" vs. Commune
- "Private" Distribution maps were not available
- M.o.A maps have good accuracy

Proposals for Improvement of the Methodology

Dossiers

- Better pre-printing
  - fewer pages
  - fields for editing
- Parcel's Cartographic ID
  - include Agrokteema
  - avoid errors / ambiguities
- Copy of map with declaration?

Proposals for Improvement (cont.)

Maps

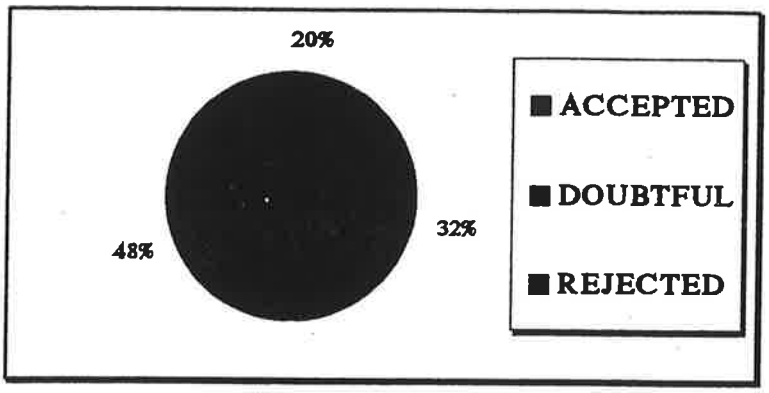
- Incorporate master and updates into one map
- EGSA '87 projection system?
- Use GIS?
- Orthophotos - îlots project for IACS (starting 1996)

Proposals for Improvement (cont.)

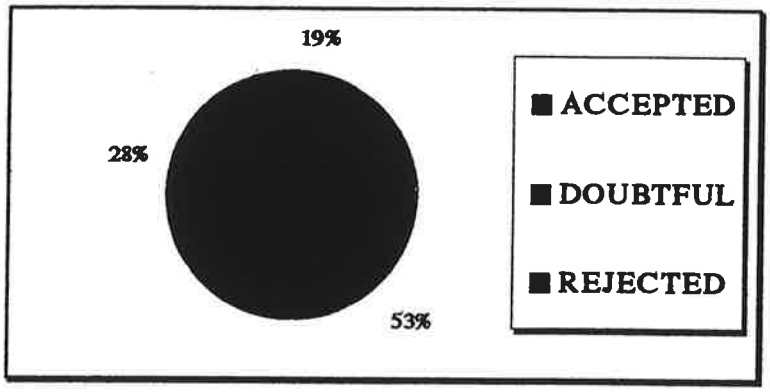
Remote Sensing Controls

- Better selection of control sample
- Start with larger sample to provide for problematic declarations?
- Combine R.S. and aerial photos for controls?

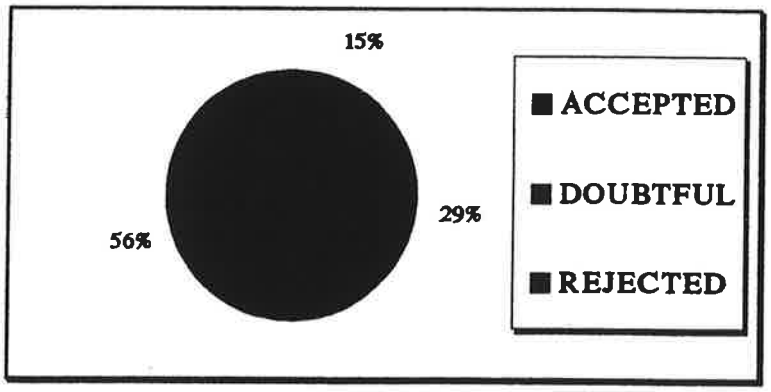
REMOTE SENSING
RESULTS BY DOSSIER



SITE: **ΕΒΡΟΥ**

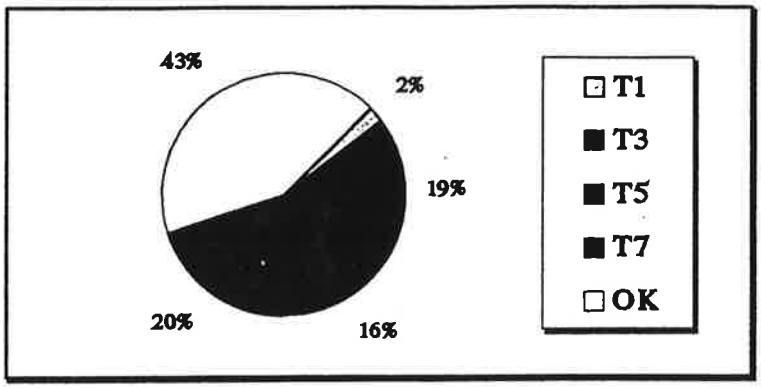


SITE: **ΘΕΣΣΑΛΟΝΙΚΗΣ**

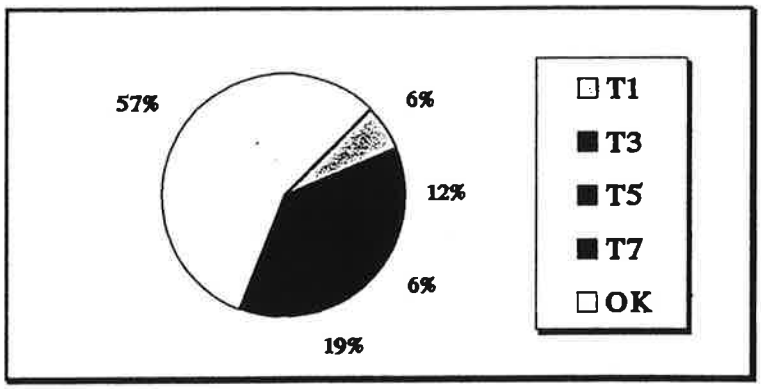


SITE: **ΣΕΡΡΩΝ**

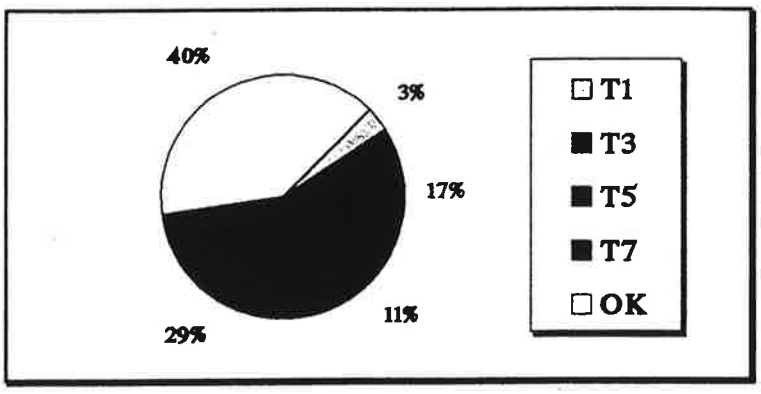
DOUBTFUL GROUP ANALYSIS
(Number of parcels)



SITE:
ΕΒΡΟΥ

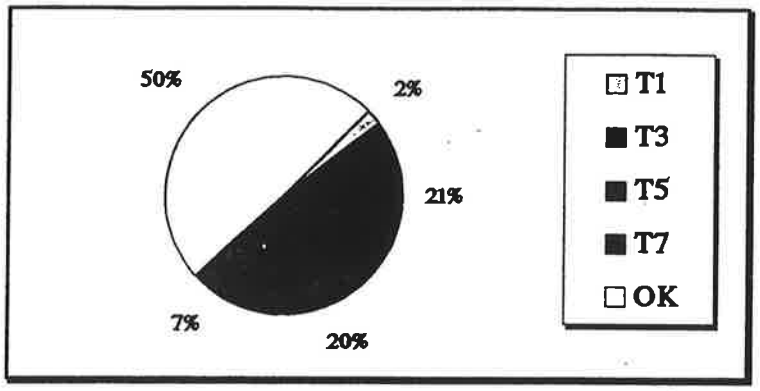


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

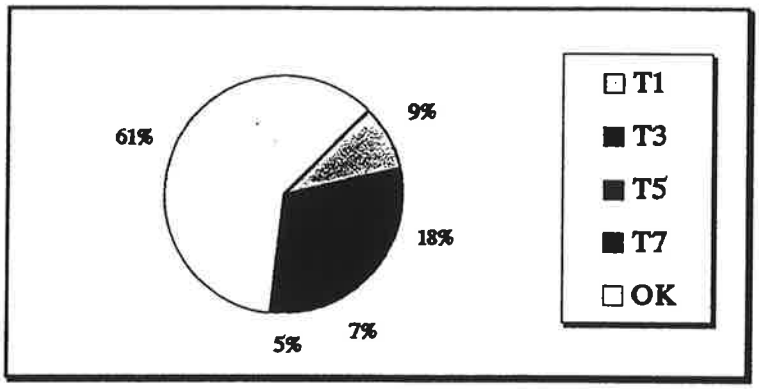


SITE:
ΣΕΡΡΩΝ

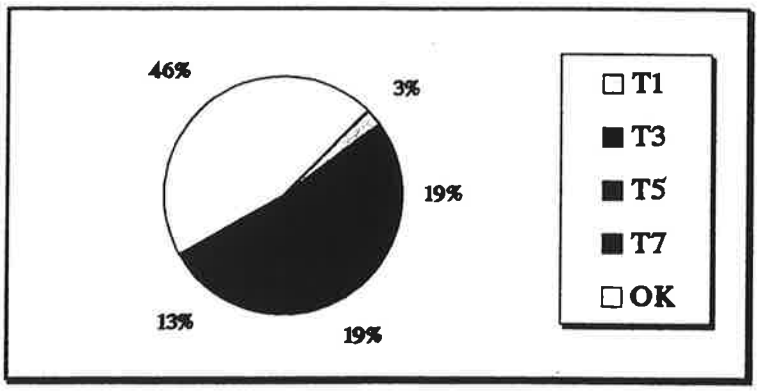
DOUBTFUL GROUP ANALYSIS
(Doubtful Area / Declared Area)



SITE:
ΕΒΡΟΥ

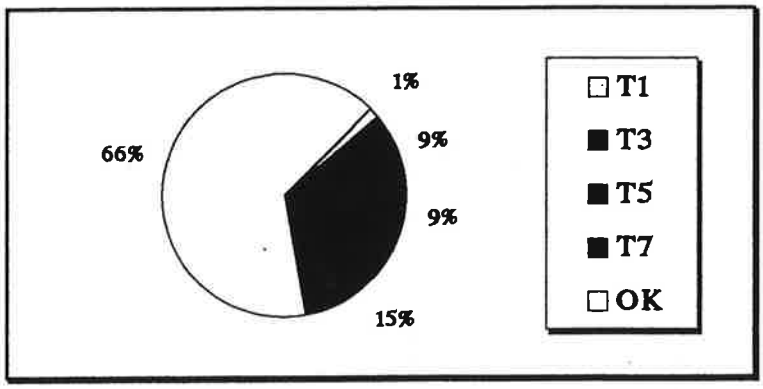


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

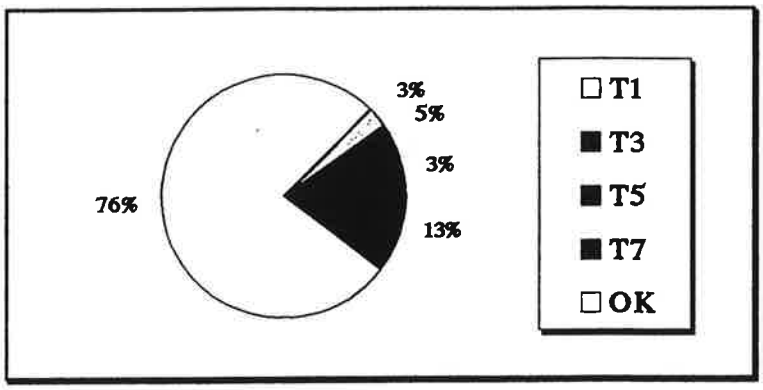


SITE:
ΣΕΡΡΩΝ

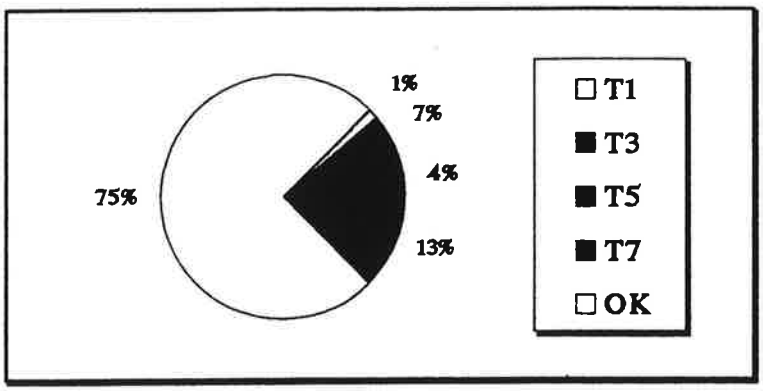
DOUBTFUL PARCELS ANALYSIS
(Number of parcels) incl. non-subsidised



SITE:
ΕΒΡΟΥ

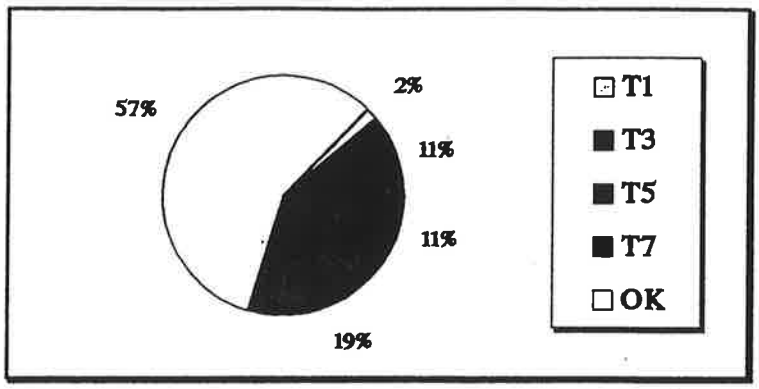


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

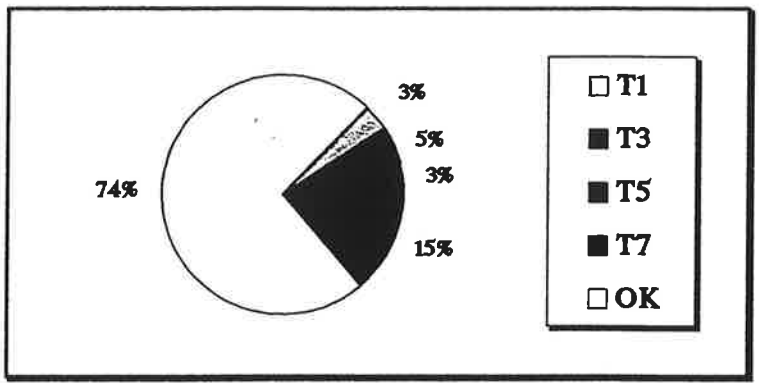


SITE:
ΣΕΡΡΩΝ

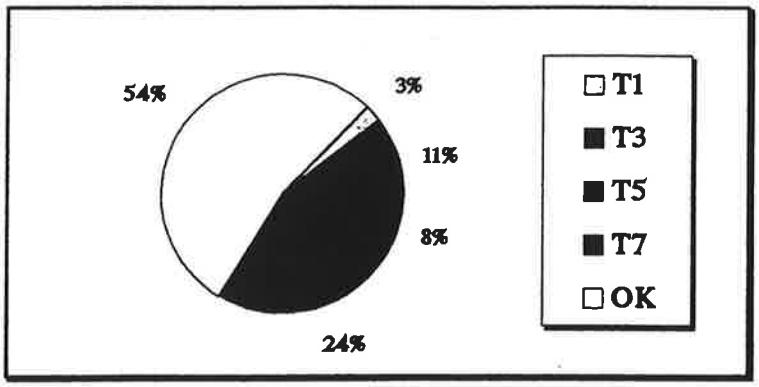
DOUBTFUL PARCELS ANALYSIS
(Number of parcels)



SITE:
ΕΒΡΟΥ

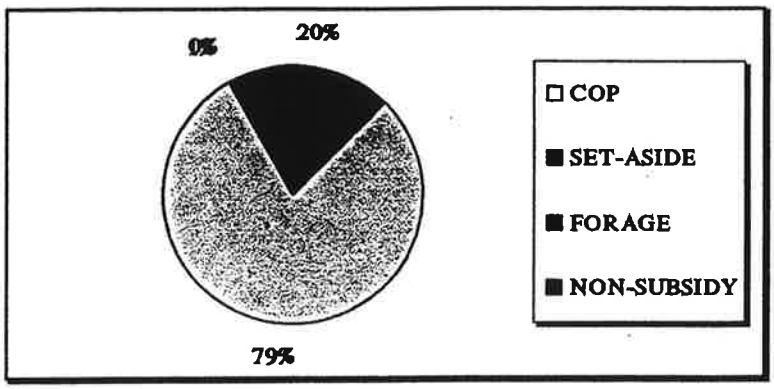


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

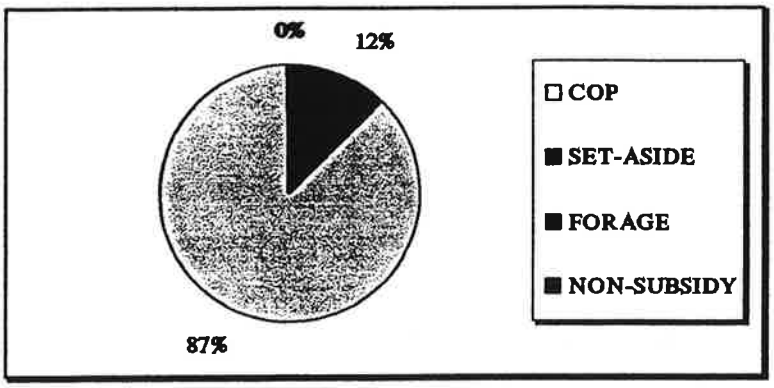


SITE:
ΣΕΡΡΩΝ

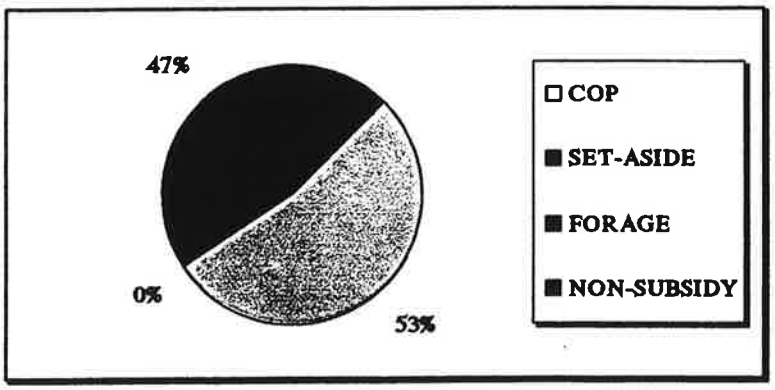
CROP GROUP ANALYSIS BY NUMBER OF PARCELS



SITE:
ΕΒΡΟΥ

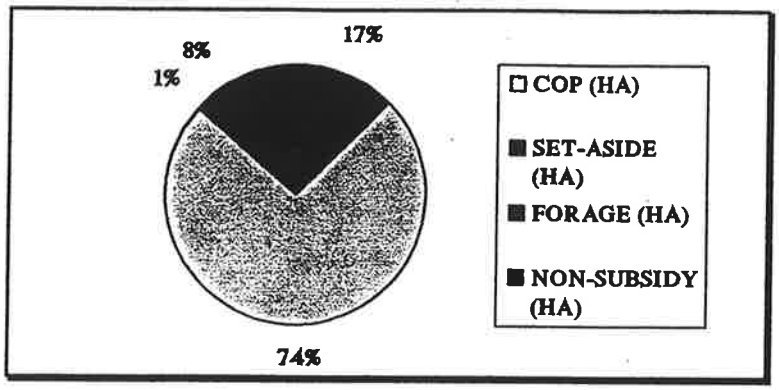


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

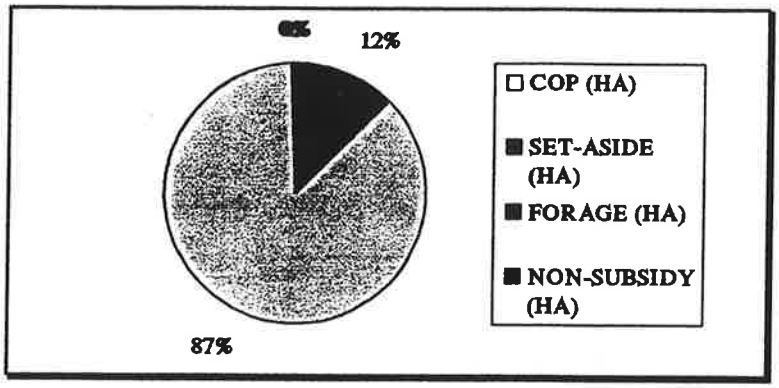


SITE:
ΣΕΡΡΩΝ

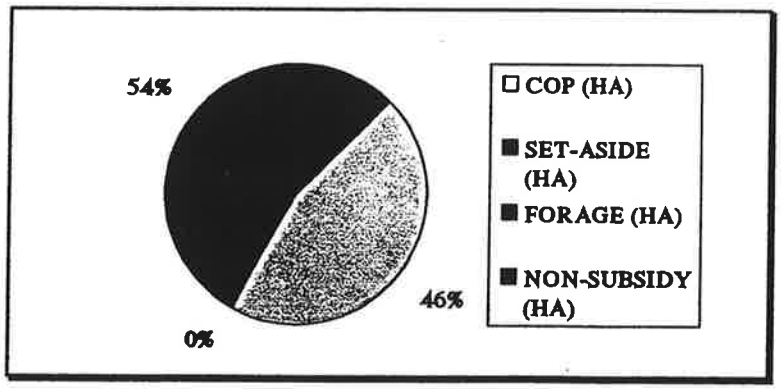
CROP GROUP ANALYSIS BY PARCEL AREA



SITE:
ΕΒΡΟΥ

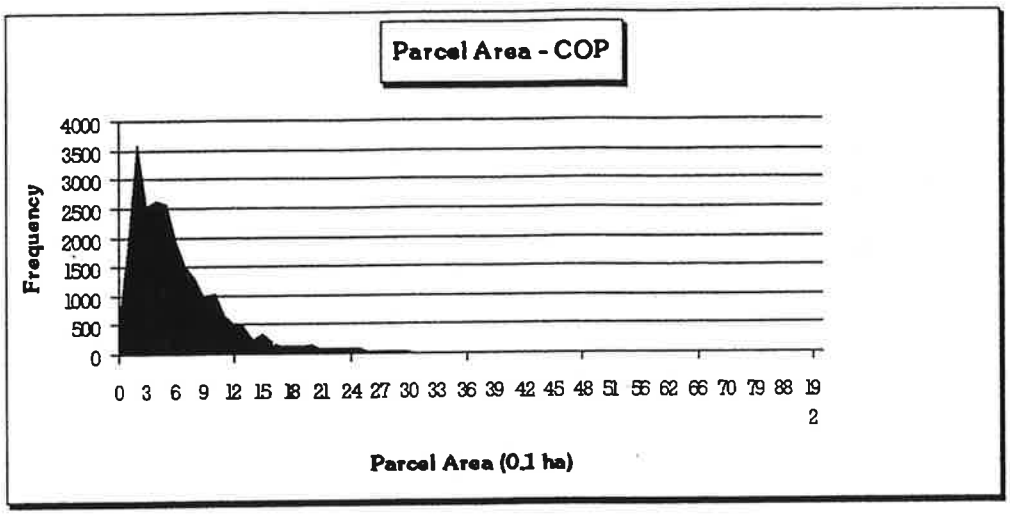


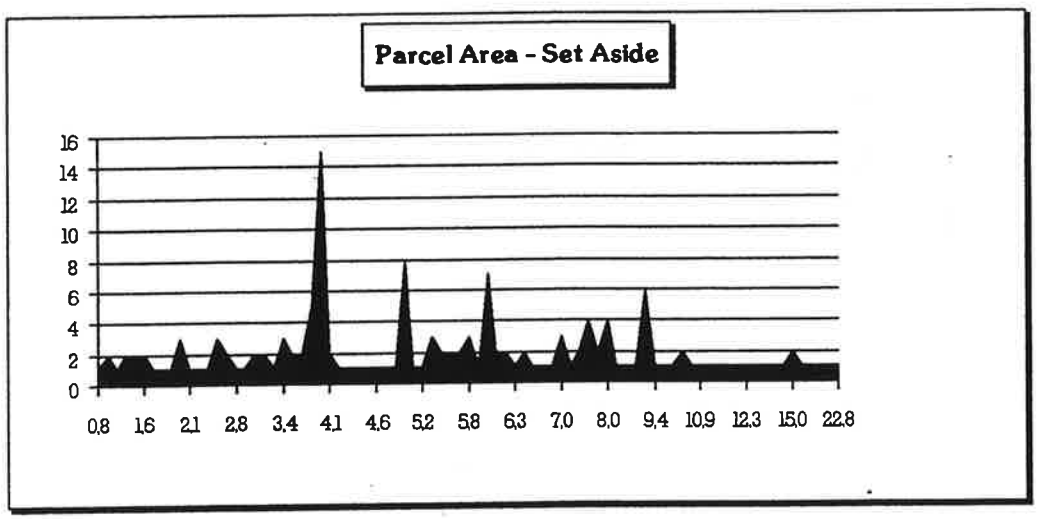
SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ



SITE:
ΣΕΡΡΩΝ

Parcel Area Analysis





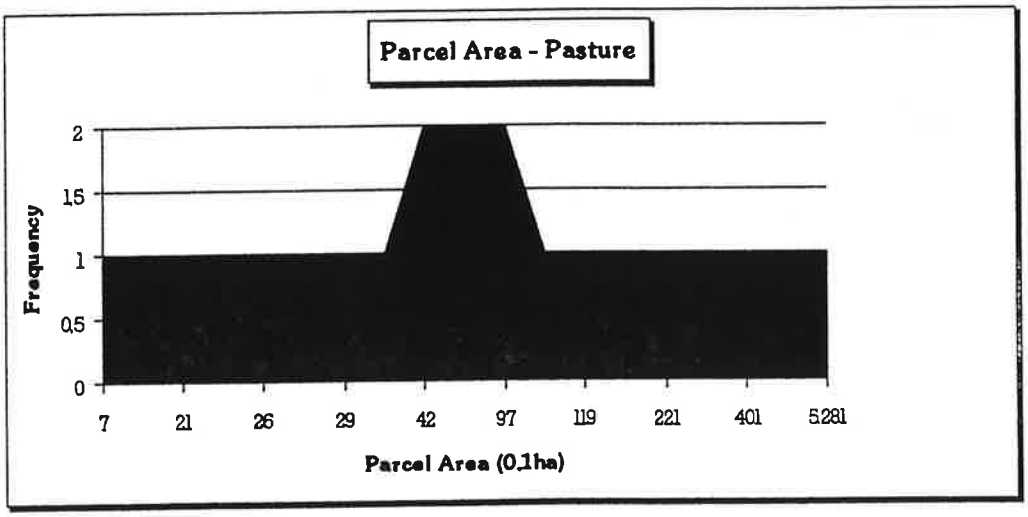


Table 2:

Description	Proposed Guidelines
1a. (Dg-Mg)/Mg < 2%; **OR** 1b. (Dg-Mg)/Mg < 10% **AND** (Dg-Mg) < 2ha, **OR** 1c. (Dg-Mg) < 0.5ha **AND** 2. Doubtful area < 20% Mg	Accepted (values depending on the Member State)
3a. (Dg-Mg)/Mg ≥ 10% **AND** (Dg-Mg) ≥ 0.5ha **OR** 3b. (Dg-Mg)/Mg ≥ 2% **AND** (Dg-Mg) ≥ 2ha	Rejected (values depending on the Member State)
4. Doubtful area ≥ 20% Mg (doubtful as defined in table 1 above) **AND** 5. No cause for rejection (see conditions 3a and 3b)	Doubtful

Dg = Declared group area

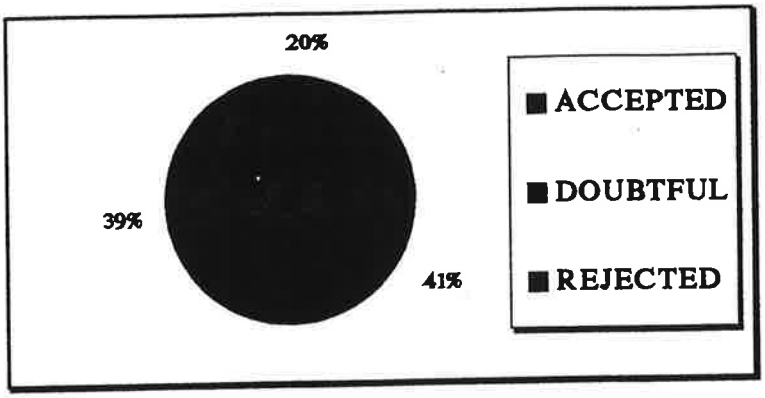
Mg = Total of all plot areas within the group measured as defined in table 1 above, or:
- digitised, if no change appears on the image, or
- measured, if plots boundaries have been modified, or
- declared, in certain cases as doubtful (code T1 to T7).

12.2.3 At the dossier level

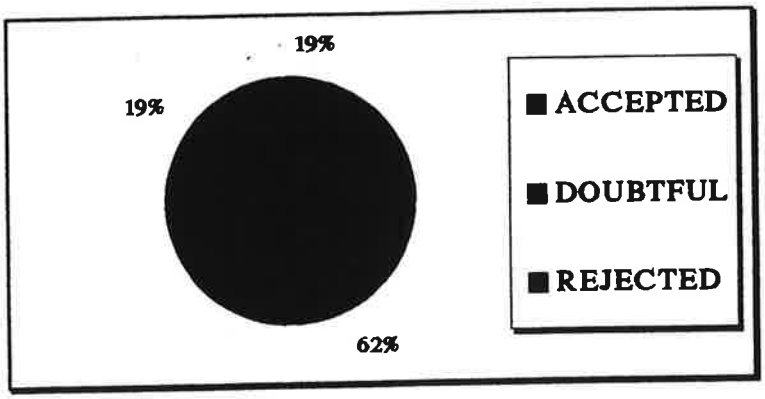
The dossier is accepted if all the groups are accepted and if the sum of the group over-declarations measured is less than 5 ha or 2%. (this time there is no compensation, because one cannot compensate between say lack of set-aside and a surplus of cereals).

Table 3:

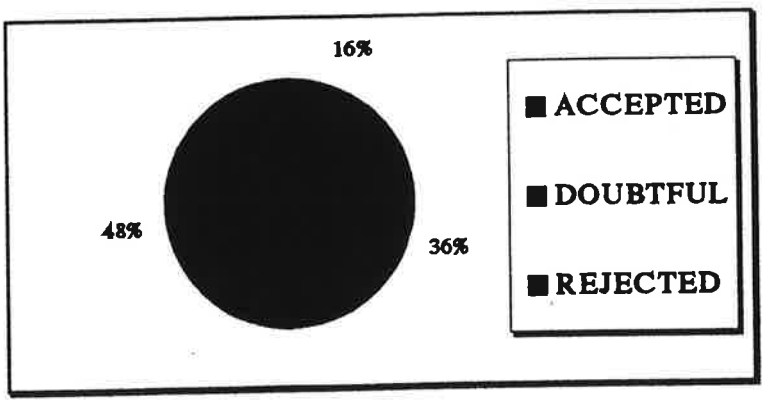
REMOTE SENSING RESULTS BY DOSSIER (30% Doubtful Area in Group)



SITE:
ΕΒΡΟΥ

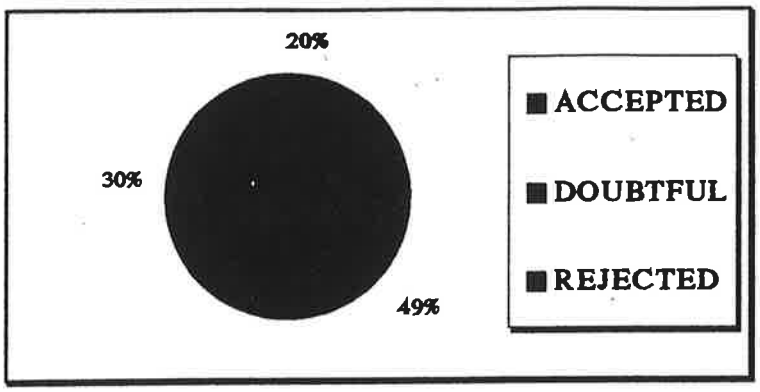


SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

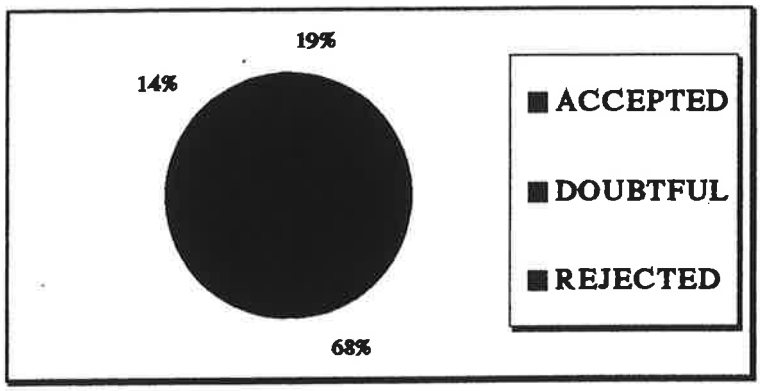


SITE:
ΣΕΡΡΩΝ

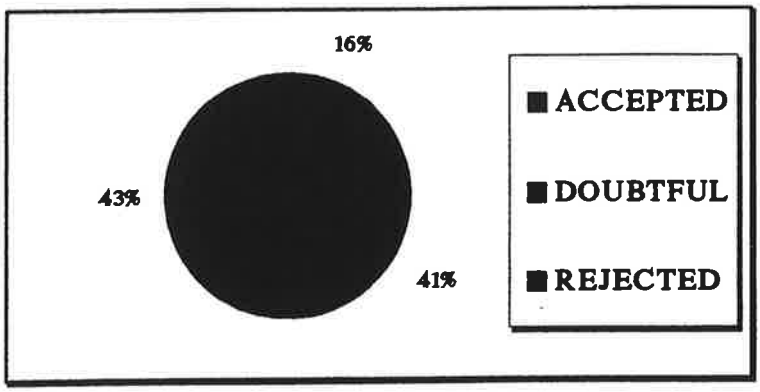
REMOTE SENSING RESULTS BY DOSSIER (40% Doubtful Area in



SITE:
ΕΒΡΟΥ

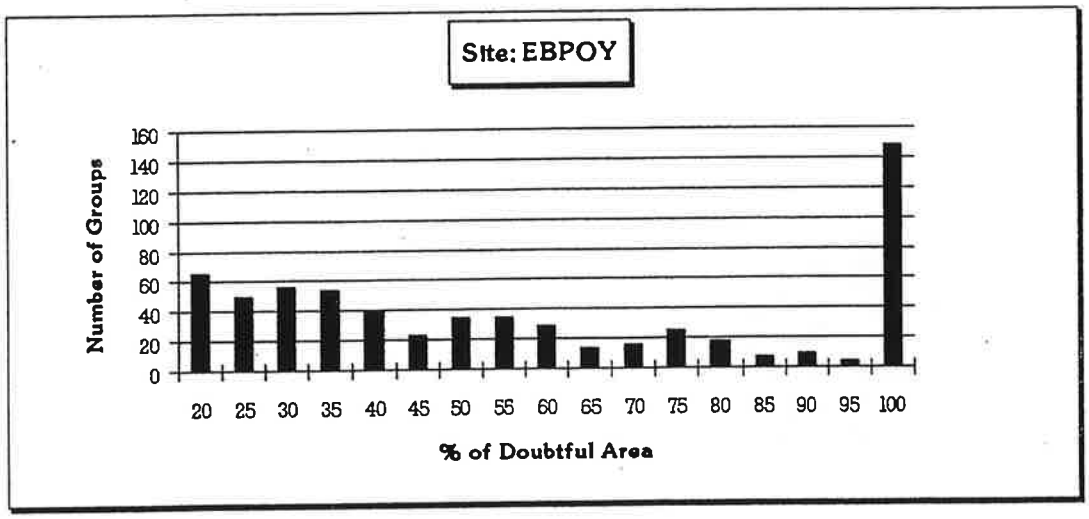


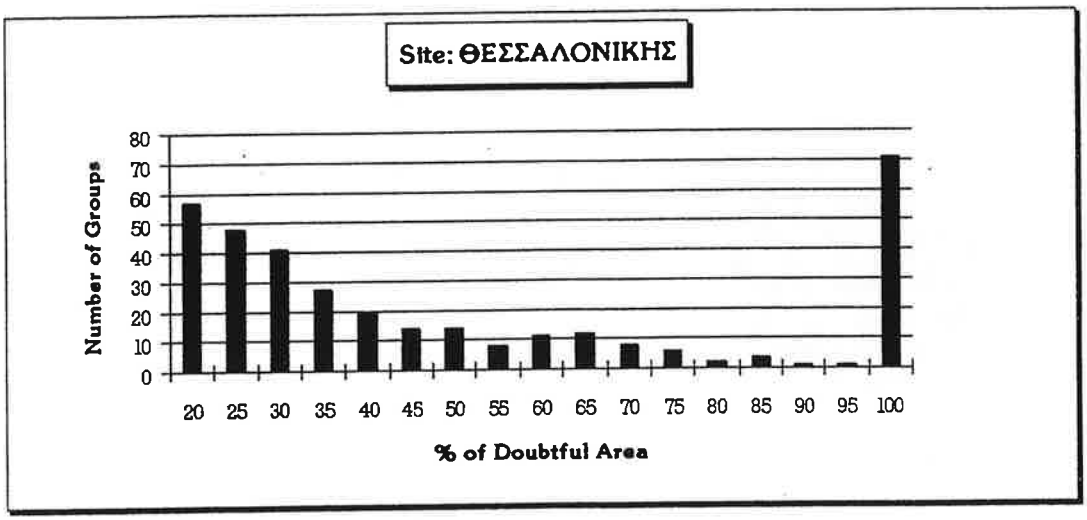
SITE:
ΘΕΣΣΑΛΟΝΙΚΗΣ

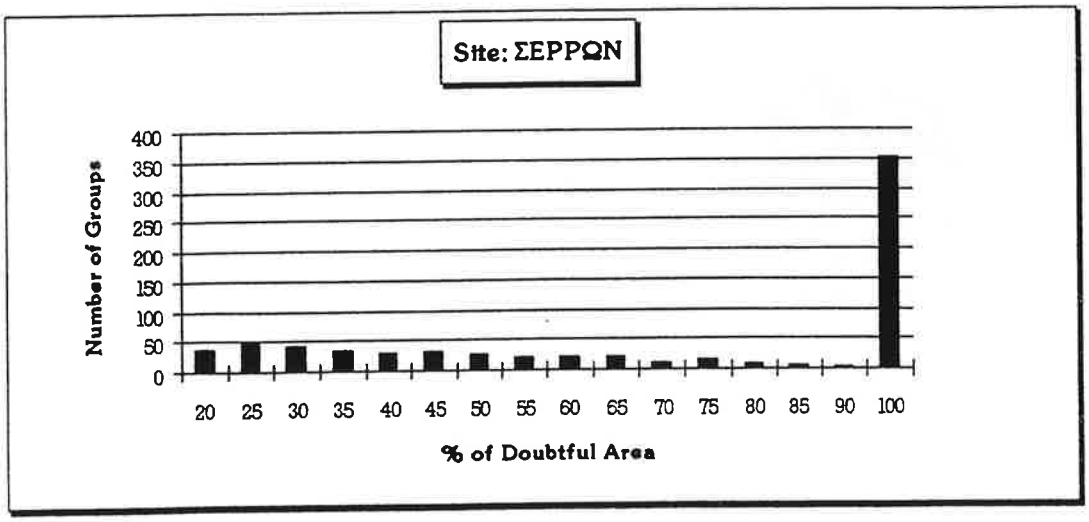


SITE:
ΣΕΡΡΩΝ

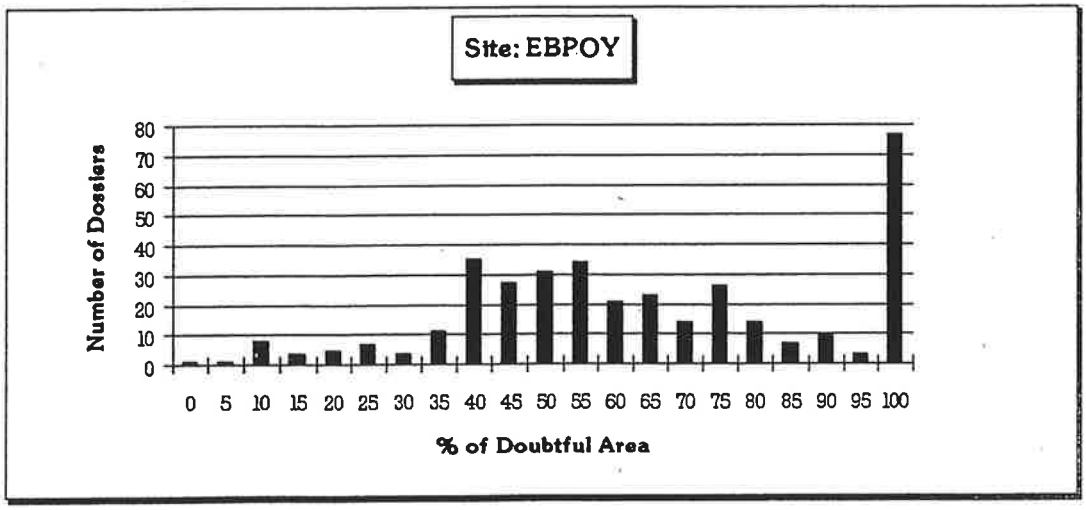
Doubtful Group Analysis

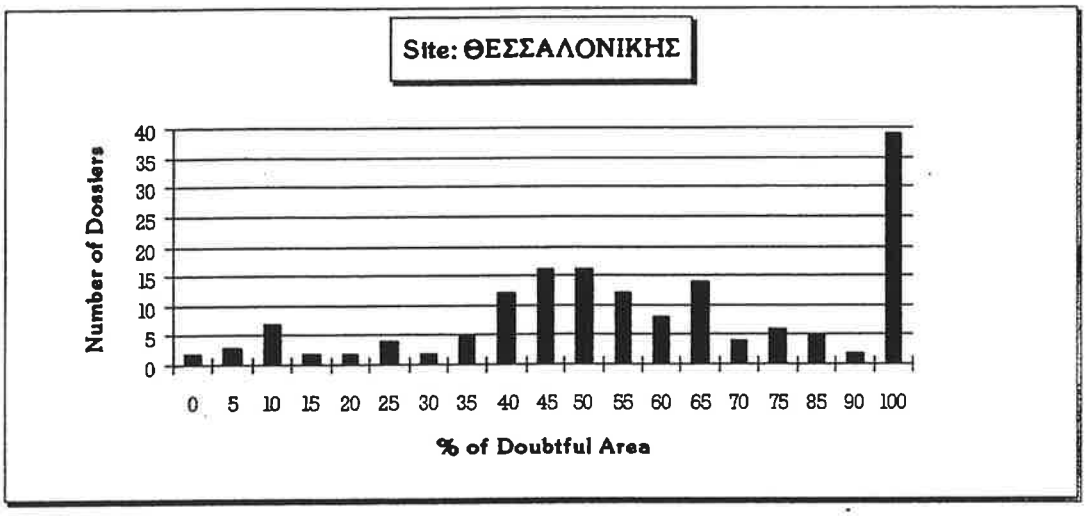


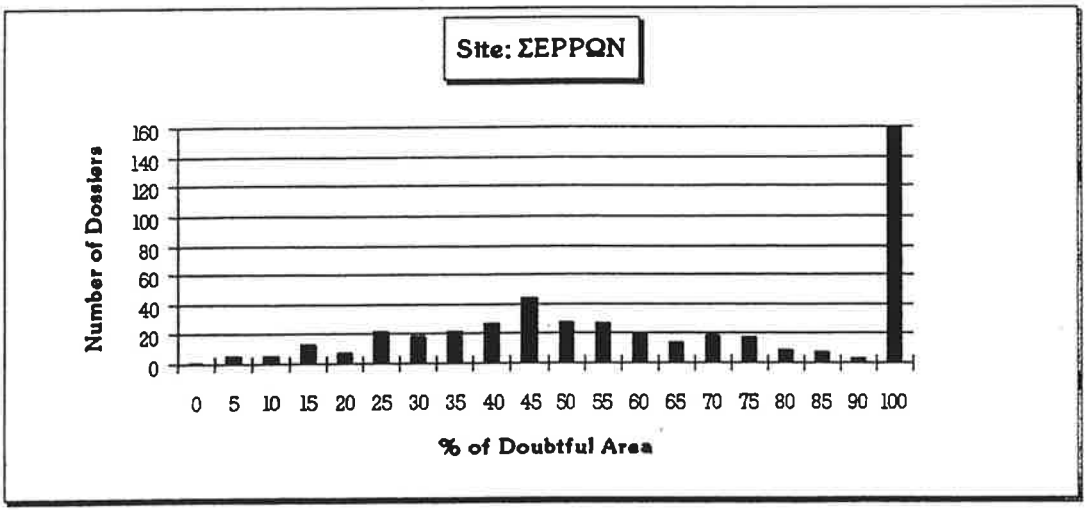




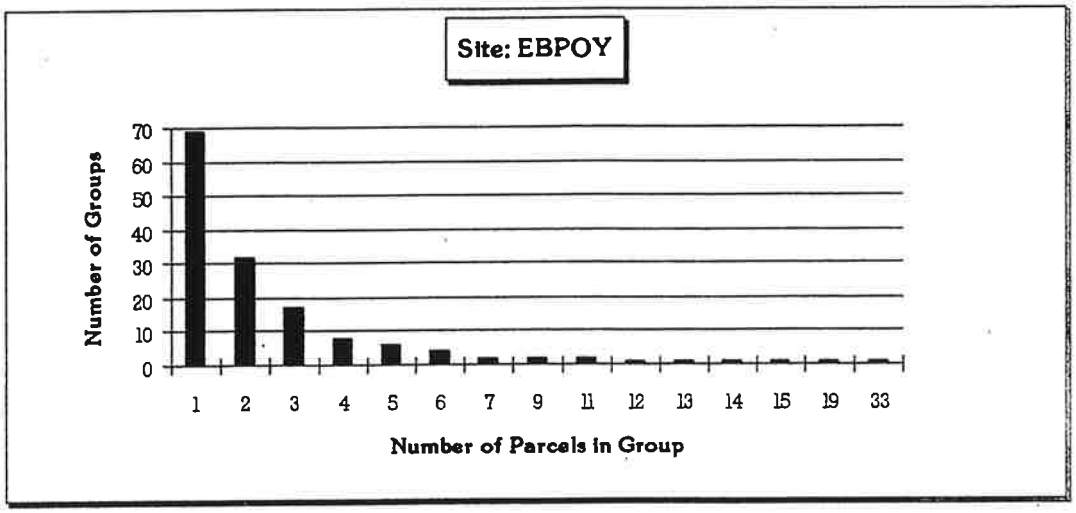
Doubtful Dossiers Analysis

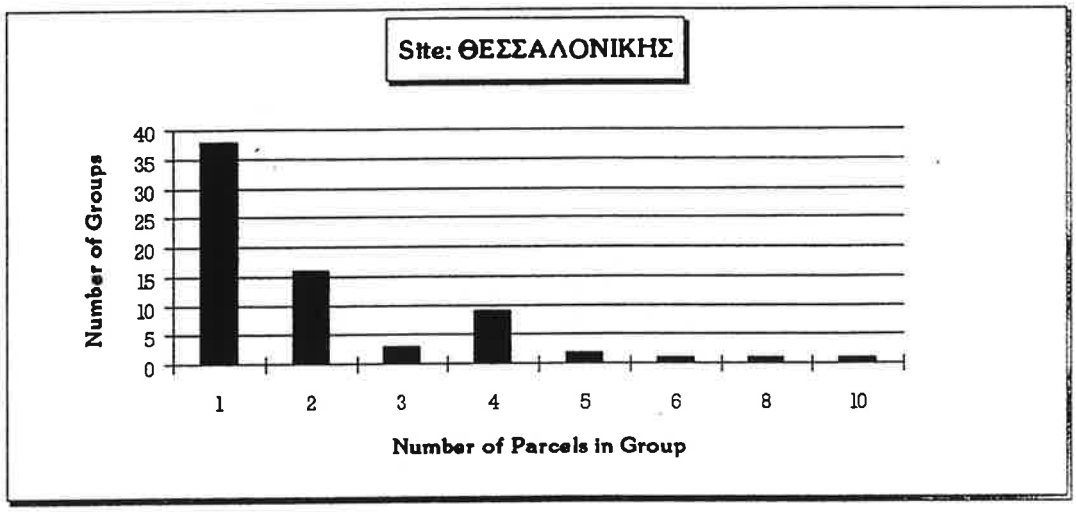


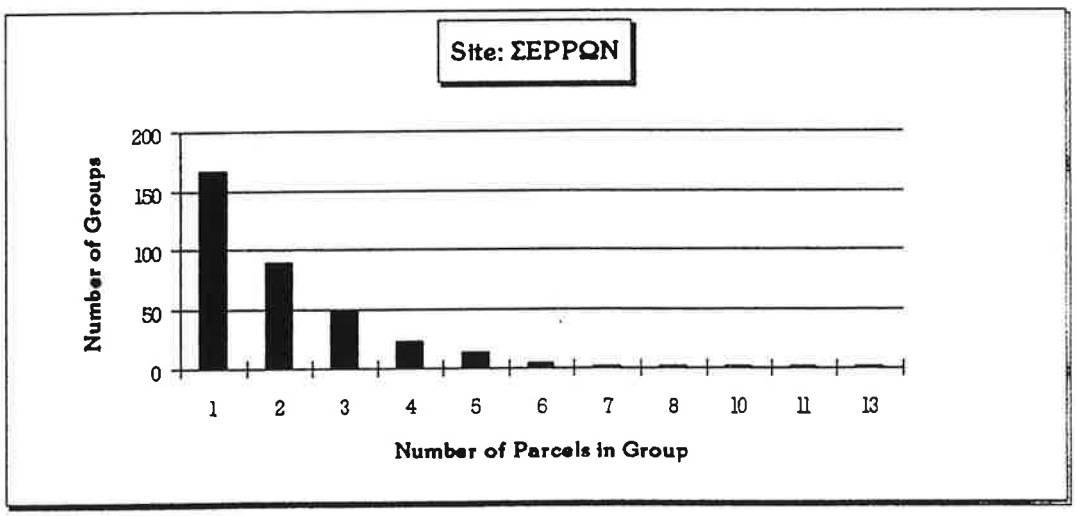




100% Doubtful Group Analysis







Wednesday 22 November 1995

BAVENO Conference: Control with Remote Sensing

'The Efficiency of Control With Remote Sensing'

Michael J Szkolny

Summary of Presentation

Since 1992, NRSC has been the prime contractor for the UK Remote Sensing Controls. During this time, NRSC has worked in co-operation with the UK Ministry of Agriculture, Fisheries and Food (MAFF), organising the remote sensing controls to produce highly efficient results. The efficiency of the project is measured both in terms of achieving project deadlines, and also providing accurate results which can be used to precisely target the applications where field inspection is necessary.

Both the MAFF field inspectors and the personnel at the Regional Service Centres (RSC's) who administer the programme, are now convinced of the benefits that remote sensing offers. Remote sensing has now achieved operational status and has been accepted in the UK as an efficient and accurate aid to the field inspection process. In addition to its use for current year land use verification, the method is respected for its ability to provide historical information on the eligibility of field parcels for the Integrated Administration and Control System.

During the 1995 project, NRSC surveyed 6 zones in the UK using remotely sensed imagery to identify crop type and area. A total of 2253 dossiers were analysed, with 959 of these having eligibility checks and 414 having set-aside checks. Including the historic eligibility and set-aside results, 91.5% of farms were accepted, 1% doubted and 7.5% rejected. Of the 166 reject dossiers, 82 were the result of a 1995 failure, representing 49% of the rejected cases. 1995 analysis rejects represent only a 4% rejection rate.

Comparison with NRSC results from previous years shows a significant increase in the number of 'Accepts' and a decline in the number of 'Doubts'. This is mainly due to an increased knowledge and expertise built up over the years, reducing non technical 'Doubts' to virtually nil. Better quality of imagery also reduced the number of technical 'Doubts'. This is illustrated by the 1995 UK project results at both the parcel and the dossier level.

The reasons for the success of remote sensing in the UK can be attributed to two main factors: the efficient supply of data and the high quality of the project work. These are a result of continued commitment to the project by the MAFF and an ever improving understanding of the UK project requirements by NRSC.

SESSION 6

Results 1995, future prospects and conclusion

COMMISSION EUROPÉENNE
DIRECTION GÉNÉRALE VI
AGRICULTURE
FEOGA
VI-G-4

Bruxelles, the 17.11.95
MV/mv (EXP09509)

Baveno Conference, 21 - 22 November 1995

Overview of the 1995 RS controls

1) Nombre de dossiers déposés et contrôlés

	Nombre total de déclarations	Nombre contrôlé par télédétection	% contrôlé par télédétect	Superficie déclar., ha (échantillon)	nombre de zones télédétection	Nombre de dossiers par zone	Superficie par zone, hectares
Belgique	45.191	2.011	4,45%	78.643	3	670	26.214
Denmark	66.666	2.977	4,47%	135.906	4	744	33.977
Deutschland	364.478	1.252	0,34%	267.590	11	114	24.326
Ellas	291.000	6.464	2,22%	36.078	5	1.293	7.216
Espagne	422.308	17.130	4,06%	804.656	20	857	40.233
Finland	102.000	3.768	3,69%	95.936	4	942	23.984
France	474.154	4.203	0,89%	235.897	8	525	29.487
Ireland (ara. + for.)	131.329	1.803	1,37%	94.513	2	902	47.257
Italia	666.126	47.071	7,07%	612.920	29	1.623	21.135
Luxembourg	2.184	0	0,00%				
Nederland	49.243	3.036	6,17%	87.312	4	759	21.828
Portugal	112.902	6.721	5,95%	317.633	7	960	45.376
Österreich	123.826	0	0,00%				
Sverige	61.770	1.599	2,59%	91.180	4	400	22.795
United Kingdom	61.561	2.253	3,66%	317.197	6	376	52.866
TOTAL	2.974.738	100.288	3,37%	3.175.461	107	937	29.677

2) Répartition par type de contrôle

	Photo aérienne	Satellites	Satellites et photos	Total
Belgique	2.011			2.011
Denmark		2.977		2.977
Deutschland		1.252		1.252
Ellas		6.464		6.464
Espagne	1.597	14.676	857	17.130
Finland			3.768	3.768
France	100	3.677	426	4.203
Ireland		1.803		1.803
Italia	38.071		9.000	47.071
Nederland		3.036		3.036
Portugal	5.221	1.500		6.721
Sverige		1.194	405	1.599
United Kingdom		2.253		2.253
TOTAL	47.000	38.832	14.456	100.288

Rue de la Loi 200, B-1049 Bruxelles (Belgique). Bureau : L130 11/17.
Téléphone : ligne directe (+32-2) 295 63 94; centrale : 299 11 11. Télécopieur : 296 42 67
Telex : 21877 COMEU B. Adresse télégraphique : COMEUR Bruxelles.

Principaux résultats des contrôles par télédétection 1994/95

3) Répartition des dossiers contrôlés par régimes (nombre)

	régime simplifié	%	régime général	%	uniquem fourrager	%	Total contrôlé
Belgique	1.362	67,73%	459	22,82%	190	9,45%	2.011
Denmark	1.506	50,59%	1.424	47,83%	47	1,58%	2.977
Deutschland E	140	19,89%	535	75,99%	29	4,12%	704
Deutschland W	357	65,15%	181	33,03%	10	1,82%	548
Ellas ERATOS.	3.502	98,12%	65	1,82%	2	0,06%	3.569
Ellas GEOMET	2.887	99,72%	3	0,10%	5	0,17%	2.895
Espagne GETI.	976	61,11%	592	37,07%	29	1,82%	1.597
Espagne TRAG.	7.227	46,53%	8.202	52,80%	104	0,67%	15.533
Finland	1.801	47,80%	1.844	48,94%	123	3,26%	3.768
France SIRS	121	24,80%	306	62,70%	61	12,50%	488
France SOTEMA	1.341	36,10%	2.297	61,83%	77	2,07%	3.715
Ireland	615	34,11%	415	23,02%	773	42,87%	1.803
Italia	43.984	93,44%	3.087	6,56%	0	0,00%	47.071
Nederland	2.536	83,53%	190	6,26%	310	10,21%	3.036
Portugal ECO	902	60,13%	545	36,33%	53	3,53%	1.500
Portugal ERE	2.603	95,21%	131	4,79%	0	0,00%	2.734
Portugal FOB	2.295	92,28%	160	6,43%	32	1,29%	2.487
Sverige	397	24,83%	1.190	74,42%	12	0,75%	1.599
United Kingdom	643	28,54%	1.610	71,46%	0	0,00%	2.253
TOTAL	75.195	74,98%	23.236	23,17%	1.857	1,85%	100.288

4) Répartition des parcelles déclarées par régimes

	régime simplifié	%	régime général	%	uniquement fourrager	%	Total contrôlé
Belgique	16.091	60,72%	9.352	35,29%	1.056	3,99%	26.499
Denmark	9.324	30,52%	21.015	68,79%	209	0,68%	30.548
Deutschland E	1.441	7,02%	18.717	91,19%	368	1,79%	20.526
Deutschland W	8.294	41,66%	11.249	56,50%	368	1,85%	19.911
Ellas ERATOS	31.194	96,90%	996	3,09%	2	0,01%	32.192
Ellas GEOMET	10.207	99,66%	19	0,19%	16	0,16%	10.242
Espagne GETI.	2.894	45,45%	3.387	53,20%	86	1,35%	6.367
Espagne TRAG.	65.491	29,17%	158.710	70,70%	276	0,12%	224.477
Finland	16.315	39,10%	24.497	58,71%	912	2,19%	41.724
France SIRS	2.131	28,71%	4.688	63,16%	603	8,12%	7.422
France SOTEMA	28.615	33,91%	54.160	64,18%	1.613	1,91%	84.388
Ireland	5.407	31,77%	7.968	46,82%	3.642	21,40%	17.017
Italia	553.496	83,21%	111.701	16,79%	0	0,00%	665.197
Nederland	26.127	82,41%	3.119	9,84%	2.457	7,75%	31.703
Portugal ECO	3.817	39,07%	5.797	59,34%	155	1,59%	9.769
Portugal ERE	11.134	92,74%	871	7,26%	0	0,00%	12.005
Portugal FOB	19.355	89,28%	2.133	9,84%	191	0,88%	21.679
Sverige	4.343	16,25%	22.221	83,14%	164	0,61%	26.728
United Kingdom	11.191	18,10%	50.651	81,90%	0	0,00%	61.842
TOTAL	826.867	61,24%	511.251	37,86%	12.118	0,90%	1.350.236

Principaux résultats des contrôles par télédétection 1994/95

5) Répartition des superficies déclarées par régimes (hectares)

	régime simplifié	%	régime général	%	uniquement fourrager	%	Total contrôlé
Belgique	37.670	47,90%	37.922	48,22%	3.051	3,88%	78.643
Denmark	28.683	21,11%	106.506	78,37%	717	0,53%	135.906
Deutschland E	4.083	1,60%	248.642	97,31%	2.778	1,09%	255.503
Deutschland W	6.320	52,29%	5.640	46,66%	127	1,05%	12.087
Ellas ERATOS.	21.990	97,35%	596	2,64%	3	0,01%	22.589
Ellas GEOMET	13.405	99,38%	62	0,46%	22	0,16%	13.489
Espagne GETI.	7.805	32,92%	15.570	65,67%	335	1,41%	23.710
Espagne TRAG.	114.280	14,20%	686.710	85,34%	3.666	0,46%	804.656
Finland	33.379	34,79%	60.782	63,36%	1.775	1,85%	95.936
France SIRS	4.912	13,87%	29.412	83,03%	1.099	3,10%	35.423
France SOTEMA	29.345	14,64%	169.452	84,53%	1.677	0,84%	200.474
Ireland	24.257	25,67%	39.646	41,95%	30.610	32,39%	94.513
Italia	488.674	79,73%	124.246	20,27%	0	0,00%	612.920
Nederland	68.655	78,63%	11.394	13,05%	7.263	8,32%	87.312
Portugal ECO	57.941	27,31%	146.158	68,89%	8.053	3,80%	212.152
Portugal ERE	15.451	39,23%	23.930	60,77%	0	0,00%	39.381
Portugal FOB	27.363	41,40%	34.733	52,55%	4.004	6,06%	66.100
Sverige	9.932	10,89%	80.784	88,60%	464	0,51%	91.180
United Kingdom	36.287	11,44%	280.910	88,56%	0	0,00%	317.197
TOTAL	1.030.432	32,21%	2.103.095	65,74%	65.644	2,05%	3.199.171

6) Résultats de la photo-interprétation par dossiers

	accepté	%	refusé	%	incertain	%	TOTAL
Belgique	1.125	55,94%	366	18,20%	520	25,86%	2.011
Denmark	2.245	77,02%	595	20,41%	75	2,57%	2.915
Deutschland E	633	89,91%	10	1,42%	61	8,66%	704
Deutschland W	457	83,85%	21	3,85%	67	12,29%	545
Ellas ERATOS.	1.320	38,53%	629	18,36%	1.477	43,11%	3.426
Ellas GEOMET	1.472	50,85%	1.002	34,61%	421	14,54%	2.895
Espagne GETI.	295	18,47%	1.302	81,53%	0	0,00%	1.597
Espagne TRAG.	7.331	47,20%	7.497	48,26%	705	4,54%	15.533
Finland	2.869	76,14%	701	18,60%	198	5,25%	3.768
France SIRS	265	54,30%	123	25,20%	100	20,49%	488
France SOTEMA	1.941	52,25%	784	21,10%	990	26,65%	3.715
Ireland	1.508	83,64%	134	7,43%	161	8,93%	1.803
Italia							0
Nederland	2.661	87,65%	340	11,20%	35	1,15%	3.036
Portugal ECO	978	65,24%	119	7,94%	402	26,82%	1.499
Portugal ERE	1.716	62,77%	530	19,39%	488	17,85%	2.734
Portugal FOB	1.296	52,28%	918	37,03%	265	10,69%	2.479
Sverige	1.260	78,80%	206	12,88%	133	8,32%	1.599
United Kingdom	2.159	95,83%	82	3,64%	12	0,53%	2.253
TOTAL	31.531	59,49%	15.359	28,98%	6.110	11,53%	53.000

Principaux résultats des contrôles par télédétection 1994/95

7) Résultats de la photo-interprétation par groupes de cultures

	accepté	%	refusé	%	incertain	%	TOTAL
Belgique	2.249	50,99%	888	20,13%	1.274	28,88%	4.411
Denmark	5.478	86,61%	728	11,51%	119	1,88%	6.325
Deutschland E	2.122	92,34%	32	1,39%	144	6,27%	2.298
Deutschland W	991	89,93%	21	1,91%	90	8,17%	1.102
Ellas ERATOS	1.795	42,27%	654	15,40%	1.798	42,34%	4.247
Ellas GEOMET	1.805	53,91%	1.051	31,39%	492	14,70%	3.348
Espagne GETI.	1.370	39,37%	2.110	60,63%	0	0,00%	3.480
Espagne TRAG.	29.332	69,05%	11.553	27,20%	1.595	3,75%	42.480
Finland	6.102	85,31%	758	10,60%	293	4,10%	7.153
France SIRS	1.290	76,11%	187	11,03%	218	12,86%	1.695
France SOTEMA	11.307	78,85%	1.070	7,46%	1.963	13,69%	14.340
Ireland	3.927	91,95%	141	3,30%	203	4,75%	4.271
Italia							0
Nederland	3.439	89,70%	356	9,29%	39	1,02%	3.834
Portugal							0
Sverige	3.905	93,22%	99	2,36%	185	4,42%	4.189
United Kingdom	7.246	98,50%	91	1,24%	19	0,26%	7.356
TOTAL	82.358	74,51%	19.739	17,86%	8.432	7,63%	110.529

8) Résultats de la photo-interprétation par parcelles

	accepté	%	refusé	%	incertain	%	TOTAL
Belgique	14.433	53,44%	5.108	18,91%	7.465	27,64%	27.006
Denmark	28.668	93,96%	1.003	3,29%	840	2,75%	30.511
Deutschland E	17.474	96,03%	148	0,81%	575	3,16%	18.197
Ellas							0
Espagne GETI.	3.893	61,14%	2.474	38,86%	0	0,00%	6.367
Espagne TRAG.	136.810	80,99%	26.414	15,64%	5.705	3,38%	168.929
Finland	38.672	92,69%	1.465	3,51%	1.587	3,80%	41.724
France SIRS	7.222	75,03%	882	9,16%	1.522	15,81%	9.626
France SOTEMA	59.414	71,04%	4.207	5,03%	20.011	23,93%	83.632
Ireland	14.757	93,71%	65	0,41%	926	5,88%	15.748
Italia							0
Nederland	15.878	97,30%	374	2,29%	67	0,41%	16.319
Portugal ECO	5.377	55,04%	1.211	12,40%	3.181	32,56%	9.769
Sverige	23.102	96,83%	98	0,41%	658	2,76%	23.858
United Kingdom	53.632	97,07%	286	0,52%	1.335	2,42%	55.253
TOTAL	419.332	82,72%	43.735	8,63%	43.872	8,65%	506.939

Principaux résultats des contrôles par télédétection 1994/95

9) Répartition entre déclaré, subsidié et traité

	Superficie totale (hectares)			Nombre total de parcelles		
	déclarée	subsidiée	traitée	déclarées	subsidiées	traitées
Belgique	78.643	63.470	64.386	26.499	22.080	26.976
Denmark	135.906	107.342	102.909	30.548	26.563	25.910
Deutschland E	255.503	192.475	192.475	20.526	18.209	18.209
Deutschland W	12.087	10.317	10.317	19.911	17.060	17.060
Ellas ERATOS.	22.589	17.163	12.647	32.192	24.327	22.615
Ellas GEOMET	13.489	10.366	9.190	10.242	7.547	6.805
Espagne GETI.	23.710	23.710	23.710	6.367	6.367	6.367
Espagne TRAG.	804.656	682.285	519.426	224.477	184.233	187.001
Finland	95.936	83.772	83.772	41.724	34.303	41.724
France SIRS	35.423	31.749	28.427	7.422	7.288	7.970
France SOTEMA	200.474	191.579	127.969	84.388	75.099	51.579
Ireland	94.513	89.590	87.151	17.017	15.670	17.017
Italia	612.920	447.671	447.671	665.197	421.547	421.547
Nederland	87.312	44.068	60.025	31.703	16.319	22.022
Portugal ECO	212.152	212.152	189.896	9.769	9.769	10.391
Portugal ERE	39.381	38.391	33.791	12.005	12.005	11.118
Portugal FOB	66.100	66.100	65.322	21.679	21.679	21.614
Sverige	91.180	82.951	82.277	26.728	24.178	23.856
United Kingdom	317.197	265.268	241.682	61.842	49.789	61.842
TOTAL	3.199.171	2.660.419	2.383.043	1.350.236	994.032	1.001.623

10) Retours de terrain par dossiers (incomplet)

	Photo-interprété	Total	Accepté	Recalculé	Pénalisé	Rejeté
Denmark	Refusé	**667**	443	77	147	0
	Incertain	**40**	0	40	0	0
	Total	**707**	443	117	147	0
Espagne (11 zones)	Refusé	**6736**	4947	179	688	922
	Incertain	**637**	596	16	23	2
	Total	**7373**	5543	195	711	924
Finland	Refusé	**664**	581	4	53	26
	Incertain	**184**	182	0	1	1
	Total	**848**	763	4	54	27
Sverige	Refusé	**183**	61	25	63	34
	Incertain	**112**	72	19	15	6
	Total	**295**	133	44	78	40
TOTAL	Accepté					
	Refusé	**8250**	6032	285	951	982
	Incertain	**973**	850	75	39	9
	Total	**9223**	6882	360	990	991

Principaux résultats des contrôles par télédétection 1994/95

11) Retours de terrain par groupes (incomplet)

	Photo-interprété	Total	Accepté	Recalculé	Pénalisé	Rejeté
Denmark	Refusé	**667**	443	77	147	0
	Incertain	**40**	0	40	0	0
	Total	**707**	443	117	147	0
Espagne (11 zones)	Refusé	**13071**	10396	256	1073	1346
	Incertain	**1828**	1776	15	32	5
	Total	**14899**	12172	271	1105	1351
Finland	Refusé	**729**	641	4	57	27
	Incertain	**240**	238	0	1	1
	Total	**969**	879	4	58	28
TOTAL	Accepté					
	Refusé	**14467**	11480	337	1277	1373
	Incertain	**2108**	2014	55	33	6
	Total	**16575**	13494	392	1310	1379

12) Coût total des contrats, références comprises (données EM).

	Nombre dossiers	Nombre parcelles	Superficie hectares	Prix contrat ECU	ECU/ dossier	ECU/ parcelle	ECU/ hectare
Belgique	2.011	26.499	78.643	219.333	109,07	8,28	2,79
Denmark	2.977	30.548	135.906	456.834	153,45	14,95	3,36
Deutschland E	704	20.526	255.503	178.326	253,30	8,69	0,70
Deutschland W	548	19.911	12.087	165.548	302,09	8,31	13,70
Ellas ERATOS.	3.569	32.192	22.589	409.622	114,77	12,72	18,13
Ellas GEOMET	2.895	10.242	13.489	374.641	129,41	36,58	27,77
Espagne GETI.	1.597	6.367	23.710	145.471	91,09	22,85	6,14
Espagne TRAG.	15.533	224.477	804.656	1.772.329	114,10	7,90	2,20
Finland	3.768	41.724	95.936	617.816	163,96	14,81	6,44
France SIRS	488	7.422	35.423	323.741	663,40	43,62	9,14
France SOTEMA	3.715	84.388	200.474	1.214.884	327,02	14,40	6,06
Ireland	1.803	17.017	94.513	201.442	111,73	11,84	2,13
Italia photo aér.	38.071	538.011	495.729	3.543.952	93,09	6,59	7,15
Italia satellites	9.000	127.186	117.191	1.117.056	124,12	8,78	9,53
Nederland	3.036	31.703	87.312	432.752	142,54	13,65	4,96
Portugal ECO	1.500	9.769	212.152	195.700	130,47	20,03	0,92
Portugal ERE	2.734	12.005	39.381	317.588	116,16	26,45	8,06
Portugal FOB	2.487	21.679	66.100	386.162	155,27	17,81	5,84
Sverige	1.599	26.728	91.180	472.398	295,43	17,67	5,18
United Kingdom	2.253	61.842	317.197	1.052.220	467,03	17,01	3,32
TOTAL	100.288	1.350.236	3.199.171	13.597.815	135,59	10,07	4,25
Coût images				1.400.000	13,96	1,04	0,44
TOTAL	100.288	1.350.236	3.199.171	14.997.815	149,55	11,11	4,69

Italie : données provisoires pour les coûts et la répartition entre satellites et photo aérienne.

Principaux résultats des contrôles par télédétection 1994/95

13) Coût du contrôle des références (données contractants)

	Nombre dossiers	Nombre parcelles	Superficie hectares	Prix supplém ECU	ECU/ dossier	ECU/ parcelle	ECU/ hectare
Belgique	201	2.013	17.317				
Denmark	227	1.225	4.295				
Deutschland E	3	7	45				
Ellas GEOMET	300	613	870				
Espagne GETI.							
Espagne TRAG.	200	1.708	6.568				
Finland	630	5.753	16.507				
France SOTEMA	282	862	1.420				
Ireland	573	2.451	10.205				
Nederland	470	1.202	8.377				
Portugal ECO							
Sverige	398	1.287	5.491				
United Kingdom	1.351	12.161	65.036				
TOTAL	4.635	29.282	136.131	135.306			
Coût images				163.300	35,23	5,58	1,20
TOTAL	4.635	29.282	136.131	298.606			

14) Coût du contrôle par satellite (1995 uniquement, sans références)

	Nombre dossiers	Nombre parcelles	Superficie hectares	Prix contrat, ECU	ECU/ dossier	ECU/ parcelle	ECU/ hectare
Denmark	2.977	30.548	135.906				
Deutschland E	704	20.526	255.503				
Deutschland W	548	19.911	12.087				
Ellas ERATOS.	3.569	32.192	22.589				
Ellas GEOMET	2.895	10.242	13.489				
Espagne TRAG.	15.541	224.477	804.656				
Finland	3.768	41.724	95.936				
France SIRS	488	7.422	35.423				
France SOTEMA	3.715	84.388	200.474				
Ireland	1.803	17.017	94.513				
Italia satellites	9.000	127.186	117.191				
Nederland	3.036	31.703	87.312				
Portugal ECO	1.500	9.769	212.152				
Sverige	1.599	26.728	91.180				
United Kingdom	2.253	61.842	317.197				
TOTAL	53.396	745.675	2.495.608	8.850.003	165,74	11,87	3,55
Coût images				1.236.700			
TOTAL	53.396	745.675	2.495.608	10.086.703	188,90	13,53	4,04

Principaux résultats des contrôles par télédétection 1994/95

15) Coût du contrôle par photo aérienne uniquement

	Nombre dossiers	Nombre parcelles	Superficie hectares	Prix contrat, ECU	ECU/ dossier	ECU/ parcelle	ECU/ hectare
Belgique	2.011	26.499	78.643				
Espagne GETI.	1.597	6.367	23.710				
Italia photo aér.	38.071	538.011	495.729				
Portugal ERE	2.734	12.005	39.381				
Portugal FOB	2.487	21.679	66.100				
TOTAL	46.900	604.561	703.563	4.612.506	98,35	7,63	6,56

16) Moyennes par dossier (parcelles et superficies)

	Nombre moyen de parcelles			Superficie moyenne, hectares			
	simplifié	général	fourrager	simplifié	général	fourrager	Exploitation
Belgique	11,81	20,37	5,56	27,66	82,62	16,06	39,11
Denmark	6,19	14,76	4,45	19,05	74,79	15,26	45,65
Deutschland E	10,29	34,99	12,69	29,16	464,75	95,79	362,93
Deutschland W	23,23	62,15	36,80	17,70	31,16	12,70	22,06
Ellas ERATOS.	8,91	15,32	1,00	6,28	9,17	1,50	6,33
Ellas GEOMET	3,54	6,33	3,20	4,64	20,67	4,40	4,66
Espagne TRAG.	10,13	17,64	3,45	17,68	76,31	45,83	51,78
Finland	9,06	13,28	7,41	18,53	32,96	14,43	25,46
France SIRS	17,61	15,32	9,89	40,60	96,12	18,02	72,59
France SOTEMA	21,34	23,58	20,95	21,88	73,77	21,78	53,96
Ireland	8,79	19,20	4,71	39,44	95,53	39,60	52,42
Italia	12,58	36,18		11,11	40,25		13,02
Nederland	10,30	16,42	7,93	27,07	59,97	23,43	28,76
Portugal ECO	4,23	10,64	2,92	64,24	268,18	151,94	141,43
Portugal ERE	4,28	6,65		5,94	182,67		14,40
Portugal FOB	8,43	13,33	5,97	11,92	217,08	125,13	26,58
Sverige	10,94	18,67	13,67				57,02
United Kingdom	17,40	31,46		56,43	174,48		140,79
TOTAL	11,11	21,27	6,61	13,84	87,51	35,81	31,90

Table 1. : reminder of the 1994 per dossier results

Etat membre	dossiers	accepté	%	refusé	%	douteux	%
Belgique	2.037	1.681	82,5	264	13,0	92	4,5
Danemark	2.977	2.337	78,5	554	18,6	86	2,9
Allemagne (EFTAS)	377	123	32,6	123	32,6	131	34,7
Allemagne (ARGUS)	619	470	75,9	96	15,5	53	8,6
Grèce (ESTE)	3.653	1.714	46,9	487	13,3	1.452	39,7
Grèce (TELEANAPTYXI)	3.842	1.596	41,5	493	12,8	1.753	45,6
Espagne (satellites)	11.962	6.163	51,5	4.926	41,2	873	7,3
France	1.672	1.110	66,4	232	13,9	330	19,7
Irlande	1.016	891	87.7	54	5,3	71	7,0
Italie (satellites)	9.382	4.213	44,9	4.192	44,7	977	10,4
Pays-Bas	3.025	2.675	88,4	322	10,6	28	0,9
Royaume-Uni	2.259	1.996	88,4	213	9,4	50	2,2
Total	**42.821**	**24.969**	**58,3**	**11.956**	**27,9**	**5.896**	**13,8**
Royaume-Uni : période référ.	1.896	1.709	90,1	133	7,0	54	2,8
Rappel 1993	32.829	21.462	65,4	7.658	23,3	3.709	11,3

Table 2. : reminder of the 1994 unit costs, based on the contract prices (satellites and 1993-94 crop year only)

	Nombre			Coût, Ecus HTVA			
Etat membre	dossiers	parcelles	hectares	Total contrat	/dossier	/parcelle	/hectare
Belgique	2.037	26.997	66.805	430.152	211,2	15,9	6,4
Danemark	2.977	27.294	108.476	384.043	129,0	14,1	3,5
Allemagne	390	12.229	80.825	234.266	600,7	19,1	2,9
Grèce ESTE	3.850	23.647	13.554	651.216	169,1	27,5	48,0
Grèce TELEANA.	3.799	15.627	11.873	616.939	170,1	39,5	54,5
Espagne	11.962	166.002	648.657	1.657.615	138,6	10,0	2,6
France	1.672	38.295	120.756	518.916	310,4	13,55	4,3
Irlande	1.016	10.971	48.835	356.351	350,7	32,5	7,3
Italie	9.382	85.442	80.966	988.449	105,3	11,6	12,2
Pays-Bas	3.025	11.487	32.145	473.407	156,5	41,2	14,7
Royaume-Uni	2.159	54.984	258.471	1.112.021	427,1	16,8	3,6
Total contrats	42.269	472.975	1.471.363	7.423.375	175,6	15,7	5,0
Images LANDSAT				66.890			
Images SPOT				1.027.770			
Images SAR ERS-1				3.600			
Coût total 1993-94				**8.521.635**	**201,6**	**18,0**	**5,8**
Rappel 1993	**34.674**	**331.567**	**937.055**	**8.866.351**	**255,71**	**26,74**	**9,46**

Télédétection 1995 : principales dates

	BE	DK	DE EFT	DE GAF	EL ERA	EL GEO	ES GET	ES TRA	FI	FR SIR	FR SOT	IR	IT	NL	PO ECO	PO ERE	PO GEO	SV	UK
Signature contrat	1/06/95	21/03/95	8/03/95	22/03/95	18/04/95	18/04/95	2/05/95	24/03/95	20/04/95	21/06/95	21/06/95	7/04/95		19/04/95	26/06/95	26/06/95		31/05/95	31/03/95
Début réception dossiers 94		23/02/95			10/05/95			1/04/95											30/03/95
Fin réception dossiers 94		10/03/95						30/04/95											12/05/95
Début réception dossiers 95	22/05/95	21/06/95	15/05/95	8/06/95	26/05/95	26/05/95	15/06/95	26/04/95	1/06/95	9/06/95	23/05/95	13/06/95	14/07/95	6/04/95	23/06/95	26/06/95	8/05/95	5/04/95	31/05/95
Fin réception dossiers 95	16/06/95	3/08/95	14/06/95	8/06/95	21/06/95	2/06/95	15/06/95	9/06/95	1/08/95	22/06/95	12/08/95	7/09/95	15/09/95	6/07/95	4/08/95	11/07/95	31/08/95	5/07/95	4/07/95
Début enquête de terrain	1/06/95	1/06/95	2/05/95	6/06/95				3/04/95	1/07/95	10/06/95	24/05/95	13/06/95		15/05/95		25/05/95		19/06/95	2/06/95
Début remise documents terrain	27/07/95	28/06/95	22/06/95	30/06/95	3/08/95	29/09/95	15/07/95	31/05/95	21/08/95	25/07/95	2/08/95	24/08/95		13/06/95	1/11/95	15/10/95	18/09/95	31/07/95	15/07/95
Fin remise documents de terrain	8/09/95	14/09/95	7/08/95	7/07/95	3/08/95	5/10/95	15/09/95	26/07/95	25/09/95	20/08/95	10/08/95	29/09/95		31/07/95	?	5/11/95	?	1/09/95	18/08/95
Début documents de terrain 2e ph					20/09/95			6/07/95		16/08/95	15/08/95	3/10/95		15/08/95					
Fin documents terrain 2e phase					20/09/95			7/09/95		20/09/95	20/09/95	10/10/95		15/09/95					
Rapport final	1/11/95	13/09/95	15/10/95	15/10/95	9/11/95	9/11/95	8/11/95	15/10/95	11/10/95	31/10/95	31/10/95	20/10/95		15/10/95	3/11/95	5/11/95	3/11/95	15/10/95	15/10/95

PROGRAM CONSTRAINTS & FUTURE

1- CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

2- A EUROPEAN PROGRAM ?

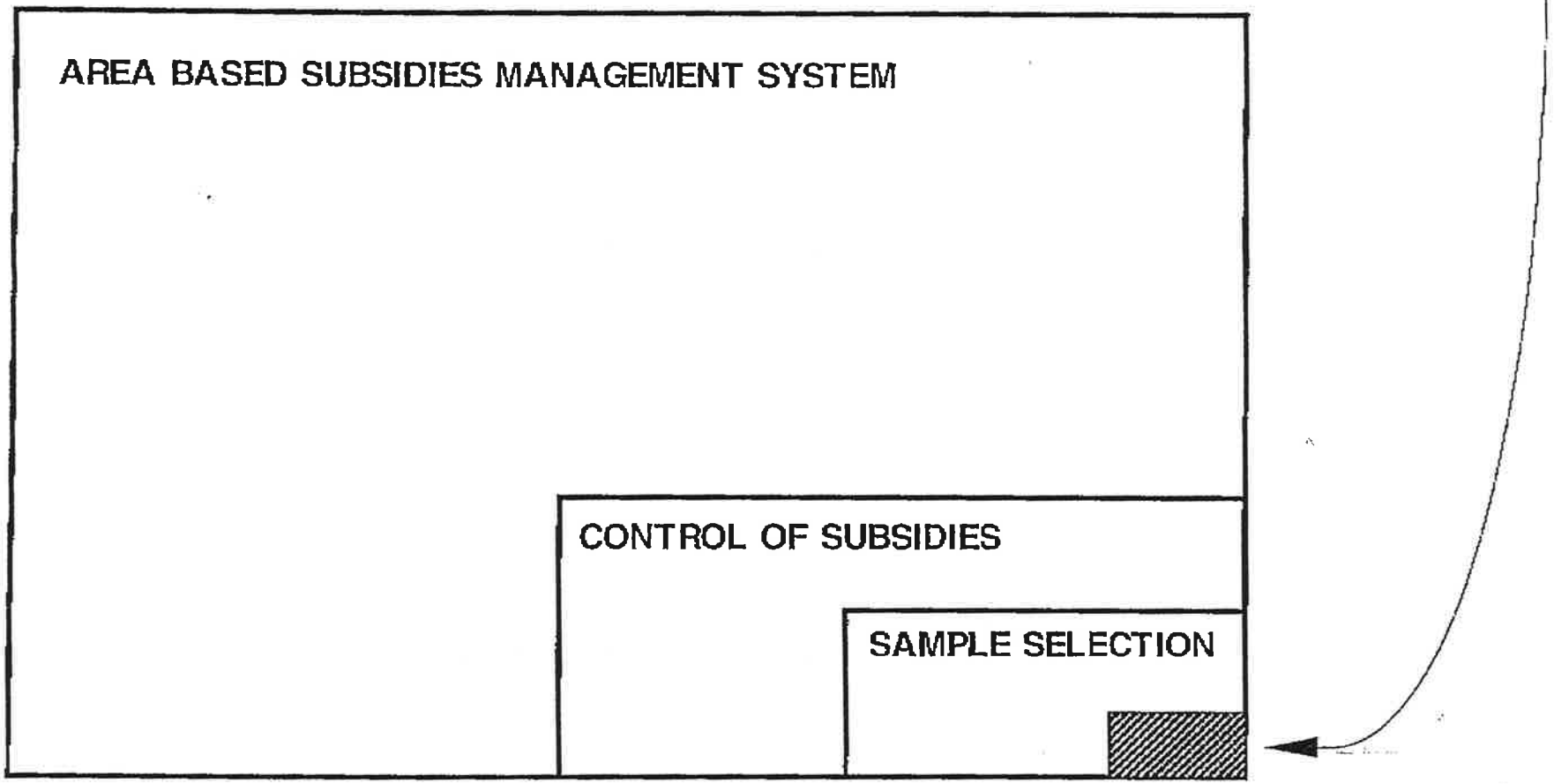
3- A REAL Remote Sensing MARKET ?

4- WHERE DO WE GO ?

CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

CONTRACTED PART :

ASSISTANCE TO THE SAMPLE SELECTION



CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

WHY CONTRACTED ?

COST BENEFIT ANALYSIS ?
FINANCIAL PROCEDURE ?
INVESTMENT REQUIREMENT ?
POLICY ?
SKILLS REQUIRED ?
HISTORIC ?
PRODUCTION EFFICIENCY ?
MANPOWER MANAGEMENT ?
QUALITY & INDEPENDENCE IN CONTROL ?
....

CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

ONE YEAR CONTRACTS :

INVESTMENTS PAID ON CONTRACT => PAID EACH YEAR ?

PRODUCTION WITH TEMPORARY EMPLOYEES
- LOST SKILLS
- QUALITY RISK
- CONFIDENTIALITY RISK
- SOCIAL PB

TIME CONSTRAINTS
- SHORT PREPARATION TIME
- RUSH WORK / QUALITY RISK
- COSTS
- NO PLANNING
- NO LONG TERM INVESTMENT

WHAT PARTNERSHIP ? UNUSUAL B. TO B. RELATIONS

REPORTS => COSTS & KNOW-HOW TRANSFER

WHAT IS NEEDED : DECLARATIONS SAMPLE & APPENDED DOCUMENTS, ON TIME

WHY REPORTS :

- NO MEANS OF SEEING IF PRODUCTS / SERVICES ARE SATISFACTORY ?
- NO MEANS OF CHECKING IF REQUIRED METHOD WAS APPLIED ?
- NO MEANS OF GIVING ASSURANCE ON QUALITY OF SERVICE THROUGH PROJECT DOCUMENTATION ?
- NEED TO ACQUIRE KNOW-HOW IN THE ADMINISTRATION ?

CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

FIELD WORK :

1- CONTROL WORK

2- EFFICIENCY OF SAMPLING METHOD USING R.S.

3- QUALITY CONTROL OF CONTRACTED WORK

THREE ACTIONS WHICH MUST BE PROVED TO THE EC

1- PROCEDURES FORMALISED - WORK DOCUMENTED

2- METHOD IS IMPOSED -> INDEPENDENT EVALUATION
COST/ BENEFIT EVALUATION IN REGARD TO GOAL : FEWER ERRORS & FRAUDS

3- METHOD IS IMPOSED -> QUALITY CONTROL OF WORK AND NOT OF PRODUCTS

IF 1, 2 & 3 TOGETHER => CONTRADICTORY FIELD TRIP
USER / ADMINISTRATION ANALYSIS

CONTRACTING PROCEDURES - MEANS & CONSTRAINTS

IF COST MUST GO DOWN AND QUALITY BE KEPT :

PARTNERSHIP IS REQUIRED => MULTIYEAR CONTRACTS

ONLY THE NEEDED CONTRACTED SERVICES

A EUROPEAN PROGRAM ?

EVOLUTION :

FROM A EUROPEAN MARKET WITH LESS THAN 5 COMPANIES

TO "INDEPENDENT" NATIONAL MARKETS WITH OVER 30 COMPANIES

ANNUAL MARKETS
SEASONNAL WORK
PRICE BASED SELECTION (METHOD DEFINED)

WHY ?

LANGUAGES ≠
MANPOWER COSTS ≠
EXCHANGE RATES VARY
NATIONAL PREFERENCES... INDUSTRIAL/ ADMINISTRATION PREFERENCES/ POLICIES

NEVERTHELESS :

EVERY YEAR TENDERS
QUALITY RISKS AND LOW PROFITABILITY
ADMINISTRATION STILL FRIGHTENED OF MONOPOLIES / TRUSTS

A REAL MARKET FOR REMOTE SENSING ?

1- USER DRIVEN

2- USER PAYS FOR IT

3- OPEN TO COMPETITIVE TECHNOLOGIES, EVEN WITH TECHNICAL TENDERS

4- EFFICIENT & COMPETITIVE BUDGET

R.S. ASSISTANCE COST

<

CONTROL OF ACCEPTABLE DOSSIERS

A REAL MARKET FOR REMOTE SENSING ?

AN EXAMPLE FOR R.S. DEVELOPMENT AND TECHNO PUSH POLICIES :

USER DRIVEN

WE KNOW WHAT WE ARE LOOKING FOR

WHEN NEED IS WELL DEFINED, METHOD CAN BE EASILY DEFINED

MORE CAN BE DONE BECAUSE TECHNO IS ONLY USED FOR ITS CAPACITY

NATURAL EVOLUTION

IN COMPETITION WITH OTHER TECHNOLOGIES

TENDERS WITH LESS TECHNOLOGY DESCRIPTION

OPERATIONNAL ≠ PERFECTLY SATISFYING THE NEEDS

IACS INTEGRATION

INTEGRATED SAMPLE SELECTION PROCESS

NO SPECIFIC DATA INPUT

NO SPECIFIC DATA BASE

MORE EVENLY SPREAD WORK LOAD

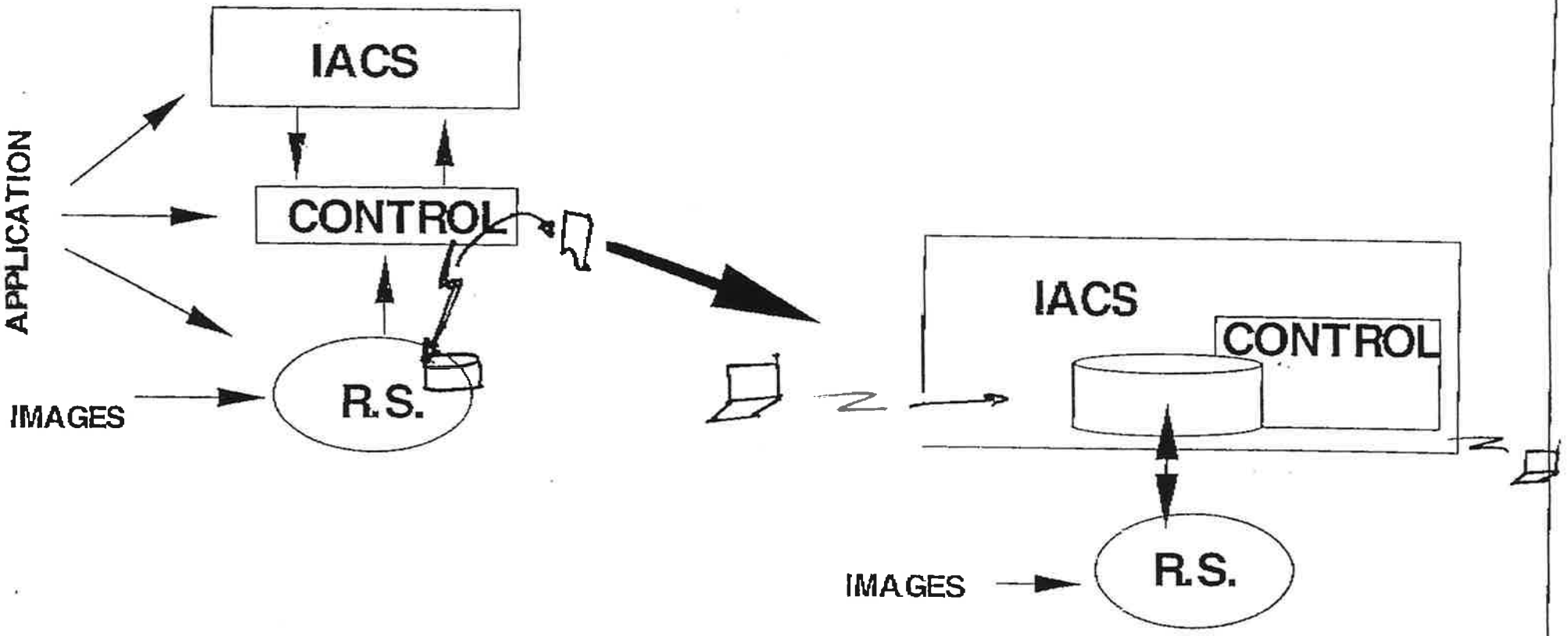
DATA INPUT BY FARMERS ?

RS WORK AS IACS DATA BASE DIRECT UPDATE --> GEOMETRY....

PARCEL CHECK & SAMPLE (INPUT & OUTPUT)

(Regulation -> SURFACE to be controlled)

WHERE DO WE GO ?



WHERE DO WE GO ?

PLANNING OF FIELD CONTROL

FIXED BUDGET

FIXED NB OF CONTROLS

ACCESS TO SORTED FILES (RS CRITERIA AND OTHERS) / FARMERS LISTS

EXPERT SYSTEM FOR SELECTION

DIRECT PROVISION OF SAMPLES / DOCUMENTS TO FIELD TEAMS ON REQUEST

WHERE DO WE GO ?

QUALITY :

PROCEDURES : QUALITY ASSURANCE, INTEGRATED TO IACS

EFFICIENCY : FIELD TEAM EVALUATION, IF NOT EFFICIENT
=> CONTROL WITH CONTRACTOR & EXPERT

INDEPENDENT CONTROL OF OVERALL CONTROL EFFICIENCY
=> SUPER CONTROL

WHERE DO WE GO ?

SMALL SATS & OTHERS:

SATELLITE ADVANTAGES

DIGITAL
GEOMETRY
ON REQUEST
MULTIPLE ACCESS (MULTITEMPORAL)
RADIOMETRY

AERIAL PHOTO ADVANTAGES

SMALL SITES
VERY HIGH RESOLUTION

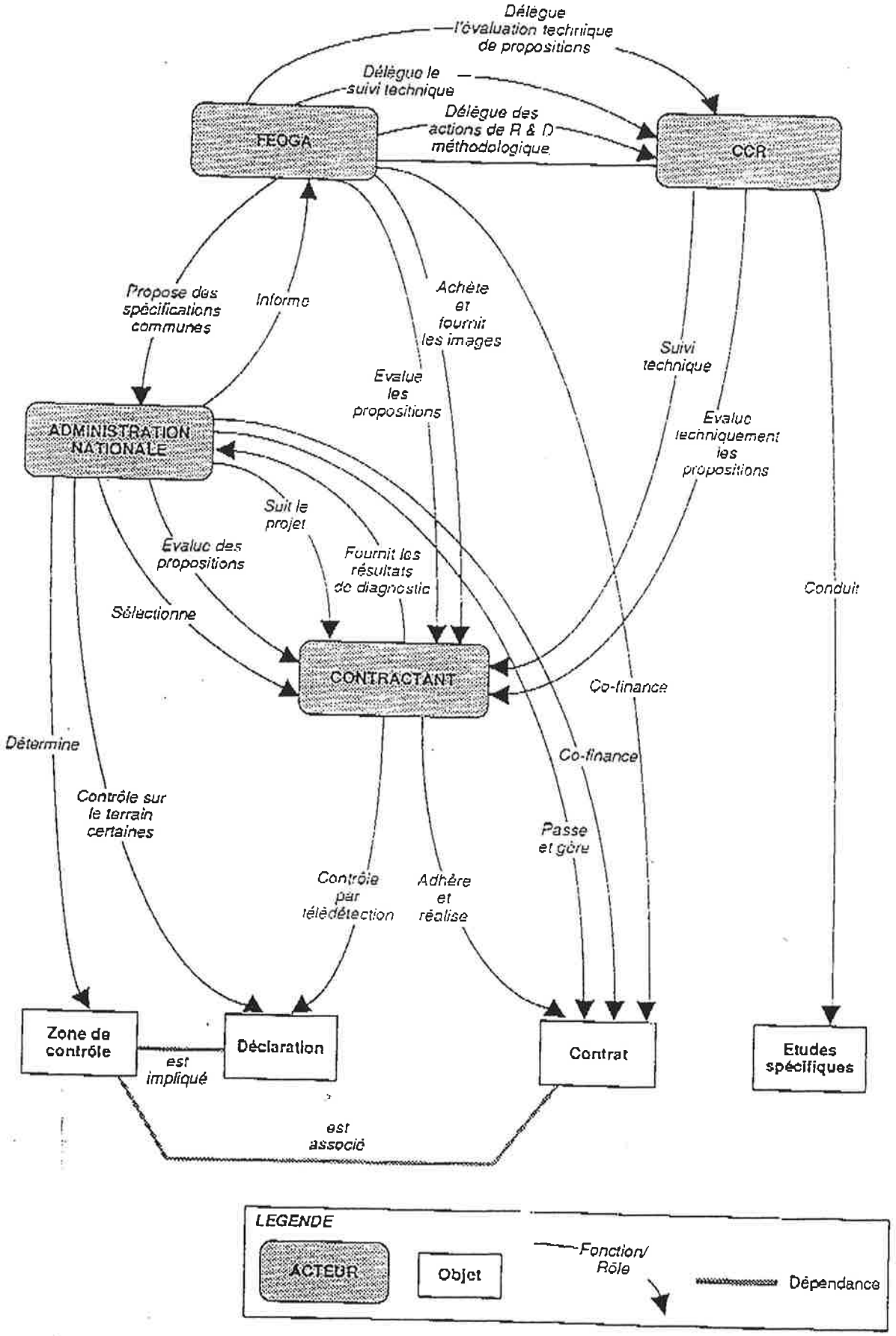
AND

REAL CONFIDENTIALITY OF SITES
DATE DEPENDENT ON SITES/ PRODUCTION/ CONTROL CAPACITY
COSTS ?
ON REQUEST WHEN PB SOME WHERE
CONTROLLED ELEMENTS UNKNOWN (PARTIAL CRITERIA SELECTION PROCESS)

NIVEAUX D'ACTIONS

Diagnostic général qualité/ Assurance qualité	Entreprise/département
Diagnostic technique	Projet
Mesures spécifiques/ contrôle qualité	Etapes/produits

Représentation schématique ROLES/ACTEURS de l'activité "Contrôle par télédétection"



EFFICIENCY ?

- NO more FRAUD
- High QUALITY DECLARATIONS
- LOW % OF NON CONFORM & UNCERTAIN
- CAPACITY TO DETECT ABNORMALIES (even non Fraud)
- LOW % OF UNCERTAIN
- NO "FALSE ALARM" OR "FALSE CONFORM"
- EASIER FIELD SURVEY
- LEGAL PROOF
- COST / BENEFIT : RS VS CONTROL of CONFORM DESSTER