


**Third European Conference
On Research Infrastructures**
 Nottingham
 December 6-7, 2005

OASIS
**The Eye from Space
for Science**



Spot 1, 2, 3 in - Aster - Geosys
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OASIS
**Optimising Access to SPOT
Infrastructure for Science**

Outlines

- Importance of the SPOT infrastructure for research in environment
- OASIS objectives and rationale
- OASIS organisation



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OASIS ID

**FP6 / Structuring the European Research Area
Specific Programme**

- Research Infrastructures Action
- Transnational Access to RI

Specific Support Action (SSA)

- 4 years (March 2004 – February 2008)
- 2 million Euros, covering full RI access costs
- CNES (French Space Agency) is the coordinator



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The SPOT infrastructure

Programme developed by France in cooperation with Belgium and Sweden 20 years ago

- **CNES** (French Space Agency) : owner of the infrastructure
- **Spot Image** : operator in charge of the exploitation

SPOT infrastructure

- **Space segment** : SPOT2, SPOT4 and SPOT5
- **Ground segment** : receiving stations, processing centres

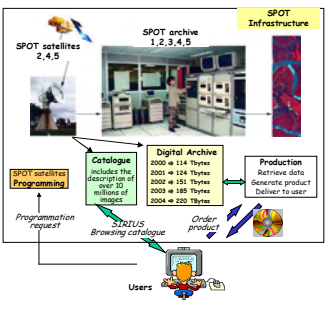
A unique archive and service : SPOT is the only European infrastructure able to provide relevant information on the world environment and its evolution for a significant period of time



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The SPOT infrastructure



SPOT satellites 2, 4, 5

SPOT archive 1, 2, 3, 4, 5

Digital Archive
 2000 = 114 Tbytes
 2001 = 126 Tbytes
 2002 = 151 Tbytes
 2003 = 148 Tbytes
 2004 = 220 Tbytes


Production
 Remote data
 Generate product
 Deliver to user

SPOT satellite Programming


STATUS Browsing catalogue

Order product

Users



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**Importance of the Spot infrastructure
for research in environment**

**The European Union is placing environment
issues at the heart of its policies**

- **EU directives and policies** : definition and implementation (water and soil conservation , spatial planning ...)
- **International conventions** : compliance to commitments (UNFCCC/Kyoto...)
- **GMES** (Global Monitoring for Environment and Security): a new strong political commitment of the EU

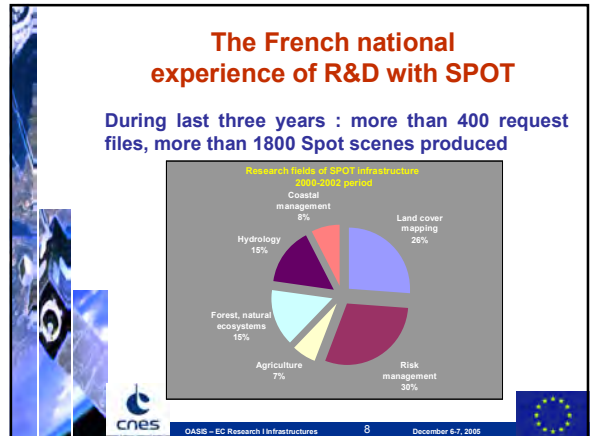


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OASIS Research themes

Themes	Sub-themes
	Basic mapping and topography DEM Land use planning Urban planning Cadastre
	Floods, Forest Fire Landslides, Volcanic activities Earthquakes Industrial hazards, oil spills
	Precision farming Crop inventories and control Crop monitoring Crop statistics, Soil surveys, food security
	Timber production National/Regional forest inventories Deforestation, forest stress monitoring, forest degradation Ecology, biodiversity
	Water ponds monitoring, snow monitoring Irrigation areas, water management Desiccation Water cycle, biosphere processes, soil erosion
	Coastal management Pollution monitoring Bathymetry Urbanisation, land use change
	



OASIS rationale

Enlargement of the EU to 25 State Members

- new dimension of research in remote sensing
- increasing needs of **Earth observation products** in environment research programmes in the EU

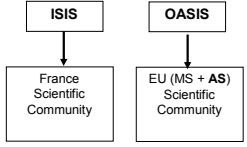
Despite existing and significant efforts, scientists still have problems in

- **searching and finding** the appropriate data for their research needs
- **buying products**, especially high resolution data where commercial practices and policies prevail

OASIS objectives

Aimed at **facilitating the access to SPOT infrastructure** for the European scientific community

- for better fulfilling current research needs of the 25 Member States, with a particular focus on new MS
- and for covering new specific requests from the Candidate and Associate States.

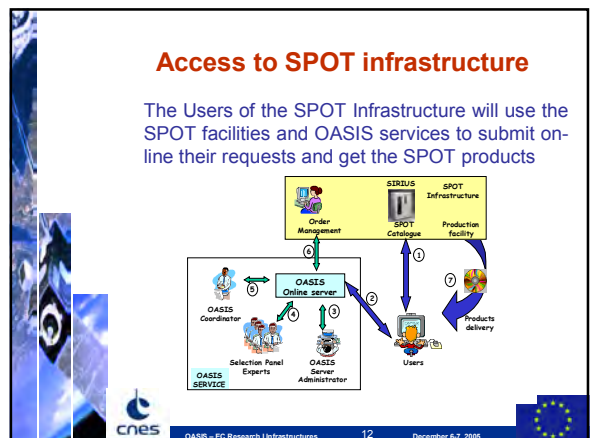


OASIS expected outcomes

OASIS is a service that shall use the existing access facilities to the SPOT infrastructure

- Access to the full Digital Archive of raw images (over 12 millions of images)
- Access to the programming capability of the SPOT satellites for the acquisition of new images at predefined location and date

By improving the benefits of space observation for R&D and sustainable development, OASIS project will in turn "bring space to society"



Delivery of SPOT products

OASIS will offer the access to SPOT infrastructure on a **cost-free basis** for the users

Definition of the Unit of Access (UA)

- one Unit of Access corresponds to the access to a standard SPOT5 scene at 5 meters resolution in Black-&White, produced under 1A processing level
- Access cost for 1 UA is fully supported by the EC

Each request is review by a User Selection Panel (7 EU experts)




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OASIS Steering Committee

The Steering Committee SC is composed of :

- the partners of the SPOT programme : France (CNES), Belgium (OSTC) and Sweden (SNSB)
- the German Space Agency (DLR)

Invited participants :

- Spot Image, having a key role in the project
- Infoterra GmbH, for its future role in the distribution of radar TerraSAR data.

Links with ESA (Earthnet programme, Oxygen initiative) to be further developed




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OASIS

<http://medias.obs-mip.fr/oasis>

Thank you for your attention !

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