



Belgian participation in “ORFEO” programme

Brussels – 04/03/2010

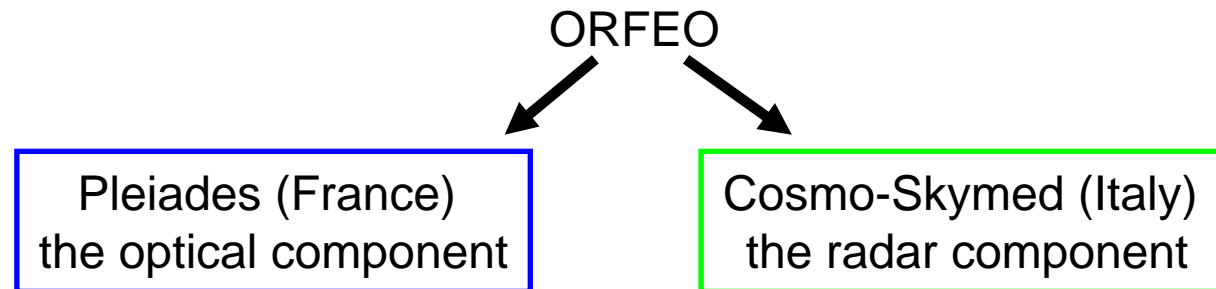
Jean-Christophe Schyns – Joost Vandenabeele



Cooperation between France and Belgium

First agreement regarding the involvement of Belgium in the Spot programme was signed in 1979

In 2001, cooperation program between France and Italy,



CNES in charge of the management of the ORFEO programme

Cooperations have been set up for the PLEIADES optical component with Sweden, Belgium, Spain and Austria

ORFEO Accompaniment Program

2003: CNES launches the Accompaniment programme



Goals: to **prepare, accompany** and **promote**
Use and exploitation of the images



Thematic part: large range of applications
Specification and validation of products and
services required by end users (8WG)

WG1: Sea and coastlines

WG2: Risks and humanitarian Aid

WG3: Cartography, Town and country planning

WG6: Forestry

WG7: Agriculture

Methodological part:
definition and development
of tools for the operational
exploitation of the future
optical and radar images



Belgian participation in accompaniment programme

- In the framework of the Belgian participation in Pléiades programme (27 M€ - 4%)
- Belgian Budget for accompaniment programme
1,2 MEURO

Thematic section
0,1 MEURO

Methodology section
1,1 MEURO

- Duration: 2004-2009

Methodological Section: Selection of projects

- **In France**, between 5 and 10 PhD grants have been funded every year by the ORFEO accompaniment program
- **In Belgium**, one call for proposals for doctoral or post-doctoral research
- Budget per project: maximum **200 000 EUR**
- Submission deadline: October 2005
- Number of proposals: 9



Projects (1)

- **ASSIMIV**: Detection and description of geographic objects by means of multi-source data assimilation (**Julien Radoux**, UCL)
 - **CHADE**: Change detection for updates of vector databases through multi-level region-based classification of VHR data (**Alexandre Carleer** and **Emilie Hanson**, ULB)
 - **EMSOR**: Automatic Extraction of Man-Made Structures from VHR Optical and SAR Data for Change Detection (**Vito Alberga** and **Dominique Derauw**, RMA)
- ↕
- **GEMITOR**: Multimodal Geo-referencing of 3D VHR Optical and X-Band SAR imagery (**Antonella Belmonte** and **Dominique Derauw**, ULG – CSL)

Projects (2)

- **SYNOPRA**: Synergy of very high resolution optical and radar data in forest mapping and inventory (**Frieke Van Coillie** and **Jan Peters**, UGent)

- **URMO3D**: A Hybrid approach for 3D city modeling from very high resolution satellite images (**Dennis Devriendt** and **Rudy Goossens**, UGent)

- **VAL3D**: publication of 2 articles (**Marc Binard**, ULG)

Background of the *SURFACE* laboratory

3D data

Synergy of EO data/ other data with spatial references



Common aspects with the STEREO programme (1)

Remote sensing research programmes

ORFEO

STEREO

Similar thematic priorities

Risks and Humanitarian aid

Health and humanitarian aid ←

Defence

Security and risk management ←

Sea and coastlines

Coastal zones

Hydrology

Inland water

Geology and Geophysics

and soil,

Cartography, Town and

Urban and peri-urban areas, ←

Country Planning

Cartography

Forestry

Forests and biodiversity,

Agriculture

Agricultural areas,

Global monitoring of vegetation and
evolution of terrestrial ecosystems ←



Common aspects with the STEREO programme (2)

Remote sensing research programmes

ORFEO

STEREO

Call for proposal

Written evaluation by foreign experts
followed by oral defense in front of a panel of
experts

Project supervision

Projects supervised by a steering committee
Steering committee meeting each year

Annual activity report

Agenda of today's meeting (1)

Presentations by CNES representatives

The PLEIADES programme: an overview

Benoit Boissin - PLEIADES Program Responsible

The ORFEO Accompaniment Programme: Preparation of the thematic use of the PLEIADES data

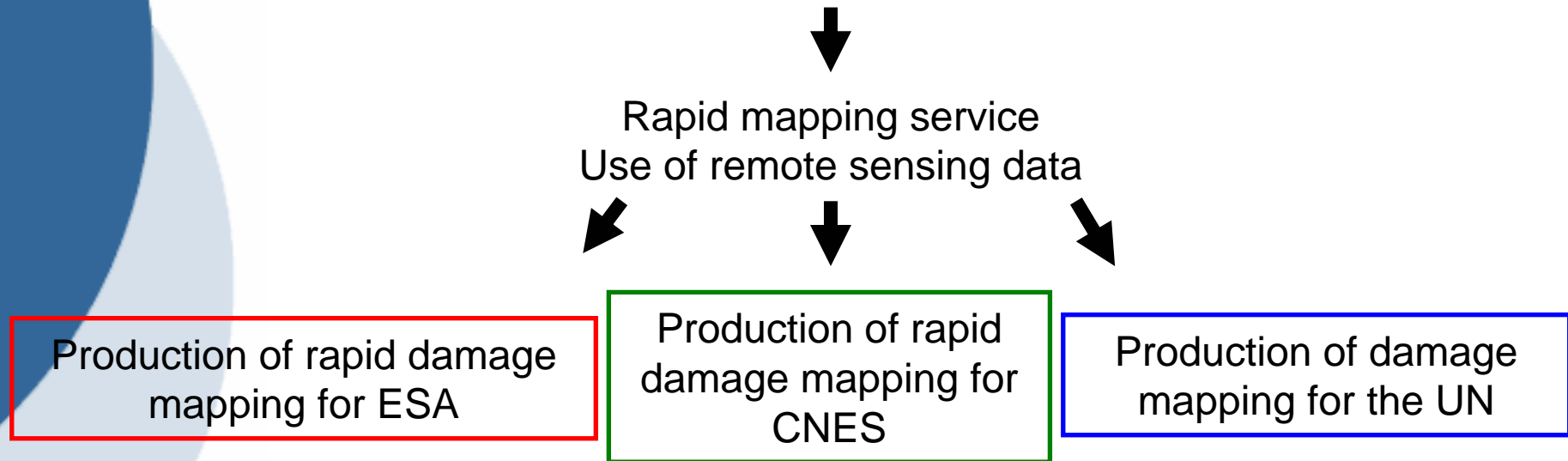
Sébastien Garrigues – Analyse and images products team
Involved in the Accompaniment programme

Manuel Grizonnet – Orfeo ToolBox team

Agenda of today's meeting (2)

- **PLEIADES and the hazards mapping (*Hervé Yesou* - SERTIT)**

SERTIT = Regional Service of Image Treatment and remote sensing



Hervé Yésou is a key member of the SERTIT rapid mapping service

Agenda of today's meeting (3)

- **Overview of research on PLEIADES at MATIS laboratory: Potential of PLEIADES images for mapping applications (Mélanie Durupt – IGN France)**

MATIS laboratory = Component of NGI France

Goals: make research for the improvement of the production (and update) of database from basic images

Mélanie Durupt works at MATIS since 2004
specialised in Photogrammetry, image treatment and algorithm

Updated programme (afternoon)

14:00 PLEIADES and hazard mapping
(Hervé Yésou - SERTIT)

14:30 ASSIMIV: Updating land cover maps by GIS-driven classification of VHR images (Julien Radoux and Pierre Defourny - UCL)

15:00 Coffee break

15:30 CHADE: Change detection for updates of vector databases through multi-level region based classification of VHR data (Alexandre Carleer, Emilie Hanson and Eléonore Wolff - ULB)

16:00 Overview of research on PLEIADES at MATIS laboratory: Potential of PLEIADES images for mapping applications (Mélanie Durupt - IGN-France)

16:30 Closure of the workshop



We wish you a pleasant meeting