GEOSUCCESS

STEREO & VEGETATION

ontmoetingsdag

9 mei 2003

Caroline Heylen
Project coordinator
Agenda

- The project and partnership in brief
- What is GEOSUCCESS?
  - Objectives, Products, Services
- The demonstration project
  - Objectives, expected results
- Questions?
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• The project and partnership in brief
• What is GEOSUCCESS?
  Objectives, Products, Services
• The demonstration project
  Objectives, expected results
• Questions?
The Acronym

GEOSUCCESS

Global Earth Observation in Support of Climate Change and Environmental Security Studies

Bridging the gap between R&D and operational products
The Project Framework

- **VEGETATION** scientific support programme
- **Demonstration** of an **operational** service
- Directed at
  - the scientific community (global change, sustainable development)
  - policy-makers (international environmental treaties)
Bridging the gap between R&D and operational products

The Partners

- GIM
  - Project Coordinator
  - Services and website development

- Trasys
  - Product automation
  - Backoffice, integration in global architecture of Vito

- Vito
  - Operational activities
  - Scientific support, contacts with user community
The Project Time Frame

• Started in January 2003
• Runs till June 2005
• 6-monthly phases
  – development
  – user feedback
Bridging the gap between R&D and operational products

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Objectives GEOSUCCESS

- Contribute to GMES initiative
  - GMES: Global Monitoring for Environment and Security
  - European Commission/ESA initiative
  - how:
    - improved data collection
    - generation of information that reflects trends and changes in the global environment
- Support to Kyoto protocol verification
GEOSUCCESS

- creates **operational** products based on EO data (VGT and other)
- on evolution of vegetation cover and related parameters
- on global or regional level (low resolution)
- calculated (near) real time
- products developed by Vito and other scientific institutes
GEOSUCCESS website

- accurate and regular delivery of information required for monitoring the environment
- processed data are immediately available
- thus (near) real time follow up of vegetation cover and appearance of unexpected results
- user-friendly interface
- user forum
- background information
Overview of GEOSUCCESS products (1/5)

- Environmental Conventions
- Environmental Stress
- Natural Disasters
• Environmental Conventions
  – Net Primary Productivity
    • repeatable estimates of the net flux of carbon between the atmosphere and terrestrial vegetation
    • used to monitor vegetation growth, carbon sinks and sources, crop yield forecasting, deforestation, ...
    • updated every decade (10 days synthesis)
    • world wide
    • developed by VITO
Net Primary Productivity Map

Bridging the gap between R&D and operational products
Overview of GEOSUCCESS products (3/5)

• Environmental Conventions
  – Biome Classification
    • spatial distribution of terrestrial ecosystems
    • 17 biome classes of IGBP
    • used in ecology and biodiversity monitoring
    • updated once a year
    • world wide
    • developed by VUB (Centre for Cartography and GIS) and VITO
Bridging the gap between R&D and operational products
• Environmental Stress
  – Small water bodies
    • monitors the state of small ponds in semi-arid regions
    • used in water and health management, maps indicate precise location of temporal water bodies
    • updated every 10 days
    • covers arid and semi arid regions in Africa
    • developed by JRC, implemented by VITO.
Bridging the gap between R&D and operational products
• Natural disasters
  – Apparent green cover percentage (arid regions)
    • desert locust common threat to agriculture in (semi) arid regions
    • used to monitor potential development of locust habitats
    • updated every 10 days
    • covers arid and semi-arid regions in Africa
    • developed by FAO
Bridging the gap between R&D and operational products

Apparent green cover percentage

Potential development of desert locust habitats
Overview of GEOSUCCESS services (1/4)

Website
- Order and download the products
- Scientific, methodological and technical information
- User forum
- FAQ
Overview of GEOSUCCESS services (2/4)

Order products

- select product type
- select format
- select predefined ROI
- select period
Download products
- list of selected products

**Overview of GEOSUCCESS services (3/4)**

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The total size of your active products is 65.25 MB. There is 4.94 GB free space to add new products.
Overview of GEOSUCCESS services (4/4)

Download products – via FTP or HTTP

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Click on the product to download it !!!

The total size of your active products is 131.09 MB.
There is 4.87 GB free space to add new products.

Add new products to your active products

Bridging the gap between R&D and operational products
Bridging the gap between R&D and operational products

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Bridging the gap between R&D and operational products

The demonstration project
Objectives/Expected results

Better serve the user community
Broaden the user-base
  - Improved understanding of user needs
  - Extension of the range of products
  - On-line distribution channel for custom-made products
  - On-line user-friendly analysis
  - Developing appropriate pricing policies for key user communities
The demonstration project
Objectives/Expected results

• Actual use of GEOSUCCESS (October 2002)
  – 102 registered users
  – 850 downloaded products, 60% NPP, 20% DL
  – Region of Interest: Africa and Europe

• Questionnaire (Oct 2002): improvements
  – “flexible ROI”
  – on-line consultation
Bridging the gap between R&D and operational products

The demonstration project
Improved and new services

A user friendly web interface:
- product and ROI selection
- parameter and analysis definition
A user friendly web interface:
- on the fly analysis, maps and reports
- fast downloads of results

Results date 1
Results date 2

Difference map

Time series chart

Bridging the gap between R&D and operational products
The demonstration project
User interaction

Web forum

www.geosuccess.net
Thank you!

Questions?