

## (Distance) Education in EO in Africa

Ben Maathuis - Chris Mannaerts, WRS, ITC





AFRICAGIS2009: ISPRS TCVI SPECIAL SESSION ON EDUCATION AND OUTREACH 28th October 2009, Munyonyo, Uganda



#### What is needed for effective CB?

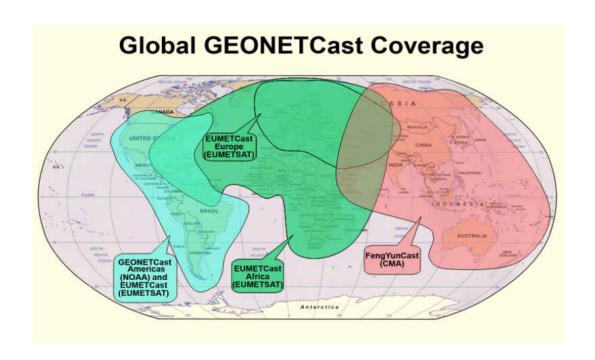
- Free access to data -> GEONETCast
- Free access to tools -> freeware and open source software
- Training provision -> availability and provision of relevant information and training materials
  - To reach large groups in a cost-effective manner:

self learning and E-learning based!

#### Free access to data: GEONETCast

GEONETCast is a system uniting regional data dissemination systems:

- **EUMETCast** (EUMETSAT): Europe, Africa, and parts of Americas
- FengYunCast (Chinese Meteorological Administration): Asia and parts of Pacific
- GEONETCast Americas (NOAA): North, Central and South America



#### **GEONETCast African Service**



Atlantic Bird 3 C-band dBW footprint



Satellite Dish installed at Makarere University



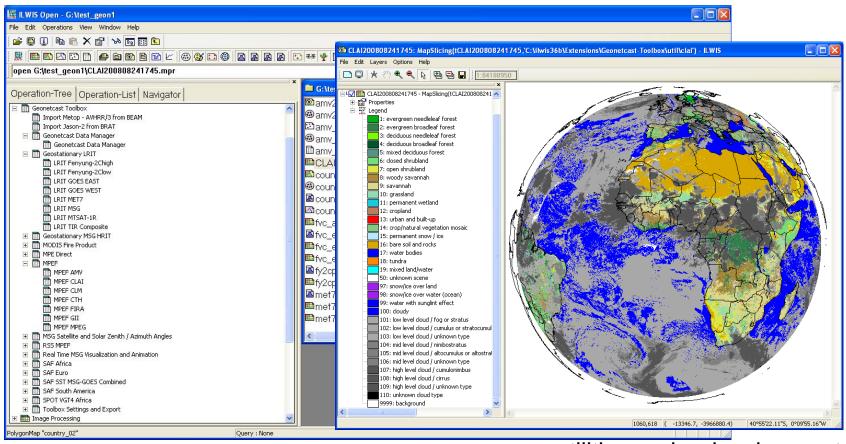
Satellite Dish installed at CGIS-NUR



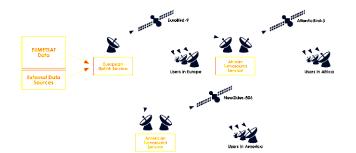


#### Free access to tools

**GEONETCast Toolbox Key features**: Geonetcast data management system for storage and retrieval of data, 64 import routines for various satellites, MPEF-SAF and VGT products, export routines to BILKO (2), MSG-9 real time visualization and calculator of solar and MSG zenith and azimuth angles



.....more utilities under development





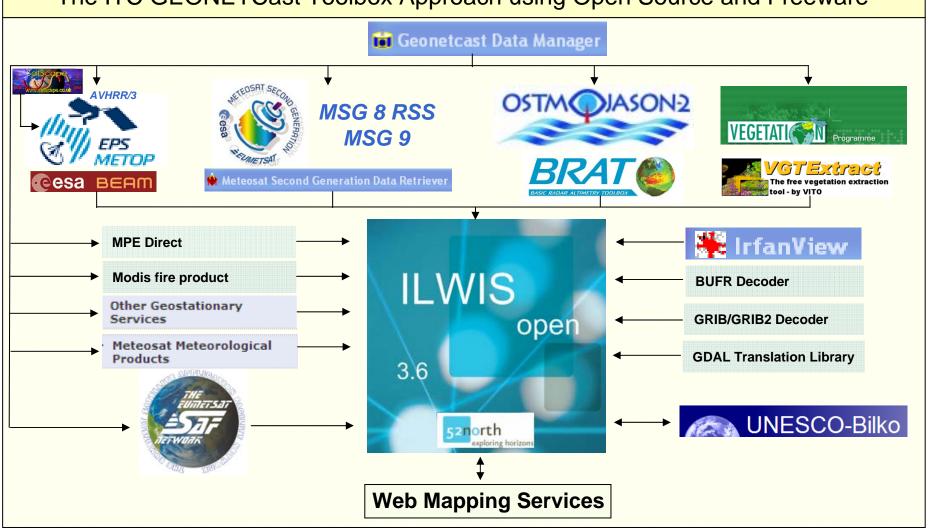




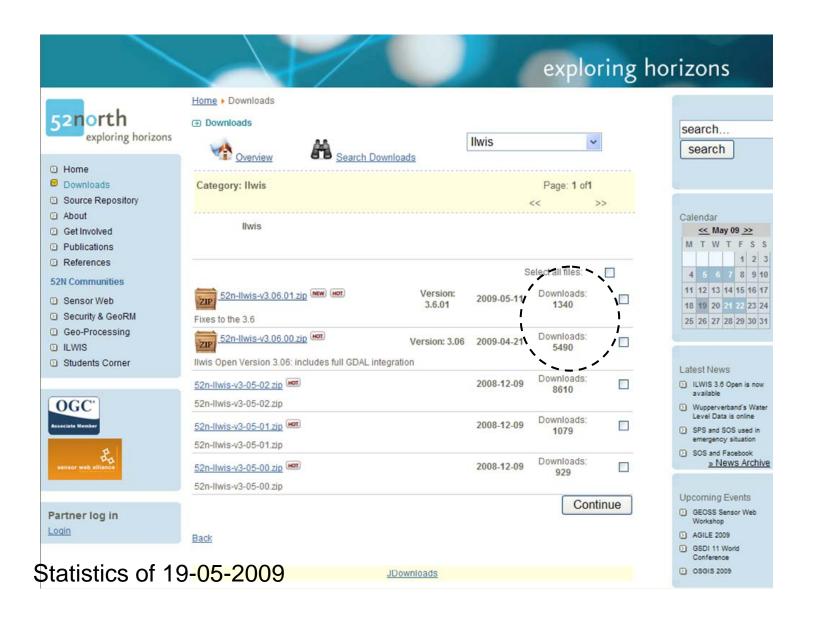




#### The ITC GEONETCast Toolbox Approach using Open Source and Freeware

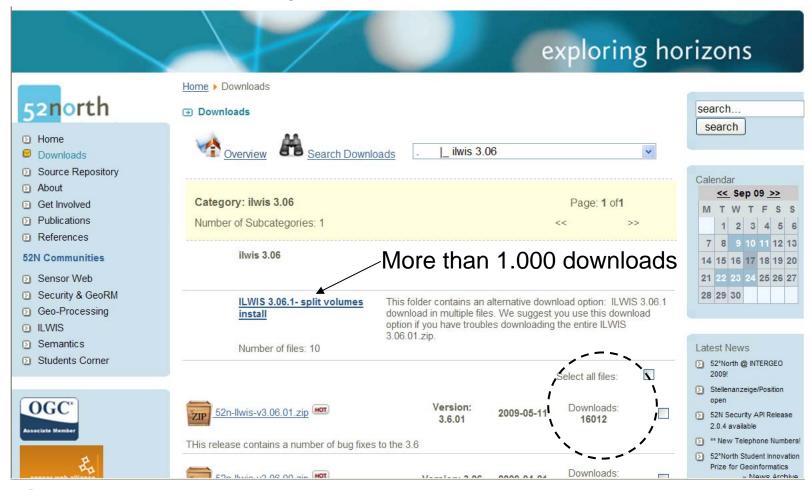


## Use of the tools, example ILWIS



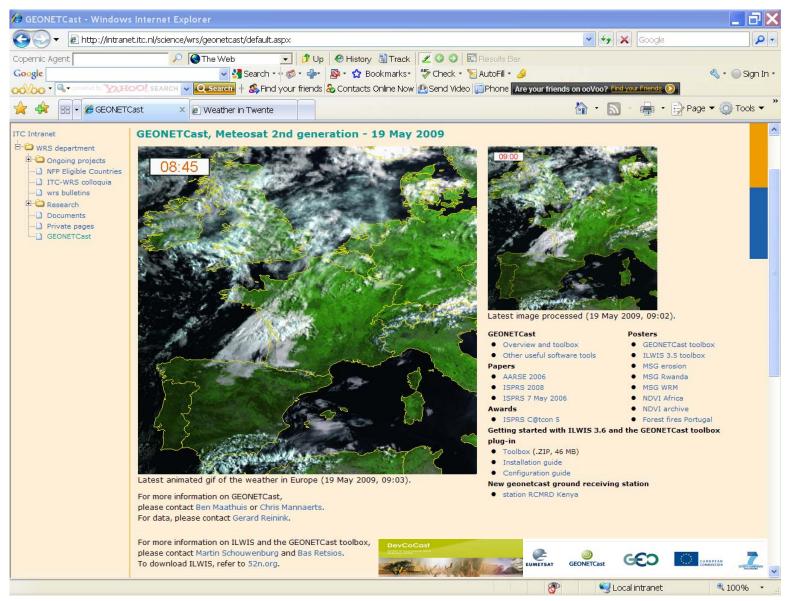
## Use of the tools, example ILWIS

Next to ILWIS also 120+ registered downloads of the toolbox, online since July 2009



Statistics of 17-09-2009

#### Provision of information and tools on the WEB



Available at: HTTP://WWW.ITC.NL

#### Website statistics

Content by Title

ITC - GEONETCast toolbox

Sep 1, 2009 - Sep 22, 2009 Comparing to: Site



#### 1 page titles were viewed a total of 936 times

Filtered for page titles containing "GEONETCast toolbox"

Pageviews 936 % of Site Total: 0.64%	Unique Pageviews 730 % of Site Total: 0.72%	Avg. Tim Page 00:01:4 Site Avg: 00:01:3		<b>Bounce Rate 56.90%</b> Site Avg: 50.25% (13.22%)	% Exit 20.30% Site Avg: 26.45% (-23	\$ Inc \$0. Site #	00
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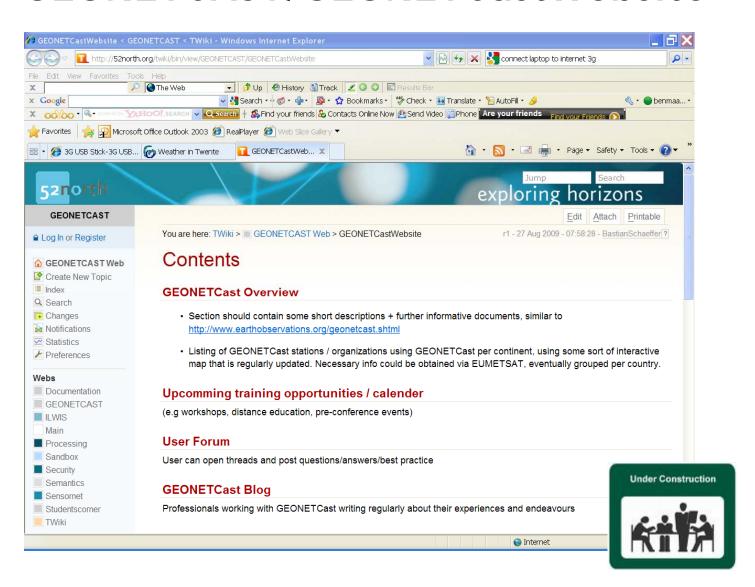
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\$0.00

1-1 of 1

936

# http://52north.org/twiki/bin/view/GEONETCAST/GEONETCastWebsite



## Provision of information and training

- Assisting in setting up ground receiving stations: e.g. Rwanda, Kenya, Uganda, South Africa, Tunisia
- Recently conducted Workshops in Africa:
  - Meteorological Department, Addis Ababa (31)
  - RCMRD, Nairobi (23)
  - IGARSS'09 pre conference event Cape Town (20+)
  - AfricaGIS2009, pre conference event Kampala (220+ appl, 25 selected)
  - Refresher course at CGIS-NUR Butare (165+ appl, 30 selected)
- Also at ITC:
  - Within regular education framework of ITC (in core module
     & as advanced module)
  - Used in MSc and PhD studies

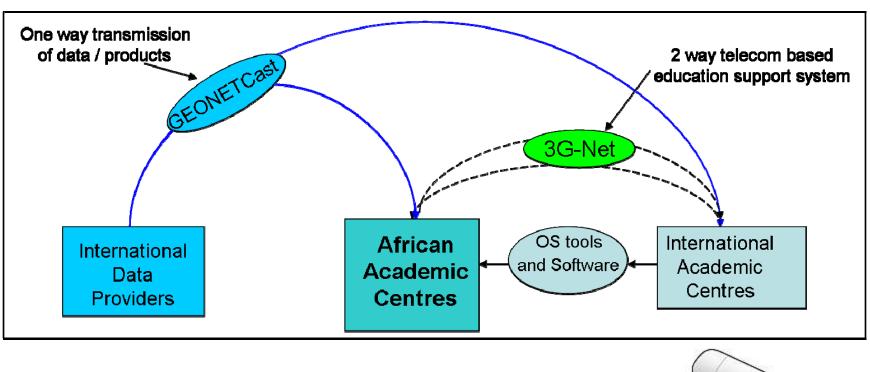


## The way ahead....@ ITC

- There is a lot of interest in GEONETCast and use of Open Source GIS from various organizations in Africa;
- To meet their demands Capacity Building needs to be strengthened:
  - Ongoing at ITC:
    - Development of educational materials
    - Further development of distance based education into a DE-GEONETCast course
    - "GEOSS & GEONETCast approved as Strategic Initiative" for the next years

## Development "Distance Education course on exploration of GEONETCast through E-Learning"

For provision of training material also GEONETCast: "Training Channel"





High speed USB modem Stick for laptops and desktops

### The way ahead....in Africa

#### **Proposal:**

- Formation of an "African GEONETCast-community"
  - Start with a workshop hosted by RCMRD;
  - Setup own infrastructure, if not already available;
  - Once up and running, Distance Education based support from ITC or via partners in the community;
  - Development of own applications;
  - Merging of the various applications into a GEONETCast based application guide that can be used by the "community" for their respective capacity building initiatives;
  - Presentation of the results at AARSE-2010.

#### WHO wants to join?