

UNIVERSITY OF TWENTE.



WELCOME PARTICIPANTS GOCE WORKSHOP

Faculty ITC

University of Twente



FACULTY OF GEO-INFORMATION SCIENCE AND EARTH OBSERVATION

# UNIVERSITY OF TWENTE

HIGH TECH, HUMAN TOUCH



ITC

UNIVERSITY OF TWENTE.

## Faculty ITC

- **Established:** 1950 - Appeal by UN in framework of official development assistance - ODA
- **Aim:** Build capacity for economic development in developing world
- **Main instrument:** Postgraduate education and training, research, project services
- **Main field of science:** earth observation, geoinformation science applied to problem-solving in earth sciences, natural and water resources and urban studies
- **Achievements**  
 Education and training:  
 20 000 mid-career professionals

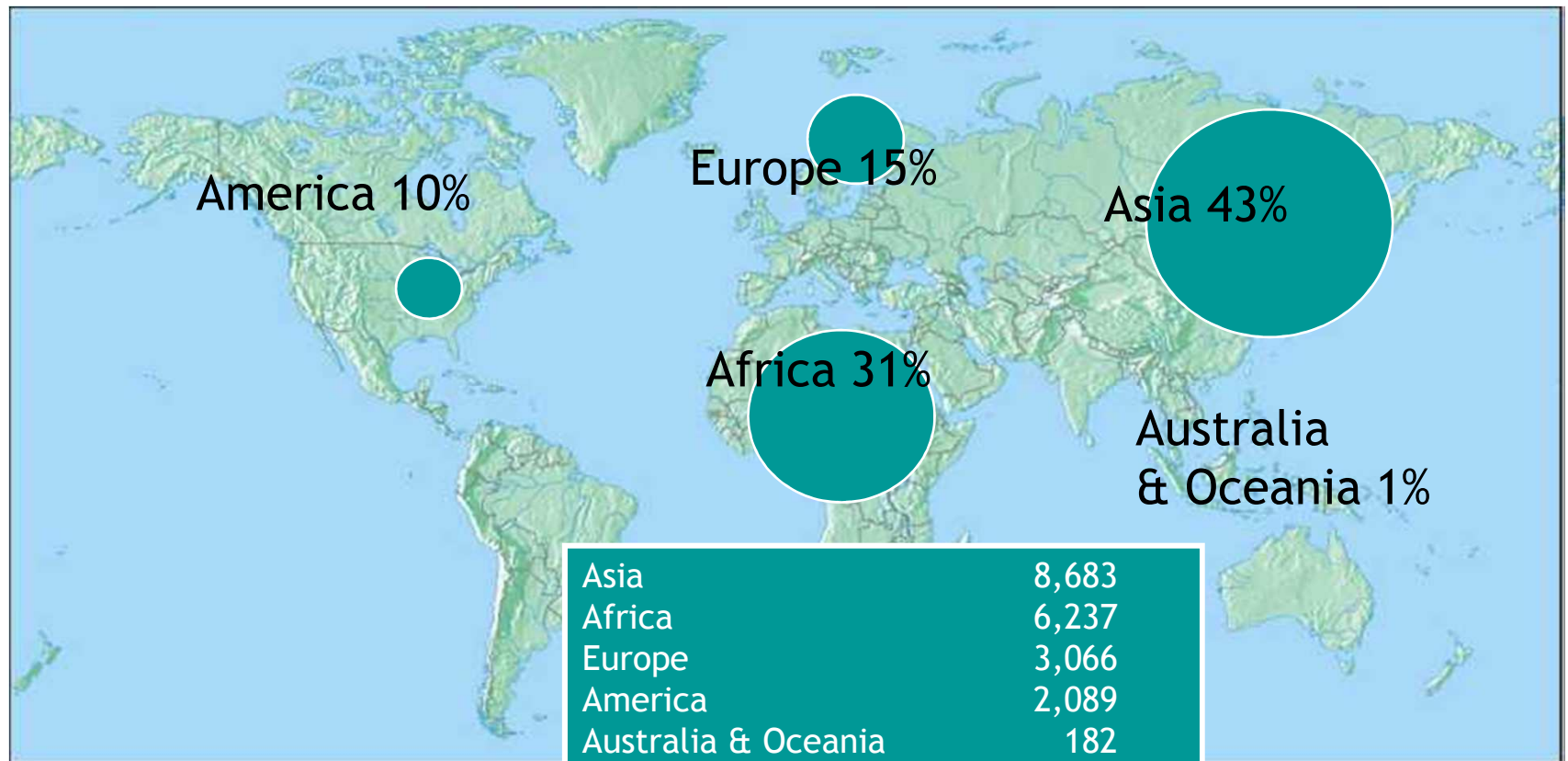
Dean/Rector  
Prof. Veldkamp



Founding father  
Prof. Schermerhorn

# COURSE PARTICIPANTS 1950-2009

ORIGIN OF ITC STUDENTS, EXCLUDING EXTRAMURAL



# EDUCATION PARTNERSHIPS



# EARTH SCIENCES@ITC





# EARTH SCIENCES @ ITC

Earth Scientists at Fac. ITC strive at applying relevant geo-information for understanding earth surface and geological processes, the sustainable use of geo resources, and the use of geo-science in the mitigation of natural or man-made damage to our environment.

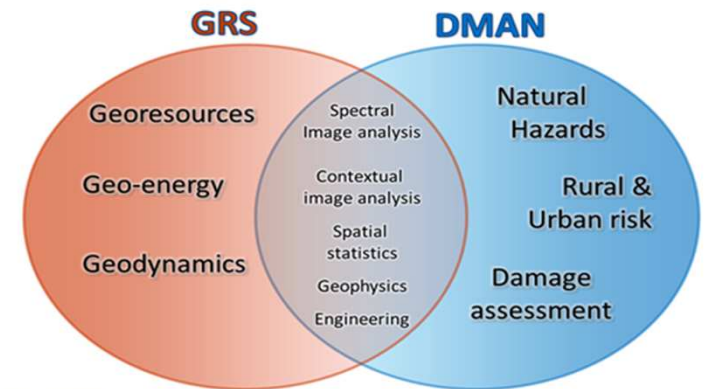
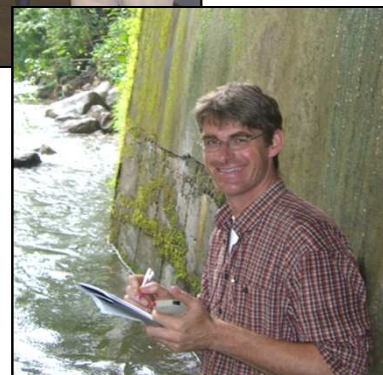
Chair Prof. Freek van der Meer

- Geo-resource exploration
- Geo-energy
- Geo-dynamics



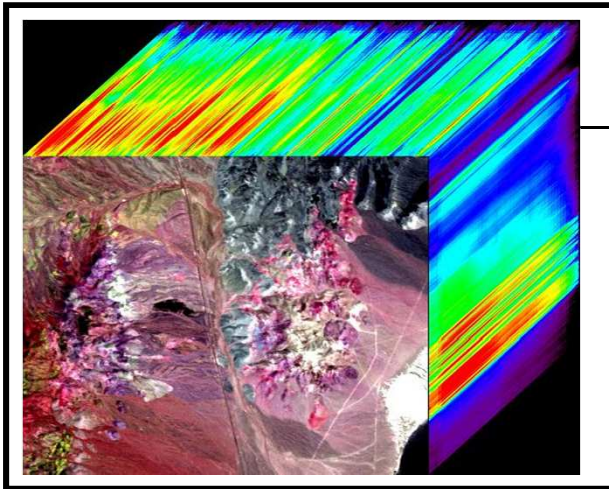
Chair Prof. Victor Jetten

- Geohazard analysis
- Multihazard Risk Assessment
- GI for Disaster Management

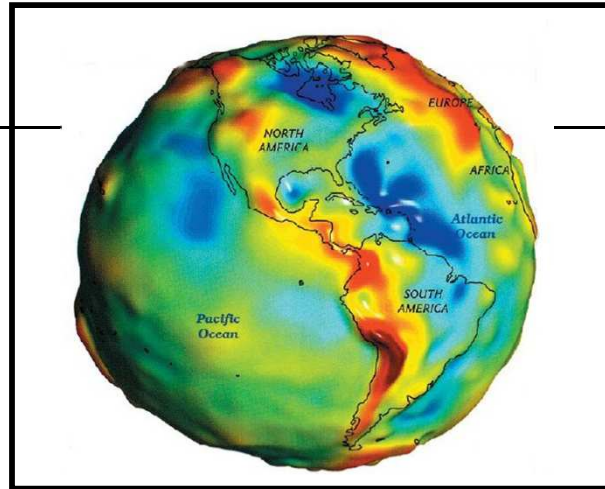


# STATE OF ART EARTH OBSERVATION DATA

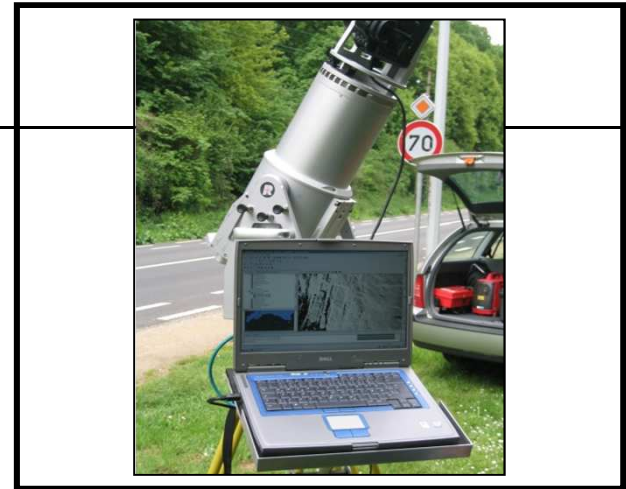
## Hyperspectral: VIS\_SWIR



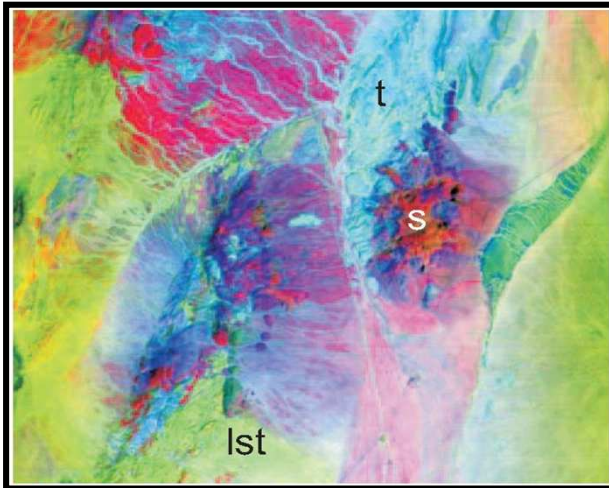
## Air- & Space geophysics



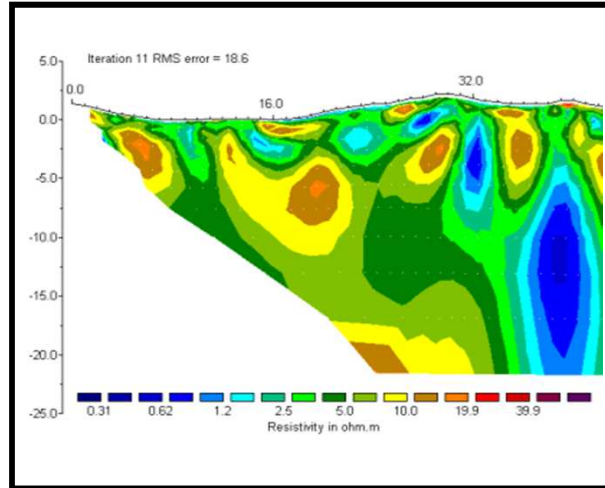
## Terrestrial Laser Scanning



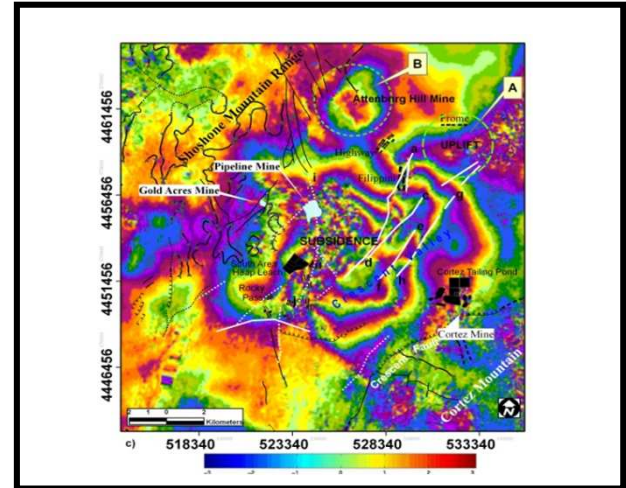
## Hyperspectral: TIR



## Near surface geophysics



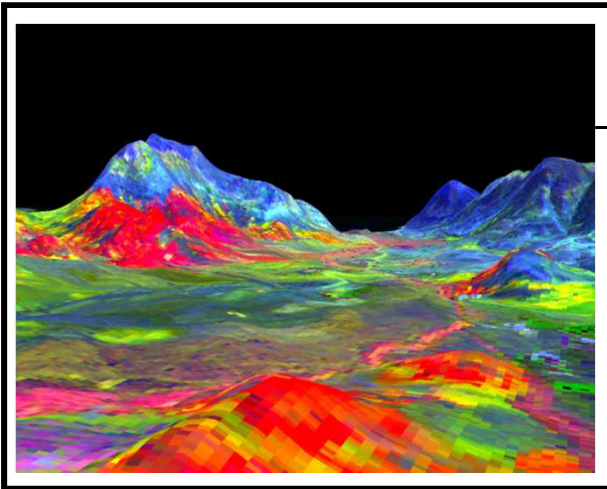
## InSAR



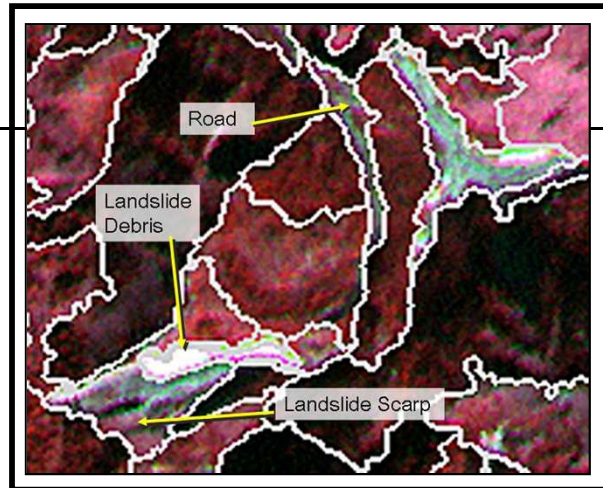


# STATE OF ART GEOSPATIAL MODELLING

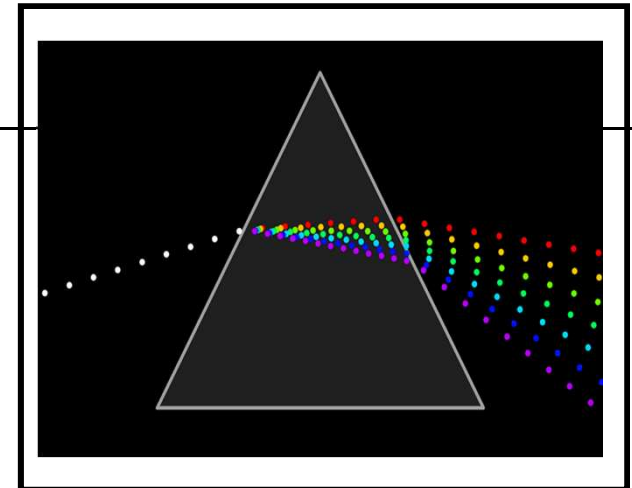
## Image analysis



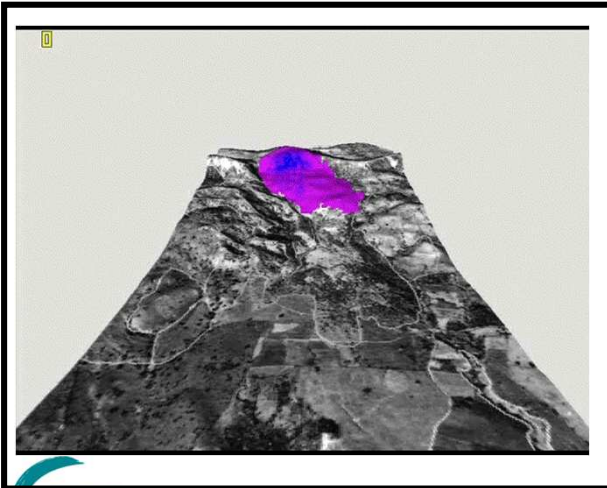
## Object based analysis



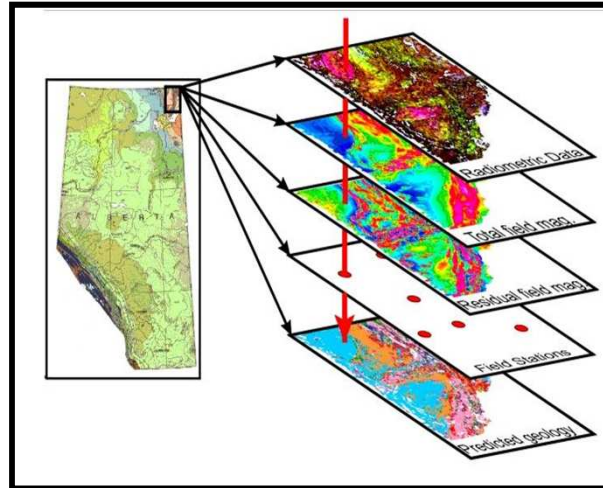
## Spectral analysis



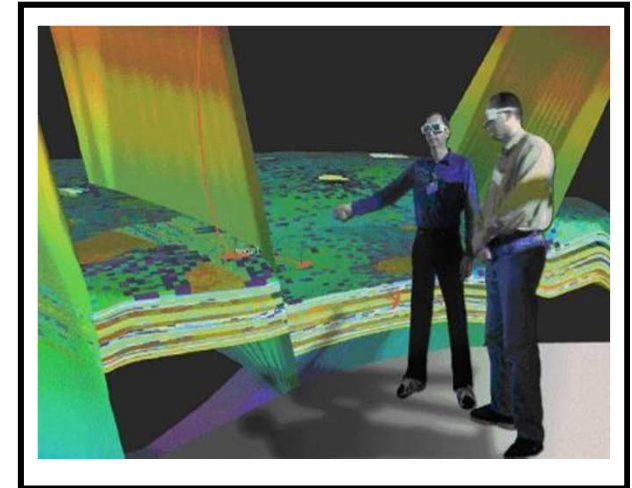
## Process based models



## Data integration models



## Geostatistics



# LABORATORY FACILITIES

## Geophysical equipment

### Spectrometers

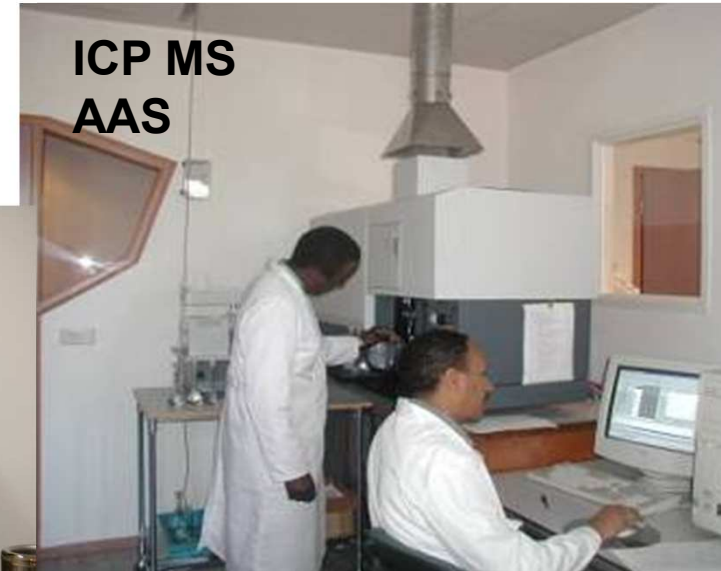
**PIMA**  
**ASD fieldspec**  
**GER 3700**  
**Bruker FTIR**  
**MIDAC FTIR**

**Time domain EM**  
**Resistivity**  
**GPR**



## Geochemical laboratory

**ICP MS**  
**AAS**



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ENSCHEDÉ  
THE NETHERLANDS  
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