### TRENDS IN GEODETIC EDUCATION - study case Norway

Bjørn Ragnvald Pettersen Dept. of Mathematical Sciences and Technology Norwegian University of Environmental and Life Sciences

# Educating surveyors/geodesists -the national actors

- 1750  $\rightarrow$ : War Academy, Oslo
  - Triangulation of Southern Norway 1780-1815
  - Struve geodetic arc 1845-50
- 1814-1890: University of Oslo
  Mittel-Europeische Gradmessung 1863-90
- 1859 →: Agricultural College, Ås
   Surveying, land consolidation
- 1910 →: Technical College, Trondheim
   Surveying, construction engineers

### **Programmatic milestones**

- 1910s: institutes for surveying (NTH and NLH)
- 1960s: photogrammetry added
- 1980s: remote sensing and GIS added
  - Issue: a term for the "collection" of disciplines
    - Mapping and surveying (NTH); mapping sciences (NLH)
  - Issue: "geomatics" imported from French
- 2000s: sections of geomatics (NTNU, UMB)

#### Master's degrees in Norway

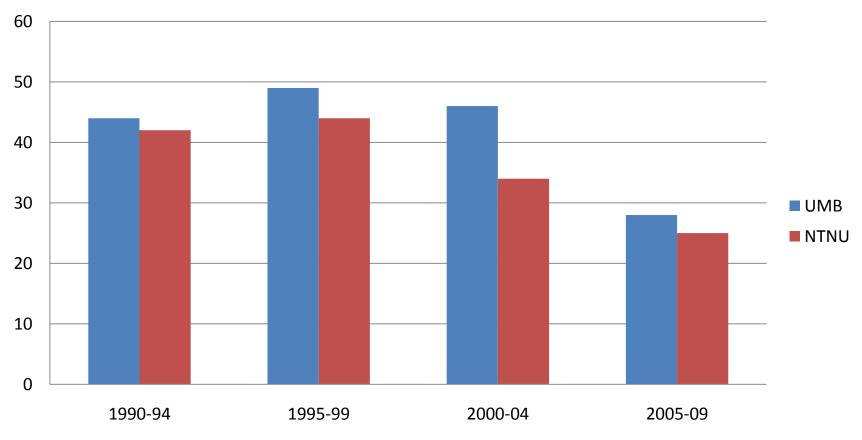
M.Sc. in Norway

Number of Master's degrees Geodesy Geomatics 

Year

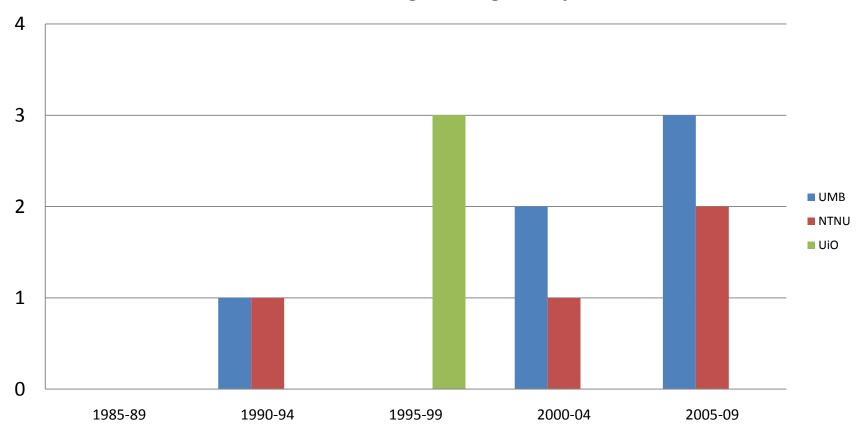
## Geodesy as part of geomatics

Geodesy/surveying M.Sc. in %



### **Doctoral degrees in geodesy**

**Doctoral degrees in geodesy** 



# Challenges

Geomatics as a brand name

Insufficient branding process since 2000

 <u>Geomatics</u> and <u>geodesy</u> are non-existent terms in school textbooks

– Why should students select such programs?

- Fewer students select "advanced" mathematics and natural sciences at preuniversity schools
  - Insufficient platform for geodetic studies