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 →: War Academy, Oslo**
  - Triangulation of Southern Norway 1780-1815
  - Struve geodetic arc 1845-50

- **1814-1890: University of Oslo**
  - Mittel-Europäische 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

Year

Geodesy
Geomatics
Geodesy as part of geomatics

Geodesy/surveying M.Sc. in %

- UMB
- NTNU
Doctoral degrees in geodesy

Doctoral degrees in geodesy

<table>
<thead>
<tr>
<th>Year</th>
<th>UMB</th>
<th>NTNU</th>
<th>UiO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990-94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000-04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005-09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Challenges

• Geomatics as a brand name
  – Insufficient branding process since 2000

• *Geomatics* and *geodesy* are non-existent terms in school textbooks
  – Why should students select such programs?

• Fewer students select ”advanced” mathematics and natural sciences at pre-university schools
  – Insufficient platform for geodetic studies