

Joining Forces in Education: enabling competences and skills for the global village

Hyderabad, 2022, Georg Gartner

Georg Gartner



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- Past-President, International Cartographic Association
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Everything happens somewhere.



14159	26535	89793	23846	14159	26535	89793	23846	26535	89793	23846
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00056	81271	45263	56082	00056	81271	45263	56082	81271	45263	56082
22495	34301	46549	58537	22495	34301	46549	58537	34301	46549	58537
01133	01133	05305	48820	46652	05305	48820	46652	05305	48820	46652
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89122	89122	79381	83011	94912	79381	83011	94912	79381	83011	94912
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00056	00056	81271	45263	56082	81271	45263	56082	81271	45263	56082
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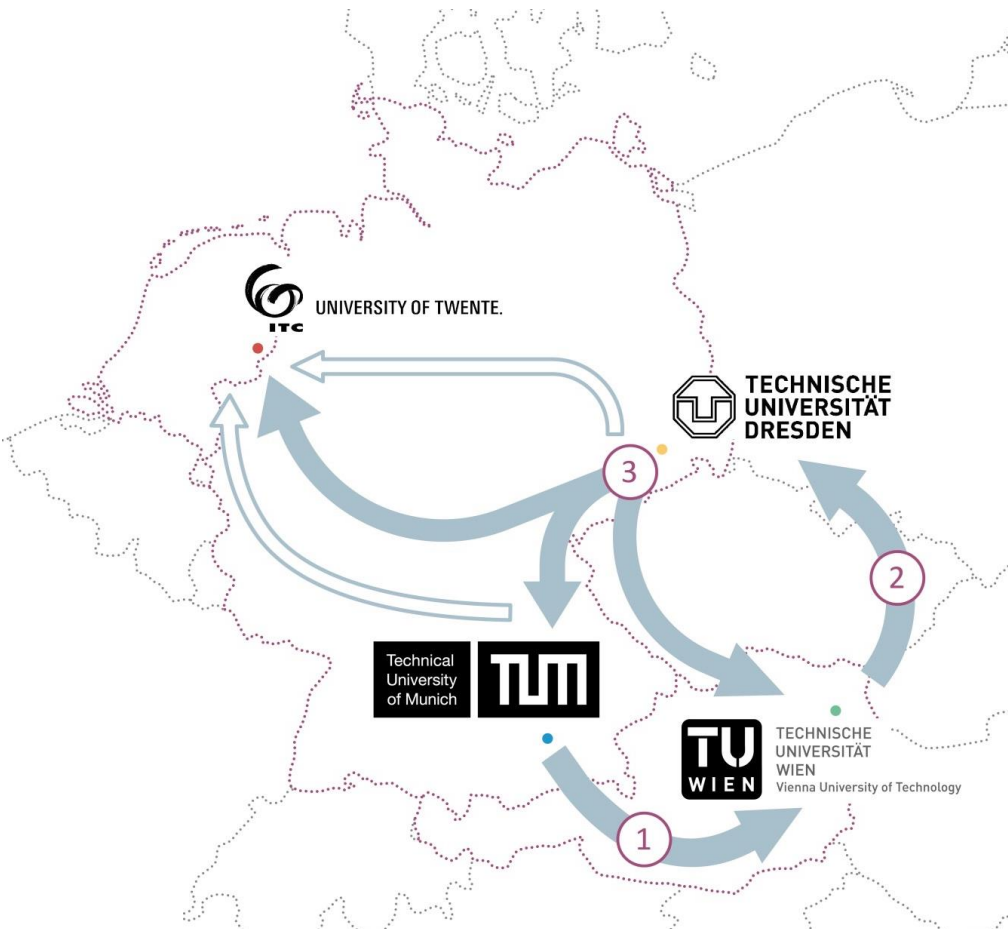
Maps empowers humans on
knowing about „**where**“.



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Joining Forces for an **International MSc Cartography of Excellence**





During the first semester at Technische Universität München, students are provided with the foundations of cartography and geovisualization.



In the second semester at Technische Universität Wien, students get knowledge in multimedia cartography, especially web mapping, mobile internet and location-based services.



Students are taught in mobile and 3D cartography during the third semester at TU Dresden. The Alpine Cartography Field School is part of this semester.



Online modules prepared by the University of Twente (ITC) are incorporated into the curriculum during the first and third semester. Additionally, ITC is responsible for the organization of the fourth semester.



2018 EMJMD

2014 EMJMD

2014 UT
joined as 4th
partner

2011 First
intake

2008 WG of 3
partners -
TUM, TUW
and TUD



2011: 14 students from 10 countries

2012: 21 students from 12 countries

2013: 11 students from 9 countries

2014: 15 students from 11 countries

2015: 21 students from 13 countries

2016: 20 students from 16 countries

2017: 24 students from 20 countries

2018: 30 students from 19 countries

2019: 25 students from 18 countries

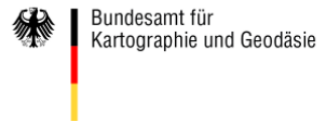
2020: 29 students from 20 countries

2021: 27 students from 21 countries

2022: 25 students from 16 countries



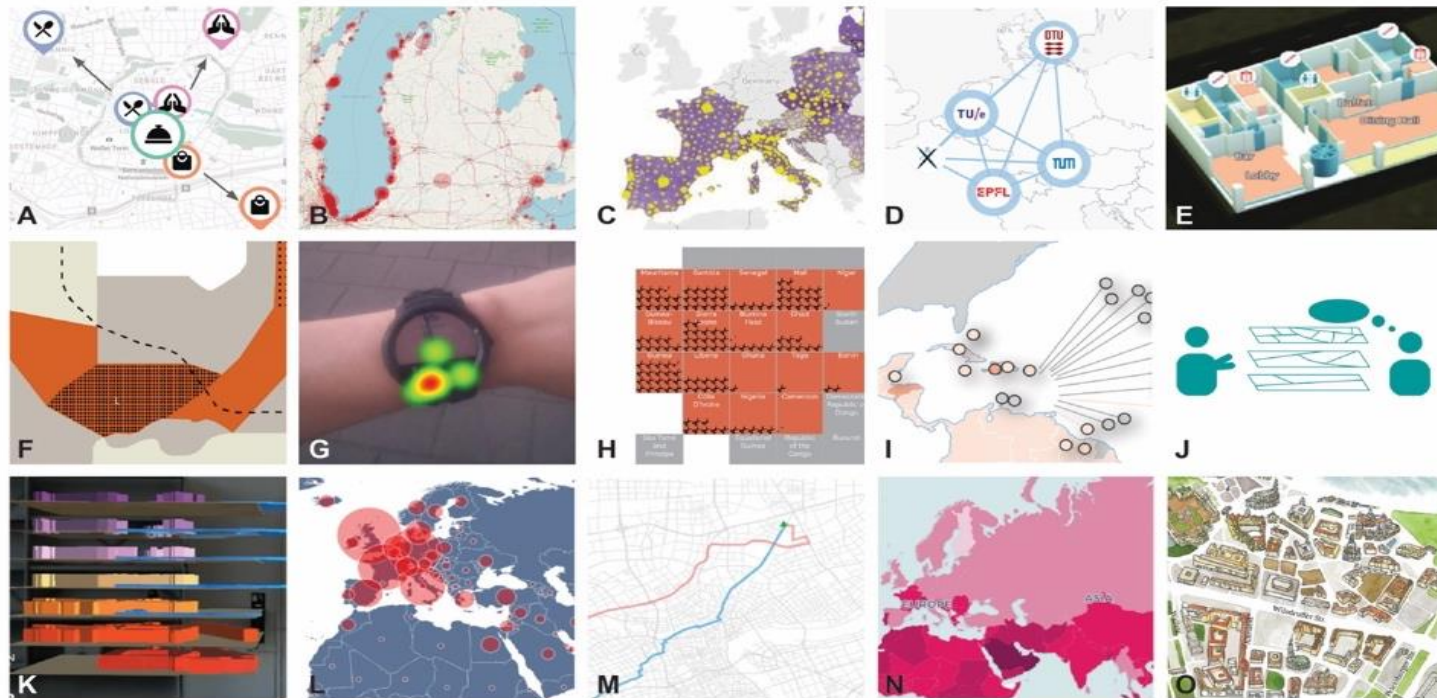
International Teaching Staff



Geospatial Information
Section

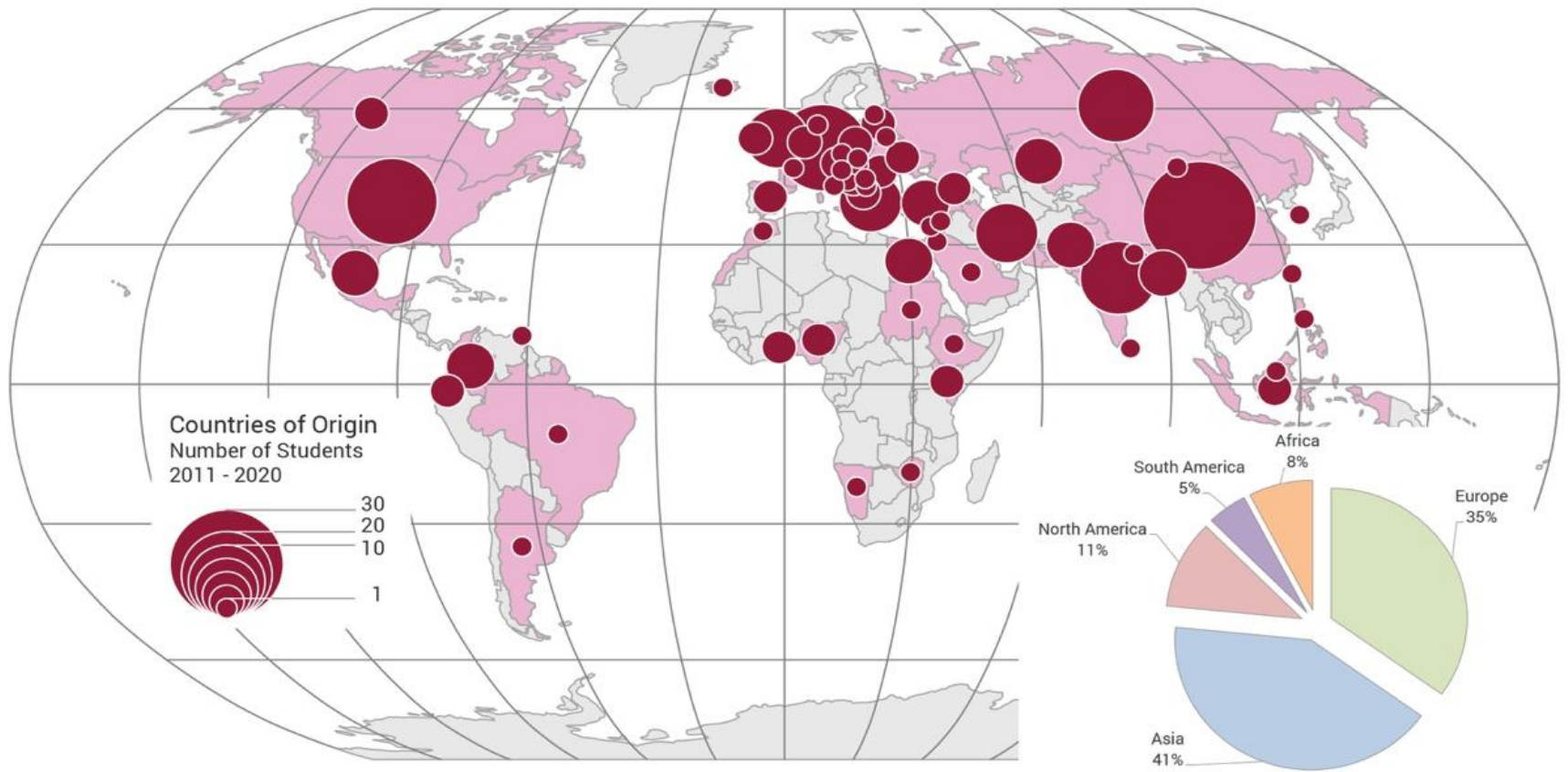


Associated Partners

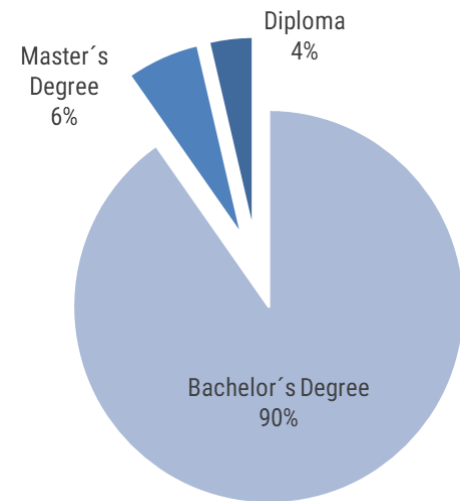
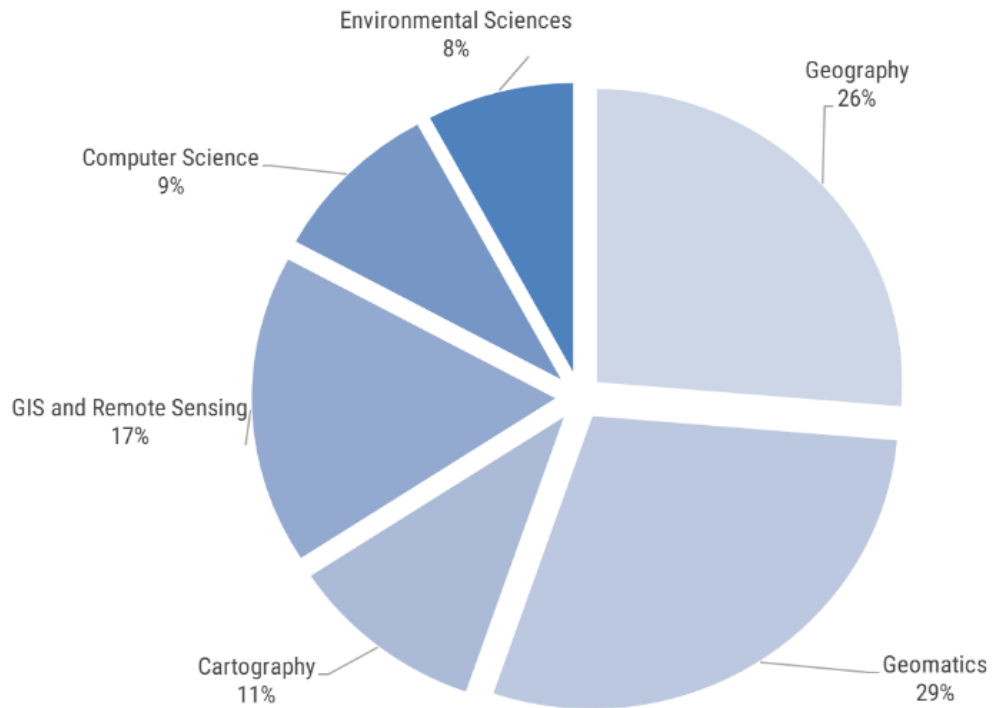


<https://cartographymaster.eu/theses/>

Examples of Master theses



Number of students and countries of origin from 2011-2020



Background of incoming students



20% currently
work in
public
administration



40% currently
work in
private business



15% currently work in a
research institution or in a
university

Employment after Graduation



THINKING
doing
SHOWING

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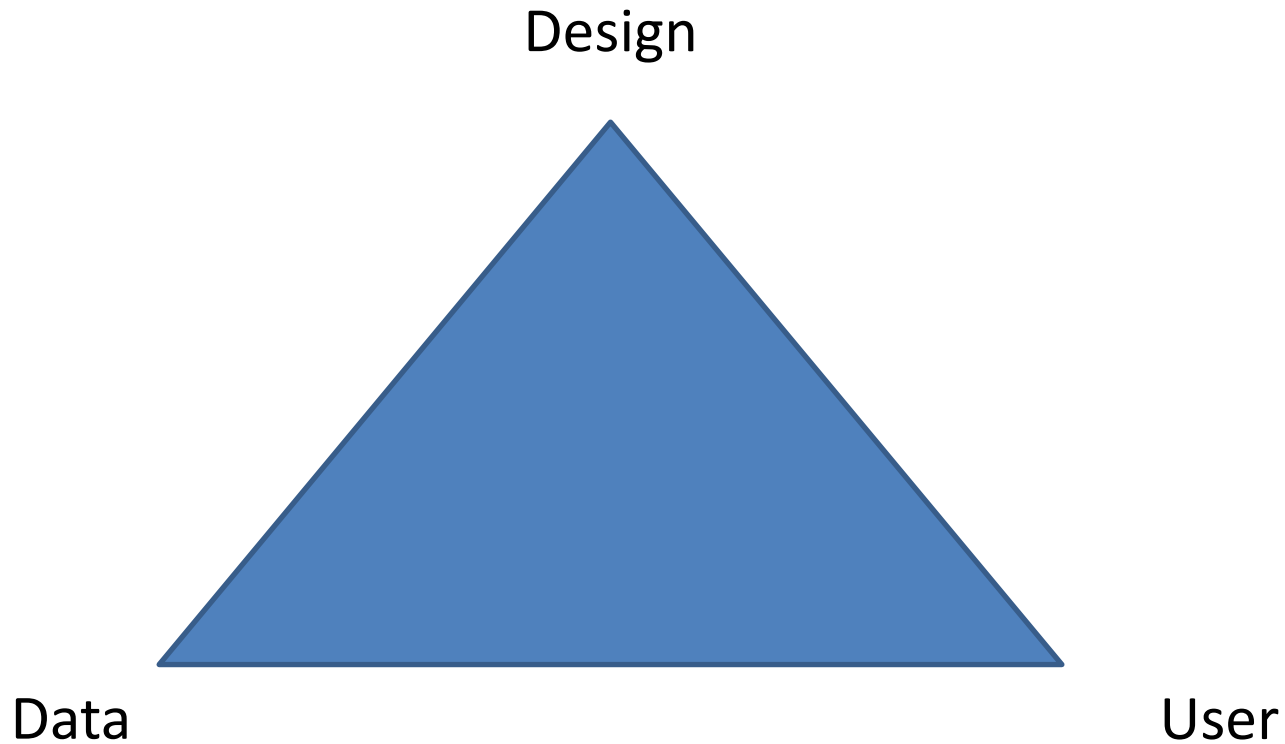
Education is seeking to train skills, competences and knowledge

Education on an evolving science

Enable skills and competences on becoming an

- Engineer
- Data Scientist
- Cognitive Scientist
- Designer

Triangle of Competences



Main elements of innovation

- Activation
- Problem-based Learning

Main elements of innovation

- Activation

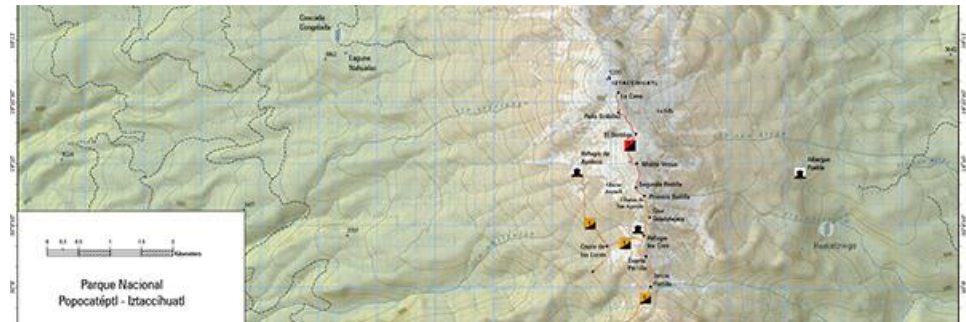


Main elements of innovation

- Activation



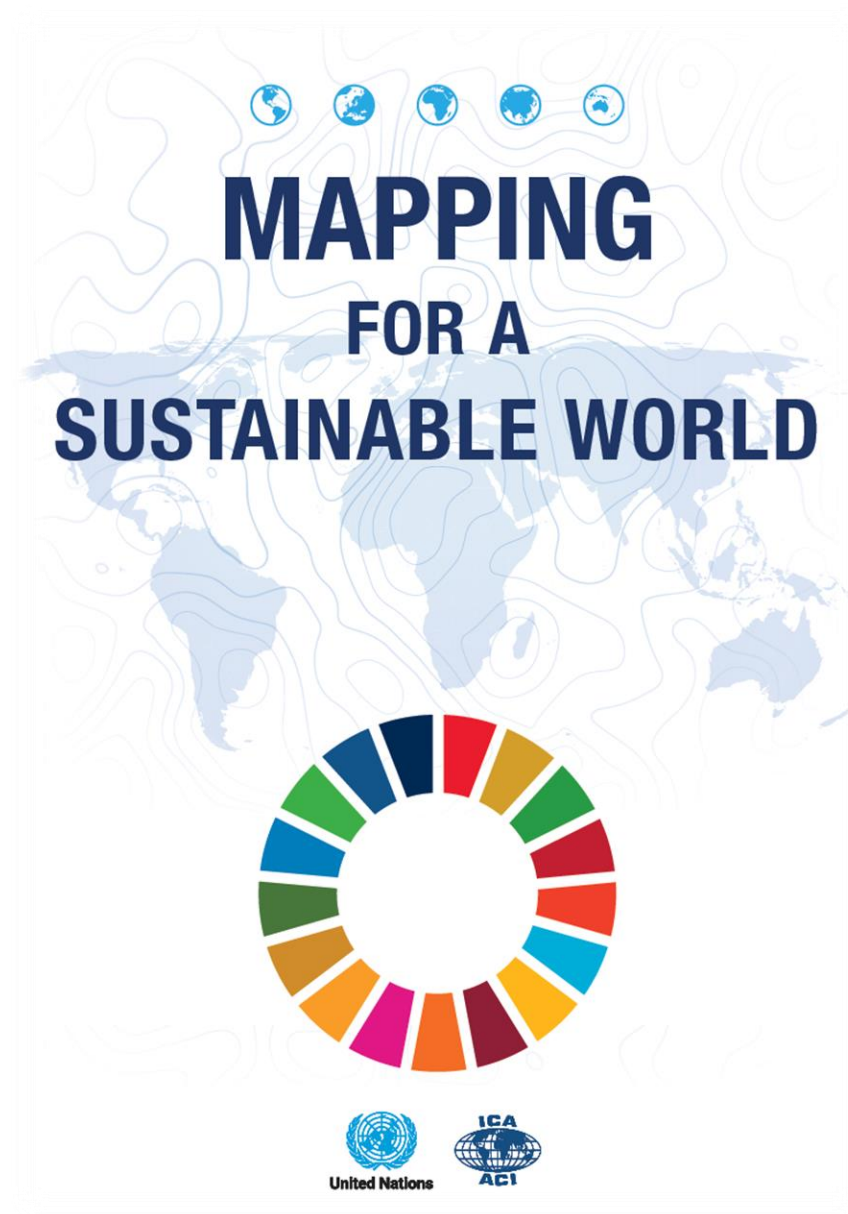
- Project based vs. Problem based Learning



Main elements of innovation

- Problem based Learning





<https://digitallibrary.un.org/record/3898826?ln=en>