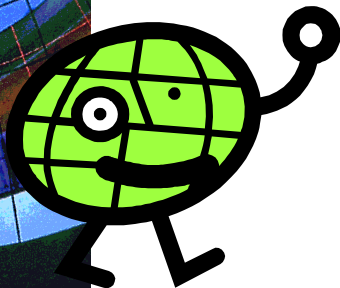


Universität Stuttgart  
GEOENGINE



International M.Sc. Programme  
**Geomatics Engineering –  
GEOENGINE**

University of Stuttgart  
Germany



# GEOENGINE – Motivation

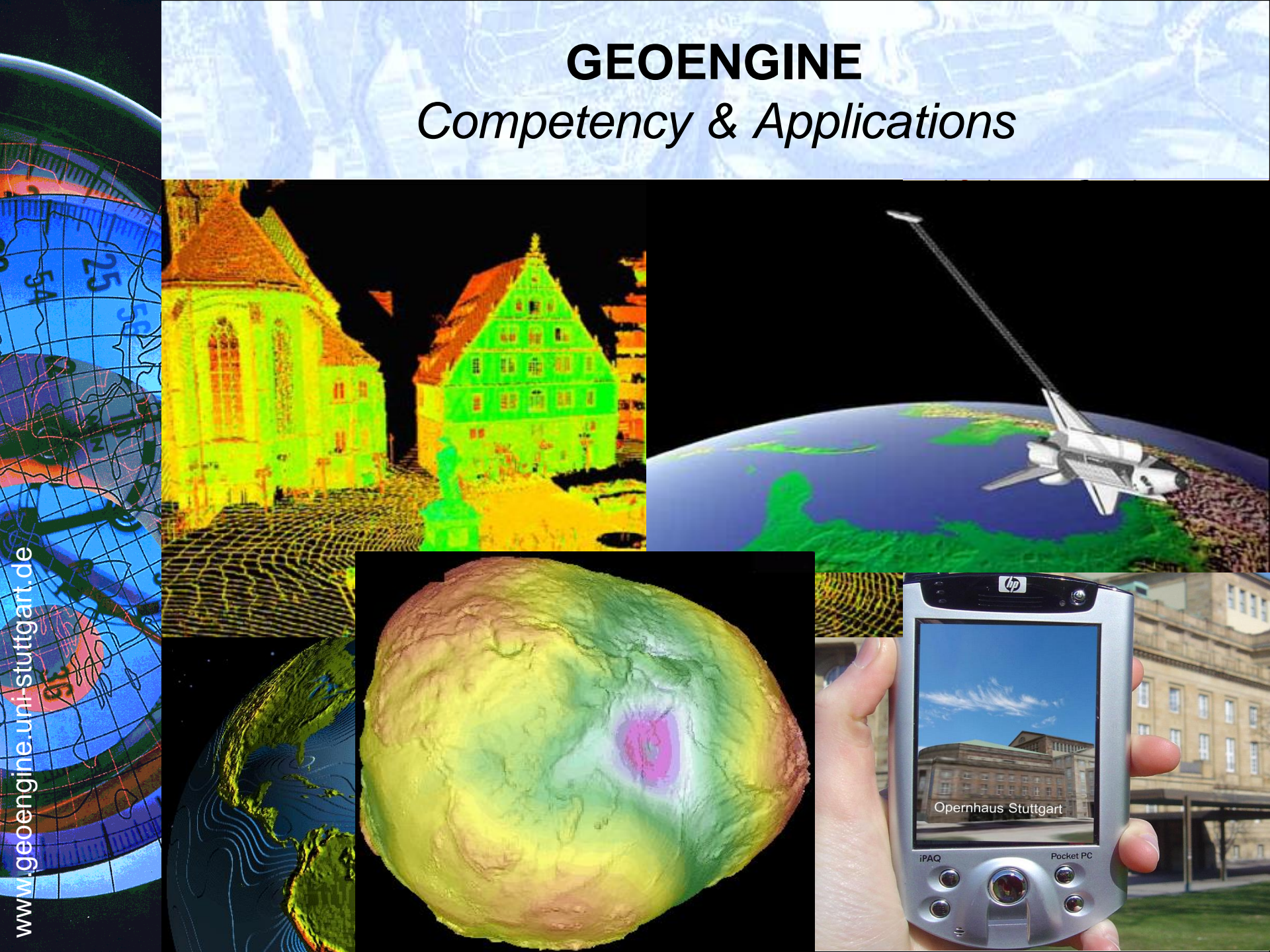
- key discipline for **monitoring the system Earth** in its complex interplay of atmospheric, hydrospheric and solid Earth dynamics
- indispensable prerequisite for **urban planning, traffic management** and sustainable **economic development**
- offers tools for the effective prevention and mitigation of **natural hazards** and **disaster management**



# GEOENGINE

## *Competency & Applications*

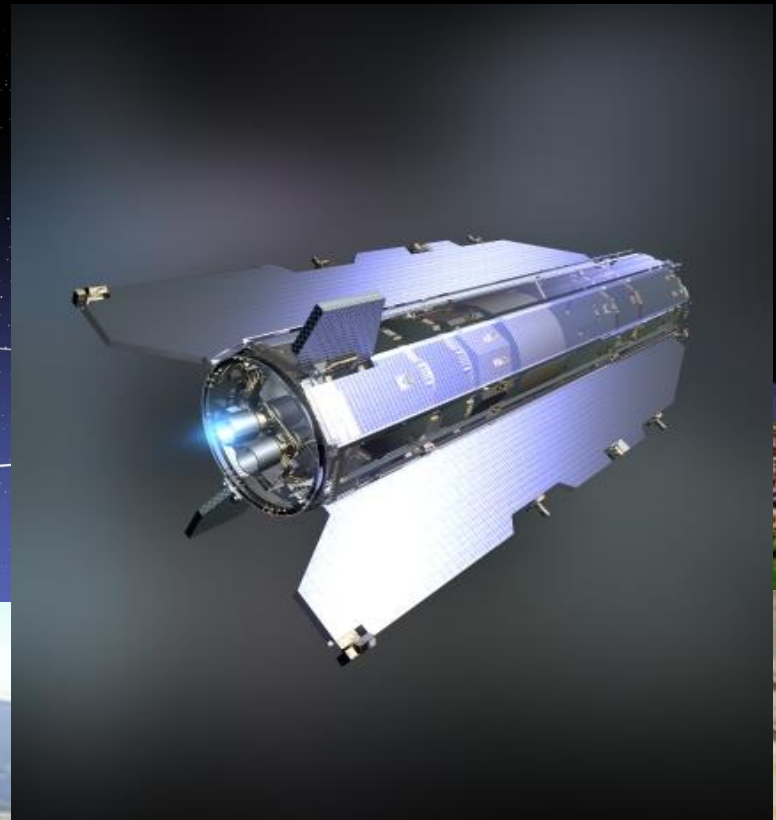
www.geoengine.uni-stuttgart.de





# GEOENGINE

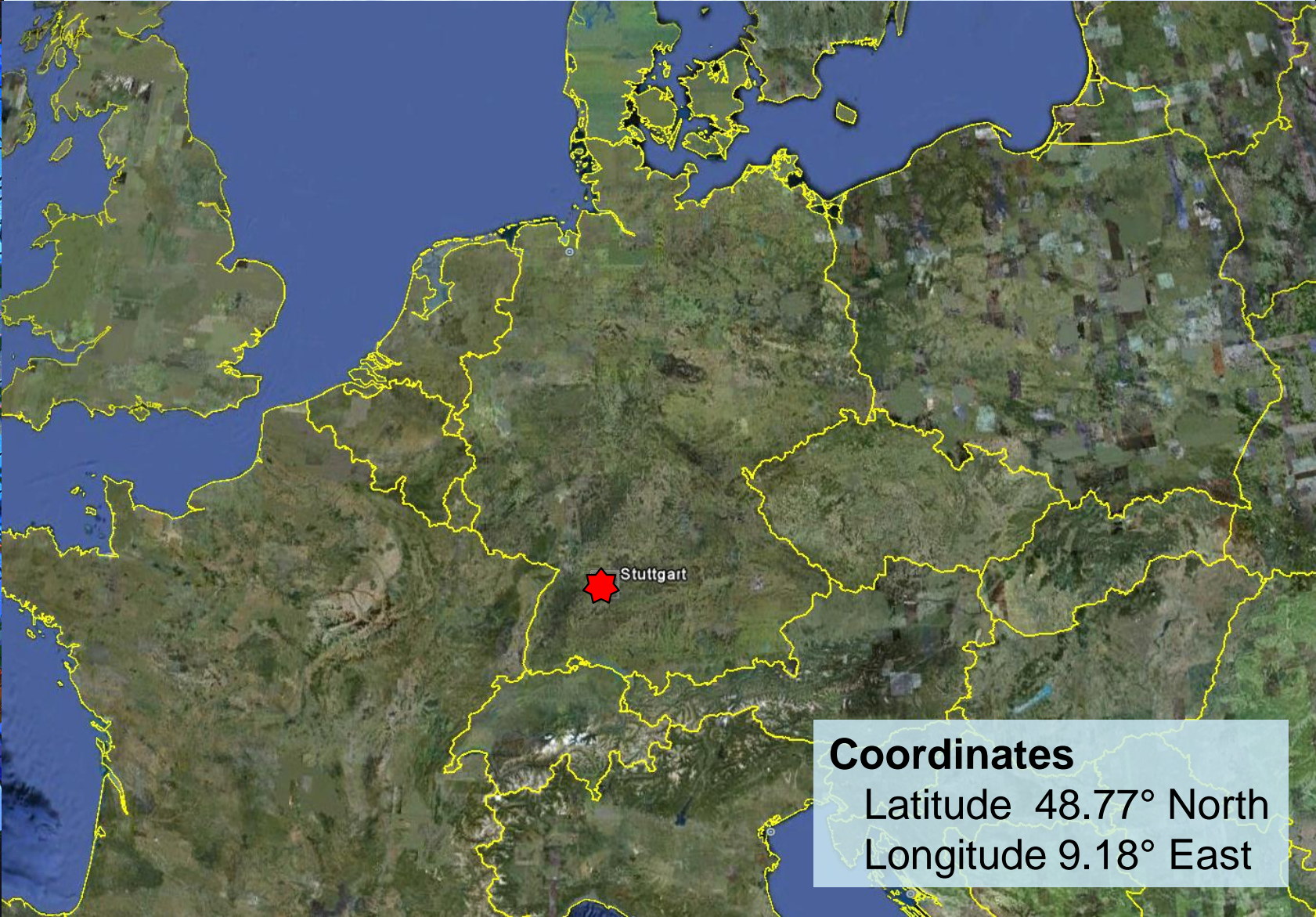
## *Competency & Applications*





# Stuttgart

*Capital of Baden-Württemberg in southern Germany*



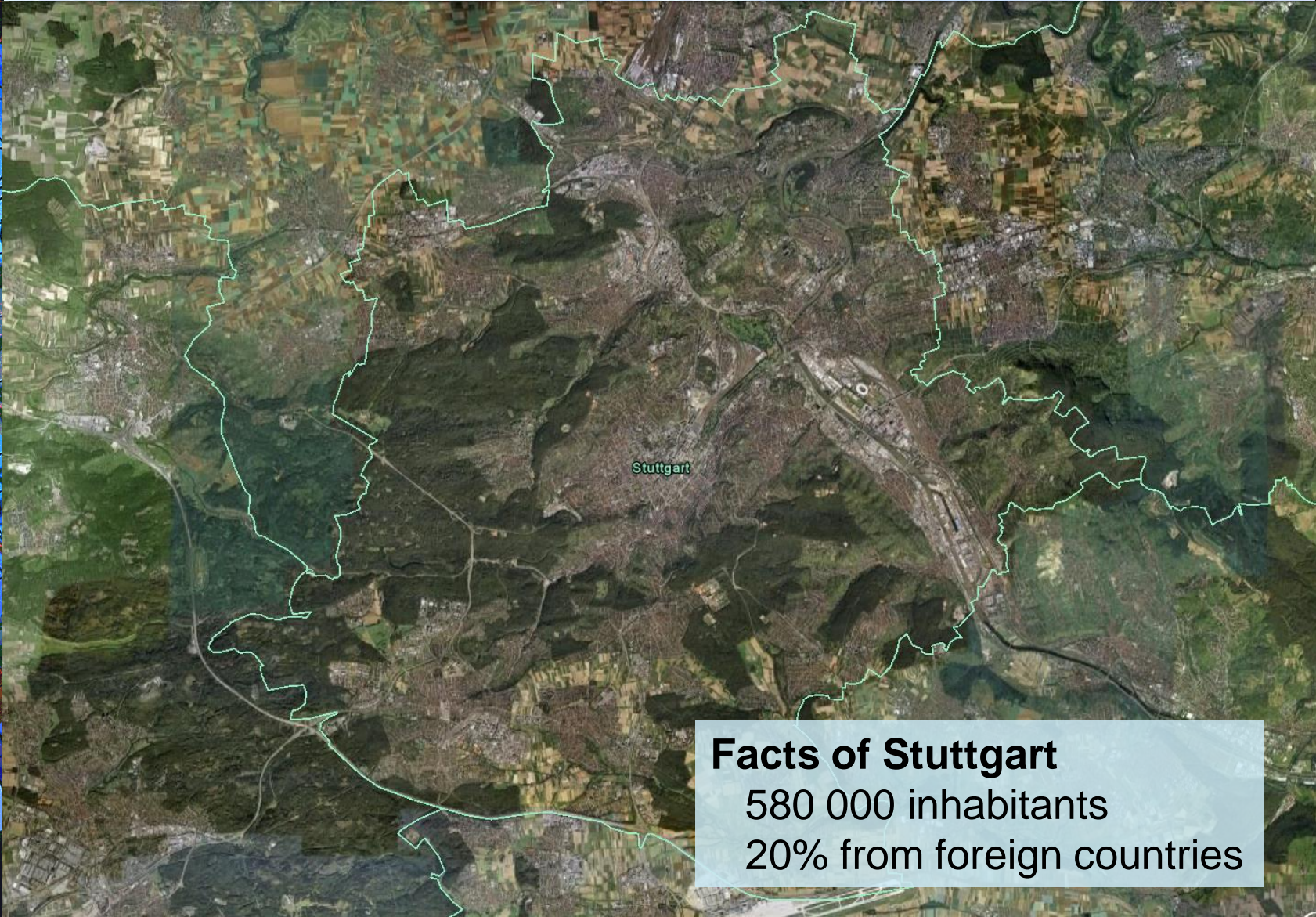
## Coordinates

Latitude 48.77° North  
Longitude 9.18° East



# Stuttgart

*Capital of Baden-Württemberg in southern Germany*



## **Facts of Stuttgart**

580 000 inhabitants

20% from foreign countries



# Stuttgart

*Capital of Baden-Württemberg in southern Germany*





# Stuttgart

*Capital of Baden-Württemberg in southern Germany*





# Universität Stuttgart

## *Campus City Centre*





# Universität Stuttgart

## *Campus Vaihingen*

www.geoengine.uni-stuttgart.de

**Facts Universität Stuttgart**  
founded in 1829  
~ 20 000 students, >20%  
from foreign countries  
10 faculties



# Faculties in Universität Stuttgart

- Faculty 1: Architecture and Urban Planning
- Faculty 2: Civil and Environmental Engineering
- Faculty 3: Chemistry
- Faculty 4: Energy Technology, Process Engineering and Biological Engineering
- Faculty 5: Computer Science, Electrical Engineering and Information Technology
- Faculty 6: Aerospace Engineering and Geodesy**
- Faculty 7: Engineering Design, Production Engineering and Automotive Engineering
- Faculty 8: Mathematics and Physics
- Faculty 9: Humanities
- Faculty 10: Management, Economics and Social Sciences

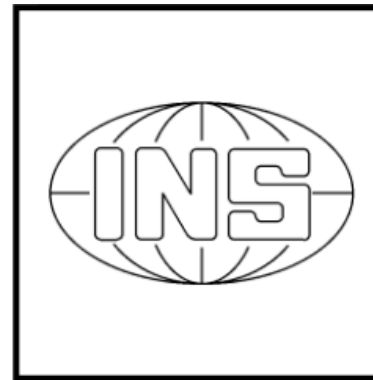


# Faculty of Aerospace Engineering and Geodesy – The Geodesy Part

Institute of Geodesy



Institute of Navigation



Institute for  
Photogrammetry

Institute of Engineering  
Geodesy



# Department of Geodesy & Geoinformatics

GIS  
ifp  
iigs



Geschwister-Scholl-Str. 24D



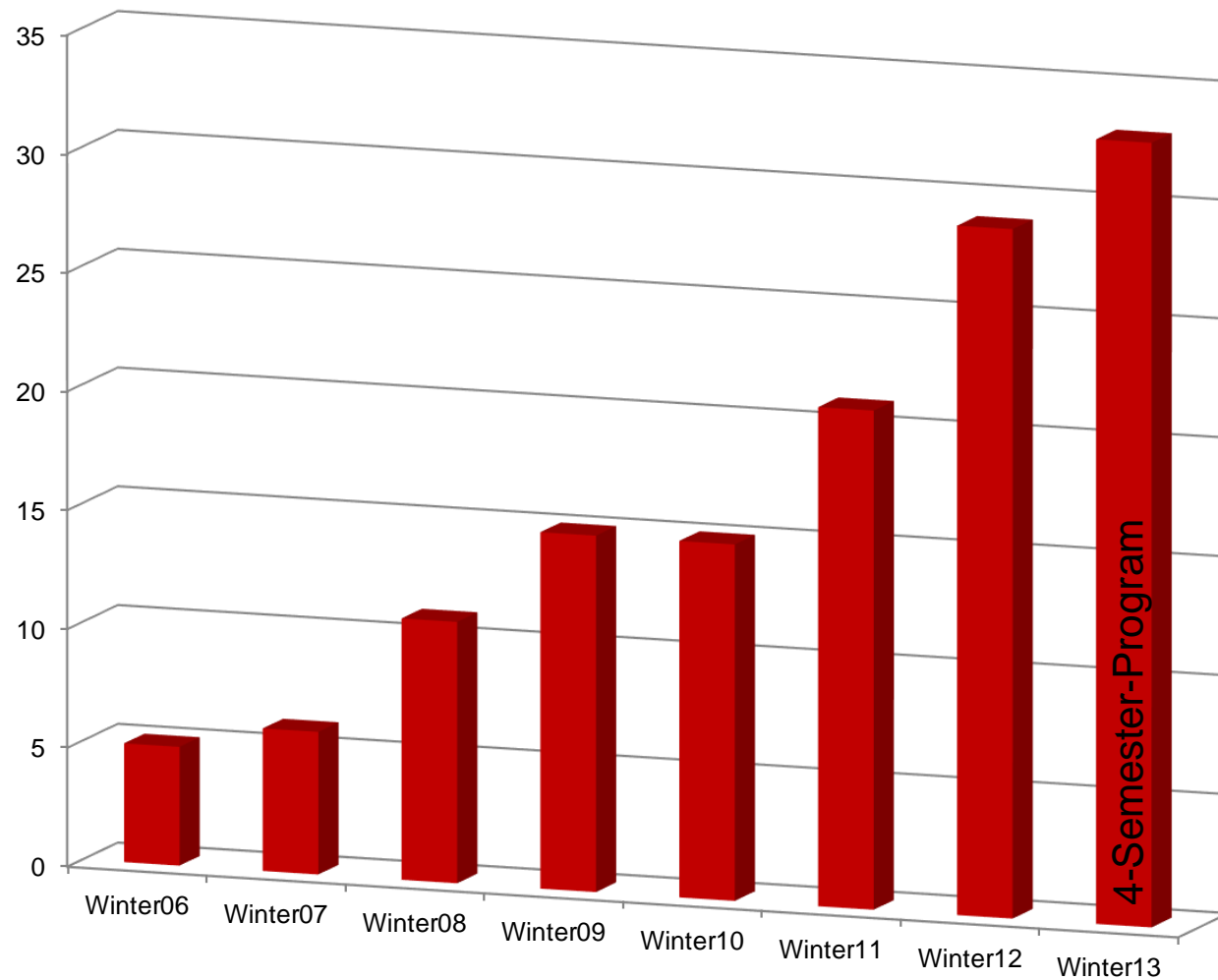
Breitscheidstr. 2

INS



# Number of enrolled students

## *"The history of GEOENGINE"*





# GEOENGINE 2013

## The *eighth* generation - Internationality





# **GEOENGINE Curriculum**

## **1<sup>st</sup> semester – compulsory classes**

**1st semester**  
(winter)  
30 ECTS

**2nd semester**  
(summer)  
30 ECTS

**3rd semester**  
(winter)  
30 ECTS

**1st semester (30 ECTS)**

Advanced Mathematics

Statistical Inference

Signal Processing

Monitoring

Coord. Syst. & Map Projection

Language & Culture



# **GEOENGINE Curriculum**

## **2<sup>nd</sup> semester – compulsory classes**

### **1st semester**

(winter)

30 ECTS

### **2nd semester**

(summer)

30 ECTS

### **3rd semester**

(winter)

30 ECTS



### **2nd semester (30 ECTS)**

Dynamic System Estimation

Kinematic Measurement Syst.

Physical Geodesy

Airborne Data Aquisition

Remote Sensing

Integrated Project



# GEOENGINE Curriculum

## 3<sup>rd</sup> semester – compulsory/elective classes

### 1st semester

(winter)

30 ECTS

### 2nd semester

(summer)

30 ECTS

### 3rd semester

(winter)

30 ECTS

### 3rd semester (30 ECTS)

Geoinformatics

Thematic Cartography

Law

#### **Electives** (2 out of 4)

- . Module Satellite Geodesy
- . Module Navigation
- . Module Geo-Telematics
- . Module Multisensor Integrat.



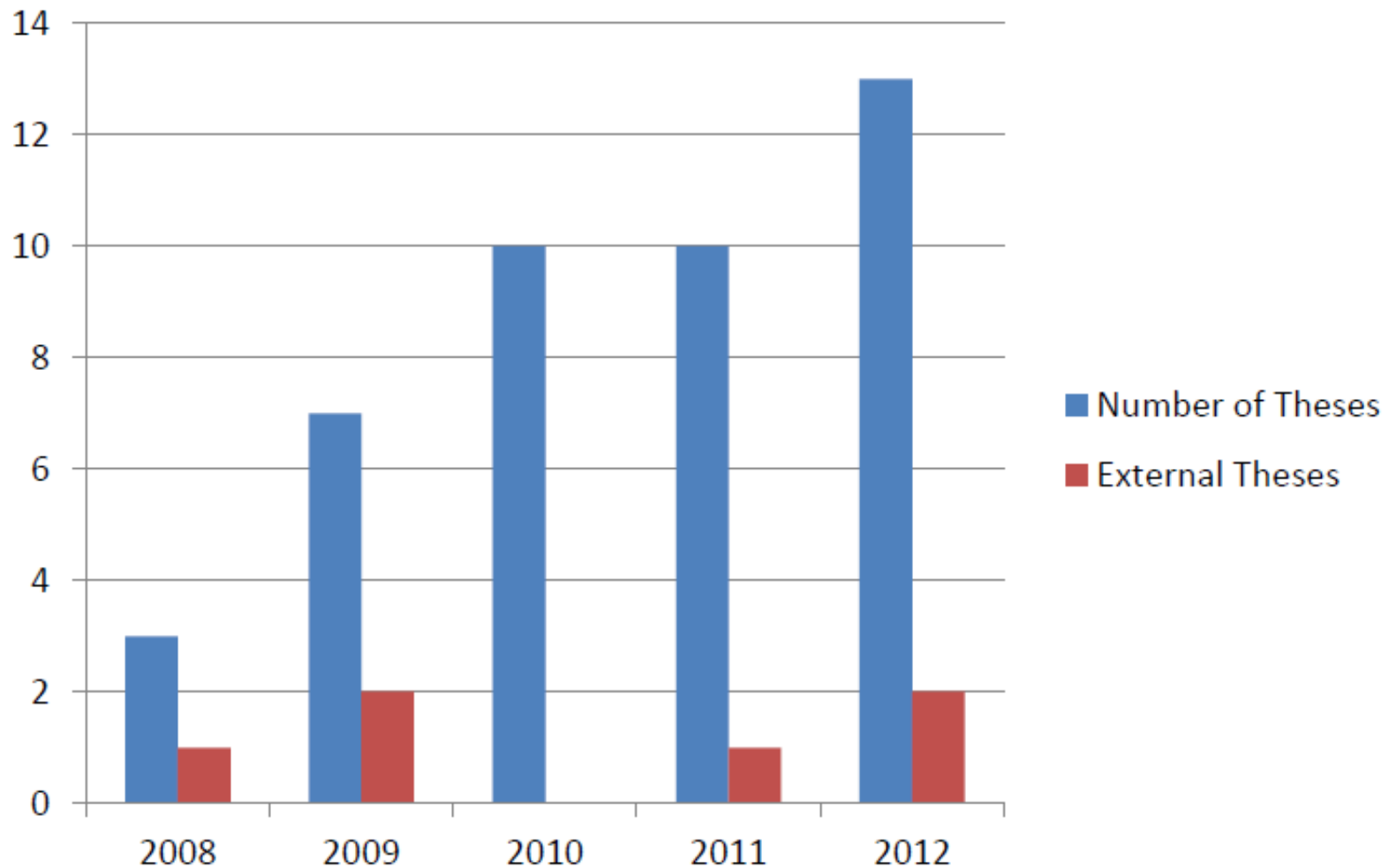
## ➤ ECTS- European Credit Transfer and Accumulation System (欧洲学分互认体系)

- ✓ **Bologna Process** - 1999年欧洲29个国家在意大利的博洛尼亚大学签订的博洛尼亚宣言;
- ✓ 欧洲诸国间在高等教育领域 (本科和硕士) 互相衔接, 以确保各国高等教育标准相当;
- ✓ **ECTS学分** (*Credit Points, Leistungspunkte*) 对应30学时;
- ✓ 按照参加学习人数, 成绩分为7等, 其中最后2等为不及格;
- ✓ 全日制欧洲学生, 每学年(2学期) 应获得60个ECTS学分;
- ✓ 第一阶段180-240 ECTS, 通常授予学士学位;
- ✓ 第二阶段90-120 ECTS, 通常授予硕士学位;
- ✓ 第三阶段, 不受该体系影响, 通常授予博士学位;
- ✓ 德国大学普遍实行6学期共获得180 ECTS学分可授予学士学位!



# GEOENGINE Curriculum

## 4<sup>th</sup> semester – Thesis Research



Theses per Year



# general information

- started winter term 2006/2007
- 24 months (4 semesters, 4 x 30 credits), modularized programme
- Tuition fees 1500 Euro and student service fees of around 120 EUR per semester
- several awards & grants available (industry-sponsored)
- admission
  - 20-30 students/year
  - B.Sc
  - English test
- application deadline: **March 15**



# The technical/ scientific requirements for international students:

- a qualifying Bachelor Degree in Geomatics Engineering
- Successful performance is marked with the average grade "gut" or better ("sehr gut").
- At least two independent recommendation letters are highly recommended.
- a proof of fundamental knowledge of the English language
  - i.e. TOEFL test, min. 550 points (paper-based testing) or 213 points (computer-based) or 80 points (internet- based) or
  - any other proof equivalent to it (i.e. IELTS Band 6.0).



# Integrated Field Work

*2 weeks of practice on the Swabian Alb*





# Integrated Field Work

## *2 weeks of practice on the Swabian Alb*





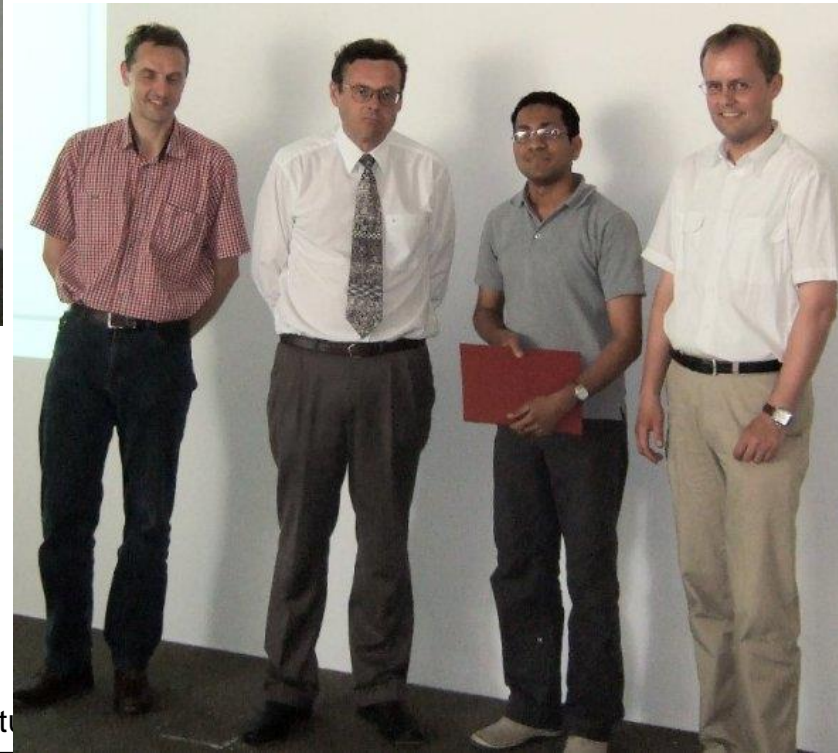
# GEOENGINE Student Scholarships

(for 2nd & 3rd semester students only)



IGI Scholarship  
(1 per semester)

MS Vexcel Imaging Scholarship  
(1 per semester)





# GEOENGINE Student Scholarships 2014

(for 2nd & 3rd semester students only)





# Excursions



Visit Leica Geosystems  
Heerbrugg

Visit Intergraph/ZI  
facilities Aalen





# Life besides study

## Some social aspects



Visit of the Stuttgart Planetarium  
with other international M.Sc.  
Students of Universität Stuttgart



# Life besides study

## Some social aspects

Soccer Tournament  
Summer 2010





# Feedback from Graduates

## ***Student from Poland – graduated in 2009***



Besides the obvious knowledge benefits, the time spent in Stuttgart was a great opportunity to broaden mind. Living in the foreign country, studying with colleagues coming from different continents, establishing friendships with people who brought up in other cultures - had a great influence on my life attitude. I have never experienced and learned so much in such a short period of time.

## ***Student from India – graduated in 2009***



Without any hesitation, I would like to give the credit of all this to GEOENGINE program. I strongly believe that this program at University of Stuttgart was the most logical extension of my academic pursuits and a major step towards achieving my objectives. I can assure you: if you are fascinated by Statistics, Mathematics, Planetary Motion, GPS, Time & Coordinate Systems, Map Projection, etc., studying with International group of students, then this is the program for you.

## ***Student from China – graduated in 2008***



If you are interested in Geoscience; if you have firm foundation of mathematics; if you want to know some interesting professors and doctors; if you would like to challenge yourself, I guess, GEOENGINE would be your right choice.



# Contact information

## University of Stuttgart Geomatics Engineering (GEOENGINE)

**Dr.-Ing. Martin Metzner**

Course Director

c/o Institute of Engineering Geodesy

Geschwister Scholl Str. 24D

D-70174 Stuttgart / Germany

Application Deadline

**March 15**, each year

mail: [info@geoengine.uni-stuttgart.de](mailto:info@geoengine.uni-stuttgart.de)

WWW: [www.geoengine.uni-stuttgart.de](http://www.geoengine.uni-stuttgart.de)





# 2012年5月李晓红校长率武汉大学代表团 访问斯大续签两校战略合作协议





# 2011年10月李斐副校长率武汉大学代表团 访问斯大参加两校合作十年庆典







# ■ 留学的基本要求

- ➡ 强烈的求学欲望;
- ➡ 具备较好的学习和自学能力,  
外语(包括英语和德语)水平;
- ➡ 吃苦的准备;
- ➡ 经济来源 各类奖学金;
- ➡ 生活费用 ~ 500 -700 欧元/月



# ■ 出国准备

■ 心理准备;

■ 行李准备:

参考书和文具用品: 字典,语法及专业工具参考书

■ 吃的方面: 调料, 茶叶, 干货, 菜刀, 电饭锅

■ 衣物: 雨伞, 单风雨衣, 换洗衣物

■ 其它学习和生活必需品:

- ✓ 床单及被罩等
- ✓ 必备的药品
- ✓ 电脑及其软件
- ✓ 手机等



**Herzlich willkommen zum Studieren  
an der Universität Stuttgart !**

**Be welcome to study at Stuttgart University !**

**欢迎同学们来斯图加特大学深造 !**

The End

