





Co-funded by the Erasmus+ Programme of the European Union



# ERASMUS+ Project GeoServices-4-Sustainability





#### **ERASMUS+ KA2**

- Cooperation for Innovation and the Exchange of Good Practices
  - Capacity Building in the field of Higher Education
- Region 6 (...China-3, Thailand-3)
  - GeoS4S: EURO 996.131,-
  - Duration: 3 Years
  - Period: 15-10-2015 14-10-2018





## Background

- Frequent changes in the demands from Geospatial job / career markets
- Companies require 'fit-for-job' professionals
- HEIs face a challenge of producing 'fit-for-job' graduates in response to the employment requirements





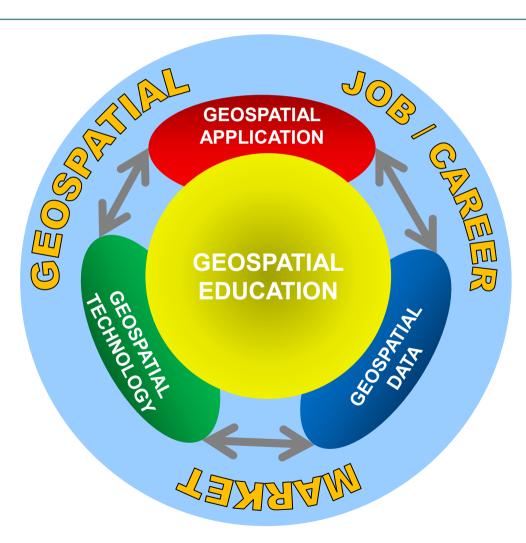
## **Geospatial Education**

- 3 main driving forces for Geospatial education:
  - Geospatial Application fields / Domains
  - Geospatial Data
  - Geospatial Technologies / Tools
- 3 driving forces have multilateral and reciprocal interaction, changes in one drive changes in the other two





## GeoS4S: Background



**Z**GIS

Interfakultärer FACHBEREICH GEOINFORMATIK

Interfaculty DEPARTMENT OF GEOINFORMATICS



## GeoS4S: Objectives

- Design curricular structure / syllabus of ,add-on' modules
- Develop problem-oriented and case-study based teaching / learning materials
- Give 'hands-on' practical training of working with the case studies as well as in delivering newly developed learning/teaching materials
- Integrate the materials in an e-Learning platform for free and open access worldwide
- Set-up a framework for awarding 'International Qualification Certificate' to those completing at least 30 ECTS across all modules





## **Target Groups**

- University faculty members
- Graduate students





## **Project Partners - EU**

#### 4 partners

- University of Salzburg (PLUS), Austria -Coordinator
- VU University of Amsterdam (VU), Netherlands
- Eberswalde University of Sustainable Development (HNEE), Germany
- Palacky University (PU), Olomouc, Czech Republic





## **Project Partners - China**

#### 3 partners

- Nanjing Normal University, Nanjing (NJNU)
- Wuhan University, Wuhan (WHU)
- Xinjiang Institute of Ecology and Geography Chinese Academy of Sciences, Urumqi (XIEG-CAS)





# **Project Partners - Thailand**

#### 3 partners

- Chiang Mai University (CMU)
- Asian Institute of Technology (AIT)
- King Mongkut's University of Technology Thonburi (KMUTT)





#### **Associate Partners**

#### Serve an important role, BUT not funded

- UNIGIS International, Amsterdam, Netherlands (UNIGIS)
- Geospatial Media and Communications, Amsterdam, Netherlands (GM&C)
- Geoinformatics International, Pathumthani, Thailand (GeoInfo)





## **Major Tasks**

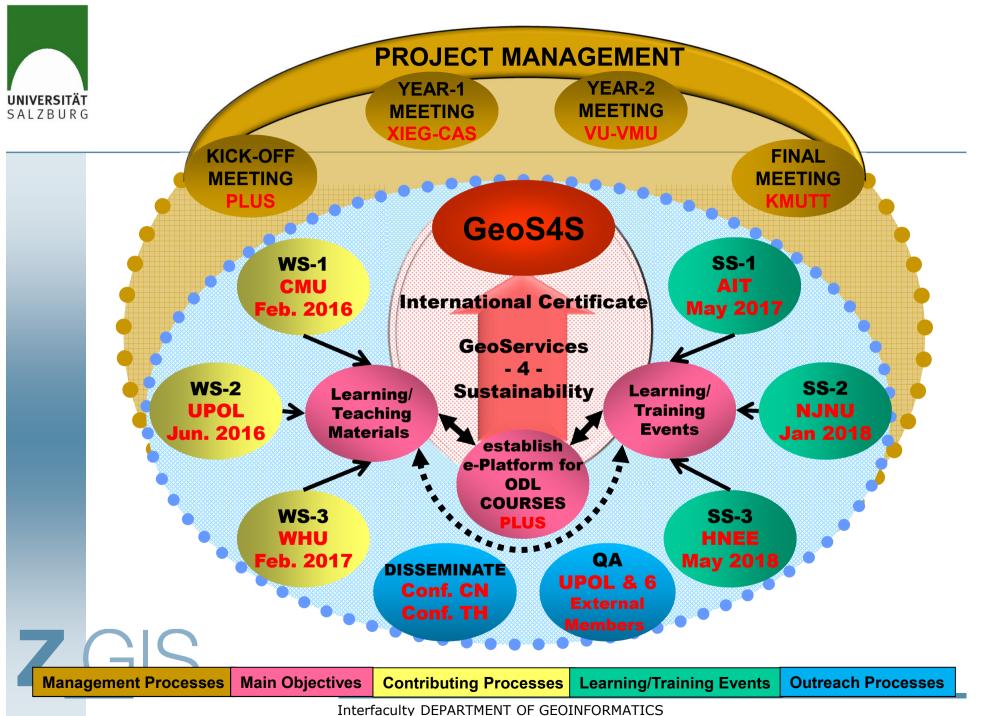
#### TASK-1

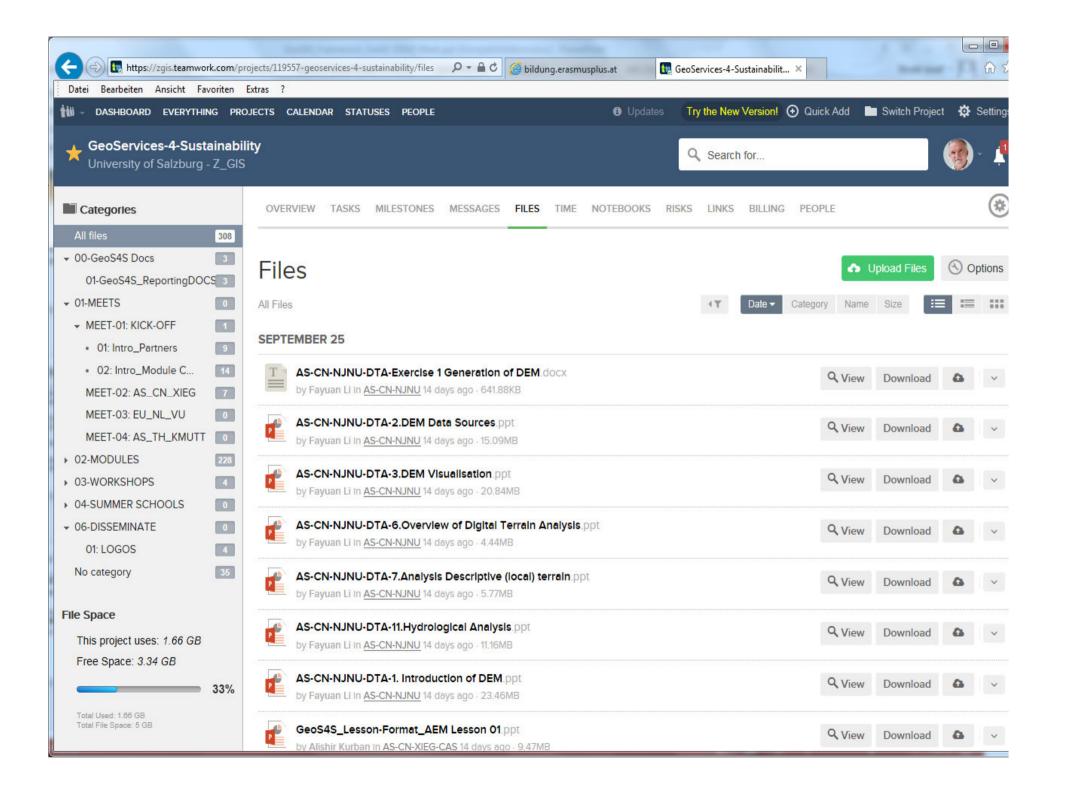
 Develop Learning/Teaching Materials of 20 modules covering technology, data, application

#### TASK-2

- Organise Learning / Training Events for testing the newly developed Learning/ Teaching Materials of the modules.
  - 3 Summer Schools, one each at AIT, HNEE and NJNU









## **Kick-Off Meeting**

## University of Salzburg, Austria 30 Oct. - 1 Nov. 2015

- Introductions among partners
- Overview of project framework, objectives, tasks, working procedures, communications, financial provisions, monitoring etc.
- Signing 'Partnership Agreements'
- Preparing for WS-1 at Chiang Mai University in February, 2016





### Kick-Off Meeting....

- Disseminate initial information on website (<u>www.zgis.net/geos4s</u>)
- Use 'Teamwork' (<a href="https://zgis.teamwork.com">https://zgis.teamwork.com</a>)
  as platform for internal communications and sharing documents / deliverables
- Social media, e.g. facebook, not important until the teaching/learning material are ready for wider dissemination
- e-Learning platform will be decided later





## WS-1: 21-25 Feb. 2016, CMU

- International Faculty Development Workshop on 'Module Structure and Syllabi Design'
  - Facilitating self-learning process of students
  - Each module of 6 ECTS i.e. 150-180 Hrs. Of student learning effort
    - ~15 Lessons
    - 1 Core Learning / Teaching presentation
      - 20-25 Slides, Key words / graphics on main slide and detailed description in the notes section
    - 4-6 exercises for self-assessment by the students
    - 4-6 assignments for evaluation and grading by the teacher / instructor





## WS-2: 19-23 Jun. 2016, UPOL

- International Faculty Development Workshop on 'Module Structure and Content Design'
- All draft module syllabi ready <a>\infty\$</a>







- **Present and Discuss:** 
  - the proposed lessons and contents
    - Define lesson level 2-3 learning objectives matching the lesson title and module objectives
    - Include keywords of main content
    - Design exercises and assignments to assess the achievement of the learning outcomes





### Yr-1: 22-27 Sep. 2016, XIEG

5-6 Draft Lessons of 'most' Modules

Ready © © ©







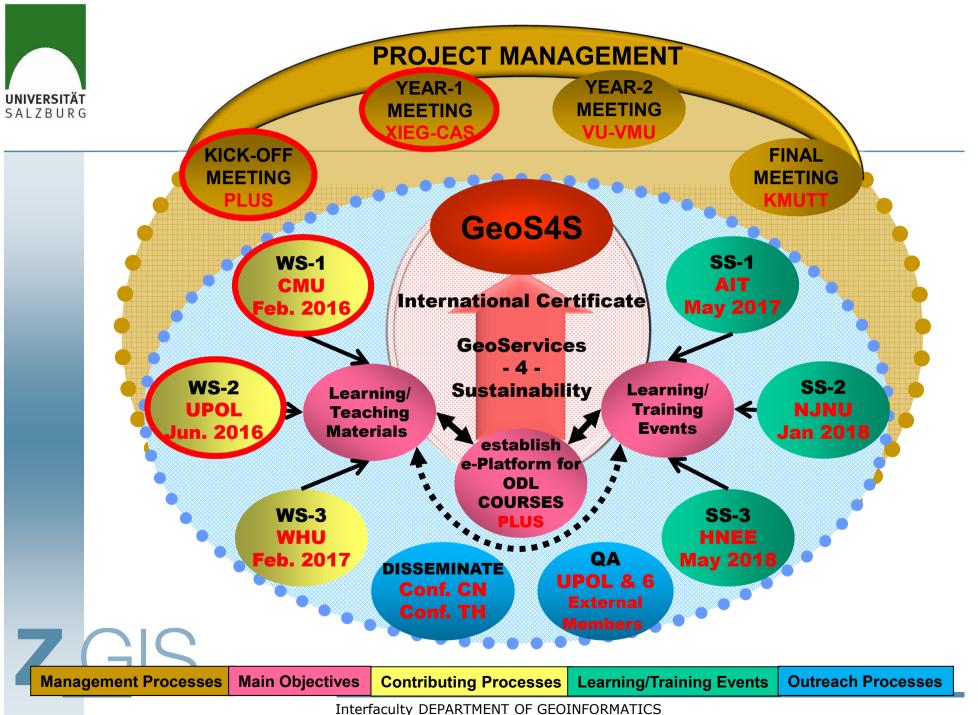
- Present and Discuss:
  - Year-1 Progress
  - Expenditure Documents
    - Honorarium, Travels, Time Sheets, ???
  - Module Status
    - Lessons, Exercises and Assignments, ???





## GeoS-4-S: Module Lessons STATUS 24.09.2016

	Modules (ECTS = 6)	PLUS	UPOL	HNEE	VU-VMU	XIEG-CAS	NJNU	WHU	KMUTT	CMU	AIT
1	OpenGIS for SDI	6		Peter	Niels vM				Sally		
2	Real Time App Design	4			Niels vM			Wan			
3	Geo-Visualization		6				Sheng		Perry		
4	Geo Application Development		6	Frank				Du	Sally		Nitin
5	Advanced Remote Sensing Methods			7		Alishir	LiF				
6	Forest Biomass and Carbon Stock Quantification			4		Alishir			Perry	Chanida	
7	GeoDesign		Jerry		5			Du			
8	Incident and Crisis Management				6						Nitin
9	Arid Ecosystem Management			Peter		3+4					
10	Climate Change and Adaptation	Shah				6/7			Perry	Arisara	Salin
11	Digital Terrain Analysis	JS					6		Sally		
12	3 D City Modelling	Mariana	Vit		Niels vM		6				
13	Smart City	Mariana	Jerry					6			Nitin
14	GIS for Transportation	Shah					Zhang	6			
15	Food Security and Sustainability	Shah				Li			6		
16	Community and Participatory GIS				Niels vM			Lin	7		
17	Commercial Plantation Potential Modelling??			Frank		Li				6	
18	Disaster Risk Management				Bart			Lin		6	Salin
19	HealthGIS				Bart		Sheng				5
20	Geoinformatics for Coastal and Marine Resources Management	Shah				Li					5
	LEAD										
	Contribute				O1111 O111						





## Year-1: 21-25 Feb. 2016, CMU

International Faculty Development Workshop on 'Module Structure and Syllabi Design'

- Present and Discuss:
  - the proposed lessons and contents
    - Number of lessons, titles, learning objectives etc.
  - balance/workload of Exercises and Assignments
  - overlap with other modules





## Project Meeting @CAS Urumqi September 2016



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