



Development of Advanced Education in Geoinformatics for Enabling Sustainable Development in Uzbekistan

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Outline

- **Background**
- **GE-UZ project information**
- **GE-UZ project aims and objectives**
- **Development activities**
- **Capacity building**
- **Creation educational environment**
- **Dissemination**

Background

- **Geoinformatics education in Uzbekistan**

Unavailable degree program in Geoinformatics, only selected courses are available.
Need for qualified graduates by growing needs.

- **Facing challenges**

i.e. sustainable land and water resources management, environmental monitoring, infrastructure development etc.

- **Tempus program**

Tempus is the European Union's program which supports the modernization of higher education in the Partner Countries*, mainly through university cooperation projects.



* Partner Countries of Eastern Europe, Central Asia, the Western Balkans and the Mediterranean region

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Project details

Name:	Geoinformatics: enabling sustainable development in Uzbekistan (GE-UZ)
Type:	Curricula development
Duration:	36 months
Start:	15 October 2012
Finalization:	15 October 2015
Budget:	€ 847 668,20 (Tempus funded) + € 95 322,80 (co-financing) = 942 991 Euro



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GE-UZ Partners

Coordinator

P1 University of West Hungary (UWH), Sopron, HU

Uzbekistan

P2 National University of Uzbekistan named after Mirzo Ulug'bek (NUU), Tashkent, UZ

P3 Karakalpak State University (KSU) Nukus, UZ

P4 Tashkent Architecture Building Institute (TABI) Tashkent, UZ

P5 Tashkent Institute of Irrigation and Melioration (TIIM) Tashkent, UZ

P6 Ministry of Higher and Secondary Specialized Education (MHSSE) Tashkent, UZ

P7 National Center of Geodesy and Cartography (NCGC) Tashkent, UZ

P8 State Unitary Enterprise "Geoinformkadastr" (Geoinformkadastr) Tashkent, UZ

EU

P9 Paris-Lodron Universität Salzburg (PLUS) Salzburg, AT

P10 Royal Institute of Technology (KTH) Stockholm, SE

P11 University of Greenwich (UoG) London, UK



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GE-UZ Aims

Wider aim:

- To ensure that UZ partner universities have the capacity to offer a Master programme in Geoinformatics that meet Bologna process and international academic quality.

Project aim:

- To introduce a new Master program in Geoinformatics by September 2015



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GE-UZ Objectives

Objectives:

- Develop a successful MSc in Geoinformatics
- Ensure qualified staff for course delivery
- Build a sustainable educational network
- Support Uzbekistan in sustainable development

Outcomes

- Sustainable MSc program in Geoinformatics
- Developed learning materials
- Developed learning environment
- Trained teaching staff
- Built a sustainable educational network



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Develop a successful MSc in Geoinformatics

WP 2. Curriculum development (DEV)

- 2.1 As-is survey, needs analysis
- 2.2 Bologna conform curriculum
- 2.3 Accredited and licensed courses

WP 3. Development of learning materials (DEV)

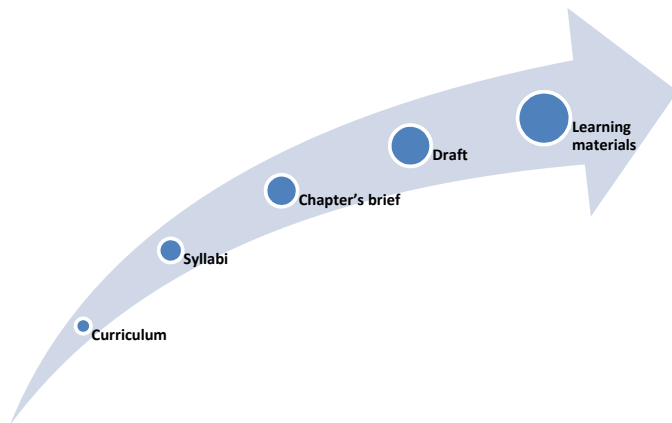
- 3.1 Guidelines
- 3.2 Course syllabi in English
- 3.3 8 modules in Uzbek
- 3.4 Review
- 3.5 Final draft
- 3.6 Feedback from the pilot course
- 3.7 8 core modules in Uzbek and Russian

WP 5. Development of learning environment (DEV)

- 5.1 Learning Management System (LMS)
- 5.2 Installation and operation of 4 computer labs
- 5.3 Use of photogrammetric workstation, laserscanner

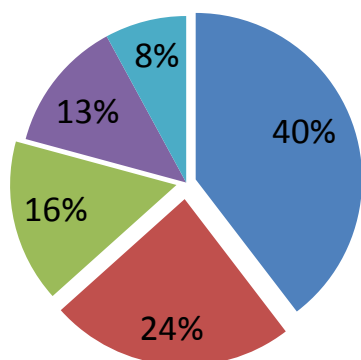
WP 7. Quality Management (QPLN)

- 7.1 Quality Manual assuring project quality
- 7.2 Guidelines for Quality Assurance of learning material development
- 7.3 Guidelines for Quality Assurance of course delivery
- 7.4 External Evaluation Report (EER)



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Work package groups



- **Development** **DEV:** The substance of the work planned including production, testing etc;
- **Management** **MNGT:** Activities ensuring the sound management of the project.
- **Dissemination** **DISS:** Provision of information and awareness raising about the project and its achievements;
- **Quality Plan** **QPLN:** Quality control and monitoring, internal and external evaluation;
- **Exploitation of results** **EXP:** Sustainability of the project results used by end-beneficiaries during and beyond the project lifetime;



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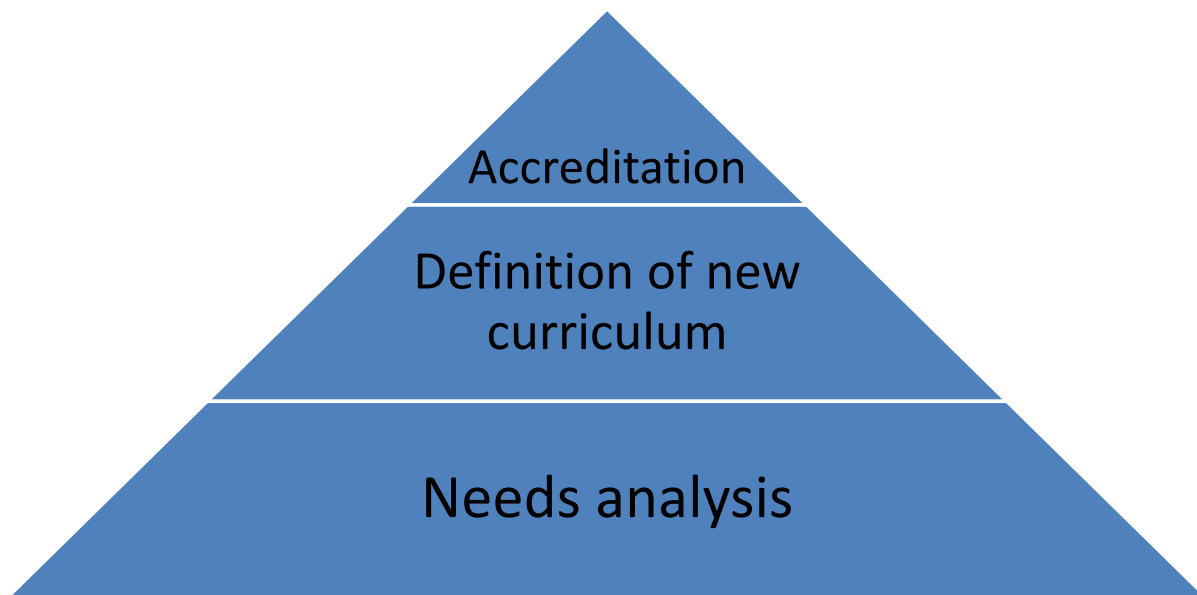
Work packages

Management	Development
WP 1. Project Management	<div style="background-color: #bbdefb; padding: 5px; border: 1px solid #000; margin-bottom: 5px;">WP 2. Curriculum development</div> WP 3. Development of learning materials WP 4. Train-the-teachers WP 5. Development of learning environment WP 6. Educational network development
Quality Plan	
WP 7. Quality Management	
Exploitation of Results	
WP 8. Pilot course implementation	
Dissemination	
WP 9. Dissemination and awareness	



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WP 2. Curriculum development



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WP 3. Development of learning materials

- Geoinformation Systems and Science
- Remote Sensing and Photogrammetry
- Geodatabases and Distributed Architectures
- Data Acquisition and Data Integration
- Cartography and Geovisualization
- Spatial Analysis
- Spatial Data Models
- Project Management and Organisation



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WP 4. Train-the-teachers

What	When	Where	Why
Workshop on educational methodology and ICT	June 2013 – 1 week	Tashkent, Uzbekistan	To train 32 teachers
Studies in Data Acquisition and GeoDBMS	October 2013 – 1 month	Székesfehérvár, Hungary	To train 16 teachers
Studies in Spatial Analyses	November 2013 – 1 month	Salzburg, Austria	To train 16 teachers
Field training on use of new technologies	March – April 2014 2 weeks	Tashkent, Uzbekistan	To train 16 teachers and students
Study tour on Quality Assurance	~ April 2015 – 1 week	London, UK	To train 16 teaching and administrative staff



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Ensure qualified staff for course delivery



Workshop on educational methodology and ICT (June 2013)



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Ensure qualified staff for course delivery



Training course in University of West Hungary (October 2013)



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Ensure qualified staff for course delivery



Training course in Paris Lodron University of Salzburg (November 2013)



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Ensure qualified staff for course delivery



Field training on use of new technologies (March - April 2014)



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WP 5. Development of learning environment



Геоинформатика: Ўзбекистонда барқарор
ривожланишга эришишни таъминлаш



Широкоформатный сканер



Плоттер HP Designjet 500



Handheld GPS Trimble Juno 3B

Тахеометр Trimble M3 и
S3 5" Servo



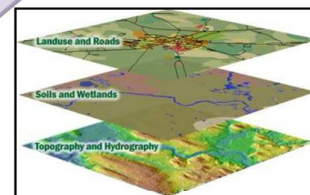
GNSS Rover and
Base Station
Trimble R4



Лазерный сканер Trimble TX5



Рабочая станция для обработки геодезических,
лазерных съемок и космических снимков



Получение высококачественных
результатов



Компьютерный класс, программным обеспечением ArcGIS
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WP 5. Development of learning environment WP 6. Educational network development

Group for Geoinformatics education in CA on LinkedIn platform

Educational platform of GE-UZ based on Moodle

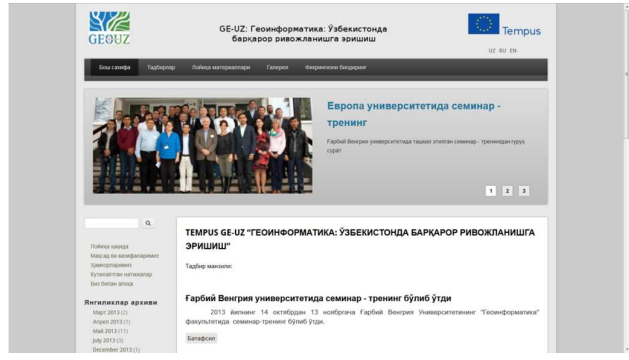
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WP 9. Dissemination and awareness



Main project website:
www.ge-uz.eu



National project website:
www.geoinformatics.uz

Project newsletters



GIS in Central Asia Conferences

The GISCA series of conferences aims at building a Central Asian network of GIS professionals supporting the sustained development of this region into an environmentally friendly, secure and prosperous society.

Next GISCA'15 in Uzbekistan. Linked with GE-UZ final event.

GISCA 2015	Tashkent
GISCA 2014	Urumqi
GISCA 2013	Almaty
GISCA 2012	Bishkek
GISCA 2011	Almaty
GISCA 2010	Bishkek
GISCA 2009	Bishkek
GISCA 2008	Bishkek
GISCA 2005	Bishkek



Thank you!



www.ge-uz.eu
www.geoinformatics.uz



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