

Practice oriented Master Programmes in Engineering in RU, UA, UZ



Bauman Moscow State Technical University

## Coordination Meeting

6th September 2011, Moscow



European Commission  
**TEMPUS**



## Consortium as a whole



### EU countries:

3 universities, 1 spin-off enterprise

### Partner countries (Russian Federation, Ukraine, Uzbekistan):

9 universities, technical universities association, 3 chambers of commerce,  
3 governmental organizations (Min. HE)

EU Consortium Member

**Technische Universität Berlin**



7 Faculties

28.000 students

72 study-programmes

Partners in 35 countries

Total budget 360 Mio €

Research funding 145 Mio € (40%)  
Third party



## EU Consortium Member **Vilnius Gediminas Technical University**



Established on September 1, 1956 Vilnius Gediminas Technical University (VGTU) comprises 8 faculties: Environmental Engineering, Architecture, Electronics, Fundamental Sciences, Mechanics, Civil Engineering, Transport Engineering, Business Management and Antanas Gustaitis Aviation Institute with the total number of 49 academic departments. There is also an International Study Centre, Centre for Continuing Education, 7 research institutes, 2 research centres, 14 research laboratories, etc. Number of the teaching staff is 876 and over 250 administrative staff.

### Subjects of Master Program

#### *Environmental Protection Management and Clean Production*

<b>1 semester</b>	Environmental Technologies Assessment of the Environment Environmental Effects Modelling of Environment Processes Cleaner Production
<b>2 semester</b>	Environmental Policy, Law and Economy Environmental Management Waste Management Environmental Management and Accounting Engineering Management
<b>3 semester</b>	Atmosphere Controlling and Protection Eco-design Chemical Control and Management Environmental Auditing Physical Environment Pollution
<b>4 semester</b>	Research work

DEPARTMENT OF ENVIRONMENTAL PROTECTION



**BALTECH**  
**Master program**

EU Consortium Member

## Lessius University

## Engineering (Ba + Ma)



Campus DeNayer  
Engineering – Technology  
at *St-Katelijne Waver*

### ☐ Programmes

- Construction Engineering
- Electro-Mechanical Engineering
- Biochemical Engineering
- Chemical Engineering
- Engineering in Electronics-ICT
- Engineering in Electro-technology
- Land Surveying
- Welding Engineering (2<sup>nd</sup> Ma)
- Sustainable Engineering (English)

### ☐ Research

- Embedded systems
- Design and production
- Waste water treatment
- Renewable energy systems



# PROMENG

Practice oriented Master Programmes in Engineering in RU, UA, UZ

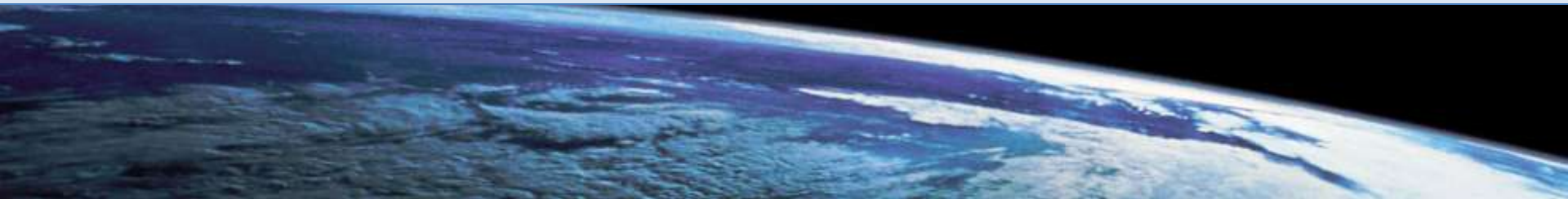


EU Consortium Member

## ECM-Office

ECM Office is an independent company, established as a spin-off from the Aerospace Institute at the Technical University of Berlin to commercialize the results of its innovative small satellite technologies.

As a partner of the Technical University of Berlin the company provides and supports international research and education activities. The company develops new mechanism for stimulating the cooperation between universities and enterprises, takes part at European Union education and research programs.



### Thematic fields:

Space, environment, infrastructure, training and education





## Projects of ECM-Office & TU-Berlin

**Neues Curriculum in Raumfahrttechnik**  
in Taschkents Staatlicher Technischer Universität, Usbekistan

financed by Tempus



GD Bildung und Kultur

**TEMPUS**

**~ NCR ~**  
[www.ncr-tgai.eu](http://www.ncr-tgai.eu)



Совместный европейский проект  
внедрения новой специальности по космической технике  
в Ташкентском государственном техническом университете



## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



The poster features a blue border and a background image of a galaxy. On the left is the European Commission TEMPUS logo. The main title is '„Curricula Reform in Space Technology in Kazakhstan, Russia, Ukraine“' with the subtitle 'JOINT PROJECT CURRICULUM DEVELOPMENT'. Below this, it says 'financed by Tempus' and 'CRIST www.crist-kru.eu'. At the bottom, there are six flags: Germany, Belgium, the Netherlands, Kazakhstan, Russia, and Ukraine.

European Commission  
**TEMPUS**

„Curricula Reform in Space Technology  
in Kazakhstan, Russia, Ukraine“  
JOINT PROJECT CURRICULUM DEVELOPMENT

financed by Tempus

**CRIST**  
[www.crist-kru.eu](http://www.crist-kru.eu)

Germany, Belgium, Netherlands, Kazakhstan, Russia, Ukraine



## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



**MANECA**  
Erasmus Mundus

**Mobility Academic Network  
between EU and Central Asia**

Cooperation and mobility in the area of higher education

Thematic fields

- Engineering and Technology
  - Business and Management Studies
  - Education and Teacher Training

[www.maneca-em.org](http://www.maneca-em.org)

European Commission  
**ERASMUS  
MUNDUS**

Flags of participating countries: Germany, Poland, Bulgaria, Czech Republic, Kazakhstan, Kyrgyzstan, Hungary, Uzbekistan, and Azerbaijan.

## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



GEO capacity building  
initiative in Central Asia



EUROPEAN COMMISSION  
European Research Area



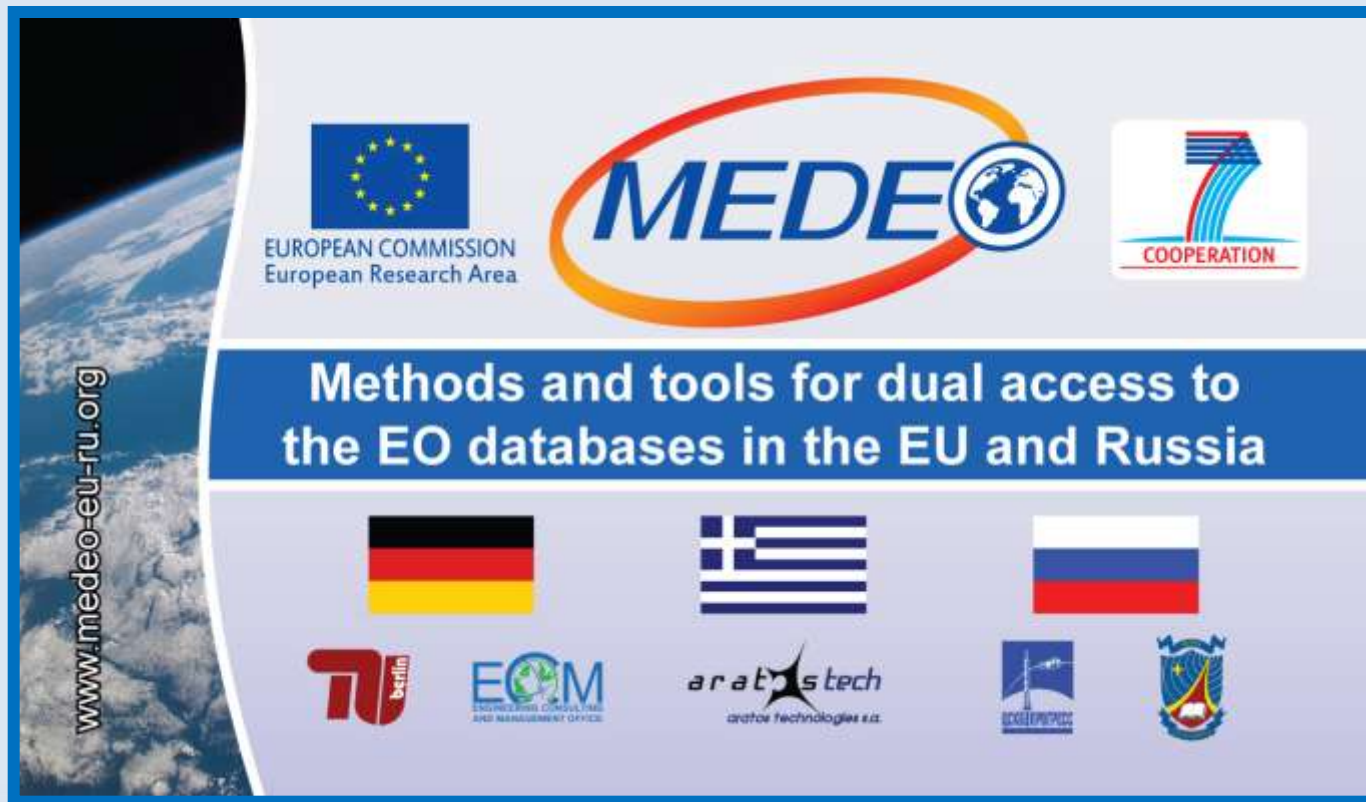
COOPERATION

[www.geo-seoca.net](http://www.geo-seoca.net)



## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



The banner features a background image of Earth from space. On the left, the URL [www.medeo-eu-ru.org](http://www.medeo-eu-ru.org) is written vertically. The top section includes the European Commission logo, the text 'EUROPEAN COMMISSION European Research Area', the 'MEDEO' logo with a globe icon, and the '7 COOPERATION' logo. The middle section has a blue bar with the text 'Methods and tools for dual access to the EO databases in the EU and Russia'. The bottom section displays the flags of Germany, Greece, and Russia, along with logos for TU Berlin, ECM (Engineering Consulting and Management Office), aratos tech (aratos technologies s.r.l.), and two other institutional logos.



## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



The banner for the POP DAT project features a row of six national flags at the top: Germany, Hungary, France, Hungary, Poland, and Ukraine. Below the flags is a large blue globe icon with the text "POP DAT" in bold black letters. To the right of the globe, the text "Problem-oriented Processing and Database Creation for Ionosphere Exploration" is displayed in a serif font, followed by the website "www.popdat.org" in a smaller font. At the bottom of the banner, there is a row of logos for the participating institutions: TU Berlin, ECM Engineering Consulting and Management Office, Bulgarian Academy of Sciences, NOVELTIS, IKD, LC ISE, COOPERATION, and the European Commission European Research Area.

## Projects of ECM-Office & TU-Berlin

Currently, there are six projects running under management-support of ECM-Office...



The banner features the PROMENG logo at the top. Below it, on the left, is the European Commission TEMPUS logo. To the right of the logo, the text reads: "Practice oriented Master Programmes in Engineering in Russia, Ukraine, Uzbekistan", "financed by Tempus", and "Joint Project Curricula Reform". Below this text is the website "www.promeng.eu". At the bottom of the banner are six flags: Germany, Belgium, Bulgaria, Russia, Ukraine, and Turkey.

## PROMENG's main goals

### Four new generic curricula

- ✓ Applied informatics and digital data transmission systems
- ✓ CAD/CAM/CAE: Pro Engineer, ECAD electronic design ALTIUM
- ✓ Quality Engineering incl. ISO 9000 family
- ✓ Environmental Management and Engineering

### New supporting infrastructure

- ✓ PC Pool for CAD/CAM/CAE & data transmission systems
- ✓ laboratory for Digital wireless data transmission

### Five new modules

- ✓ Problem solving for Engineers- MTRIZ
- ✓ Modelling of production systems
- ✓ Re-Engineering
- ✓ Audit and certification according ISO
- ✓ Soft skills for Engineers

Project duration: 3 years

Network "ELM" offices (Engineers in Labor Market) with stakeholders support



[www.promeng.eu](http://www.promeng.eu)

Welcome on the projects internet site!

Information on the project, inclusive project activities and meetings, project presentations, useful information, the agreement of PROMENG-Plus for stakeholders and online teaching material.



## Online teaching material

### E-Books

- Business Information - Management
- Business Information - Systems
- Manufacturing Processes and Materials Engineering

### Soft Skills

- Advanced Communication Skills
- Dealing with Conflict and Complaints
- Effective Communication Skills
- 333 Skills for Students at Job
- Influencing and Persuasion Skills
- Knowledge Management
- Leadership Skills
- Performance Management
- Personal Confidence and Motivation
- Successful Time Management
- Thinking Strategically

### Restricted downloads

#### Download as PDF

- Data Interchange
- Support learning materials for "Cable Transmission" (TU JGP)
- Environmental Management and Engineering
- Problem solving for Engineers
- Soft Skills for Engineers

#### Download as XLS (Excel)

- Audit and Certification
- CAD/CAM/CAE
- Modelling of Production Systems
- Quality Management
- An introduction of modern machine design

- Open downloads: 16 topics
- Restricted downloads: 28 topics
- Pilot distance learning course for module „Problem solving for Engineers“ (MTRIZ)

Thank you!



**PROMENG**

financed by Tempus

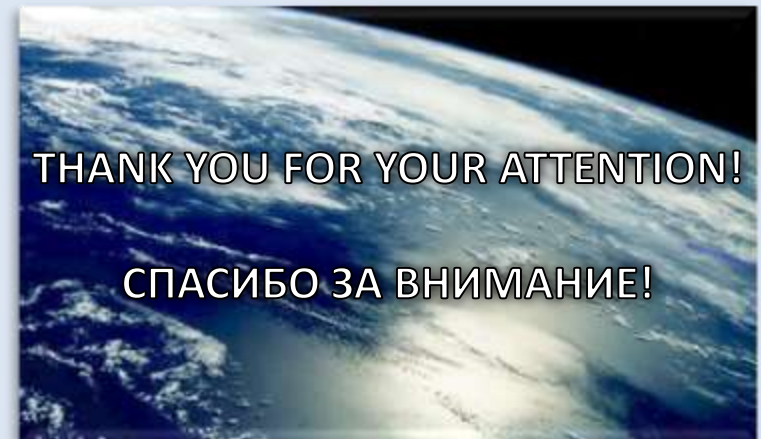
Practice oriented Master Programmes in  
Engineering in Russia, Ukraine, Uzbekistan

Joint Project Curricula Reform

[www.promeng.eu](http://www.promeng.eu)

European Commission  
TEMPUS

Flags of Germany, Belgium, Bulgaria, Russia, Ukraine, and Uzbekistan.



**Contact :** Coordinator, TU Berlin:  
Prof. Klaus Brieß

Project Manager, ECM Office:  
Dr. Arnold Sterenharz  
[arnold.sterenharz@ecm-office.de](mailto:arnold.sterenharz@ecm-office.de)