

<u>Development of Embedded System</u> Courses with implementation of Innovative Virtual approaches for integration of Research, Education and Production in UA, GE, AM



AMIES

28/09/2015

CONTENT



- Tempus projects
- Goals of DESIRE
- Partners
- Management structure
- Work Packages
- Equipment
- Lessons Learned
- Risk definition & mitigation
- EASOT







Tempus: Modernisation of Higher Education in countries surrounding the EU

- modernisation of higher education
- area of co-operation in countries surrounding the EU
- countries

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- Western Balkans,
- Eastern Europe and Central Asia,
- North Africa
- Middle East









Tempus finances two types of actions:

Joint Projects

multilateral partnerships: HEIs of EU - partner countries develop, modernise disseminate new curricula, teaching methods or materials boost quality assurance modernize management of HEIs

Structural Measures

development and reform of higher education institutions and systems in partner countries







- DesIRE Wider Objectives:
 - to change the theoretical type of learning in Ukraine, Georgia and Armenia to practice-oriented competence-based approach
 - to speed up integration between HEIs and business in target countries
 - to establish cooperation between EU and target countries in education and research









business

- DesIRE Specific Project Objectives
 - to create practice-oriented curricula and modules in Embedded Systems
 - to create remote laboratories in Embedded System in UA, GE, AM
 - to form the competences necessary for the Labor Market in Embedded Systems



EMBEDDED SYSTEMS







NEW TEACHING APPROACHES







PARTNERS



- Partners in 6 countries
 - Belgium
 - Germany
 - Slovakia
 - Ukraine
 - Armenia
 - Georgia

























MANAGEMENT STRUCTURE



- PMT: Project Management Team
- DMB: Daily management Board
- LPT: Local Project team
- PQM: Project Quality Manager
- RQM: Regional Quality Manager
- IQM: Institutional Quality Manager









- WP1: Analysis of current curricula and competences in Embedded Systems in TC
- WP2: Curricula modification and courses development
- WP3: Implementing a (virtual) learning environment in ESD eng. Establishing remote and ESD labs.
- WP4: Retrain academic teachers on ESD engineering and virtual learning platforms
- WP5: Pilot teaching/operation
- WP6: Quality Assurance and Quality Control
- WP7: Dissemination and Enterprise Collaboration
- WP8: Management of the project









- WPs:
 - Needs / Deliverables / KPIs / Risk / Risk Resolution







- WP6: Quality Assurance and Quality Control
 - Quality Assurance plan + follow up
 - KPI / SWOT / Risks + mitigation strategy etc.
 - Surveys

» event based and timely based

- Local Project Plan is very important
 - Who is involved + local role in the project
 - Selection strategy
 - Institutional role in each work package
 - Risks + risk mitigation





COURSES DEVELOPMENT PROCESS





Teaching material in EN Teaching material in UA/AM/GE





EQUIPMENT: REMOTE LAB









EQUIPMENT: ES DESIGN LAB





SOFTWARE



























PILOT TEACHING - OPERATION



Installation of the teaching environment

Teaching in EU Teaching the teachers in the AM/GE/UA

Master Classes





PROJECT ACTIVITIES











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23







LESSONS LEARNED



- It is complicated! "A love-hate relationship"
 - These projects are great
 - These projects really help your partners
 - » E.g. Ukraine Georgia
 - International curriculum is very useful for own work
 - 7 years experience
 - Managing these projects is complicated





LESSONS LEARNED



- European international projects:
 - Guidelines 🔁 instruction manual for management
 - Faraway partners = difficult to get feedback from
 - Non-commercial dependent on benevolence of partners
- So specific approach necessary







RISK DEFINITIONS



- Project level:
 - Project management and smooth rollout of processes
- International level
 - Political: loss of partner
 - Trading limitations and barriers
- National level
 - Support of government
- Institutional level
 - Competition between department
 - Personal ambitions
 - Culture of friends instead of competences









- Strong impact of QM (Quality management) and DMB (daily management board)
 - Good results
 - A little paternalistic
 - A lot of extra administration on grant holder
- Responsibility of local project coordinators and local quality managers.
 - Difficult to find right people for it.



DOCUMENTS













- http://www.tempus-desire.eu









EASOT East-African Schools of Technology

Erasmus+ KA2: Capacity Building for HEIs









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