



Kharkov National University of RadioElectronics, Ukraine



MA and Doctoral Programmes with Transnational Mobility Component

Significant increase of the number
of mobile students – is it a
realistic goal ?

Yes, but ...




Define the goals:

- Interviews with the leaders, teaching staff, administrative staff
- Expectations and doubts
- Personal preferences
- Disappointments and Compromises
- Resources available
- Redefine the goals

KNURE's choice:

- Institute of Information Technologies and Institute of Radio Technologies
- Faculty of Computer Science (IT) and Faculty of Radio Techniques (RT)
- AI Department and RT Department
- Masters Programme in IDSS and Masters Programme in Signal Processing

Administrative Infrastructure

- List of the units involved (Faculty offices; training, recruitment and personnel service, library, etc.)
 - Interviews with the Heads of the units
 - Resources available, compensation
 - Interviews with the staff
 - Identifying the key-persons
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Consulting

- National Tempus Office: Tempus Experts
- Intensive Training for key-persons
- Joint Seminars for administrative and Faculty' staff
- Ukrainian Ministry of Education

SWOT Analysis

- Strengths: partners, networking, projects, successful research co-operation, strong motivation !
- Weaknesses: Lack of motivation, laziness, insufficient experience, etc.
- Opportunities: priorities, personal preferences, disappointments and compromises
- NB ! Threats (Overloads, local economical situation, national educational law, lack of ICT resources, strong competition, etc.)



Key Aspects

- ECTS implementation
- BA and MA programmes (4+1 for now, hopefully 3+2 in future !)
- Bachelor's or/and Master's Thesis work
- Practical Training
- Assignments

More Key Aspects

- Curricula development
- Analysis of modern trends in business and technology
- Infrastructure development
- Staff' training: what and how ?
- Personal commitment NB !
- Learning the limits

Knowledge Transfer


- Set of missing knowledge
- Priorities: what we have to learn first and what can wait until we will gather some experience
- Timetables and deadlines (taking into account high competition between Ukrainian universities)
- Expanded set of missing knowledge

Solutions – the easy part:

- Tempus NB ! – we have learned much more than we hoped to, especially from our Greek partner !
- European Ministries of Education
- DAAD
- ACM and IEEE
- Research and industrial partners both in Ukraine and in Europe

Solutions – a not so easy part:

- Ukrainian Ministry of Education
- Methodological Commission
- Institute of Curricula Development
- Ministry of Labour
- Finance Ministry (mainly audit)



Knowing the limitations, restrictions and obstacles really helped us to be reasonable and realistic, to keep our feet on the ground from the very beginning !

Models and Consortiums


- Double (Joint) MA Degree Model
- Practical Trainings for BA in Germany
- Exchange Model for Doctoral Students
- Model for European Exchange of Researchers
- Partners: Free University of Amsterdam, The Netherlands; Jyväskylä University, Finland; Karlsruhe University, Germany

Pilot Projects

- Double MA Degree Programme for KNURE and Free University of Amsterdam, The Netherlands
- Double MA Degree Programme for KNURE and University of Jyväskylä, Finland
- Trainings for the BA in Germany
- 'Bologna' Pilot in KNURE including Curricula development

Most Active Subject Areas:

- Artificial Intelligence / Agent Technologies
- Telecommunications / Mobile Computing
- Nano Technologies / Fiber Optics



Not surprising, taking into account that these are the fastest growing businesses and the most attractive industries for students' employment.

Business model

- Sources of funding for English language teaching: Ministries of Education, European Social/Structural Funds, Industry donations
- Sources for students funding: Industry investments, University grants, parental support
- Universities were responsible for their own management costs

Success of Pilots:

- Model of MA programme with the following transnational mobility components:
 - training (3 month)
 - study (up to 3 semesters)
 - M.Sc. Thesis work (one semester)
 - credit transfer for advanced courses
 - special assignments (distance mode)
 - summer schools
 - National + European Diploma

Commitments and Guarantees

- The European curricula, modified management
- Extra studies for mobile students on the top of the typical alternatives
- Optional courses in English
- Extra English language studies
- High qualification of mobile students
- English speaking supervisors
- Thesis Defended in English
- Distance and On-line co-ordination, logistics
- European Master of Science Degree + National Engineering Degree (both in 1.5 - 2 years)
- Framework for Post-Doc and Post-Master training

Advantages of our model:

- It is unique and distinctive model
- It can be easily modified and applied to possible future mobility
- It is well-tested and well-grounded
- It strongly motivates both students, teaching and administrative staff to improve their performance
- It is well-documented

Disadvantages:

- It is time- and resource-consuming for Ukrainian University
- It is quite complex due to three main reasons:

1) financial restrictions

2) students' desires

3) partners' desires



Other Results:

- Implementation of ECTS and European Diploma Supplement for mobile MA and Doctoral students
- Publishing manuals for teaching and administrative staff
- Facilitation of knowledge transfer to local industrial companies
- Support for new opportunities for local businesses
- Combination of best national traditions and best European practices in the education we offer now

Even More Results:

- Development of new modern national Doctoral programmes featuring a strong international component
- Implementation of a new modular system
- New Recruitment Service
- Methodologies for evaluating students' progress, including research, self-governance and social development
- Methods for students to evaluate teaching quality
- External evaluation

Public or Private Universities ?


- There are no clear differences:
- Public Universities can be flexible too when using private funding
- Private Universities are not necessarily ready for mobility
- Students of both most often not ready to choose the right business model for their studies

Conclusions

- Positive effect of Bologna structures on mobility and corresponding positive impact on the quality of education
- Double- and Joint-Degree MA and DR Programmes are much more affordable and attractive both for students and Universities
- Strong need for unification and classification tools with regard to concordance of European curricula, quality assurance and effective recruitment (Bologna & Prague)

Proposal for future co-operation:

The Technology to develop an Open Internet-based Environment, a Semantic Framework for knowledge management in education, that combines a Semantic Web, Ontologies and Intelligent Agents for interoperability, automated integration, unification, and classification



Technology helps:

- to improve the management of educational standards at all levels
- to implement transparent degree concept
- to automate integration of higher educational standards
- to ensure automatic international degree recognition
- to provide computer-processable semantic descriptions of all specifications, degree and qualification requirements, curricula, courses...
- to create ontology-based methodologies for accreditation and licensing
- to annotate and unify European information resources;
- to automate a degree requirements analysis, individual study plan generation and automated credit transfer

Some Concerns

- 'Negative' effect of Bologna structures
- $4 + 1 = 3 + 2 = 5,5$?
- Modified financial regulations
- Co-operation and Compromises
- Political goal of the European Commission
– is it really common goal ?!?
- Competence ? Competitiveness ?
Networking ? Quality assurance ? Glory ?
Industrial and Business Development ?
Degrees ? Good looking statistics ?
- Realistic goal indeed if not to confuse it

Regrets

Do we have any ?!



Educational Reform in Ukraine

- First Priority: Improving the Relevance of Education
- Second Priority: Improving the Financial Framework of Education
- Third Priority: Reforming Education Administration to Improve Accountability, Transparency and Efficiency