European Commission
TEMPUS

First **Video seminar "Qualification frameworks in forestry sector of EU: education, innovations and benchmarking"**
SUFAREL - Qualification framework for sustainable forestry and lifelong learning
516796-TEMPUS-1-2011-1-FI-TEMPUS-JPHES

Time   14 March 2012

Participants

University of Sciences and Technology of Lille, France (USTL)
University of Natural Resources and Life Sciences, Austria (BOKU)
Aristotle University of Thessaloniki, Greece (AUT)
University of Helsinki, Finland (UH)
European Forest Institute, Finland (EFI)
University of Copenhagen, Denmark (UniCop)
University of Padova, Italy (UP)
Bashkir State Agrarian University, Russia (BSAU)
Voronezh State Academy of Forestry and Technologies, Russia (VLTA)
Mari State Technical University, Russia (MarSTU)
Ural State Forest Engineering University, Russia (USFEU)
The national guild of experts in higher education, Russia (GEPE)
Mari El Republic Social Ecological Initiative Fund, Russia (SEIF)
Moscow State Forest University, Russia (MSFU)
Sankt-Petersburg State Forest Technical Academy, Russia (SLTA)
Ministry of Forestry of Republic Mari El, Russia (MFM)

Memorandum

March 14, Wednesday

First international videoseminar of the project's consortium was arranged with the aim to give best examples of the QF in forestry sector of EU countries. Since the Russian partners did not purchase the videoconference equipment so far, MarSTU approached the Moscow company "Informika" with inquiry to provide their server for the videoconnections. There were many test runs of the different software programs and available servers in EU partner organizations. Finally most of the partners were able to join the videoseminar.

The titles of the presentations and name of the lecturers are indicated in the attached pdf files and installed on the project's web page. Here is the summary of main ideas of the EU presentations, which can be useful for the further development of the Qualifications framework in forestry.

Prof. Cecil Konijnendijk University of Copenhagen

    Skills" means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as

cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments)

"Competence" means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

Requirements regarding knowledge, skills and competences of the modern forest specialist: strategic thinking, communication and branding, conflict management, focus on multiple benefits. The Universities will be using in teaching the forestry knowledge in adaptive way, but relying on a strong core of knowledge. One of the desirable skills of the graduating students should be: communicativeness, ability to operate in highly political setting, creativeness, flexible and innovative. Important part of the education should be focused on the project work with supervision and own preparation of a student.

Prof. Hubert Hasenauer Vienna, BOKU

Specialists managing the Mountain forests should be better prepared in conflict management planning and multifunctional use of forest resources.

Prof. Davide Pettenella University of Padua

Higher education has been undergoing major changes in the past few years. Comparability, compatibility of studies, cooperational activities and wide access to education have been the key ideas of educational strategies and discussions. The focus is on an open and dynamic European educational area and finally better competence in global educational markets" (e.g. COM(1999)750)/ EU Diploma supplement template consists of 8 sections:

1.Information identifying the holder of the Qualification (Name, date of birth, Students identification number of code)
2.Information identifying the Qualification (name of qualification, title conferred in original language, main field of study for the qualification, name and status of awarding institution, name and status of institution administering studies, language or instruction/examination)
3. Information on the level of the Qualification (Level, official length of program, access requirements)
4.Information on the content and results gained (Mode of study, program requirements, programme details, grading scheme, overall classification of the qualification).
5. *Information on the function of the qualification* (level, official length of the programme, access requirements)
6.Additional information (further information sources)
7.Information of the Function of the Qualification (Access to further study, professional status) Certification of the supplement (date, Signature, capacity, official stamp)
8.Information on the national higher education system

The *Dublin descriptors* were built on the following elements:

> knowledge and understanding;
> applying knowledge and understanding;
> making judgements;

> communications skills;
> learning skills.

Content of the 3 title:

Cycle	Knowledge and understanding:
1 (Bachelor)	[Is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study ..
2 (Master)	provides a basis or opportunity for originality in developing or applying ideas often in a research* context ..
3 (Doctorate)	[includes] a systematic understanding of their field of study and mastery of the methods of research* associated with that field..

	Applying knowledge and understanding:
1 (Bachelor)	[through] devising and sustaining arguments
2 (Master)	[through] problem solving abilities [applied] in new or unfamiliar environments within broader (or multidisciplinary) contexts ..
3 (Doctorate)	[is demonstrated by the] ability to conceive, design, implement and adapt a substantial process of research* with scholarly integrity .. [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication ..

	Making judgements:
1 (Bachelor)	[involves] gathering and interpreting relevant data ..
2 (Master)	[demonstrates] the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete data ..
3 (Doctorate)	[requires being] capable of critical analysis, evaluation and synthesis of new and complex ideas..

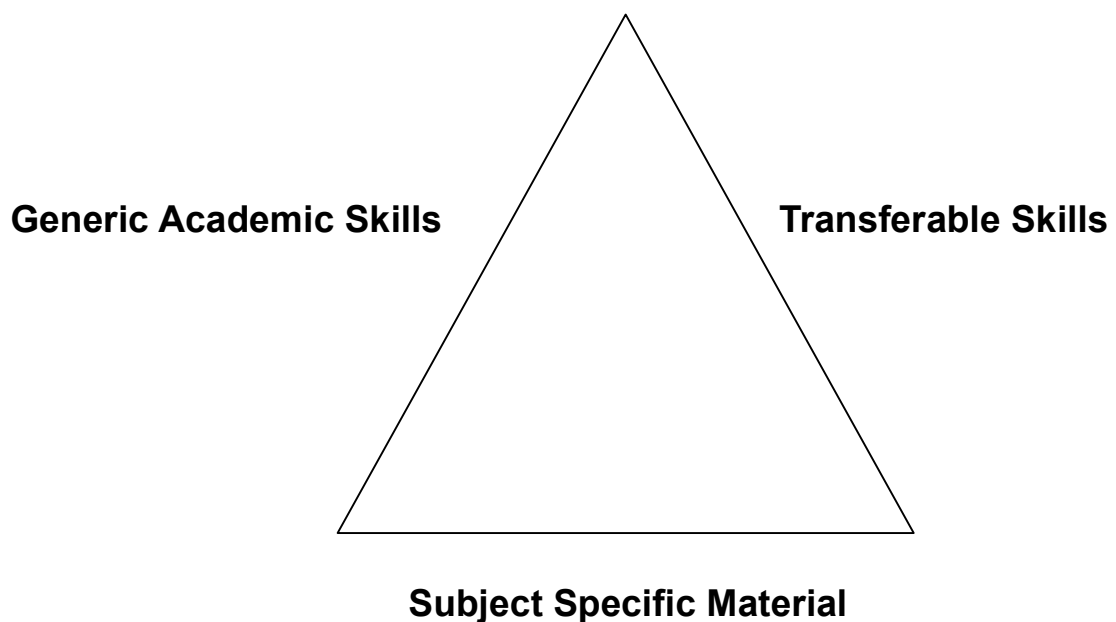|	Communication
1 (Bachelor)	[of] information, ideas, problems and solutions ..
2 (Master)	[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non-specialist audiences (monologue) ..
3 (Doctorate)	with their peers, the larger scholarly community and with society in general (dialogue) about their areas of expertise (broad scope)..

	Learning skills ..
1 (Bachelor)	have developed those skills needed to study further with a high level of autonomy ..
2 (Master)	study in a manner that may be largely self-directed or autonomous..
3 (Doctorate)	expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement ..

6 main actions of the Bologna process for EU HE:

- a system of academic degrees that are easy to recognise and compare: shared Diploma Supplement to improve transparency, joint and double degrees
- a system based on 3+2+3 cycles
- a system of accumulation and transfer of credits (ECTS)
- mobility of students and teachers
- cooperation with regard to quality assurance (see 4. Future challanges)
- the European dimension in higher education: increase the number of modules and teaching and study areas where the content, guidance or organisation has a European dimension

Mika Rekola, University of Helsinki, Department of Forest Sciences

LEARNING OUTCOMES (intended and not intended): what a learner knows, under-stands and/or is able to do at the end of a period of learning. Allan, 1996

Generic Academic Skills   **Transferable Skills**

Subject Specific Material

- ■ Generic academic skills
  - ■ analyse
  - ■ organise and structure ideas
  - ■ think critically
  - ■ synthesise ideas and information
- ■ Transferable skills
  - ■ Communicate effectively
  - ■ Organise
  - ■ Gather information
  - ■ Use information technology
  - ■ Act independently
  - ■ Work teams
  - ■ Numeracy

MICHEL FEUTRIE, INDEPENDENT EXPERT (LILLE1)

At European level a qualification is defined as the formal result of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards. It is based on learning outcomes and standards or references.

It aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.

Belgium (Flemish community): 5 descriptors

- Knowledge
- Skills
- Context
- Autonomy
- Responsibility

The Netherlands: 3 descriptors and 6 sub-descriptors
- Knowledge
- Skills
    - Applying knowledge
    - Problem solving skills
    - Learning and development skills
    - Information skills
    - Communication skills
- Competence
    - Responsibility and independence

Dr. Christos Karydas, University of Aristotle

The European Qualifications Framework for lifelong learning
- Common European reference framework for linking countries' qualifications systems together
- A translation device to make qualifications more readable and understandable across different countries and systems in Europe
- Two principal aims
    - To promote citizens' mobility between countries
    - To facilitate citizens' lifelong learning

2008-Apr-23: set in action
2010: recommended target date for countries to relate their national qualifications systems to the EQF
2012: for countries to ensure that individual qualification certificates bear a reference to the appropriate EQF level

- Levels 6-8 correspond to Higher Education
    - Level 6: BSc
    - Level 7: MSc

○ Level 8: PhD

LEVEL	DESCRIPTION
1	It is related to the possibility of continuing to the second cycle of Secondary Education
2	It is related to the possibility of completing the second cycle of Secondary Education and/or attending a continuing vocational training programme.
3	It is related to the completion of the second cycle of Secondary Education and it also refers to qualifications that are acquired through vocational experience.
4	It is related to the completion of at least the second cycle of Secondary Education, which has been upgraded through further education and training or working experience.
5	It is related to the completion of a Post-Secondary Education and Training Programme, or the "swift cycle" of an Education and Training Programme.
6	It is related to the qualifications acquired through the first cycle of Higher Education.
7	It is related to the qualifications acquired through the second cycle of Higher education.
8	It is related to the qualifications acquired through the third cycle of Higher Education.

The National *Europass* Centre (**NEC**) – Role
- ○ Acts as a national partner in the European network of NECs
- ○ NEC is a part of Organisation for Vocational Education and Training (OEEK)
- ○ Coordinates the management of the Europass documents in Greece
- ○ Promotes
    - ○ Transparency of professional qualifications and skills
    - ○ Facilitation of mobility in Europe for educational and professional purposes

Studies Quality Assessment

- Quality of studies assessed by
  - Internal committee
  - External committee
- Quality of teaching / teacher
  - Assessed by the students with the use of questionnaires (the process is done online since this year)
- Quality of research per member of stuff, per research unit, and per department
  - Assessed by an internal and an external committee
  - The research assessment exercise is at the final stage for the School of Forestry and Natural Environment (i.e. external committee)

Qualifications for BSc level
  - Some of the subjects related to RS and GIS are optional at BSc level
  - Relevant skills and competences are certified by the transcript provided by the secretariat of the School of Forestry and Natural Environment
  - After the completion of the HQF a 'EUROPASS – DIPLOMA SUPPLEMENT' will be issued automatically in Greek and English
  - The supplement will be given to the graduates together with the BSc degree

Qualifications for MSc level
  - The RS and GIS skills and competences
  - Certified by the MSc degree
  - Provided by the secretariat of the School of Forestry and Natural Environment on behalf of the University
  - The MSc degree is on the 'Planning and Development of Natural Resources'
  - Specialisation is on 'RS and GIS'

Qualifications for PhD level
  - The RS and GIS skills and competences are certified by the *title* and the *keywords* of the PhD dissertation
  - The PhD degree is provided by the secretariat of the School of Forestry and Natural Environment on behalf of the University

Expected competences (yet informal)
  - BSc
    - Interpret air photos
    - Interpret forest maps
    - Interpret forest management plans
    - Mine, process and classify earth observation images
  - MSc (in addition)
    - Interpret cadastral and other thematic maps
    - Create forest maps
    - Design and implement field surveys for mapping purposes
    - Conduct research in forestry RS/GIS
  - PhD (in addition)
    - Lead spatial problem solving

⊙ Lead forestry research

Prof. Marcus Lindner, Joensuu, EFI

ToSIA calculates material flows and links them with an indicator based impact assessment

Long-term goal: Improving sustainable forest resource use in the Northern Periphery
Project objectives:
- To test and develop the ToSIA tool in regional and company case applications
- To develop the tool applicability and necessary instructions for use in the Northern Periphery
- To disseminate the tool and user experiences for the whole Northern Periphery area

Discussion (1) Experiences with ToSIA applications:
•ToSIA provides a methodology to analyse sustainability impacts of policy and technology changes
•It allows comparing a suit of different resource uses and value chains against each other
•Ranking of alternative resource uses/value chains requires processing of results with a multi criteria analysis-tool
•Quantified indicator results for alternative resource use options can be evaluated by different stakeholders according to their preferences for different sustainability dimensions
•ToSIA can thus serve as a platform for communication and argumentation with stakeholders.