Contribution of the Erasmus Mundus programs to the development of EU Qualifications framework in forestry

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Outline

1. The general framework of the Bologna process
2. International Master Courses related to forest resources
3. Governance issues related to the Int MSc courses dealing with forestry
4. Future challenges

1. The general framework of the Bologna process

Market development
- Globalization, integration
- Changing role of the European forestry sector
- Changes in the labour market
- Problems of recruitment of forest students

Policy response
- Bologna process (= the rules of the game)
- Lisbon Agenda and Göteborg declarations
- New courses dealing with forestry with an international dimension
Towards an European Higher Education Area

“Higher education has been undergoing major changes in the past few years.

Comparability, compatibility of studies, cooperative 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)

Liisa Tahvanainen, 2003

Main Bologna action lines (1/3)

“Bologna process” = inter-governmental process which promotes reforms in higher education with 47 countries, leading to establishing a “European Higher Education Area”

6 main actions:

• a system of academic degrees that are easy to recognise and compare: shared Diploma Supplement to improve transparency, joint and double degrees

Main Bologna action lines (2/3)

“Bologna process” = inter-governmental process which promotes reforms in higher education with 47 countries, leading to establishing a “European Higher Education Area”

6 main actions:

• 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

DS template: 8 sections

1. INFORMATION IDENTIFYING THE SITUATION OR THE QUALIFICATION
   1.1. Name of institution/organisation
   1.2. Name of institution/organisation
   1.3. Name of institution/organisation
   1.4. Name of institution/organisation

2. INFORMATION IDENTIFYING THE QUALIFICATION
   2.1. Name and identifier of the qualification
   2.2. Name and identifier of the qualification
   2.3. Name and identifier of the qualification
   2.4. Name and identifier of the qualification

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION
   3.1. Level of qualification
   3.2. Level of qualification
   3.3. Level of qualification
   3.4. Level of qualification

4. INFORMATION ON THE CONTENTS AND RESULT ACQUIRED
   4.1. Main study
   4.2. Main study
   4.3. Main study
   4.4. Main study

5. INFORMATION ON THE HUDDLE OF THE QUALIFICATION
   5.1. Access to further study
   5.2. Access to further study
   5.3. Access to further study
   5.4. Access to further study

6. ADDITIONAL INFORMATION
   6.1. Additional information
   6.2. Additional information
   6.3. Additional information
   6.4. Additional information

7. CERTIFICATION OF THE QUALIFICATION
   7.1. Certificate
   7.2. Certificate
   7.3. Certificate
   7.4. Certificate

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM
   8.1. Information on the national higher education system
   8.2. Information on the national higher education system
   8.3. Information on the national higher education system
   8.4. Information on the national higher education system
The 3+2+3 system: Bachelor + Master + PhD

Contents of the 3 title: see the "Dublin descriptors"

Main Bologna action lines (3/3)

“Bologna process” = inter-governmental process which promotes reforms in higher education with 47 countries, leading to establishing a “European Higher Education Area”

6 main actions:
- 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 challenges)
- 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

EU co-operation in education and training

6 pillars:
- Erasmus Mundus: enhancing quality in higher education through scholarships and academic co-operation worldwide;
- Co-operation with industrialised countries: enhancing the quality of higher education mainly through joint study programmes with US, Can, Aus, J, NZ and SK;
- Jean Monnet: promoting teaching and research on European integration;
- Tempus: building co-operation between the EU and neighbouring regions;
- Edulink: capacity-building and regional integration in higher education in ACP (Africa, Caribbean and Pacific) states and regions;
- Alfa: supporting co-operation between higher education institutions in the EU and Latin America

Making judgements:

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Knowledge and understanding:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Bachelor)</td>
<td>[eg supported by advanced text books (in the) some aspects informed by knowledge at the forefront of their field of study]</td>
</tr>
<tr>
<td>2 (Master)</td>
<td>[provides a basis or opportunity for originality in developing or applying ideas within the context]</td>
</tr>
<tr>
<td>3 (Doctorate)</td>
<td>[includes a comprehensive understanding of their field of study and mastery of the methods of research associated with that field]</td>
</tr>
</tbody>
</table>

Applying knowledge and understanding:

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Knowledge and understanding:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Bachelor)</td>
<td>[through] deriving and examining examples</td>
</tr>
<tr>
<td>2 (Master)</td>
<td>[through] problem solving abilities (applied) in new or unfamiliar environments within bounds (no multidisciplinary) context</td>
</tr>
<tr>
<td>3 (Doctorate)</td>
<td>[demonstrated by the ability to conceive, design, implement and adopt a substantial portion of research with scholarly integrity] in the context of a contribution that extends the frontier of knowledge by developing a substantial body of work within which meets national or international refereed publication</td>
</tr>
</tbody>
</table>

Communication

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Knowledge and understanding:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Bachelor)</td>
<td>[oral] information, ideas, problems and solutions</td>
</tr>
<tr>
<td>2 (Master)</td>
<td>[oral] communication and the underpinning knowledge and rationale (technical paper to specialist and non-specialist audiences (non-technical)]</td>
</tr>
<tr>
<td>3 (Doctorate)</td>
<td>with their peers, the larger scholarly community and with society in general (dialogue about their area of expertise)</td>
</tr>
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Learning skills

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Knowledge and understanding:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Bachelor)</td>
<td>have developed these skills needed to study further with a high level of autonomy</td>
</tr>
<tr>
<td>2 (Master)</td>
<td>study as a means that may be largely self-directed or autonomous</td>
</tr>
<tr>
<td>3 (Doctorate)</td>
<td>expected to be able to promote, within academic and professional content, technological, social or cultural advancement</td>
</tr>
</tbody>
</table>
2. International Master Courses related to forest resources

High Education Initiatives (HEIs) in Europe

- Multi-HEIs international programs
- Bi-lateral international programs
e.g.: NOVA / CARE-FOR-US PhD course on governance in urban forestry & urban greening
- International programs run by one single institution
e.g.: MSc Mountain Forestry by BOKU
- Short international courses
e.g.: NFZ - Summer School 2012 Forest Economics in a Changing Environment (FORECE)

International specialized MSc in Europe

Erasmus Mundus programme:
- MSc of European Forestry (2nd edition)
- MSc SUTROFOR (2nd edition)
- MSc SUFONAMA (2nd edition, starting 2012-13)
- MSc MEDIOR (1st edition, starting 2012-13)
- PhD FONASO (Forest & Nature for Society)

Other initiatives:
- MSc Forestry and Environmental Engineering
- MSc FOPER → MSc FOPER (2nd phase)
- MSc EUROFORESTER → FORPEC
- ...

Forest and Environmental Engineering
www.helsinki.fi/internationalprogrammes/masterprogrammes/cbu_fee.html
A summary view

- Remarkable progress towards a common European educational area (Bologna process)
- Forest sciences: more advanced in the internalization process
- Start-up: a leading role of Scandinavian forest schools (DK, FIN, S); now a more enlarged cluster of universities
- A prevalence of forest economics and policies
- Many initiatives related to the cooperation with Eastern European countries

3. Governance issues related to the Int MSc courses dealing with forestry
The objectives of the Erasmus Mundus programme (in brief)

- **Action 1**: Supporting the creation of consortia of high level education institutions in EU
- **Action 2**: Providing scholarships to high-qualified graduate students and scholars from third countries to facilitate their participation in the courses
- **Action 3**: Facilitating the creation of high-quality partnerships between EU and third-country higher education institutions
- **Action 4**: Improving accessibility and enhance the profile and visibility of higher education in the European Union.

Erasmus Mundus MSc in agriculture, forestry and veterinary:

18 courses out of 131; 4 in Forestry + 1 PhD program (34)

- Sustainable Tropical Forestry (SUTROFOR)
- Sustainable Forest and Nature Management (SUFONAMA)
- Mediterranean Forestry and Natural Resources Management (MEDFOR)

Involving University of Padova
### Associated partners

- Non-EU universities (e.g.: UBC)
- International Research institutions (e.g.: CIFOR)
- International organizations (e.g.: Food and Agriculture Organization)
- NGOs (e.g.: Mediterranean Forest Owners Association, World Wildlife Fund Mediterranean Office)

### General structure

- **120 ECTS**: 60 (1st year – 2 semesters) + 30 (2nd year – 1 semester) + 30 for the thesis
- **1st year in one university** (general topics) + **2nd year of specialization** in another partner university with thesis work, preferably with an associated partner
- A **common field course** (between the 1st and the 2nd year for SUTROFOR and SUFONAMA, between the 1st and the 2nd semester for MEDfOR); 9-15 ECTS
- **Double or preferably a joint degree**
- Some common **on line courses** (Research methodologies, Climate change economics and policies, Field course preparation)

### Pros & Cons

**a. Benefits for students and scholars (1/2)**

- EU students included in groups of **10-20 highly qualified international students** selected out of more than 900 students world-wide. Scholarships for non-EU students (21,000 € per year)
- Excellent students → their **skills and enthusiasm is carried on to “local” students** – motivations to improve programmes
- Action 3 scholarships for **financing thesis work abroad**
- **Scholarships** for third-country scholars and for short-term missions (1-3 months) for EU **universities staff**
- Compulsory **Joint Summer Module**
- **International network**, alumni association of all EM students/universities

- **b. Benefits for the university institutions**

- **c. Problems in governance**
a. Benefits for students (2/2): employability

- **Legal recognition**: still an open process. Individual governments of EU countries remain responsible for their education systems and are free to apply their own rules, including whether or not to recognise academic qualifications obtained elsewhere. 
  ... but a student gets 2 Master titles recognized at least by 2 countries + the DS (=very transparent picture of his/her qualification)

- **Market recognition**: apparently good employment position (in international organizations, NGOs, companies, ... while public sector is suffering for the budget cuts) and many PhD positions

b. Internal governance-related benefits for partner universities

- An important and strong international network
- **Excellent students and ambassadors**: positive image for the institution (and for the forestry sector)
- **Industrial partnerships** for sponsoring scholarships (academic-private sector collaboration)
- Spin-off for further EU applications

c. Internal governance-related problems for partner universities

- **Administration**
  - Heavy administrative burden: selection procedure, financial agreements, administrative manuals, etc.
  - Erasmus Mundus Secretariat is costly and EU grant for administration is limited
  - How to avoid 5 partners dancing 5 different dances – overcoming national administrative barriers
  - You need a strong institutional commitment

- “One for all, and all for one”: keeping all partners satisfied
- Students are excellent but high demanding

4. Future challenges
Still very dynamic, unstable and not consolidated experiences

With a continuous process of integration, challenging problems to be considered:
- **Financial sustainability**: how to survive after the start-up phase?
- **Students’ enrollment fees**: no easy a common teaching policy without a common fee policy
- **Employability** evaluation
- **Quality Assurance** control of teaching contents and students services

**Quality Assurance**

- **ENQA**
  - The European Association for Quality Assurance in Higher Education disseminates information, experiences, and good practices in the field of QA in higher education to European QA agencies, public authorities, and higher education institutions.

- **ESG**
  - Standards and Guidelines for Quality Assurance in the European Higher Education Area

- **EQAR**
  - The European Quality Assurance Register for Higher Education, established in 2008 to increase the transparency of quality assurance in higher education across Europe

**Governance: future challenges**

- Mobility → transparency (international accreditation) → increased competition; in this open market for HEIs is still there a room in Europe for so many universities teaching forestry?

- From the teaching focused on wood value chain to a vision of forests as multifunctional resources: are forest HEIs losing their identity? (not mentioning e-learning and the risk to loose a traditional role of teaching institution)

- A possible solution for MSc and PhD programmes: a network of top quality universities offering high specialized compact courses? (e.g.: watershed management, forest monitoring, CSR, landscape planning, bio-energy, …)
New developments

• From international MSc courses to joint PhD programmes
  – SUTROFOR + SUFONAMA → FONASO PhD programme
  – FOPER PhD programme
  – ...
• From teaching to research networks:
  – Newforex research programme (7th EC FP)

New developments: ERASMUS for ALL

The new EU programme for education, training, youth and sport proposed by the EC on November 2011

Key figures: Erasmus for All (2014–2020)

Only if we cope with these challenges we can have people staying at our universities that, describing their past experience, can state - like Galileo Galilei after his staying at University of Padova - "I spent there the most productive and nice years of my life"

СПАСИБО!

This presentation can be downloaded from: www.tesa.unipd.it/pettenella/