

Universidad Politécnica de Valencia

31st March 2003

The European Higher Education Area: The future of engineering.

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Content

- What is the Bologna Declaration?
- The objectives: Bologna and Prague.
- Some sources of information.
- The European Higher Education Area (EHEA):
what will it be?
- Two paradigms.
- The actors.
- The future of engineering in the EHEA.

The Bologna Declaration:

- ~~Treaty;~~
- ~~Convention;~~
- ~~Law;~~
- Political engagement.

The European Higher Education Area

Objectives:

- Competitiveness (*attractiveness**) of European Higher Education;
- Mobility;
- Employability;
- *Lifelong Learning**;
- *Social Dimension**.

* *Prague Communiqué*

Instrumental objectives:

- Comparable degrees;
- Two cycles;
- Credits, such as ECTS;
- Mobility: *(Mobility Action Plan)**;
- Quality Assurance (*Cooperation, best practices*)*;
- European dimensions *(Joint degrees)**;
- *Information**;
- *Recognition of qualifications**;
- *Common framework of qualifications**.

* *Prague Communiqué*

Prague Conference

(May 2001)

Two statements:

Higher Education is a public good;

Students are full members of the H.E. community.

Some sources of information:

- Berlin Ministerial Conference:

www.bologna-berlin2003.de;

- EUA: www.unige.ch/eua/;

- ESIB: www.esib.org;

- European Commission:

http://europa.eu.int/comm/education/index_en.html;

- Tuning: www.relint.deusto.es.

The European Higher Education Area (EHEA): what will it be?

The European Higher Education Area

1. Degree structure

- ✍ Two cycles:
 - Undergraduate: 180 a 240 ECTS credits;
 - Post-graduate: Master e Doctorate;
- ✍ Long programmes in some subject areas (Master?);
- ✍ Diversity of orientations at both the 1st cycle and Masters (professional and/or academic);
- ✍ Joint programmes/degrees between institutions of different countries.

The European Higher Education Area

2. Quality Assurance and Accreditation

- ✍ National quality assurance systems;
- ✍ Assessment/Accreditation of the quality assurance systems at European level;
- ✍ Certification of quality or European accreditation systems.

The European Higher Education Area

3. Learning outcomes

- ✍ Knowledge, competences and skills;
- ✍ Definition of the programmes by learning outcomes;
- ✍ Agreement, at European level, on the core of learning outcomes, by subject area/programme;
- ✍ Incorporation of learning outcomes aiming at European employability.

The European Higher Education Area

4. Recognition of qualifications

- ✍ European Credit System (accumulation and transfer);
- ✍ Diploma Supplement;
- ✍ Recognition based on the core learning outcomes and overall level, not on formal equivalence;
- ✍ Applying the Lisboa Recognition Convention.

The European Higher Education Area

5. Lifelong Learning

✍ Generalisation of accreditation of prior and experiential learning;

✍ New publics.

The European Higher Education Area

6. Mobility of students, teachers, researchers and administrative staff

- ✍ Overcoming the obstacles (Action Plan);
- ✍ Active policies to promote mobility;
- ✍ Financing mobility: community e national levels;
- ✍ Better organised information;
- ✍ Institutions more “friendly”.

The European Higher Education Area

7. Institutional cooperation

- ✍ Agreements on the core learning outcomes;
- ✍ Joint degrees;
- ✍ Exchange of experiences and best practices;
- ✍ Cooperation in the development of distance learning materials (in several languages)?

Two paradigms of the European Higher Education Area

 Learner centred education;

 Organised diversity.

The actors

 Governments

 Higher Education Institutions

 The European Commission

 Students

 Council of Europe

The actors' agendas

(other than Bologna Process objectives)

Governments

- Internal reforms
- Shorter programmes, less costs

Students

- More funding, better quality programmes and less personal costs

EU Commission

- Reinforced cooperation, more power

The actors' agendas (other than Bologna Process objectives)

Council of Europe

- Apply own contribution (e.g. Lisbon Convention)

Higher Education Institutions

- Greater autonomy
- More funding (or at least not less)

What strategies for HEI?

The agendas outside the agenda

Funding

- “The role of the Universities in the Europe of knowledge”
- Public vs. private funding

Reforms

- The Bologna Process as a justification for reforms
- The Lisbon strategy vs. Bologna Process
- Erasmus World

The future of engineering in the EHEA

Two typical professional levels

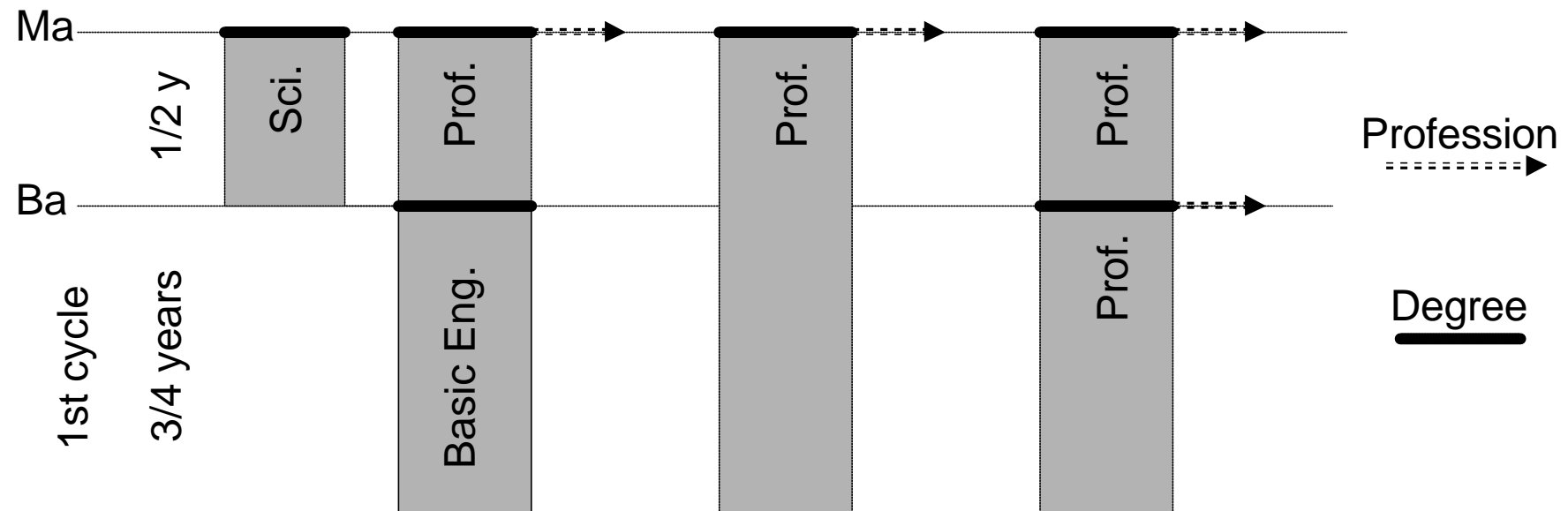
? Two typical educational programmes

- Chartered engineer (CEng) ? 5 years
- Incorporated Engineer (IEng) ? 3 years

With exceptions?

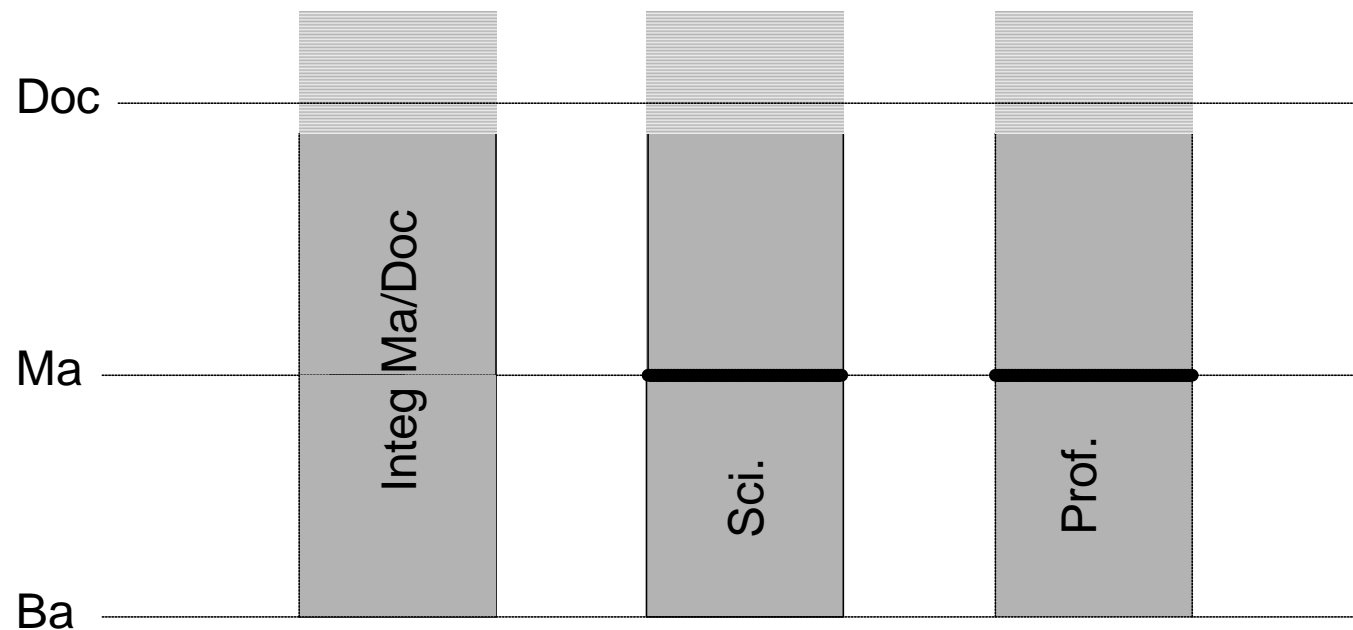
The future of engineering in the EHEA

Different educational routes (Ba/Ma)



The future of engineering in the EHEA

Different educational routes (Ma/Doc)



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Annex A: Credit System

✍ Credit system: ECTS

✍ 1 academic year full time ? 60 credit units

✍ 1 credit unit ? 25 to 30 hours of work

✍ Workload ? contact hours, individual study, exams, projects, group work, ...

✍ Credit units = measure ? level descriptor

Credit System (cont.)

✍ Learning coherence is the responsibility of the higher education institution awarding the degree

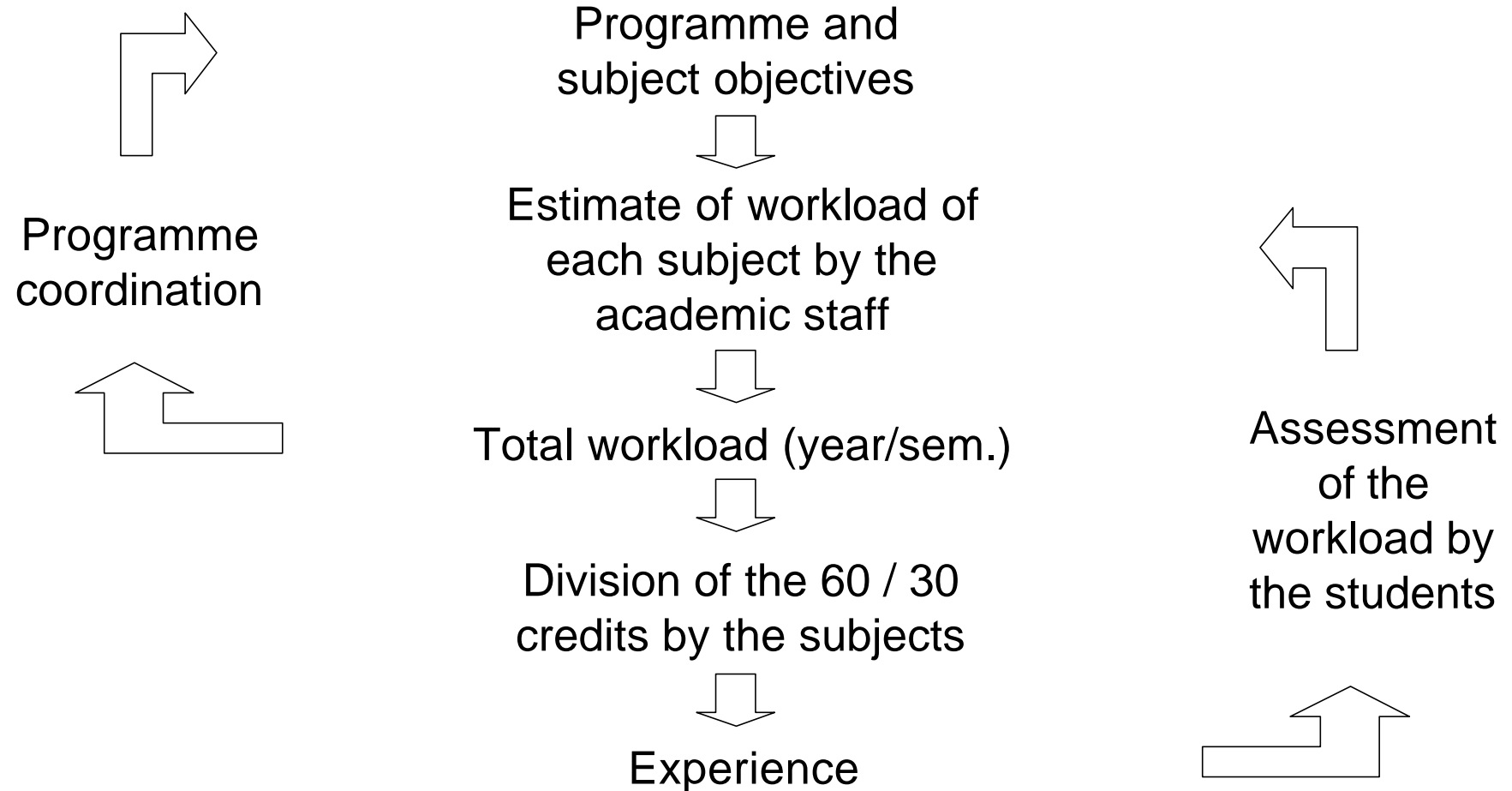
✍ Transfer of credits among institutions:

✍ Level descriptors

✍ Learning outcomes

✍ Quality assurance

Credit System (cont.)



Annex B: Learning outcomes and curriculum organisation

✍ Curriculum organisation = process

✍ Learning outcomes = product

✍ Important ? learning outcomes

✍ Curriculum organisation ? means to an end

Learning outcomes and curriculum organisation

✍ Learning outcomes ? list of contents

✍ Knowledge

✍ Competences

✍ Skills

Learning outcomes



Programme and
curriculum organisation