Bologna and the European Credit Transfer and Accumulation System (ECTS): Role of Learning Outcomes and Workload in European Perspective

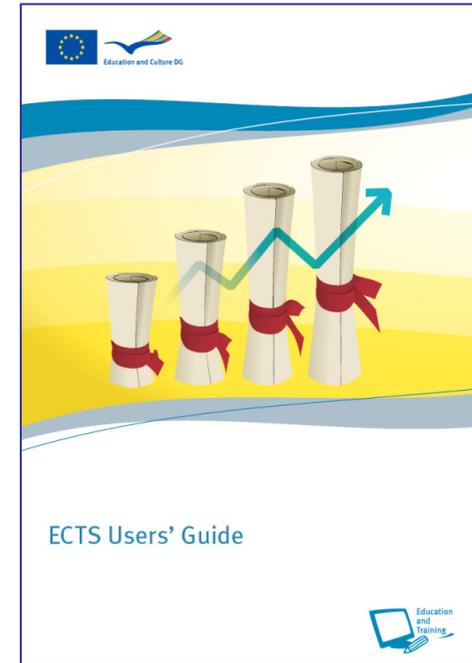Brussels, 1 June 2010

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Education and Culture DG

Lifelong Learning Programme

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ECTS Users' Guide

Education and Training

Content of presentation

1. **From staff oriented to student centred degree programmes**
2. **Basing degree programmes on learning outcomes: opportunities and difficulties**
3. **The role of time in the learning process**
4. **The Tuning approach applied: determining student workload in relation to learning outcomes**
5. **Quality indicators: Process and outcomes**

Obvious need !

London Communiqué (2007):

"Efforts should concentrate in future on removing barriers to access and progression between cycles and on proper implementation of ECTS based on learning outcomes and student workload."

"They should also help HEIs to develop modules and study programmes based on learning outcomes and credits, and improve the recognition of qualifications as well as all forms of prior learning."

Tuning has developed the methodology to make it happen!

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1. From staff oriented to student centred degree programmes

ECTS KEY FEATURES - 21 December 2007 (final)

ECTS is a learner-centred system for credit accumulation and transfer based on the transparency of learning outcomes and learning processes. It aims to facilitate planning, delivery, evaluation, recognition and validation of qualifications and units of learning as well as student mobility. ECTS is widely used in formal higher education and can be applied to other lifelong learning activities.

The new workload / learning outcomes based ECTS was developed in the framework of the Tuning Project

ECTS credits

ECTS credits are based on the workload students need in order to achieve expected learning outcomes. Learning outcomes describe what a learner is expected to know, understand and be able to do after successful completion of a process of learning. They relate to level descriptors in national and European **qualifications frameworks**.

Workload indicates the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations) required to achieve the **expected learning outcomes**.

60 ECTS credits are attached to the **workload** of a full-time year of formal learning (academic year) and the associated learning outcomes. In most cases, student workload ranges from 1,500 to 1,800 hours for an academic year, whereby one credit corresponds to 25 to 30 hours of work.

Use of ECTS credits 1

Credits are allocated to entire qualifications or study programmes as well as to their educational components (such as modules, course units, dissertation work, work placements and laboratory work). The number of credits ascribed to each component is based on its weight in terms of the workload students need in order to achieve the learning outcomes in a formal context.

Credits are awarded to individual students (full-time or part-time) after completion of the learning activities required by a formal programme of study or by a single educational component and the successful assessment of the achieved learning outcomes.

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Use of ECTS credits 2

Credits may be accumulated with a view to obtaining qualifications, as decided by the degree-awarding institution. If students have achieved learning outcomes in other learning contexts or timeframes (formal, non-formal or informal), the associated credits may be awarded after successful assessment, validation or recognition of these learning outcomes.

Credits awarded in one programme may be transferred into another programme, offered by the same or another institution. This transfer can only take place if the degree-awarding institution recognises the credits and the associated learning outcomes. Partner institutions should agree in advance on the **recognition of periods** of study abroad.

ECTS credits express the volume of learning

Learning outcomes express the content of learning

Main reasons for having a student workload / time-based credit system

- Improve the comparability and compatibility of study programmes

- Make study programmes more transparent

- Allow for more flexibility and diversity of pathways

- Make it easier to construct well-balanced programmes

- Promote the feasibility of programmes in terms of student workload

- Enhance the quality of programmes

- Facilitate and promote student mobility

- Facilitate and improve the recognition of periods of studies taken elsewhere successfully

- Facilitate different types of learning (informal, non-formal, formal, part-time, etc.)

ECTS is a key element for the accumulation of knowledge and skills expressed and measured in terms of (workload / time-based) credits

## 2. Basing degree programmes on learning outcomes: opportunities and difficulties

Workload / time based credits and learning outcomes:

two sides of the same coin!

Opportunities

- Learning outcomes allow for better comparison and

  recognition of periods of successful learning

- Time required to achieve expected learning outcomes can

  be expressed in ECTS credits

- Learning outcomes allow for different approaches to reach the same results

Difficulties

- Formulating learning outcomes requires expertise and experience

- Learning outcomes should express reality
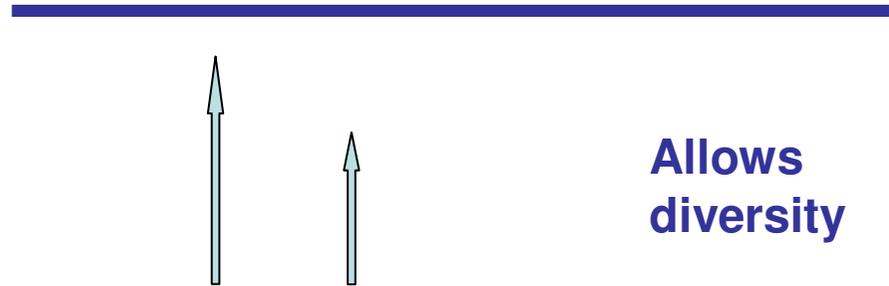
- Learning outcomes should always be measurable
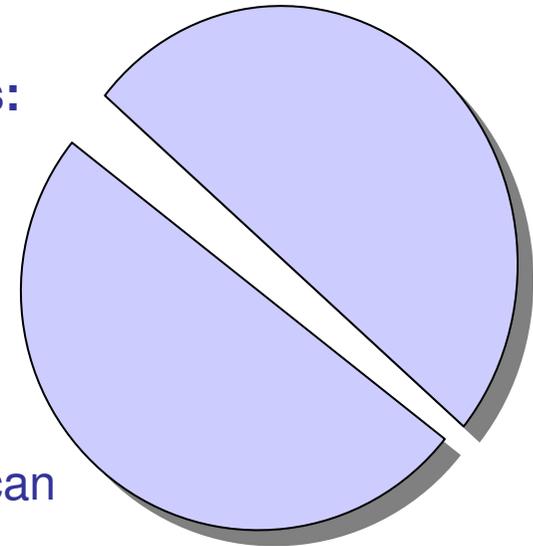
THE CONCEPT OF THREE CYCLES

Third cycle
Learning outcomes:

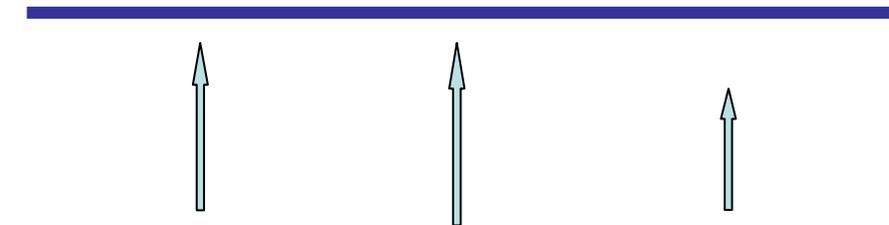**Different pathways**
180 -240 ECTS credits (3-4 years)

Second cycle
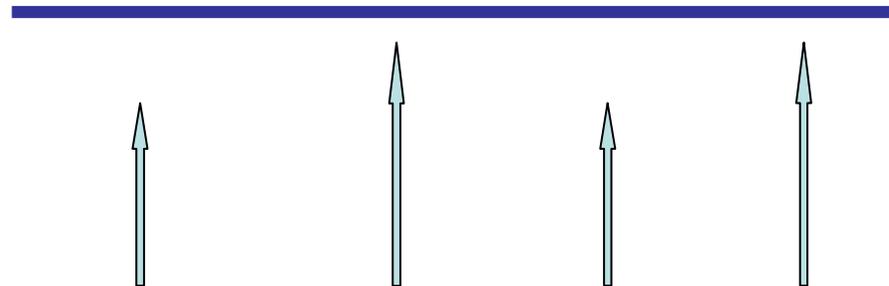**learning outcomes:**

Different pathways:
(60) 90 – 120 ECTS credits

First cycle
learning outcomes:

Different pathways:
180 – 240 ECTS credits

Allows diversity

There are different ways that lead to Rome ....

Case study

Two types of first cycle programmes: number 1
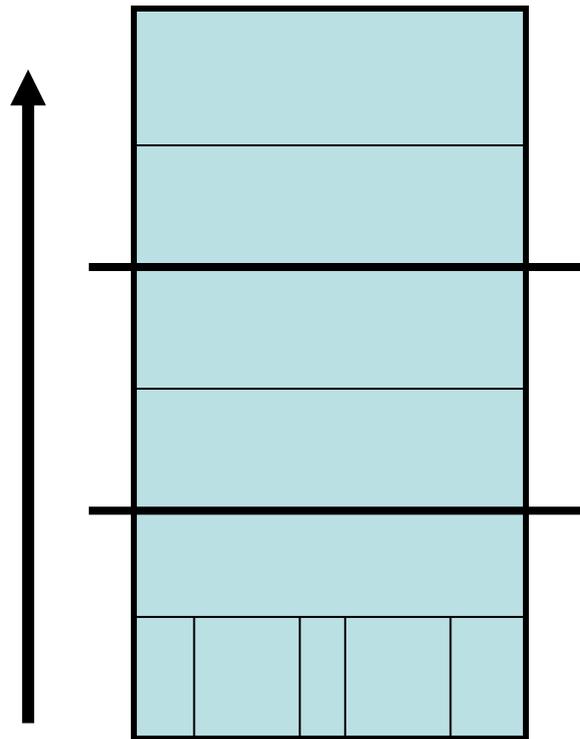
Traditional (first cycle) programme:

• Constructed on the basis of rather loose course units

• Course units content is responsibility of individual academics

• (Very) limited cooperation and consultation between academic staff

• Danger of limit balance between course units

• Feasibility not guaranteed

• Academia oriented, limited concern for employability and educating for citizenship

• Outcome (level) of programme not quite clear

Bottom-up

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Case study

An example from an ECTS counselling visit

Academic freedom is often confused by academic staff with rather personal opinions about what a student should know of a certain topic, independent of the time actually available to the student. This point can be illustrated by the following story. During a site visit, an ECTS counsellor was shown the description of a course unit and the list of the reading material belonging to it. It was a long list. So the counsellor inquired whether the students were free to make a selection when studying the topic. This proved not to be the case. The students were expected to read all items on the list, a list which in fact became longer every year because new relevant material was published and added to it. The counsellor calculated that, according to the official programme, the student workload was a factor of four to five times too high. The teacher proved very surprised when this calculation was explained to him.
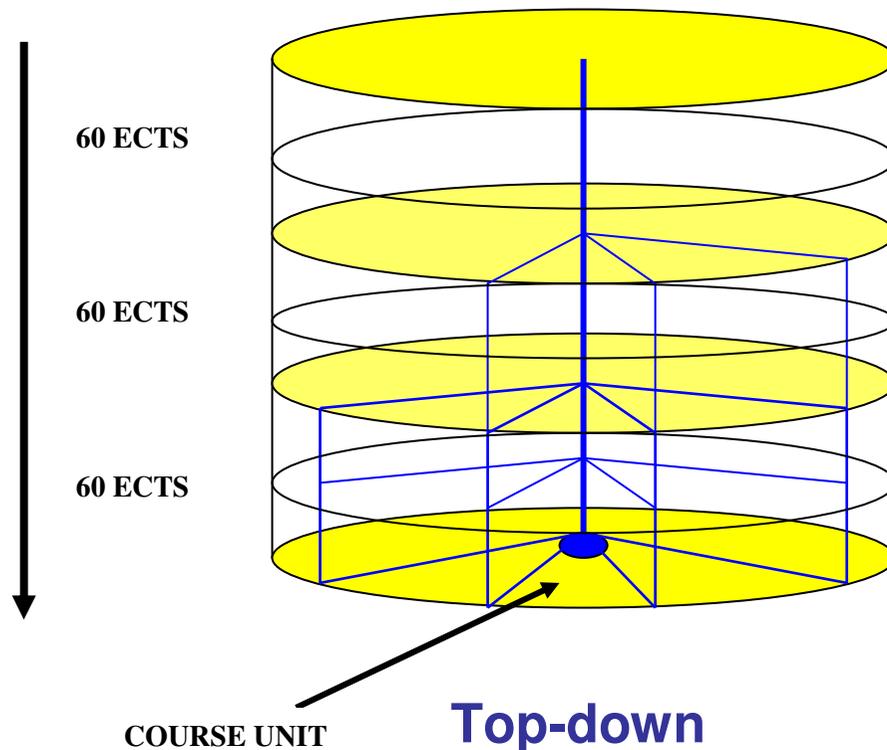
Two types of first cycle programmes: number 2

Degree programme based on the Tuning methodology:

• Programme based on profile, sets of competences to be obtained, desired learning outcomes to be achieved, ECTS credits to be awarded

• Programme design is team work, based on consultation, discussion, cooperation

• Learning outcomes / competences to be developed are basis for credit allocation

• Teaching, learning and assessment approaches respect credit allocation: feasibility key factor

FIRST CYCLE PROGRAMME

60 ECTS

60 ECTS

60 ECTS

COURSE UNIT

Top-down
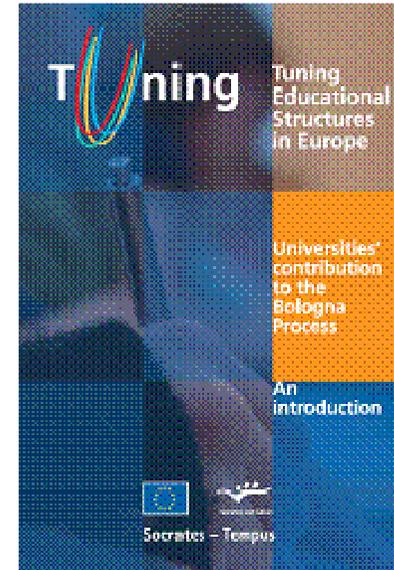
3. The role of time in the learning process

Some notions

- Time is an unchangeable dimension
- Time is the basis for organising live
- Becoming competent requires effort and time (experience)

Although time is absolute, it is relative at the same time …….

What (really) counts is productivity: what can be done in a given timeframe depends on many factors.

The concept of productivity is related to the concept of learning outcomes

Tuning works with the concepts of notional learning time and the typical student to obtain the expected learning outcomes

Tuning distinguishes different types of interrelated elements that influence productivity, that is the time to obtain the required level of competence:

• Diversity of traditions

• Curriculum design and context

• Coherence of curriculum

• Teaching and learning methods

• Methods of assessment and performance

• Organization of teaching and learning

• Ability and diligence of the student

• Personal and material means available

Notional learning time and the typical student

Definition: *the notional learning time is the time an average student will need to meet the expected learning outcomes. These learning outcomes can be formulated at threshold (minimum) level or at desired level*

These concepts are used to design a degree programme or a course unit or module: a realistic estimation for calculating time

However ….. the average student does not exit in reality

Warning!

The notional learning time is not the actual time that any particular learner needs to spend. The actual time will differ from student to student

ECTS credits are also a tool for planning !

Length of degree programmes

Time is absolute in terms of the length of formal degree programmes

Formal programmes serve as the main indicator for informal / non-formal learning and different types of programmes like part-time, distance learning

Surveys executed by Tuning, the European Commission and others show us that the vast majority of countries have programmes that fit in the range

1500 – 1600 hours per academic year (9 months programmes)

And although we have concluded that time is relative in terms of productivity this has implications ….

Overview of national regulations on the number of learning hours per academic year

Can we do without the factor time?

Countries	Hours range/ academic year	Hours range/ credit	Status of the proclamation
Austria	1,500 h	25 h	Law
Belgium (Fl)	1,500/1,800 h	25/30 h	Decree (law on the Flemish level)
Belgium (Fr)	1440 h	24 h	Decree(law of the French Community)
Czech Re-public	1,500/1800 h	25/30 h	Good practice, recommendation of ECTS Key Features.
Cyprus	1500h/1800 h	25/30 h	New Law for Higher Education (under consideration in 2008)
Denmark	1,650 h	27/28 h	Letters from the Ministry
Estonia	1,560 h	26 h	University Act law
Finland	1,600 h	27 h	Act of the Council of State
France	1,650 h	25/30 h	Recommendation by the University Presidents' conference
Germany	1,800 h	30 h	KMK (Kultusministerkonferenz = Standing Conference of the Minis-ters of the Federal States). Element of Accreditation
Greece	1,500/1,800 h	25/30 h	Ministerial Decision
Hungary	1,620/1,800 h	30 h	Act on Higher Education and attaching Governmental Decree
Iceland	1,500/2,000 h	25/33 h	No proclamation, but understanding among universities
Ireland		20/30 h	Recommendation on the principles and operational guidelines de-vised by the National Qualifications Authority of Ireland
Italy	1,500 h	25 h	Ministerial Decrees
Latvia	1,600 h		Law
Lithuania	1,600 h		Law and Decree

4. The Tuning approach applied: determining student workload in relation to learning outcomes

Tuning model in practice
Correlation between different elements for calculating workload:

- Student has a fixed amount of time depending on degree programme
- Overall responsibility for designing a degree programme and the allocation of credits lies with the responsible legal body
- Final responsibility for TLA-activities for particular amount of time is delegated to teacher
- Teacher should be aware of specific competences and LO for course
- Teacher should reflect on most effective TLA strategies for LO
- Teacher should have a good notion of time required for each activity
- Student has crucial role in monitoring process

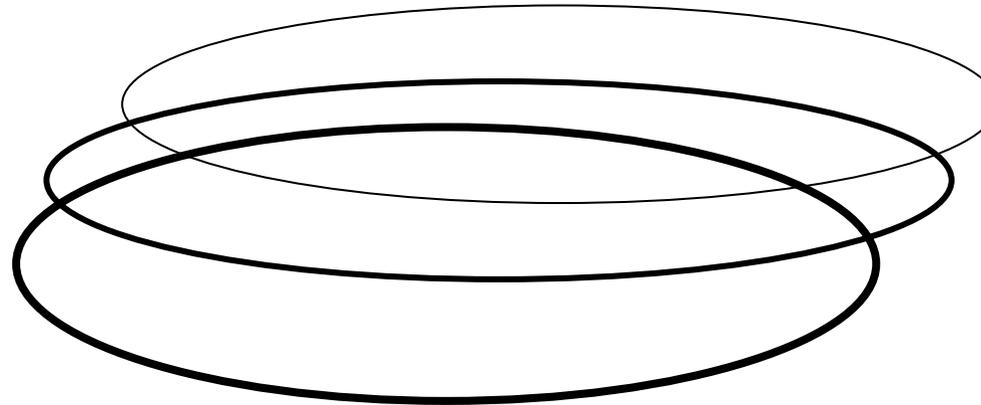Tuning

Student workload: the Tuning approach

**I. Module
(number of credits / student hours)**

IV. Adjustment of the unit either with regard to the number of credits allocated or the educational activities

II. Planning educational activities / determining student time involved

III. Checking of workload by student evaluations in terms of real time involved

Allocating ECTS credits / calculating workload: the Tuning approach

The steps (1)

I. Introducing modules / course units:
- non-modularized systems and modularized systems
- not too small, not too big
- workload of a module is based on the total amount of tasks a student is expected to do as part of the overall programme
- tasks are made explicit in learning outcomes and the time (work hours) the student needs to achieve them
- learning outcomes are expressed in terms of competences

The steps (2)

II. Estimating student workload:
- types of courses
- types of learning activities
- types of assessment

Each of these has its own student time-related characteristics

- The teacher has to identify the time involved
- The identified workload should match the available number of credits for the unit

The steps (3)

III. Checking of calculated workload through student evaluations:
• questionnaires
    • during the learning process
    • after completion of the course

IV. Adjustment of workload and/or educational activities
• adjustment of workload
• type of activities

PLANNING FORM FOR AN EDUCATIONAL UNIT/ MODULE

Programme of Studies:

- **Name of the module / course unit:**
- **Type of course (e.g. major, minor, elective):**
- **Target group (e.g. BA. MA, PhD):**
- **Prerequisites:**
- **Number of ECTS credits:**
- **Competences to be developed:**

  1..
  2..
  3..
  4..
  5..
  6..

Learning Outcomes	Educational Activities	Estimated student work time in hours	Assessment

6. Quality indicators: Process and outcomes

Tuning distinguish two types of indicators to measure the quality of programmes:

- The process itself for (re)designing, developing, implementing, evaluating and enhancing degree programmes

- The outcome of the process : the minimum requirements should have been met

For both purposes Tuning has developed checklists:
1. Tuning List of Key Questions for Programme Design and Programme Delivery, Maintenance and Evaluation in the Framework of the Bologna Reform (Annex 1)
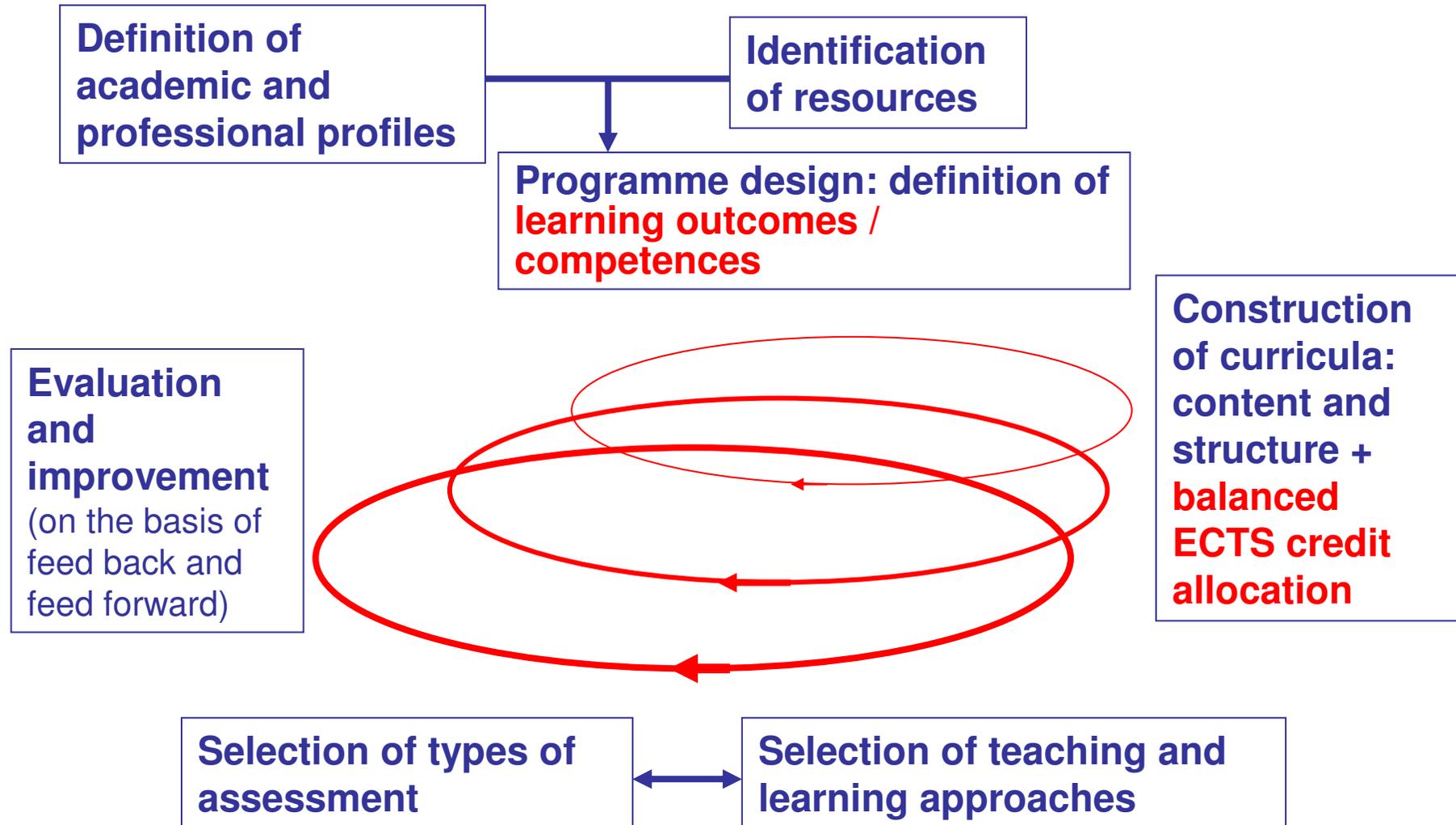2. Tuning Checklist for Curriculum Evaluation

THE TUNING DYNAMIC QUALITY DEVELOPMENT CIRCLE

Definition of academic and professional profiles

Identification of resources

Programme design: definition of learning outcomes / competences

Construction of curricula: content and structure + balanced ECTS credit allocation

Evaluation and improvement (on the basis of feed back and feed forward)

Selection of types of assessment

Selection of teaching and learning approaches

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Key questions

1. Can a quality programme be designed without ECTS?

2. What are the quality elements that ECTS brings in, if any?

3. Is there a relationship between the quality of students and the number of credits that can be allocated to a programme?

4. Do Quality Assurance Agencies have a role in determining whether credits have been allocated correctly?

Thank you for your attention !