



# *Key Principles of Bologna and ECTS*

,

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EUROPEAN COMMUNITY COURSE CREDIT TRANSFER SYSTEM  
EUROPEAN CREDIT TRANSFER SYSTEM  
EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM

**ECTS**

# Content

1. *Bologna Principles and Commitments*
2. *Background of ECTS*
3. *Why credits?*
4. *Why having (a) credit system(s)? A reminder!*
5. *Start of ECTS in 1989: the target*
6. *Why student-workload based?*
7. *Success factors of ECTS*
8. *Next steps: from transfer to accumulation (2004 -)*
9. *ECTS Key Features 2015 -*
10. *Outcome of the introduction and implementation of ECTS*
11. *Challenges left for HEIs*
12. *Role of national governments*

# 1. Key Bologna Process Commitments

*Aim: Reinforcing and supporting quality and cooperation inside the EHEA:*

- *a **three-cycle system** compatible with the overarching framework of qualifications of the EHEA and first and second cycle degrees **scaled by ECTS***
- *compliance with the Lisbon **Recognition** Convention,*
- ***quality assurance** in compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area.*

## 2. Background of ECTS

Introduction EU ERASMUS mobility scheme in 1987

Every EU country having its **own** educational system:

**3 types:**

- Countries with a workload-based credit system
- Countries with a system-based on contact hours
- Countries without any system

**Major concern:**

How to organise and guarantee recognition of studies?

### 3. Why credits?: It is all about recognition!

*Factors influencing recognition:*

***PRESTIGE*** of

- *the educational system of a country*
- *the university involved*
- *the programme involved*

+

***VOLUME and OUTCOMES*** of learning process:

- student workload +
- learning outcomes of a study programme

## 4. Why having (a) credit system(s)?

- 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
- 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.)

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

## 5. Start of ECTS in 1989: the target

Development of an **overarching credit transfer system** conditional for successful student mobility + recognition

Proposal: ***European (Community Course) Credit Transfer System (ECTS)***

EC initiative: five pilot groups (1989-1995), followed-up by support system of counsellors (1996 - 2005)

Main features:

- **60 credits** representing one year of full time studies
- **Credits allocation** on the basis of **relative value**  
(what is a typical student be able to do in one year of studies?)
- **Workload-based**, not contact hours based

## ***Why 60 credits a year?***

➤ ***Proposed by an expert group after studying the different models in the world; accepted by academic world without much debate***

➤ ***Basic assumptions:***

### ***Number of credits per year***

-should be ***unique*** to any individual country

-should ***support*** semester and trimester ***programmes*** as well as ***block*** programmes (4/5/6 blocks) without applying decimals

-Should allow for '***communication***' with other existing systems in the world (e.g. Carnegie system USA)

## 6. Why student workload based?

- To **bridge** different educational **models**
- To overcome **recognition issues** at country system level
- **Support recognition** of periods of studies instead of course to course unit recognition by universities
- **Facilitate different types** of structured activities: lectures, seminars, laboratory work, independent work, exercise courses, thesis writing, internships/ placements, etc.
- **Be fair to** the time investment of **students** in these activities including preparation and independent work

## 7. Success factors of ECTS

- **Top down:** Initiated by the European Commission / Union with support of the European Communities member states
- **Bottom-up:** Developed by **groups of academics:** from 84 to 122 to 145 HE institutions involving directly, followed by many more:
  - academic experts + HE representatives (policy officers)
- **Action research:** finding solutions for identified problems
- **Trust and confidence** building key elements
- **Simple:** Allocating credits to course units (using approach of *relative value* of student workload)
- Inclusion in Paris and Bologna Declarations: **Bologna Process**

## 8. Next step: from transfer to accumulation (2004-)

As a response to the Bologna Declaration: *Tuning Educational Structures in Europe* initiative (2000 – present)

One of its objectives: convert ECTS from a transfer system into a *transfer and accumulation system*

### Actions:

- Base **credit allocation** on fixed programmes (*absolute value* instead of relative value)
- Decide number of working hours per credit
- *Change the paradigm*: introduce student-centred learning
- Base credit system on a combination of *workload and* intended / achieved *learning outcomes*
- Use ECTS for *curriculum* design, delivery, evaluation and enhancement

## 9. ECTS Key features 2015 -

ECTS is a learner-centred system for **credit accumulation and transfer** based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery, and evaluation of study programmes and learner mobility by recognising learning achievements and qualifications and periods of learning.



## **ECTS KEY FEATURES (2)**

**ECTS credits express the volume of learning based on the defined learning outcomes and their associated workload.**

**60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent. ECTS credits are generally expressed in whole numbers**



## ECTS KEY FEATURES (3)

Learning outcomes are verifiable statements of what the individual *knows, understands and is able to do on completion of a learning process.* (...) Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification.



## ECTS KEY FEATURES (4)

Workload is an **estimation of the time** the individual typically needs to complete all learning activities such as lectures, seminars, projects, practical work, work placements and individual study required to achieve the defined learning outcomes in formal learning environments. The correspondence of the full-time workload of an academic year to 60 credits is often formalised by legal provisions.

## ECTS KEY FEATURES (5)

***Allocation of credits*** in ECTS is the process of assigning a number of credits to qualifications, degree programmes or single educational components.

**Credits are allocated to entire qualifications or programmes** according to national legislation or practice, where appropriate, and with reference to national and/or European qualifications frameworks. They are **allocated to educational components**, such as course units, dissertations, work based learning and work placements, **taking as a basis the allocation of 60 credits per full-time academic year**, according to the estimated workload required to achieve the defined learning outcomes for each component.

## ***a. Calculating credits in relation to time***

**Survey among ECTS experts to decide workload**

**Outcome:** student workload in Europe ranges from (1200) 1500 – 1800 hours.

**Decision:** 1 ECTS credit reflects 25-30 hours of workload

**Today ECTS system is also applied in many countries to calculate workload / time of staff (instead of teaching hours)**

### **Challenges:**

- **Discrepancies of volume of learning between Bologna countries**
- **Correct calculation and application of student workload: check and balances**

## **b. The role of time in the learning process**

### ***Some notions***

**Time is an unchangeable dimension**

**Time is the basis for organising life**

**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**

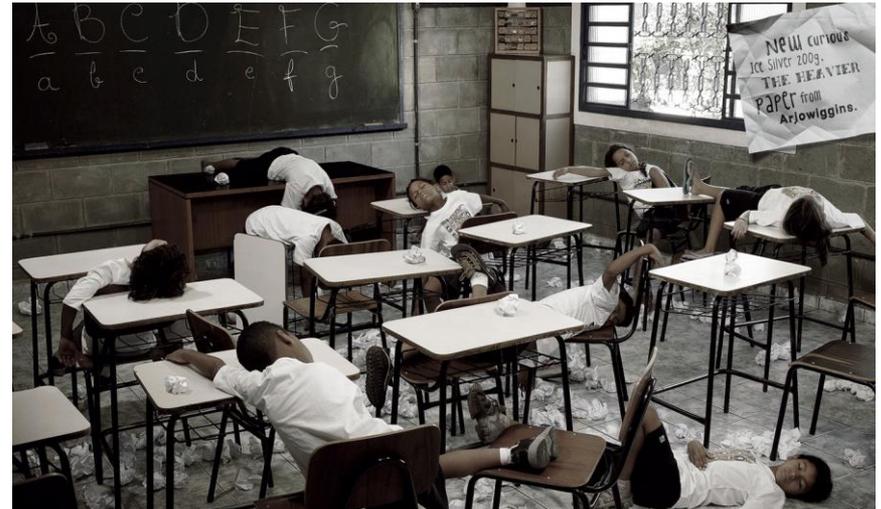
***The concept of **productivity** is related to the concept of learning outcomes and **student workload*****

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



**One can distinguish 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
- Organisation 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 exist 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

**Credits are also a tool for planning !**

## **c. Learning outcomes: Opportunities and challenges**

### ***Opportunities***

**Learning outcomes allow for better comparison and recognition of periods of successful learning**

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

### ***Challenges***

**Formulating learning outcomes requires expertise and experience**

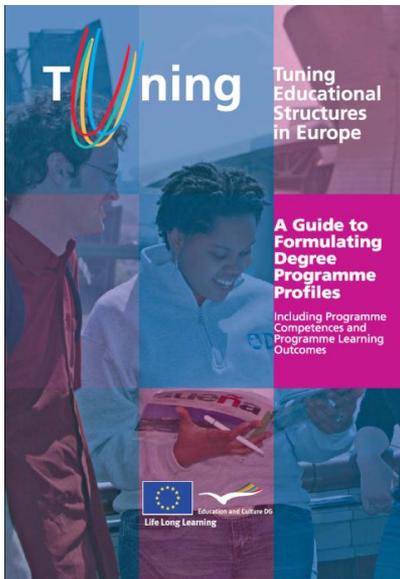
**Learning outcomes should express reality**

**Learning outcomes should always be measurable**

## Degree Programme Learning Outcomes

Characteristics of good verifiable, comprehensive and observable PLOs. They should be:

- **Specific** (giving sufficient detail, written in clear language)
- **Objective** (formulated in a neutral way, avoiding opinions and ambiguities)
- **Achievable** (feasible in the given timeframe and with the resources available)
- **Useful** (they should be perceived as relevant for HE studies and civil society)
- **Relevant** (they should contribute to the aim of the qualification involved)
- **Standard-setting** (indicate the standard to be achieved)



ENIC-NARICS –  
TUNING co-  
production

**A Learning Outcome contains 5 elements to be 'measurable' (the level of competence that has been achieved):**

- 1. An active verb form (Bloom a.o.)**
- 2. An indication of the type of LO: knowledge, cognitive processes, skills, autonomy / responsibility**
- 3. The topic of the LO: this can be specific or general and refers to the subject matter, field of knowledge or a particular skill**
- 4. An indication of the standard or the level that is intended / achieved by the LO**
- 5. The scope and/or context of the LO**

TEMPLATE FIRST CYCLE – BACHELOR – LEVEL 6

TUNING Qualifications Reference Framework (Meta-Profile) General Descriptors of a Bachelor Programme in the Subject Area of ..... (LEVEL 6)

QF EHEA 1 <sup>st</sup> cycle descriptors	SQF domain dimensions Level 6 (BACHELOR)	EQF descriptor Knowledge Level 6 <i>Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</i>	EQF descriptor Skills Level 6 <i>Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study</i>	EQF descriptor Autonomy and Responsibility (Wider Competences) Level 6 <i>- Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts - Take responsibility for managing professional development of individuals and groups</i>
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Special feature degree programme

**Three progressive levels of learning domains**

I. Have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study

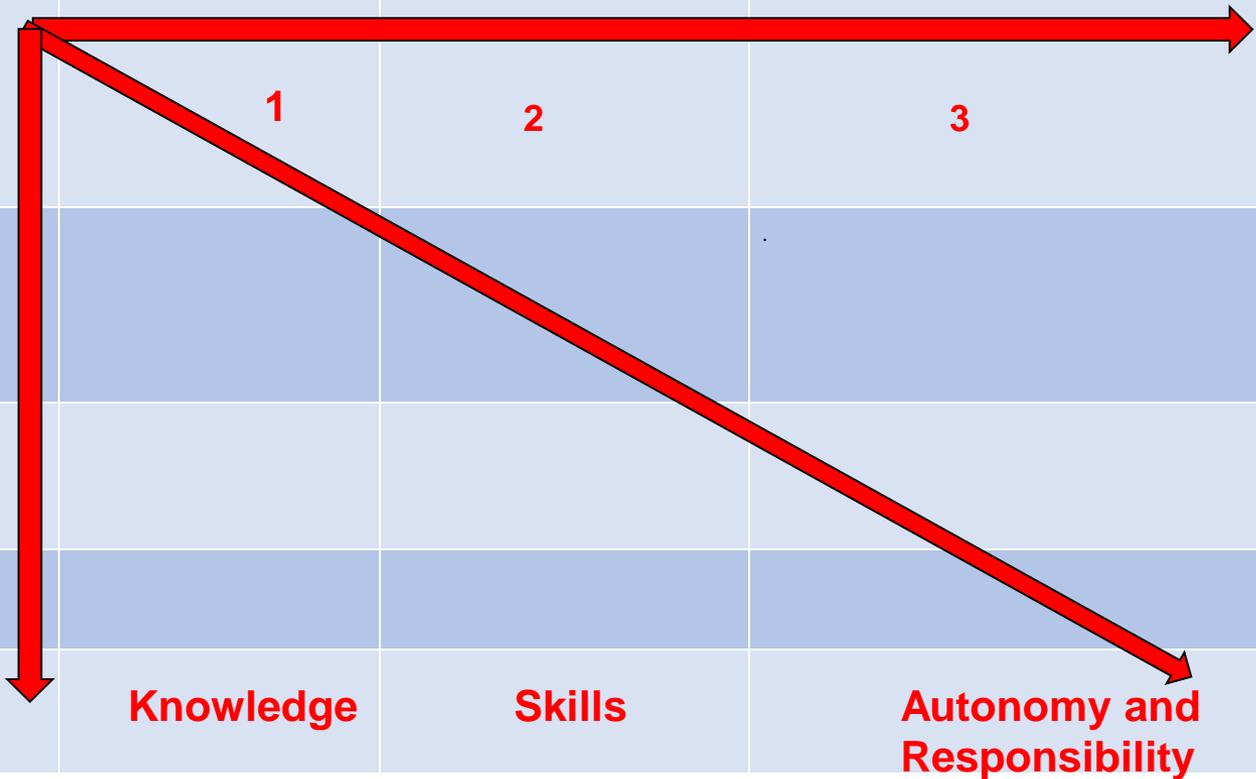
II. Can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study

III. Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues

IV. Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences

V. Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy

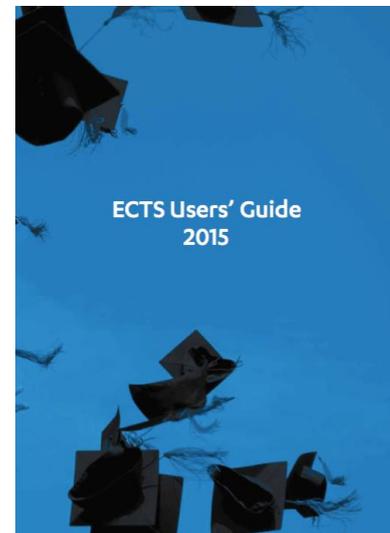
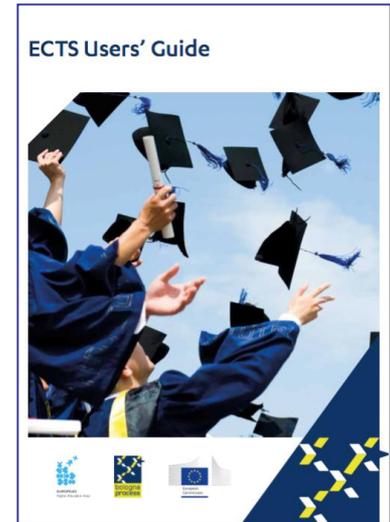
**Dimensions: constructive key elements**



## 10. Outcome of the introduction and implementation of ECTS

Anno 2019: ECTS is the national credit system of the vast majority of the 48 Bologna signatory countries

- System **widely accepted** by the academic world
- Tool for both credit **accumulation and transfer**
- Very successful as a key **instrument for recognition** of studies (before and after mobility)
- Basis for documenting periods of studies and degrees: **Transcripts of Records and Diploma Supplement**



## 11. Challenges for HEIs

- HEIs often still stick to ‘contact hours’ due to calculation models of staff allocation to course units
- Many HEIs have difficulties to calculate student workload correctly
- Many HEIs have great difficulties to define good quality and measurable learning outcomes for both programmes and units.
- Many HEIs still not use ECTS as a planning instrument
- In most cases TLA is not sufficiently aligned; TLA methods are outdated

## 11. Role of national governments

- ***Give ECTS a legal basis as the national credit system (if not done so already)***
- ***Support HEIs in using the system correctly (as agreed in the framework of the Bologna Process)***
  - Apply student workload approach as agreed (ECTS Users' Guide 2015 / Tuning models: <http://tuningacademy.org>)
  - Apply / introduce the use of the learning outcomes approach according to the paradigm of student-centred / active learning
  - Facilitate staff development and training: support initiatives to train the trainers + promote staff training and development in HEIs

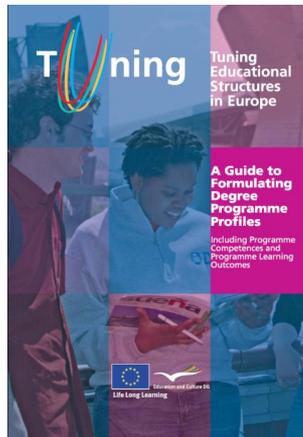
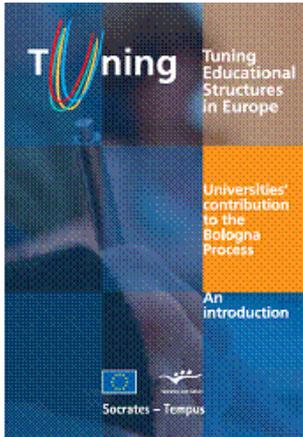
**It is in the national interest to offer state of the art higher education! For both economical and societal reasons!**



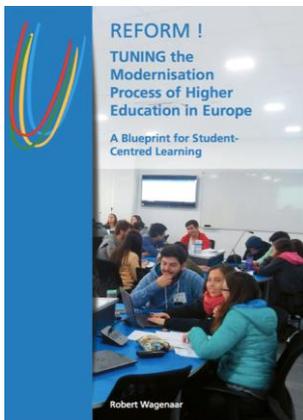
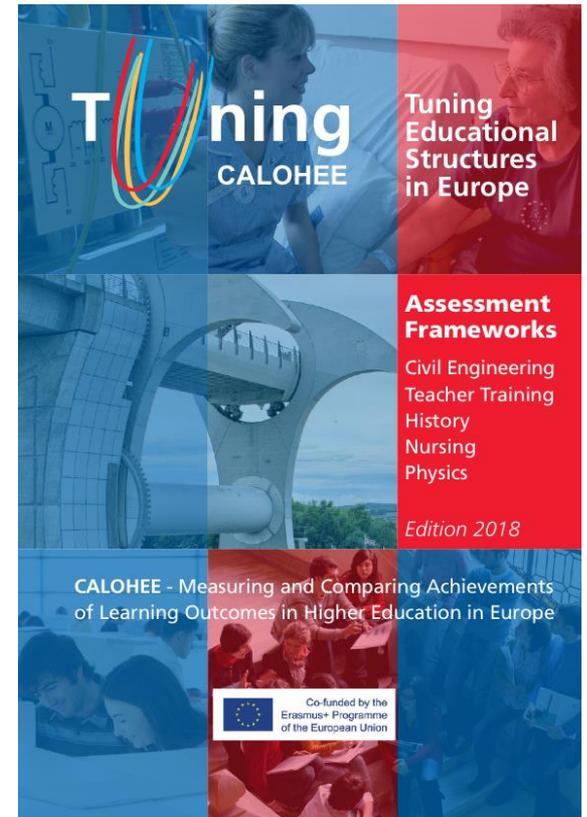
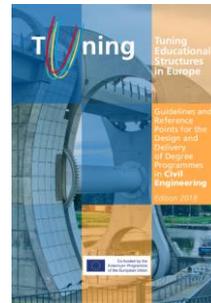
European Commission

# Some supporting materials to make ECTS a reality

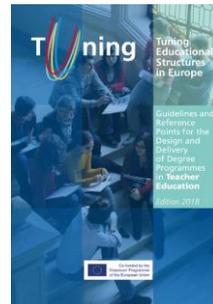
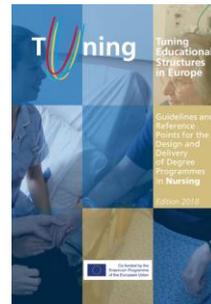
Besides the ECTS Users' Guide 2015



Prepared for and by academics and recognition experts



Offers background story of 20 years Bologna and 30 years of ECTS from the perspective of the HEI world



For download ResearchGate

<https://www.calohee.eu>

감사합니다 Natick  
Danke Ευχαριστίες Dalu  
Grazie Thank You Köszönöm  
Tack  
Спасибо Dank Gracias  
谢谢 Merci Seé  
ありがとう

Obrigado