



TUNING PROJECT 2000 - 2004

GENERAL PRESENTATION
The Tuning Methodology

Tuning Management Committee



The TUNING project is a project by and for universities.

It is the Universities' response to the challenge of the Bologna Declaration

TUNING MOTTO

Tuning of educational structures and programmes on the basis of diversity and autonomy

WHY TUNING?



The objectives:

- **To implement the Bologna - Prague - Berlin process on university level**
- **To find ways to implement two cycles**
- **To identify common reference points from discipline and university perspective**
- **To develop professional profiles and comparable and compatible learning outcomes**
- **To facilitate employability by promoting transparency in educational structures (easily readable and comparable degrees)**
- **To develop a common language which is understood by all stakeholders (Higher education sector, employers, professional bodies)**

Berlin Communiqué

(19 September 2003)



Degree structure: adoption of a system essentially based on two main cycles

“Ministers encourage the member States to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the Higher Education Area.”

TUNING METHODOLOGY: learning outcomes and competences



General tendencies in higher education:

- Shift of paradigm: moving from a staff oriented approach to a student centred approach
- Less specialised academic education in the first cycle
- More flexibility in first and second cycle programmes

What should a student know, understand and be able to do to be employable?

The Tuning Methodology



- **Line 1: Generic competences**

Consultation with graduates, employers and academics on the importance of 30 generic competences and an evaluation of how well HE institutions develop them.

- **Line 2: Subject specific competences (knowledge, understanding and skills)**

Mapping of subject areas and development of common reference points and subject specific competences of each of the pilot disciplines.

- **Line 3: ECTS as a European credit accumulation system new perspectives**

Development of ECTS as a tool for programme design: basis is student workload measured in time.

- **Line 4: Mapping of approaches to teaching / learning and assessment in different countries**

- **Line 5: Quality enhancement**

Why Focus on competences?



1. Further transparency of professional profiles in study programmes and emphasis on learning outcomes
2. Shift to a more learner oriented approach to education
3. Growing demands of a lifelong learning society which requires more flexibility
4. Need for higher levels of employability and citizenship
5. Enhancement of the European dimension of Higher Education
6. Need for a shared language for consultation with all stakeholders

THE TUNING QUESTIONNAIRE



**FOCUS ON GENERIC COMPETENCES
(GENERAL ACADEMIC SKILLS)**

TARGET GROUPS:

- **GRADUATES**
- **EMPLOYERS**
- **ACADEMICS**

**WHAT ARE THE MOST IMPORTANT COMPETENCES TO BE
EMPLOYABLE INDEPENDENT OF ONE'S SUBJECT AREA?**

ARE THESE ACTUALLY TAUGHT AND TO WHAT EXTENT?

THE TUNING QUESTIONNAIRE



TYPES OF COMPETENCES MEASURED:

- **Instrumental competences:** cognitive abilities, methodological abilities, technological abilities and linguistic abilities
- **Interpersonal competences:** individual abilities like social skills (social interaction and co-operation)
- **Systemic competences:** abilities and skills concerning whole systems (combination of understanding, sensibility and knowledge; prior acquisition of instrumental and interpersonal competences required)

THE TUNING QUESTIONNAIRE



TYPES OF COMPETENCES MEASURED:

Instrumental competences:

- Capacity for analyses and synthesis
- Capacity for organisation and planning
- Basic general knowledge
- Grounding in basic knowledge of the profession
- Oral and written communication in your native language
- Knowledge of a second language
- Elementary computing skills
- Information management skills (ability to retrieve and analyse information from different sources)
- Problem solving
- Decision-making

THE TUNING QUESTIONNAIRE



TYPES OF COMPETENCES MEASURED:

Interpersonal competences:

- Critical and self-critical abilities
- Teamwork
- Interpersonal skills
- Ability to work in an interdisciplinary team
- ability to communicate with experts in other fields
- Appreciation of diversity and multiculturality
- Ability to work in an international context
- Ethical commitment

THE TUNING QUESTIONNAIRE



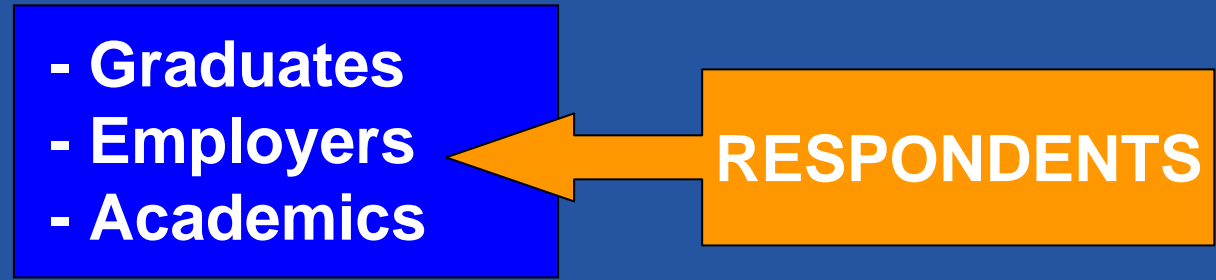
TYPES OF COMPETENCES MEASURED:

Systemic competences:

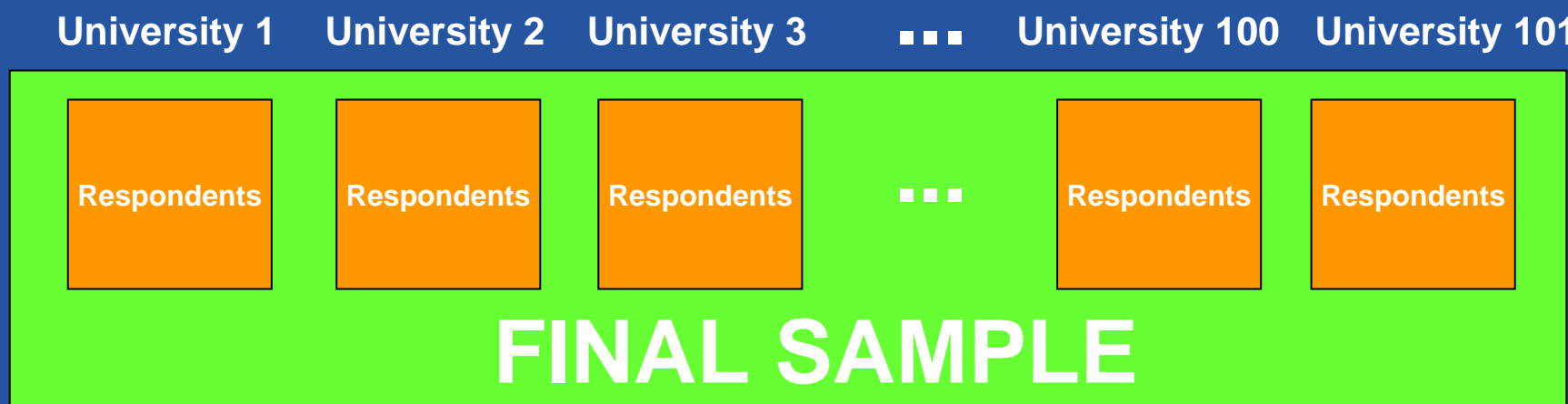
- Capacity for applying knowledge in practice
- Research skills
- Capacity to learn
- Capacity to adapt to new situations
- Capacity for generating new ideas (creativity)
- Leadership
- Understanding of cultures and customs of other countries
- Ability to work autonomously
- Project design and management
- Initiative and entrepreneur spirit
- Concern for quality
- Will to succeed

Methodology and Results

Procedure of sample selection



Cluster sampling:



Data

7 Areas & 101 university depart. & 16 Countries

 Business

 Geology

 History

 Mathematics

 Physics

 Education

 Chemistry

 Austria

 Belgium

 Denmark

 Finland

 France

 Germany

 Greece

 Iceland

 Ireland

 Italy

 Netherlands

 Norway

 Portugal

 Spain

 Sweden

 United Kingdom

Total number of respondents:

 5183 Graduates

 944 Employers

 998 Academics

Results

Comparing Graduates and Employers



Results

Comparing Graduates and Employers

Combined ranking: Last three competences

16

Ability to work in
an international
context

17

Appreciation of diversity
and multiculturalism

18

Understanding of cultures and
customs of other countries



Instrumental



Interpersonal



Systemic

Results: Country effect

Knowledge of a second language
Ability to work autonomously
Will to succeed
Capacity for applying knowledge in practice
Concern for quality
Initiative and entrepreneurial spirit
Ability to work in an interdisciplinary team

STRONG

30 items

**MILD
&
NO EFFECT**

REMAINING 23 ITEMS

Fundamental Importance: Weighted Ranking of the Most Importance Competences. All Subjects

| Graduates | Employers | Academics |
|---|--|--|
| <ul style="list-style-type: none">▪ Capacity for analysis and synthesis▪ Capacity to learn▪ Capacity for applying knowledge in practice▪ Elementary computing skills▪ Capacity to adapt to new situations | <ul style="list-style-type: none">▪ Capacity to learn▪ Capacity for applying knowledge in practice▪ Capacity for analysis and synthesis▪ Capacity to adapt to new situations▪ Interpersonal skills | <ul style="list-style-type: none">▪ Basic knowledge of the field of study▪ Capacity for analysis and synthesis▪ Capacity to learn▪ Capacity for generating new ideas (creativity)▪ Capacity for applying knowledge in practice |

TUNING DEFINITIONS:

Competences: The Tuning Project focuses on subject specific competences and generic competences. These competences represent a dynamic combination of attributes, abilities and attitudes. Fostering these competences are the object of educational programmes.

Competences will be formed in various course units and assessed at different stages.

[competences are obtained by the student]

Tuning definitions



TUNING DEFINITIONS:

Learning outcomes: Statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of learning. They can refer to a **single course unit or module** or else to a period of studies, for example, a **first or a second cycle** programme. Learning outcomes specify the **minimum requirements** for award of credit.

[learning outcomes are formulated by academic staff]

Tuning definitions

How are competences and learning outcomes related?

- Learning outcomes **according to Tuning methodology should be** formulated in terms of competences.
- Learning outcomes **are** minimum requirements **of a unit or a programmes and are expressed in terms what the learner knows and is able to do at the end of the learning experience.**
- Competences **may be** developed to a greater degree **than the level required by the learning outcome.**

TUNING METHODOLOGY: learning outcomes and competences



Steps in designing degrees:

- 1. Identification of social needs**
- 2. Definition of academic and professional profiles:
translation into learning outcomes and generic and
subject specific competences**
- 3. Translation into curricula**
- 4. Translation into modules and approaches towards
teaching, learning and assessment**
- 5. Programme quality assurance: built in monitoring,
evaluation and updating procedures**

A methodology for designing, planning and implementing curricula

Traditional methodology:

- developed in a national context largely for mono-disciplinary study programmes
- intended for educating graduates with a traditional profile
- focussing on knowledge and content

Approach:

- staff / teacher oriented
- compulsory subjects to be covered
- input oriented

A methodology for designing, planning and implementing curricula

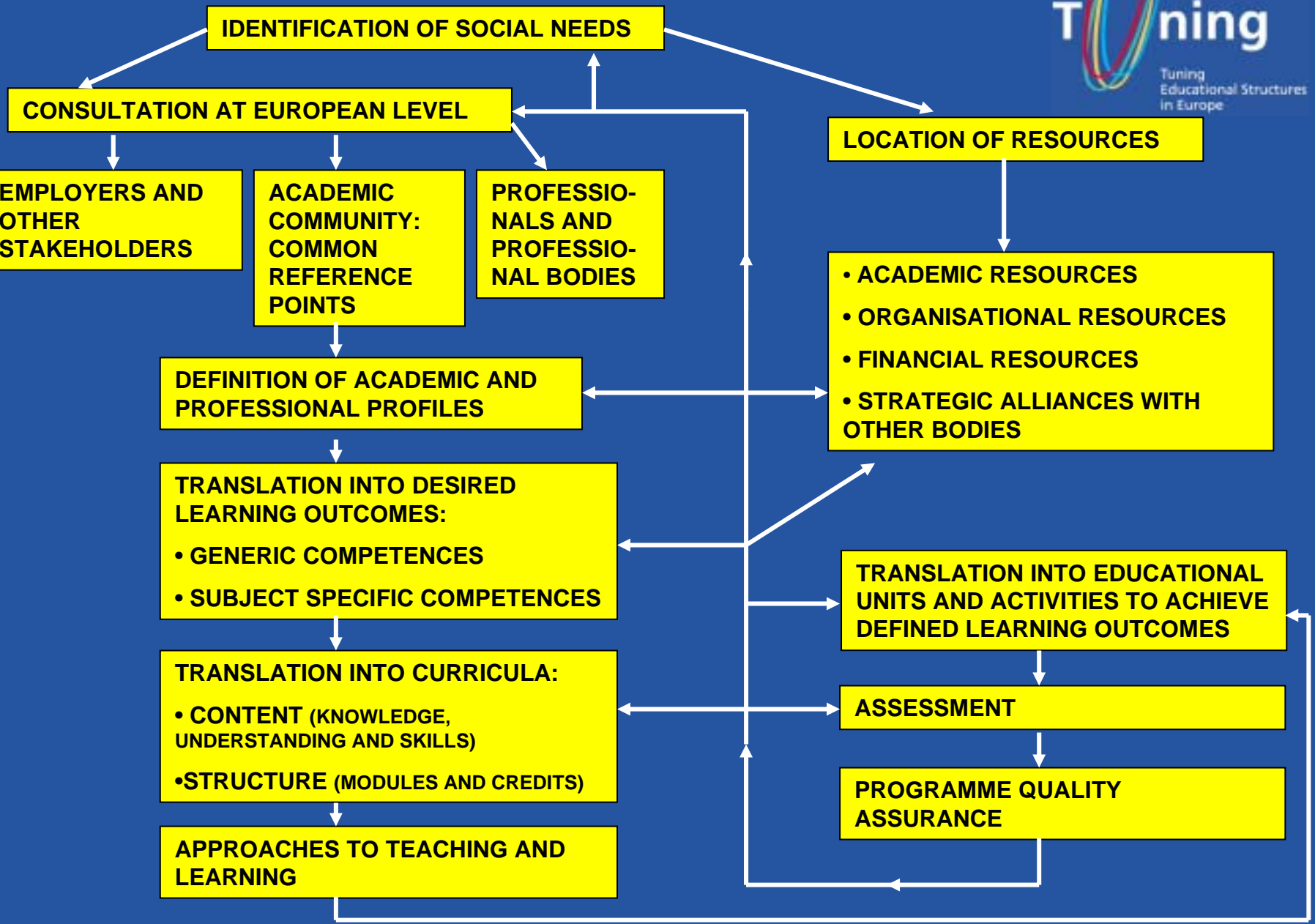
Tuning approach:

- student centred
- definition of academic and professional profiles
- definition of learning outcomes
- identifying generic and subject specific competences
- output oriented curricula

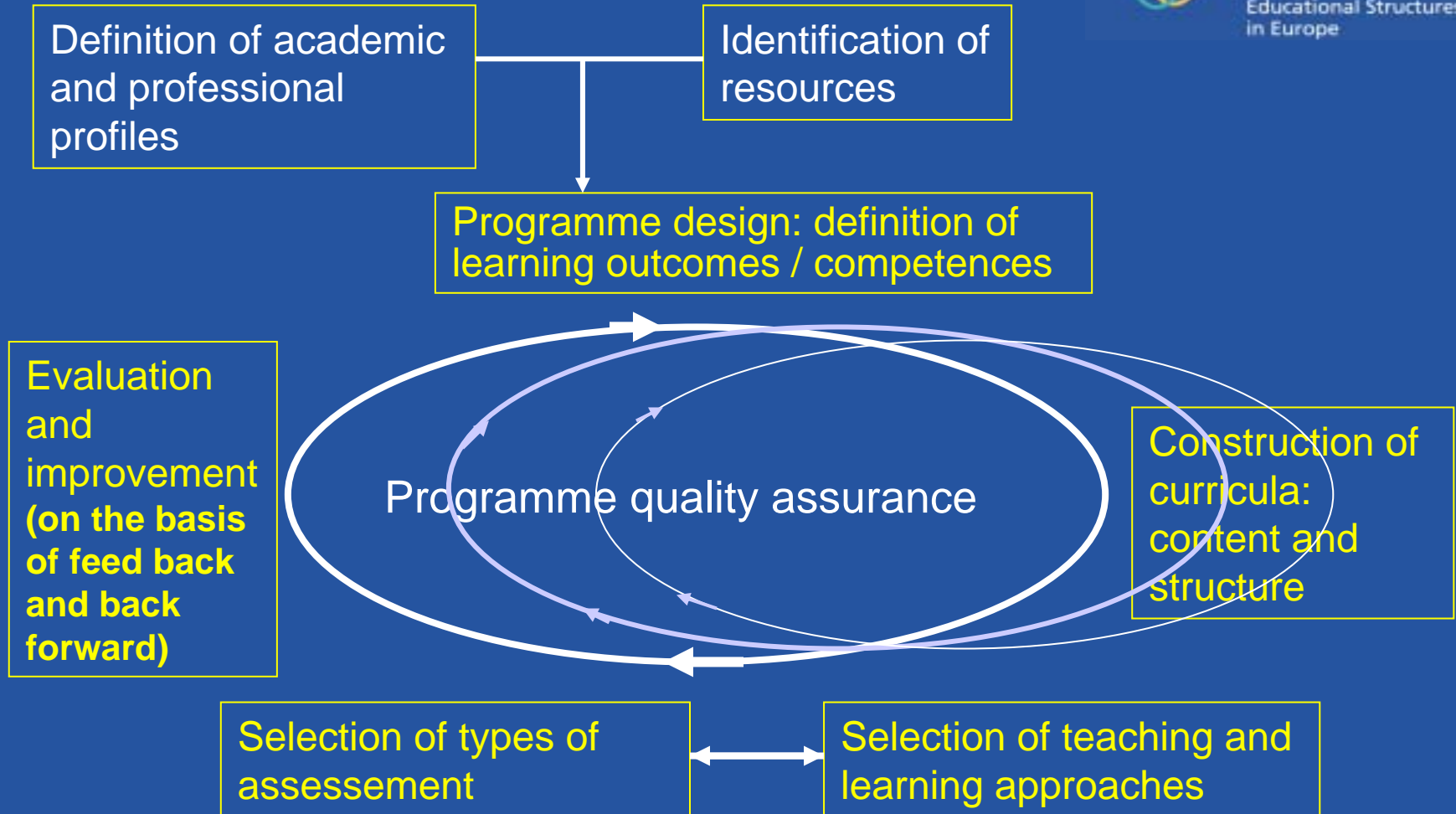
Tuning methodology and model:

- appropriate for mono-disciplinary, inter- and multidisciplinary, integrated and joint degree programmes
- valid for graduates with wide range of profiles
- focussing on competences

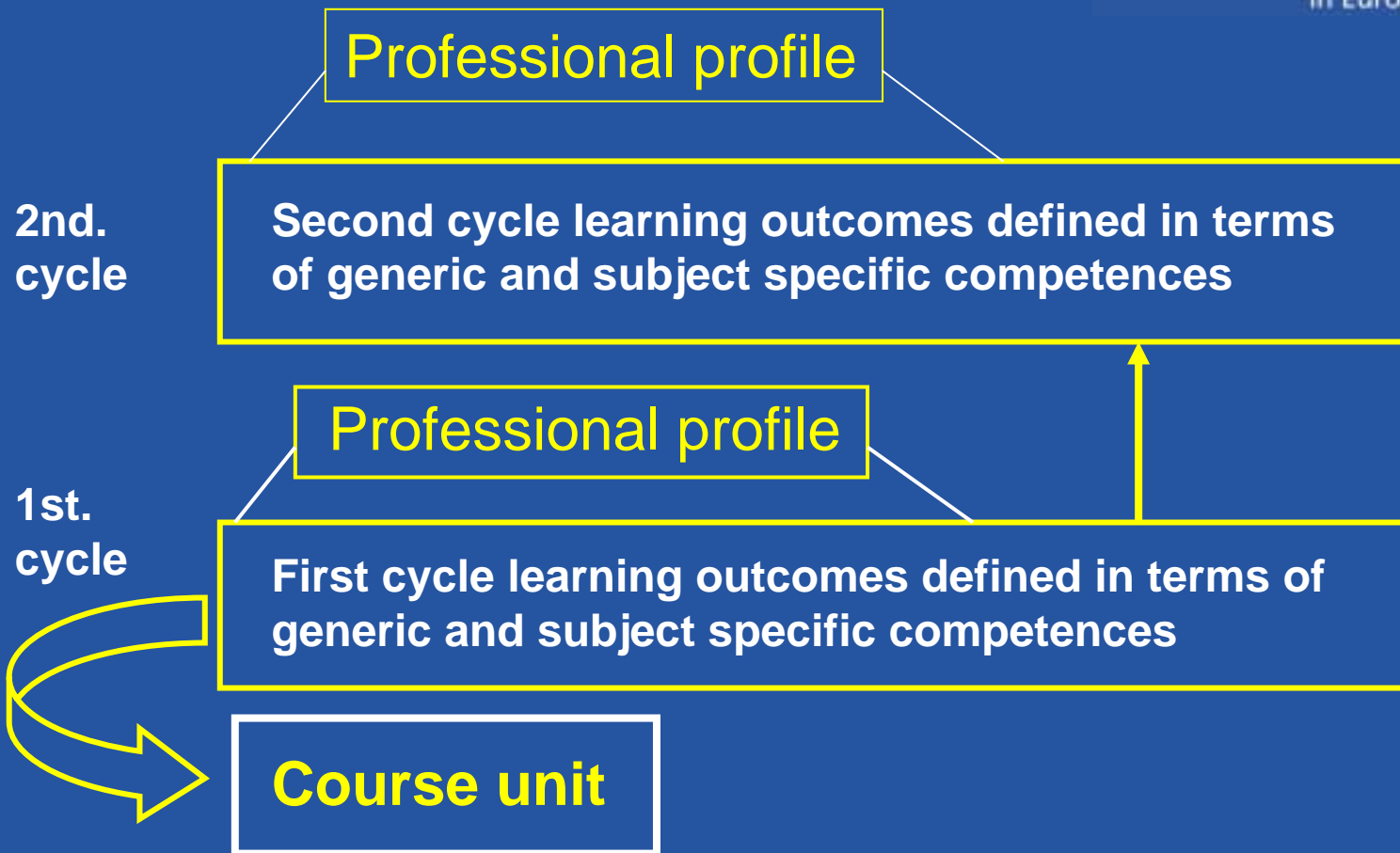
Tuning model for European comparable degrees



THE TUNING DYNAMIC QUALITY DEVELOPMENT CIRCLE



LEARNING OUTCOMES AND COMPETENCES IN STUDY PROGRAMMES



LEARNING OUTCOMES AND COMPETENCES IN STUDY PROGRAMMES

Example

| Course unit/ learning outcome | Competence | | | | | | | | | |
|----------------------------------|------------|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | F |
| Unit 1 | | X | | | X | | | | | |
| Unit 2 | X | | | X | | | X | | | |
| Unit 3 | | X | | | | X | | | X | |
| Unit 4 | X | | X | | | | | | | X |

X = THIS COMPETENCE IS DEVELOPED AND ASSESSED AND IS MENTIONED IN THE LEARNING OUTCOME OF THIS UNIT

Websites

<http://europa.eu.int/comm/education/socrates/>

TuningProject

<http://www.relint.deusto.es/TuningProject/index.htm>

<http://www.let.rug.nl/TuningProject/index.htm>