

# El nuevo marco de formación de posgrado en el Espacio Europeo de Educación Superior: ¿un cambio deseable o tan sólo una nueva –e inútil– reforma?

Josep-Eladi Baños

El 19 de junio de 1999, los ministros de Educación de 29 países europeos firmaron la Declaración de Bolonia. En ella acordaron objetivos comunes para el desarrollo del Espacio Europeo de Educación Superior (EEES) en 2010, un proceso que hoy se conoce como el Proceso de Bolonia. Desde entonces, 45 países se han unido a esta iniciativa, por lo que el EEES es considerado actualmente como la iniciativa europea más importante en el entorno universitario, cuyo alcance sobrepasa claramente a la UE. De hecho, aportará un cambio natural en la forma de enseñar y aprender, por lo que sería un error considerarla como una mera reforma curricular más.

En los últimos cinco años, las universidades españolas han realizado numerosas actividades para explicar lo que el EEES significa para docentes y alumnos. Los cambios esenciales que propiciará el EEES son el paso de las actividades universitarias de un enfoque docente a uno de aprendizaje, el cambio en la estructura de los grados académicos (graduado, máster y doctorado), la implementación del Sistema Europeo de Transferencia de Créditos (ECTS) para la elaboración de currículos, una mayor importancia de las competencias genéricas y específicas, la consideración de los perfiles profesionales de los estudios, la reducción de los contenidos factuales y una especial consideración de las capacidades de autoaprendizaje para permitir el estudio independiente durante la propia vida profesional. La publicación de dos Reales Decretos sobre las características de los estudios de licenciatura y posgrado ha empezado a constituir el marco de este proceso en España.

En la formación de posgrado, el nuevo escenario contempla la existencia de dos pasos: máster y doctorado. El primero es considerado como formación especializada en un campo determinado para que los estudiantes adquieran los conocimientos y las capacidades prácticas que faciliten su inserción laboral. Un objetivo alternativo es formar a los estudiantes para que aprendan los principios de la investigación como paso previo al inicio de su tesis doctoral. El nuevo escenario obliga a realizar un máster antes de poder entrar en un programa de doctorado. Ésta es una diferencia sustancial con respecto a la situación actual, en la que los licenciados pueden entrar en dichos programas justo después de licenciarse. Actualmente debería considerarse la posibilidad de un máster de farmacología, al menos por dos motivos. En primer lugar, ofrecería la posibilidad de formar a licenciados en los diferentes campos de investigación y desarrollo de medicamentos. En segundo lugar, este máster les iniciaría en la farmacología y podría contribuir a captar buenos estudiantes para nuestros programas de doctorado.

Finalmente está la cuestión de los estudios de doctorado. El nuevo marco legal establece el requisito de tener un máster antes de poder entrar en programas de doctorado, pero no establece la necesidad de que los alumnos ordinarios reciban docencia en ellos. En otras palabras, para convertirse en doctor(a), un(a) estudiante sólo tendrá que defender su tesis doctoral. Estos cambios también pueden redefinir la formación de estos estudiantes.

# The new framework for postgraduate training in the European Higher Education Area: A desirable change or only a new – and useless – reform?

Josep-Eladi Baños

On June 19, 1999, Ministers of higher education from 29 European countries signed the Bologna Declaration. They agreed on common objectives for the development of the European Higher Education Area (EHEA) by 2010, and this process is now commonly known as the Bologna process. Since then, 45 countries have joined this initiative and, therefore, ESHE is now considered to be the most important European initiative at a university level and its scope is clearly beyond the EU. In fact, it will convey a cultural change in the way of teaching and learning, and it would be a mistake to consider it as only another curricular reform.

In the last five years, Spanish universities have undergone many activities to explain what EHEA means to teachers and students. The essential changes that EHEA will trigger are a switch of university activities from a teaching to a learning approach, a change of the structure of academic degrees (graduate, master's and doctorate approach), the implementation of the European Credit Transfer System (ECTS) to build curricula, an extended importance on generic and specific competencies, the consideration of the professional profiles of the studies, the reduction of factual contents, and a focus on self-learning abilities to permit independent study during one's professional life. The publication of two Royal Decrees on the characteristics of graduate and post-graduate studies has started to form the framework of the process in our country.

In post-graduate training, the new scenario considers the existence of two steps: master's and doctorate degrees. The first is considered as a specialized training in a specific domain that will give the knowledge and practical abilities to students in order to facilitate their integration into the workplace. A second alternative objective is to train them in order to permit learning in the principles of research, as a previous step to starting their doctoral thesis. The new scenario makes it compulsory to complete a master's before engaging in a doctoral program. This is a substantial difference with the current situation, where graduate students can enter such programs just after finishing their degree. The possibility of a master's of Pharmacology should now be considered for at least two reasons. First, it will give the possibility of training graduates in the different fields of drug research and development. Second, it will initiate them in pharmacology and may help to enrol good students in our doctoral programs.

Finally, we have the question of doctoral studies. The new legal framework establishes the requirements of holding a master's degree before enrolling in PhD programs and does not establish the need for regular subjects to be taught in them. In other words, a student only needs to defend his/her doctoral thesis to become a doctor. These changes may also redefine the training of these students.

## Diapositivas / Slides

# The new frame for postgraduate training in the European Space of Higher Education: a desirable change or only a new (and useless) reform?

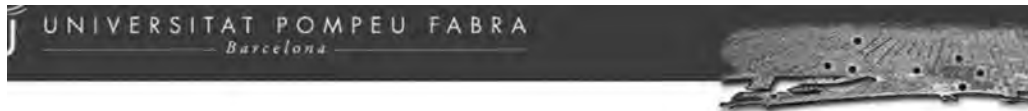
**Josep-E. Baños**

First Workshop on Training in R+D in Spain  
Santiago de Compostela, June 6th 2006

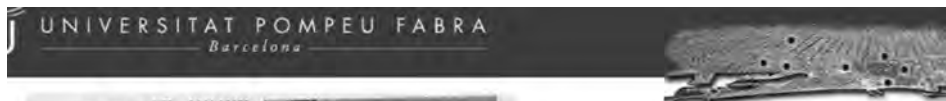


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## Why change is needed?



**Teacher:** - From today, and during the next five years, we will teach you a series of well-structured lies in which you will believe blindly for the rest of your life... Any question?

**Student:** - Yes... But this statement will be included in the exams of this subject?

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## In a German university...

- 1950s. The teacher enters in the classroom and the students stand up. He says 'Good morning' and the alumni answer 'Good morning'.
- 1970s. The teacher enters in the classroom. Students remain seated. One of them says: 'We should discuss this'.
- 2000s. The teacher enters in the classroom. Students remain seated. The teacher says 'Good morning' and the students write in their notebook: 'Good morning'.

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The slide features a dark header with the text 'UNIVERSITAT POMPEU FABRA' and 'Barcelona' below it. On the right side of the header is a small image of a textured surface. Below the header is the section title '¿What is the ESHE?'. Underneath the title is a bulleted list of objectives:

- An agreement of 45 European Ministers of Education in order to achieve the following objectives (list not exhaustive):
  - The adoption of a University system based in two cycles: grade and postgrade.
  - The establishment of a system of credits (European Credit Transfer System or ECTS), which are well-defined and accepted by any European University.
  - A high level of quality for the development of comparable courses and methodologies, followed by a strict accreditation system.
  - The promotion of a European frame of higher education with a special emphasis in the curricular development.
  - The enhancement of mobility across Europe for students, teachers and administrative professionals.

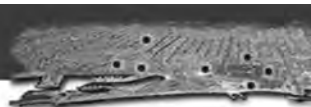
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## Cronology

- The initiative started in 1998, when Germany, France and Italy signed the Sorbonne Declaration.
- In 1999, 30 European countries, including Spain, signed the so-called Bologna Declaration.
- Every two years there has been meetings with ministries of Education to review the objectives and steps of the process.
- In the last, held in Bergen (2005), 45 countries (all Europeans except Belarus) accepted the principles of Bologna Declaration. Next meeting will be in 2007 in London.
- The wish is reaching the European convergence in Universities in 2010.

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**Which are the principles of ESHE?**



## ESHE and the learning

- **What are the ECTS (European Credit Transfer System)?**
  - It is the unit that measures the learning effort of the students in every subject.
  - Every ECTS means 25-30 h of student's work, and includes lectures, practical courses, group work and self-study.
  - Every academic year includes 60 ECTS.
  - Spanish universities have started this year the effort of adapting the courses to the new 'academic counting' in order to prepare the new reformed curricula.



## ESHE and learning

- **A methodological change in teaching**
  - An emphasis in the student's work and activities.
  - The curricular considers wider objectives that includes the acquisition of specific but also generic competences.
  - The definition of professional and research competencies, which should configure each course:
    - Generic: common to all courses.
    - Specific: related with contents of each of them.



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## ESHE and the teaching

- **Basic characteristics of teaching paradigm**
  - The student, the center of teaching activities.
  - The lectures, the element that helps to coordinate the teaching activities.
  - The working seminars, as the place to learn interactively with peers and teachers.
  - The establishment of a strict mechanism of follow-up to evaluate if competences are reached.
  - The importance of continued evaluation, rather than once a year.
  - The use of new information and communication technologies to obtain the better information and to help to maintain a continuous interaction between student and teacher.

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## Which are the teaching objectives of ESHE?



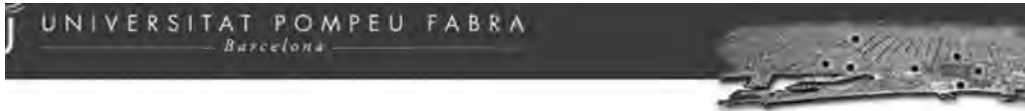
- To improve the ability of self-learning by a strong reduction of lectures and the use of active methods.
- To develop both specific and generic competences.
- To adjust the students' training to the professional and social needs.
- To permit that students get a critical point of view of everything and acquire the ability to long-life learning.



## The need of generic competences

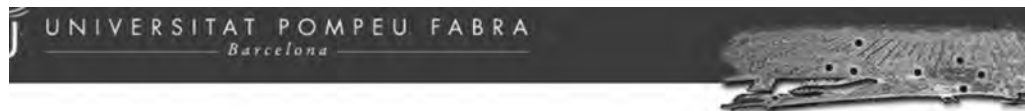
- Oral communication
- Time management
- Initiative
- Use of text processor
- Compliance with deadlines
- 6. Ability to work in groups and teams
- 7. Problem-solving abilities
- 8. Oral presentations
- 9. Innovation
- 10. Use of spreadsheets.

Hughes I et al. *Knowledge and skills needs of pharmacology graduates in first employment: how do pharmacology courses measure up?* TiPS 1997; 18:111-6



**Learning of medicine does not finish at  
the Faculty: it only starts.**

**William Henry Welch  
(1850-1934)**



**The problem is not to choose  
between teaching or learning:  
the new model will place teachers  
in a new situation :**

**They should **teach** their pupils to **learn** by themselves**

## The legal frame in Spain

- **Real Decreto 55/2005 of January 21st**, that establish the structure of university courses and regulates the official studies of grade [BOE del 25.1.2005].
- **Real Decreto 56/2005 de 21 de enero**, that regulates postgraduate studies [BOE del 25.1.2005].

## Decree of postgraduate studies: main principles

- To be accepted, candidates should get 180 ECTS.
- Official Postgraduate Programs (POP) should be informed by the Autonomous Communities and the University Coordination Council and authorized by the Ministry of Education and Science.

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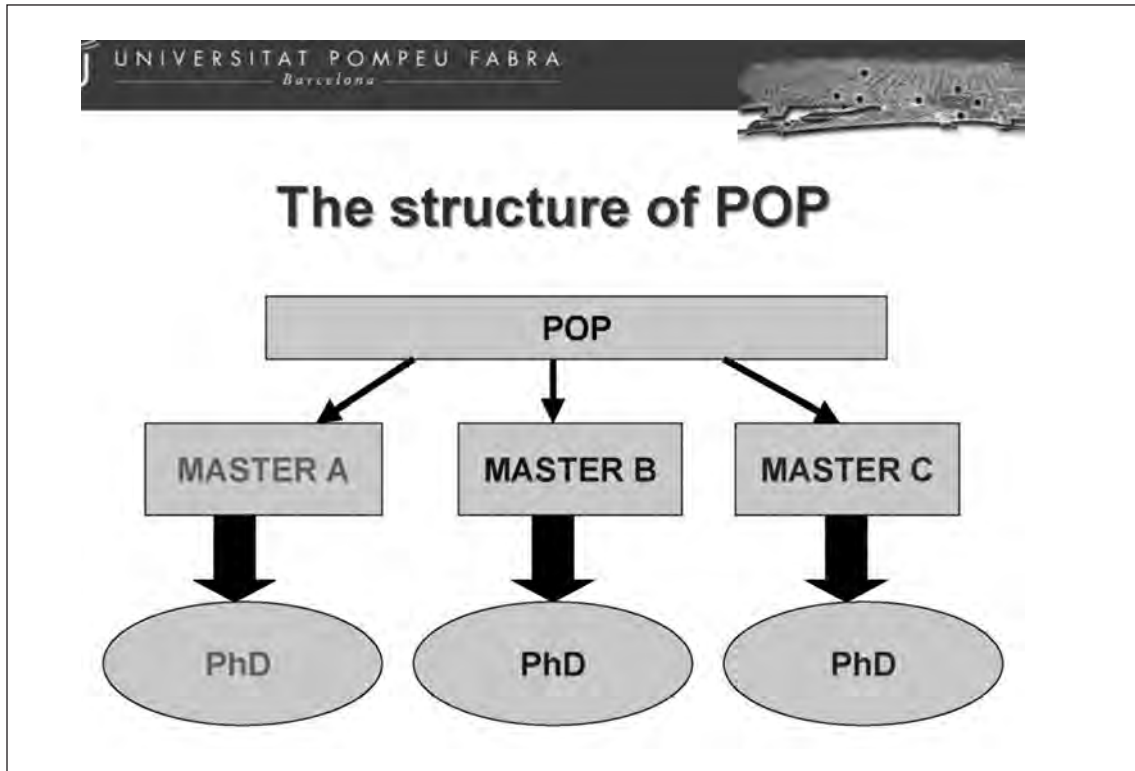
## Characteristics of Masters

- The academic requirements are 60 or 120 ECTS. It will depends of the previous training of students.
- There are devoted to professional (specialized) training, to academic specialization or to introduce students to research procedures.

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## The doctorate (PhD)

- Students who have obtained at least 60 ECTS in POP (Master title) and a total of 300 ECTS (Grade plus POP).
- Training can be organized by “The organization of several activities such as lectures, seminars or other activities... and it will include a doctoral thesis.”



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## Is ESHE an opportunity for training in R+D?

- It may help to carry out a deep review of curricula and to adapt them to the new reality.
- The work in small groups may enhance a critical view on R+D process.
- The existence of a Master may help to design new studies beyond the traditional PhD programs.