

Comparative Study of New Bachelor and Master's degrees: Germany, Italy and the UK

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Germany, Italy and the UK**

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1. Outline

The Bologna Process, now being implemented by 40 signatory countries, envisages the formation of a European Higher Education Area (EHEA) by 2010. The main objectives of the Process are to improve the transparency of degree programmes, further increase worker mobility, create more flexible degree programmes and to compete effectively in a global market for higher education. As new degree systems have been implemented across Europe, broadly following the Bachelor, Master's, Doctorate outcomes, this paper seeks to compare degree learning outcomes of three leading countries, Germany, Italy and the UK.

An important element of this study has been to engage the German and Italian authorities (through the equivalent NARIC office) to ensure a balanced view of structural changes and the surrounding issues. In-Country Review Exercises have also been conducted in the two countries to witness first-hand the manner in which reforms are taking place.

Further independent knowledge about the new Bachelor and Master's degrees including press reports and publications released by the EU, Council of Europe and the ENIC-NARIC network were also used during the course of the study.

2. Rationale

The traditional, pre-Bologna, higher education systems in Germany and Italy consisted of a long undergraduate degree cycle, followed by a second postgraduate cycle of study. Recent adjustments have divided this longer cycle into two sections, a Bachelor degree component and Master's degree cycle. The reforms and subsequent acceptance of the new degrees have proved challenging, which explains the choice of the two countries for this study.

The German and Italian higher education systems have traditionally followed the Humboldt model of education, whereas the values of the Bologna Process are more in line with the "Anglo-Saxon" (UK-US) model. For that reason in the UK there have not – to date – been significant reforms introduced as a consequence of the Bologna Process.

The "Anglo-Saxon" model of education is, in itself, not a particularly accurate form of classification, given the significant differences that exist between UK and US higher education. EHEA countries adopting a Bachelor-Master-Doctorate system, as per the Anglo-Saxon model, are now encountering a number of differences between their perceptions of the model and how it operates in practice.

The principal objective of this study is to describe and compare the changes and progress being made in the three countries studied.

2.1. Background to Bologna

The European Union Amsterdam Treaty (signed in 1997) specifies that the European Community must contribute to developing the quality of education by encouraging cooperation between member states. This was to include promotion of mobility throughout Europe, the design of joint study programmes, establishing networks, exchanging information and teaching languages. The Bologna Process, initiated through the Bologna Declaration 1999, forms part of this policy, whereas previously all responsibility for higher education lay at national level.

The Sorbonne Declaration in 1998, which grew out of a meeting of the German, Italian, French and British Ministers, paved the way for the Process by formally raising the need for mobility, employability, recognition and 'harmonisation' of degree frameworks. They advocated use of a two-cycle system and credits. These countries pledged to

'engage in the endeavour to create a European area of higher education, where national identities and common interests can interact and strengthen each other for the benefit of Europe, of its

students, and more generally of its citizens.’ (Sorbonne Declaration, 1998)

Thus the countries studied here have been key players from an early stage.

The Lisbon Recognition Convention, adopted in 1997 and effective from 1999, has been instrumental in providing guiding principles for the recognition of qualifications. In particular, that ‘substantial differences,’ and this is clarified in some detail, must be proven if a qualification is not to be recognised, and that the issuing of Diploma Supplements by HEIs should be encouraged (Bergan, 2003b). This Convention provides a strong basis for action on the recognition aspect of the Bologna Process. Italy and the UK have signed and ratified this convention; Germany has yet to ratify.

With the Bologna Process the aim of ‘harmonisation’ was rephrased in terms of ‘greater compatibility and comparability’ of HE systems (Wächter, 2004). The aims of enhancing mobility, employability and the attraction of higher education in Europe are to be achieved through the following goals:

- Adoption by all of a two-cycle higher education system (undergraduate and graduate). The first will comprise a minimum of three years study for a Bachelor’s degree and lead to the European labour market or the second cycle. The second cycle, at graduate level, comprises the Master’s degree, which in turn could lead to the doctorate.
- Implementation of the Diploma Supplement, which includes a description of the nature, level, context, content and status of the studies. This would promote employability between countries and recognition of comparable awards.
- Establishment of a credit system, such as the European Credit Transfer System (ECTS), to fully promote student mobility. Credits would also be awarded in lifelong learning.
- Enhanced mobility throughout education in regard to access to study and training opportunities and the recognition of periods spent in a European context researching, teaching and training.
- Co-operation in quality assurance.

This single, two-cycle framework across the diverse national higher education systems opens up common, recognised pathways between awards. While the long degrees of many European countries (those which followed the Humboldt approach to higher education, including Germany and Italy) were designed to prepare students for academic work or very specific professions, preparing a thorough grounding for specialisation. The new system provides more flexibility for the non-academic employment marketplace. It is also anticipated that the declaration will lead to increased international competitiveness of the European system of higher education internationally. Numbers of European students seeking higher education outside of Europe should decrease, and more non-Europeans are expected to come here to study (Bergan, 2003b:32).

EU Heads of State and Government agreed in Lisbon (2000) that their aim for the next 10 years was to make Europe 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'. The Bologna process is an essential driving force of this change, to make the European education and training systems into a 'world quality reference' - an aim from Barcelona, 2002 (European Commission, 2003).

3. Country-Specific Analysis

The extent to which these reforms have been implemented is summarised in Table 1. This shows the progress in the process of higher educational change made by the three countries studied here. The information is based on a report prepared for the European University Association on developments in the process from the point of view of all the stakeholders (Reichert & Tauch, 2003). Page numbers are given to assist further study of the methodology behind these data. It should be noted that answers concerning Higher Education Institutions are simply the response of the head of the HEI rather than the result of objective data gathering within the HEI.

Table 1: Comparison of progress in the Bologna Process of Germany, Italy and the UK

	Germany	Italy	UK
Do you have Internal quality mechanisms? (p83) (Aggregate index: 10= all HEIs developed mechanisms for teaching, research and other aspects)	0-4.6	5.42-6.4	6.4-10
Do you have a Quality Assurance Agency? (p76)	Yes	No	Yes
Do the HEIs in your country use a credit transfer system (p68)	ECTS	ECTS	Yes, but not ECTS
Status of Lisbon Convention on the Recognition of Qualifications (p61)	Signed, not ratified	Signed and ratified	Signed and ratified
% HEIs with two-tier degree structures (p 49)	25-50%	Over 75%	Over 75%
Implementation of Bachelor-Master structure (p46)	'yes, adjusting previous two level system to suit'	yes	yes
Import/export balance of student mobility (p32) (HEI data, therefore excludes 'free-movers' who are outside of any mobility scheme.)	Balanced	Balanced	Importer
Diploma Supplement (p65*)	Available but not compulsory	Compulsory	Optional: transcript of HE Progress File performs this function. Either this or the Diploma Supplement is encouraged.
Lifelong learning strategies at national level (p92)	At least a planned one	At least one in the initial stages	At least one.
HEIs with Lifelong Learning strategy (p96)	Less than 25%	Less than 25%	50-75%

Colours indicate level of development towards Bologna aims as measured by the relevant question:

■ low ■ medium ■ medium-high ■ high

with additional data from:

http://www.bologna-berlin2003.de/en/national_reports/index.htm

Source: Reichert & Tauch, 2003

Of course, this table only shows a part of the picture, but the overview shows clearly how, as the model adopted was largely in line with that of the UK, the UK scores highly with many systems already in place. For the other two countries there has been much more to change, and perhaps the fact that Germany has more still to do than Italy is indicative of the greater extent to which their original system was embedded in their history.

The following sections outline the extent of reforms conducted in the three countries studied.

3.1. Germany

Germany has very diverse higher educational provision, with academic, technical and applied degrees on offer in a range of institutions, each of a different duration and with a different purpose. Professional rights accompany the courses, so minimum requirements in each field are specified which cannot be achieved in less than the minimum specified time.

As well as standard universities, German institutes of higher education (i.e. those with the right to award postgraduate qualifications) include Technical Universities (*Technische Hochschule/Universitäten*); Universities combining *Fachhochschule* and *Hochschule* education (*Universität-Gesamthochschulen*); teacher training institutes (*Pädagogische Hochschulen*) which are mostly incorporated into standard universities; theological universities; art universities and music universities.

Traditional university degrees in Germany are separated into two levels. The *Grundstudium* (Basic Study, two years) provides a broad foundation in the subject and leads to the qualification of *Zwischenzeugnis/Vordiplom*. This is followed by the *Hauptstudium* (Main Study, 2-4 years) which leads to the *Magister Artium/Diplom/Erstes Staatsexamen*.

The third level takes another two years and leads to the *Lizentiat/Aufbaustudium/Zweites Staatsexamen*. Doctorates represent the completion of a two to four year period of independent study, known as the *Promotion*. *Habilitation* refers to a title awarded upon completion of a quantity of post-doctoral study.

There are different qualification systems for specific professions: law (5 years plus a 2 year practical period), medicine, dentistry and veterinary science (6 years plus an 18 month practical period) and pharmacy (4 years plus a 1 year practical period). Some other professional qualifications are studied for, along

more vocational lines, at Universities of Applied Science (*Fachhochschulen*) (e.g. engineering, social work, public/legal administration, IT, design, mathematics, health management). The standard course is a four year *Fachhochschuldiplom (Diplom-FH)* which incorporates at least a semester of integrated practical training (*Praxissemester*). *Fachhochschulen* have been entitled to offer Bachelor and Master's programmes since December 2001.

The new model used for degree awards in Germany is '3+2': three years of Bachelor study, two years for the Master's, although in some cases Bachelor degrees take 3½ or 4 years such as at *Fachhochschulen*. The 4+1 model is also available as an alternative model, although this is not as popular as it is considered difficult to reach a higher academic outcome in one year. The Bologna Process in Germany started with the introduction of a few isolated experiments, and now a total of 1,280 Bachelor degrees and 1,854 Master's degrees have been introduced across all the *Länder* (Hochschulkompass, 2004).

Of these new degrees (as at 01.08.04) only 258 Bachelors and 331 Masters' (some in every *Land*) are accredited by the Accreditation Council, which was set up in 1999 specifically for the quality assurance of these new degrees (Akkreditierungsrat, 2004). The Council aims to 'ensure minimum standards with regard to study contents and to assess the professional relevance of the degrees awarded' (Bologna Process, 2003d). Clearly, there is some way to go before consistent quality standards are being met across the new courses, and the criteria used by the Accreditation Council are still under development. There is also limited information about internal quality procedures in HEIs, as can be seen in Table 1. The German Rectors' Conference is in the early stages of developing a framework to express qualifications by different learning outcomes, but some institutions have moved further ahead with implementing this methodology (Adam, 2004). Although the two-tier Bachelor-Master structure is in place, then, in practice there is still work to be done on the content of these before they meet the Bologna outcomes.

The proportion of young adults entering tertiary education in Germany is relatively low compared to other European countries - 20% according to the Organisation for Economic Co-operation and Development (OECD) - and it is hoped that the Bologna Process will open up higher education to a much wider audience. The traditional degrees are very academically oriented, with the intention of providing a broad knowledge base for further academic specialisation. A Bachelor degree with the aim of employability may well prove more attractive to potential students and increase take-up over time.

Despite the fact that more than 20% of programmes fall into the new Bachelor-Master structure (Tauch, 2004), this only accounts for 3% of the university population nationally (Witte, 2004), and under 50% of HEIs (see Table 1). There is a lack of students willing to take this route. Equally, public and employer perception towards the new Bachelor degree has so far been cautious, with many considering it to be an easy option in comparison to the traditional *Diplom/Erste Staatsexamen* that takes 4-6 years.

German higher education has used ECTS as a model for its credit system which is relatively advanced. Since 2001, all new courses established must be modularised and have a credit system based on student workload.

3.2. Italy

Traditionally the main degree offered by Italian universities was the *Diploma di Laurea* (DL). This required on average 4-6 years of study, usually consisting of a two-year foundation stage and three-year period of specialisation and application. In 1990, Italy introduced new short-cycle awards, designed to sit easily alongside other EU 3-year degrees: this was referred to as the *Diploma Universitario* (DU). As the DU was restricted to certain subjects (often vocationally oriented, such as business, design, engineering, paramedical assistance, social work), it has not traditionally been viewed as academic in nature.

From 1999 the DU was phased out and legislation introduced that paved the way for change across the whole university system. This introduced the 3+2+3 model and gave institutions more autonomy. A new three-year *Laurea* was created, with a two-year graduate qualification *Laurea Specialistica* (LS) for highly qualified professions in specific sectors. In certain programmes, however, (e.g. medicine, dentistry, architecture), a 5-year *Laurea Specialistica* is the only option. LS has just (October 2004) been renamed *Laurea Magistrale* (LM2).

The Master's degree is divided into two levels, each minimum 1 year. Hence this is an option in either or both the second (graduate) and third (postgraduate) cycles. Specialisation degrees (*Diploma di Specializzazione*) are also offered at graduate (2 years) and postgraduate (2-5 years) levels for the practice of specific highly qualified professions as required by law or EU directive (e.g. physiotherapy). Of course, the third cycle also contains the research doctoral degree (min. 3 years). The new *Laurea* degrees are quantified in terms of credits based on the ECTS system and are accompanied by the Diploma Supplement.

Superficially, then, it would seem that the new *Laurea* is replacing the DU. The question posed by the Bologna Process is whether the orientation of the new course has changed towards outcomes, skills and competences, and away from volume of content. Certainly the *Laurea* has new course descriptions and educational goals with the labour market in view, but if students' retention of the facts is still the aim, the flexibility and competitiveness that the Bologna Process should seek to create will not be achieved.

This point is also relevant to the German situation and indeed there are many similarities: both countries have faced and are facing the challenge of turning a longer degree into a three-year one. This task is nonetheless significantly easier for the Italians as there existed previously an outcome after 5 years. The main change has been how to divide the content of the outcomes into

3+2, which (initially at least) has heightened suspicions that the core input-based values remain. At any rate, Italy's 1999 Higher Education reform addressed the assessment of qualifications by professional profiles and outcomes in terms of 'educational goals' expressed in terms of knowledge and abilities (Adam, 2004).

Acceptance by Italian students and employers has been an issue for the new *Laurea* as it is closely associated with the two-year foundation stage of the old *Diploma di Laurea* and the DU. It was and is the 5-year outcome that is widely respected, making it difficult for the new degrees to gain acceptance. However, only 30% of those who started this traditional degree used to graduate (Harding, 2003) and the new system at least provides hope that more students will leave university with a final award. Legal provisions have stated the equivalence of the new degrees for the purposes of entry to professions, professional examinations and public appointments, aiming to promote them with employers and students, but leading to potential lack of precision in comparison of qualifications.

The Italian higher education evaluation body (the *Comitato Nazionale per la Valutazione del Sistema Universitario* (CNVSU)) encourages innovation and experimentation. CNVSU is working on harmonising the self-evaluation procedures carried out by individual HEIs' evaluation units (Clark, 2004) – but there is still some way to go. Quality is currently assured by universities submitting all course outlines to be vetted centrally; there are also some internal quality mechanisms (see Table 1).

The Italian CIMEA (NARIC-ENIC) welcomes the reforms, while recognising that the higher education system in Italy is faced with a challenge implementing such a radical transformation. Their system currently has limited diversification in qualifications, rigid curricula, a very high drop-out rate, high graduate unemployment and limited internationalisation. They are changing an elite to a mass higher education system; moving from a centralised system to financial, organisational and curricular autonomy of institutions (CIMEA, 2004). This makes the reform all the more needed. In relation to the new world ranking of universities, Ince and Peitzker (2004) note that 'perhaps the most striking feature of the European top 50 is the invisibility of southern Europe... This is ominous for these countries' prospects in the continent-wide knowledge economy of which European and national planners dream.' Italy is clearly taking this challenge seriously in the hope that, quite apart from international rankings, their number of graduates and their employability will increase, and their graduates' age will decrease. This would lead to a considerable rise in productivity and fall in unemployment among young adults (CIMEA, 2004).

The Italian Government announced in 2003 that it was considering more major changes to the system. The president of the Italian Rectors' Conference, Piero Tosi, is of the opinion that 'it would be a mistake to 'reform the reform' before it is fully up to speed... Improvements may well be possible, but the basic structure should remain.' He says that results are very positive: 'the dropout rate has been cut by half, and the number of graduates has increased' (Holdsworth, Seppänen & Bompard, 2004).

3.3. UK

The UK government and universities have not needed to make significant changes in response to the Bologna Process. The Bachelor-Master structure is already in place, and

‘many of the ‘Bologna’ policy objectives match UK higher education policy extremely closely – the employability of UK graduates after completion of first-cycle studies, for example, is fundamental to our practice, as is the application of rigorous Quality Assurance procedures’ (Davies, 2004).

Funding-related debates have eclipsed the Bologna Process. In addition, some safety is felt with the British Council’s prediction that global demand for higher education in Anglophone countries will grow at 6% per annum between now and 2020 (and 4.7% per annum for the UK alone), but there is increasing competition even within the Anglophone world, and demand can be volatile.

‘Universities UK’, the voice of universities in the UK, has made efforts to inform the HE sector of the Process and call for sustained and serious engagement on the part of the Government (Crewe, 2004). They noted with disappointment the absence of mention of Bologna in the government’s White Paper *The Future of Higher Education* (Crewe, 2004; Floud, 2003). Indeed, a media release of theirs commented on the incompatibility of the white paper with the Bologna Process (<http://www.universitiesuk.ac.uk/mediareleases/show.asp?MR=349>). However a subsequent government report mentions and welcomes the process (DfES, 2004). The government claims to be committed to the process, while not committing any funding to it (House of Lords, 2004). As new objectives are added, as the UK will sit on the Bologna Board from 1st January 2005 and will have Presidency of the EU from July 2005, an increase in engagement is inevitable.

Two areas in particular demand the attention of UK universities. The Transcripts of Progress Files, which are currently in the role of the Diploma Supplement, will need to have data fields added to comply with the Bologna requirements and ease comparability (Universities UK, 2004). Some effort will be required to meet the 2005 deadline set in Berlin 2003.

The UK’s emphasis on holistic learning outcomes makes difficult the implementation of a credits system which measures volume and level of learning (as required by the Bologna Process), but this is seen as a measurement tool, rather than an end in itself, and as such it is extremely useful (Bologna Process, 2003c). Considerable effort will also be needed to introduce this.

4. Post-Bologna Progress at the European level

Ministers of Higher Education met in Berlin in September 2003 to consider progress so far and to set priorities for the next two years prior to the Bergen conference in May 2005. The three priorities agreed (set out in detail in the Berlin Communiqué, 2003a) were:

- Quality assurance
- The two-cycle system
- Recognition of degrees and periods of study.

Progress in reaching specific 'European Benchmarks' towards these objectives is being measured.

4.1. Quality assurance

Quality assurance is key to comparability of degree outcomes. Ministers have agreed that by 2005 all national quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved.
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results.
- A system of accreditation, certification or comparable procedures.
- International participation, co-operation and networking.

4.2. The two cycle system

All the signatories will have started introducing the two cycle system (Bachelor-Master or BaMa) by 2005. Indeed the countries studied here have already done so.

4.3. Recognition

Ministers also called for qualifications frameworks to be drawn up in each country, in particular that they are sufficiently detailed, describing qualifications 'in terms of workload, level, learning outcomes, competences and profile' (Bologna Process, 2003a). The focus is now upon ensuring comparable learning outcomes. There have been a number of initiatives to ensure comparable outcomes much of which has originated from post-Bologna European meetings. The United Kingdom Bologna Seminar on outcomes in Edinburgh (July 2004) is one example, at which Stephen Adam (2004) summarised that 'learning outcomes have the potential to contribute to every aspect of the Bologna agenda (every action line) as they play an

underpinning role (a common currency) in the clear expression of the teaching-learning assessment relationship’.

It is nonetheless important to retaining the individuality of different countries’ approaches to achieving the same outcomes:

‘In terms of recognition, I hope that by the time the European Higher Education Area is fully established, assessment of qualifications will focus more on what the applicant knows and can do and less on how he or she has obtained the qualification. We will be more ready to admit that different learning paths can lead to qualifications that, while they may not be completely similar in all their components, will be quite equal in terms of the purpose for which recognition is sought.’ (Bergan, 2003c:185)

Work to this end is being boosted by the ‘Tuning educational structures in Europe’ project (<http://odur.let.rug.nl/TuningProject/index.htm>). This does not seek to develop prescriptive curricula but to define reference points in specific subject areas so that subject specialists can ‘tune’ their programmes to each other across the EHEA. These points of convergence are competences, both generic and subject-specific. Individual universities in all three of the countries studied here are involved in a range of subject areas.

Recognition will also be assisted by the objective set (in Berlin 2003) that “every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge” and that it should be issued in a widely spoken European language. The significance of the Lisbon Recognition Convention was stressed: this should be ratified by all countries participating in the Bologna Process as soon as possible. For the UK this is the first specific wide-ranging change. Italian universities are already obliged to issue Diploma Supplements and German institutions this is an option.

In summary, then, comparable learning outcomes are being ensured through the following:

- Number of Years Studied
- Credit Points (based on volume of study) e.g. ECTS
- Quality Assurance Mechanisms (being established across Europe, based upon minimum standards)
- Establishment of national Qualification Frameworks and development towards a Common European Framework of Reference.
- Subject-Specific content collaboration, such as through the Tuning Group
- Mobility programmes (e.g. ERASMUS) to encourage international exchange of students, teaching staff and ideas, broadening knowledge.
- Mobility tools e.g. Diploma Supplement
- European Directives

5. Major Outcomes of the Bologna Process

Whilst certain problems have been identified with new Bachelor-Master degrees, there are significant benefits now starting to emerge from the process. The transparency of degrees across Europe is being improved, as we move towards degrees having the same titles, same duration, same volume of study and similar quality assurance systems. Shorter degree programmes in many countries have been implemented thereby making education and training more cost effective and the mobility of the labour force is being increased.

In addition, the shift in the debate to learning outcomes is defining the next area on which to concentrate work. It is hoped that focus on subject-specific initiatives, such as Tuning, will help to ensure that content issues in Germany and Italy are resolved, allowing the Bologna degrees to reach viable outcomes.

6. Summary

Europe's diversity of higher education and research possibilities demonstrates its potential strength and competitiveness. The Bologna Process can act as a common framework of reference for these diverse systems, so that each higher education system can play to its own strengths. Each country now has clearer channels to being enriched by others' approaches, and sharing its own expertise. Communication is being promoted through the Process such that systems are moving increasingly towards transparency, and the Diploma Supplement and quality assurance requirements of the Process provide the foundation for this route to transparency.

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