



## Credit transfer for permeability

► Work has gone on for some time in Germany at national level to promote permeability between educational pathways, but with limited impact. Developments at European level to establish a credit points system across all sectors of education could now support efforts to bring about greater permeability, by enabling credit transfer for prior learning. This article will examine the thrust of this new orientation, the prerequisites that would be necessary for implementation, the current status of developments and the thematic issues that remain to be addressed.



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The transparency and permeability of educational pathways is an issue which constantly demands attention from national education policymakers. At times the focus is on lifelong learning, at other times on equal opportunities for mobility and progression within and between different educational sectors and systems.

This is no accident but an expression of the continuing separateness and relative insularity of the different strands of educational provision, particularly the vocational-academic divide.

For decades, efforts have been geared towards linking up these forms of provision.

### National efforts

Discussions about permeability between the vocational and higher education sectors have been influenced by a number of different concerns, and by shifting priorities even within those areas. Thus, in the 1960s, it was largely the specific needs of the labour market (e.g. for teachers or engineers) which led to measures to open up access to higher education. In the 1980s and early 1990s, attention was turned to boosting the appeal of vocational education and training. Amid the debate on the equivalence of vocational and general education, the German Länder enacted regulations on access to higher education for those who had professional experience but no academic certificate of entitlement. Then, from the mid-1990s, there was great interest in offering a combined alternative to conventional university studies, i.e. combining initial vocational training or employment with study. This was aimed particularly at upper secondary school leavers looking to enter employment. The new "dual" programmes of study were developed and established at higher education institutions.

Nevertheless, these developments did not contribute in any substantial way to the promotion of transparency and permeability between the different strands of the education

system. Why not? The regulations of Germany's Länder on access to higher education without an academic entrance qualification affirm the underlying assumption that successful completion of initial vocational training, and subsequent work and continuing vocational education and training, is an effective qualification for tertiary-level study. Yet they provide no means of obtaining credit towards a programme of study for relevant competences already acquired in working life. Given that there are differently formulated regulations in each Land as well as regional differences in implementation, all these provide is a general prognosis of the likely academic success of vocational applicants. Even for the majority of dual courses of study, where periods of vocational training (and occasionally the curriculum units covered) are largely recognised as integral components of the study programme, this is no more than the first step in improving transitions, and hence permeability, between vocational and higher education. Apart from the fact that most dual courses of study were developed for upper secondary school leavers looking to enter employment and hence unaffected by the transition issue, even here there is little or no recognition of prior learning in the form of exemption from repeating duplicate elements, nor mutual recognition and credit transfer for completed examination components. In other words, so far credit transfer for prior competence has not been – at least at national level – a universal concern.

## Reorientation with European momentum

In response to the lack of options for awarding credit for vocational competences, and the resulting lack of transparency and permeability between the vocational and academic strands of the system, a possible solution might be the emphasis on learning outcomes, i.e. what someone can do, what competences they possess, on successful completion of a particular course. If accompanied by the development and establishment of a mechanism for validating such competences by means of a credit point system, it would be possible to award quantifiable credit for prior learning, which could be transferred to subsequent courses, wherever they are undertaken.

### IN HIGHER EDUCATION – ECTS

These considerations were prompted not only by European resolutions but also by national recommendations, which led to an intensive debate about developing and introducing this kind of system in both the academic and the vocational sector. Development of the **European Credit Transfer and Accumulation System (ECTS)** for the higher education sector throughout Europe has been in progress since 1989. The 1999 Bologna Declaration proclaimed the introduction of this credit transfer system in all member states

to be a key element in the creation of a European Higher Education Area by 2010. At the same time, a qualifications framework was established which defines the standards for bachelors', masters' and doctoral-level degrees. Particular tribute should be paid to the thought devoted to providing an interface with vocational education in the Bologna Declaration.<sup>1</sup> This laid the foundation stone for the possibility of credit for vocational learning towards tertiary-level courses – and vice-versa, a relevant consideration for degree-course drop-outs hoping for seamless continuation of their training in the vocational sector.

### IN VOCATIONAL EDUCATION – ECVET

Following on from developments in the higher education sector, more recently there has been work on another European credit points model – ECVET (the **E**uropean **C**redit System in **V**ocational **E**ducation and **T**raining). The 2002 Copenhagen Declaration paved the way for this development. In this document it was agreed to strengthen cooperation in vocational education and training by

- increasing transparency and supporting information, guidance and counselling,
- promoting the recognition of competences and qualifications by means of a credit transfer system for initial and continuing vocational education and training, and
- ensuring high quality standards in vocational education and training.

The implementation of these aims is only just beginning, and should not proceed in isolation from developments in the higher education sector – particularly as regards the creation of systems for recognition of competences and credit transfer between vocational and academic pathways, or between the world of work and the world of education. Part of the ECVET debate encompassed the development of a mechanism for the validation of occupational competen-

from 1989	Development of the European Credit Transfer and Accumulation System (ECTS) for the higher education sector
1999	<b>Bologna Declaration</b> ECTS is proclaimed a key element in the creation of a European Higher Education Area by 2010; decision to create a qualifications framework for bachelors' and masters' degrees
2002	<b>Copenhagen Declaration</b> on enhanced European cooperation in vocational education and training and development of a European Credit System in Vocational Education and Training (ECVET)
2004	<b>Maastricht Communiqué</b> Creation of a European Qualifications Framework (EQF) for the vocational and higher education sectors with a corresponding system of credit points; call for compatibility between ECVET and ECTS.

Overview 1 Establishment of a European credit transfer system

ces, which is a key difference from the debate in the higher education sector. The central focus is not on the requirements of a formal qualification, but is directed towards the recognition of occupational competences/clusters of competences (learning or work outcomes); what a person should be equipped to do (the target profile) and what the person can do already (the actual profile).

#### AT THE INTERFACE BETWEEN VOCATIONAL AND HIGHER EDUCATION

Finally, the 2004 Maastricht Communiqué recommended continued development as well as linkage between the higher education and vocational education sectors. The ministers emphasised the need to raise the attractiveness of vocational education and training in Europe, to link vocational education and training with labour market needs, and to promote greater permeability with the higher education sector. Two mechanisms in particular are to be developed in this connection. The European Qualifications Framework (EQF) which should be suitable for the validation of vocational and academic competences, and the European Credit System in Vocational Education and Training (ECVET).

### Prerequisites for credit transfer

To implement these European resolutions, and especially to lay suitable foundations for the mutual recognition and transfer of competences (not qualifications!), one credit

transfer system needs to be established which operates across the boundaries of the different educational sectors (see box).

The first step will be the fundamental task of documenting vocational and academic competences (the target profile). The definition of the term “learning outcome” and the ultimate descriptions of individual competences would need clarification. In vocational education and training, reference can be

made to training and examination regulations. One aspect to be examined is the extent to which the description of learning outcomes requires concretisation with specific examples. Similar questions arise in the higher education sector. Degree and examination regulations are more input-oriented, while the module handbooks produced in connection with the introduction of bachelor’s and master’s programmes do not indicate with sufficient clarity what a graduate of the particular course should be able to do.

The evaluation of competences (learning outcomes) identified would be the second step.<sup>2</sup> An appropriate mechanism for this purpose would contain general evaluation criteria (descriptors) described at different levels (as currently discussed in relation to the EQF and the prospect of a compatible national competence framework). With the aid of defined evaluation modalities which should be relevant to both sectors of education, it would then be possible to award credit points which express the “value” of each individual competence. This in turn would make it possible to award credit transfer for an individual’s prior learning or competences (actual profile) towards a subsequent education programme in either the vocational or the academic sector.

In the third step, practicable methods should be established for the documentation and evaluation of competences. Meanwhile, models for credit transfer within and between different strands of education should be developed and established in the education system. These methods could subsequently be made equally usable for the labour market, especially for the selection of suitable staff and for in-company human resources development.

### Status of developments

Currently, work is taking place at national level on the implementation of these objectives in the academic and vocational sectors and at the interface between them. The progress achieved varies greatly.

#### IN HIGHER EDUCATION

Provision was made for the introduction of bachelors’ and masters’ degrees combined with credit points in German universities and higher education institutions in the amended German Framework Act for Higher Education of 1998. The relevant provision (§15 (3)) made it possible for two or more higher education institutions/universities to reach agreements on mutual recognition and credit transfer for units of study completed by students. Two years later the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK) decided to proceed with the realisation of the aims of the Bologna Declaration in Germany. In January 2002, the German Science Council (Wissenschaftsrat) recommended that the universities of applied science (Fachhochschulen) should also be included in this development, and in October 2004 the KMK further extended the introduction of credit points to state colleges of advanced vocational studies (Berufsakademien). As a result, the German higher education sector now boasts more than 2,900 bachelors’ and masters’ degree programmes. In the summer semester of 2005, this represented around 26% of all degree courses at universities, universities of applied science and colleges of art and music.<sup>3</sup> Regrettably for the

#### Necessary steps for the establishment of a European credit transfer system

1. Description of competences (learning outcomes)
2. Development of a standardised and translatable evaluation mechanism
  - Levels and descriptors (EQF/NOF)
  - Evaluation modalities (ECVET/ECTS)
3. Development of practicable methods of use and defined credit transfer rules.

prospect of universal mutual transferability of study credits, however, they make use of a variety of credit transfer systems and assessment principles.<sup>4</sup> One remedy here might be the adoption of the ECTS system which has undergone further refinement at European level. Developed during the 1990s under European education programmes as a quantitative system, it now takes account of qualitative elements such as learning outcomes, levels and student workloads. If the refined ECTS can become more than just a basis for the latest projects at national level in the higher education sector,<sup>5</sup> and can be incorporated into the criteria of accreditation agencies, then thinking in the higher education sector will have moved one step closer to a credit transfer system which operates across academic-vocational boundaries. The same applies to implementation of the national qualifications framework in higher education. The national framework for qualifications, in the sense of formal certificates, has been developed since it was announced in the Bologna Declaration and was passed by the KMK in April 2005. This framework, too, allows for an interface with vocational education and training, but the detailed formulation of this aspect has been left open-ended. This is no surprise, given the current divergence of emphasis between the focus on qualifications in higher education and on competences in the vocational sector.

#### IN INITIAL AND CONTINUING VOCATIONAL EDUCATION AND TRAINING

The most recent developments are taking place in vocational education and training. As yet, no resolution or recommendation to develop a national credit transfer system has been forthcoming from education policy actors. Nevertheless, in March 2005 the German Employers' Organisation for Vocational Training (KWB) put forward an initial proposal for a European Qualifications Framework (EQF) and credit transfer system (ECVET) which has been further refined by Gesamtmetall (metal and electrical industry employers' association), BITKOM (association for IT, telecommunications and new media companies), VDMA (German Engineering Federation) and ZVEI (electrical and electronics manufacturers' association). These proposals were fed into discussions during the consultation on the EQF (which covers all sectors of education) and may also contribute to the subsequent development of a national qualifications framework (NQF)<sup>6</sup> or, preferably, a national competence framework (NCF). The main issues for discussion within this consultation are the fundamental principle of the EQF itself, the proposed general criteria for the evaluation of competences (descriptors – knowledge, skills and competences) and levels, and the question of linkage with the national framework. By the end of 2005, various national responses<sup>7</sup> had been submitted to the European Commission's consultation document.<sup>8</sup> They indicate that the EQF is generally seen as a means of establishing transparency (i.e. "decipherability" of qualifications) and better

#### Literature, resolutions and responses

MUCKE, K.; SCHWIEDRZIK, B. (ed.): Studieren ohne Abitur. Berufserfahrung – ein "Schrittmacher" für Hochschulen und Universitäten [Study without a university entrance qualification. Professional experience – a "pace-setter" for higher education institutions and universities]. Published by BIBB, Bielefeld 1997

MUCKE, K.: Duale Studiengänge an Fachhochschulen. Eine Übersicht [Dual courses of study at universities of applied science. An overview]. Published by BIBB, Bielefeld 2003; [www.wege-ins-studium.de](http://www.wege-ins-studium.de)

Declaration of the European Ministers of Vocational Education and Training, and the European Commission, on enhanced European co-operation in vocational education and training. Copenhagen, 29. and 30.11.2002

Maastricht Communiqué on the Future Priorities of Enhanced European Cooperation in Vocational Education and Training (VET) of 14.12.2004

European Commission: A European qualifications framework underpinned by a set of common reference levels. Brussels, 23 November 2004

Beschluss der KMK vom 10.11.2000 zur Realisierung der Ziele der Bologna-Erklärung in Deutschland – Sachstandsdarstellung [Decision of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of 10.11.2000 on realising the goals of the Bologna Declaration in Germany – national report]; [www.kmk.org/doc/publ/bologna.pdf](http://www.kmk.org/doc/publ/bologna.pdf)

The Wissenschaftsrat (German Science Council): Empfehlungen zur Entwicklung der Fachhochschulen [Recommendations on the development of universities of applied science]. Doc. 5102/02. Berlin, 18.1.2002. It was recommended to allow credit transfer and award accreditation for phases of professional experience.

Beschluss der KMK vom 15.10.2004: Eckpunkte für die Weiterentwicklung der Akkreditierung in Deutschland [Decision of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of 15.10.2004: Key points for the further development of accreditation in Germany]

Beschluss der KMK vom 21.4.2005: Qualifikationsrahmen für deutsche Hochschulabschlüsse [Decision of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of 21.4.2005: Qualifications framework for Germany higher education degrees]

German Employers' Organisation for Vocational Training (KWB): Berufliche Bildung für Europa. Europäischer Qualifikationsrahmen (EQF) und Leistungspunktsystem (ECVET). [Vocational education for Europe. European qualifications framework (EQF) and credit transfer system (ECVET)] Version: March 2005

Germany's first responses to a "European Qualifications Framework (EQF)" by the BMBF and the KMK, 15.11.2005

Response of the top-level organisations of German industry to the consultation document, 15.11.2005

Response of the German Federation of Trade Unions (DGB) to the consultation document "Der Europäische Qualifikationsrahmen – Ein Transparenz-Instrument zur Förderung von Mobilität und Durchlässigkeit" [The European Qualifications Framework – A transparency mechanism to promote mobility and permeability], 6.12.2005

Response of the Board of the Federal Institute for Vocational Education and Training (BIBB) of 14.12.2005 to the consultation document

Declaration of the national top-level organisations of the social partners and the BMBF on the implementation of the credit transfer system in continuing vocational education and training exemplified by the advanced training regulation for IT of 27 March 2002. In: BMJ (ed.): Federal Gazette of 12 June 2002, No. 105a, Vol. 54, Bonn 2002

Recommendation of the BMBF, the KMK and the HRK to the universities and higher education institutions to award credit points for advanced vocational training and allow credit transfer towards a higher education degree, 26.9.2003; [www.hrk.de/beschluesse/3597.htm](http://www.hrk.de/beschluesse/3597.htm); in addition, see BMBF: press release 202/03 "Berufsausbildung soll auf das Hochschulstudium angerechnet werden" [Vocational training to be credited towards higher education degree] of 4.11.2003

permeability between different forms of provision and sectors of education. It is nonetheless feared that, without an adequate phase of development, the (internally inconsistent) EQF in the form currently proposed may not gain sufficient acceptance to stimulate changes in national systems. There are inherent contradictions in the proposed EQF between the (competence-based) learning outcomes approach, which is to be welcomed, the impossibility of verifying where competences were acquired, and the (unsubstantiated) assignment of qualifications to EQF levels (Annex 2). Logically the levels should only serve the purpose of evaluating individual competences/clusters of competences. Any associated statement on how qualifications within a national education system relate to one another remains within the domain of national/sectoral authorities. Only if the EQF refrains from making explicit links with formal qualifications will it become possible to correct what are currently seen as inappropriate “classifications” of vocational qualifications within European systems of equivalence (e.g. the European Recognition Directive), based on evidence.

The elements of the EQF described are integral to the core concept of a credit transfer system in vocational education and training (ECVET), which is now being fleshed out with corresponding evaluation modalities. Efforts should also be made to ensure compatibility with the more extensively developed ECTS in higher education, so that the two systems may reasonably be combined at a later date. Regarding this aspect, a consultation process in the member states is scheduled to run from mid-2006.

#### AT THE INTERFACE BETWEEN EDUCATIONAL SECTORS

As mentioned above, the Bologna Declaration similarly made provision for an interface with vocational education and training. This was taken up at national level by means of various resolutions and recommendations. The goal of allowing credit for vocational learning towards higher education courses, a process to be facilitated by the common implementation of a credit transfer system in continuing vocational education and training following the example of the advanced IT training regulation, was subsequently announced in a declaration by the top-level organisations of the social partners and the Federal Ministry of Education and Research (BMBF) in March 2002. For the implementation of vocational-academic transitions, however, it was necessary to await the recommendation of the BMBF, the KMK and the HRK (Association of Universities and Other Higher Education Institutions in Germany) in September 2003 on the awarding of credit for advanced vocational training towards tertiary study. The challenge now is to make full use of the opportunities to award credit points for advanced vocational training and operate credit transfer towards a higher education degree at a level corresponding to the standards of the given degree course.

Under the European LEONARDO DA VINCI programme, work is in progress on initial approaches to the comparative description of competences and the development of evaluation modalities, particularly in the field of IT, chemistry and the automobile industry. Meanwhile individual companies in tune with European policy (Airbus and Hewlett Packard, to name but two) are using job profile comparisons to establish transparency between different levels of qualification. Coordination of these differing approaches will be another task for the future.

At national level exclusively, the early approaches developed for IT continuing vocational education and training are currently undergoing refinement.<sup>9</sup> Here a mechanism/method for the evaluation of vocational IT competences at “Operative Professional” level is being developed and tested with a view to enabling credit transfer towards higher education.

The criteria, levels and the principles were generally comparable to the concept for the EQF mechanism, presently

Two programmes promote credit for vocational qualifications towards higher education degree courses:

#### 1. *Academic course credit for vocational competences*

Agency: BMBF

Programme start: September 2005

The programme clarifies questions concerning the description/recording of vocational and academic competences with reference to learning outcomes, the evaluation/measurement of these competences, and methods for making equivalence comparisons between these competences and forms of evaluation. Eleven regional projects are being supported together with a programme of scientific process monitoring (HIS/VDI/VDE-IT) in the IT, health and social care, industrial-technical and commercial sectors. HIS = Higher Education Information System ([www.his.de](http://www.his.de)); VDI/VDE-IT = Verein deutscher Ingenieure e.V./Verband der Elektrotechnik Elektronik Informationstechnik e.V. – Innovation+Technik GmbH (VDI/VDE Innovation+Technik GmbH, a company of the Association of German Engineers and the Association for Electrical, Electronic & Information Technologies; [www.vdivde-it.de](http://www.vdivde-it.de)).

#### 2. *Further development of dual study programmes in the tertiary sector*

Agency: Bund-Länder Commission for Educational Planning and Research Promotion (BLK)

Programme start: April 2005

The programme is developing and testing methods for use throughout higher education to award credit for vocational qualifications and for professional experience, taking account of the international context including quality assurance.

under discussion, which covers all sectors of education. In particular, the BMBF programme on “Academic course credit for vocational competences” (“Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge”) is an important project geared towards practical implementation.<sup>10</sup>

At the same time, work is in progress on the “Further development of dual study programmes in the tertiary sector” (“Weiterentwicklung dualer Studienangebote im tertiären Bereich”).<sup>11</sup> The results of these programmes could serve as the foundation stone for the establishment of a qualitative credit transfer system across the boundaries between educational sectors. This would not only enable qualitative evaluations of competences acquired by the vocational and the academic route, but also give some positive impetus to the equivalence debate.

The awarding of credit for prior competences towards more advanced (tertiary level) courses could break down barriers and open up new opportunities for completers of vocational programmes to launch or advance their careers.

## Thematic issues

Before a credit transfer system is implemented across all sectors of education, and *mutual recognition* and credit towards higher education for both vocational and academic competences/clusters of competences become a reality, answers must be found to a number of unresolved issues. In particular, these concern appropriate mechanisms for the identification of competences, methods of mutual recognition and credit transfer, examination procedures, the documentation and evaluation of competences, and accreditation of the same (cf. Overview 2).

1. Development and testing of appropriate mechanisms and methods for the identification of competences/clusters of competences (learning outcomes) and their qualitative assessment (descriptors/levels; EQF/NQF), and for the calculation of credit points (ECVET/ECTS).
2. Development of equivalence procedures for mutual recognition and credit transfer; clarification of trust issues in relation to cooperation and networking between releasing and receiving institutions/educational sectors.
3. Continuing development of initial and advanced training regulations and examination regulations; orientation towards learning outcomes
4. Modification of examination practice (forms of examination; initial and continuing training of examiners) to ensure outcome-orientation.
5. Documentation of competences/clusters of competences and their evaluation (level and credit points) with the courses (databases) and between them, and for the individual (e.g. implementation and ongoing development of the Europass document).
6. Clarification of questions concerning the accreditation of vocational and academic competences/clusters of competences and the necessary criteria to do so.

This does not claim to be an exhaustive compilation of all the thematic issues. Nevertheless, at the present time, these appear to be the most urgent. If answers and solutions can be found, and if they can be implemented in both the vocational and academic sectors, then the pursued objective of mutual recognition of competences/clusters of competences becomes achievable. Permeability between the vocational and the academic sector, i.e. more flexible dovetailing of and transitions between the two sectors, could then be realised at a quality level never previously achieved. To what extent education policy is capable of supporting this ongoing process remains to be seen. Whatever happens, the statement of intent in the German government’s coalition agreement to open up universities to skilled workers could strike a note of optimism and provide crucial support. ■

### Notes

- 1 The higher education institutions were called upon to find ways of recognising prior non-academic learning with credit points and credit transfer.
- 2 Initial findings and exemplar assessments from advanced IT training have been made available. On this, see: Mucke, K.: Förderung der Durchlässigkeit zwischen beruflicher und hochschulische Bildung. Anerkennung von Qualifikationen und Kompetenzen. [Promoting permeability between vocational and academic learning. Recognition of qualifications and competences]. BWP 33 (2004) 6, p.11 ff. and footnote 9.
- 3 Cf. BMBF: Stand der Einführung von Bachelor- und Master-Studiengängen im Bologna-Prozess sowie in ausgewählten Ländern Europas im Vergleich zu Deutschland [Progress with introduction of bachelors’ and masters’ degrees under the Bologna Process and in selected European countries in comparison with Germany]. Submitted on 28 February 2005 by the Centre for Research on Higher Education and Work at the University of Kassel
- 4 Schwarz-Hahn, S.; Rehburg, M.: Bachelor und Master in Deutschland. Uni Kassel. 2003
- 5 “Kompetenzzentrum Bologna”: The Association of Universities and Other Higher Education Institutions in Germany (Hochschulrektorenkonferenz, HRK) is supporting 20 higher education institutions in the implementation of the Bologna reforms, funded by the BMBF. www.hrk.de
- 6 Hanf, G.; Hippach-Schneider, U.: Wozu dienen nationale Qualifikationsrahmen? – Ein Blick in andere Länder [What is the purpose of national qualifications frameworks? – A look at other countries]. In: BWP 34 (2005) 1, p. 9 ff.
- 7 Commission of the European Community: Towards a European Qualifications Framework for Lifelong Learning. Brussels, 8.7.2005
- 8 Federal Ministry of Education and Research (BMBF) and Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK); top-level national organisations of German industry; German Federation of Trade Unions (DGB); Board of the Federal Institute for Vocational Education and Training (BIBB)
- 9 Cf. Mucke, K.; Grunwald, St.: Hochschulkompatible Leistungspunkte in der beruflichen Bildung. Grundsteinlegung in der IT-Weiterbildung [Higher-education-compatible credit points in VET. Laying the foundation stone in advanced IT training]. Published by BIBB, Bielefeld 2005
- 10 Cf. BMBF: Press release 215/2005 “Berufliche Kompetenz soll für Hochschulstudium nutzen” [Vocational competence will count towards higher education degree], 9.9.2005
- 11 See footnote 5.