

Recognition of Credits - Achievements and (Problems) Challenges - A Stocktaking Exercise Bologna Conference Riga Dec. 3-5 / 2004

*One of the objectives of the Bologna Action Plan is to launch a credit system, such as ECTS. The EU Commission first introduced ECTS in 1989 as a transfer system and has initiated its development to an accumulation system in the mid-1990s. ECTS got a real push when being referred to in the Bologna Action Plan and also when the European Universities Association agreed on the Key Features at the Zurich Conference in 2002. The Berlin Conference in 2003 confirmed the positioning of ECTS as a key element in the Bologna Process. In the following the achievements of introducing the system in all participating countries will be highlighted but so are the challenges which still have to be dealt with in the near future to make ECTS **the** successful "Euro" in education and training.*

The essential question is how achievements in ECTS can be quantified and qualified. It is proposed to identify those factors which are critical as regards a successful launch and implementation of ECTS. The Critical Success Factors **suitability**, is ECTS suitable for the purpose defined; **acceptability**, is ECTS acceptable for stakeholders being affected, **feasibility**, can ECTS be introduced at all and finally **sustainability**, is such a system sustainable over a long period, is ECTS "fit for life", may be adequate.

Critical Success Factor 1: Suitability - ECTS fit for purpose?

Credits document the achievement of learning objectives. These objectives are defined as learning outcomes by the designer of the respective module. Credits, being allocated to the learning outcomes of a module, highlight the expected notional workload necessary to be invested by the learner. The common denominators are workload and learning outcomes. This is one of the outcomes of the project "Tuning educational structures in Europe", and has generally been accepted so that ECTS is suitable to this extent.

Another issue is whether ECTS supports "employability" of higher education graduates, a cornerstone of the Bologna Declaration. The learning outcomes are developed on the basis of information from the labour market. How this information is acquired may differ from institution to institution. "Tuning" chose a questionnaire being sent to employers, graduates and academics. It may be argued whether this is the best method as possible answers were pre-defined. But it can be easily amended by including other research methods as well, such as interviewing experts, analysing the technical press, observing the labour market etc. In this way learning outcomes are derived from the labour market. Before being designed into programmes, academics have to scrutinise them in the light of long-term objectives as both, as information from the labour market is much more short-term oriented. Graduates and employers, for example, are much more concerned with their immediate situation.

"Tuning" has shown that agreement across universities in many countries can be achieved and learning outcomes can be categorised into subject related and non subject related (generic) competences which the student acquires when having achieved specified learning outcomes. As a further subdivision it is possible to distinguish between broadening and widening of subject related knowledge and understanding and generic learning outcomes enabling to access knowledge and

understanding. The latter are instrumental, interpersonal and systemic competences. Each institution can even subdivide these competences further according to its individual school of thought. The main message from "Tuning" is that the learning outcomes reflect the competences necessary in the labour market and ECTS supplies an indication what the notional workload is to achieve them. Of course, it is then the decision of teaching staff how to translate these intended outcomes into modules, study-programmes etc. This shift of paradigm, from an input to an outcome orientation related to employment has been made very clear and is generally agreed.

The instruments of ECTS indicate how the success of quantified learning outcomes can be completed: the Information Package, Learning Agreement, Transcript of Records, the Credit Transfer and Accumulation and finally the Diploma Supplement document the processes which become transparent and thus possible to be quality assured. By designing descriptors of levels, Bachelor, Master, Doctor, "Tuning", the "Joint Initiative" (Dublin Descriptors) and soon the Qualifications Framework will mirror the competences the labour market and the society needs today and tomorrow. The Information Package, containing all modules of respective programmes of institutions, details corresponding learning outcomes in the various modules and - by having allocated ECTS credits - inform about the notional workload necessary to be invested by the learner. Thus effectiveness and efficiency of learning can be measured. If this equation is accepted one has to realise that higher education institutions will look much stricter at their selection methods to make sure that they get those students who will be in the position to acquire the competences in the time foreseen. Countries in which presently institutions may pride themselves for having a high quality on the basis of high failure rates of learners may find themselves being regarded as outsiders as the question may be raised whether they had not been able to select those students who could be successful. In future good quality is measured by "success rates" rather than by "failure rates" which will include the "survival" in the labour market through close contact with alumni.

However, a credit system should not be limited to formal learning only. It should cover any form of learning, including non-formal and informal learning which also means finally that a successful credit system should cover all forms of education and training, independent where and how competences are achieved.

Presently the vocational training area is working on a launch of a credit system which is specifically designed for this form of learning: ECVET, a European credit system for vocational education and training in the light of the Bruges-Copenhagen Process. This is done rather independently of the discussion going on within ECTS. It could be argued whether this is useful. Hopefully, this system will converge with ECTS and not develop independently. Again, the Qualifications Framework may forge an adequate approach.

Some countries have already designed and long experience gathered as regards the accreditation of prior learning and prior experiential learning. If the information is correct, one French university awarded a degree to a student who had never formally studied at that university before. However, it was obviously possible to assess the student's prior learning and identify the level of the acquired learning outcomes as being equivalent to those of the degree awarded. Currently, some European projects try to find a solution which all institutions could apply, namely the project "ELITE´LLL in which the ECTS label holding institutions intend to develop ECTS as a system

which can cover any area of education and training. There is some work in progress. The challenge is to design one credit system for all learning and training purposes, for a life-long concept.

Critical Success Factor 2: Acceptability - ECTS fit for stakeholders?

To find out whether ECTS fulfils this Critical Success Factor, it has to be identified whom ECTS serves? A credit system has to respect the perspectives of its stakeholders. In case of ECTS these must be the learners first of all but also training and teaching staff and employers. But there are others as well who have to be regarded, the parents, governments, social partners and finally the society as a whole. Stakeholders may argue in terms of their **return** or **risk** when using ECTS. They may "make or fail" ECTS as an overarching credit system for teaching and training depending on their interest and power.

As **return** the learner receives a number of credits. These credits reflect a value which is expressed by learning outcomes, i.e. competences the learner has acquired after having proven that he/ she has acquired these competences successfully. Credits are only awarded when this process has taken place, independent how the learner achieved the competences.

The **risk** is related to the recognition of the credits in case they are submitted to a teaching, training or business organisation etc. Is the number of credits being accepted identical to the number submitted to the institution; are there more or fewer credits taken into account? Within ECTS it is the responsibility of the "receiving institution" to make a decision as regards the number of credits being accepted. Its decision will be based on the programme for which the credits will be recognised. The risk is that the number of credits transcribed will not be identical with the number received from the institution which awarded them. In fact, it would be by accident only if this would be the case - unless all institutions in Europe had agreed on an identical number of credits per module as being proposed as "good practice". This, however, is no shortcoming of ECTS; in fact it proves that ECTS is working, that credits cannot be accepted blindly but have to be considered on the basis of the learning outcomes in respect to the learning programme for which they are considered.

A stakeholder mapping does not only reflect the stakeholders' expectations but also their power how to influence the launch of ECTS as **the** credit system. The mapping helps to find out which stakeholders should be regarded first of all, e.g. accreditation agencies or quality assurance agencies etc. when across Europe a tuned system will have been introduced. Also the Bologna Process as such, in particular in terms of the decision whether the European Qualifications Framework will be based on both, learning outcomes and respective credits, is a stakeholder in terms of those who design it. They have both, interest and power. It could be argued that learners, teachers, employers are the key players. To a certain extent this is correct; they surely have a high interest in the development. The question remains whether they also have the power to launch ECTS European-wide. It should be noted that without their understanding and support, the sustainability of ECTS would suffer and would - most likely - be deemed to fail.

Since the development from a transfer to an accumulation system there has been an increase of interest in the expectations but also an understanding as regards possible risks. In contrast to the 1990s it is now obvious that there are some

stakeholders who do not only have the interest but also the power "to make it happen"- if they want to.

Critical Success Factor 3: Feasibility - fit to live

ECTS is the only system which has been tested successfully European-wide. A feasibility study at the beginning of the 1990s revealed that it was possible to develop ECTS from a transfer system to a transfer and accumulation system. This has been initiated and the developments in the Bologna member states give sufficient evidence that ECTS today is an adequate credit system. Guarantors for the launch are bodies which design the European Quality Assurance System, the accreditation and evaluation bodies at national level and the European Qualifications Framework based on learning outcomes and credits. In other words, ECTS links the priorities for the next Bologna plenary conference in Bergen (N) in May 2005, namely quality assurance, overarching qualifications framework and academic recognition.

Critical Success Factor 4: Sustainability - fit for life

To launch ECTS as the European credit system is one thing, to keep it alive another. Within the European context an immediate idea is that in education and training credits should become a currency, a Euro. Could ECTS be such a currency; does a credit in the ECTS system fulfil similar objectives as a Euro does, i.e. does it comprise the basic elements of a currency:

- based on trust
- generally accepted
- works as unit of account
- respects convertibility
- enables recognition
- represents value
- is convertible
- and compatible (common reference)?

The Key Features of ECTS give an indication: "...one credit stands for 25-30 hours of working hours" and "Student workload in ECTS includes the time spent in attending lectures, seminars, independent study, preparation for, and taking of, examinations, etc...". Technically speaking, the introduction of ECTS as a currency is no problem.

Does everybody trust that the number of "units of account", credits, is adequately allocated? As soon as the credit is intended to be used outside the area where they were gained, problems come up. The reason is that a unit of account does not only have to do with quantity. There must be a certain value behind it in which people believe and which they regard as being adequate in relation to the number of credits in question. In ECTS the value of a credit is the learning outcome related to it. This is made transparent. At the same time, however, this also indicates the border line of a credit system. The value may change as soon as the environment in which the credit was achieved is changed. This is comparable to the European Monetary Union. The purchasing power of a Euro is not only different outside the founding Member States but also within them. The absolute, nominal value stays the same but the relative one, the market value, normally differs due to the purchasing power which is the reciprocal value of the general price level. Within this context this refers to the acceptance of credits for specified learning programmes. In relation to the whole education and training area this means that credits acquired may not be recognised for any learning programme in an identical way. Those being responsible for a

learning programme settle the question to which extent competences acquired elsewhere can be considered as relevant within their programme. Thus, ECTS does not lead to an automatic recognition of credits. The institution, at which the learner asks the credits to be accepted, autonomously forms its own opinion. This is quite normal in business as well: the salesperson decides whether the product or service is exchanged for a specified price. The potential buyer might bargain but cannot make the decision.

As an analogy to the currency system credits are a requirement for the principle of "division of learning", i.e. learning at different sites and at various times, in other words for a life-long-learning concept. Credits may be awarded for any type of learning - formal, non-formal or informal. They may be accumulated leading to particular degrees. Because of their relationship to the acquisition of knowledge and understanding on the basis of workload, they form a unit of account. Convertibility is possible on the basis of the parity generally accepted, the learning outcomes.

An example might help to state the case. The European Language Competence Framework defines levels of competence at various levels, in fact from A to C, each of them being subdivided. It is assumed that these levels build on each other, and that the higher the level, the higher a learner has progressed in language skills.

For the sake of the example it is anticipated that for achieving level B1 a workload of 900 hours were needed. In ECTS terms this means 30 credits. The question is: What can the learner do with the credits? In case the intention is to reach the next stage, i.e. B2, these 30 credits should be the entry ticket for a respective formal programme. This means that the "full" 30 credits will be accredited and the prior learning should be recognised to the extent that the credits achieved testify the level of the learning outcomes. Non-formal and informal learning are hardly applicable in this case as they are purely based on post-evaluation.

But what else can the learner "buy" for the 30 credits? In case the intention is to study European Business, a language might be an essential part of such programmes. Does this mean that the 30 credits count already towards the 180 of the bachelor programme registered for? Hardly; it is obvious that as soon as the credits achieved are "traded in" for a defined learning programme, the absolute value of the learning outcomes acquired becomes relative. Only that number of credits can be recognised which are foreseen in the study-programme and for which the learning outcomes have been defined. Maybe they are even below B1, e.g. at level A2. It is obvious that it is nice to have a higher level but for the programme the value is limited, and therefore the number of credits foreseen for A2 will be accredited. In another scenario it may be - and this is even likely in European Business - that the learners of the language do not start from scratch; prior knowledge is a pre-requisite. Again, the absolute 30 credits become relative and may be worth only 5 because of the notional workload reserved in this programme to reach the language level the "newcomer" may have already.

In other words, ECTS credits are acquired in absolute terms. However, when the learner wants to use them the level he / may get recognition for differs, depending on the learning programme, for which recognition is being sought. When measuring credits this distinction has to be very clear: Absolute credits measure the workload, expressed in notional time which has to be invested to reach these stand-alone

subject related or generic competences. An absolute value of a credit is a value as such and might play a role when, for example, the holder of the credits applies for a given job and the potential employer asks for evidence of "what can you do?" or when he / she has to consider whether the applicant may be employable at all.

Is it possible to measure all subject and generic skills in absolute terms? It is highly likely but it means that experts have to put their heads together and work out proposals which then have to be validated in practice. "Tuning" could be an ideal test-bed for such competences, at least for some. Also, some prior work has been done already: The European driving licence and many other programmes of teaching and learning have been designed over years covering subject and generic skills. These programmes should be systematically compiled to get an overall view. In other words: to get an understanding of measuring competences the first thing is to identify their absolute value. And this can only be done by having identified the learning outcomes first. Also, this cannot be done by one person, let alone by one institution, be it a university or any other organisation. This is a job of specialists being drawn from all areas concerned: teaching, training, education - i.e. educationalists, employers, researchers, trade union members, learners, etc. Flexible work-groups should work out proposals which have to be tested and empirical data has to be compiled. May be, that in many cases this can be done by secondary research already, investigating into profiles of learners. This will be facilitated by the present discussion of standardising learning outcomes in countries in which they have not been identified yet. In some countries, with national standards, it might be much easier to work out the workload for competences and skills.

What one can take from this example is: the various levels should be designed to improve transparency of learning achievements. However, they should not represent a certain status as they should serve all qualifications. If they did the system would get blocked and a "ladder" career would be created which took away all mobility between various programmes. This is against the philosophy of ECTS as a credit system, which wants to foster mobility within and between learning programmes, within and between institutions and within and between different countries.

Thus, in contrast to the European Language Framework, levels in an overarching European Qualification Framework do not represent a status, they define learning outcomes for which credits are allocated to inform us what we have reached with which notional workload. Again, if these credits are traded in, it may mean, that the learner starts at a different level because the programme he has registered for, is differently designed. If this was not the case the impression would be given as if learning was always a steady upwards curve in a given subject or generic area. Reality however is much more complex and thus different levels of subject and generic skills may well be combined to be eligible for a certain degree in various environments. Thus, levels do not award status but have an impact on following activities in differing environments, at school, university or employment, etc. Also, if this was not the case, soon several credit systems would be created, being explained on the basis of levels: Bachelor credits, Master credits, school credits, etc. Good-bye any attempt of achieving cohesive systems of a European credit system.

Does this lead to standardised study-programmes? Not necessarily, unless the stakeholders think so in particular subject areas (e.g. joint degrees, the Euro-Bachelor in Chemistry). Instead, the introduction of an education and training "Euro"

would form a key requirement of life-long-learning concepts. Such a currency is geared towards learners, values, competences and employability.

Conclusion

ECTS as a transfer and accumulation system has unintentionally been basically designed as a currency system. All aspects related to a currency system are therefore valid for ECTS as well. This relates e.g. to issues such as

- "purchasing power" of the outcomes
- conversion of achievements at institutional, national and international level
- fluctuations of values
- formal, non-formal and informal achievements.

As with any currency, the basic element today is trust. How to achieve this for ECTS? Like in the monetary union: stability criteria have to be adhered to first of all. For education and training this means quality in terms of

- transparency
- tuned structures, processes and products.

Thus the challenge for Bologna 2007 is to design one currency: ECTS. This seems to be the only way in achieving the objectives related to the intention of the Bologna Process. Everybody will understand: A credit is a credit like a Euro is a Euro.