

## Summary of Meeting of Tuning Mathematics Group, Brussels, May 2003

It was agreed that the group would attempt to audit Mathematics courses in the members' universities for the contents listed in the Line 2 document; also this audit would try to determine which types of teaching and learning are currently being used.

This would be done as soon as possible after the meeting.

A summary of developments with respect to the Bologna process in each country is detailed in the full report.

The group considered the Commission document: The role of the universities in the Europe of knowledge and concluded that it is a dangerous document, primarily as it is predicated on an assumption of reduced public funding for Higher Education. The group proposed that the Tuning project should make known these objections to the Commission.

Dublin descriptors: The group is happy with levels as described in the Tuning Line 2 Mathematics paper and we don't see the (new) Dublin descriptors as being in conflict with them. The definition of research in the Dublin document is safe enough to include masters level (non-original) research. It is important to retain the glossary in this document, as the terms used are very specific.

Helsinki paper on Master Level Degrees: It was felt by the group that it is sometimes legitimate, as suggested in the Helsinki document, to include 1st cycle level courses at masters level. The idea of access to MA with admission as a further consideration is accepted.

Generic and specific competences: There are obvious analogies between 2 of the identified key generic competences: capacity for analysing and synthesis and problem solving and 2 of the specified key subject specific competences for Mathematics: the ability to model a situation mathematically and the ability to solve problems using mathematical tools, respectively. In mathematics it is still the subject specific skills which are required by employers. Development of these skills is a function of teaching rather than course content. The group also restated its belief in the need to develop communications skills and teamwork, while languages are commonly a component of Mathematics degrees.

Workload: The group discussed how workload might be measured in a mathematics context. Various notional measures apply in the different countries. Any such measure should have a ceiling of approximately 1500 hours per year. The group does not believe that any attempt to measure workload empirically would be productive.

ECTS grades. The group felt that, if ECTS grades could be useful in combination with national grades, but rather than the letter grades A B C D E, "best 10%" etc. should be used. Currently however, this ranking would not be acceptable in all countries.

Quality Assessment/Assurance The system of Quality Assessment/Assurance in each country was described and is detailed in the full report.

Consultation The group agreed to try to broaden consultation on the Line 2 document and, in particular, will seek the views of final year students in their universities over the next academic year.