

Royal Society submission to the House of Commons Education & Skills Committee inquiry into The Bologna Process

Summary of key points

- As a signatory to the Bologna Process, the UK Government must engage seriously with the implications of Bologna for the UK higher education (HE) system. An in-depth and holistic consideration of the advantages and disadvantages of the present Bologna proposals and full involvement in the ongoing Bologna negotiations are imperative if UK HE institutions are to be actively involved in implementing Bologna reforms.
- We believe that the Bologna Process has the potential to act as a driver for change more generally in UK HE: the process provides an opportunity for the UK to consider more broadly whether our current system is delivering what students, employers, the economy and wider society need from its graduates.
- It is essential that the Government consults widely with the learned societies and professional bodies that are considering the place of the UK integrated masters courses and one-year masters courses on a subject-specific level and works to clarify the status of both these qualifications within the Bologna Process.
- The Bologna Process could have profound consequences for the flows of students and graduates within Europe and beyond. It is important that consideration is given to how the UK engages with the Bologna developments to maximise these opportunities for the nation.

- 1 The Royal Society welcomes the opportunity to submit evidence to the House of Commons Education & Skills Committee inquiry on The Bologna Process. This submission has been prepared with the advice of the Society's Higher Education (HE) working group and has been approved by Professor Martin Taylor FRS, Vice President and Physical Secretary, on behalf of the Council of the Royal Society. We are also submitting evidence to the Committee's inquiry on *The future sustainability of the higher education sector: purpose, funding and structures*.
- 2 HE is a vital component of the UK's education system and plays a major role in maintaining the nation's intellectual vitality and culture, preparing its students for their future contribution to society and building a leading knowledge-based economy. The Society's HE working group has recently published a report entitled, *A degree of concern? UK first degrees in science, technology and mathematics* (Royal Society 2006), which emphasises the need to place UK HE developments in a European and global context, and from which many of the points in this submission are drawn.
- 3 The working group is currently engaged in a broader study considering the fitness for purpose of UK science, technology and mathematics (STM) HE into the middle of the next decade and beyond, *Science HE 2015 and beyond*¹. One issue that the group has identified for consideration is the structure of UK HE studies in the

¹ Further details of the *Science HE 2015 and beyond* study are available at www.royalsoc.ac.uk/policy

light of the Bologna Process. This response is informed by the group's thinking on these questions to date and the input from various organisations to the group's call for evidence on this subject. However, the study will not report until autumn 2007 and the group will be developing its thinking on questions related to the Committee's inquiry over the coming months. We would be happy to expand further on the points in this submission or to give oral evidence to the Committee, and we hope to stay in close contact with the Committee as our respective studies develop.

General principles

- 4 The Bologna Declaration, signed by European Ministers for Education in June 1999, expressed the goal of developing a European Higher Education Area (EHEA) by 2010. Through specific objectives, the Bologna Process is working towards developing a coherent European HE environment to foster employability and mobility in Europe. It also aims to increase the competitiveness of European HE in the world. We strongly support these broad aims.
- 5 We believe that, as a signatory to the Bologna Process, the UK Government must engage seriously with the implications of Bologna for the UK HE system. An in-depth and holistic consideration of the advantages and disadvantages of the present Bologna proposals and full involvement in the ongoing Bologna negotiations are imperative if UK HE institutions are to be actively involved in implementing Bologna reforms.
- 6 The UK is currently responsible for providing the Secretariat to the Bologna Follow Up Group and its Board prior to the next Ministerial Summit in London in May 2007. This should provide the impetus for the Government to raise the profile of the Bologna Process and stimulate UK HE institutions to engage fully in the key debates surrounding Bologna compliance.
- 7 We fully support the efforts of those learned societies and professional bodies that are considering the effects of the Bologna Process for their relevant disciplines. We are concerned that many of these bodies do not believe that the Government is exploring the detailed implications of the Bologna Process for specific subjects in sufficient depth. We also welcome the efforts of the Europe Unit, jointly funded by Universities UK and the three higher education funding councils of England, Wales and Scotland, in raising awareness of the Bologna Process and strengthening the position of the UK HE sector in debates over the Bologna Process.
- 8 We believe that the Bologna Process has the potential to act as a driver for change more generally in UK HE. Aside from the opportunity the process provides for the UK to consider how the structure, content and purpose of the different stages of our current HE system compare to the arrangements in other countries, we should anyway be exploring more broadly whether our current system is delivering what students, employers, the economy and wider society need from its graduates and how this will evolve over the next decade.

Educational interfaces

- 9 There are different 14-19 education systems across Europe. The Bologna Process must take account of these different inputs to HE and allow signatory countries to maintain the necessary flexibility to meet the educational needs of those students entering HE.
- 10 Within the UK too, there is increasing student choice within the 14-19 curriculum. Although secondary school rolls are predicted to fall over the next decade, which may in time affect the number of options

available, it is imperative that universities recognise the multiplicity of entry qualifications and subject combinations with which students are starting their courses and actively work to help them bridge the gap between the skills, knowledge and experience they have already gained and degree-level study.

The Bologna Process and the UK

- 11 The UK, unlike many other signatories to the Bologna Declaration in 1999, already had a two-cycle (bachelors, masters) degree structure as an integral part of its HE system. However, other countries have moved quickly to embrace the opportunities for structural and curricula reform presented by the Bologna Process. For example, Germany started the process of introducing two-cycle qualifications in 2002 and will complete nationwide introduction by 2010 (BMBF 2005) and France has been gradually implementing a two-cycle system since 2002 (BFUG 2005). It is important for both the UK Government and HE institutions to appreciate the extensive changes that other countries have made to their HE systems to accommodate the Bologna Process.
- 12 While the Bologna Process Stocktaking Report (BFUG 2005) presented to Ministers at the 2005 Bergen conference shows the UK in a broadly favourable position with regard to the main Bologna Process actions, there are still areas of potential conflict such as those discussed in paragraph 13. The UK risks falling behind other countries and thereby losing competitive advantage unless it addresses these issues.
- 13 There are two specific areas of concern that we would highlight as being of particular importance for the science, engineering and mathematics communities: integrated masters courses and one-year masters courses. The Framework for Qualifications of the EHEA adopted at the Bergen summit in 2005 stipulates that first-cycle qualifications should typically include 180-240 European Credit Transfer System (ECTS) credits and second-cycle qualifications should typically include 90-120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle. Currently the European Commission's User Guide for ECTS states that one calendar year can only be allocated 75 ECTS, leading to concern that the UK's masters and integrated masters programmes are incompatible with Bologna requirements and might be regarded as 'lightweight' compared to the second-cycle programmes in many other countries which last two years.
 - a. *Integrated masters courses.* The introduction of four-year integrated masters programmes in science and engineering (for example, MSci and MEng degrees) during the 1990s was motivated principally by the difficulty of fitting all of the work believed to be necessary in a first degree into the already heavy workload required of science and engineering undergraduates. The implications of the Bologna Process for these degrees is considered in a note published by the Europe Unit (UUK 2005) in consultation with the Quality Assurance Agency, the HE Funding Councils and the Standing Conference of Principals, which gives guidance on how such courses could be made Bologna compliant. The suggestions made within the note include teaching students over the summer vacation – which would have serious implications for the staff time available for research and international collaboration – and incorporating industrial placements into such programmes – which would be easier in disciplines such as engineering than in, for example, mathematics or theoretical physics.
 - b. *One-year masters courses.* One-year taught masters programmes in the UK often achieve more than 60 ECTS (EUA 2005) and are considered by many universities to be a particularly attractive part of the UK HE system, especially to overseas students. They also generate a significant income stream for many institutions. However, there remains the danger that if graduates from longer European masters courses

are considered to be more attractive by employers, the UK one-year system and its graduates would lose their competitive advantage. For example, there is growing evidence that firms and elite academic research teams have found that, in general, UK PhD graduates are not as mature or well-rounded as their French, German or US counterparts, due to the shorter overall length of the UK HE system (see, for example, EPSRC 2002, 2003, 2005). While length alone is not the most important measure of a course, it is clear that there is a limit to the amount of work that can be done in a fixed time.

- 14 It is essential that the Government consults widely with the learned societies and professional bodies that are considering these questions at a subject-specific level and works to clarify the status of both these qualifications within the Bologna Process. One of the aims of the Bologna Process is to enhance the employability of graduates and it is therefore vital that the perspective of employers is also sought on these questions.

International perspectives

- 15 Countries from elsewhere in the world are becoming increasingly interested in the Bologna Process and its implications for the international competitiveness of their own HE systems. Australia was invited to attend the 2005 ministerial meeting in Bergen as an observer, and China is seeking observer status for the 2007 ministerial meeting in London.
- 16 The Department of Education, Science and Training in Australia consulted in early 2006 on Australia and Bologna (DEST 2006), highlighting the risks of Bologna incompatibility for the country. They saw these risks as including: other countries or regions following the Bologna route, resulting in an increased tendency for relationships between aligned systems at the expense of less compatible systems; and, Europe becoming a more attractive destination for overseas students at the expense of Australia. It is clear that these risks could equally apply to the UK should it choose to not fully engage with the Bologna Process.
- 17 UK science cannot flourish in isolation from the rest of the world. Science is a globally competitive business, and UK scientists must be able to engage with the best scientists throughout the world if they are to remain at the forefront of science. There are considerable benefits to increasing the mobility of students in Europe and beyond. Both UK students who choose to complete a part of their HE studies outside the UK and UK students studying within the UK who are joined by students from other countries will build linkages and relationships which may prove valuable whatever their future career. The Bologna Process could have profound consequences for the flows of students and graduates within Europe and beyond. It is important that consideration is given now to how the UK engages with the Bologna developments to maximise these opportunities.

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