

Bergen Conference of Ministers, May 2005 Short Summary of the Parallel Session on Doctoral Training and the Synergy between Higher Education and Research

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In emphasising the doctoral level as the third cycle in the Bologna Process, the Ministers have underlined in Berlin in 2003 and emphasised again in Bergen in 2005 the importance of research and research training for the quality of higher education.

Looking at recent debates, the discussion group realised that, across Europe and indeed also in North America, there is a wide agreement on the values that should underpin doctoral training, namely that doctoral training should serve the advancement of knowledge through original research, should be based on academic freedom and, increasingly, that it would be desirable that such research would contribute, in the long term to the economic and social advancement of humanity.

Moreover, it seems that higher education representatives and policy makers also agree on the problems which deserve concentrated attention:

- First and foremost, the quality of the mentoring which doctoral advisors offer their candidates should be looked at, fostered and assured more systematically.
- Secondly, doctoral training should be embedded in institutional strategies and structures (such as graduate schools) so as to benefit from synergies with research strengths, integration into larger interdisciplinary contexts, offering also supplementary training perspectives and better social integration for doctoral candidates.
- Thirdly and linked to the previous point, more attention should be paid to the social and interdisciplinary integration of doctoral candidates so as to prepare them for highly networked working life.
- Fourthly, not enough attention has been given to career development and preparation of doctoral candidates for non-academic labour markets into which a majority of doctoral graduates are to be inserted later.
- Last not least, not enough money is being spent to allow for adequate fellowships, scientific equipment, time for mentoring to support full time doctoral training in research environments of competitive scientific standards. It should be fully recognised that doctoral candidates are not just more advanced students in the traditional sense but should be recognised and treated as early stage researchers, i.e. professionals who would have received a full salary had they entered the non-academic job market immediately upon graduation from the masters' programmes.

To address some of these concerns, guidelines have been defined and implemented in various national contexts (e.g. the UK) but also at European level where the existing consensus on quality standards for research training have been laid down in the European Charter for Researchers and the European Code of Conduct for the Recruitment of Researchers which were presented by Sigi Gruber from the European Commission (DG Research), as well as in the

Salzburg Recommendations on Doctoral Training which were formulated last year. In addition to the concerns mentioned above, such as the need to improve the quality of mentoring, the Salzburg Recommendations also pointed to the need for achieving critical mass, for promoting innovative structures and for offering appropriate funding so as to offer attractive research environments for doctoral candidates. Mobility should also be an integrated feature of doctoral training, both European recommendations (the Charter and the Salzburg recommendations) emphasise.

As Debra Stewart's presentation showed, we can also learn from good practice of doctoral training in the US where especially the synergy between doctoral education and research, the active internationally visible graduate schools of research universities but also the quality of mentoring with established graduate "Plan of Study" templates are worth mentioning. Also the diverse and competitive funding sources help the strong institutions acquire an adequate funding base for their doctoral training, which, it should be noted, involve significantly higher expenditure per doctoral candidate than is the norm at European universities. Finally there is a regular assessment of the quality of all doctoral programmes which can then be more easily compared. All this happens against a backdrop of wide Institutional Autonomy and a higher mix of private funding (including tuition fees and endowment income) than is the case for competing European universities.

Given the wide degree of agreement on values and problems to be addressed, the discussion group came to the conclusion that it is now time to act. First of all, this should involve follow-up on how the European Charter for Researchers and the Salzburg Recommendations are being implemented at national and institutional level: Here the European Commission and the EUA should play a significant role of orchestration. In this respect, the Bologna Process may serve as example of a success story in that peer pressures between national level actors can be said to have contributed significantly to swifter more targeted action.

Last not least, it was emphasised that there are also significant challenges to be addressed, in particular concerning the possible tension between internationally competitive research and the important role of research for regional development. On the one hand policy makers have to become more aware that fierce international competition among research institution obviously calls for creating critical mass in given research areas, for concentrating excellence at fewer institutions which would be able to offer a wider range of disciplines with enhanced interfaces between them, with competitive and therefore costly conditions, under scrutiny of highest performance. On the other hand, policy makers have to do justice to the importance of university research as a motor for regional development. For both potentially conflicting aims, different instruments may be advisable and should coexist without undermining each other. Indeed, more comparisons are needed of how different nations and regions address this tension in order to make recommendations of how to design such complementary instruments in order to do justice to both concerns, at national and regional but also at European level. To conclude, the group urged policy makers to proceed with extreme caution given the harm that can be done to both aims if one serves the one without caring for the other.