

## QA Conclusions from Electronic Database and Parallel Evaluation of Doctoral Schools in Hungary

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### Introduction

„*Doctoral education is a major priority for European universities and for EUA. It forms the first phase of young researchers' careers and is thus central to the drive to create a Europe of knowledge, as more researchers need to be trained than ever before if the ambitious objectives concerning enhanced research capacity, innovation and economic growth are to be met.*” - Georg Winckler, EUA President.

Hungarian universities got back the right to carry out doctoral education and award PhD/DLA degrees 15 years ago with the first act on higher education (HE)<sup>1</sup>. They considered, and still consider it as a great possibility and high responsibility in several respects. It allows them to unite education and research, to produce and disseminate new knowledge and to supply new generations of scientists. At the same time these are responsibilities for the Hungarian higher education sector, for the economy of the country and for science in general.

The HE act determined a formal and legal distinction between doctoral training and getting/conferring PhD degree, although there is a natural and obvious link between the two. It is crucial that both are exclusive rights of the scientific community within higher education.

Doctoral education (or training) includes *teaching* of doctoral students in different forms (lectures, seminars, reports etc.) and individual *research* carried out under the support of a qualified supervisor. The frame of the training in Hungary is the *doctoral school* organised in a given discipline or cooperating disciplines. A minimum of seven expert scientists (four of them must be full professors) can initiate and operate a school after getting accreditation from the Hungarian Accreditation Committee and final approval of the University Senate. The school should have a coherent training and research programme, including announced courses and research themes for the students. Further working documents are by-laws of the school, forms of assessment, enrolment conditions, quality assurance procedures and a complete, up to date homepage. Thus Hungarian doctoral education in its original and present form fits into the 3 cycle Bologna system in the above mentioned concept and with 180 credits (36 month).

Prerequisites for earning a PhD degree are defined in the HE act:

- a) passing the comprehensive doctoral examination;
- b) evidence of knowledge of two foreign languages;
- c) presentation of independent academic work such as articles, studies, or in other forms;
- d) presentation of the dissertation, or the master project in artistic fields; public defence of research results.

Conferring PhD degrees is the right of the Doctoral Council (not the Senate!) of the given university, whose members must hold a scientific degree. This reflects the constitutional autonomy of the scientific community with regard to scientific affairs and involves its liability for the quality of doctoral education and PhD degrees.

The Hungarian state provides 1,000 scholarships yearly for a 36 month period, which comes to about 4-5% of master graduates. Those are distributed among universities on the proposal of the Hungarian Doctoral Council (presidents of university DC-s) based on a performance algorithm.

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<sup>1</sup> In the field of arts the DLA degree (*doctor of liberal arts*) was introduced.

## **The electronic doctoral database**

The Hungarian Accreditation Committee (HAC) and the Hungarian Doctoral Council (HDC) decided in 2007 to establish a common, nationally complete **electronic database** <http://www.doktori.hu>. The joint aim was to attain the highest publicity and extensive availability of doctoral education and degree awarding in the country. HAC's special aim is the regular evaluation of the quality and performance of scholars and the accreditation of doctoral schools in a purely electronic process. The data was uploaded and can be updated exclusively by authentic persons: more than 6,000 scientists and 200 responsible administrators of the schools and universities. The database contains around 200,000 data, including links to homepages of schools and persons. E-mail addresses and phone numbers allow an easy contact for and to everybody. It is a living database, updated on an ongoing basis.

In 2007/2008 HAC carried out a comprehensive pilot evaluation of the operating 167 doctoral schools. At the first stage the core members<sup>2</sup> were evaluated, and then based on these outcomes the doctoral schools, as operating units, were assessed. This process had no legal consequences; the evaluation provided instructive indicators and assigned lessons for the scholars and schools. A complete accreditation of all these doctoral schools is scheduled for 2009. It is worth underlining here, that in this database both the evaluated data and the final HAC evaluations are displayed and can be compared by anybody. This is a situation which introduces a new quality culture element in Hungarian higher education and academia at large.

The following data of more than 6,000 *scientists* appear in the database<sup>3</sup>: name, age, position, scientific degree, university, doctoral school, [e-mail, phone]; research area; number of doctoral students supervised, completed and conferred PhDs; 5 most important publications in the last 5 years, 5 most important publications overall; impact factors and number of citations of the last 5 years and altogether. After evaluation the decisions are indicated by a HAC logo.

*Doctoral schools'* pages (167) record the following data<sup>3</sup>: university, identification number, name of the school, head, discipline(s), degree conferred (PhD/DLA, year of establishment and operation; number of scholars, from those, the supervisors and key scientist (core members); Master programmes of the given university recognised as entrance requirement; number of doctoral students supervised, passed candidates examinations and PhDs graduated in the school, broken down to all scholars. Linked are: dissertation theme announcements, by-laws, training programmes, QA procedures. After evaluation the decisions are indicated by the HAC logo.

*Aspects of evaluation* were public from the beginning, although some refinements were necessary in the early stage of the assessment, partly justly criticised by the schools.

The evaluation *procedure* is based on two anonymous peer-reviews. Only core members (no less than 2,340!) were evaluated. In the next step the relevant disciplinary expert committee of HAC assessed both the scientists and the schools and formulated a proposal for the Doctoral Committee of HAC: *eligible, partly eligible or not eligible*. The latter body reviewed all proposals and prepared the decisions for the HAC plenary meeting. No paper but only laptops (PCs) and projectors were used during the various steps of the process. Details of and final decisions of HAC automatically appeared in the database. In accordance with the *Code of Ethics* of HAC those concerned in a specific case were absent during negotiations and decisions.

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<sup>2</sup> Core members are those key scientists in a doctoral school, who determine the scientific character and quality of a doctoral school. Originally they establish the school other scholars can join to them later on.

<sup>3</sup> Only data relevant for HAC evaluation are listed here.

There are *formal* and *performance* criteria for eligibility of *core members*. The former consists of age (professors under 70, others under 65, only), position (a person can be a core member only in one doctoral school at the same time), theme announcement and scientific degree. Senior scientists from research institutes may be invited to schools as core members, lecturers or supervisors.

Personal performance eligibility indicators involve at least one supervised student who successfully acquired a PhD degree, continuous scientific productivity which is comparable to professorial quality, a reasonable amount of citations (strongly dependent on the discipline) and research field matching the profile of the school. The final result of an individual evaluation is public; the details are available only for the person in question and the head of the respective school.

The criteria for *doctoral schools* are more complex. A minimum of 7 *eligible* core members is the basic condition defined by the relevant government decree. In order to ensure high quality HAC requires that at least 4 of those persons must be professors. In case of freshly established schools, at least 3 core members should have successful supervisory activity. The *formal* conditions involve an accredited master programme in the discipline of the school, proper documents linked, such as by-laws, training programme, enrolment process and conditions, assessment methods, quality assurance procedures and an informative up to date homepage. The research programme must be based coherently on the profile of the members of the school.

Several interdisciplinary doctoral schools were established and are operating. Special conditions apply for them but the level and quality should be as high as in other cases.

### **Results of evaluation**

The evaluation procedure in 2007/2008 was a pilot-project. HAC investigated to what extent core members and doctoral schools do match the above mentioned legal and performance criteria laid down in the new government decree and requirements of HAC (both published earlier in 2007).

Some figures of the project are as follows.

#### Participation:

- 141 external experts
- 26 HAC committees
- 134 members of HAC bodies
- 12 specialists of HAC secretariat

#### Products

- 5,590 peer reviews
- 7,552 opinions of different bodies
- 52,437 judgments of various kinds
- 38,506 justifications
- 7,235 decisions on the various levels, including
- 2,507 final HAC decisions.

Distribution of decisions:

	decision	cases	ratio
core members	eligible	1,426	61 %
	partly eligible	475	20 %
	not eligible	439	19 %
doctoral schools	eligible	45	27 %
	partly eligible	103	62 %
	not eligible	19	11 %

The figures on core members could be considered in general as expected. A detailed statistical analysis of deficiencies was prepared and evaluated. The fairly low rate of eligible doctoral schools is mainly due to administrative and formal inaccuracies which can be corrected easily. Those 19 not eligible schools may have serious difficulties in the 2009 accreditation round.

The summary analysis of the evaluation was presented to the Hungarian Rector's Conference, the National Doctoral Council and then to more than one hundred representatives of doctoral schools. It's available on the [www.doktori.hu](http://www.doktori.hu) website. Universities were asked to make all types of recommendations for the implementation of the accreditation round in 2009. A lot of important proposals arrived which will be considered by the HAC in detail.

### **Accreditation of new doctoral schools**

The database also serves for regular accreditation of newly designed doctoral schools. Since the establishment of the database 10 new schools have asked for accreditation. They were assessed on the same way as the other 167, but in these cases the HAC decision was either "accredited" (5 of those) or "not accredited" (the other 5). 4 accreditations are effective for 8 years (the regular accreditation period in Hungary), 1 for 4 years; non accredited schools can apply again at any time when they feel that they can fulfil the requirements – as happened in one case. There is a fee for such new accreditation process while the evaluations in the pilot project were and the accreditations in 2009 will be free of charge for the institutions.

### **Some general observations**

- ◆ The majority of doctoral schools and scholars understood and supported the concept of establishing and operating the nationwide open, electronic database. Only a small minority raised objections which were answered apiece.
- ◆ The fairly complex and extensive data uploading procedure was completed in 2-3 months and resulted in a full database – nothing of the like existed earlier in Hungarian academia.
- ◆ The evaluation procedure was similarly a major challenge for all participants on HAC's side, and was carried out successfully.
- ◆ A decisive majority of the decisions was accepted and a relatively slight number of objections were addressed to HAC.
- ◆ Detailed opinions, both positive and negative, formulated during the evaluation process indicate valuable information for further activity of scholars and schools and can contribute to a better quality in PhD training in Hungary in general and at individual universities in particular.

- ◆ The open database provides a detailed and objective picture of scientific character and performance of Hungarian higher education and its co-operations both on personal and structural level for the scientific community, for prospective doctoral students and for the broad public. Its English version is foreseen in the near future.
- ◆ Collected data of the doctoral education and conferring PhD degrees allow instructive analyses for individuals, schools, universities and national bodies, too. Such efforts are already in progress.
- ◆ It turned out that scientific publications are interpreted rather broadly. This requires discussions, a sort of common understanding and agreement in the community of a given discipline. HAC favours, even requires publication in internationally referred journals.
- ◆ Similarly, the function and importance of citations must be discussed and the practice of their recording should be propagated and supported.
- ◆ The permeation of impact factors in different disciplines varies from zero to an overestimated value which is sharply negotiated in academia.
- ◆ There are marked differences on the scale of the organized operation of doctoral schools. The database provides a valuable opportunity for the dissemination of good practices.

### **Conclusions for quality assurance**

- The *nationwide, permanently updated electronic PhD database* is a successful innovation in the Hungarian higher education accepted and supported by the majority of Hungarian academia. It provides a solid basis for quantitative and qualitative analyses from different aspects, including performance and quality of core member and doctoral schools. There were and there are voices opposing the present open and public nature of the database but HAC is convinced about its importance for enhancing the quality of doctoral training in Hungary.
- There was an immediate debating public response to the evaluation procedure in the intellectual press. Moreover, a widespread surveying electronic questionnaire was carried out by the *Centre for Higher Education and Development* leading to several important proposals for the 2009 accreditation round. It underlined the need and importance of much better and broader information of the 2,340 core members both from HAC side and from the doctoral schools.
- In general it was affirmed again that *openness* of the database contributes to the development of a new type of quality culture: people more seriously take care about their performance and its appearance if they are posed to the public, including colleagues and doctoral students. Publicity of data and evaluation stimulates doctoral schools and their members to produce high quality results.
- As an immediate *response* and impact of the evaluations around fifty modifications were carried out by different schools in the database to correspond the meet the standards (modification of by-laws, new research theme announcements, improved web-sites, inclusion of citation data etc.). Some schools invited new core members to ensure better performance. Additionally doctoral schools reported more than a hundred corrections and requested HAC to modify the evaluation judgement. Rating of 30 core members and 36 doctoral schools were amended based on these corrections. In fifty cases a more detailed evaluation of the performances of schools and their

members is foreseen in the near future. On the score of the database university doctoral councils have already analysed the status of the third cycle of their educational system and introduced important quality assurance measures, e.g. internal ranking, amendments of institutional regulations, re-distribution of state scholarship places. Some schools are under reorganisation to ensure meeting basic requirements of accreditation. HAC provided and provides personal consultancy for doctoral schools.

- *Standards of core membership* and doctoral schools demanded good quality performance in tutorial, research and organizational work. HAC is carrying out a systematic investigation of by-laws of all doctoral schools and formulates proposals for minimum quality standards. These standards of doctoral schools claim well organised training and research activity of these organisations instead of a loose game. Regular assessment of doctoral students in the framework of the schools is a crucial element of successful efficiency.
- *Internal quality assurance* of doctoral schools which are in most cases in an early stage must and will be supported by HAC in the form of a systematic guide and help build upon the *European Standards and Guidelines*.
- 16 October 2008 HAC organises a *nation wide forum* for doctoral schools to consult about reasonable modifications of database and evaluation procedure for the 2009 accreditation. (Its consequences will be reported in the oral lecture.)
- *Next year accreditation* of all schools involves a new element, a public self-evaluation report with C-SWOT-analyses which helps to identify challenges of all participants. With this development HAC wants to move towards descriptive analysis of the performance next to the important numerical data.
- The already decided *regular yearly programmed survey* of core members and doctoral schools starting in 2010 will contribute to continuous high performance. Results of the survey will be presented systematically to the rectors, doctoral schools and HAC, respectively. The preparation of the doctoral schools for the accreditation process scheduled for 2009 and the following regular survey will be definitely a powerful tool to enhance the performance of Hungarian doctoral education and the *internationally recognized quality* of our PhD degrees.