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Re: Report of ISAB 2018

Dear Professor Dvořák,

Please find enclosed a brief report of the International Scientific Advisory Board, which summarises the impressions gathered during the visit to your institution between the 4th and 5th December 2018. I hope that you and your colleagues will find the suggestions useful.

With kind regards and many thanks for your hospitality,

Josef Jiricny

Report of the Masaryk University International Scientific Advisory Board

The International Scientific Advisory Board (ISAB) of Masaryk University (MUNI) carried out its third site visit on the 4th and 5th December 2018. Prior to its meetings with the representatives of the various faculties, the ISAB was informed about the current situation at MUNI by its pro-rector, Prof. Petr Dvořák.

The ISAB was highly-impressed by the progress made during the past twelve months. The seriousness with which its initial set of recommendations were analysed and the general willingness to implement the suggested changes is a clear indication of the ambition of the leadership of MUNI to improve the national and international standing of their institution. This positive attitude is laudable and encourages the ISAB to continue its current efforts.

During the first morning session, the representatives of all the faculties and institutes informed the ISAB of their achievements and also of the difficulties in implementing the board's recommendations concerning the number of PhD students and PhD Programs.

Following its initial analysis of the situation in Brno in 2016, the ISAB had the impression that the numbers of PhD students and PhD Programs were too high. This led to questions regarding the quality and motivation of the students, the quality and role of the PhD Programs and the reasons motivating the PIs and Faculties to accept so many students.

This year's discussion revealed that the initial assessment of the ISAB was shared by most of the participants and it was encouraging to note that the faculties have made real efforts to reduce PhD student numbers and also to merge several PhD programs. It was also very encouraging to learn that the criteria for acceptance into the respective PhD programs were generally re-examined and that genuine attempts are being made at recruiting a higher percentage of talented and motivated students. It became apparent, however, that there were differences in the ways the PhD students were remunerated and there were significant differences between the various faculties in their ability to attract top national and international candidates. This was the case particularly in humanities, and it is for this reason that the ISAB has undertaken to examine the situation in these faculties in greater depth. What follows is a summary of the impressions of the ISAB and a list of recommendations that are intended to stimulate further discussion.

- 1. Graduate Schools** - the ISAB suggests that the MUNI consider the possibility of setting-up faculty-wide umbrella organisations (Graduate Schools), which would administer and co-ordinate the different PhD Programs, and ensure that admission criteria (and processes), course requirements and regulations for thesis committees, progress reviews, teaching, thesis defenses, etc. are uniform across the entire faculty. They would also be responsible for organising compulsory "soft skills courses" (scientific writing, science ethics and presentation skills) for the students. Graduate Schools could also offer courses for the PIs, e.g. laboratory management skills, didactic skills and administration skills. Graduate Schools would also present an opportunity for advertising MUNI and for recruiting top students ("branding").
- 2. PhD Programs** - the ISAB is of the opinion that the number of individual programs is still too high. The board understands that the programs need to cover specialist disciplines and fields of science and humanities, however, there is no reason why the specialist streams cannot be offered within a single PhD Program. The *raison d'être* of PhD Programs is to provide the participants with education that is broader than that of their specialist subject and this is possible only if the programs are large enough to enable students from distinct, but related fields to actively interact not only academically, but also socially, for example at student retreats.
The ISAB also felt that a close interaction between PhD Programs of different faculties might in some cases be beneficial. One example could be the involvement of Sports Science with the faculties of Medicine and Education.
- 3. Review of PhD programs** – The performance of the individual programs should be regularly reviewed, either by the appropriate Graduate Schools or by an invited panel of experts. In assessing a program's success, criteria such as quality of publications, drop-out rate parametrised by year (could be high in the first year but should decline thereafter), male/female ratios, time to graduation, jobs of graduates after completion, etc. ought to be taken into consideration. The faculties should agree on a set of performance measures. These analyses could also be used as indicators of the effectiveness of the

student supervision. The effect of gender on drop-out rate might be examined in light of the capacity of available child-care facilities.

4. **Supervision of PhD students** - the ISAB recommends that its original suggestions for admission to PhD studies be implemented and overseen by the Graduate Schools, and that all students be provided with an individual, project-specific Committee that will follow their progress throughout their study. This Committee should consist of the PI and at least two other experts in the discipline of the given project. One expert should come from outside of the faculty.
5. **Funding of PhD students** - the ISAB recommends that all PhD students receive equal remuneration. This should be high enough to enable them to work full-time without the need to seek additional employment. Adequate and uniform remuneration can be used to enforce, by the institution or by the Graduate Schools, desirable policies by tying the remuneration to goals and demands, such as full-time studies and 4 (maximally 5) year graduation time. The remuneration scheme for PhD students should be implemented in a way that allows PIs to spend grant money on student salaries and/or to shift students between different sources of funding, without creating noticeable (to the student), funding-dependent requirements (such as teaching) for the students.
6. **Recruitment of external PhD students** - the PIs should be encouraged to seek promising external students in a pro-active manner, through interactions at conferences, seminars, targeting specific undergraduate institutions (e.g. in Eastern Europe) through faculty visits and creating "student pipelines" from these institutions.
The MUNI/Faculties should actively engage to change the current policy of levying registration fees on international students, in order to increase the chances of recruiting highly-motivated candidates from outside of MUNI.
7. **Part-time PhD students** - the ISAB feels that part-time PhD students are of little benefit to the MUNI in general. It recognises that there might be circumstances where students may need to change from full-time to part-time study (e.g. as a result of maternity leave), but these should be seen as exceptions.
8. **Practice-oriented PhDs** - the ISAB feels that students intending to pursue a career in teaching, business, law or economics are unlikely to produce research work of high originality, particularly if they are employed during the course of the study. Awarding such candidates the title of Doctor of Philosophy may be difficult to justify. The ISAB recommends that the Faculty of Education examine the possibility of awarding the "practical track" students an alternative title, e.g. Doctor of Pedagogy or Doctor of Physical Education, Business Studies may consider awarding a title of Doctor of Business Administration etc. In these instances, part-time research would be justified.
9. **Duration of PhD studies** - PhD projects should be completed wherever possible within 4 years. To ensure a timely finish, students ought to be asked to present/defend in front of the full PhD committee their project at the end of the first year and present a progress report after 2 years including e.g. a draft chapter of the thesis. The student's progress could where necessary be used as a measure of the performance of the PI.
10. **Teaching** - the ISAB is of the opinion that teaching in excess of 150 hours over the four-year period should be avoided.
11. **PhD in Computer Science** - the ISAB was unclear about the status of the Computer Science Institute as an entity separate from Informatics. The ISAB recommends that the remit of this department be re-examined and that a particular emphasis be put on the definition of its function as a service provider as opposed to an academic research facility.
12. **Internal evaluation committee** - the ISAB questioned the utility of this reviewing body and feels that evaluation procedures are meaningful only when they are carried out by specialised committees composed of external experts.