Minister of Education and Science, Professor Przemysław Czarnek,

Reflections on the Third Progress Review Conference of the 20 Universities in the "Excellence Initiative – Research Universities" program At Gdansk University of Technology, September 2022

The Ministry of Education and Science has this year once again invited a team of international experts to participate in the IDUB Progress Review Conference. The international team takes this opportunity to reflect on progress made within the IDUB program. We take note of the dedicated effort made by your colleagues at the Ministry, and by the leadership and numerous staff and faculty members within the 20 selected universities to make IDUB a successful program. The international team recognizes that Poland's leading research-intensive universities have further engaged in international knowledge exchange, and have due to the IDUB program become more active players in the exchange and circulation of national and global talent. As a result, Poland may expect improving participation in innovative research and business networks, increasing global competitiveness, and consequently a more knowledge-based economy. Once more, we must underscore the importance of continued support of the IDUB program, it is in the mid- to long term that the Polish economy and society can expect to reap the greatest benefits of its higher education reform program.

The Third Progress Review Conference at Gdansk University of Technology was addressed by Secretary of State Wojciech Murdzek, Ministry of Education and Science and professor Arkadiusz Adamczyk, chairman of the Scientific Policy Committee. The conference took place in an excellent venue and was very well organised by the Gdansk University of Technology under the leadership of Rector, professor Krzysztof Wilde.

The purpose of the excellence program is to instigate structural as well as cultural changes, and advance international and national research integration within a small number of Poland's universities to become on a par with Europe's best research-intensive universities, and thereby deliver advanced research results, excellent graduates and applicable knowledge to all sectors of the Polish society.

The conference was preceded by the submission of written reports from the participating Universities in which they had responded to 2 overarching questions proposed by the expert panel in no more than 3000 characters, and 15 specific questions in no more than 1500 characters

including, where appropriate, concise, clear evidence to support the answers. The answers were expected to focus on developments and achievements of the last 12-18 months relative to the original baseline data submitted to IDUB, and were expected to provide relevant insights into the main developments in the universities during the last three years. The combined reports' approximately 150 pages provided background information for five panel discussions moderated by the international experts. This format for the review was chosen to assess progress towards the objectives set out in original submissions from the universities to the IDUB, and to provide participating universities insight from the entire sector.

Over-arching two questions:

- What have you been able to achieve especially when it comes to strengthening your university's research activities that would clearly not have been possible without the support of the IDUB programme?
- As you progress towards a truly global status as a research university, how have developments in research impacted your other activities in education and broader societal engagement ('third mission')?

Panel 1: Enhancing collaboration with the global academic community

International collaboration fosters research excellence. Participation in the research expanding frontiers of knowledge requires collaboration with the world leading scientists and scientific centres. It is recognized that universities' visibility and global impact depends on the strength of their international networks, and it is appreciated that further integration with European partner universities is desirable. The stronger the network of international cooperation developed by the university, the better the opportunities for excellent research. At the same time, recent developments, including the Covid-19 pandemic, the war in Ukraine, growing tensions with China, Brexit, and a new scientific agreement between the EU and the African Union, create both constraints and opportunities for European universities when it comes to enhancing their global scientific collaboration.

- In what ways have you enhanced your university's international interactions and collaborations, acknowledging the constraints (but also the opportunities) associated with current global disruptions mentioned above?
- What concrete success can you report (numbers for 2021 and 2020) in engaging with outstanding researchers from both within and beyond Poland (recognising that recruitment and collaboration may have been constrained as well as stimulated by the developments mentioned above)?
- What concrete examples can you provide of the expanding use of digital technologies in your university's international collaboration in research and teaching (numbers of input and output)?

Panel 2: Searching for the optimal research portfolio: Changing the research profile given the university's potential, the current global challenges and emerging opportunities

Any university may achieve a global leadership position in only a few academic disciplines or fields, and therefore it is highly important to constantly monitor, and if appropriate, adjust the institutional research strategy to the university's scientific strengths and new research opportunities, while maintaining a baseline of high quality. The importance of particular research areas evolves – new research areas emerge while the significance of some mature research areas declines over time. Focusing on a dynamic development of prioritized research areas, incentivizing quality measures across disciplines, and developing ways and means to measure success is a priority. For universities, adjusting their research strategy and portfolio in accordance with needs and opportunities, and identifying emerging areas are key to success. Some universities show a significant increase in scientific results by displaying comparative indicators. For a better assessment of the impact of IDUB, it may be advisable to use same indicators by all the universities, showing the evolution over time from the baseline defined as the allocation of the IDUB funding.

- Describe any changes in your university's research profile and illustrate the development of quality and visibility in this context (e.g. distribution of research output by research areas, citations of papers, or recent developments in the external competitive funding (national and EU) of research projects etc.)?
- What do you think "success looks like" for your university when it comes to achieving progress towards reaching specified research goals?
- What do you do to achieve a balance between supporting priority research areas and ensuring a baseline of high research quality at your university (e.g. changes in funding profile, teaching load etc. across the academic profile?

Panel 3: Striving for balanced progress in performing university's missions

The statutory mission of Polish universities is to provide the highest quality of education and scientific activity, and to contribute to the development of the social and economic environment. Improvement in the quality of research and education are specified as the explicit objective of the "Excellence Initiative – Research University" programme, and there is a clear synergy with the "third mission" of the universities. Many universities can demonstrate an increased focus on research quality and the concentration of research activities in areas of strength. Most of the universities implement measures to reward the teaching performance, organize various training modules for academic staff. Progress in evolving academic teaching programs may be less visible and successes in third mission performance are unevenly distributed across the university landscape. It is important for individual universities to strike a balance between missions, and to ensure commitment from all staff.

• How do you prioritise, realise and reward the development of academic teaching competencies among the university's academic staff?

- What are the tools that your university use to determine and allocate resources necessary to promote and integrate third mission activities?
- How do you realise and assess the synergistic benefits of enhanced research performance, high quality teaching, and effective social and societal contributions?

Panel 4: Developing efficient and effective staff development programmes

Achieving a critical mass of excellent and flexible minds is crucially important. Therefore, identifying, training, attracting and retaining advanced human capital is a prerequisite to excellence and transformation for any university. Sustaining and improving the highest possible performance of staff, universities are advised to provide training opportunities such as in well-developed doctoral schools and post-doctoral programs, and adequate support structures for researchers at all career stages, and to ensure attention to the interface between early career and senior tenured research positions.

- What is your university's strategy and practical programme for staff development; how many staff members have taken part in this programme; and what was the amount of funds devoted to them? What was the enrolment and graduation in your doctoral schools in 2021 and 2022?
- How effective have you been in identifying, recruiting and retaining distinguished and early career researchers, and what is the impact on the development of the incumbent staff?
- Are there programmes that offer specific support for postdocs, and programmes aimed at recruiting mid-career researchers?

Panel 5: Integrating and consolidating Poland's research and higher education system: new insights

Any academic institution faces constraints resulting from a definite amount of resources at its disposal. These constraints may be loosened through many different forms of integrating institutional scientific capacities, including sharing human resources between institutions, allowing access to external research infrastructure, developing joint research projects, merging with other institutions, etc. IDUB universities receive more funding than other Polish universities and benefit from the prestigious IDUB status, which means that they have an advantage as highly attractive partners for scientific collaboration. For example, the idea can be supported of mergers of medical universities and other more specialised institutions with the more comprehensive universities/science & technology institutions. It deserves wider attention to consolidate and create more optimal use of existing resources on a national scale. Progress has been significant in some regions (notably Gdansk) but a broader appreciation of the benefits of multi-disciplinary approaches – beyond the competences of highly specialized institutions – is needed. This would speed up progress on IDUB goals, it would provide access to shared infrastructure and support interdisciplinarity within merged institutions. Overall, this would allow a more effective use of national resources, and further, it has the potential to improve international visibility of Polish research universities.

- What is your university's position and experience with respect to integration and consolidation with other universities?
- Did your university explore possibilities for integration or strengthened collaboration also with research institutes, notably those of the Polish Academy of Sciences?
- Did you facilitate institutional integration in the form of the creation of critical mass and synergy in specific academic fields with partner institutions, either in Poland or abroad?

The group of international experts: professor Eva Kondorosi, professor Peter Maassen, dr. Mariana Chioncel, professor Simon Gaskell and professor Lauritz Holm-Nielsen have carefully assessed the pertinent responses provided by the IDUB-universities, and also have included information given during the 3rd IDUB Review Conference in Gdansk, September 15-16, 2022. The expert team finds that the submissions from universities supported through the IDUB programme – both "winners" and "runners-up" – provide pleasing evidence of progress towards the achievement of enhanced national and global impact of the research conducted there.

Overall, the submissions show that all universities feel that IDUB has allowed them to make progress in realizing their ambitions to become globally well-connected research-intensive universities. This progress is illustrated by the data provided, e.g. on their engagement with outstanding international researchers. At the same time, the submissions also show important differences between the universities concerning the interpretation of the nature of the progress made. Some (though not all) submissions justified their claims of progress with clear, quantitative evidence of achievement, at least on some aspects of their progress. All institutions should be encouraged to follow this approach in future submissions.

How the realized progress has affected the universities' activities in education and societal engagement (the third mission) is in general not sufficiently presented in the submissions. Most submissions present the university's vision, plans and new initiatives, but do not provide an insight into how the IDUB related progress realized has affected their education and third mission activities. For most universities the progress is first and foremost structural, as demonstrated by their activities. This is, for example, realized in increased incoming and outgoing mobility, increased number of international PhD students, growing number of international publications in top journals, etc. Not all universities addressed explicitly the impact the IDUB programme has had on their research, work and organizational culture.

The importance of realizing not only structural progress but also cultural institutional change as an intention of the IDUB programme was an issue of attention and some universities did present useful reflections on the cultural change that they have realized, and referred to IDUB inspired institutional vision and changes in their organizational culture. Across the 20 IDUB participants there are clear indications (though with inevitable variation between institutions) of genuine cultural change in the universities, involving changing attitudes and increased ambition among at least part of the academic staff and the setting, and acceptance, of higher standards of performance. However, more information is needed to get a good understanding on the extent to which these changes may apply only to selected groups of researchers rather than the university as a whole.

In some – though not all – universities, clear evidence was presented that the progress reported was directly attributable to the recognition and support provided through the IDUB programme. One particularly thoughtful reflection (from a "runner-up" university and therefore the recipient of a lower level of financial support) suggested that the primary impact of the IDUB programme had been in encouraging cultural change, rather than the simple financial impact.

While encouraging examples of the expanding use of digital technologies for international collaboration are presented in the submissions, what is to some extent lacking is information on the institutional strategies and structures that one would assume form the foundation for this expanding digitalisation. Only two universities refer, for example, to their Internationalisation at Home (I@H) strategy and practice, and the role the digital technologies play in this. Also the discussions during the conference on the topic of I@H showed that most IDUB participants still pay more attention to the external than to the internal dimensions of their internationalization strategy.

The international team found indications of an encouraging, deep appreciation of the importance of collaboration – within institutions, locally, nationally and internationally. There are a range of reasons to collaborate more, and potentially for integration and consolidation within and between institutions; these include: (i) Enhanced opportunities for cross-disciplinary working; (ii) Increased sustainability of areas of research strength; and (iii) Improved operational efficiency arising from economies of scale (though there may also be <u>dis</u>-economies of scale!) However, submissions from the universities demonstrated a wide range of appreciation of the value of integrative work. The submissions provided much evidence of national and international collaborations, while there is ample evidence of the appreciation and achievement of improved coordination of research both within and between institutions. At the same time, there is little evidence of an understanding of what is meant by the metaphor "critical mass" in this context. Thus, no university provided a clear example of how collaboration and coordination has enabled the achievement of *sustainability* in a particular research area.

In Poland consolidation is an evolutionary process. Approaches to local integration of universities range from dismissal of its significance to enthusiastic progress. In all cases, however, there appears to be residual timidity with respect to full mergers. Nevertheless, the universities showing most progress towards institutionalized local integration are likely to become exemplars guiding future initiatives. In addition to inter university alliances or cooperation in Poland, there is some evidence of improved joint working with national research institutes; almost all universities cite examples. There is a suggestion, which should be explored further, that closer integration is discouraged by the current differences in funding models, and impediments in Law 2.0 which is perceived as too detailed to allow for innovative ways of cooperating.

One indicator of the internationalisation of outlook has been the widespread participation in one or more international alliances, notably those selected and funded by the EU in the European University Initiative (EUI). The resilience, effectiveness and longevity of these alliances are yet to be fully tested. A number of the IDUB universities emphasized in their submissions that they are profiting a lot from their membership in a European University alliance. This includes the increased

use of digital technologies for international collaboration and extended mobility opportunities for academic staff and doctoral students.

Most of the universities implement (most often enabled by IDUB funding) measures to reward academic staff either by increased salary or by specific awards for teaching achievements (quantified often through the results of the anonymous students' survey). Many organize various training modules for academic staff (e.g. language skills for teachers who are willing to lecture in a foreign language, soft skills digital skills). Some universities organize teaching project competitions, databases for good practices. This is in addition to a number of innovative approaches to doctoral education that have been reported; one university, however, suggested that doctoral student recruitment in Poland has declined in the last couple of years and the origins of this should be investigated. Unless corrected, such a decline could endanger the health and impact of Polish research.

It was observed that in Poland there is a tendency to recruit students locally and to recruit faculty and staff among alumni. Universities should become more active players in "brain circulation" networks both nationally and internationally. For example, a critical missing link is that there is not a uniform national policy and framework regulations regarding post docs and early career researchers. In general, young brains are underprioritized in the research system; this applies to both national and international early career researchers. Poland has great potential for recruiting foreign advanced human capital provided their research work in Poland is supporting their research career elsewhere.

The IDUB programme plays an important role in a structural and cultural change process which will bring Poland's research-intensive universities at par with their international, particularly European, peers. This already has had a positive impact in the breaking of the academic silos, fostering interdepartmental/inter-disciplinary collaboration, prioritization of the quality over the quantity of the research output, increasing motivation and commitment of the research and research-teaching staff, and change of the administrative support offered to project leaders.

In conclusion, IDUB has provided significant opportunities and changes that could not have been attained otherwise. The 20 universities demonstrated multiple examples of innovative actions funded by the IDUB programme. These are materialized in research programmes, mobility schemes, reward schemes for scientific and teaching excellence, modernization of the infrastructure, international collaborative research etc. Generally, these programmes, aimed to increase the scientific and teaching quality, research and outreach, and their impact are clearly described. The international team took note of greatly improved visibility of Polish research results in the international scientific literature, and thus increased attractiveness of Poland's research base for potential international partners.

The international peer group appreciates the encouraging closing statement by the Secretary of State, Wojciech Murdzek, in which he recognized the great effort by the universities, and that the observations from the 3rd IDUB review conference enables the country to benefit from this investment for more than 500 million PLN per year. He noted that the experiences demonstrated and observed during the three IDUB conferences (2020, -21 and -22) help the universities and the

ministry to implement the programme and to be better prepared for the mid-term-review next year, and hopefully towards the final evaluation of IDUB in 2026. He expressed the wish that by the end of the day we can say, that the best of the best has been part of IDUB, that Poland is better prepared to meet the challenges of our times and the needs of our everyday life, and that IDUB has been a good programme which needs to be continued.

Finally, the international expert team has since the establishment of IDUB noted the beginning of a remarkable cultural change in the universities, and a spirit to seize the opportunities to fully engage with the international academic community; we underscore that it is important for the country to further build on the success of IDUB and to continue stimulating opening up academic environments and institutions to society at large, and to the international community of universities.

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