

AGH University of Science and Technology

Assessment report in the first competition under the “Excellence Initiative – Research University” programme

1st criterion - substantive quality of an application:

- a) the quality of a SWOT analysis with respect to the objectives referred to in paragraph 4 of Communication from the Minister of Science and Higher Education of 26 March 2019 on the first competition under the “Excellence Initiative – Research University” programme, including the quality of the analysis used to identify priority research areas;
- b) conciseness and concreteness of the SWOT analysis and the plan;
- c) relevance of the identification of the specific objectives referred to in paragraph 6(2)(a) and paragraph 8 of Communication from the Minister of Science and Higher Education of 26 March 2019 on the first competition under the “Excellence Initiative – Research University” programme in relation to the SWOT analysis results;
- d) appropriateness of the indicators chosen to describe the university’s potential and to measure the extent of the objectives’ attainment;

Substantiation

a) The SWOT analysis is objective, comprehensive, well-structured, addressing objectives given in paragraph 4. Strengths and weaknesses are well documented, although opportunities and threats are externally focused. It could have been a little more self-critical. The 8 priority research areas are well chosen with a clear rationale and realistically based on existing strengths and capacity.

b) The analysis and the plan are clear, concise and concrete.

c) The specific objectives in the plan are very relevant to paragraphs 6(2)(a) and 8 and build on existing strengths and the analysis. AGH could have identified some areas that would be downsized or closed to focus resources on PRAs. This was discussed satisfactorily in the interview. The selected senior and young scientists are a strong set of researchers. AGH plans to increase the percentage ‘top 10%’ publications to 15%, which may be a challenge in the timescale. The improvement in citation rate will have to reverse the declining trend. Planned increases in international staff are modest (an error in the percentage increase stated in the document was noted). A re-organisation of the administration seems appropriate, but it is unclear whether the described actions will change the culture.

d) The indicators chosen by AGH are appropriate and traditional but the timescale to achieve some of the goals may be longer than projected in the plan. The task of achieving the proposed results is

challenging as some indicators show a declining trend in recent years. The action plan provides 28 detailed objectives and a monitoring plan with 109 milestones.

2nd criterion - relevance of assumed objectives to enhancing the international significance of the university's activity:

- a) **the extent to which specific objectives contribute to attaining the objectives referred to in paragraph 4 of Communication from the Minister of Science and Higher Education of 26 March 2019 on the first competition under the “Excellence Initiative – Research University” programme;**
- b) **sustainability of specific objectives after the plan implementation period, taking into account, in particular, actions to be carried out in 2026.**

Substantiation

a) The plan and objectives are relevant to enhancing the international significance of AGH's activity. The proposals continue to build on the existing excellent collaborations, and could go further to differentiate AGH, and need to prioritise and build a much stronger network with other excellent universities, explicitly targeting partnerships in the USA and Asia to widen international recognition beyond Europe. The goals for adding international staff are too modest, although it was clarified by AGH that the increases will be higher than the percentage quoted. This was recognised in the interviews where the recruitment of foreign researchers was seen as important. An increase in foreign accreditations from only 2 to a much healthier 10 by 2025, will help, alongside the increase in international students and introducing English as a parallel language to Polish. There is a clear plan to increase the commitment of staff and attract new researchers for collaborative projects. The plan relies heavily on staff engaging in more internationalisation but it is not very clear whether this is based on understanding what is preventing current staff doing this now. It may be necessary to strengthen the leadership from an international perspective to help deliver this. The plan for re-organising AGH will help catalyse and incentivise change, as well as achieving the necessary structures to support the PRAs and the staff.

b) AGH have given consideration to the longer-term sustainability of the changes and describe how it will manage funding to support these plans beyond 2026, with efficiency gains and increased external funding within a 2% scenario.

3rd criterion - adequacy of described actions to the assumed objectives:

- a) **appropriateness of the actions selected, including actions of ground-breaking and innovative nature, in the context of the specific objectives' implementation;**
- b) **feasibility of the activities given the university's potential and budget;**

Substantiation

a) 28 concrete actions are described and all support AGH's specific objectives. The final action in the plan is how AGH intends to extend the program beyond 2026. The plan is highly convincing and the actions are well thought out and based on incentives to entice a change in culture and this was evident in the interview. It builds on the existing strengths and should energise the staff when people realise their opportunities. There is good detail in the plans and a clear financial plan over the five-year period and beyond. The plans are presented in an objective and realistic fashion and after proposing each objective AGH have analysed the feasibility of achieving it. AGH has a strong starting point, with high performing staff. It is possible that senior management may need further support, possibly from a new strategic unit, and it should possibly also look building a change management team with international experience. There are many good points in the plan that confirm the feasibility of the proposals, but supporting the raising of performance during the planned culture and organisational change, whilst increasing the quality of internationally ranked publications and continuing to build the current good levels of international research funding during a relatively short time period are key.

b) AGH has a substantial budget and high-quality human capital and clearly has the potential to deliver its plans, which was confirmed in the interview.

4th criterion - potential of the university in terms of:

- a) the impact of the university's research activity on the development of world science, especially in priority research areas;**
- b) research collaboration with research institutions of high international reputation, especially in priority research areas;**
- c) the quality of education provision for students and doctoral training, especially in fields of study and disciplines of science related to priority research areas;**
- d) the solutions deployed for the professional development of the university's staff, especially young scientists;**
- e) the quality of university governance and management;**
- f) other specific objectives to raise the international significance of the university's activities if these objectives have been determined in the plan.**

Substantiation

a) AGH starts from a strong position in many of the PRAs and has the potential to increase its contribution to world science in these areas, recognising that 5 years is a short period. Important drivers will be the pervasive use of English and the concentration of critical mass of staff in PRAs.

b) AGH already has a good level of collaborations with leading international institutions and if it expands this more widely, it should be able to further increase its international reputation relatively quickly.

c) The current study program is rather traditional, and the plans for modernising are promising. The reduction in student-staff ratio will help improve the student experience and investment in new staff is an opportunity to recruit internationally. A focus on English, which was discussed in the interview, will attract students and help increase the participation of foreign students at AGH.

d) The plans to develop and support staff largely rely on reduced teaching loads, personal development, sabbaticals and salary-incentives, but more focus on career development, especially for young academic staff would be appropriate.

e) AGH have shown the capacity for strategic management in their analysis and plan which are coherent and appropriate. The plan recognises that changes will be necessary in management and governance, to reduce bureaucracy and achieve efficiency improvements, supporting academic staff.

f) Other specific objectives aim to enhance recruitment abroad, raise visibility and gain league table recognition.

Summary of assessment

The AGH University of Science and Technology in Krakow have provided a coherent, well-structured submission, with a succinct and comprehensive SWOT and detailed, clear plans for 8 priority research areas. A strong starting position in areas where AGH already has demonstrated success, together with a compelling plan, mostly rational targets and the financial strength to deliver the plans, means that there is a high likelihood of success. The University recognises the need to energise its staff, especially in an international context, change the administrative culture and reduce bureaucracy. The application to the Excellence Initiative shows a substantial amount of work and the intention to build on the existing research culture. The University could push harder on some of the internationalisation objectives, such as recruiting a higher number of international academic staff (the Reviewers appreciated that AGH recognised an error in percentage international staff increases in the original submission and that the actual numbers will be higher) and measures to differentiate it more strongly from other universities in a very competitive international environment. The University leadership recognised this in the interview and expanded on their plans. The plans are reasonable and feasible and should deliver the objectives in paragraphs 4, 6(2)(a) and 8. The responses from AGH in the interview and in clarification provided reassurance in terms of a more self-critical analysis, increase in international staff, and time scales for delivery of the full plan. The challenges of stimulating stronger international engagement by AGH staff are also clarified in the response from AGH, but this also demonstrates the need for action in this matter. Finally, the Reviewers appreciate the points raised on development of academic staff, but would still encourage greater career development, especially for young academic staff, which should include training and development programmes to help improve research, grants success,

international engagement and delivery of teaching, rather than relying largely on self-development and increased motivation (which are of course welcomed). Overall, this is a compelling plan that shows that the extra investment from the Excellence Initiative could lead to important sustainable improvements in research quality, international recognition and improved educational opportunities for students, further raising the reputation of this strong University. The reviewers recommend particular attention to the following points:

- Ensure the culture change embeds successfully and staff engage with the plans to deliver the specific objectives especially in research quality and international profile.
- Ensure delivery of increased international goals, notably increase in foreign staff numbers, greater international publication and conference/event participation by academic staff and increases in international student numbers.
- Ensure increased impact of internationalisation.
- Introduction of staff-development programmes in research, international engagement and teaching, alongside reduced teaching loads, personal-development, sabbaticals and salary-incentives.

Total score

34.0 / 40

Recommendation

Positive

Position on the ranking list of positively assessed applications

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