

Warsaw University of 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 provides the elements necessary for a diagnostic of the university. Key points to become a renowned international university are pointed out. Among them: educating in strict connection with the scientific activities, the need to support high-risk activities, the set-up of an innovation policy, the reinforcement of the staff to assist the researchers in the preparation of their applications, increasing the numbers of publications in prestigious journals, ‘commercialization’ of the knowledge, the participation in the competition European Universities Initiative. The “Innovative and accelerator” programmes are of high interest. There was a question about the areas that were not prioritized. The interview clarified that such areas will not receive funding from the excellence Initiative. It was also clear that the final word in choosing POBs was with the rector. The SWOT gives a very clear picture of the ranking of WUT nationally and internationally. The weaknesses mention the fragmentation of research activities, insufficient internationalisation of research activities. The list of POBs shows clear prioritisation, which is a strength of the proposal, but is not clear enough from the SWOT. It must be said that the interview was clarifying in this respect. The proposed Research Centres seems to be a good solution, but not easy to implement.
- b) The SWOT analysis is in general of high quality and it is concrete and concise.

c) The SWOT is adequate in reference to the objectives of the "Excellence Initiative". On priorities, it is considered to be a good and affordable selection.

d) On mandatory indicators this university is very prudent in setting target values. The average 2013/2017 is often lower than they aim at. They could increase the objectives. Optional indicators, are ambitious but attainable. Indicators determined by the university are very appropriate. Indicators are, in general, appropriate, ambitious, and feasible.

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 university definitively has the potential to be a world-class university. Presently, however, the list of international grants is not impressive. It is worth mentioning the participation of the university to the European University competition (with the University of Berlin). This is one of the best ways to develop the international level. The assumed objectives are in general relevant. The integration of research within the POBs, the increase of the research activity of the PhD student (and staff), the initiatives to publish in high quality journals, the fostering of technology transfer, initiatives for increase the EU grants (e.g. ERC), increased international research exchange, the change of the proportion second cycle students, increase the number of foreign students and staff are all relevant objectives. The "comprehensive solutions for the professional development of the university's staff" objectives are "correct", but somewhat naïve, generalities. The objective for improving the university governance are very relevant, and the designed "significant organisational changes" are ambitious and worth of support.

b) As far as sustainability, this university is more restrictive in what they propose. Of course they propose an ex-post evaluation. Actions are considered to be adequate and sufficient.

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) They describe a total of 31 actions, including timing and budget, that correspond with the objectives that are well described in the proposal. Specific actions include, Action 1 uses more than 40% of the total budget increase. The interview was key to fully understand this action. They propose one centre per POB. It is right to concentrate resources in this particular action. Perhaps, they missed to mention the incorporation of researchers from other research institutions. A rough break down of the budget would be desirable for this particular action, matter that was clarified during the interview. Action 4 establishes what they call Innovative WUT Programme. In summary it is a programme to help protecting IPR and helping “innovators” which is positive and adequate. Interview helped clarification. Action 5 is complementary to action 4 by establishing and accelerator fund for spin-offs. This may be a great action, provided it is well thought from day one. Can the structure of the university really provide the agility it needs? Can a company (perhaps owned by the university) do the job and avoid bureaucracy and well known barriers? Also this was discussed and clarified during the interview. Action 18 is thought to stabilise the pipeline of doctoral students. It is a long shot necessary for the university. Action 20 is an incentive for doctoral schools. The proposal is convincing in that the specific objectives go in the direction required by the "Excellence Initiative". Establishing the Network of POB Research Centres is the central element of the actions and the only really innovative. The focus on doctoral schools and internationalisation is good

b) In terms of feasibility the proposal is convincing in that most of the actions can be implemented and benefits will be collected in due time. Monitoring the evolution will be important.

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) The proposal shows a strong potential for international development. This was confirmed during the interview. A reference for potential was taken from the last five years of impact of the university. It looked strange however that the number of units with research activity A+ is relatively small (2 in

fact), while those with B is high (10). This is a clear contradiction with the fact, that TUW is the first on many fields in Polish ranking, and the highest in international ranking. The interview was used to discuss this issue at depth. Arguments were reasonable and accepted by the panel. The lists of most prominent scientists and their achievements is convincing in that TUW has the human potential. The TUW makes it clear in the application that they are going to change the structure of the research and the education and also the governance of the university. They do not give a detailed roadmap for these changes, but the establishment of POB Research Centres, the change of the ratio of second- and first-cycle students and the change of the governance are promising.

b) The TUW has a strong a wide international collaboration.

c) The efforts directed at education, in particular at doctoral level, are to be applauded. This may be the key to a long term success in world level research. It is recommended to concentrate efforts in the priority areas that have been selected. This is an important part of their focus and crucial for their future.

d) Actions directed towards administrative staff, or governance, are in line with the recent changes facilitated by the new rules in the higher education system. Attention is payed to optimizing the relation of students and staff, innovative teaching and learning and doctoral education. Their mention and attention to young scientists is adequate.

e) The TUW makes it clear in the application that they are going to change the structure of the research, education and also governance.

Summary of assessment

The actions WUT proposes are good and adequate for the objectives of the call for proposals. Some of the actions could have been grouped, offering more weight and focus. Actions proposed are consistent with the objectives they have established themselves. It is remarkable that they want to concentrate efforts through a network of research centres that will focus on the priorities. It is also to be noted the effort in using resources in the technology transfer and in an accelerator of spin-offs. The third action to be highlighted is the programme for doctoral candidates. This is a bet of WUT that will bring benefits in the medium and long term. The proposal of the WUT is of high quality. The SWOT is professional, although it does not lead directly to the chosen POBs. This was a subject of satisfactory discussion during the interview (identifying candidates, identifying criteria for selection, actual selection and final decision by the Rector). The proposed POB Research Centres is a real innovation. The Plan and the Actions are relevant. The staff and their achievements guarantee that they can carry out the proposed improvement in research and education if they get the extra funding. Based on the present values of the indicators it is feasible for them to deliver as expected. The WUT has the potential to improve both the quality of education and research and the proposed

changes of the governance. If the proposed changes in the governance, and the described actions carried out fully and consistently the WUT can get much closer to the status of an internationally recognised research university. Their plan highlights the appropriate issues. Once they have defined the objectives the distribution of the extra resources they will get if successful, is the actual real declaration of intentions. WUT prioritizes building a network of POBs research centres which takes 42.3% of the total resources of the proposal. The interview was very useful in making clear that their plan is to have one research centre per POB, which it is not in the proposal. Also interesting to know that research areas not prioritized will not be funded with resources from the Excellence Initiative. Other actions put emphasis in knowledge transfer including and accelerator (Innovative WUT programme and WUT accelerator). The actions are well described. The interview also clarified that these actions need specialised staff that they will have to look for outside the university. This is a very important professionalization that will allow WUT to drastically improve their knowledge transfer objectives. This is a challenge for WUT that they will tackle adequately. The treatment of indicators is good, and in correspondence with their priorities. The objectives proposed by WUT are perfectly in line with those of the Excellence Initiative. WUT already has some impact in their research at world level. It looks as if it is ripe enough to be able to jump one step up if they find the appropriate funding. If the prioritisation they propose is successful, that means if its implementation is successful, WUT will be more powerful, nationally and internationally, in 6 years from now. The panel recommends to pay specific attention to:

- Ensure delivery of the plans for doctoral programs, POB Research Centres and changes in the governance.
- Improve knowledge transfer outcomes, especially ensure effective development of the Innovation Programme and the accelerator of spin offs.

Total score

34.0 / 40

Recommendation

Positive

Position on the ranking list of positively assessed applications

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