

## Silesian University of Technology

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

#### 1<sup>st</sup> 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 of the Silesian University of Technology (SUT) describes numerous studies, analyses, reports and assessments as inputs to the SWOT and the definition of the 6 PBOs. The SWOT is good in quality, realistic and reasonably concrete. It is not easy to see how they chose the 6 POBs but the interview clarified this issue satisfactorily. The SWOT lists the rankings of SUT on different fields among Polish Universities. It is an impressive list, although not all items are equally relevant. The Plan points to concrete actions such as a federation with other universities. Internationalisation is identified as a key element and well developed. SUT uses the argument that they are located in the most industrialised region of the country. Therefore, they focus on applied research, technology transfer, and economic development. They also remark as unique their relation to industry, direct access to innovative enterprises, inspiration in real problems, and unusual access to data from industrial processes. This was considered to be adequate and important. They also pay attention to education, which is appreciated and also point to an Individual Development Plan for the staff. Their proposal for a new doctoral school jointly implemented with the Polish Academy of Sciences and other institutes in Silesia to improve doctoral studies, action with considerable added value for SUT.
- b) The SWOT analysis was found to be clear, and sufficiently concise.
- c) Specific objectives are relevant. The actions they propose are focused in research, industrial connections, internationalisation and education.
- d) The indicators chosen to describe the university’s potential are appropriate. Target values of mandatory and optional indicators are very ambitious. This issue was taken care of during the

interview. University representatives argued very strongly, in a fairly convincing manner, pointing to the presently already increasing values of the indicators, that their ambition can be reached.

**2<sup>nd</sup> 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 identifies appropriately actions to develop the university at the national and international level. They show willingness to establish a strong bridge between basic and applied research, reduce the teaching load for the most active scientists and take the best practices from other leading research universities. There are interesting actions to develop the international level of the university. The interview was useful in getting direct information about some of the actions. The assumed objectives are in general relevant to enhance the internationalisation of the SUT. The objectives related to research collaboration are also relevant. The objective to improve the quality of education undoubtedly will contribute to the attainment of that objective. The specific objectives will contribute to the objectives set up by the call for proposals. Some of the specific objectives seem to be excellent candidates for internationalisation and to reinforce education. Both of these two aspects, internationalisation and education were discussed at length during the interview and it was considered they reconfirmed the intensity and novelty of their proposal. Given the importance of the economic environment of the university, perhaps more weight should have been given to actions reinforcing links with the industrial and service enterprises. However, during the interview they explained clearly that this priority is well covered by other programmes of the university, and that the Excellence Initiative budget would be complementary in that respect.

b) The feasibility of actions carried out in 2026 are not convincingly justified. They propose 22 actions to be undertaken to ensure the sustainability of the results of the Plan. This seems to be slightly premature. One should let the plan evolve and then make sure that the results will have continuity. The 22 actions they propose are in line with what they expect from the plan.

**3<sup>rd</sup> 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) Actions proposed are comprehensive and well adapted to the objectives of the call. When looking at the individual actions some of them stand out. Others could have been thought differently, or could have been included in other actions. Internationalisation is very well treated as is the education part. These two aspects, though, will have to be closely monitored to make sure they produce the effects one would expect. Actions designed towards technology transfer, commercialisation of research results and spin-offs might have deserved more attention. The interview clarified they have other resources in that area. They have chosen to split the resources in 27 actions of which the highlights are: Action 4 tailored to give support to internationalisation (13.1%); Action 5 clearly aiming at money incentive for publishing in the best journals (12.7%); Action 6 devoted to give support to the application of projects (including ERC). It also includes salary rise for successful applicants (6.3%); Action 10 largely devoted to education (and eventually research) with the active participation of students, also giving it international character. This may be a differential issue with respect to other universities (9.4%); Action 11 targeted to a better selection and support to Ph.D. students (8.1%); Action 13 oriented towards reducing teaching workload (7.5%). Action 16 directed to employment of prestigious researchers (5.8%). Action 25 to attract best students (7.9%). All these actions are appropriate and focus in internationalisation and education.

b) As far as feasibility of the activities it is expected that some of the objectives will be reached. However, some of the targeted indicators are too ambitious and revision may be necessary, although, as explained before, they seem to be confident in that the quantitative objectives can be reached.

### **4<sup>th</sup> 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 potential of the university in research is different in the 6 POBs. The application points towards a high international reputation. This is a key activity because the impact of the university's research on the development of world science can be improved. If SUT finds enough funding and leadership (which they showed during the interview) it will become an important element in the Polish system in say 10 years from now. SUT cannot be judged for what they are today, rather for their impulse towards the future. This implies that SUT pays more and more attention at the economic world they claim to have next to them as mentioned above.
- b) The university has development potential at the national and international levels. SUT must be quick in triggering attractive actions for young and senior researchers. They have carefully planned actions related to this issue.
- c) Actions related to the quality of education provision for students and doctoral training on the priority research areas are in the good direction. Its implementation will be key for success in the near future.
- d) The solutions deployed for the professional development of the university's staff states the usual methods and means on this field.
- e) It was felt that there was a lack of information related to the governance. The interview was clue to remove most of the reticence and clarified changes they are already going through, triggered by changes in the recent "university law". The interview also showed they are willing to carry out the changes expressed in the proposal. The quality of university governance and management sets very brave objectives and the whole proposal proves that they are ambitious and committed.
- f) They are working on applied fields. SUT has the specific objectives to have close cooperation with the industry in the region. This is certainly an objective worth to consider positively.

## Summary of assessment

In general, the proposal, complemented with the interview, gave a very positive impression in terms of the overall goals, organisation and ambition. It also gave the impression of a dynamic university under the leadership of its rector. The university has room for improvement at international level, but the application reflects well its willingness to become a stakeholder in the international arena. It has real potential. This proposal is an excellent candidate for funding. The SWOT is good in quality and reasonably concrete although the summary is not informative. The specific objectives are relevant and supply sufficient amount of important details. The assumed objectives are in general relevant to enhance internationalisation. SUT lists 27 actions aimed to achieving the objectives. These actions are in general adequate to attain the objectives. The potential of the university in research varies within the 6 POBs. It is worth noting that they are working quite a bit on applied fields as expected for them to increase cooperation with the industry. This is an objective worth to consider very positively. The quality of university governance seems to be good and the

management sets very brave objectives, and the whole proposal proves that they are ambitious and committed for the improvement. POBs have been well chosen as discussed at length during the interview. The number of actions is, perhaps, too large. However, the whole set of actions is comprehensive and well balanced in terms of focusing. Most of the actions are properly designed. It is commendable that they devote a sizable amount of funds to “education”. There is also a remarkable focus on internationalisation which represents a major investment within the proposal. There could be some more focus on entrepreneurship, technology transfer and taking advantage of their connection with the industrial world. However, this particular aspect was subject of a long discussion during the interview. They showed how this aspect is taken care of by other programmes within the university and the Excellence Initiative funding will only be complementary in this case. When it comes to indicators to describe the university’s potential, and to measure the extent to which the objectives can be reached are appropriate. The panel used time during the interview to criticise that some of the indicators might be too ambitious. They propose very steep increases in some of the indicators but argued that they could reach the objectives. There remained some doubts but the panel was satisfied with their arguments. The interim evaluation should pay due attention to this issue. The focus in education (problem based) was found to be very good and very positive in the medium term. This is a very positive signal and it is believed that the implementation is possible. SUT has a very positive attitude towards collaboration with other institutions of the science and innovation system. For instance, their proposal makes clear their intention to join forces with other institutions in the development of the Doctoral School. They do that in conjunction with some institutes of the Polish Academy of Sciences and other governmental institutions. The panel recommends to:

- Focus on delivering the Priority Research Areas and ambitious plans for educational development.
- Ensure the implementation of joint doctoral schools w. other Polish institutions.
- Implement the intended internationalisation actions.

#### Total score

33.0 / 40

#### Recommendation

Positive

#### Position on the ranking list of positively assessed applications

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