D. PLAN INCLUDING THE OBJECTIVES FOR IMPROVING QUALITY OF RESEARCH AND EDUCATION, TOGETHER WITH A SCHEDULE FOR THE PLAN IMPLEMENTATION

D.1 PLAN

The expected long-term key challenge of the "Excellence initiative - research university" program is to substantially enhance the position of Polish universities in the international research landscape in order to make them (i) important (global) players, in particular in priority research areas, (ii) excellent partners for forming and strengthening international collaboration networks, and (iii) attractive institutions for starting and continuing scientific careers at all professional levels.

The vision devised at Nicolaus Copernicus University (NCU) and scrutinized in this strategic development plan is based on the "4xI@NCU: Internationalisation, Interdisciplinarity, Innovation & Integrity" concept. Specifically, the first "I" (internationalisation), represents the most critical factor to soar scientific potential, top-quality research, and worldwide recognition of NCU as a research university (Sec. C). Equally important factors that are crucial in establishing a solid and firm position of the university, are interdisciplinarity and innovation. These two key aspects will trigger integration and transfer of know-how within the university and beyond as well as reinforce the impact of academia on society and business environments. Finally, integrity of the entire academic community - including the scientific, teaching, and administrative units - will be critical for sustainable development within the university.

We are convinced that a coherent combination of all these four factors will significantly enhance the national and - most importantly - international recognition of NCU as a leading-edge research institution, an education magnet for talented students from abroad, and a trusted partner for external stakeholders.

I. External recommendations

According to the "Peer Review Poland's Higher Education and Science system" by Horizon 2020 Policy Support Facility, all Polish universities underperform in both research and innovation compared to the EU, measured by, e.g., the number of highly-cited publications, publications in international collaborations, and the number of prestigious research grants.

The most important recommendations are:

- ensuring international peer review and evaluations of scientific outcomes,
- boosting staff mobility by recognizing international experience as a merit in the academic career,
- prioritising publications originating from international collaborations,
- fostering multilateral networks of research,
- attracting a significantly larger number of foreigners as group leaders,
- enhancing student mobility to build international curricula and develop global citizenship skills,
- supporting international engagement at the institutional level across different fields to overcome imbalances,
- developing more robust administrative offices to support internationalisation.

By addressing these external recommendations and the SWOT analysis (Sec. C), we define a set of specific objectives in order to boost the significance of our university at the international level (Sec. D.2. a-f). In the following, we summarize these objectives within the scope of our "4xI@NCU: Internationalisation, Interdisciplinarity, Innovation & Integrity" concept.



II. Internationalisation

Comprehensive internationalisation of our university is the main aim in the proposed development plan. It will affect the entire university staff including students and define new standards in research and teaching. Specifically, internationalisation will involve the following.

- a) Establishing five Centers of Excellence in priority research areas. These centers will form a coherent, interdisciplinary research environment at the university and boost its international recognition. The centers will most efficiently attract talented students and staff from abroad and will be the driving forces to improve the position of our university in international rankings. The major goal here is to provide a critical mass such that the effort and visibility within Poland and beyond are maximized.
- b) *Increasing the mobility of students, PhD students, post-docs, and senior academics, especially in the priority research areas.* Incoming mobility programs will benefit from new, interdisciplinary study directions in English and strongly contribute to the "internationalisation at home". The mobility of our students and academic staff will both spark and accrue international collaborations in research as well as enrich the curricula of our alumni.

c) Creating a thorough system of institutional support for managing international partnerships with top research institutions. The partnerships will emerge from the "bottom-up" process among the most active scientists and lead to comprehensive institutional collaborations encompassing research projects, joint grants, and exchange programs for students and staff members.

III. Interdisciplinarity

Innovative concepts often emerge at the boundary between disciplines. Our aim is to create platforms for idea exchange and to use them to foster frontier fields and assure sustainable development of the entire academic community. The key objectives related to Interdisciplinarity are the following.

- a) *Promoting interdisciplinary research* through activities taking place within the Centers of Excellence and in the interface between the Centers and the Emerging Fields. Organising interdisciplinary conferences to trigger cross-field discussions and pollination within our university.
- b) *Creating interdisciplinary study directions in English* and considerably increasing offers of double and joint Master and PhD degrees established in academic partnerships with renowned universities. The education and training provided in brand-new PhD schools within four broad areas of knowledge will also be interdisciplinary.

IV. Innovation

We aim to increase the impact of the university on society and to become active participants in the global R+D sector. The key objectives related to innovation are the following.

- a) Introducing *dedicated trainings in TRIZ* methodology for students and staff members, which will trigger innovative ways of looking at problems and finding solutions.
- b) Supporting *employee mobility in the area of innovation* and knowledge transfer to grasp the international culture of innovation and recognize foreign market trends and needs of entrepreneurs concerning innovations.

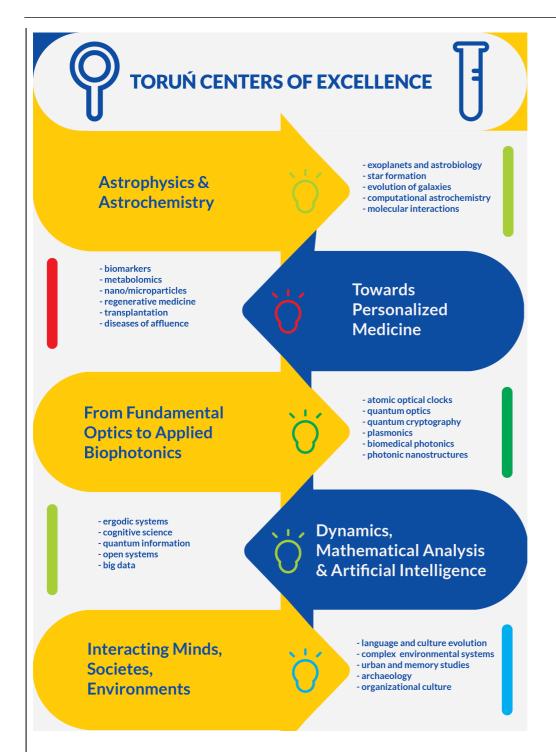
V. Integrity

The implementation of the development plan will require synergy between various university units, including both the administrative and research staff. Integrity will be supported in the following ways.

- a) Sustainable development of various disciplines will be facilitated by introducing competitions for interdisciplinary teams and clear career paths for scientists as well as by implementing the "HR Excellence in Research" regulations regarding evaluation and recruitment (Open, Transparent, and Merit-Based).
- b) Establishing new, integrated offices responsible for internationalisation, grant support, and human resources distributed on both central and faculty levels. Introducing lean management, motivation systems for all university employees, and a training program in soft and hard skills. Establishing a university-wide Think Tank as the advisory body to monitor and support progress in both the entire university and all its units.

VI. Sustainability

The proposed plan will initiate a long-sought-after *structural change in the university governance*, which is fully in line with the new strategy for development and the charter of the university. The vibrant community of NCU is entirely aware of the opportunities and challenges that arise from the status of a 'research university', and eagerly awaits the upcoming transformation into a research-focused institution. *We are completely committed to undertake all necessary measures to ensure the sustainability of the proposed plan for the upcoming decades and to promote excellence as the main aim of all our activities*.



VII. Summary

The "4xI@NCU: Internationalisation, Interdisciplinarity, Innovation & Integrity" concept will *bridge the skills* and talents of all members of the academic community through our joint effort to improve the overall performance of our university and its worldwide recognition. Our proposed development plan will guarantee a sustainable change in the organisational culture by accommodating international students and staff and by promoting excellence in research and education.