

**Liudmyla MAKODZEI, Anna YAZUN**

National University of Life and Environmental Sciences of Ukraine, Ukraine

## **Feathers of educational and research institute**

Existing law, the restrictions in the financial activities of universities, poor funding of education and science limit the possibility of a research university in Ukraine. But the integration processes of globalization world force rapidly to implement measures on the development of research universities in Ukraine at the national and university levels.

Status of Research University provides a combination of education and scientific research and commercialization of scientific results and technologies, advanced system of administration of research activities, a high degree of organizational and financial support for research, and a highly complex system of scientific communication.

The biggest development research universities acquired in the United States. In 2000 year the U.S. was about 260 research universities, located in the cities of Harvard, Yale, Princeton, Cornell, Stanford, Berkeley, Duke, Chicago and others, while in Germany – 70, UK – 73 in Spain – 41.

The concept of Research University based on the close integration of education and research within the university, including the use of research in training students [Про схвалення...].

Today in the U.S., the research universities have strong support from the government for research and educational activities. Thus, the 100 leading U.S. universities receive 95% of the federal budget for science and education. Training specialists of the highest qualifications are concentrated in research universities: 60% of all U.S. students were trained in 50 such universities.

Research universities have many students studying for master's programs, have a better ratio of teachers and students (approximately 1:6), compared with conventional universities, where this ratio is 1:12.

Rating evaluation of the achievements of the research university in the United States, in particular, take into account:

- funds for research and experimental work, which come from industrial enterprises, state and local budgets;
- involved in the University for its development private capital as in previous years and this year;
- members representation of the college at the National Academy of Sciences, National Academy of Engineering, Institute of Medicine in the USA;

- number of PhD degrees awarded by University for the year;
- number of employees at the universities with the degree of PhD, who improve their academic skills by performing research and teaching activity.

An essential feature of the formation of the faculty members in the best American universities are the rotation of staff, including education, science and business spheres. Between them there are no artificial barriers. Moreover remuneration system in the university and the company encourage this rotation.

Research universities have become equal partners in the business integration of science, education, manufacturing, and sometimes they perform the role of leading integrator in the regions.

According to present ideas, educational institutions of research type should provide in Ukraine:

- 1) improving the regulatory framework for:
  - intensification of research activities in universities;
  - formation of education research and training centers with the participation of universities and research institutions of the National Academies and industry in areas with high scientific potential;
  - developing a mechanism for increasing the interest of enterprises in conducting of scientific research in universities;
  - consistent increase in spending from the state budget for scientific research in universities, as defined by the Laws of Ukraine „On scientific and scientific-technical activity”) and „On Education”;
  - establish standards of wages of staff scientists in universities of IV level of accreditation at the level of remuneration of scientific workers of the National Academy of Sciences;
- 2) support universities in part to the inclusion of the state budget funds for the modernization of logistics and acquisition of scientific publications, development of information and telecommunication environment and accumulation of information resources;
- 3) creation in university conditions for talented young people to science activity, including:
  - using the opportunities of scientific institutions for joint training of Masters;
  - extension practice of research and training centers formation, joint faculties, departments and research laboratories;
  - developing a mechanism of state support of training postgraduate students and young scientists at leading universities and research centers;
  - implementation of social programs to support graduate students and young scientists [Про схвалення...].

Several items from the above list, long and at high-level were embedded in the National University of Life and Environmental Sciences of Ukraine.

National University of Life and Environmental Sciences of Ukraine according to the status of higher education has the IV level of accreditation, is a institution of research type, which conducts educational, research, scientific innovation, educational, industrial, information and consulting activity that is designed to study current problems of science life and the environment, use, reproduction and sustainable development of biological resources in terrestrial and aquatic ecosystems, the introduction of new environmental and agro-biotechnology, technology, safety and recovery of soil fertility, energy-saving agricultural technologies, environmental and legal management in rural areas, monitoring and enforcement standards, quality and safety of agricultural products, processed products and the environment.

National University of Life and Environmental Sciences of Ukraine is one of the leading educational, scientific and cultural establishments of Ukraine. Over 37ths students and more than 600 PhD, Doctoral students and Students-seekers are studying at 21 faculties of Kyiv Territorial Center, at Southern Affiliate „Crimean Agro-Technological University” and at 12 regional higher educational institutions of I-III accreditation levels.

Over 3000 scientific-pedagogical and pedagogical staff including 300 Professors and Doctors, more than 1200 PhDs and Associate Professors provide educational process and scientific research at National University of Life and Environmental Sciences of Ukraine.

The university comprises the following units:

- educational and scientific and research institutes;
- departments;
- department, educational research, educational, scientific and industrial, educational and industrial centers;
- problem, research and teaching laboratories, technology companies, shops, farms, workshops;
- branches, institutions of higher education I-III level of certification, training and research facilities and experimental stations.

The University as a type of research institution is aimed on the:

- integration of teaching, research and scientific innovation as a means of improving the level of training and accelerate the introduction of scientific and technological progress in agriculture and environmental protection industry through participation in the development of public basic and applied programs and collaboration with entities;
- formation of university research and innovation centers (research institutes, educational, scientific, educational, scientific production and research and innovation centers etc.), which are aimed at solving fundamental problems of operational and applied scientific and production problems. Expanding cooperation with the National Academy of Sciences, Ukrainian Academy of

Agricultural Sciences and other branch academies of sciences of Ukraine, as well as with foreign research institutions;

- development of pilot projects and the formation of experimental enterprises for the production of competitive products, development of new technologies, materials and machines, their introduction in the areas of agriculture, forestry and water management and processing industry in accordance with national and international standards;
- integration of research activities of the University with the leading universities of the world (the realization of joint research projects, conferences, symposia, exhibitions, research student competition, patent, publication of joint scientific and educational works – books, monographs, manuals, guidelines etc. – creation of educational, scientific and methodical electronic database, the use of modern information and telecommunications systems in agricultural and environmental sector);
- development and implementation in a production area of new technologies for high-quality, safe and competitive agricultural, forestry, fishery and food products. Provide the state and arbitration independent examination of quality and safety of agricultural and food products and the environment in accordance with international and national standards;
- training Masters by programs that involve their specialization on the most actual production, research, teaching and research and innovation areas, based on the latest achievements of science and technology and international standards technologies nature and quality-and safety and the environment that will promote their jobs and improvement activities associated with the training of personnel.

National University of Life and Environmental Sciences of Ukraine has significant human resources, able to organize effective and integrated activity of national institutions of the new type. However, the development of scientific and educational activities and increasing competitiveness of the University are not possible without defining challenges and priorities of scientific work at the university [<http://nubip.edu.ua/about/>].

Thus, educational institution of research type is aimed at improving the quality and accessibility of university education, research, international cooperation in accordance with modern scientific and technological, economic and social requirements, and integration into European and world educational and research space, transforming the University into a new type of university – research University – educational and scientific center of Ukraine for training scientific-pedagogical and scientific personnel of higher qualification.

The above implementation requires the following tasks:

- Achieving leadership in the world and country.
- The formation of scientific and social elite.

- Ensure unity of educational and scientific processes, according to international quality standards.
- Formation innovative environment.
- Ensure the needs of the state the necessary scientific and scientific – teaching staff, in accordance with the requirements of world class quality and competitiveness.

The primary means of solving problems is a system of motivations that have contributed to proactive scientific-research work of all employees of the University involved in research activities and, especially, youth and students.

### **Literature**

Про схвалення Концепції Державної цільової програми „Наука в університетах” на 2008–2012 роки. Режим доступу: <http://zakon2.rada.gov.ua/laws/show/548-2007-%D1%80>  
<http://nubip.edu.ua/about/>

### **Abstract**

In the article there are pointed problems and prospects of education and Research University. There are listed their features. Example-induced the educational and research university in Ukraine – the National University of Life and Environmental Sciences of Ukraine

**Key words:** university teaching, teaching learning-science.

## **Особенности образовательно-исследовательского университета**

### **Аннотация**

В статье наведены проблемы и перспективы образовательно-исследовательского университета. Перечислены их возможности. Наведен пример образовательно-исследовательского университета в Украине – Национального университета биоресурсов и природопользования Украины.

## **Cechy naukowo-dydaktycznego kształcenia uniwersyteckiego**

### **Streszczenie**

W artykule wskazano problemy i perspektywy kształcenia naukowo-badawczego. Omówiono jego cechy. Kształcenie naukowo-dydaktyczne na poziomie uni-

wersyteckim na Ukrainie opisano na przykładzie Narodowego Uniwersytetu Przyrodniczego i Zasobów Przyrody Ukrainy w Kijowie.

**Słowa kluczowe:** dydaktyka szkoły wyższej, kształcenie naukowo-dydaktyczne.