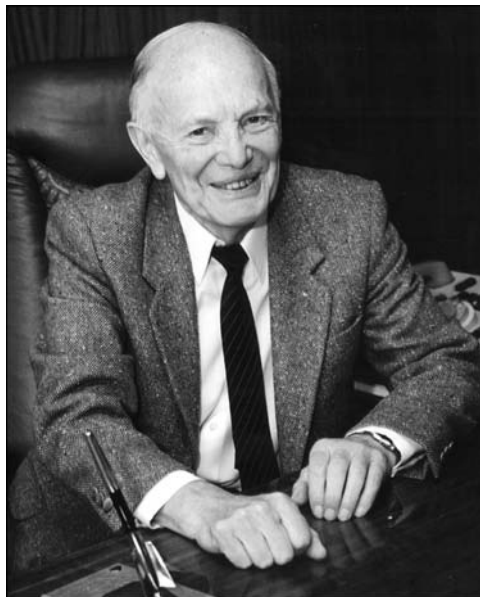

50 YEARS AT THE HEAD OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE



In February there will be 50 years since Boris E. Paton has been elected the President of the Academy of Sciences of the Ukrainian SSR, now the National Academy of Sciences of Ukraine. Boris Paton is an outstanding scientist in the field of welding, metallurgy and technology of metals and materials science, prominent public figure and talented organiser of science, Active Member of the National Academy of Sciences of Ukraine, Russian Academy of Sciences, Professor, honoured scientist and technologist of the Ukr. SSR, Twice the Hero of the Socialist Labour of the USSR, Hero of Ukraine, participant in the Great Patriotic War, and liquidator of accident at the Chernobyl NPP.

Deep understanding of the role of science in society, its goals and tasks, high international authority of a scientist, devotion to science, inexhaustible energy and high moral qualities, social and political activities, and experience of heading a major scientific team were decisive arguments for electing Boris Paton to this post. A new structure and charter of the Academy aimed at a more rational utilisation of the research efforts and means, their concentration on addressing the critical problems of science and impact on development of the economy of Ukraine were worked out under the leadership of B.E. Paton.

Dozens of new institutions and organisations making research in the most important scientific areas wider and deeper were founded within the system of the Academy of Sciences of the Ukr. SSR on the initiative and with the active support of Boris Paton. He persistently seeks clear definition of the research profile of each institute and takes care that each of them becomes a leader in its area in the republic, state and world.

The Academy of Sciences is the main scientific centre, where research is conducted in an extended front on topical problems of natural and technical sciences and humanities. Institutions of the Academy take worthy positions in such areas as mathematics, theoretical physics, solid-state and low-temperature physics, radio physics and radio astronomy, materials science, cybernetics and computer science, neurophysiology, molecular biology, microbiology and virology, genetic engineering and others. The Academy has high-end experimental-production facilities, and it develops new forms of connection between science and industry.

In different years Boris Paton initiated foundation of the academic research centres in a number of regions of the country, e.g. Donetsk, Lvov, Odessa, Kharkov, Dnepropetrovsk and Simferopol, which function as regional interdisciplinary bodies for coordination of research activities.

Close collaboration of the Academy of Sciences of the Ukr. SSR with the Academy of Sciences of the USSR, State Committee for Science and Technology and academies of sciences of the union republics promoted development of many new research areas in the Ukr. SSR, foundation of new institutions and engineering centres, and strengthening of the international authority of our Academy of Sciences.

Boris Paton initiated formation of major integrated scientific and technical programs in the interests of individual industries, transport, communication and agriculture. Scientists of the Academy made considerable contribution to development of the economy of the country. This form of organisation of the research activity was generally recognised.



Policy speech of B.E. Paton at elections of the President of the Academy of Sciences of the Ukrainian SSR, Kiev, February 1962

Boris Paton was the organiser of a number of scientific councils. In 1966, he was at the head of the USSR Scientific Council on problem «New Welding Processes and Welded Structures». The Council united the USSR scientists and specialists, and was functioning effectively from 1958 till 1991.

In 1972, the International Scientific-and-Technical Council of the COMECON Member-Countries on welding problems was set up by the initiative of Boris Paton. Owing to the activity of the Council, which was successfully functioning till 1992, many scientific and engineering organisations of the COMECON Member-Countries grew to the state-of-the-art research level, and had a great influence on progress of welding in their countries.

B.E. Paton organised the Scientific Council at the Presidium of the Academy of Sciences of the USSR on problem «New Processes of Manufacturing and Treatment of Metallic Materials», which united scientists of academic institutions and specialists of many other departments, and promoted development of materials science in the Academy of Sciences of the USSR, Russian Academy of Sciences and National Academy of Sciences of Ukraine. Many materials scientists and metallurgists, who were active at the Council, were elected into the Academy of Sciences of the USSR and Russian Academy of Sciences with the support of Boris Paton, and made great contribution to development of the materials studies.

Boris Paton has the fundamental understanding of the role and place of science in addressing humanitarian problems of the society. While placing high emphasis on development and commercial application of advanced technologies, he, at the same time, seeks substantiated scientific estimates of their effect on the environment and humans. Led by Boris Paton, big teams of scientists of the Academy made pre-



B.E. Paton with pilot-cosmonaut A.A. Leonov in the orbital station training facility at the Yu.A. Gagarin Cosmonaut Training Centre, Zvyozdny Gorodok, Moscow Region, 1973

dictive estimates of the negative ecological and social-economic consequences of large-scale drainage and irrigation meliorations in Ukraine, intensive chemisation of agriculture, and diversion of part of the runoff of the Danube and Dnieper Rivers.

Boris Paton adhered to his principles also in the issue of construction of a nuclear power plant in the Chernobyl region. Unfortunately, his warnings were fully confirmed by the universally known events of 1986 at the ChNPP. Outstanding capabilities of Boris Paton as a leader, scientist and organiser were fully revealed during the memorable days of the Chernobyl tragedy. Teams of many institutes of the Academy of Sciences of the Ukr. SSR and its Presidium became involved in the activities on liquidation



Delegation from the E.O. Paton Electric Welding Institute at the «Azovstal» Works, Mariupol, 1982



Reception of Helmut Kohl, Chancellor of West Germany, at the E.O. Paton Electric Welding Institute, Kiev, June 1983

of consequences of the accident from its very first days. Hundreds of scientists, specialists of the Academy of Sciences, ministries, departments, and enterprises of Ukraine took part in this work. Boris Paton led the efforts on preparation of proposals for decision-making authorities of Ukraine and the USSR Government Commission. Later on, in September 1997, B.E. Paton headed the Advisory Board of Independent Experts on finding comprehensive solutions to the problems of the Chernobyl Nuclear Power Plant, newly established by the President of Ukraine.

After disintegration of the Soviet Union and formation of the independent Ukraine, under conditions of long-term economic and financial crisis, which did not spare the Academy, its President managed to preserve the Academy and its major scientific schools. The status of the Academy as a supreme governmental research organisation was secured at the legislative level, principles of its academic self-administration were preserved, its restructuring was accomplished in keeping with the new conditions, and



At the NASA Research Centre, USA, May 1996

fundamental and applied studies were focused on addressing the urgent problems of formation of the state. New priorities were identified in the field of natural, engineering, social sciences and humanities. A number of new institutes and centres of socio-humanitarian profile were established.

The world level of research was preserved in several areas of mathematics, informatics, mechanics, physics and astronomy, materials science, chemistry, molecular and cell biology, and physiology. The contribution of scientists of the Academy to fundamental and applied research in Ukraine is increasing. New technologies, materials and computer facilities have been developed, and new mineral deposits have been discovered, etc.

The Institute for Economy and Forecasting, Institute for Economic and Legal Research, Institute for Market Problems and Economic-and-Ecological Research, Institute of Regional Research, Institute for Demography and Social Studies, Institutes of Ukrainian Studies, Oriental Studies, Political and Ethnic Studies, Sociology, Ukrainian Archaeography and Source Studies, Ukrainian Language, as well as other departments, institutions and centres have been established and are successfully functioning.

The Institutes of the Academy take an active part in working out of the innovative programs on economic development of Ukraine, investigation of its history, culture and language.

Organisation of fundamental and applied research is being improved, and priorities are being determined in development of individual scientific areas and interdisciplinary studies. Among them are such programs as «Nanosystems, Nanomaterials and Technologies», «Sensing Systems», «Intelligent Information Technologies», «Hydrogen Power Generation», «Power Saving», «Problems of Demography and Development of Mankind», etc.

Boris Paton is continuously concerned about young scientists, attracting talented young people into science, supporting them financially, and trying to improve their living standards. Youth scientific projects are being funded, and dormitories for post-graduates are being built and reconstructed.

B.E. Paton makes a lot of efforts for preservation and development of international scientific cooperation and foreign economic contacts with business partners from foreign countries. Ukrainian scientists participate in many collaborative programs. Project competitions have

been conducted together with the Science and Technology Centre in Ukraine, Russian Foundation for Fundamental Research, Russian Humanitarian Sciences Foundation and Siberian Division of the Russian Academy of Sciences.

B.E. Paton is one of the initiators of formation and preservation of common scientific space within the Commonwealth of the Independent States. In 1993, the International Association of the Academies of Sciences (IAAS) was established, which united national academies of 15 countries of Europe and Asia. Boris Paton is the permanent President of this Association. The Scientific Council of IAAS on Advanced Materials is functioning under his direction.

Academician Boris Paton is an Honorary President of the International Engineering Academy, member of the Academia Europaea, Honorary Member of the Roman Club, International Academy of Technological Sciences, Honorary Member of the International Academy of Sciences, Education and Arts, International Aeronautical Academy, Foreign Member of the academies and scientific-and-technical societies of many countries. B.E. Paton performed and continues performing extensive public work. He was many times elected a Deputy of the Supreme Soviet of the USSR and Ukr. SSR, Deputy Chairman of the USSR Supreme Soviet, member of the Presidium of the Supreme Soviet of the Ukr. SSR, member of the Central Committees of the Communist Party of the Soviet Union and Communist Party of Ukraine. He was the head and a member of various high committees and commissions. The list of his positions is very impressive. He is successfully working in these positions owing to the deep sense of personal responsibility to the state, people and his own conscience.

In addition, he has such traits as outstanding organisation, efficiency, rare ability of precisely grasping the point, and immediately making the right decision. This heavy load is made easier to bear due to his good physical shape, which he has preserved up to now owing to his active life style and regular sports activities.

For his great services to the science and the state, B.E. Paton was awarded the high titles of the Twice the Hero of Socialist Labour of the USSR and Hero of Ukraine. He is the knight of four Orders of Lenin, Orders of October Revolution, Labour Red Banner, Friendship of Nations, orders of the State, Prince Yaroslav the



Meeting of the Council of the International Association of the Academies of Sciences, Dubna, 21 June 2000

Wise of the 1st, 4th and 5th Degrees, Orders of Freedom, Order «For the Services to Motherland» of the 1st and 2nd Degrees, «Order of Honour» (Russian Federation), Order of Frantsisk Skorina (Republic of Belarus), Order of Honour (Georgia), Order «Dostyk» (Republic of Kazakhstan), and many other awards of the CIS countries. B.E. Paton is a laureate of the Lenin and State Prizes of the USSR and Ukraine in the field of science and technology. He was awarded the M.V. Lomonosov, S.I. Vavilov and S.P. Korolyov Gold Medals, A. Einstein Silver Medal, and many other prizes and decorations.

Boris Paton is utterly devoted to the science, Institute, Academy and Motherland.

His worldly wisdom, tremendous experience and international authority in science and society allowed preserving the scientific potential of Ukraine.

Boris Paton is a leader, fighter, creative personality, deeply decent and kind man, possessing fantastic energy and capacity for work, enormous experience, deep knowledge in many areas, and ability to continually learn. He has a generous nature and quick analytical mind. He is democratic, well-wishing, open for communication, affable, and always ready to support a person in need and help him.

Boris Paton is full of creative ideas, indomitable wish to work and enhance the contribution of science to prosperity of our state — the independent Ukraine. Let us wish him new successes, good health and much happiness with all our hearts.

I.K. Pokhodnya
Academician of the NAS of Ukraine