

IAEA

International Conference on Human Resource Development for Nuclear Power
Programmes: Building and Sustaining Capacity (Strategies for Education and Training,
Networking and Knowledge Management)

12-16 May 2014

Vienna, Austria

Nuclear Regulatory Authority Personnel Educating and Training within the National Nuclear Program Development

Federal State Unitary Enterprise VO "Safety"

V. Potapov, Director General

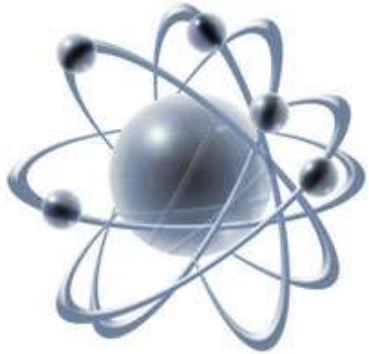
T. Goryaeva, Deputy Director General

A. Moiseenko, Development Director

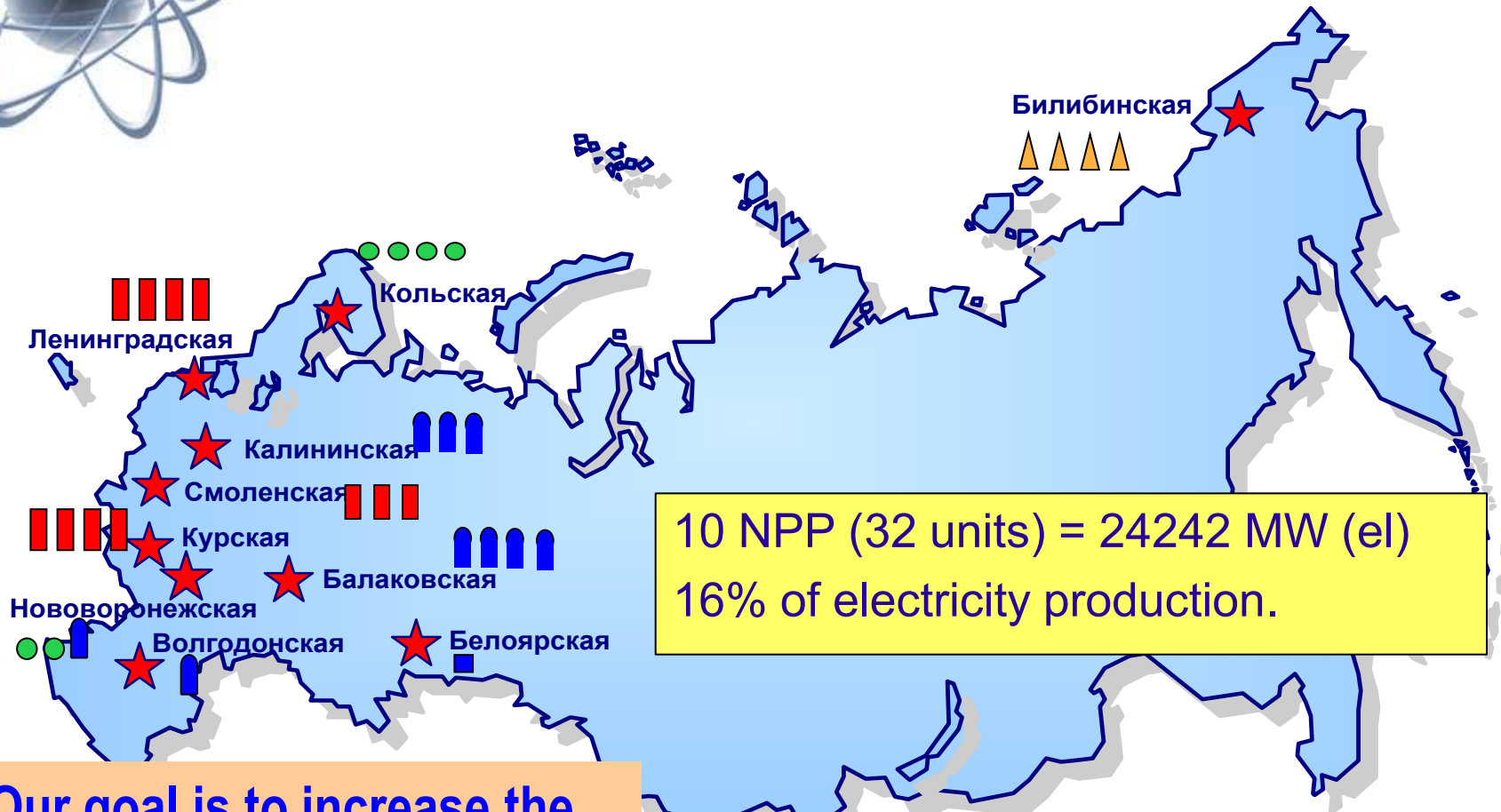
E. Kapralov, Deputy Development Director

A. Museridze, Head of Department





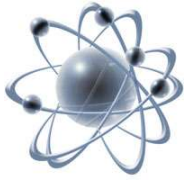
Nuclear Power in Russia



Our goal is to increase the fraction of nuclear power generation to 25% to 2020.

V. Putin

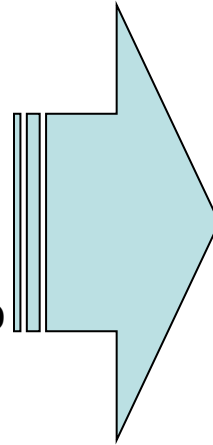
Russia has to increase the power of nuclear power plants from 23.5 GW in 2006 to 53.2 GW in 2020.



Nuclear Education in Russia

Main Challenges:

- human resource development for Russian nuclear renaissance (engineering, technology, research, safety, safety regulation)
- integration into the world system of nuclear education
- restructuring of higher education system in the Russian Federation: two level study (master and bachelor degrees), new national educational standards for higher education
- negative demographic trends and unpopularity of technical education among young people
- graduates from Moscow Universities stay in Moscow and do not go to regional enterprises and organizations



Decisions:

- establish a throughout education and training system, including college education, university education and special professional training
- create National Research Nuclear University MEPhI as a educational and research holding for nuclear industry inside and outside of the Russian Federation

Whole Educational Process

- School education
- Secondary special education
- Higher professional education
 - Bachelor
 - Specialist
 - Master
- Post graduate course (optional)
- Advanced training and retraining





National Research Nuclear University “MEPhI”



MEPhI mission is to provide the high level human resources for national nuclear industry inside and outside the Russian Federation.

First-priority educational and scientific projects of to be carried out in the next few years according to the following fundamental criteria:

- project compliance with the priority lines of Russian economy development (approved by President of Russian Federation);
- integration component of the projects (integration of education, science and industry; integration of education with leading manufacturers).



Priority line of development: Nuclear technologies	National Research Nuclear University educational projects	National Research Nuclear University scientific innovative projects
New technology platform: closed nuclear fuel cycle and fast neutron reactors.	Specialist training for new technology platform.	Physics and technology of fast neutron reactors and closed nuclear fuel cycle.
Controlled nuclear fusion.	Specialist training for controlled nuclear fusion.	Controlled nuclear fusion. Technical superconductivity.
Design project development of optimized computerized power unit LWR technologies.	Specialist training for NPP.	Technologies and materials of NPP. Security and efficiency of LWR.
Fundamental research of material property.	Specialist training for Research and Development Center "Kurchatov Research Institute" . Specialist training for federal nuclear centers.	Research of material properties in critical conditions. Advanced material and unit development based on laser and plasma beaming sources.
<u>Nuclear and radiation safety</u>	Specialist training for Rostekhnadzor (RA) and TSOs	Physics and technology of nuclear materials measurements. Special measurement methodology for MPC&A oversight (provided for RA and TSOs)

Educating, Training and Retraining for Nuclear Safety Regulatory Purposes (RA and TSOs Personnel)

Federal Service for Environmental,
Industrial and Nuclear Supervision
(ROSTECHNADZOR)

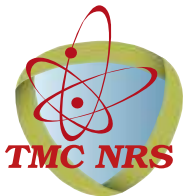
FSUE VO "Safety"

SEC NRS

TMC NRS

Regulatory Authority TSO Contour

Training and Methodological Center for Nuclear and Radiation Safety

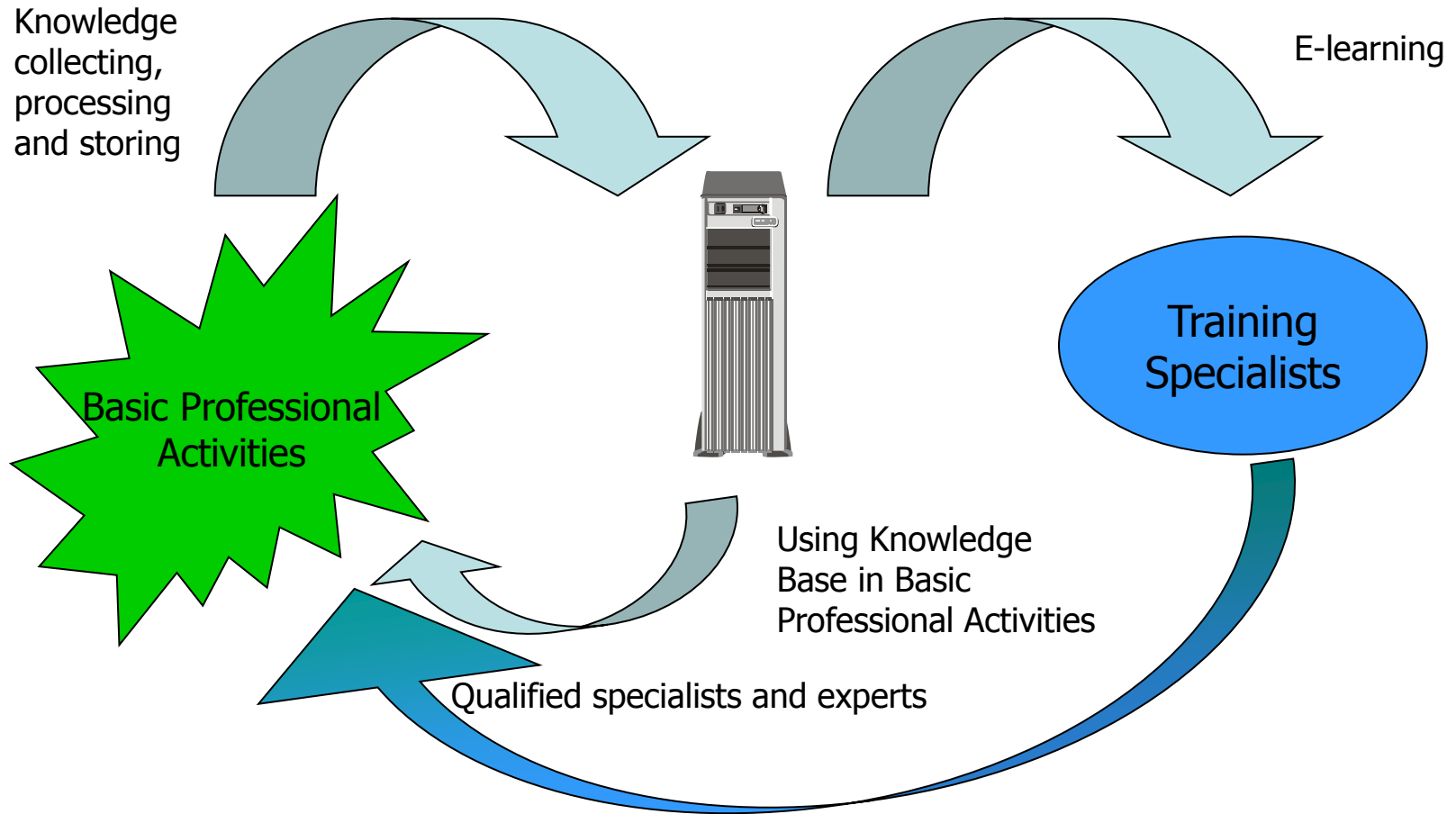


- development and maintenance of methodologically unified system of training regulatory authorities' personnel in the field of nuclear and radiation safety, and supervised organizations;
- providing training to the specialists and inspectors, supervising equipment manufacturing and assessment of compliance for nuclear facilities in Russian Federation and abroad being constructed or modernized;
- training, retraining and refresher training of nuclear industry specialists, by means of licensed educational programs.

Educational activities are based on the IAEA requirements in the field of training of regulatory authority's and operating organizations' personnel



E-learning and Knowledge Management



International Cooperation for Nuclear Education and Knowledge

Aims:

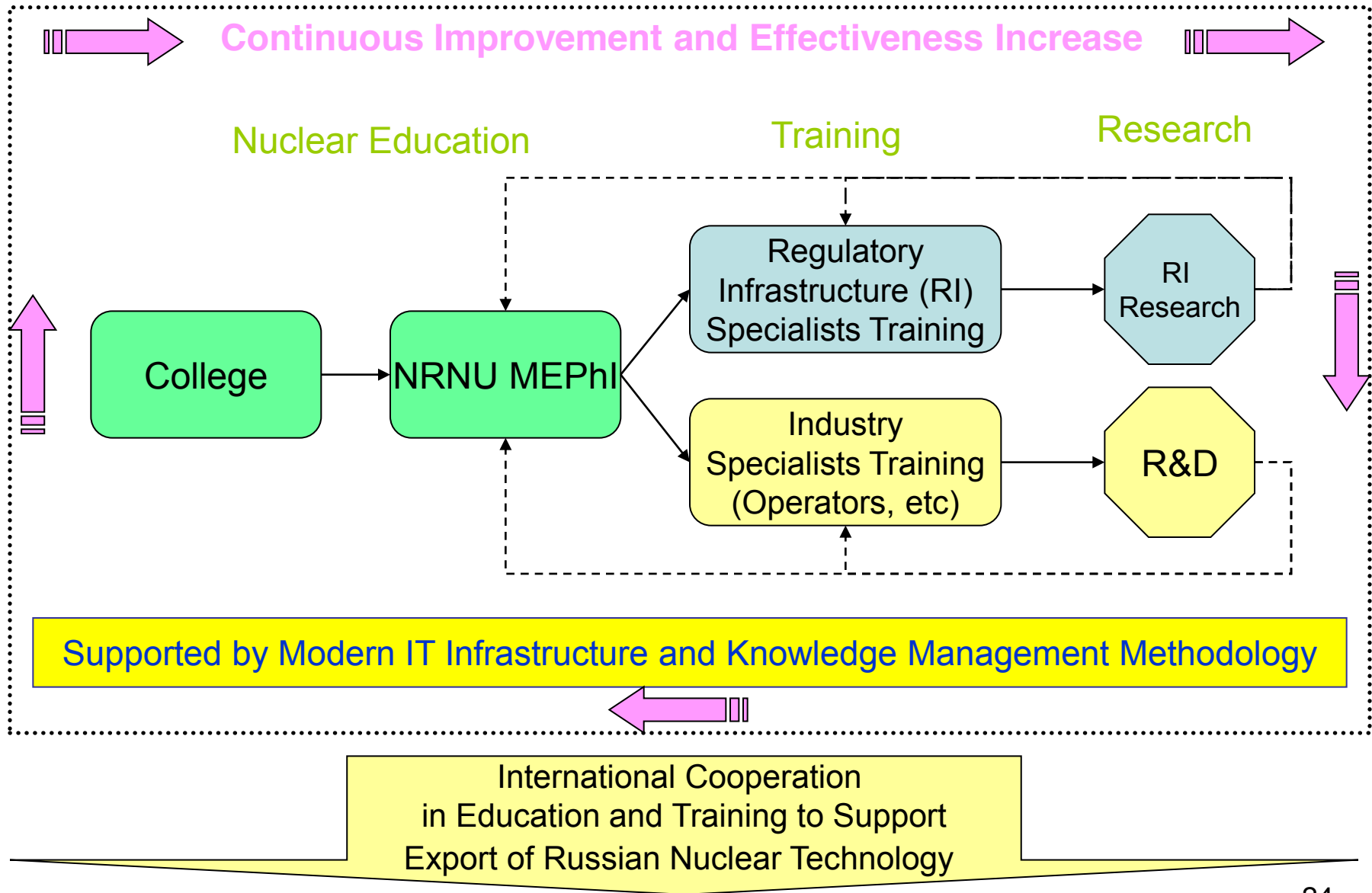
- Creation of system of continuous personnel training for EvrAzES states in the field of nuclear power applications based on the international standards;
- Development of educational service export as following of export of Russian nuclear technology;
- Development of educational and scientific contacts to IAEA, WNU, ENEN, ANENT, biggest scientific centers and universities of USA, EU and Asia.

Directions of activities:

- Education. Transfer of knowledge to new generation, to new developing countries and cooperation with the nuclear education of leading powers;
- Scientific enlightening activity – students, specialists, decision makers;
- Informational and analytical work.



Throughout Nuclear Educational and Training System and Perspectives



Thank you for your attention!



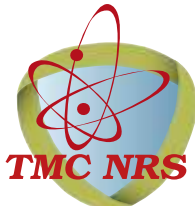
<http://www.gosnadzor.ru>



<http://www.mephi.ru>



<http://www.vosafety.ru>



<http://www.tcnrs.ru>