Peaceful uses of nuclear technology

European Union support for the safety, security and safeguards activities of the International Atomic Energy Agency and countries that chose to engage in peaceful uses of nuclear technologies

Working paper submitted by the European Union

1. The European Union continues to regard the Treaty on the Non-Proliferation of Nuclear Weapons as the cornerstone of the global nuclear non-proliferation regime, the essential foundation for the pursuit of nuclear disarmament in accordance with article VI of the Treaty and an important element for the responsible development of nuclear energy applications for peaceful purposes. The European Union recognizes the right of States parties to use nuclear energy for peaceful purposes, in accordance with article IV of the Treaty and with due regard to articles I, II and III thereof, and remains committed to ensuring the responsible development of peaceful uses of nuclear energy in the best safety, security and non-proliferation conditions.

2. Against this background, the European Union and its member States have used part of their assistance for the past 20 years to ensure the safe and secure use of nuclear energy. They are currently, together, one of the largest providers of aid and assistance worldwide. Some several hundred million euros have been spent, especially through the Phare and Technical Assistance to the Commonwealth of Independent States and Georgia nuclear safety programmes in Eastern Europe and the former Soviet Union, and since 2007 — globally — by the European Union Instrument for Nuclear Safety Cooperation.

3. The European Union underscores the importance of the safe, secure and safeguarded use of nuclear energy and nuclear applications in peaceful activities around the world. It does so by working directly with countries in the European neighbourhood and beyond and by supporting the work of the International Atomic Energy Agency (IAEA) in that respect. Funds are channelled, through a variety of financial instruments, in the fields of nuclear safety, security and research. Funding
amounts to some €150 million a year. The European Union and its member States also provide valuable technical and scientific support to IAEA. In the field of nuclear safeguards, the financial support of the European Union to IAEA is the second largest through the European Commission Safeguards Support Programme and the support programmes of some of its member States. The European Union and its member States make available their nuclear expertise to IAEA and thus contribute to the implementation of the major programmes of the Agency on nuclear safety, waste management, radiation protection, safeguards and security.

Global nuclear safety cooperation

4. The European Union has committed up to €524 million for nuclear safety cooperation programmes during its current financial cycle, from 2007 to 2013, through the Instrument for Nuclear Safety Cooperation. These funds support worldwide cooperation on nuclear regulatory matters, operational safety, design safety, radioactive waste management and decommissioning, off-site emergency preparedness and safeguards. Thus, they assist third countries in establishing the frameworks and methodologies for the safe operation of peaceful nuclear activities. Priority partners include countries of the Commonwealth of Independent States, countries with established nuclear programmes in Asia and Latin America, and countries considering the launching of nuclear programmes or needing to address radioactive waste issues, in particular in North Africa and the Middle East, and South-East Asia. The Instrument for Nuclear Safety Cooperation also contributes substantially to international funds that address nuclear safety and radiation protection issues, for instance the Chernobyl shelter.

5. The European Union also allocated two sets of financial support (worth €6.5 million in 2009 and €4.5 million in 2010) for activities on nuclear safety to be implemented by IAEA, and a further €10 million have been earmarked until 2013. This work extends far beyond the borders of the European Union and reaches as far as the uranium mines of Central Asia, the Asian Nuclear Safety Network and Latin America.

Promoting stability

6. The European Union Instrument of Stability has allocated nearly €300 million to chemical, biological, radiological and nuclear risk mitigation for 2007-2013. While most projects do not differentiate between radiological and nuclear parts and chemical and biological parts, some have focused on the illicit trafficking of nuclear materials and on sharing information on chemical, biological, radiological and nuclear incidents. With this instrument, the European Union supports IAEA in a number of ways by:

(a) Establishing chemical, biological, radiological and nuclear centres of excellence, and building national and regional institutional capacity to counter the chemical, biological, radiological and nuclear risk. The origins of this risk can be criminal (proliferation, theft, sabotage, illicit trafficking), accidental (industrial, chemical or nuclear disasters, waste treatment, transport) or natural (mainly pandemics). Nearly €100 million will be allocated in 2009-2013. The centres address legal, regulatory, technical, enforcement and control issues relating to chemical, biological, radiological and nuclear risk mitigation. In each region,
networks of experts, including from IAEA, will share best practice, review laws and regulations, and develop technical capacity;

(b) Contributing to a low-enriched uranium bank (€20 million from the Instrument of Stability, with the prospect of a further €5 million from the foreign and security policy budget);

(c) Supporting the modernization of the IAEA safeguards laboratory for analysing nuclear material and environmental samples (€5 million), for which an additional contribution of €5 million is envisaged.

7. The European Union also continues to contribute to the Group of Eight Global Partnership activities that include assistance on nuclear security, the engagement of scientists, export controls, border monitoring, illicit financing, biosafety, biosecurity and the illicit trafficking of nuclear and radiological materials.

Support for nuclear security

8. Through five separate European Union Council Decisions — amounting to nearly €31 million, as part of the Common Foreign and Security Policy — complemented by individual contributions from the European Union member States, the European Union and its member States have become the second largest donor to the IAEA Nuclear Security Fund. Through the IAEA Office of Nuclear Security, this fund supports the Agency’s nuclear security plan and builds on existing international legal instruments and agreements to help States strengthen their nuclear security and create a secure environment for the peaceful use of nuclear technology.

9. The funds have been used to support IAEA assistance projects to improve the security of nuclear and radioactive materials in the Balkans, the Caucasus region, Central Asia, the Mediterranean region, Africa and South-East Asia. This support includes legislative and regulatory assistance for the implementation of countries’ obligations under the relevant international legal instruments, strengthening the physical protection of nuclear and radiological materials, and strengthening capabilities for detecting and responding to illicit trafficking.

Technical support to the International Atomic Energy Agency

10. IAEA funds its technical and scientific programmes with contributions from its member States. The European Commission-IAEA cooperative programme on nuclear safeguards started in 1981, and is the second largest of 21 IAEA member State support programmes. It is operated by the European Commission. It provides IAEA with technology, expertise and training in verifying safeguards, including detecting undeclared materials, activities and facilities. The European Commission supports IAEA in developing detection and nuclear forensics technologies and training for front-line officers, police and national experts. It also works with IAEA on its Illicit Trafficking Database, and chairs working groups on nuclear smuggling and border monitoring.

11. The European Union furthermore supports IAEA verification tasks within its borders, in which the European Atomic Energy Community safeguards act as the regional system for nuclear material accountancy and control, by constantly providing valuable verification results which can be effectively used by IAEA while drawing its independent conclusions. By sharing its know-how in safeguards, the
European Commission is also contributing to the development of IAEA methodologies, equipment and facilities.

12. The European Union supports the development and implementation of IAEA nuclear safety standards and other safety and security guidance documents through contribution to various working groups, standards committees and peer review services of IAEA. In so doing, the European Union member States and the European Commission experts contribute to finding international consensus on the nuclear safety goals and objectives to be applied globally.

Other European Union instruments used to research and assist with peaceful uses of nuclear technology

13. The Seventh Framework Programme of the European Atomic Energy Community (EURATOM) (2007-2011) has supported research activities launched under nuclear cooperation agreements with other countries, some in coordination with the Generation IV International Forum. The current Framework Programme 2012-2013 focuses research on safety aspects. So far, partner countries have included Argentina, Australia, Brazil, China, India, Kazakhstan, the Republic of Korea, the Russian Federation and Ukraine. EURATOM has negotiated nuclear cooperation agreements with 14 countries. These cover, in particular, safe and transparent nuclear trade and research activities in nuclear safety and fusion energy.

Pre-accession assistance

14. The European Union is also providing nuclear safety and security assistance to candidate and potential candidate countries through its dedicated instrument of pre-accession assistance. With regard to cooperation with third countries, more than €21 million was spent through IAEA by 2011. Activities include predominantly regional programmes aiming to improve the nuclear regulatory environment. The European Union has also supported, together with the United States of America, the Russian Federation and a number of European Union member States, the Vinča Nuclear Decommissioning Programme, which is designed to safely store the spent fuel from the Vinča research reactor in Serbia and return it to the Russian Federation.