



Statement on behalf of Euratom

delivered by
Massimo Garribba
Deputy Director-General
Directorate-General for Energy
European Commission

on the occasion of the
65th General Conference of the IAEA, Vienna

Mister President, Mister Director-General, Excellencies, Ladies and Gentlemen,

I have the honour to speak on behalf of Euratom, the European Atomic Energy Community.

Let me first congratulate you, Mister President, on your election as the President of this General Conference.

Mister Director-General, it has been a rewarding experience to work with you and your staff. The Euratom Community and the European Commission look forward to continued fruitful collaboration, which is already long and well established. We welcome the comprehensive role that the International Atomic Energy Agency plays in promoting the peaceful use of nuclear energy and other radiation technologies.

We congratulate the IAEA for the rapid response in assisting the member states in the Covid-19 response and would like to further explore synergies between these programmes.

Safeguards

Since the 1970s and following the safeguards agreement between the IAEA, Euratom and its Member States, Euratom acts as a constitutive, regional partner to the wider IAEA system associated to the UN. Through the years, new challenges, such as the decommissioning of nuclear installations and the establishment of geological repositories, have been addressed in close cooperation between IAEA and Euratom under the established partnership approach.

It is in this spirit that Euratom further fosters the improvement of the effectiveness and efficiency of its safeguards activities by the development and joint use of common safeguards equipment and by the implementation of the 'Safeguards-by-Design' concept integrating relevant safeguards considerations already during the design phase of nuclear facilities.

Since the beginning of the Covid-19 pandemic, Euratom and the IAEA have been in continuous contact to ensure a coherent and efficient implementation of their respective safeguards services

in line with their diverging legal mandates and taking into account risks and priorities under the existing and continuously changing operational conditions.

Euratom is committed to continue its 40 years' support to IAEA safeguards through the dedicated European Commission Support Programme, which addresses a broad spectrum of IAEA research, development and training needs.

Nuclear safety

Nuclear safety and radiation protection are important matters for the European Union and its Member States, not only within the EU territory but also in neighbouring regions. The planning of new nuclear projects in a number of EU Member States, but also the long-term operation of existing plants and the implementation of decommissioning programmes present challenges and opportunities to enhance nuclear safety.

Our approach to nuclear safety is based on meeting the highest standards of nuclear and radiation safety and on their continuous improvement. Euratom has given legal force to the principles of nuclear safety contained in the international instruments through its amended Nuclear Safety Directive. We also support the efforts to continually strengthen international safety standards.

The responsibility for the highest nuclear safety lies with the nations using nuclear energy and operating nuclear facilities and with international community. International collaboration clearly provides benefits by offering the opportunity to share experiences and best practices. The global nuclear safety framework is strengthened by bringing technical and policy experts together to discuss approaches and refine practices over time. It is crucial that we keep reviewing practices, challenging each other and redefining the parameters of safety as nuclear technology develops. In this regard, the transparent use of international and regional peer review mechanisms has shown clear benefits. In the EU, we undertook the first topical peer review under the Nuclear Safety Directive in 2017 and the preparations are already underway for the next exercise to be carried out in the EU in three years' time.

We encourage all IAEA Member States, and especially embarking countries, to take advantage of all peer review missions which are relevant to their nuclear power programmes and to implement the recommended actions in a timely manner and to host follow-up missions. Euratom strongly supports the publication of outcome reports from such review missions.

The Covid-19 pandemic represents a significant test of the resilience of the nuclear energy supply systems worldwide as well as of the infrastructure that provides healthcare systems with medical radioisotopes. Despite the unprecedented nature of the crisis, the nuclear sector has demonstrated its capability to continue operating safely and to ensure the uninterrupted supply of electricity and radiopharmaceuticals as a critical public service. We need to remain vigilant as the crisis is not over yet. It is also important that the experience gained from managing this pandemic is used to improve our preparedness for potential future health threats.

Nuclear safety cooperation

The Euratom Community has continued to cooperate with third countries, in particular in our neighbourhood, to improve nuclear safety and the safety of nuclear power plants. Nuclear

accidents like Chernobyl in 1986 and Fukushima in 2011 have shown that contamination knows no borders and that nuclear incidents have a global impact. Early detection with associated decision-making tools are therefore of utmost importance for emergency preparedness and response. In 2019-2021, we have promoted our unique experience in this area and exported it to several regions (ASEAN, Gulf and Balkan countries) through different projects under the Instrument for Nuclear Safety Cooperation (INSC).

In view of sharing the experience gained during the EU's own post-Fukushima nuclear safety stress tests, the European Nuclear Safety Regulators Group (ENSREG) has taken a leading role in conducting stress tests and peer reviews of nuclear power plants in several non-EU countries and the Commission continues to support other countries in the broader region to implement the EU stress-test methodology. Experts from ENSREG recently completed a peer review of the implementation of Belarus's national nuclear safety action plan, and will shortly commence preparatory activities for conducting a peer review in 2022 of Turkey's nuclear safety stress test national report.

The European Commission, working with the IAEA and other partners, is supporting the implementation of the strategic master plan for environmental remediation in Central Asia. The first practical remediation projects are about to be completed in Kyrgyzstan at the Shekaftar and Min-Kush legacy sites. Progress in Uzbekistan and Tajikistan to establish the necessary framework agreements pave the way for activities in these countries. A dedicated international fund (the Environmental Remediation Account – ERA) has been set up by the European Bank for Reconstruction and Development and the European Commission has been calling upon EU Member States to join the programme, which still needs additional funding for its full implementation.

Spent fuel, radioactive waste and decommissioning

The long-term safe management of radioactive waste and spent fuel, including decommissioning and financial aspects of the back-end of the fuel cycle, continue to require our close attention. Euratom has given legal force by a directive to the requirements included in the Joint Convention on the Safety of Spent Fuel and Radioactive Waste Management, to which it is a contracting party. In August 2021, Member States reported to the European Commission on the status of implementation of this so-called 'waste directive', which, among other aspects, requires all EU Member States to invite international peer reviews in the area of safe radioactive waste and spent fuel management.

In December 2020, the Commission and the IAEA extended the cooperation agreement in this area, particularly in the framework of Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS). Since their inception in 2017, nine ARTEMIS missions have been conducted in eight EU Member States. Sixteen more missions are scheduled in other EU Member States during the next two years.

We welcome the cooperation between the European Commission, the IAEA and the OECD Nuclear Energy Agency in harmonising the radioactive waste and spent fuel inventory reporting requirements for their Member States as well as the concepts and methods to describe and compare nuclear sites' decommissioning projects. This will help increase transparency and consistency of national financing schemes and cost estimations and thus strengthening the public

trust in the back-end of the nuclear fuel cycle. The European Commission further supports knowledge sharing about decommissioning approaches, leveraging existing experience to ensure all nuclear decommissioning project are implemented in a safe, effective and efficient way.

Nuclear security

The European Commission continues its support and collaboration with the IAEA in the field of detection of nuclear materials, nuclear forensics and training for front-line officers. The EU CBRN Centres of Excellence have been instrumental in the pandemic response as several countries had received specialised training and equipment which is being applied to mitigating the spread of the new Corona virus.

Iran

The European Commission attaches great importance to the full and proper implementation of the Joint Comprehensive Plan of Action (JCPOA). It continues to fulfil the EU commitments for civil nuclear cooperation with the Islamic Republic of Iran as foreseen under Annex 3 of the JCPOA with a particular focus on nuclear safety and regulatory affairs. The European Commission is at the same time deeply concerned at Iran's continued actions inconsistent with the JCPOA which should be immediately reversed. The European Commission supports the IAEA's verification activities that are the basis for demonstrating confidence in the peaceful nature of Iran's nuclear programme. The European Commission supports the ongoing efforts and engagement of the EU High Representative as JCPOA Coordinator with all relevant partners in view of a possible return of the US to the JCPOA, and the perspective of Iran's return to full JCPOA implementation as soon as possible.

The framework for EU-Iran civil nuclear cooperation is set out in the outcomes of the high-level seminars on international nuclear co-operation and governance. These seminars provide the basis for mutual engagement, which takes different forms. Under the Instrument for Nuclear Safety Cooperation, the European Commission has projects to support the regulatory authority, including through the establishment of a nuclear safety centre in Tehran and the implementation of the stress tests at Bushehr nuclear power plant. In the area of science, technology, research and innovation, the EU has organised conferences and visits to EU facilities for Iranian scientists. Since 2016, the European Commission has allocated EUR 28.5 million to nuclear safety cooperation with Iran. There are currently four ongoing projects that amount to EUR 13.5 million. It is worth to mention that, even in this period of covid-19 crisis, a close technical cooperation has continued smoothly, in good faith and in a transparent manner with the Iranian partners, being the nuclear regulatory authority or the Bushehr nuclear power plant operator.

Nuclear non-power applications

In addition to nuclear-generated electricity, nuclear and radiation technologies are part of the daily lives of the EU citizens, through their many uses in medicine, research and various industrial sectors. These technologies are of particular importance for diagnosing and treating cancer and other major diseases, where the EU is an undisputed world leader. As requested by the EU Member States (in June 2019), the European Commission has developed an action plan, the Strategic Agenda for Medical Ionising Radiation Applications (SAMIRA), adopted in February

2021, to advance the quality and safety of medical applications, to secure the long-term supply of medical radioisotopes, and to support research and innovation in this area. SAMIRA Action Plan is Euratom's contribution to 'Europe's Beating Cancer Plan', also adopted in February 2021, which is a central priority of this Commission.

The EU and the IAEA continue to reinforce their collaboration in the nuclear science applications, including the medical applications, under the Practical arrangements for cooperation in nuclear science applications, signed between the European Commission and the IAEA in February 2017.

Our dialogue and joint actions continue in the areas of soil science, emergency preparedness, use of satellite data, food safety, traceability and authenticity, ocean and marine science, environmental monitoring, sustainable water management and medical applications.

We aim at creating even stronger synergies between nuclear research and other research areas through our joint activities. For example, one of the objectives of the 2021-2025 Euratom Research and Training Programme is to strengthen the support for the use of nuclear and radiation sciences and technology in different fields, including medicine, industry, agriculture and space research, thereby complementing 'Horizon Europe', the new research and innovation framework programme.

One of the key priorities of Horizon Europe is to advance in the fight against cancer as outlined in the President's von der Leyen political guidelines. Europe's 'Beating Cancer Plan' proposes actions at every key stage of the disease. Euratom Research and Training work programme for 2021-2022 places increased emphasis on non-power application of nuclear technology, particularly on the medical field. It will support further nuclear research to ensure safe use and reliable supply of medical radionuclides as tackling cancer is of fundamental importance for our future.

Research and training

The general objective of the Euratom Research and Training Programme is to pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, spent fuel and radioactive waste management, decommissioning, safeguards and non-proliferation, security, radiation protection, and fusion energy research. The Euratom Work Programme for 2021-2022 has an overall budget of EUR 534 million with 200 million dedicated to fusion and 334 million to fission. The new work programme aims to increase the coordination with Member States through Partnerships and move beyond traditional energy issues of great importance, such as nuclear safety, to also tackle societal concerns like health and education.

In fusion, the Euratom Work Programme sets a clear strategy for EUROfusion - the European Consortium for Development of Fusion Energy. The strategy aims to ensure the success of ITER and to advance demonstration power plant preparations. The Fusion Partnership will deliver the necessary knowledge, will prepare European teams for the exploitation of ITER and will provide the training of a new generation of fusion scientists and engineers.

In fission, the Euratom Work Programme will ensure the highest standards of nuclear safety of power plants, research reactors, materials and fuels. These activities also include radioactive waste management and decommissioning, such as the European Joint Programme on

Radioactive Waste Management – [EURAD](#), the Radiation protection European Partnership as well as research and training in nuclear safeguards and nuclear security.

The Work Programme contributes to the EU's efforts to further develop technological leadership and promote excellence in nuclear research and innovation. This year's calls have a particular focus on the medical field, directly supporting the priorities of the [EU's Beating Cancer Action Plan](#) and the [SAMIRA Action Plan](#).

The IAEA remains an important partner under this European Joint Programme in the field of knowledge management, including human resources development, where we expect to further strengthen our cooperation in the near future in areas such as nuclear decommissioning. The Euratom Research and Training Programme provides opportunities for mobility of nuclear researchers to participate to the Marie Skłodowska-Curie Actions under Horizon Europe. This is an important step to ensure that the EU will maintain nuclear competencies for the present and future generations of nuclear scientists.

Small modular reactors

Small modular reactors (SMRs) are seen as a potential new technology, which could help achieve our climate objectives: SMRs can contribute to the replacement of retired fossil fuel electricity generation capacity and be used for other synergy applications, such as co-generation (i.e. district and process heating, water desalination and low-carbon hydrogen production). Therefore, the European Commission supports the actions, aiming to ensure that the deployment of SMRs (as with any other nuclear technology) is carried out with the highest levels of safety, security and safeguards.

In this context, the Commission is providing financial support to research related to safety and licencing aspects of SMRs. In response to the call of the European nuclear industry and following-up on the EU-US high-level SMR event on 21 October 2019, European Commission hosted the first EU Workshop on SMRs on 29 June 2021. This on-line event brought together about 110 participants from 22 Member States (i.e. industrial, regulatory, financial actors and policy-makers) and will be followed by other initiatives at European level, as well as possible cooperation with other interested regions.

International Thermonuclear Experimental Reactor (ITER)

Fusion energy has the potential to become a power source of the future. It is for this very reason that the EU ensures a leading role in the development of fusion technology by, among others, hosting the ITER project. Recently, the European Council has decided, upon proposal by the European Commission, to allocate EUR 5.6 billion (current prices) to ITER for the period 2021 to 2027.

Mister President, it is important to underline in this context the need to focus on the development of a comprehensive fusion regulatory framework for the construction and operation of the fusion facilities. This should not only enhance the development of fusion technology, taking into account the safety requirements, but also to avoid unnecessary costs that could hamper the economic viability of the fusion power plants of the future. This is particularly

important for the construction of the fusion demonstration power plant (DEMO) envisaged after ITER, which will open the way to the industrial and commercial exploitation of fusion as a new energy source.

Diversified and secure nuclear supplies for power and non-power uses

The Euratom Supply Agency has for more than 60 years continuously ensured stable supply of nuclear materials for power and non-power uses in the European Union. Currently, the Agency follows up on present and future supply challenges such as high assay materials for research or isotope production and security of supply for power production.

Past shortages of medical radioisotopes have shown that supply chains can be vulnerable. In partnership with the industry, the Agency steers an observatory that helps reduce the risk of adverse events.

Today, Europe is committed to delivering clean energy, to promoting efficient production and use of energy, and to driving the process of becoming the first climate-neutral continent. Together with the Commission, the Agency's work supports the good functioning of the fuel cycle, helping producing reliable low-carbon electricity.

Mister President, Mister Director-General, Excellencies, Ladies and Gentlemen,

Nuclear safety, security, and safeguards are a concern for the whole international community.

Let us take full advantage of the IAEA's more than 60 years' accumulated experience and its continuous contribution to developing nuclear power in a safe and sustainable manner and of synergies with our policies and activities in this important area.