



Slovenia is actively involved in the efforts to make nuclear energy even more safe, reliable and affordable

Statement by Ambassador Andrej Benedejčič, Head of Delegation, Resident Representative to the IAEA, at the Ministerial Conference on Nuclear Science and Technology, Vienna 29 November 2018

Distinguished Co-Chairs,

This Ministerial Conference has already resulted in an important exchange of views on nuclear science, technology and innovation, as well as its contribution to achieving sustainable development and protecting the environment. On behalf of Slovenia, let me therefore commend the co-chairs for their leadership, which has also ensured that the consultations on the programme and draft ministerial declaration were constructive and efficient. In addition to what has been said on behalf of the European Union, I would like to make several remarks in my national capacity, related to the main themes of the conference.

Distinguished Co-Chairs,

Let me start with energy. This is the driving force of the world's economy. The main goal of scientists who work on fusion is to make this source of unlimited energy available to all of us. However, there are still some open issues related to ways in which the time gap between the current needs and eventually positive future could be bridged. The challenges we need to solve are serious and have a common denominator, which is reducing the carbon dioxide emissions and stabilizing the average global temperature at a safe level.

In solving this task, we need to act now with current knowledge and current proven technologies. The technology of renewable energy sources has made huge progress, but it has not solved the issue of providing energy around-the-clock. In Slovenia, we therefore regard nuclear energy, as well as the associated research to make it even more safe, reliable and affordable, as a vital building block in overcoming the time gap.

Distinguished Co-Chairs,

I would now like to turn to the role of research in making nuclear energy less risky. As you know, many studies have been undertaken with a view to understanding the severe accident phenomenology. The goal here is to develop more accurate methods and introduce modifications, which could reduce the probability of a severe accident with large consequences. I would therefore like to point out that scientists from the Slovenian Jožef Stefan Institute are actively involved in these efforts.

The Institute, which will celebrate its 70th anniversary next year, deals with different areas. The Reactor Engineering Division primarily focuses on the development and application of advanced computer models and simulation tools. Its researchers study steam explosions and dispersion of radioactive releases. They also model hydrogen in the containment and perform mass and heat transfer calculations. Some of these studies have led to

modifications in nuclear power plants, such as containment filtered venting and the installation of hydrogen recombiners.

Other important research areas are ageing and safety of critical components, as well as probabilistic safety assessments. The scientists of the Reactor Physics Division of the Institute work on neutron transport calculations for fusion reactors. They also validate nuclear data and perform sensitivity analysis of this data. Another significant research area at the Institute is medical physics, where the focus is on image-guided cancer therapy.

Let me also say that my country's recognition of the benefits of nuclear science and technology to health and human well-being is also reflected in the research activities of other Slovenian institutions. One of them is the Slovenian Agricultural Institute, which is also focusing on addressing the consequences of intensive agricultural soil management. Nitrates and pesticides have been found in the groundwater. The researchers at the Institute are therefore applying nuclear techniques to study behavior of these substances in water.

Distinguished Co-Chairs,

In conclusion, I would like underline the important role of the IAEA Technical Cooperation Programme. It represents one of the Agency's core activities, which provides invaluable support to Member States in harnessing nuclear power and safe application of nuclear technology. It is important that the programme stays open to all Member States and that the IAEA maintains a diverse range of TC projects, including those that tackle more technologically demanding areas, such as nuclear safety and technology. Slovenian approach to this issue can be summed up in the phrase "all for the TCF and TCP for all".

Thank you.