Opening speech by Stefano Laporta –
President of ENSREG Conference 2019 at the Introductory session

Honourable Michéle Rivasi,

Dear Marta Žiaková our ENSREG Chair,

Dear Speakers and Panelists,

Dear Participants present in the room and connected via web-streaming,

Special greetings to Commissioner Cañete and IAEA Deputy Director General Dr. Letijo, thanks for the delivered recorded speeches,

welcome to the fifth European Nuclear Safety Conference.

Since the first ENSREG Conference organized in 2011, this biannual event has always represented an opportunity for all the Parties involved in the nuclear energy sector to share information and to give evidence of consolidated achievements in the field of nuclear safety in the European Union, but also to discuss areas in which needs for improvements exists.

I believe that we all are convinced that "safety" is a dynamic concept and its continuous improvement should be the leading principle all the involved actors should strive for.

This Conference is an initiative of the ENSREG Group, the independent, expert advisory group created in 2007, following a decision of the European Commission, composed of senior officials from the national nuclear safety, radioactive waste safety or radiation protection regulatory authorities, together with representatives of the European Commission.

It is conceived as an opportunity to share views with a large variety of stakeholders, from Industry to NGOs and general public in EU, including also Regulators and Industry representatives from outside the EU: one of the main

objectives of this Conference is to improve the dialogue with European citizens that have the right to be informed and to participate in our processes; people and citizens are and will remain the final target of our actions.

In the past ten years significant achievements have taken place in the EU legislation to promote the highest level of safety for nuclear installations, spent fuel and radioactive waste management, as well radiation protection.

In 2009 the so called "Nuclear Safety Directive" has been adopted by the Council of European Union establishing a Community framework for the safety of nuclear installations. This Directive, built up on the lesson learned from the 2011 accident of Fukushima Daichi, has then been amended in 2014, setting up ambitious safety objectives on prevention and mitigation of accidents in nuclear installations, also reflected in 2015 in the Vienna Declaration on Nuclear Safety .

Between 2009 and 2014 the extraordinary experience of EU Stress Tests has taken place, assessing the margins that the operating installations have to provide against extreme natural and man-made events and establishing National Action Plans to implement the proper necessary preventive and mitigation provisions. On these basis relevant efforts have been made by operators to increase the robustness of nuclear power plants and improve their safety.

In 2011 the "Waste Directive" was adopted, establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste. Last but not least, it is the new directive on basic safety standards for protection against the dangers arising from exposure to ionizing radiation, adopted in 2013.

A common feature of safety directives is represented by provisions for the conduct by member States of international peer reviews and associated action plans to implement related recommendations and suggestions. Combination of "peer reviews" and "action plans" is an important tool to promote concrete implementation of the principle of continuously improving safety.

The 2014 Nuclear Safety Directive introduced Topical Peer Reviews starting in 2017 and every six years thereafter.

In the world there are about 54 reactors under construction, 152 permanently shut-down, 452 reactors in operation and the 60% of these have an average lifetime higher than 30 years.

In EU at 28 plus Switzerland, there are 5 reactors under construction, 127 reactors in operation, 91 permanently shut-down.

Looking at these numbers, there is, and there will be in the next future, growing needs for a proper ageing management of existing installations in the perspective of a longer term operation and also a growing need for the safe conduct of decommissioning operations in Europe and World Wide as well.

From information provided by Member States, there will be the need of about 45-50 billion EUR for the extension of the operating reactors lifetime by 2050 and about 253 billion EUR will be needed for nuclear decommissioning and radioactive waste management until 2050, including deep geological disposal costs.

This Conference will be organised into 4 important sessions: ageing management, decommissioning and waste management, standardization of supply chain and components obsolescence, knowledge and skills preservation.

It is evident how these topics are strictly linked one to the other by a “fil rouge”: there are old plants that require a proper ageing management to extend their operation, which also requires an adequate supply chain for critical components as well as the preservation of knowledge and skills at all levels.

On the other hand, many older plants are approaching their final shutdown and decommissioning phase, which also requires to preserve knowledge and competences for the proper and safe conduct of related activities.

To maintain the highest level of safety it is crucial, among the others, to manage the aging of the structures systems and components, to face and manage

counterfeit and fraudulent item by performing quality controls of supply chain in the light of a wider quality assurance programme, to preserve the skills and knowledge both at regulators and utilities sides and, as last step, to manage and perform decommissioning and radioactive waste disposal operations avoiding undue burdens to future generations, taking always in mind that the Earth does not belong to us: *We do not inherit the earth from our ancestors, we borrow it from our children*, an old Indian proverb says.

Regarding the ageing management of nuclear installations, ENSREG has promoted the 1st Topical Peer Review under the Nuclear Safety directive on the *"Ageing management of nuclear power plants and research reactors*". In October 2018 ENSREG approved the final report of the Topical Peer Review and the related country specific findings.

This 1st Topical Peer Review covered the ageing management considering the importance of this issue on the basis of the age profile of European nuclear power plants and research reactors.

The 1st Topical Peer Review has made it possible, taking into account the self-assessment conducted by individual countries, to identify good practices and improvements to be implemented in the future.

This 1st Topical Peer Review was organized by ENSREG with the technical support of WENRA (Western European Nuclear Regulators Association).

The process and the objectives were presented in a public meeting held in May 2018 and a public meeting was also organized in Brussels at the end of the process in November 2018 to present the results of the peer review to the stakeholders.

At the end of the peer review process, ENSREG has asked to the national authorities of the participating countries to develop a national action plan by September 2019, addressing the findings of the peer review, to ensure the implementation of all safety improvement measures in accordance with their safety significance.

It is expected that the dedicated session of this Conference will address lessons learned and concrete actions, with associated perspectives and issues, that can be expected in the implementation of these action plans.

With regard to the management of decommissioning projects in Europe, envisaged to substantially increase in the near future, we expect from the dedicated session to receive an overview on activities, achievements and issues in different member States. Can decommissioning be successfully implemented until the unconditional release of sites, as reflected in the adopted strategies in EU Member States? Can be waste coming from dismantling successfully disposed off? What's the role of *clearance* in this process. A special focus will be on ongoing projects like in Bohunice and lessons learned from them. Special issues, like the dismantling of graphite reactors are also of interest for being addressed.

The question of obsolescence of components, their replacement with identical ones that need to be manufactured again or the licensing and use of new nuclear grade components versus use of commercial of the shelf components in safety classified applications is another key issue for the nuclear industry. We will have the opportunity to hear in session 3 about KELPO project in Finland as an innovative approach to be presented and discussed.

The preservation of skills and knowledge represents a challenge for the long operation of nuclear installations, as well as for the implementation of decommissioning, in particular for those Countries that have already closed, or are on the way to close, their nuclear programmes.

The conduct of comprehensive periodic safety reviews is a fundamental pre-requisite for the life extension of nuclear installations. It however requires the availability of an holistic knowledge of nuclear safety related issues at all levels of involved actors: operators, regulators, designers and manufacturers. Preservation of necessary skills in the manufacturing of replacement components and assembling of systems requires attention.

When the shutdown of the nuclear plant is approaching, many of the employs may be close to the retirement. On the other side attracting young generations to design and perform decommissioning activities is not so easy, probably because decommissioning activities and waste management are considered a dirty job or much more probably because it is a fixed-term work and they don't see their carrier after the 20-25 years period.

The strategy and role of Academia and its relations with Industry, Research Institutes and Regulators is an important topic we expect to be addressed in Session 4.

In conclusion, this Conference has become an opportunity for all Parties directly involved in the nuclear field, to report, in a simple and transparent way not only on the improvements achieved in different areas having relevance to safety but also about arising needs and related solutions to make nuclear activities safer and safer.

This aim can be achieved if all relevant safety areas continue to be looked at in an holistic manner, connected each other by a "fil rouge" on which politicians, regulators, operators and the stakeholders provide their own best contribution.

I believe that in this regard ENSREG has played and will continue to play a crucial role.

I would finally like to remind that technical competence and service towards institutions are not our only duties. Our community has also important responsibilities towards the citizens. Communicating, dissemination and, especially, informing and listening are part of our key tasks, and should be felt by us as a mission. I trust this will result as one of the key messages out of this conference.

Let me conclude with the wish that this Conference will be a concrete opportunity for a fruitful discussion on all the relevant topics, generating new ideas for the continuous improvement of nuclear safety we all feel committed to achieve.

Thank you for your attention and for your active participation. I hereby declare open the Fifth European Nuclear Safety Conference.