

October 7<sup>th</sup>, 2022

## The 27<sup>th</sup> N-20 JOINT STATEMENT

The 27<sup>th</sup> edition of the N20 meeting gathering the leaders of the nuclear industry in France and Japan (\*) took place on October 7<sup>th</sup>, 2022, in Paris, France.

The N20 members underlined the essential contribution of the nuclear energy to reach carbon neutrality and to ensure the security of energy supply with respect to the current energy crisis. They also highlighted the importance of sovereignty aspects in a context of geopolitical tensions worldwide.

Both countries emphasized the challenges and the actions undertaken to maintain and develop the human resources and to reinforce the supply chain for the continued operation of existing reactors and for the future of nuclear energy. To that extent, they insisted on the need to see new nuclear projects launched in both countries. They affirmed the importance of formulating the solid and resilient nuclear supply chain that ensures the absence of any conformity issue. The significance of security aspects was also highlighted during the conference.

The members emphasized on the convergence between both countries on the closed fuel cycle policy as the current and future corner stone of the nuclear energy in France and in Japan. The successful French-Japanese collaborations on reprocessing were highlighted. They stressed the importance of the perennity of the fuel cycle facilities with adequate ageing management, constant innovation, and renewal of installations. As an illustration, the dedicated adaptations of a fuel manufacturing facility in France to supply reprocessed U fuel in a circular economy perspective were described.

Current priorities for the nuclear fleet were presented. In Japan the efforts are deployed to restart the reactors that have undergone major safety upgrades. In France, the focus in the short term is to bring most of the reactors back on-line by fixing the Stress Corrosion Cracking issues which affect several reactors and to successfully perform the 4th periodical safety assessment of the 900 MWe reactors.

The members highlighted the importance to decrease costs, deploy Long Term Operation and provide efficient interdependency with renewables production. The contribution of digitalization to support the economic performance of the nuclear industry was pinpointed.

This edition of the N20 conference was also marked by the positive evolution of the global environment for new nuclear projects. The French nuclear industry is preparing the EPR/EPR2 industrial programs in France and abroad and is also developing the NUWARD™ Small Modular Reactor. In Japan, the government is now considering the possible construction of new reactors and in this context, the nuclear industry is developing innovative PWRs, BWRs and Small Modular Reactors.

Both countries are pursuing the development of advanced reactors. The successful collaboration between France and Japan on Fast Reactors was highlighted. Further collaborations on the development of reactors were discussed taking into account the diversification of the usages of nuclear energy (hydrogen production, valorization of heat such as district heating, industrial process heat and desalination, electricity production from micro and small reactors to large output reactors...). Innovation on the fuel side was presented with Accident Tolerant Fuel for enhanced safety and Advanced Fuel Management for improved nuclear economics. The members emphasized the need to maintain and develop R&D infrastructure and material testing reactors with international collaboration.

Finally, the N20 members presented the strategies for the Decommissioning and Dismantling. Waste-led approach with identified disposal solutions, establishment of clearance thresholds, innovation and sharing dismantling experience on reactors and fuel cycle facilities worldwide were identified as key success factors for efficient D&D.

(\*) The N20 members are CEA, EDF, Framatome and Orano in France and JAIF, JAEA, FEPC, TEPCO, Kansai EPCO, Chubu EPCO, JNFL, Toshiba ESS, Hitachi-GE Nuclear Energy, Mitsubishi Heavy Industries (MHI) in Japan.