It is a pleasure for me to welcome you to this webinar for the launch of the 2015 edition of the Technology Roadmap: Nuclear Energy. We are pleased to have worked together with the Nuclear Energy Agency on this joint roadmap, and I would like to thank NEA for their collaboration on this publication.

Ladies and gentlemen, it has been almost four years since the disaster at Fukushima Daiichi. In the aftermath, a number of world governments reacted by phasing out, or banning altogether, nuclear programs. There was a sense that the age of nuclear energy was drawing to a close.

Yet that has not come to pass. In fact at the start of 2014, 72 reactors were under construction across the globe. This marked the greatest number of reactors being built in 25 years. Nuclear energy also remains the second-largest source of low-carbon electricity worldwide.

And indeed if we are to meet our collective climate goals, nuclear energy is critical. In fact to efficiently meet the target of limiting average global temperature rise to 2 degrees Celsius, global nuclear capacity must more than double by 2050. Simply speaking, to make the transformation of our energy sector a reality, we will need to use all low-carbon energy sources available to us, including nuclear energy.

At the IEA we believe that each country must decide what energy mix is optimal for its national circumstance. Nuclear energy can play a key role in decarbonising our electricity system by providing a stable source of low-carbon base-load electricity. Its advantages in terms of reducing GHG emissions, competitiveness of electricity production and security of supply make it an important technology for a secure, competitive and sustainable energy sector.

Of course concerns must be addressed, and there is an obvious need to address anxieties about safety, regulation and waste management. But this is not an impossible task. It is rather a task that requires taking a step back and looking at the various strengths, and weaknesses, of nuclear power, and charting a clear path forward.

This new roadmap – which is an update of the 2010 nuclear energy roadmap – takes that new look at the future of nuclear energy. It offers a new vision of the best ways to accomplish a more rapid uptake of nuclear power worldwide and takes into consideration the many changes since 2010 which have impacted both the outlook for nuclear and the energy system as a whole.

The roadmap complements the nuclear analysis which was presented in the most recent World Energy Outlook, which highlighted what considerations should shape decision-making in countries using, pursuing or phasing out nuclear power.
Technology can and must play a central role in helping us move towards a low-carbon energy future. Governments and industry must work together to accelerate innovation now and reshape investments towards low-carbon technologies. Today’s launch of Technology Roadmap: Nuclear Energy 2015 Update is an opportunity to reflect on this critical role of technology, and explore some of the actions we need to take to transform our energy system.