

## Press Release

20 January 2017

### FORATOM Position Paper calls for substantial increase in EU funding for nuclear research and training

**The European Atomic Forum (FORATOM), the Brussels-based trade association for the nuclear energy industry in Europe, has called for a substantial increase in the level of EU funding for nuclear research and training.**

In a [Position Paper](#) submitted in response to the EC's [Public Stakeholder Consultation](#) on the Euratom nuclear research and training programme, FORATOM said the current level of funding in the Euratom Fission Programme, at around €50M/y, is patently out of tune with the EU's objective of maintaining European technological leadership in the nuclear field. The fact that nearly 20 times more funding under Horizon 2020 – the European Union's flagship research and innovation programme – is allocated to research on non-nuclear energies does not reflect the important part nuclear must play in meeting the EU's decarbonisation objectives for 2030 and 2050.

FORATOM believes that to maintain the EU share of nuclear electricity, a mixture of new build and long-term operation of existing nuclear power plants will be needed. A strong nuclear research and training capability is essential to underpin these operations. Priorities should include the development of new reactor technologies, including small modular reactors (SMRs), R&D to improve the safety and efficiency of current light-water reactors, and a better understanding of ageing phenomena and how to control and mitigate them.

FORATOM said improvements are needed in materials for reactor components and fuel able to better withstand radiation and higher temperatures. Other areas of R&D that need to be funded include: waste management and disposal techniques for non-standard waste streams; partitioning and transmutation technology to reduce the long-term radiotoxicity of high-level radioactive waste; and new recycling technologies for fast reactor fuels containing higher levels of plutonium and minor actinides at higher burn-up.

There is also the need for maintenance of shared, large research infrastructures of common interest, which can be useful for training and encouraging researcher mobility.

FORATOM said 14 of the 28 EU Member States are operating nuclear power plants and a further two – Poland and Lithuania – have firm intentions to join or re-join this group.

According to FORATOM, nuclear avoids annual EU emissions of approximately 680 Mt of CO<sub>2eq</sub>.<sup>1</sup> At around 12 gCO<sub>2</sub>/kWh<sup>2</sup>, nuclear lifecycle emissions<sup>3</sup> are similar to those of wind power and less than one third of those from solar energy.

Nuclear will remain an important contributor to the EU's climate change goals, FORATOM said. The Paris Agreement of December 2015, with its collective aim of keeping the global

temperature increase below 2°C, makes the deployment of nuclear energy indispensable. The International Energy Agency/OECD Nuclear Energy Agency Technology Roadmap 2015 concludes that global nuclear capacity needs to more than double by 2050 if the 2°C ceiling is to be respected.

FORATOM acknowledged that research on safety improvements is an important and ongoing priority for the Euratom Programme. However, FORATOM said the nuclear industry regrets that governance arrangements for approving new programmes mean that non-nuclear Member States are effectively able to dictate that the Programme's objectives are limited only to safety, radioprotection and waste management.

This was demonstrated at the European Commission's Horizon 2020 nuclear research seminar in January 2013, where a minority of Member States led by Austria was able to command the EC's attention in spite of calls from industry and nuclear research centres to prioritise research on future reactor systems and efficiency improvements, as well as safety.

FORATOM believes the current governance arrangements, requiring unanimity for the approval of Euratom research programmes, are effectively preventing the EU from collectively pursuing the very goals set out in the Euratom Treaty.

FORATOM fully supports the conclusion of the latest Nuclear Illustrative Programme (PINIC), published by the European Commission on 4 April 2016, that "the fast development of the use of nuclear energy outside the EU [in China and India, for example] also calls for keeping our global leadership and excellence in the technological and safety areas, for which continuous investment and development activities will be essential".

<sup>1</sup> Metric tonnes of carbon dioxide equivalent. A measure used to compare the emissions from different greenhouse gases based upon their global warming potential.

<sup>2</sup> CO<sub>2</sub> emission intensity (gCO<sub>2</sub>/kWh) is the amount of emissions per unit of electricity generated.

<sup>3</sup> The global-warming potential of electrical energy sources through all the stages of a product's life from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling.