Several substantive developments in the nuclear field, taken in the wider context of energy and the environment, have helped make 2001 a pivotal year in the development of nuclear energy at the international level.

In the OECD area, the amount of electricity produced by nuclear fission continued to rise – from 2 132 TWh in 2000 to 2 189 TWh in 2001 – while the share of electricity generated by nuclear power as a percentage of total electricity production remained relatively stable, amounting in 2001 to approximately 24%.

In the United States, during 2001 the operating licence of one nuclear power plant was extended from 40 to 60 years, and six other plants (12 units) applied for an extension of their licences. In Japan, a new nuclear unit entered into operation, and the Finnish Government took a positive stand in favour of the construction of a fifth unit.

The Kyoto Protocol discussions reminded countries around the world of the need for an international effort to limit the emissions of greenhouse gases, and of the role that nuclear energy, which produces no such gases, can play in a global context.

The further development of new technologies in the nuclear field is an important element influencing the planet's energy future. The relaunching in the United States of research and development on future reactor systems – even safer, more cost-competitive, better secured...
against proliferation – and their internationalisation in the Generation IV International Forum, bears witness to the confidence shown by several large countries in the future of nuclear energy.

In another area, often regarded as being one of the weak points of nuclear energy, efforts undertaken in 2001 resulted, in early 2002, in a recommendation by the President of the United States to the US Congress that the Yucca Mountain site in Nevada should be used for the construction of a national deep geological radioactive waste repository. The Nuclear Energy Agency contributed to this process by carrying out, in conjunction with the International Atomic Energy Agency, an international peer review of the methodologies used in the site recommendation process. In Finland, a parliamentarian "decision in principle" was taken in favour of beginning work to implement a deep geological repository at Olkiluoto.

These few examples of developments or decisions in the past year in certain crucial fields affecting the present and future use of nuclear energy merit attention, as they show along which path nuclear energy will be able to play its full role in the mix of energy types to be used to fuel the economic growth of OECD countries. Let us beware, however, of self-satisfaction. Like any major industrial activity, nuclear energy must forever strive for continued improvement in its operating safety, enhanced economic competitiveness, minimisation of the volume and safe management of the waste it generates, and, perhaps above all, a more candid, more transparent and mutually beneficial relationship between decision makers and civil society.