Message from the Director-General

Nuclear power is now generally recognised by many countries as an economically competitive energy source, offering the added benefits of security of supply, price stability (even in spite of recent increases in the price of uranium), and compatibility with sustainable development goals, notably as regards reduction of greenhouse gas emissions. As demand for energy grows, and projections of demand continue to rise as well, OECD/NEA member countries are weighing the different options available. Given the elements above, nuclear energy is a candidate receiving serious consideration for further future development in a number of countries. Research and development initiatives such as the Generation IV International Forum (GIF) attest to the significant interest being shown.

NEA member countries are also investigating additional uses of nuclear energy which provide potential benefit, including the production of hydrogen. This was, in fact, the theme of the October 2004 policy debate organised in conjunction with the semi-annual meeting of the Steering Committee for Nuclear Energy. During the debate, Delegates also evoked the use of nuclear power for desalination of seawater. And although not addressed during the debate itself, one may similarly wish to note the medical application of radioactive isotopes, most of which are generated by research reactors in countries which do, and do not, have recourse to nuclear power for the production of electricity.

Solutions still need to be put in place, however, for the long-term management of spent fuel and radioactive waste, even if it is considered that the solutions have already largely been found in terms of concepts and technology. Likewise, appropriate solutions must be adopted and implemented to secure the funding of decommissioning programmes in the years to come.

The NEA programme of work addresses both the current and future aspects of nuclear energy use and development. An overview of this work is presented in the pages that follow.

