

# Foreword

## *The Directive Board*

This report presents a summary of the research activities of ITN during the year 2006 and includes details of the evolution in management, human resources, publications and budget of the last years of activity of ITN under authority of the Ministry of Science, Technology and Higher Education. As in the past years, a number of difficulties were created by a shortage of financial resources and by the legal impossibility of replacing a gradual loss of human resources (mainly due to retirement). Nevertheless, it is felt that most of the objectives set for 2006 have been reached.

The year 2006 was important for ITN as it corresponded to a number of actions leading to the acquisition and installation of large new infrastructures and modernization of existing ones under an FCT financing programme. This programme is still being carried out and it is expected to be concluded in 2007. At the same time actions were taken in order to proceed with the reactor's core conversion from HEU to LEU.

During 2006 there was also a vast programme of evaluation of all the Portuguese State Laboratories and ITN, being one of them, was also part of this evaluation. It is expected that a new Organic Law will be produced soon by the Government and then ITN may proceed with an internal reorganization aiming at a more efficient operation.

As in the previous reports, the research activity of ITN is presented in this one considering each sector (Reactor, Radiological Protection and Nuclear Safety, Chemistry and Physics) and the scientific output is grouped under the different areas of activity.

The main objective of ITN is the development of nuclear sciences and techniques, providing the country with advanced capabilities in the domain of peaceful applications of radiations and radioisotopes. The strategies adopted by the Directive Board (in office since December 2002) were to fulfil this objective through:

### **Research,**

- establishing ITN as a key partner in research networks and projects involving the application of nuclear and

non nuclear techniques to the areas of materials sciences, environment and life/health sciences;

- maintaining and developing unique infrastructures (such as the Portuguese Research Reactor, Van de Graaf and Tandem accelerators, Dating Laboratories, Cryogenic and High Magnetic Fields Laboratory, etc.) and making them available to the outside scientific community;

### **Education and training,**

- ensuring stronger cooperation with higher education institutions, both at the graduation and post-graduation levels, and supplying the community with other training and education activities at all levels;

### **Cooperation,**

- establishing research partnerships with higher education institutions and other research centres, favouring the development of common interest activities in laboratories to be located within the "campus" of ITN;
- creating better cooperation conditions with industry, health and environment sectors, services, etc., favouring the establishment of partnerships and technology transfer activities;

### **Protection and Safety,**

- reinforcing research activities in the areas of Radiation Protection and Nuclear Safety;
- promoting training and education;
- supplying services of public interest;
- ensuring the fulfilment of international treaties obligations assumed by the Portuguese State and providing it with technical support.

A word of praise is again due to the scientific and non scientific staff of ITN that never failed helping the Directive Board maintaining the tradition of excellence of this institution. All the work that was carried out in 2006 could not be possible without the outstanding quality and motivation of ITN staff.

Once more, 2006 was a successful year as far as research and service activities are concerned. Reading through this report is the best proof of this statement.

Despite all the human resources and budgetary difficulties, ITN keeps looking forward to further establishing its importance and excellence.