



## INFRASTRUCTURES

### ACCELERATOR BUILT BY INFN HAS LEFT FOR JAPAN

A high-intensity accelerator built by INFN for the prototype of the International Fusion Material Irradiation Facility left in mid-February from the National Laboratories of Legnaro (LNL) headed for Japan. The accelerator, designed and built by a team of physicists and engineers from LNL and the INFN sections of Padua, Turin and Bologna, will produce extremely intense neutron streams in Japan, which will hit the critical components of future nuclear fusion power plants to test their resistance to these impacts. This is an RFQ, radio frequency quadrupole, a very advanced system to obtain the maximum intensity of the accelerated particle beam. Legnaro is one of the few laboratories in the world with the technology and skills available to build accelerators of this type.

This RFQ represents Italy's main contribution to an international project in which our country is participating together with France, Spain and, of course, Japan, where the site that will host the tests in the coming years has been built. It was funded by the Ministry of Education, with a special allocation of 25 million euros to the National Institute for Nuclear Physics.

After the design and production of the prototypes and of the most complex parts, implemented within the INFN, the construction has been awarded, under the supervision of INFN, to specialised companies via international tenders, in which Italian companies obtained particularly encouraging results. ■