

## ELI Beamlines gets the green light!

Prague, 20 April 2011 – Today, the European Commission finally approved the ELI Beamlines project. This is the first of the large projects of the Operational Programme Research and Development for Innovation (OP RDI) to be approved. The main purpose of the project consists of the construction of a cutting-edge research complex in the central Bohemian town of Dolní Břežany for a budget of almost 7 billion Czech crowns. The center should become operational at the beginning of the year 2016. ELI will be a top-of-the class research infrastructure providing the best conditions of access to the international scientific community.

The ELI project is the result of the collaboration of nearly 40 research institutions spanning 13 EU countries. The ELI Beamlines, which will be located in Dolní Břežany near Prague, will be one of the first three pillars of the ELI infrastructure, the aim of which is to deliver the most intense laser pulses in the world. The other two ELI sites will be built in Hungary and Romania and will complement the ELI Beamlines by focusing on the other fields of ELI's scientific case.

"The ELI superlaser project is the first of the flagship projects of the OP RDI and I am very pleased that it has succeeded in getting the approval after long negotiations with Brussels", the Education Minister Josef Dobeš said. In his opinion, the possibility for students of various fields to be connected to the international scientific elite will represent one of the main benefits of the ELI project in the Czech Republic. In collaboration with universities, ELI will offer young researchers unprecedented training opportunities, in fields such as plasma physics, optics and physics of extreme energies. " One of our greatest ambitions is to create a working model of cooperation between universities, research institutions and the industry. This is a development we have been talking about for long, but this has not yet materialised. ELI is a chance to show this can be a reality", the Minister of Education said.

ELI Beamlines will serve a large variety of scientific applications, ranging from biology, chemistry and medicine to astrophysics in the laboratory. "One of the six research programs of ELI will be dedicated to the development of the most intense laser accelerator for research in cancer therapy. This is a field of medicine where there is a need for affordable high-quality proton sources and this is the way the ELI project will open. However, this only represents a fraction of the project's research activities. ELI will definitely not be doing science for science. In Dolní Břežany, both basic and applied research will be performed", the representative of the ELI project, Vlastimil Růžička, explains.

The technological development and scientific applications expected to generate long-term economic impacts are primarily new techniques for medical imaging and diagnostics, radiotherapy, tools for developing and testing new materials, new techniques for dealing with radioactive wastes, etc.

Following this final approval by the European Commission, the immediate next steps will be undertaken by the Ministry of Education, which is in charge of the administration of the OP RDI. Josef Dobeš, the Minister of Education, Youth and Sports, confirmed that the Ministry is ready. "From our side, there will be of course no delay in releasing funds. The objective of the Ministry of Education is to make sure building can start as soon as possible because the opportunity of ELI is unique. ELI is really a matter of prestige and in the opinion of many scientists it will be the very best facility in the world. It is also a great opportunity for Czech science", Josef Dobeš said.

From brain drain to brain gain

One extremely positive signal, which is widely discussed in in the context of ELI, is the so-called brain return. "The departure of talented scientists who are looking for better conditions and more attractive challenges has plagued the Czech Republic for years. But now thanks to the funding opportunity represented by the OP RDI, it seems that the wind is now blowing into a new direction. Several top Czech researchers have already acknowledged that ELI is a scientific challenge one cannot resist and they have decided to return home. We believe in continuation of this trend into the future. The three ELI sites will provide world-class conditions of work in new EU member States", the Chief Director of the operational management of EU programs Jaroslav Kuba summed up.