



**of the European Community for research, technological  
development and demonstration activities (2007-2013)**

**Collaborative Project & Coordination and Support Action**

## ***LASERLAB-EUROPE***

Project title: **The Integrated Initiative of European Laser  
Research Infrastructures III**

Project number: **284464**

Project coordinator: **Forschungsverbund Berlin e.V., Berlin, Germany**

Project homepage: <http://www.laserlab-europe.net/>

HZDR participant: **Institute of Radiation Physics**

Starting date: **01.06.2012**

Duration (months): **42**

### **Summary**

LASERLAB-EUROPE III is the European Consortium of major Laser Research Infrastructures, forming a FP7 Integrated Infrastructure Initiative. Geographically it covers the majority of European member states, following recent efforts to include partners from all over Europe 27. Scientifically, it covers many areas of laser science and applications with particular emphasis on short-pulses and high-intensities.

Recently this field has experienced remarkable advances and breakthroughs in laser technologies and beam parameters. Novel applications range from coherent x-ray generation, laser particle acceleration, laboratory astrophysics, and attosecond physics to fusion research, materials research, and biomedicine, to name only few. Consequently – and also as a sign of its exceptional internal coherence – the European laser community has engaged in the world's first truly international laser infrastructures, ELI and HiPER. Besides offering unprecedented research opportunities these infrastructures, together with the LASERLAB-EUROPE III Consortium, will substantially contribute to innovation and help addressing the grand societal challenges.

The main objectives are:

- To maintain a competitive, inter-disciplinary network of European national laser laboratories;
- To strengthen the European leading role in laser research through Joint Research Activities, pushing the laser concept into new directions and opening up new applications of key importance in research and innovation;
- To engage in the Transnational Access in a highly coordinated fashion for the benefit of the European research community;
- To increase the European basis in laser research and applications by reaching out to neighboring scientific communities and assisting in the development of laser research infrastructures on both the national and the European level, particularly the Pan-European infrastructures ELI and HiPER.