Joint Research Centres

We have strong partnerships with industry and, in particular, with leading companies in the information technology and energy sectors. Alongside other collaboration agreements, these partnerships have resulted in the creation of joint research centres with companies like IBM, Intel, Microsoft, Nvidia, and Repsol, with which BSC maintains a stable collaboration and which are another major source of income for our centre.

- Deep Learning Center, a BSC and IBM initiative

Joint research since 2005 following on from previous collaboration within the framework of UPC. Research is focussed on: algorithms to improve and expand the cognitive capabilities of deep learning systems; data centric systems including architectures, runtime systems and programming environments; and Deep Learning applications.
**Intel-BSC Exascale Lab**

Joint research since 2011. The joint research being conducted is orientated to overcome the challenges of Exascale systems: Software tools to analyse and predict performance, Programming models and Performance and reliability of asynchronous algorithms.

**BSC/UPC NVIDIA GPU Center of Excellence**

BSC’s work to improve the technology in NVIDIA GPU accelerators and CUDA architecture culminated in 2011 with it being made a CUDA Centre of Excellence. Research focuses on: GMAC, OmpSs runtime environment and programming model and Automatic vectorisation techniques.
Repsol-BSC Research Center

Joint centre since 2011. Joint research began in 2007. It is a continuation of the Kaleidoscope project to advance seismic imaging technology. The centre specializes in: Full wave-form inversion, Seismic imaging using elastic waves and “reverse time migration” and Controlled source electromagnetic methods.