

**The Spanish Project for a Synchrotron Laboratory at Barcelona (LSB), J. BORDAS, Liverpool University, Liverpool UK and LSB, Barcelona, Spain -**  
In response to the ever increasing demand for access to synchrotron radiation (SR) sources the Spanish funding agency CICYT and the Catalan one CIRIT have jointly commissioned a detailed feasibility study for a national Synchrotron Laboratory at Barcelona (LSB). An analysis of the current and predicted needs has established the following priorities: broad range of utilisation, high beam stability and long lifetime, small vertical and horizontal source dimensions, vertical collimation, horizontal collimation and time structure. The design of the LSB cannot be adventurous because, among other reasons, it must deliver photons from day one to a "photon hungry" community, nevertheless its design must have the potential for substantial further development with which to face the challenges of SR research in the 21st century. The proposed characteristics of the accelerator will be reviewed and put into context in relation to the needs that have to be satisfied.