



ALBA capabilities towards contributions to the FCC study

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Synchrotron Light Source in Barcelona, Spain



Barcelona



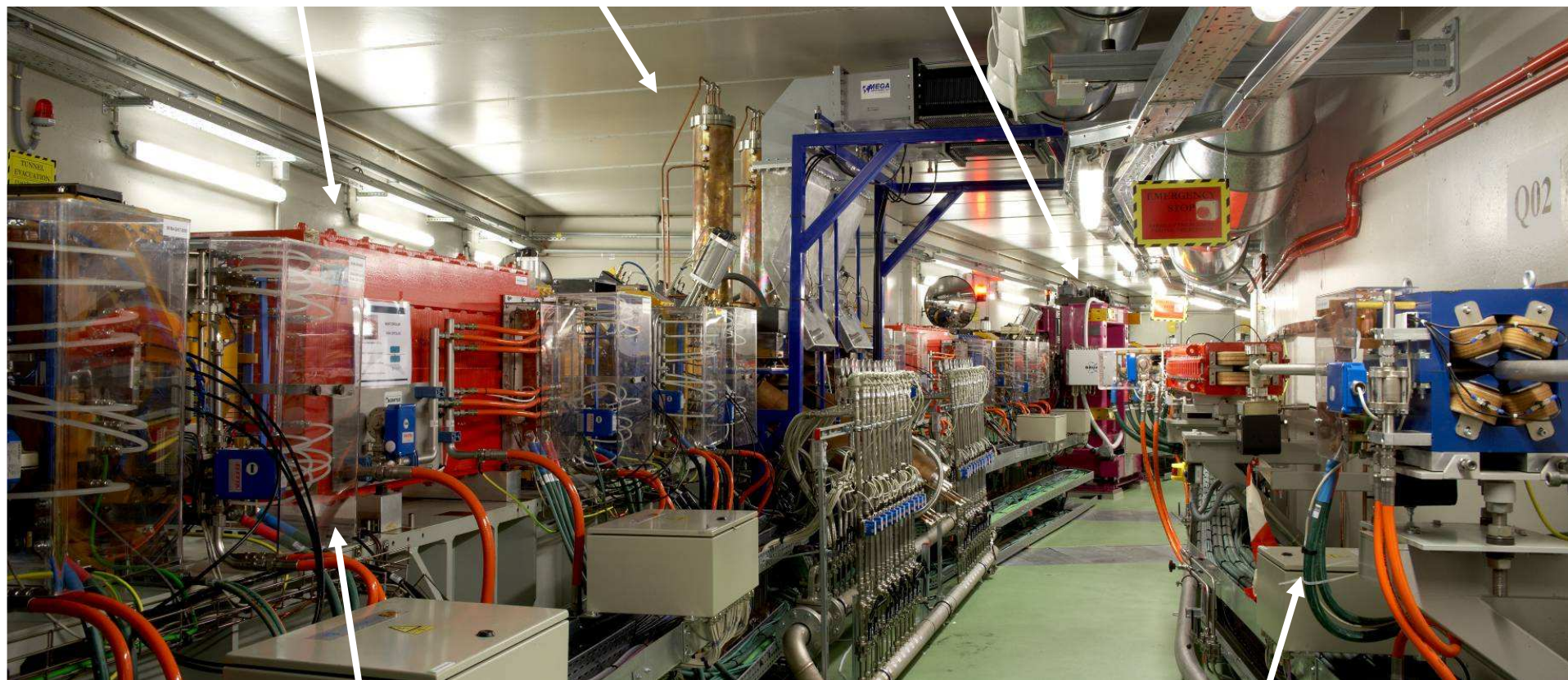
Synchrotron Light Source

in Operation with users since May 2012

Bending

RF cavities

In vacuum undulator



SR

Booster

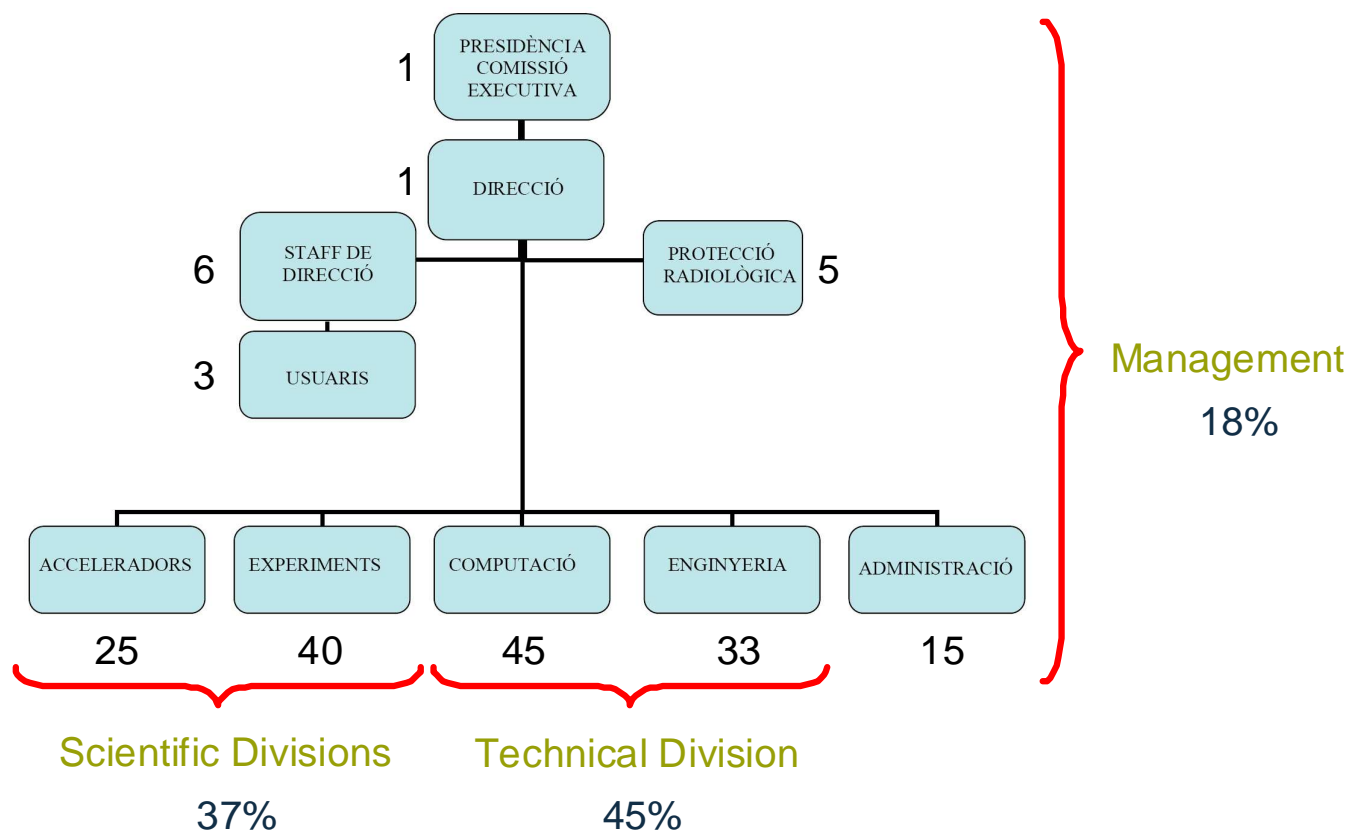
3 GeV e- accelerator

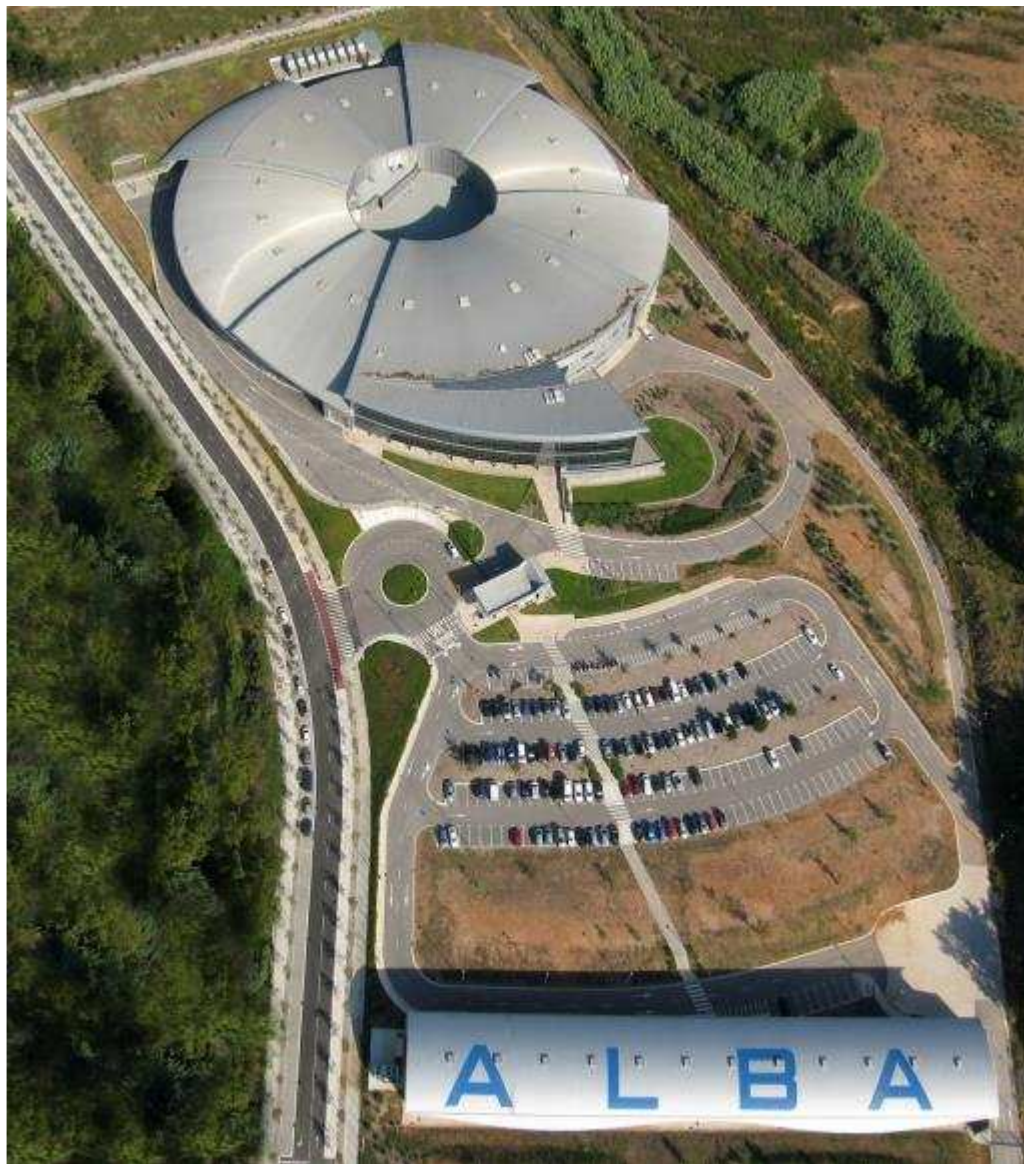
with Linac and Booster injectors





~175 staff
Operating the accelerators
24/24 7/7
~ 6000 hours/year





ALBA labs

- Magnetic lab
- RF lab
- Vacuum lab



Magnetic Measurements Laboratory

characterization of big magnetic structures



Fixed stretched wire bench

Hall probe bench

Flipping coil bench

Rotating coil bench

Helmholtz coils



High Power RF Laboratory

*Certify by Spanish Nuclear Safety Authorities
for the characterization of RF systems*



RF transmitter



LLRF and Controls racks



Cavity inside the **Bunker**



Waveguide System



Vacuum Laboratory

Specialized in Ultra High Vacuum:

- Design, construction and tests.



Design and Calculation

Nx (Siemens) Cad system

Ansys for calculation

Molflow for vacuum calculation



Bake out oven (length 14m,height 1m,width 2m)

Conclusion

ALBA can offer expertise and test infrastructures :

- Accelerator beam dynamics
- Electron beam diagnostics
- RF systems and test laboratory
- Magnetic structures design and measurements laboratory
- Vacuum systems design and test laboratory





Thank you

