

CERN aerospace applications: examples and opportunities

**TOWARDS A NEXT SPACE PROBE
FOR CMB OBSERVATIONS AND
COSMIC ORIGINS EXPLORATION**

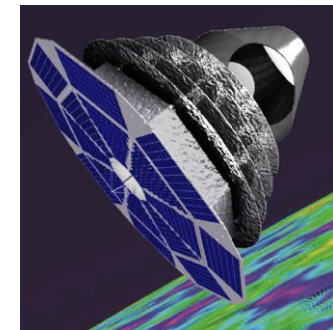
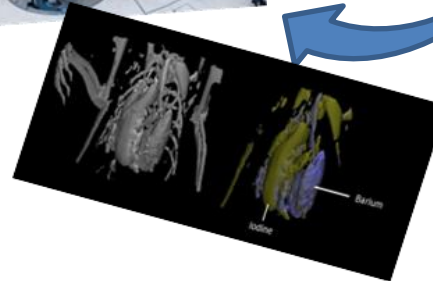
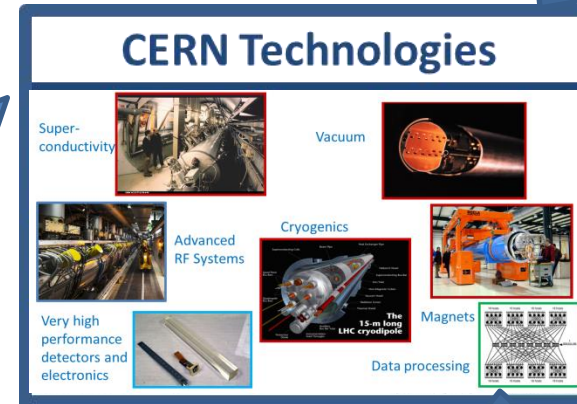
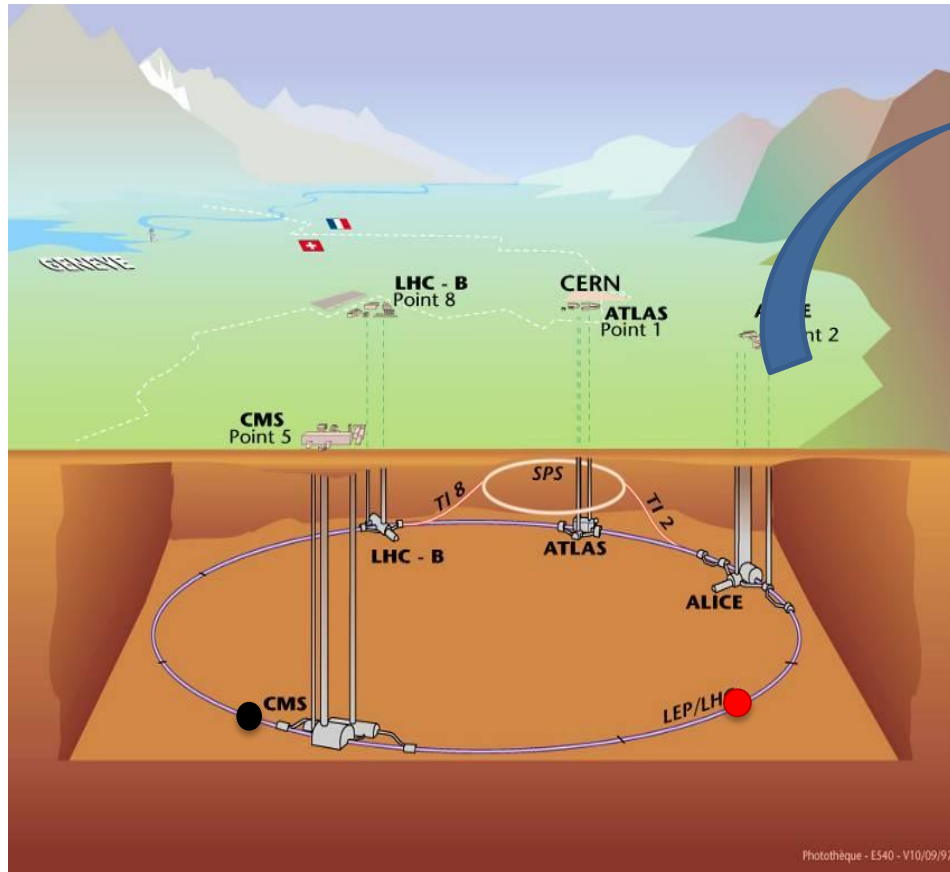
Enrico Chesta
CERN - Knowledge Transfer



Aerospace Applications
Applications aérospatiales

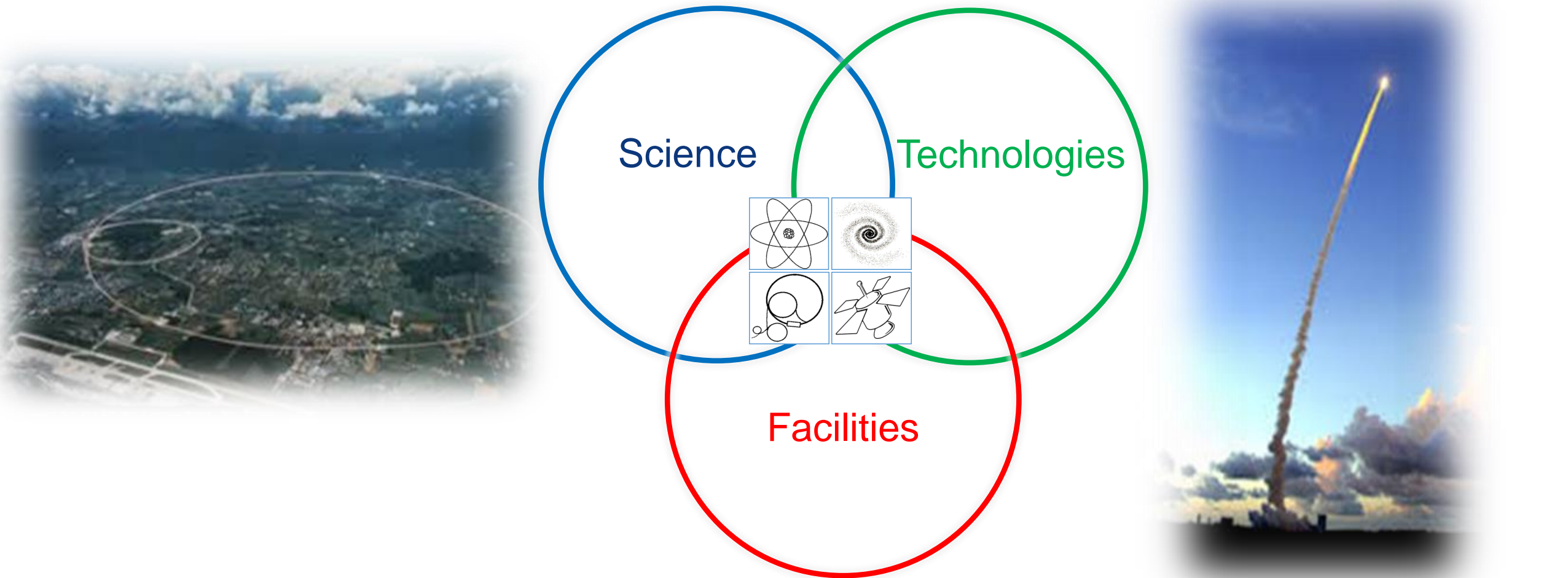
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Knowledge Transfer



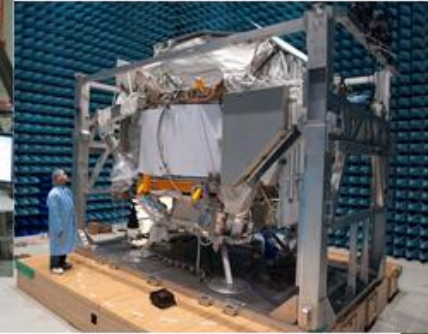
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Particle physics and space: synergies



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Science



AMS-02



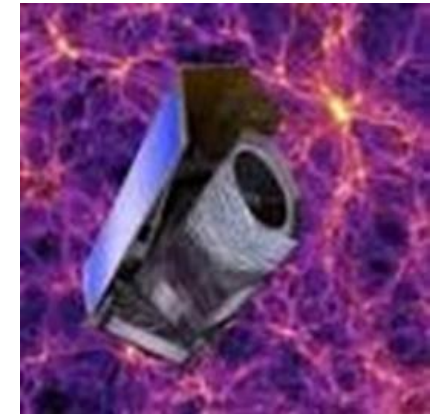
NUCLEON



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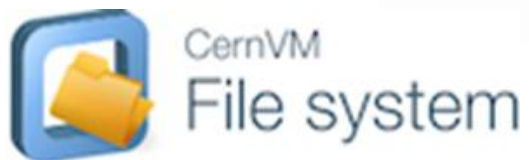
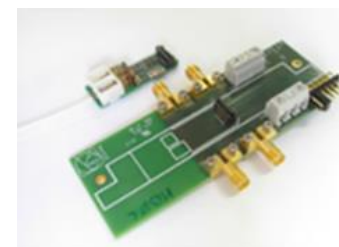
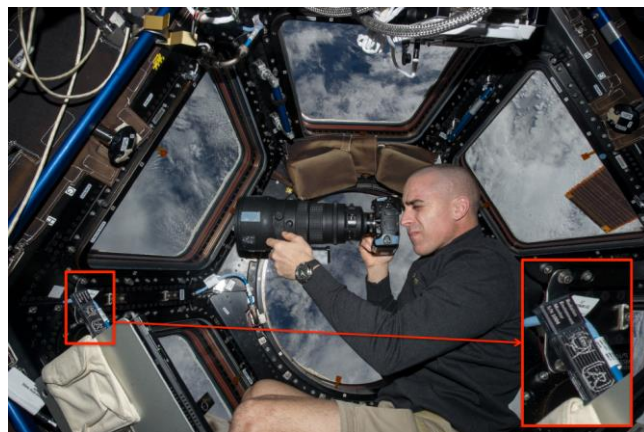
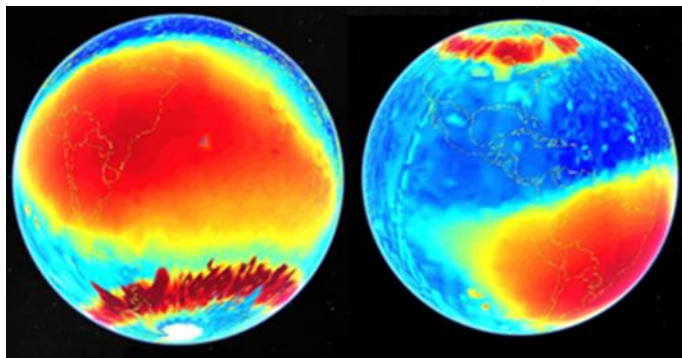
DAMPE



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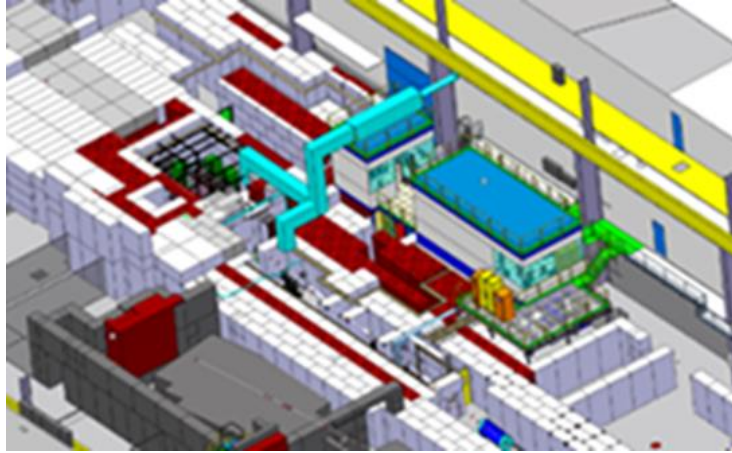
Technologies



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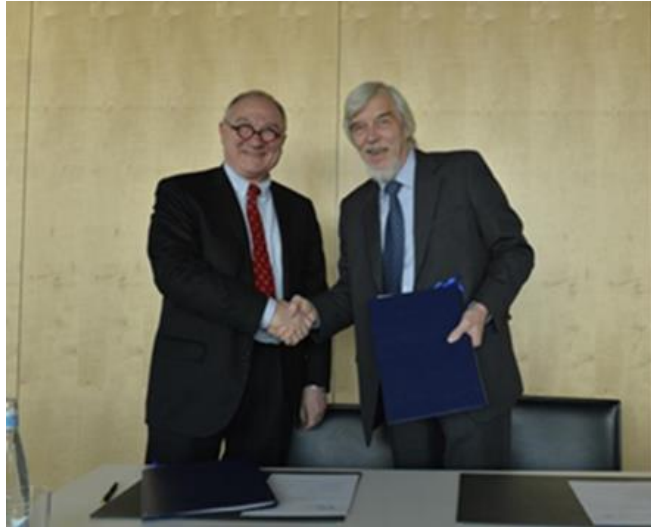
Facilities

CHARM, IRRAD, VESPER, CERF, CCTF, CRYOLAB...



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Institutional relations



CERN-ESA Framework Cooperation Agreement
12 macro areas of potential technical collaboration
identified – implementation on-going



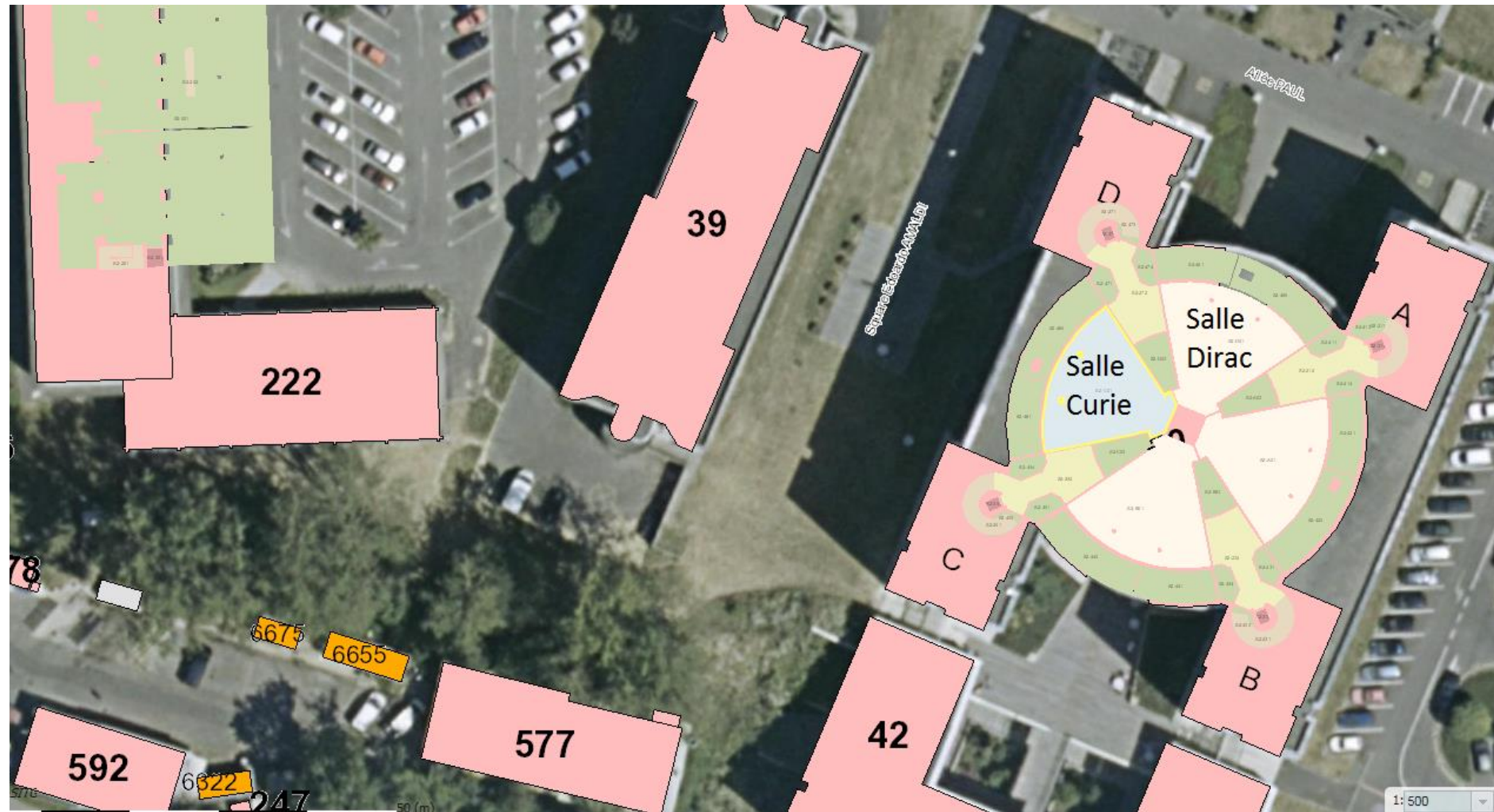
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Possible ways to support next CMB space experiment (beyond pure science)

- Friendly and open environment for knowledge exchange initiatives (e.g.: this Workshop!)
- Possible access to unique infrastructure for calibration/qualification: irradiation facilities, cryogenics/thermal-vacuum chambers, assembly/integration rooms, computing grid...
- Technologies/know-how: radiation monitoring/shielding, thermal management, data handling, simulation tools...

to be further assessed/discussed

Annex: info on Splinter Rooms - map



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