



# Agenda

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1. Commissioning Phases:  
In the lab, in situ, Control Room (local, beam)
2. Controls Commissioning Procedures  
Procedures, pre-requisites, scheduling
3. Where will commissioning take place:  
Office, lab, UA, RE, SR, BCR?
4. Infrastructure required:  
Electrical Power, UPS, Cables, fibres, racks, network, video links, timing (calendar, slow, fast), fieldbus, PLC, Gateway, Front End, Back-end, Console (fixed, mobile, wireless), control room infrastructure  
Operating Systems, 3<sup>rd</sup> party software, backup and restore, remote monitoring and restart, IT Oracle Service, Technical Services
5. Controls facilities required:  
Data Exchange, Database support (reference, equipment, configuration), Application Software, Alarms, Logging, Post Mortem, Real Time, Analogue Signals, 24 hour support
6. Operational Dependencies on other Systems  
Technical Services, Interlocks, Cryogenics, Quench Protection, Timing, Analogue Signals ...
7. Dates, durations, major milestones:  
Of commissioning and when infrastructure, controls facilities and other systems must be ready