



## SC-Link Review

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**WP6a :** cold powering – WP Leader: A. Ballarino

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# Outline

- Reminder of SC-Link baseline (Type A, cooled by gas by 1.3bar,  $4.5 < T < 20\text{K}$ )
- Schematic in Tunnel showing SC-Link routing; DFHM/X, DFM/X, thro' UL
- Specifications: Physical, cryogenic, hydraulic, pressure, bend rad' of 1.5m
- Expected Max pressure for LoV & He break & PRV's in 60m line
- Resume of Criotec, Nexans & Cryoworld designs
- Photos of delivered spools, flexible cryostats and cryostat terminations
- Cable prep' & insertion into cryostat
- Mechanical handling of spools & un/re-spooling of cryostats with/out cable
- Cryogenic tests in SM18, cryostat straight & shaped
- Take-up of spare cryostat length by 'snaking' in UL & movement of DFH
- Thermal contraction of cable in horizontal and vertical sections of

# Conclusions

- 60m SC-Link cryostat hardware is available
- Trial cable pulling and spooling of cryostat imminent
- Test station in SM18 is being prepared
- Cold tests will inform us of:
  - the issues associated with the handling of the various cryostats
  - the cryostat integrity after 2 unspool and re-spooling cycles
  - the cryogenic heat-loads when straight and shaped
  - determine whether we need a Type A or Type P cryostat