



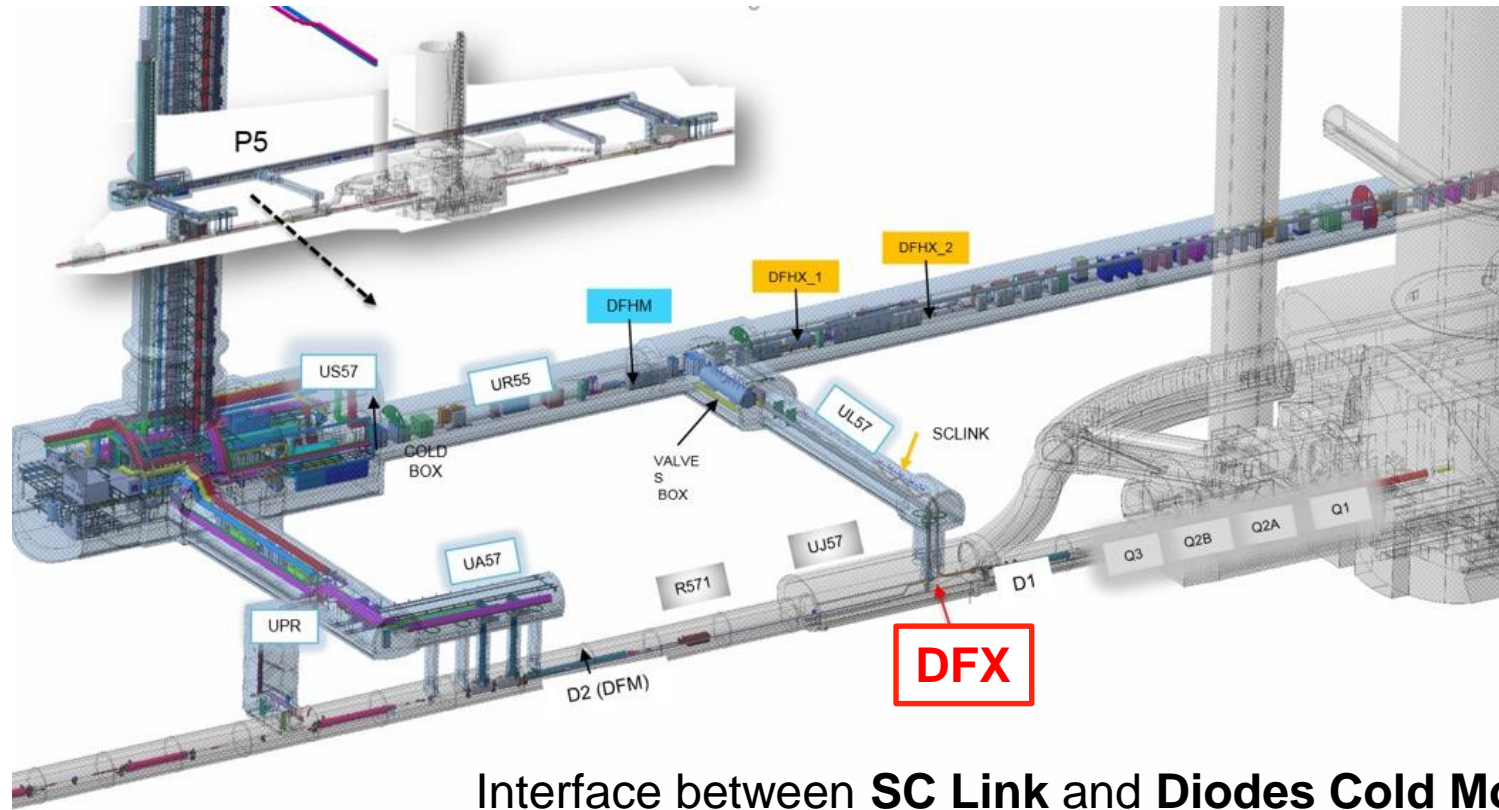
DFX in WP6a, Master Plan

A. Ballarino



DFX Detailed Design Review, CERN, 20/06/2019

DFX Cryomodule in WP6a



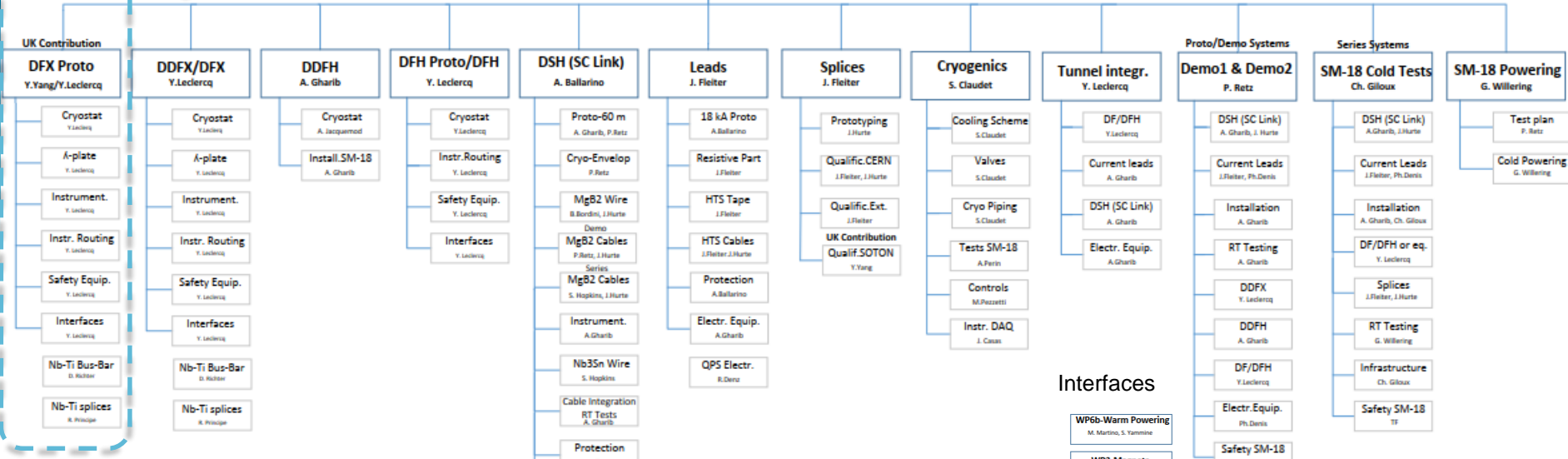
Interface between **SC Link** and **Diodes Cold Module**
of the **HL-LHC Inner Triplets**

Organogram WP6a

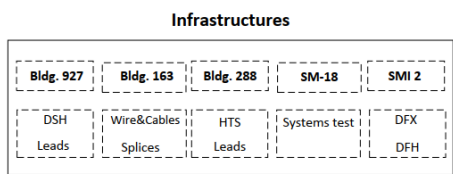
LHC Equip. Mod.
DSL/DFBL

WP6a Cold Powering
WP Leader: A. Ballarino
Deputy: V. Parma

QA
R.Principe



DDFX in Demo 1
Tests in Dec 2018 and March 2019



- Interfaces**
- WP6b-Warm Powering
M. Martino, S. Yamane
 - WP3-Magnets
E. Todesco
 - WP7-Mach. Protection
D. Willmann
 - WP17-Integration
P. Festa
 - WP12-Vacuum
J. Espinos, C. Garon
 - WP16-String
M. Bajoch, M. Fopp
 - WP9-Cryogenics
S. Claudet

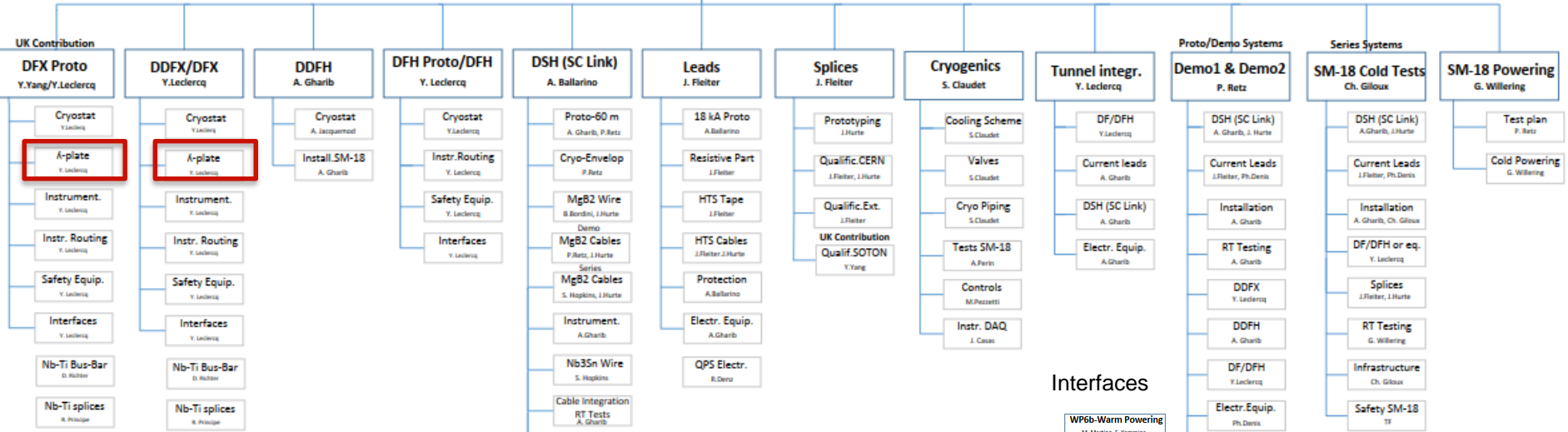


Changes from Conceptual Design Review

LHC Equip. Mod.
DSL/DFBL

WP6a Cold Powering
WP Leader: A. Ballarino
Deputy: V. Parma

QA
R.Principe



λ -plate in DCM (moved to WP3)
ECR in preparation

Interfaces

- WP6b-Warm Powering (M. Martino, S. Yammine)
- WP3-Magnets (E. Todesco)
- WP7-Mach. Protection (D. Wolfmann)
- WP17-Integration (P. Festa)
- WP12-Vacuum (J. Espinos, C. Garon)
- WP16-String (M. Baglio/M. Poggi)
- WP9-Cryogenics (S. Claudet)

Infrastructures

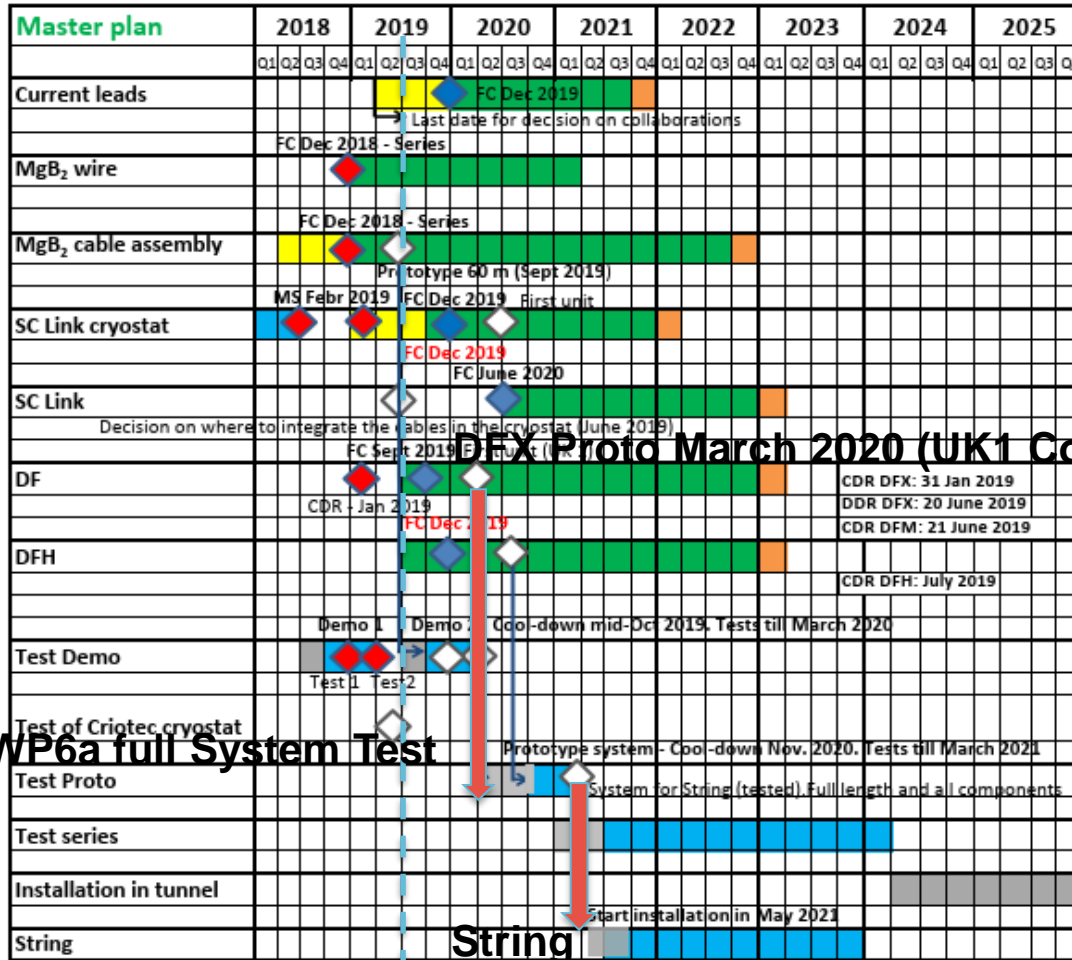
| | | | | |
|-----------|---------------------|-----------|--------------|---------|
| Bldg. 927 | Bldg. 163 | Bldg. 288 | SM-18 | SMI 2 |
| DSH Leads | Wire&Cables Splices | HTS Leads | Systems test | DFX DFH |



Prototype DFX

- Construction of one **DFX prototype**, via **UK1 contribution** to HL-LHC, by **Southampton University (SOTON)**. Design carried out by SOTON, with regular exchanges with CERN (direct coordination by Y. Yang, SOTON, and since CDR V. Parma, CERN).
- Delivery of prototype to CERN in **March 2020** (UK1 deliverable)
- This DFX prototype is also a **spare unit for HL-LHC**

WP6a Master Plan



- Tendering
- Manufacturing
- Tests
- Installation
- Spares
- ◆ Achieved milestone
- ◇ Future milestone
- ◆ FC dates



DEX Proto March 2020 (UK1 Contr., SOTON)

Proto WP6a full System Test

String





Thanks for your attention !

