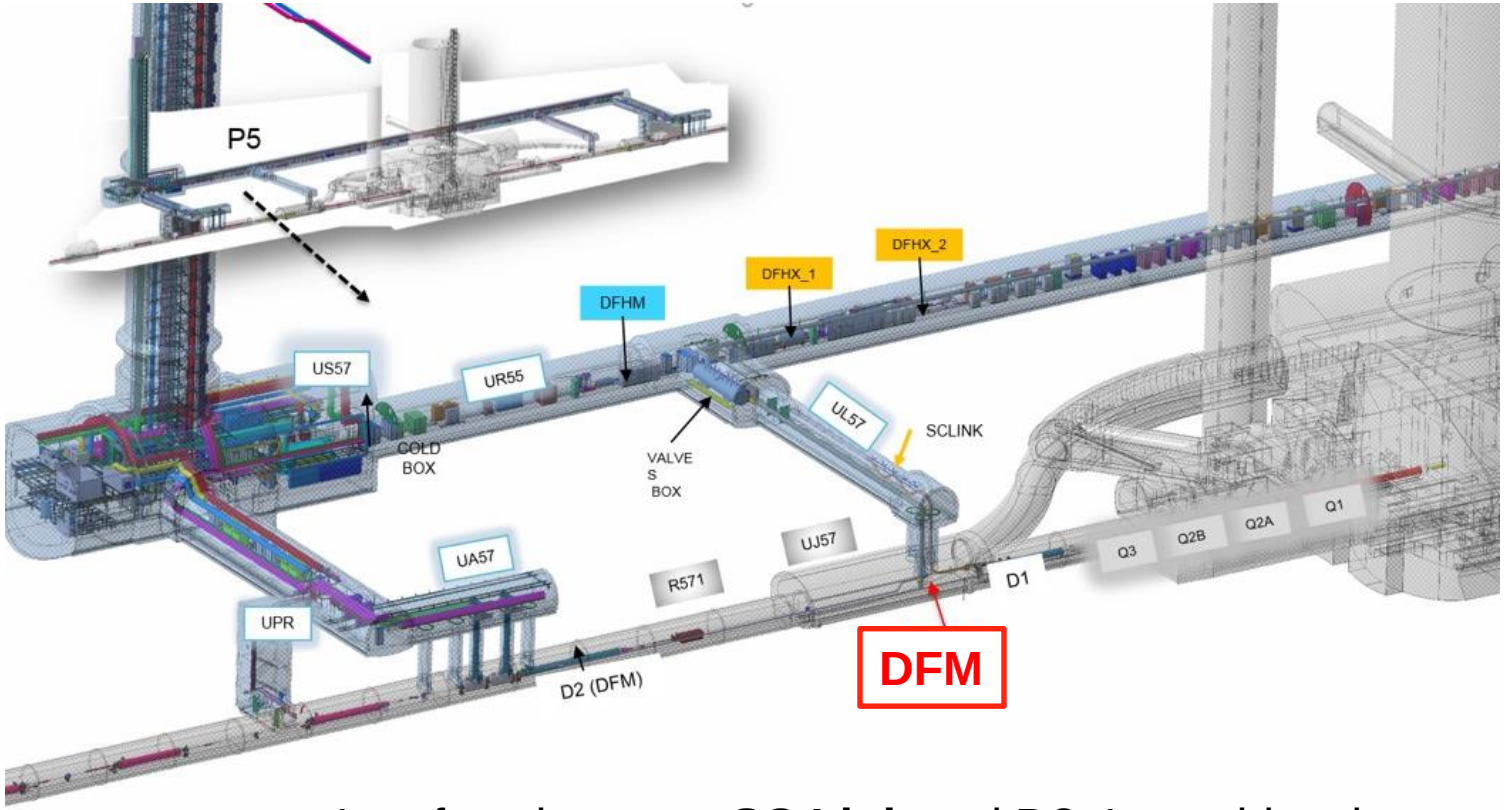
DFM in WP6a, Master Plan

A. Ballarino

DFM Detailed Design Review, CERN, 21/06/2019

DFM Cryomodule in WP6a



Interface between **SC Link** and **D2.** It provides the powering of the **HL-LHC Matching Sections** (D2 and its correctors)

Powering the Matching Sections

Matching Sections

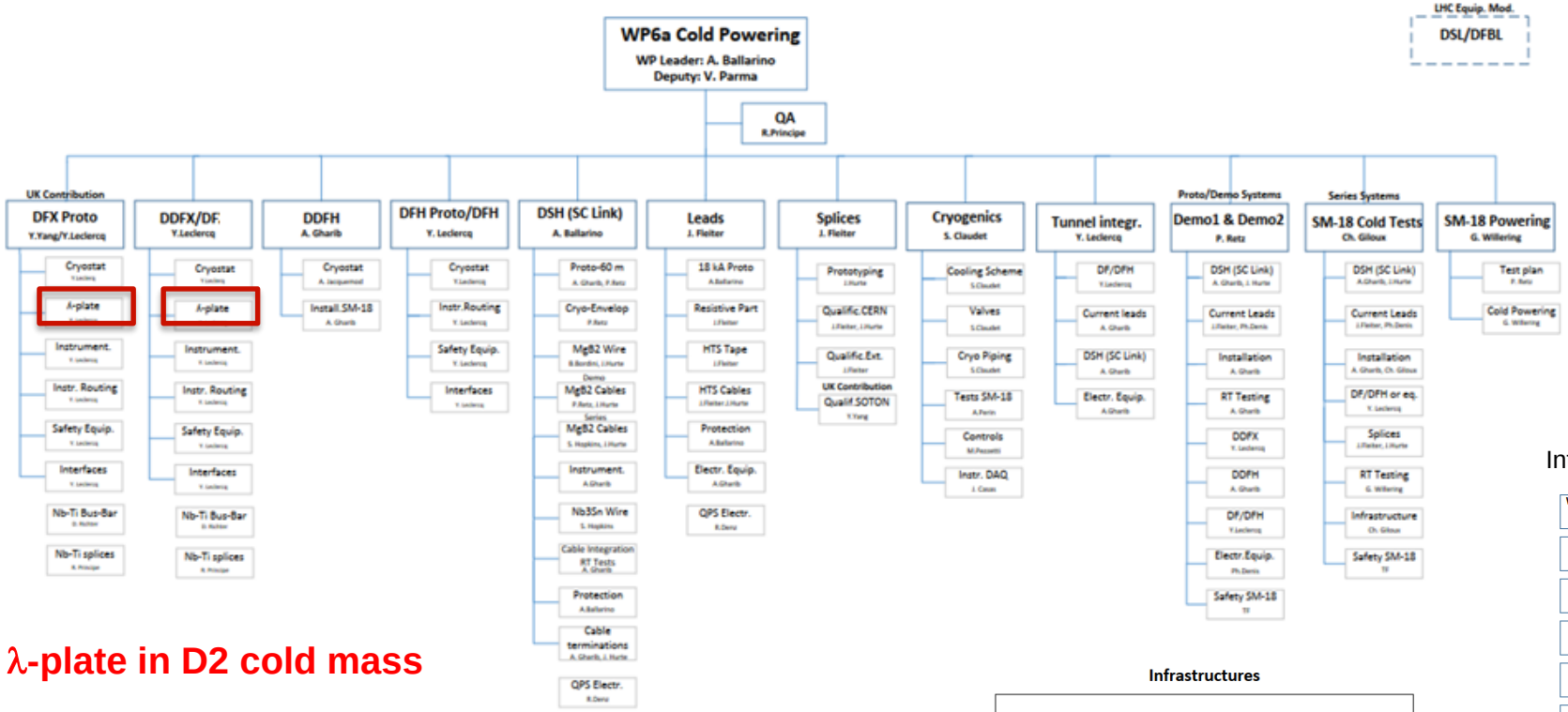
D2 and its correctors

Rating (kA)	N_{leads}	N_{cables}
13	2	2
0.6	8	8

Triplets

Rating (kA)	N_{leads}	N_{Cables}
18	4	4
7	-	3
2	12+3*	12

DFM in WP6a Organogram

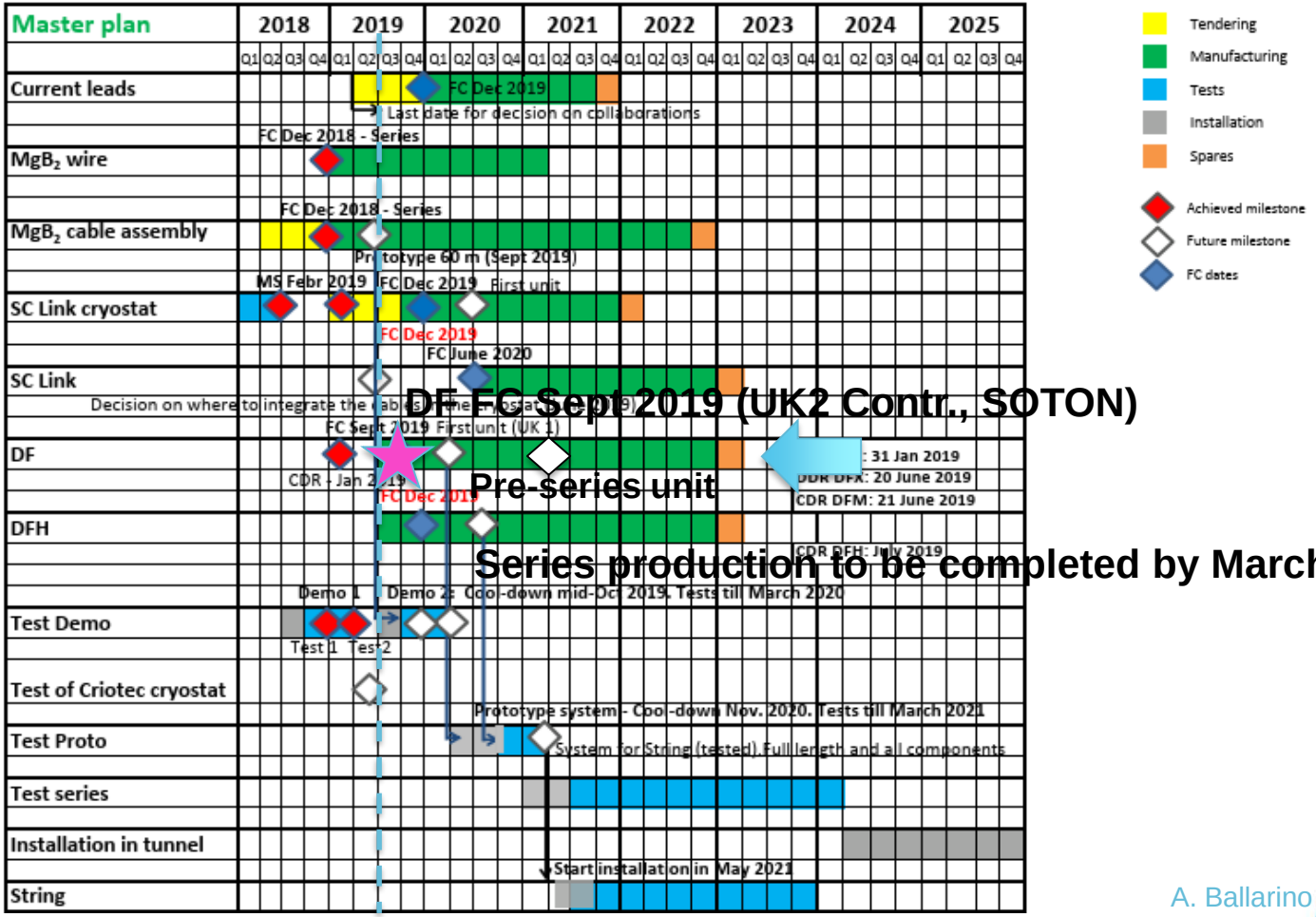


λ-plate in D2 cold mass

DFM

- **Baseline**: construction of five **DFM cryo-modules**, via **UK 2 contribution** to HL-LHC, by **Southampton University** (**SOTON**). Design carried out by CERN, in collaboration with SOTON (direct coordination by Y. Leclercq, CERN, and Y. Yang, SOTON).
- **Five** cryo-modules: **one pre-series** unit (also spare for HL-LHC) and **four series units**.
- No DFM test in nominal cryo/electrical conditions is planned (we rely on the experience with the Cold Powering System for the HL-LHC Triplets. The SC Links and the HTS Current Leads for the HL-LHC Matching Sections will be tested.

WP6a Master Plan



DF FC Sept 2019 (UK2 Contr., SOTON)

Pre-series unit

Series production to be completed by March 2023

Thanks for your attention !