



The MgB_2 Wire for the Superconducting Link HL-LHC Project

B. Bordini, A. Ballarino, J. Duvauchelle, J. Hurte, P.
Jacquot, K. Konstantopoulou



International Review of the conceptual Design of the Cold Powering system for the
HL-LHC Superconducting Magnets – CERN – 03 July / 04 July 2017

Outline

- Introduction
 - Development of the wire and main characteristics
- Wire technical specification
 - Main Parameters
- Performance of the first large procurement (80 km of wire)
 - Measurement results from Columbus SPA and from CERN
- Status of the running contract and plans for next contracts
- Conclusions

Conclusions

- In collaboration with CERN, COLUMBUS SPA has developed a wire that fulfills the electro-mechanical performance required for the Superconducting Link Project
- The performance of the first large procurement (80 km of wire) demonstrated that the production can be industrialized without affecting the quality of the wire
- From the beginning of the year CERN already received 150 km out of the 200 km of wire ordered for manufacturing the prototype link
 - Verification measurements carried out at CERN identified a non conformity in the first 100 km received; investigation are on-going and from the first analysis it is expected that the problem will be solved in a short time
- CERN is planning to place an additional order for 200 km of wire to be used for the series by September this year. Other 800 km will fulfill the needs of the project



Thanks For Your Attention !

