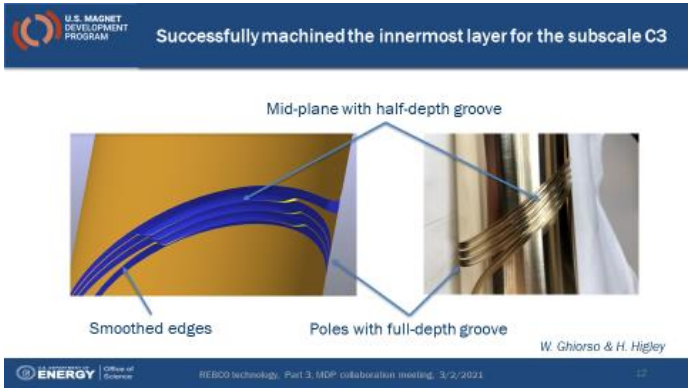
c3 conductor: now expect to start receiving CORC® wires in September 2021

- In March, ACT received 5.8 km long tapes, ~ 73% of the total tape order
- ASC/FSU performed critical tests on sample tapes from each batch at 4.2 K and different background fields
  - Test results show some of the tapes do not meet the specifications. ACT now has 50% of tapes for the c3 order
  - Provided important feedback to SPI to fine tune the fabrication process
- We expect to start receiving CORC® conductors for c3 in September 2021
- Still need to secure $85 k to order CORC® conductors to make the subscale c3

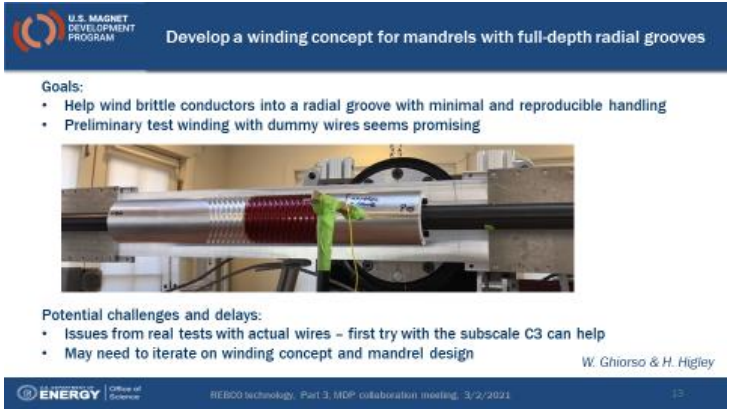
Addressing open issues to make c3 – machine mandrels with full-depth radial grooves

- A 3-turn mandrel was successfully made, as reported at the MDP CM in March
- Need to try a 40-turn mandrel
- Develop a new concept to assemble six layers and aluminum shell



Addressing open issues to make c3: wind coils in a conductor-friendly way

- Since March, successfully test wound on the 3-turn mandrel with dummy wires
- Develop a new concept to provide wire tension during winding
- Try the actual conductor with the 3-turn c3 coils



Addressing open issues to make c3: mechanically couple all layers

- The main focus now. Considering two options
  - Fill the limited annular space with epoxy
  - Use smart shims
- Planning experiments to test if Option #1 is feasible
- Continue impregnation tests with room-temperature cured epoxy