



## General Information

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64<sup>th</sup> WP2 Meeting – 29/03/2016

# Outcome of the Powering Review

- ITs powering: move to the proposed powering scheme → implies two quadrant power converter
- D1-D2 powering: keep present baseline
- Implication of 11 T trim on Magnet Protection should be further analysed

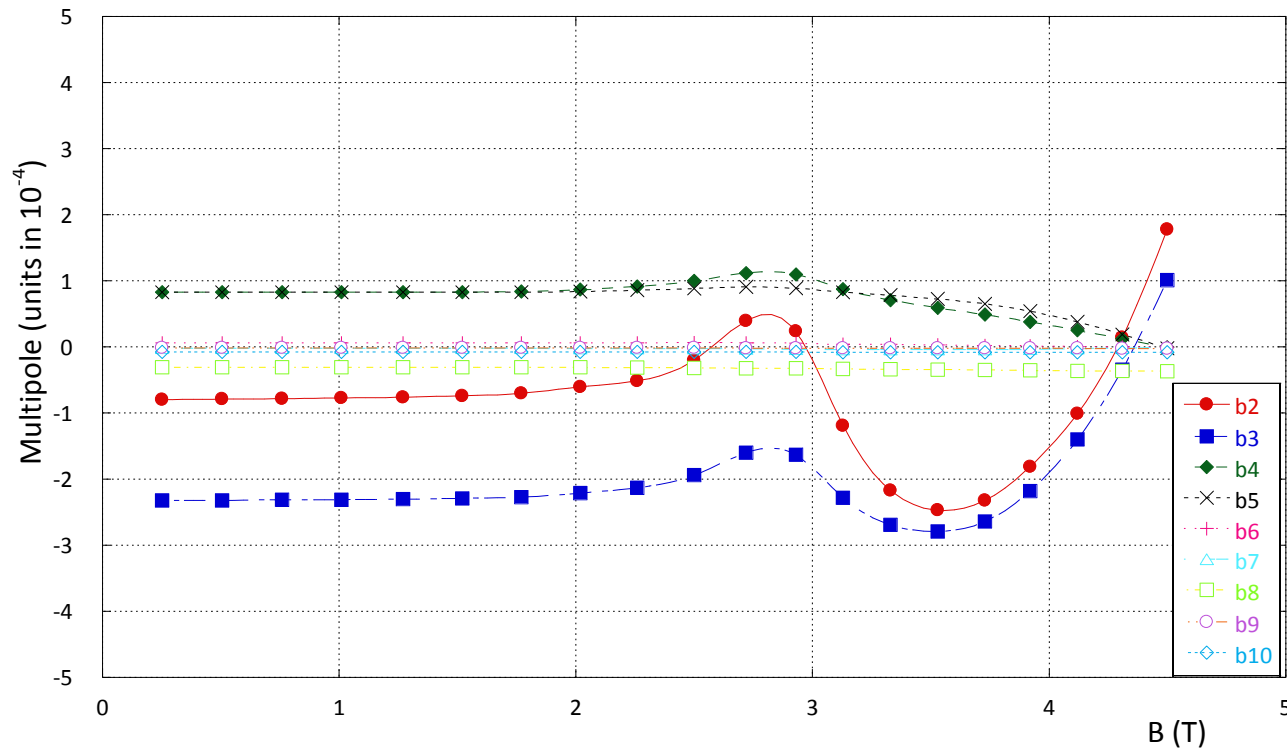
## Next steps

- Need to review power converter specifications as concerns ripple, precision, accuracy based on latest circuit layout and latest information from:
  - Power Converter team
  - Magnet team concerning the transfer function of the cold-bore/beam screen system
- Propose 19/4?
- Need to go through the same specifications as for LHC (see LHC Design report – Section 10.2 as possible reference)

# Next steps

- Re-evaluate requirements for ramp rates taking into account target squeeze length, ramp-down/pre-cycle length, separation collapse speed
- Determine minimum  $\beta^*$  for the ramp and squeeze and take into account of that for the evaluation of the pre-squeeze/squeeze speed and corresponding requirements
- Specification of acceleration and ramp rates. Check in particular D2 and Q4 correction (significant increase in inductance in the new design)
- Aim for June to complete this review

# Some considerations



- The decision about keeping D1 and D2 separate leaves open the possibility to define the length/fields of D1 and D2 independently
- b3 and b2 optimized for 6.7 TeV (4.3 T). What about ultimate operation to 4.9 T?
- Should we consider to review the length (increase by 10%) and operate to a lower field where the dependence of b3 on the field is smaller?

