# ARC Cryomagnet interconnections

# Summary

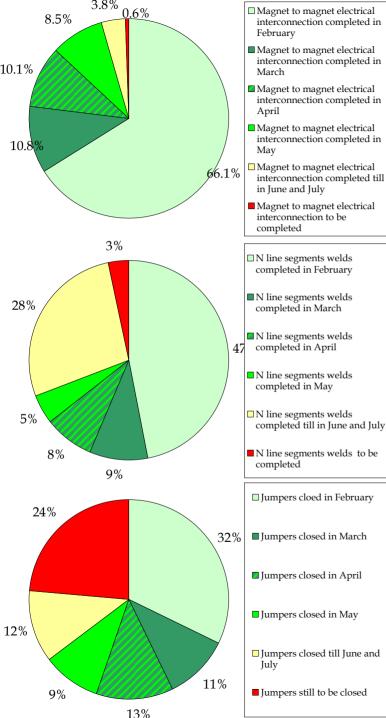
- Update special IC
- Consolidation 7-8
- LHC arc interconnection cockpit
- Interconnection status sector by sector
- Global LHC summary
- N line activities in the DS regions

# Advancement special IC

- Triplets in 8-1 :
  - Closure of 1L for Thursday 2/8 pm or Friday morning for pressure test a the end of this week
  - Closure of 8R also this week
- Point 3 DSLC :
  - Ultrasonic welding of IC between Sector 1 & 2 completed 30/7 on schedule.
  - Due to delays in preparation work (electrical cabinet to be moved) the electrical test and installation of V Taps by MEL will not allow to perform insulation of electrical IC by MCS Friday 2/8; so one or 2 days of delay. To be confirmed on Friday
  - This week : work in 8 sectors.

## Consolidation 7-8

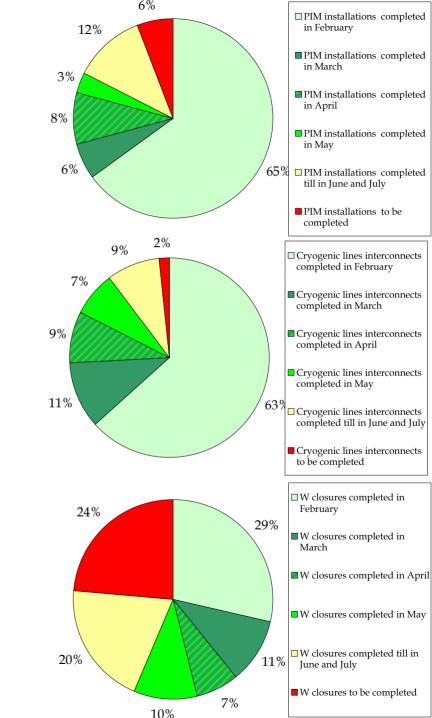
- Warm-up Ok for the arc ; intervention will start with opening of the ICs on Monday 6/8.
- Preparation work (Removal of BLM and of survey instrumentation is on-going ; opening of Q4-D2 this Friday, removal of racks for 1055)
- Intervention on triplet not possible because too cold. Will be on the critical parth for the reclosure Was foreseen to work 1 week in advance.



2-34

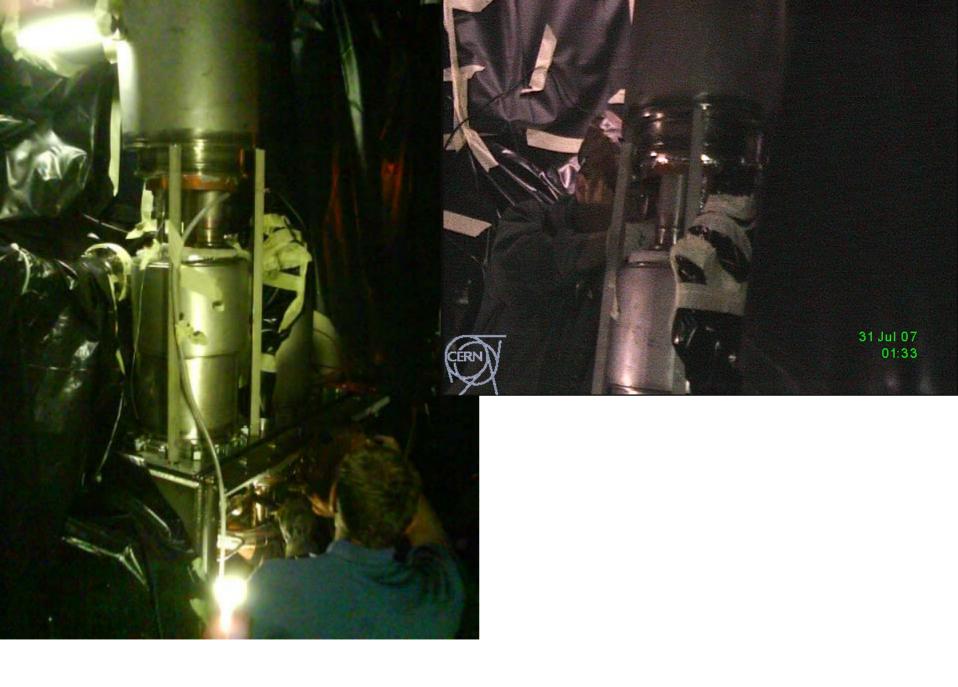
6-7 2

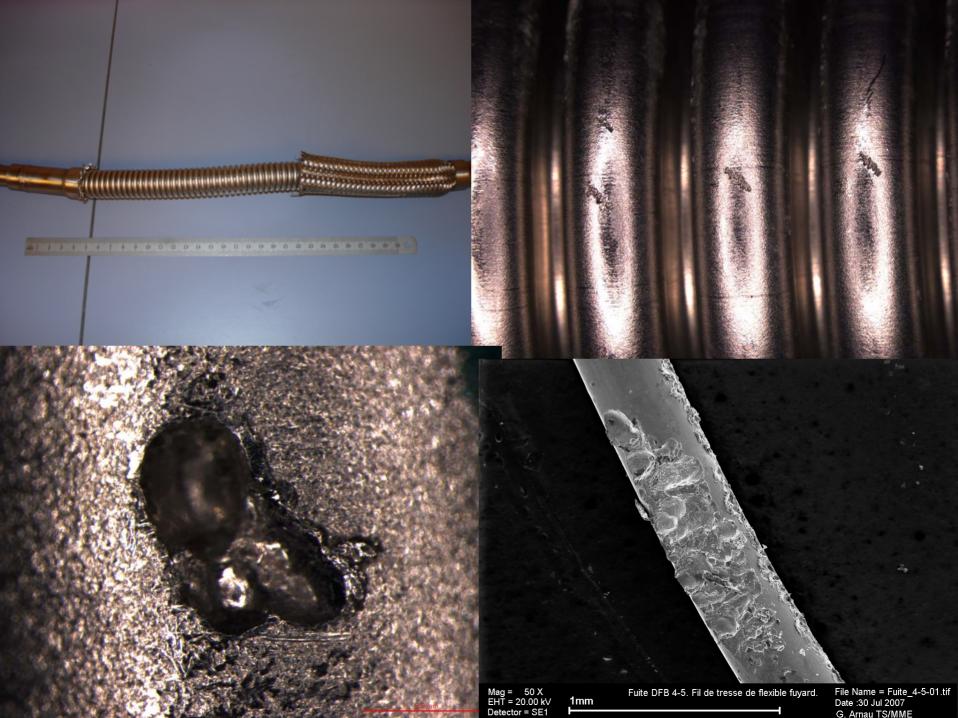
1-25

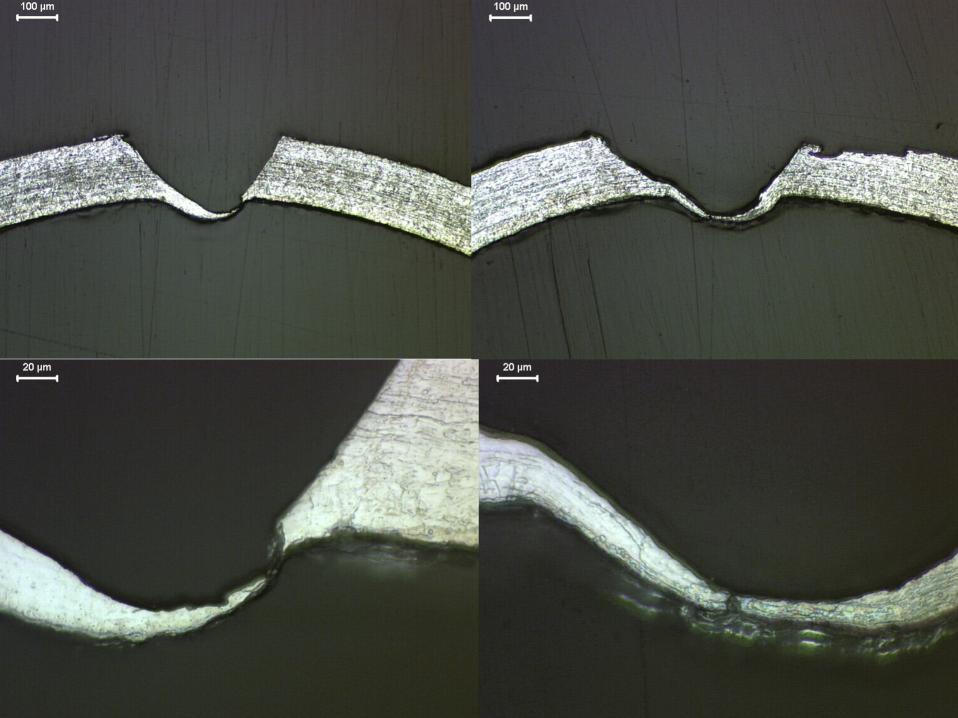


### Sector 4-5

- Detail of leak history: see presentation of P. Cruikshank
- Intervention completed yesterday by TS-MME (repair) and AT-MCS (IC closure)
- Ready for pumping this morning after having equipped the sector with extra pumping ports



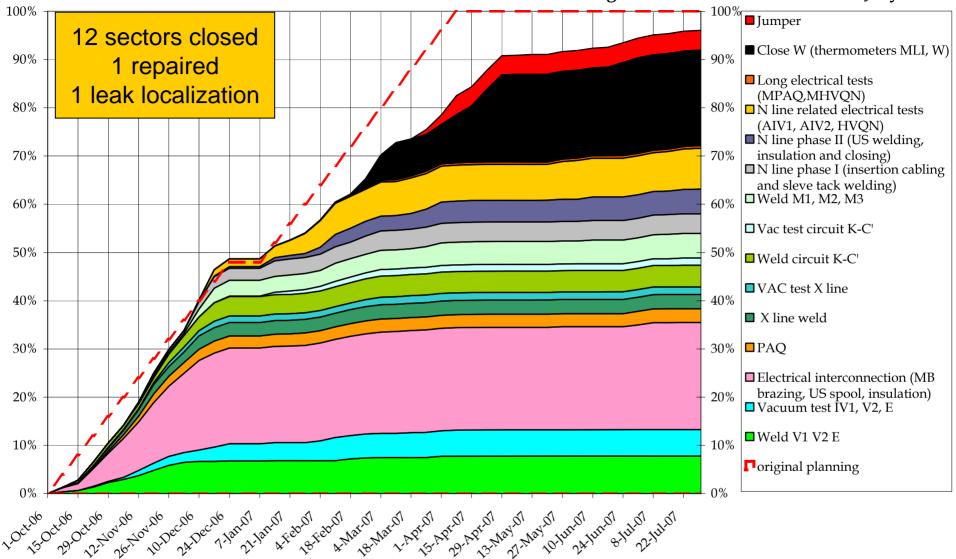




### Sector 8-1

- Leak cold mass in 15R8 under localization using extra pumping ports
- Leak K-C' in 23R8 under localization

#### Sector 3-4 general advancement view 30-July-2007



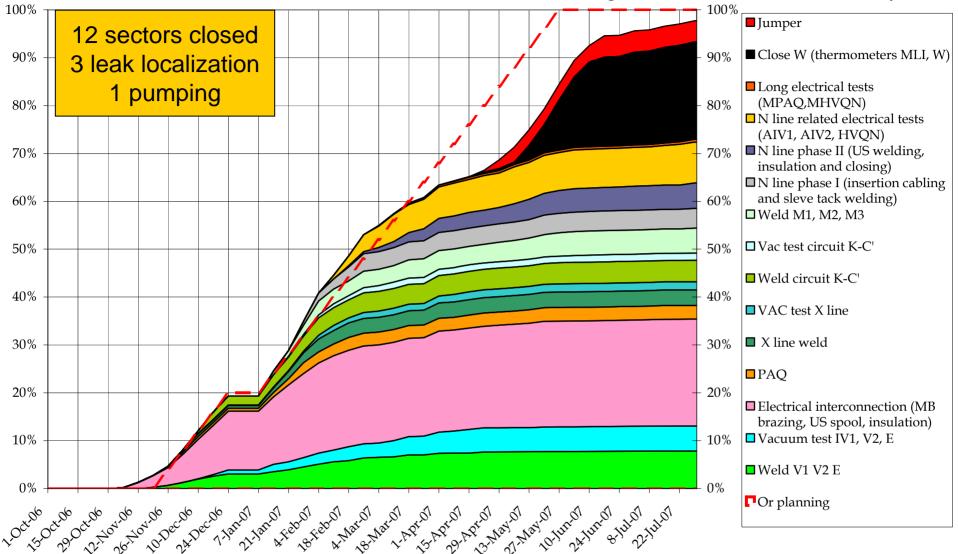
Last electrical test DS R3 in planned for Friday. Closure end week 32





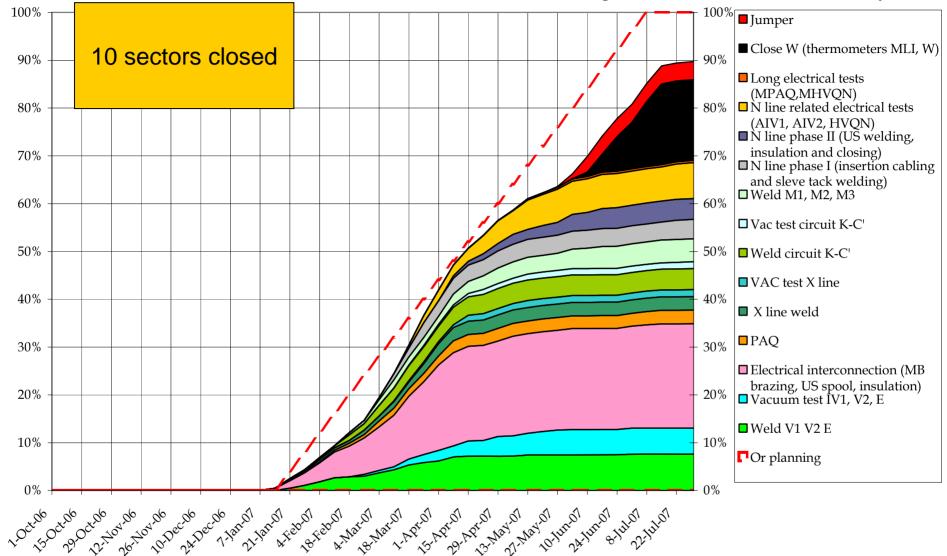


#### Sector 5-6 general advancement view 30-July-2007



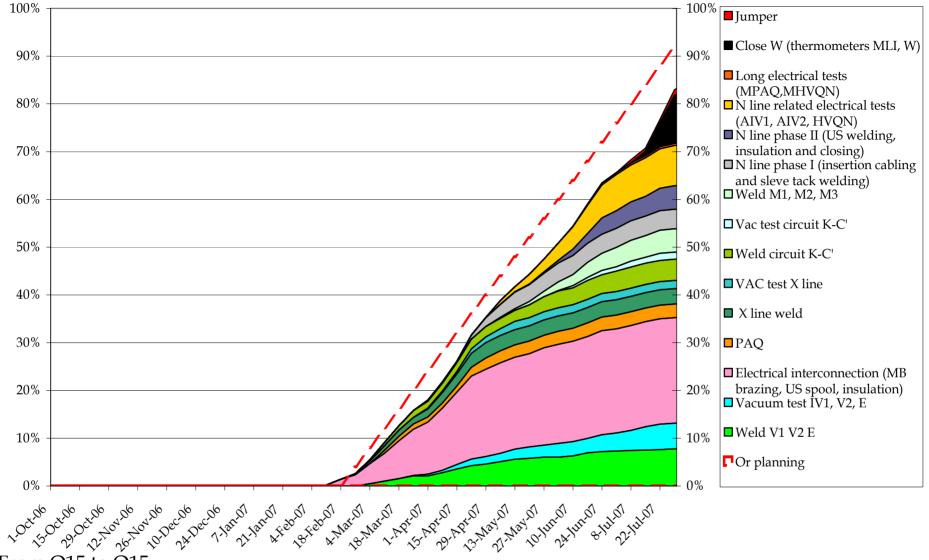
DS L6: last instrumentation installed by ACR. Closure beginning week 32

Sector 2-3 general advancement view 30-July-2007



DS L3: last test week 33, closure week 34-35 DS R2: installation Q11 R2 week 32

#### Sector 6-7 general advancement view 30-July-2007

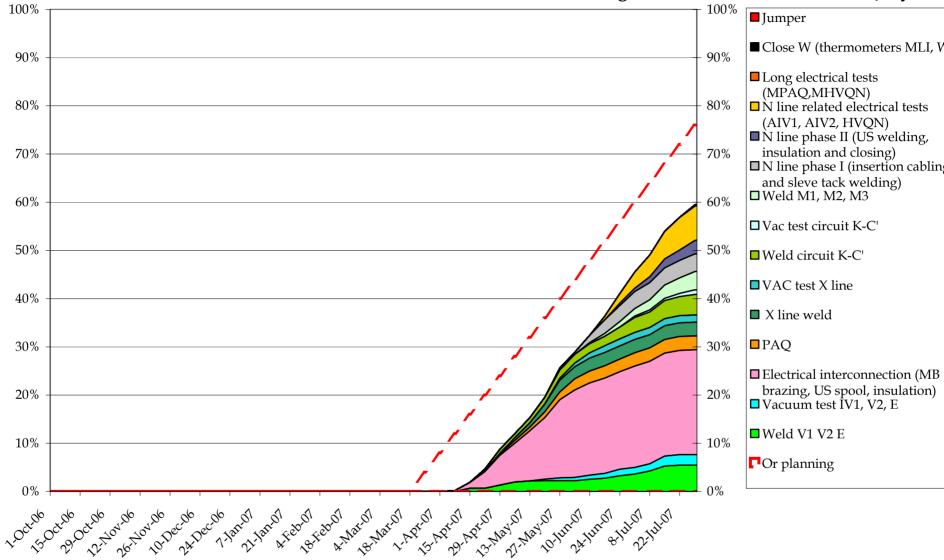


From Q15 to Q15:

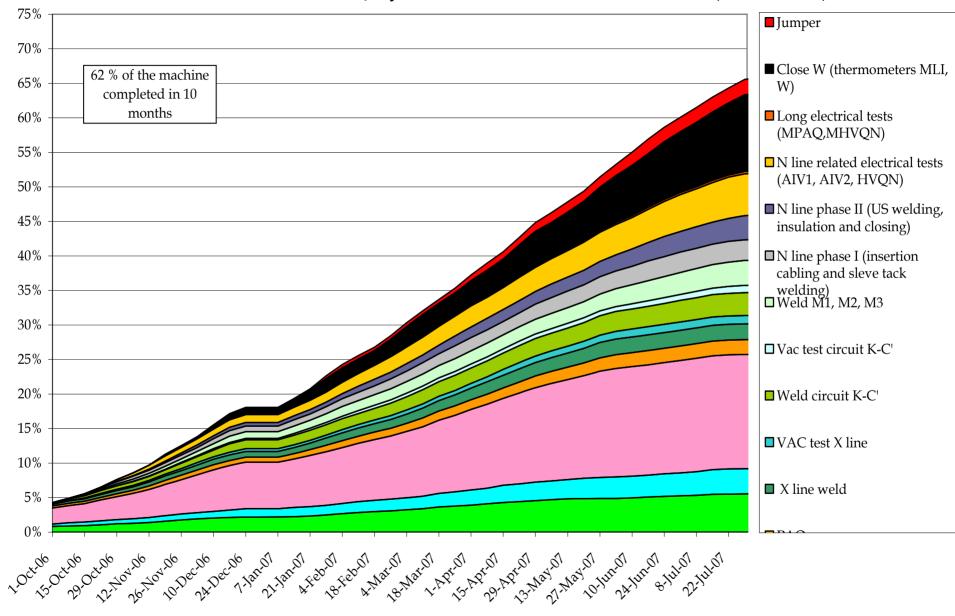
- Jumpers blocked because of air exiting from B header
- Extended V test being performed

DS R6: being closure, wrong W bellow on QQBI.9R6 (short type instead of long) being solved DS L7: closure week 36-37

#### Sector 1-2 general advancement view 30-July-200



This week the extended tests between Q15 and Q15 shall be completed



#### General advancement view 30-July-2007 of sectors 4-5 3-4 5-6 2-3 6-7 1-2 (75% of LHC)

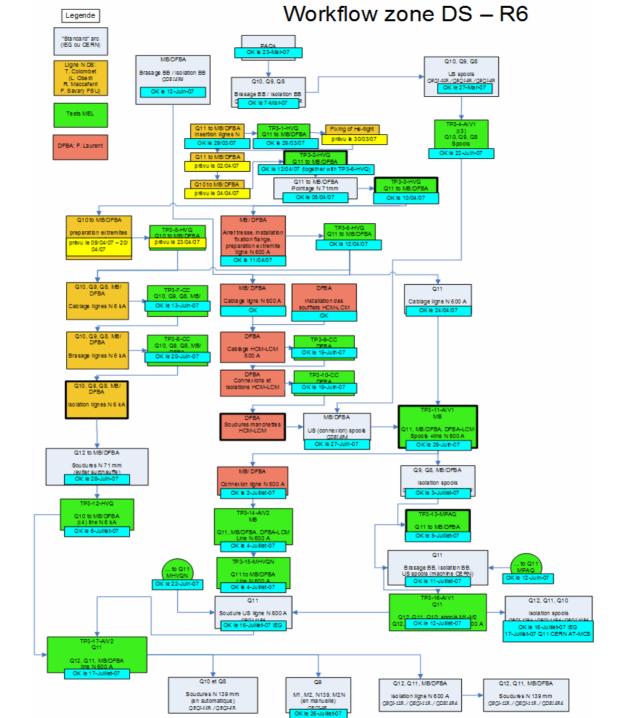
### The DS activities

• 16 special zones

# DS means

- 4 different workflows
- Other Singularities: point 6L and 6R
- Intervention of several teams
  - IEG: standard Interconnect
  - AT-MCS-ET: insertion N lines, repair SSS 500, re-interconnection SSS 500
  - AT-VAC: vacuum test
  - AT-MEL
    - Standard arc ELQA
    - DS ELQA special tests
    - Support from the N line factory
  - AT-ACR: special instrumentation
  - ATC-MCS: interconnection of N line
    - 6KA
      - SC 2 (S. Geminian, A. Bonasia, supervision L. Oberli)
      - ME (G. Trachez, supervision R. Maccaferri)
      - ET (A. Bastos Marzal, 3 FSU supervsion F. Savary)
    - 600 A
      - IC with the help of P. Galbraith
- Presence of CERN staff have been key in developing the know how, supporting and guiding the FSU and external company operators coping with the high personnel turnover. In addition their dedication has allowed to recover critical situation from the quality and planning point of view
- 1<sup>st</sup> insertion September 2006 last 6 KA IC July 2007

7 people, 4 staff



Use of the competences, know how and dedication of the SC team to improve technique, quality, keep up with the planning for the 6KA interconnection

25 July 2007 LINE N – LHC LAST CONNECTION Q7 – DFB in L2 GEMINIAN Molan (C20) KOLAKOWSKI Frederic (RS sum)