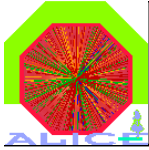




The ALICE
Injection Inhibit system

LEADE meeting, 28/04/08
A. Di Mauro

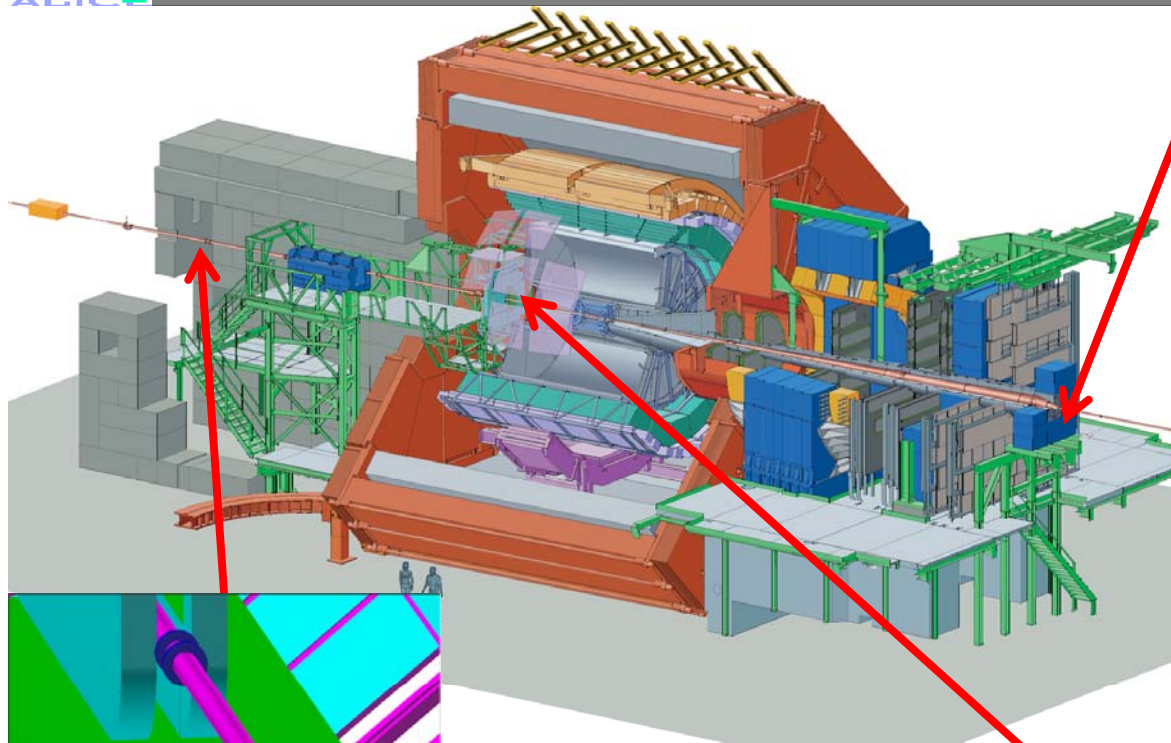


Basic concepts

- The ALICE Injection Inhibit system combines the global detector status and the signals coming from BCM and V0 (same devices used for background monitoring):
 - Prior to and during injection (and in all the subsequent phases until **Stable_Beams** is issued) all detectors have to be in a safe setting status with no signal production (i.e. reduced HV, V_{bias} , etc.) → **BEAM-TUNING**
 - The response of BCM and V0 is compared to thresholds above which injection will be inhibited
- The threshold definition is mainly based on simulation of beam failures during injection

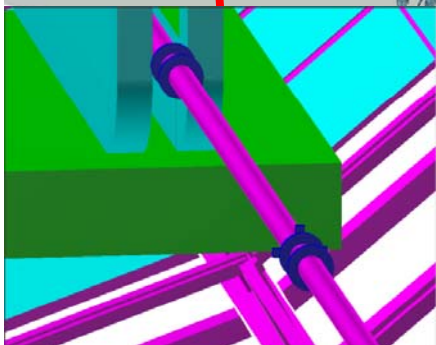
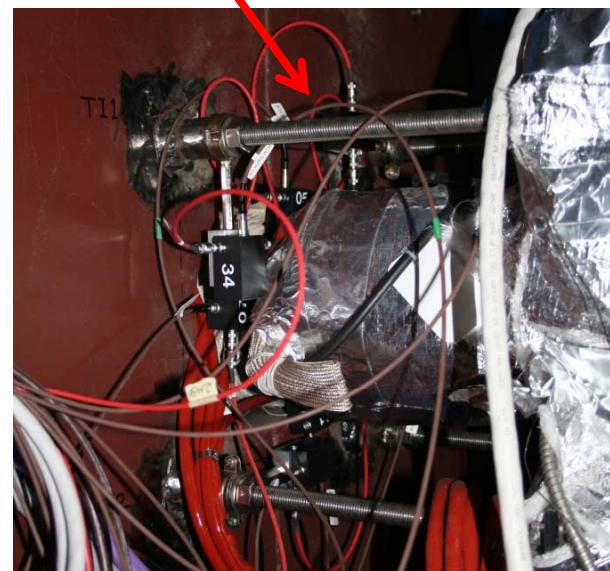


The BCM system



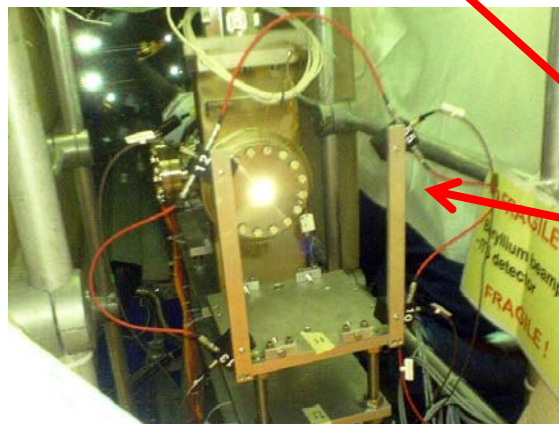
BCM C

$z = -19 \text{ m}$, $r = 6.8 \text{ cm}$
(modules on beam-pipe),
 $r = 10 \text{ cm}$ (outer modules)
8 sensors



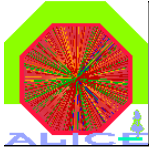
BCM A2

$z = +15.5 \text{ m}$, $r = 6.2 \text{ cm}$
4 sensors



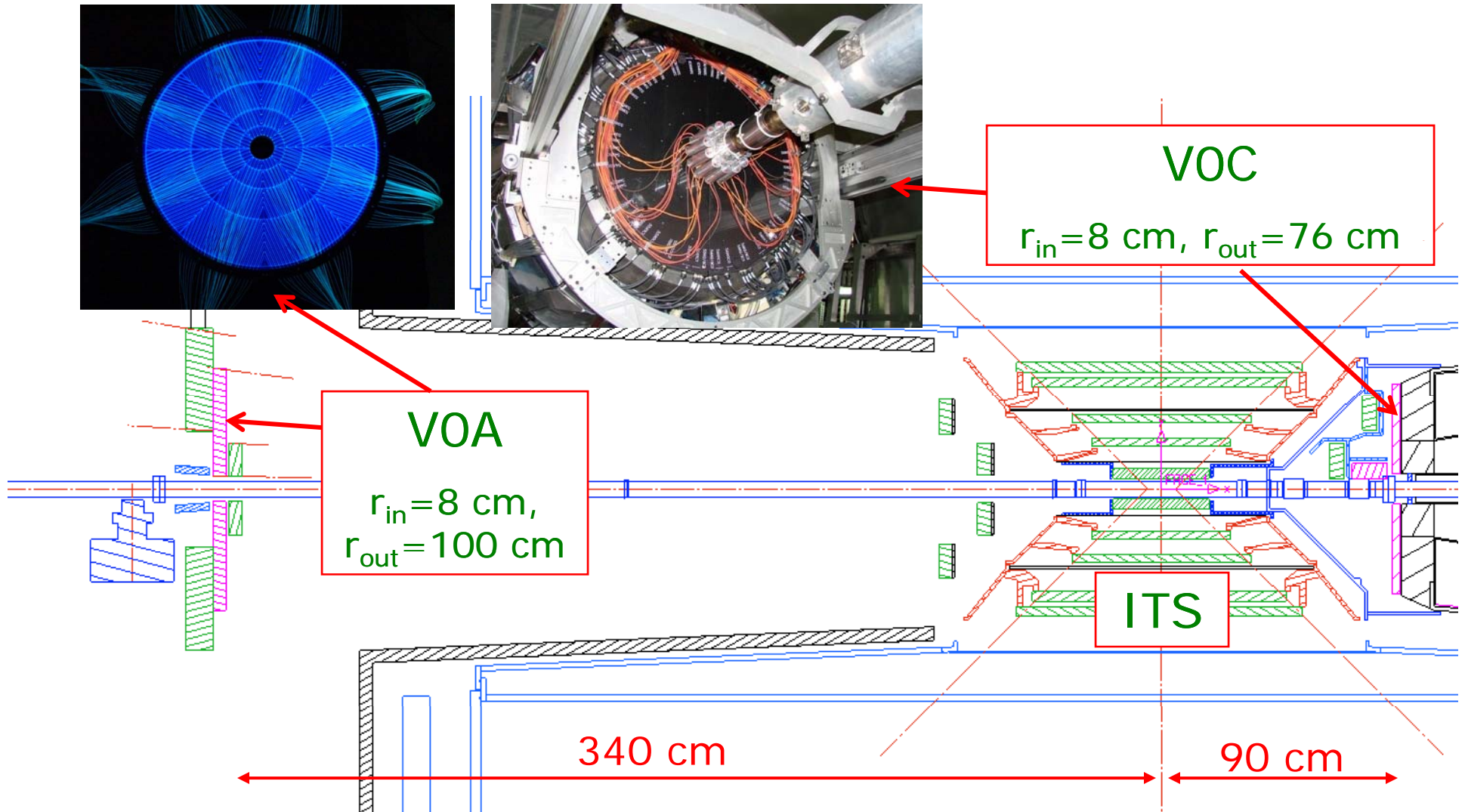
BCM A1

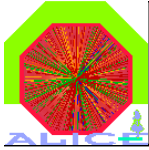
$z = +4.5 \text{ m}$, $r = 14.5 \text{ cm}$
4 sensors



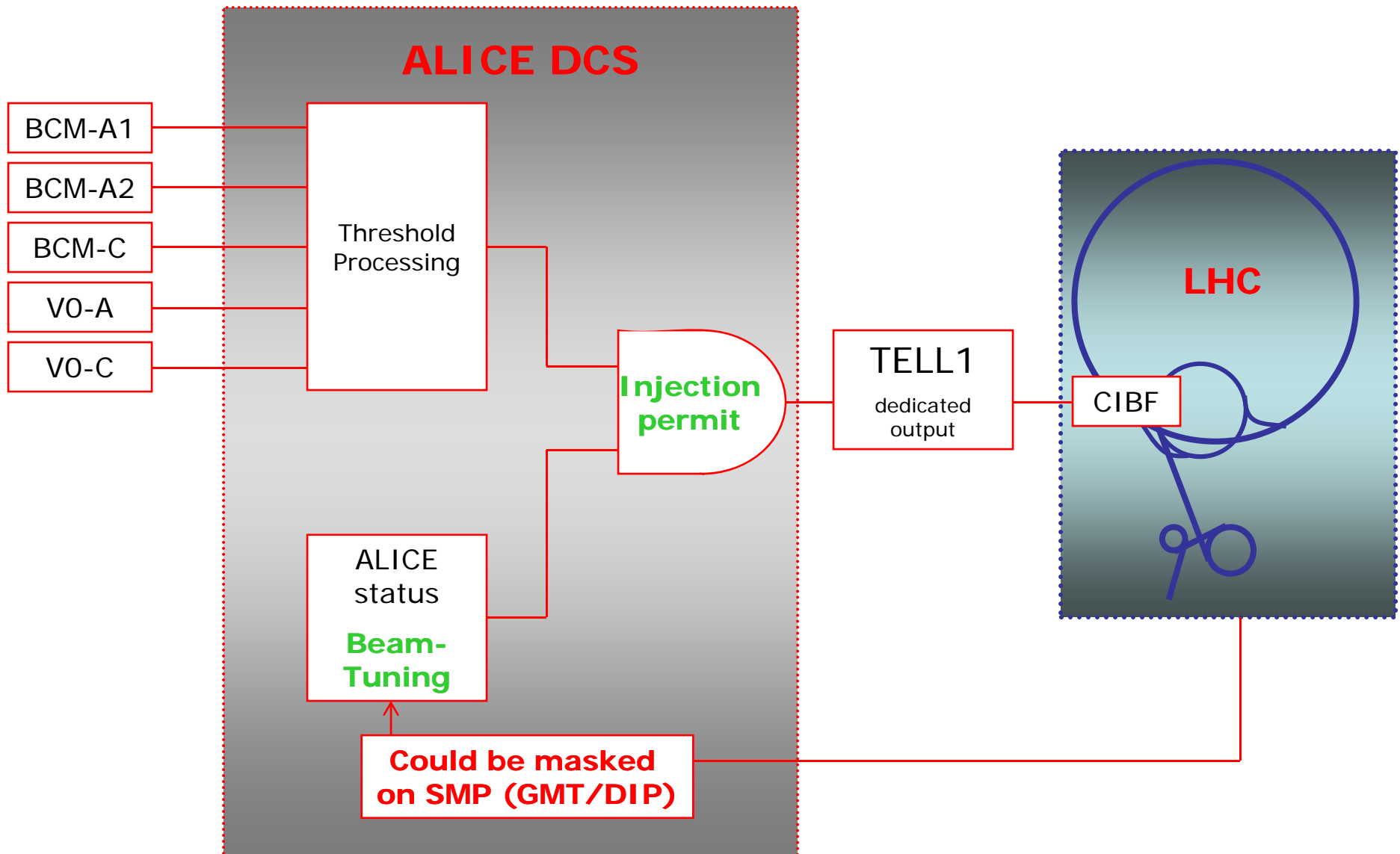
The V0 detector

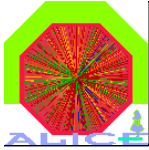
V0 consists of two circular arrays of scintillators with asymmetric layout wrt IP, provides luminosity measurement and beam-gas rejection





The principle scheme





System status and plans

- BCM-A1 and BCM-C installed, BCM-A2 will be mounted after beam pipe installation and bake-out (w20?), all system commissioned by w22
- V0 detector installed and partially commissioned, needs final tuning with first beam, although available from the beginning
- Implementation in DCS in progress, first release in w20
- Definition of thresholds and signal processing under way
- Injection inhibit system ready in w24 (± 1 ?)