## PSB Operation: Status

## Operation:

- All operational beams available and within the requested specifications.
- Availability of $\mathbf{9 4 . 7 \%}$ in the last $\mathbf{2}$ weeks of operation (was $98.5 \%$ two weeks ago).
- Main downtime due to RF (Ventilation, TFB), Linac2 (RF Tank1/2) and PS access.

Availability
94.7\%

Total Fault count
27

Blocking Faults by Root Cause
Root Cause Fault Time Distribution


## PSB Operation: Intervention during Scheduled Stop

## BT1.SMV10:

- TE-EPC intervention to fix the systematic drift in AQN current wrt the CCV value.
- Issue affected the PSB-PS steering, resulting in losses or emittance growth.
- Intervention successful: Since last Tuesday no drift observed.



## PSB Operation: Intervention during Scheduled Stop

## Installation of additional BLMs in BHZ502:

- Previous survey from RP showed that the losses were mostly coming from Ring2.
- The losses were mostly at the entrance of BHZ502.
- Yu included the new BLMs in the PSB BLM application and preliminary observed the losses starting at injection and lasting $\sim 50 \mathrm{~ms}$.
- The losses disappear when disabling the vertical correctors in Ring2.


Beam direction

## PSB Operation: Status

## LHC Special Run:

- As part of the physics programme for the 900 GeV high beta star run the LHC experiments plans to have a VdM scan at LHC injection energy (end Nov./beg. Dec.)
- Intensity at LHC injection 1.3 e 11 protons per bunch.
- Transverse emittance at LHC injection ~2.0 $\boldsymbol{\mu m}$.
- Bunch spacing of 525 ns.
- LHCINDIV VdM 4r 2017:
- At PSB extraction we currently have 1.3e11 ppb and $\varepsilon_{h} / \varepsilon_{v} \sim 1.5 / 2.0 \mu \mathrm{~m}$.
- Reworked yesterday by Tibor after SPS feedback.
- New beam request for LHC Roman Pots ~last week of the run.
- LHCINDIV-type of 8-10E10 p on ring 3, transverse emittances as low as possible ( $<1 \mu \mathrm{~m}$ ).
- MD_LHCINDIV_LowInt_lowEmit:
- Reduced \# of turns from 1.8 to 1.
- Emittances in both planes around $0.45 \mu \mathrm{~m}$ and stability not degraded.

