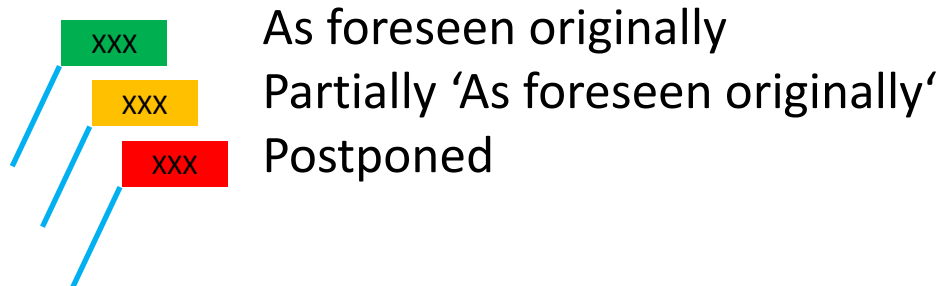


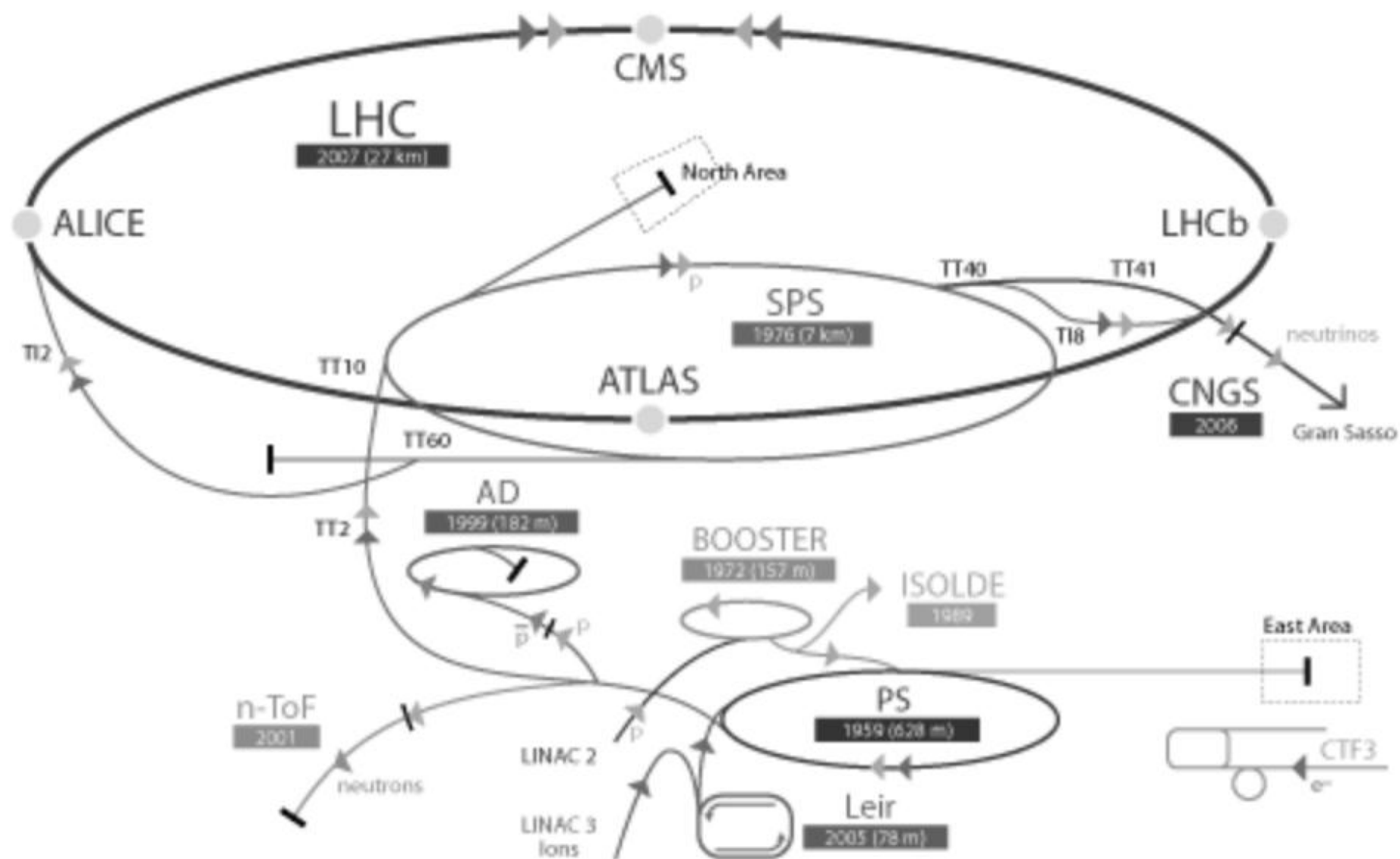
# BI Outlook for 2013-15

BI Day 2012

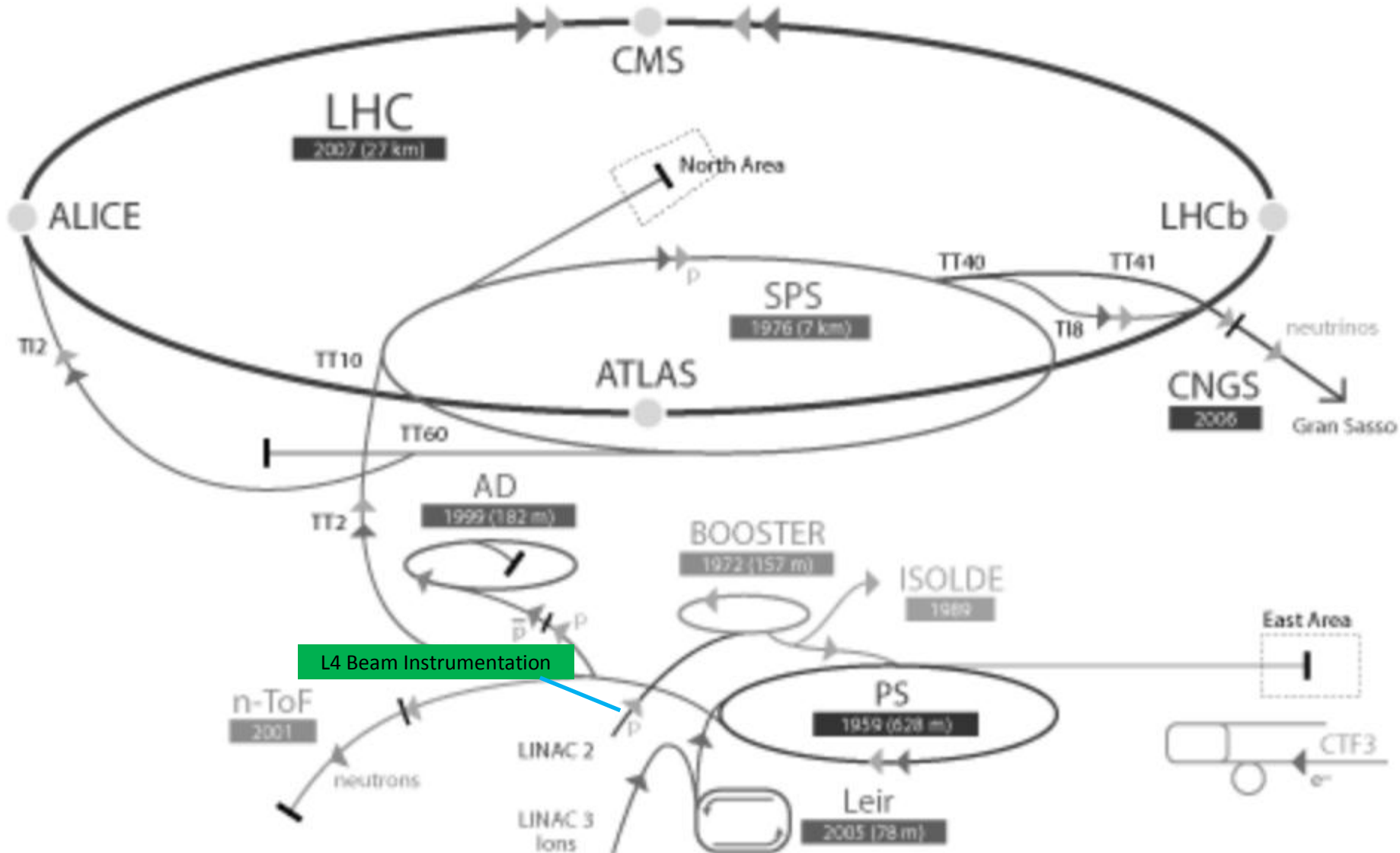
Based on latest (last Monday)  
feedback from EN/EL



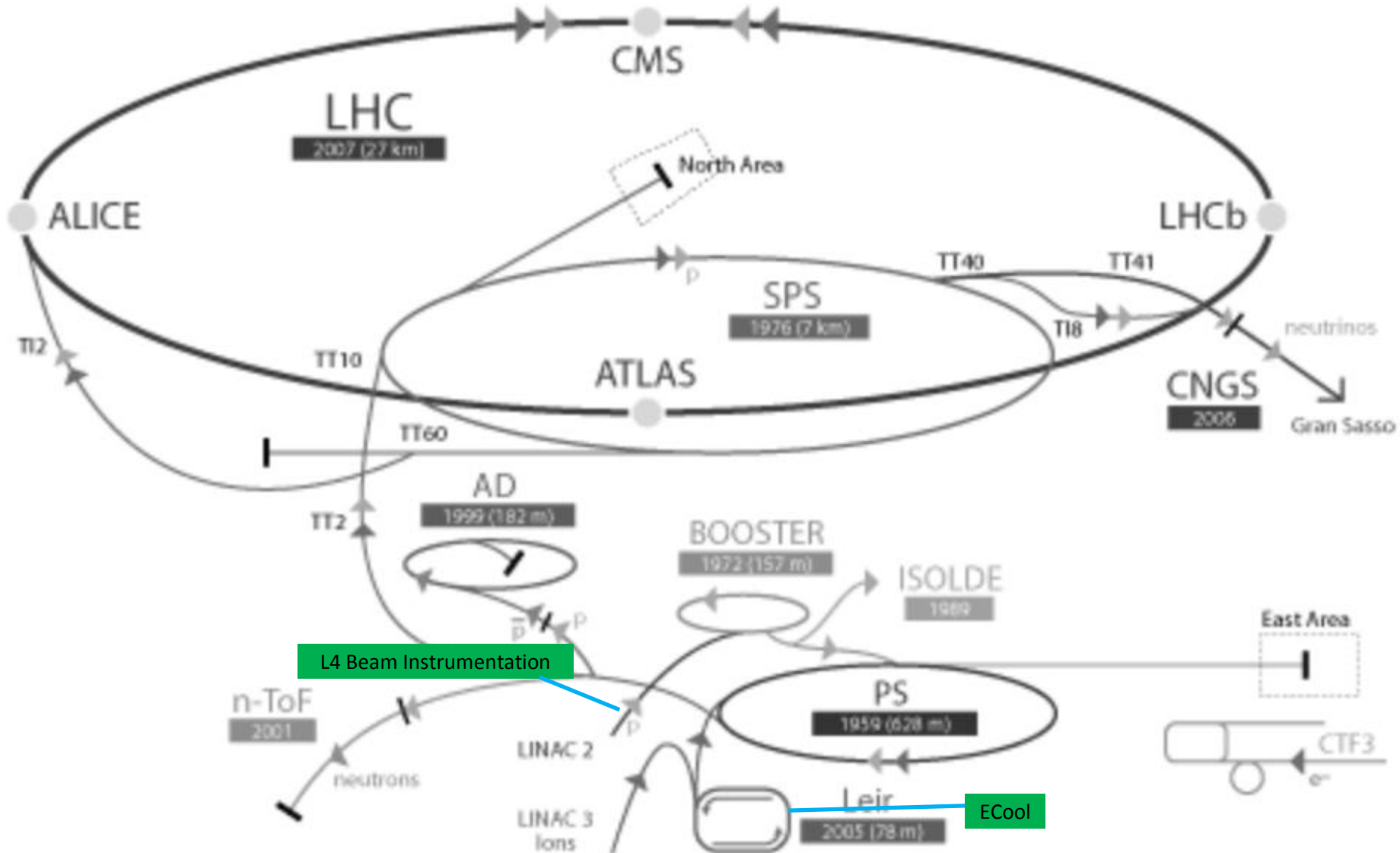
# CERN Accelerator Complex



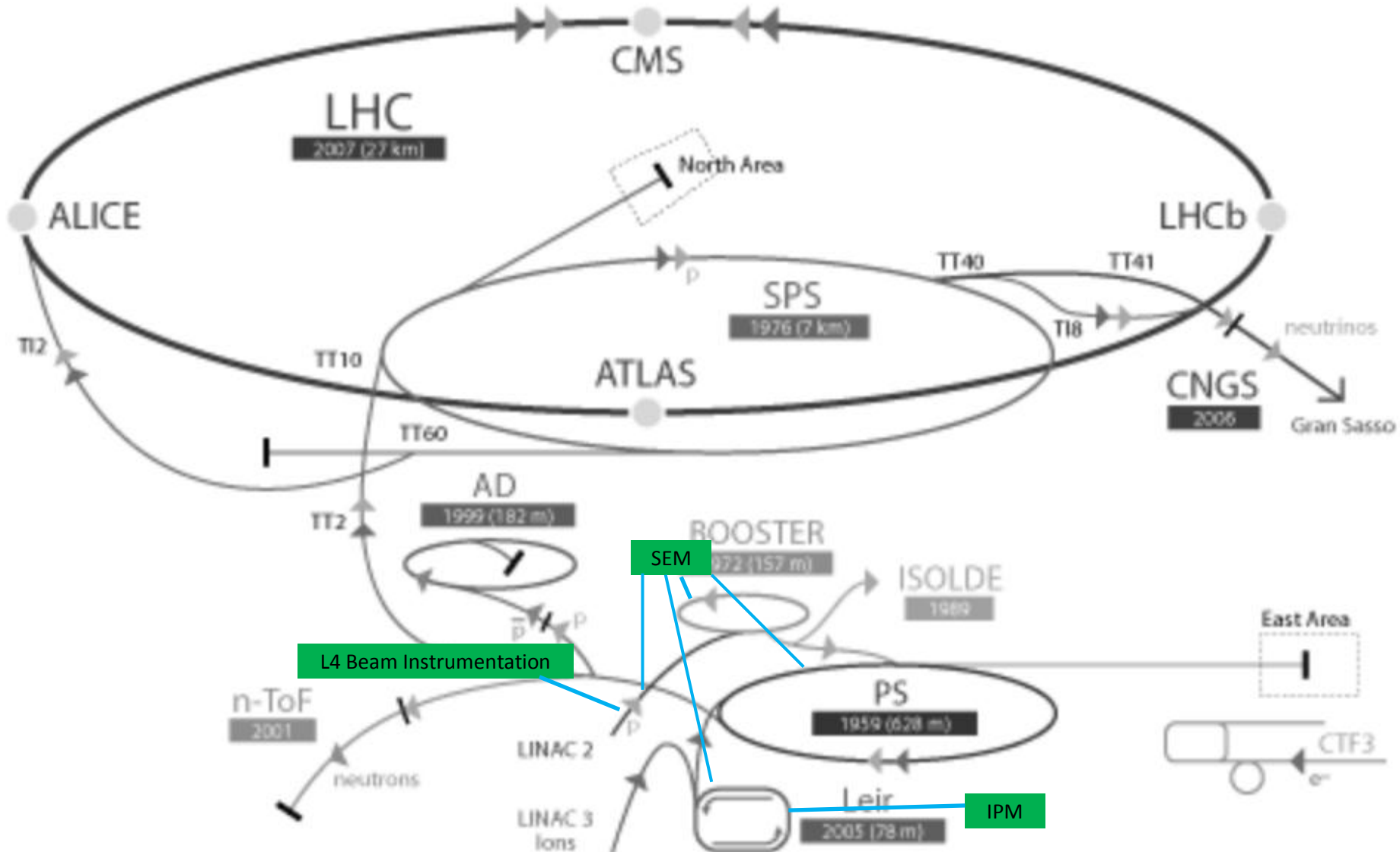
**LINAC4:** We will install and commission L4 beam instrumentation (BPM, BLM, BCT, Grids, scanners...) during LS1 following project progress



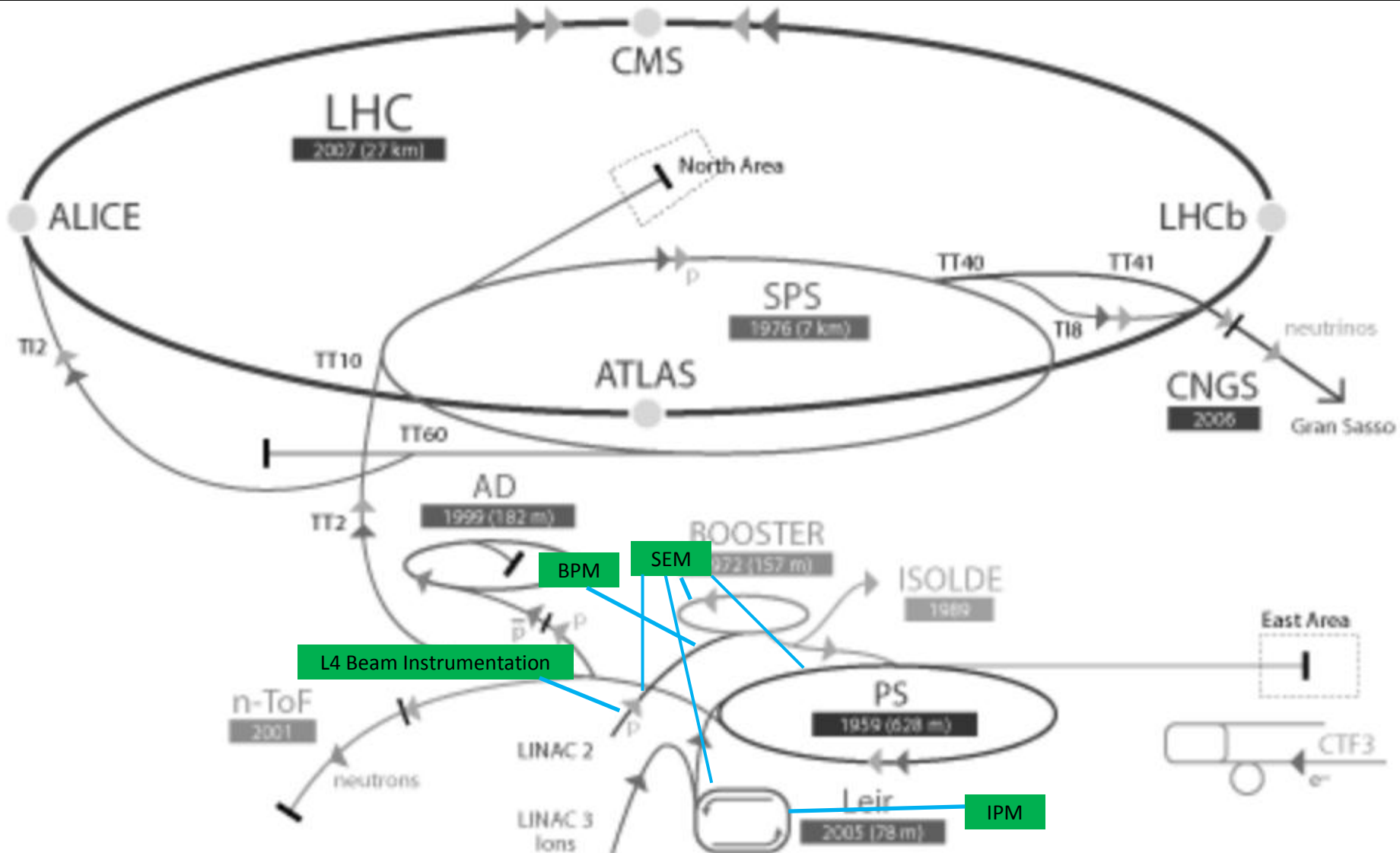
# LEIR [Consolidation]: LEIR ECool collector exchange + replacement of the cathod.



# L2/3/PSB/PS [Renov]: SEM electronics will be renovated all over CPS complex.

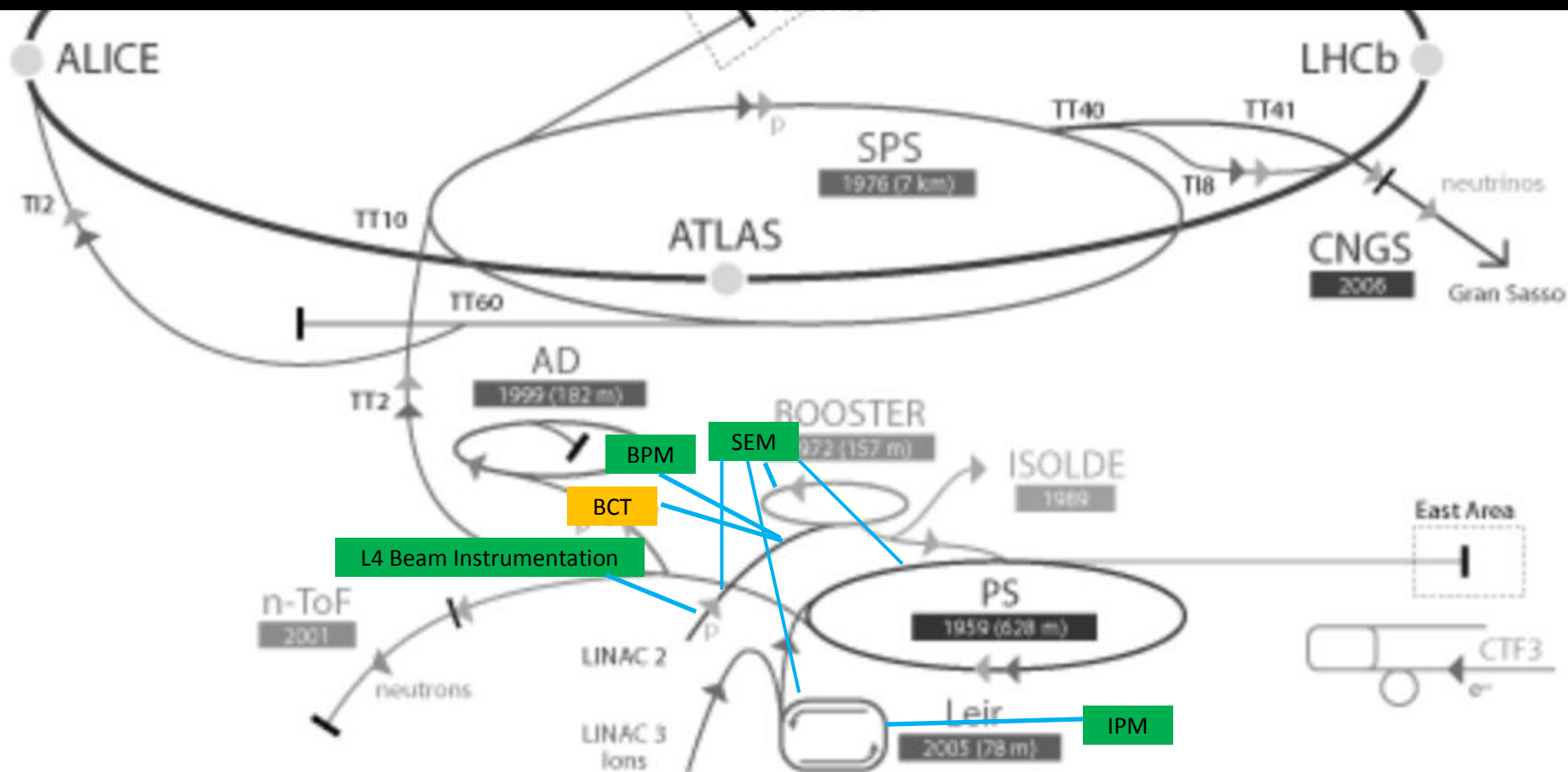


# L2/4 [LINAC4]: New PUs for LT, LTB and BI lines to PSB, including new electronics and SW.

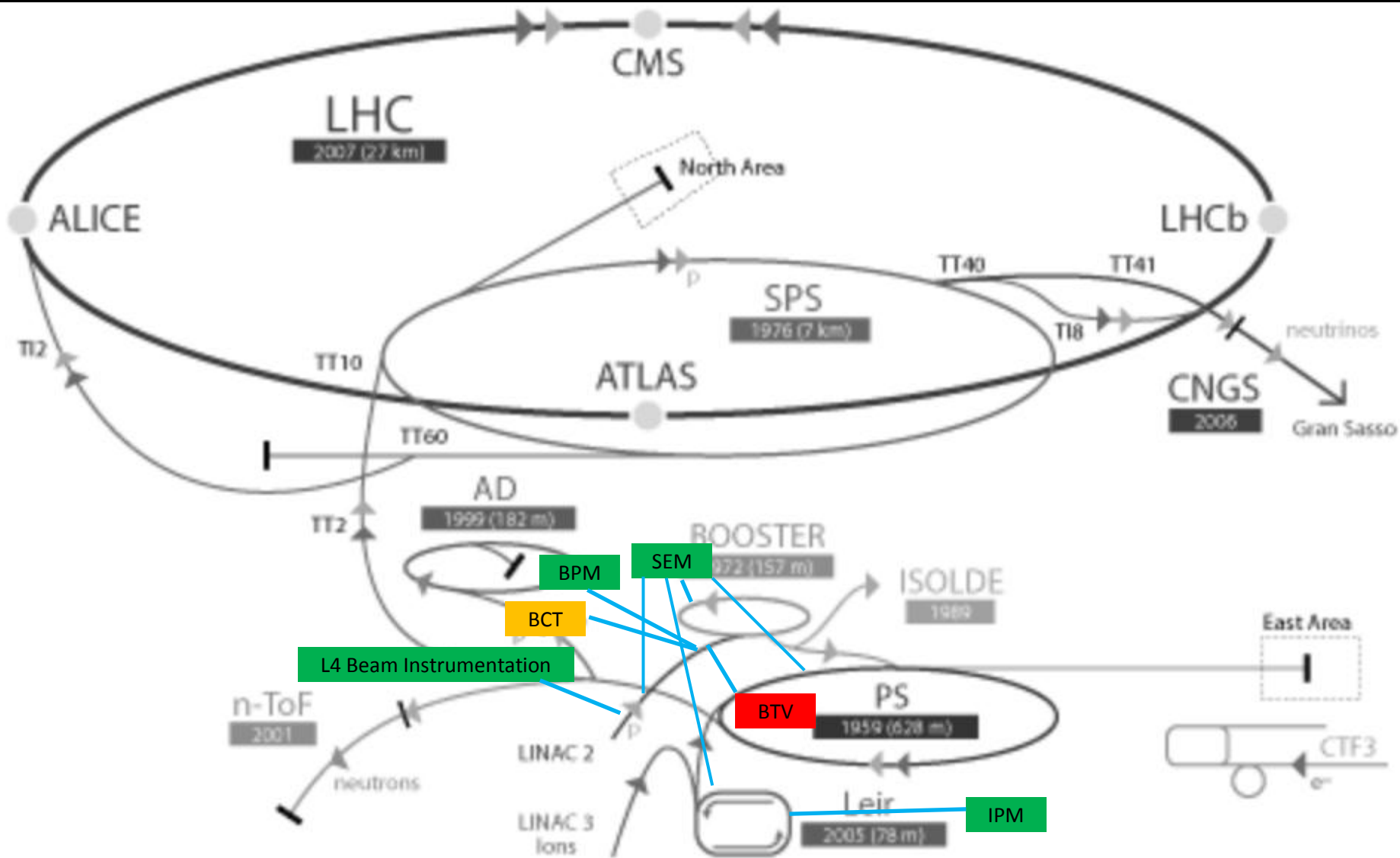


L2/4 [Consolidation]: New cables for BCT around inflector zone will be installed (the BCT on L4 side of the wall will not be cabled during LS1.).

PSB [LIU]: New cable for PSB slow BCT for injection watchdog will not be pulled during LS1.

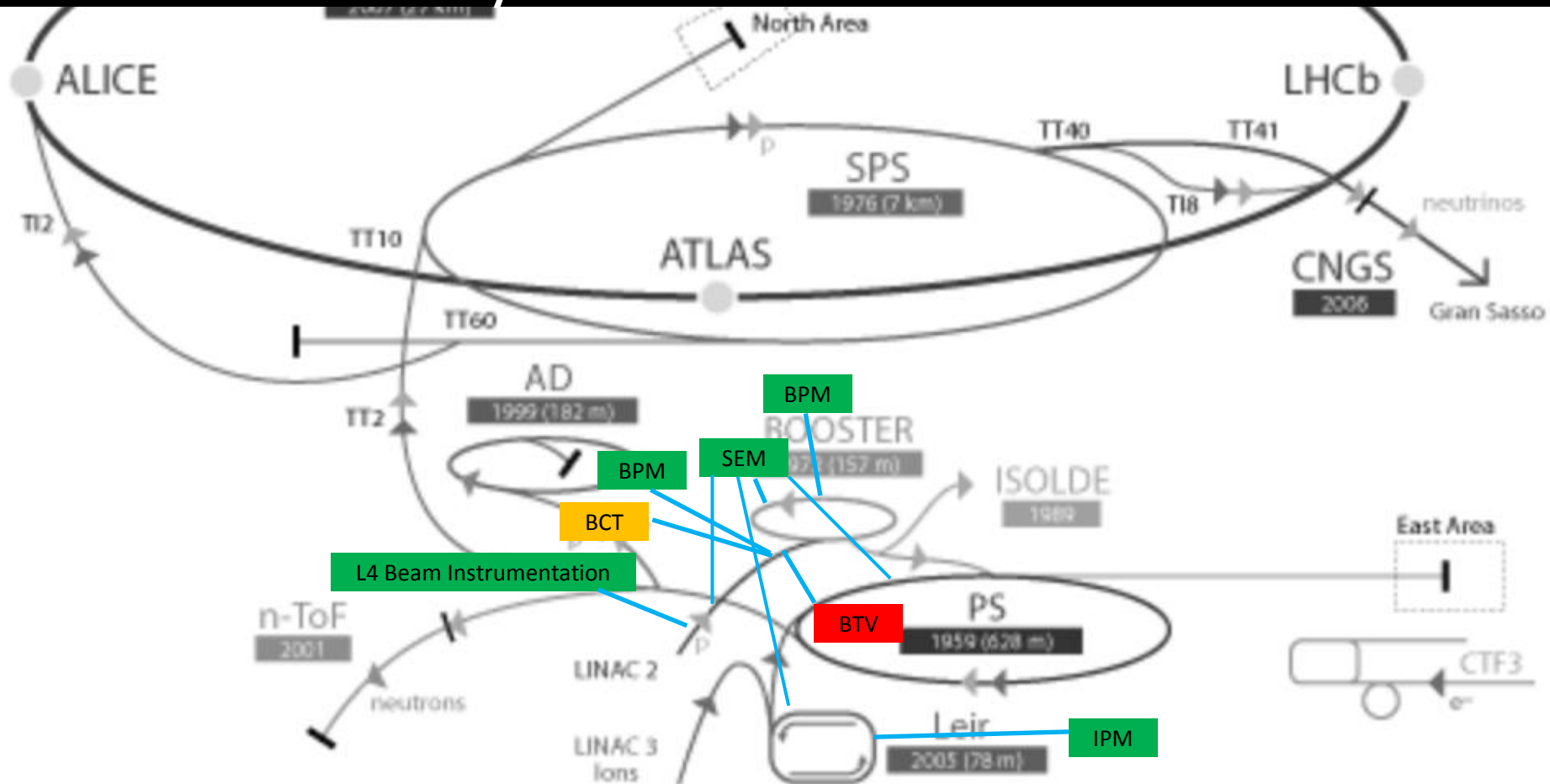


# PSB Inj [LIU]: The cables for the observation monitor on H0/H- injection foil will not be pulled during LS1.

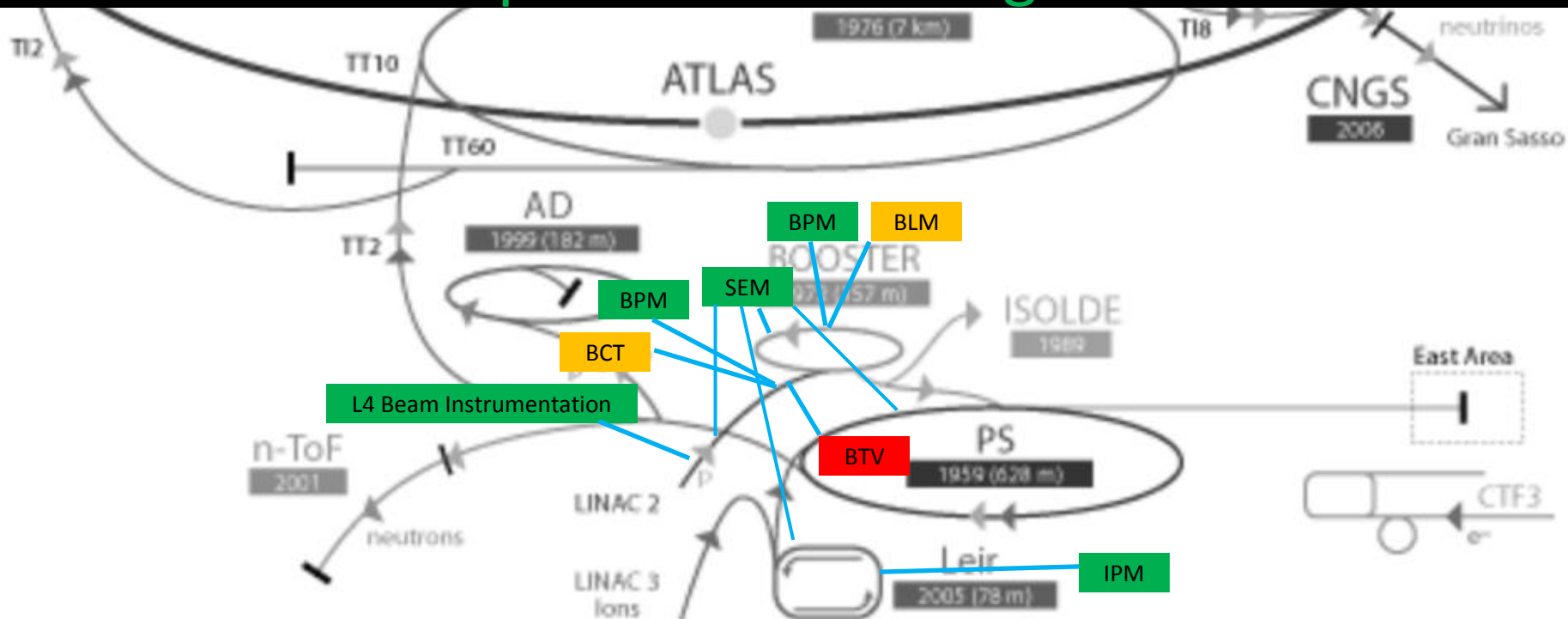




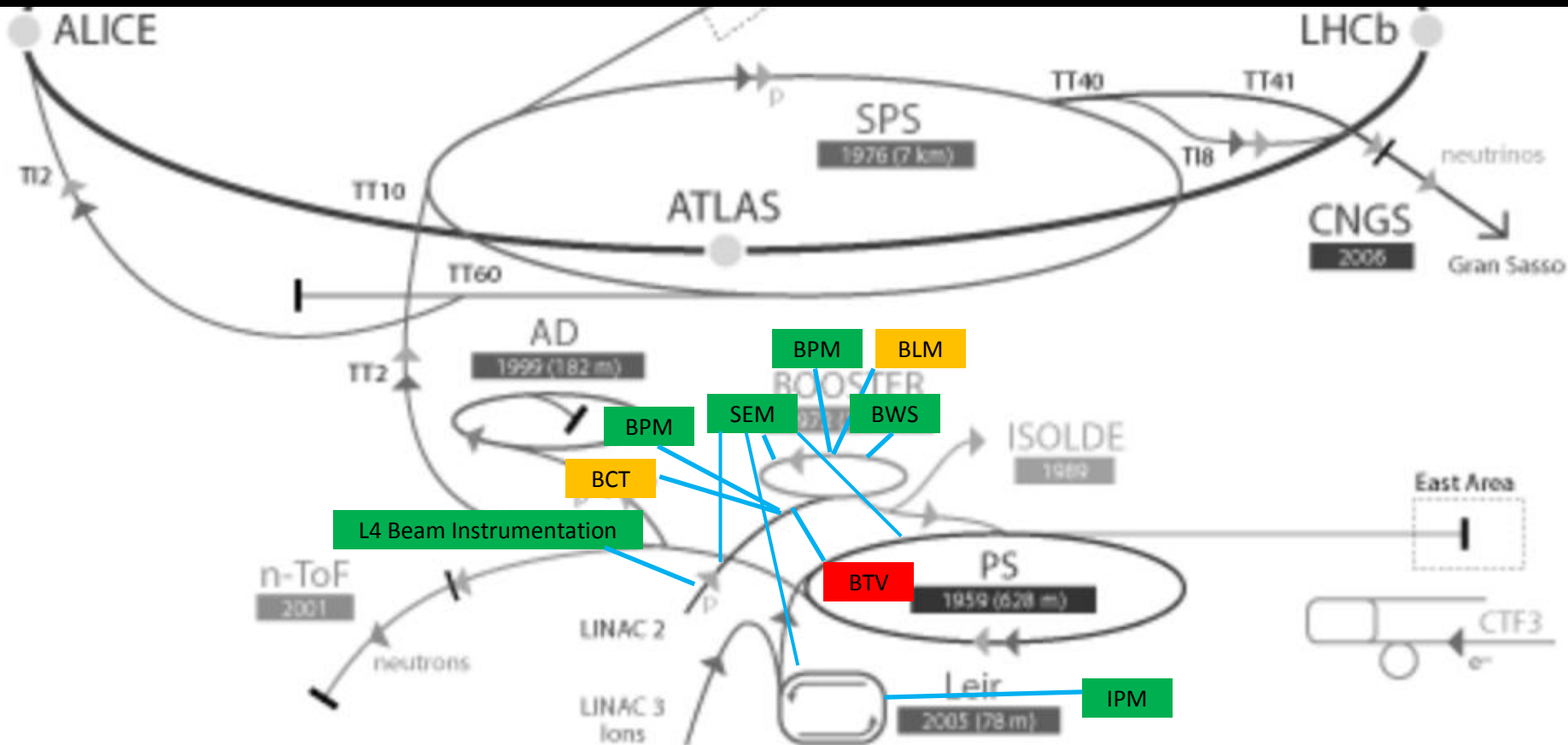
PSB [LIU]: New cables for the new PSB orbit and trajectory system will not be pulled BUT this system will be installed and commissioned via existing OASIS channels with slightly reduced performance (S/N). Old system remains as is.



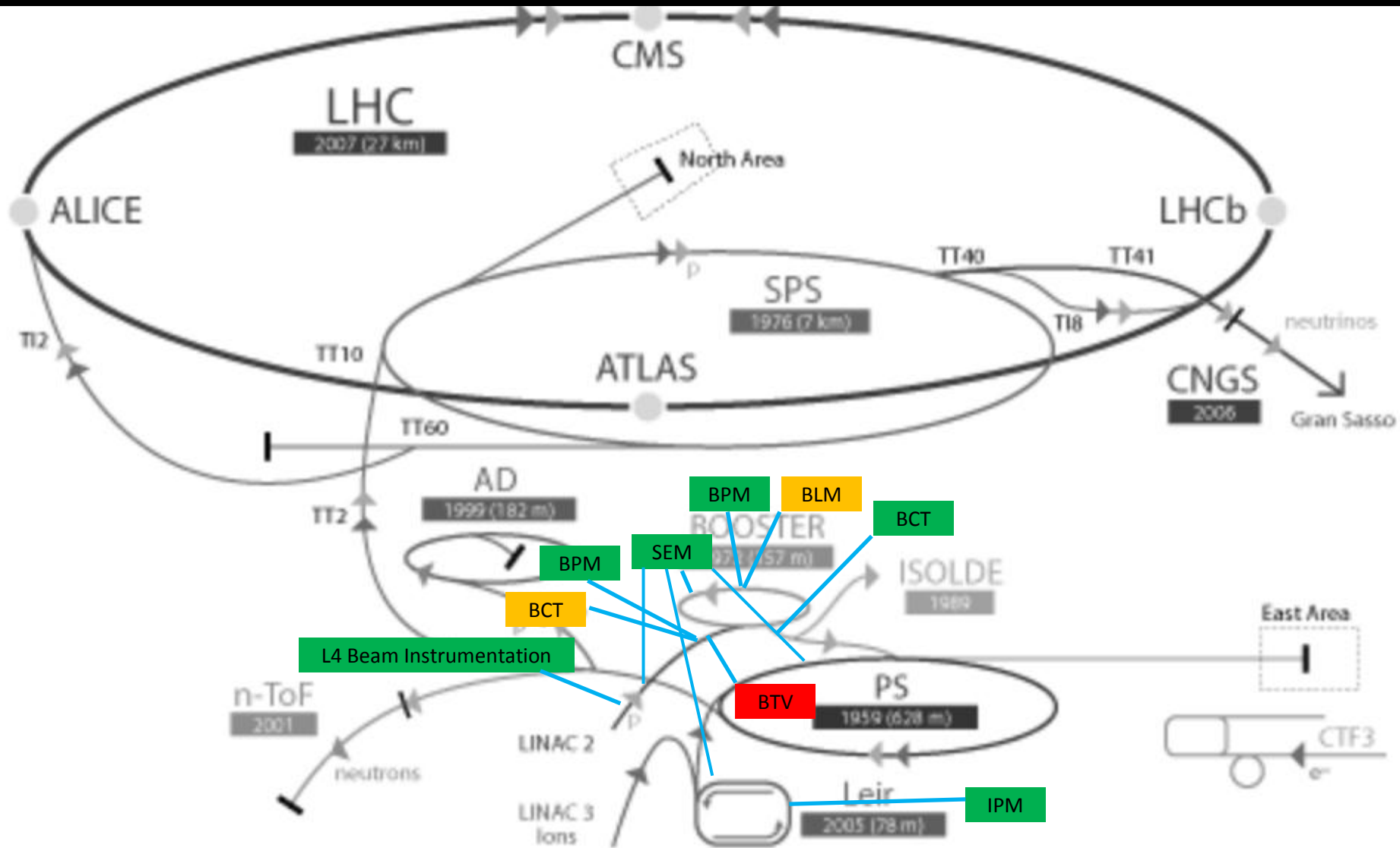
PSB [LIU]: New cables for the new PSB BLM system will be pulled in // to the old ones for the existing monitors in the ring only **NOT** for the extra 32 ring BLMs, **NOT** for the existing monitors in the transfer line, **NOT** for the new fast BLM requested. Old system will remain as is. New system will be commissioned in parallel in the ring



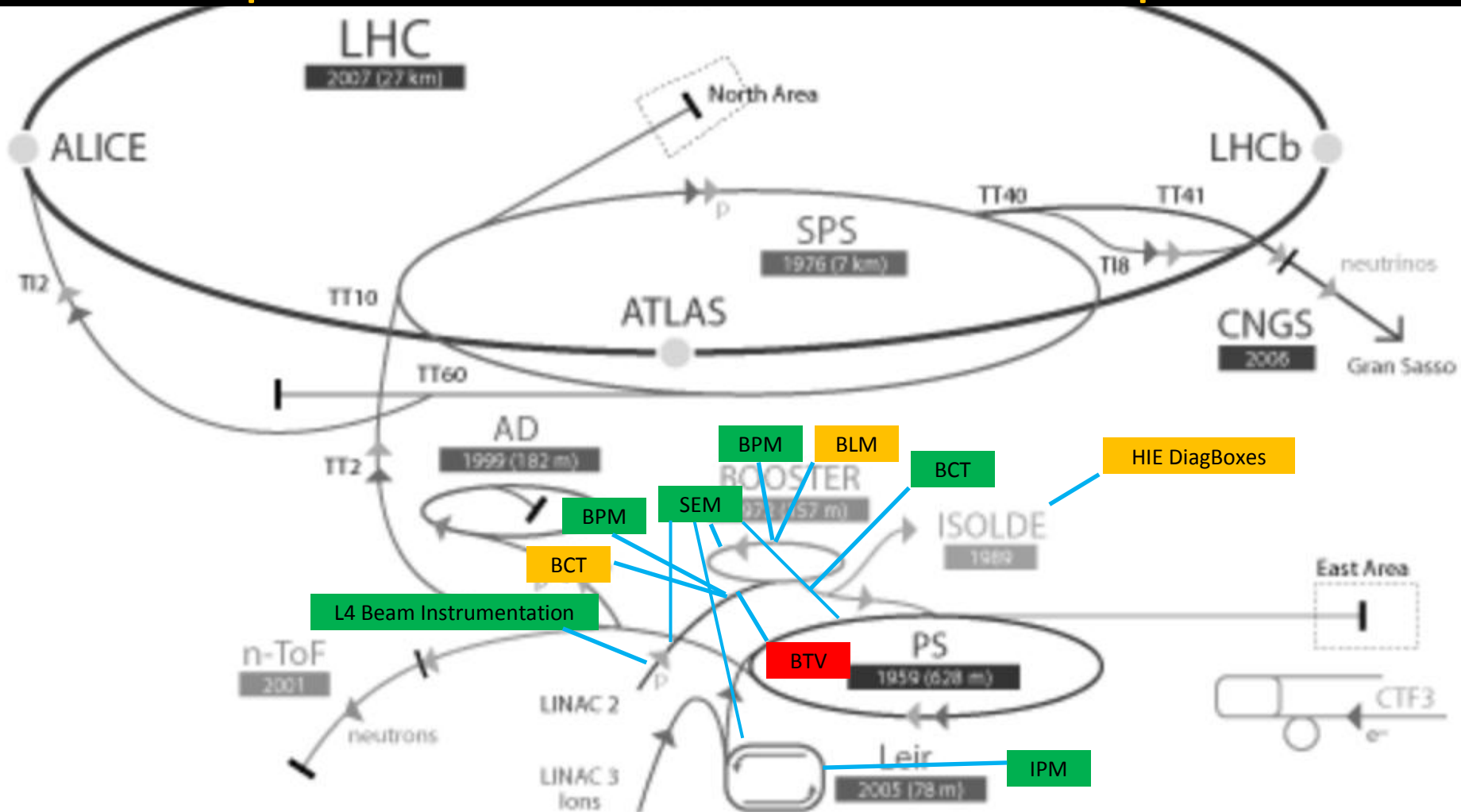
PSB : General maintenance on BWS. We hope to be able reach 20 m/s in the PSB with present set-up. We also plan to improve our PM dynamic range during LS1



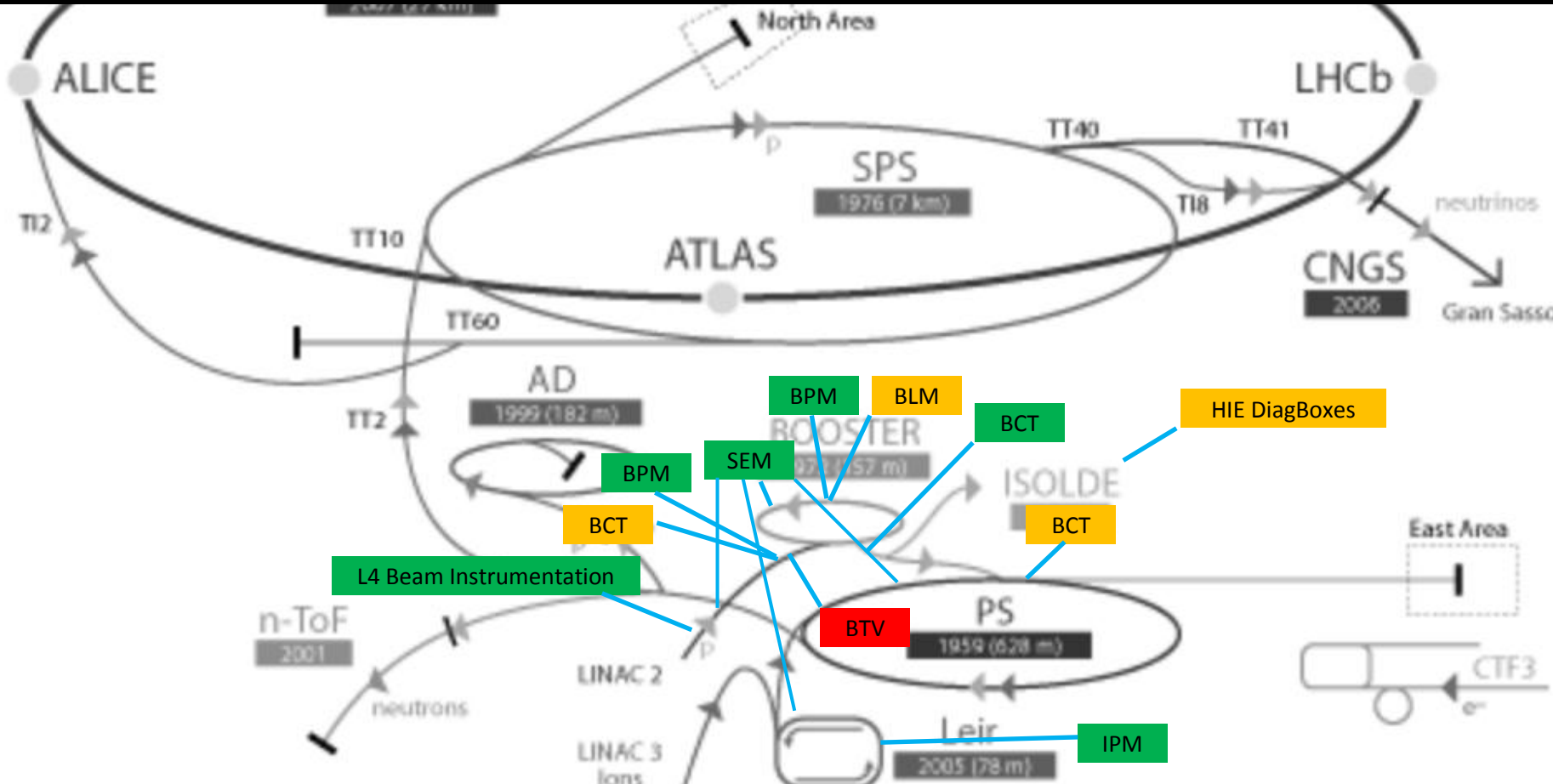
# PSB [Consolidation]: New cables and monitors for PSB extraction fast BCTs will be installed



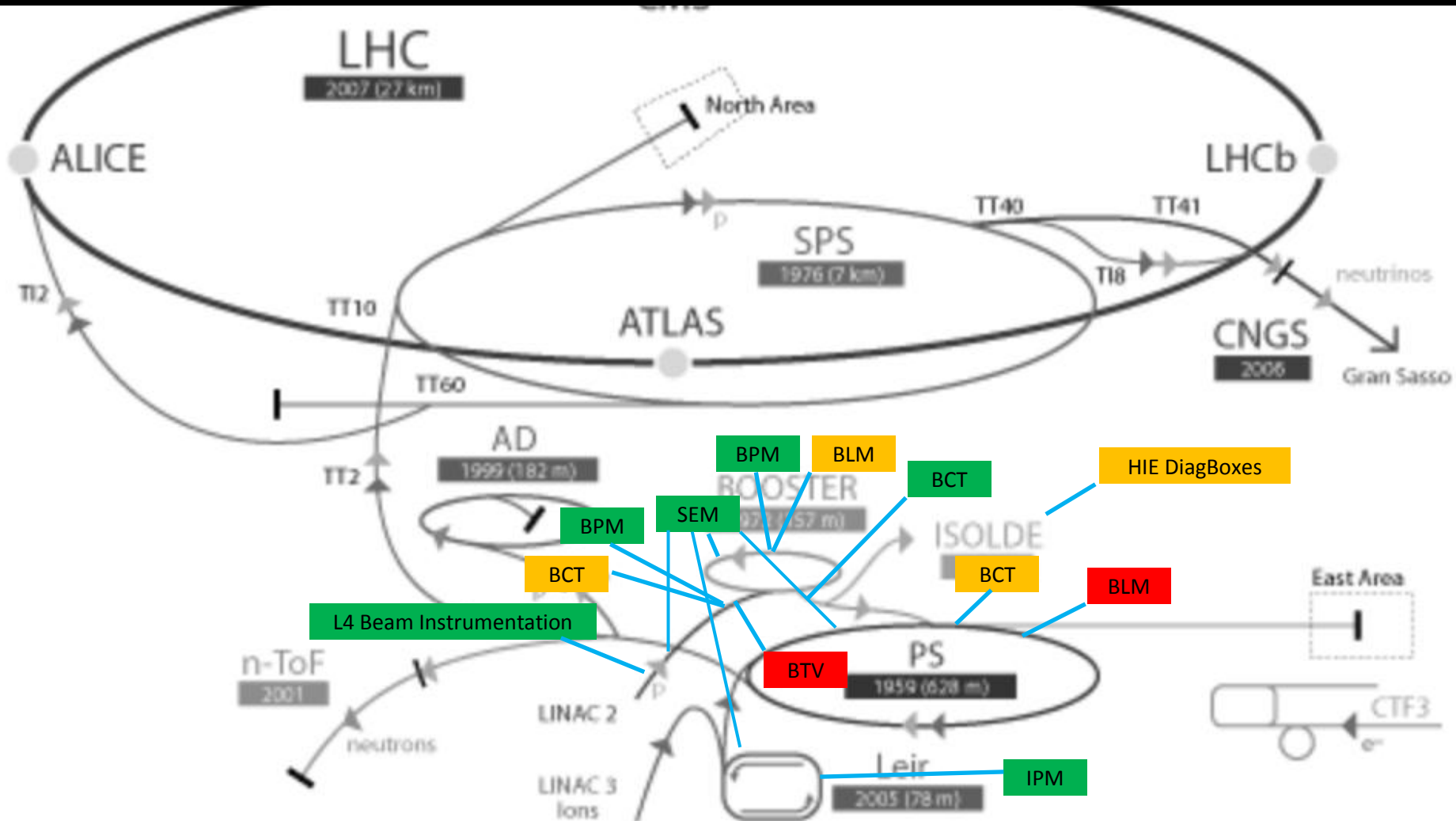
**HIE-ISOLDE:** We will produce and deploy the new HIE ISOLDE diagboxes following project planning. **Some issues remain to be tackled: i.e. Short FC limitations, manpower for the electronics development**



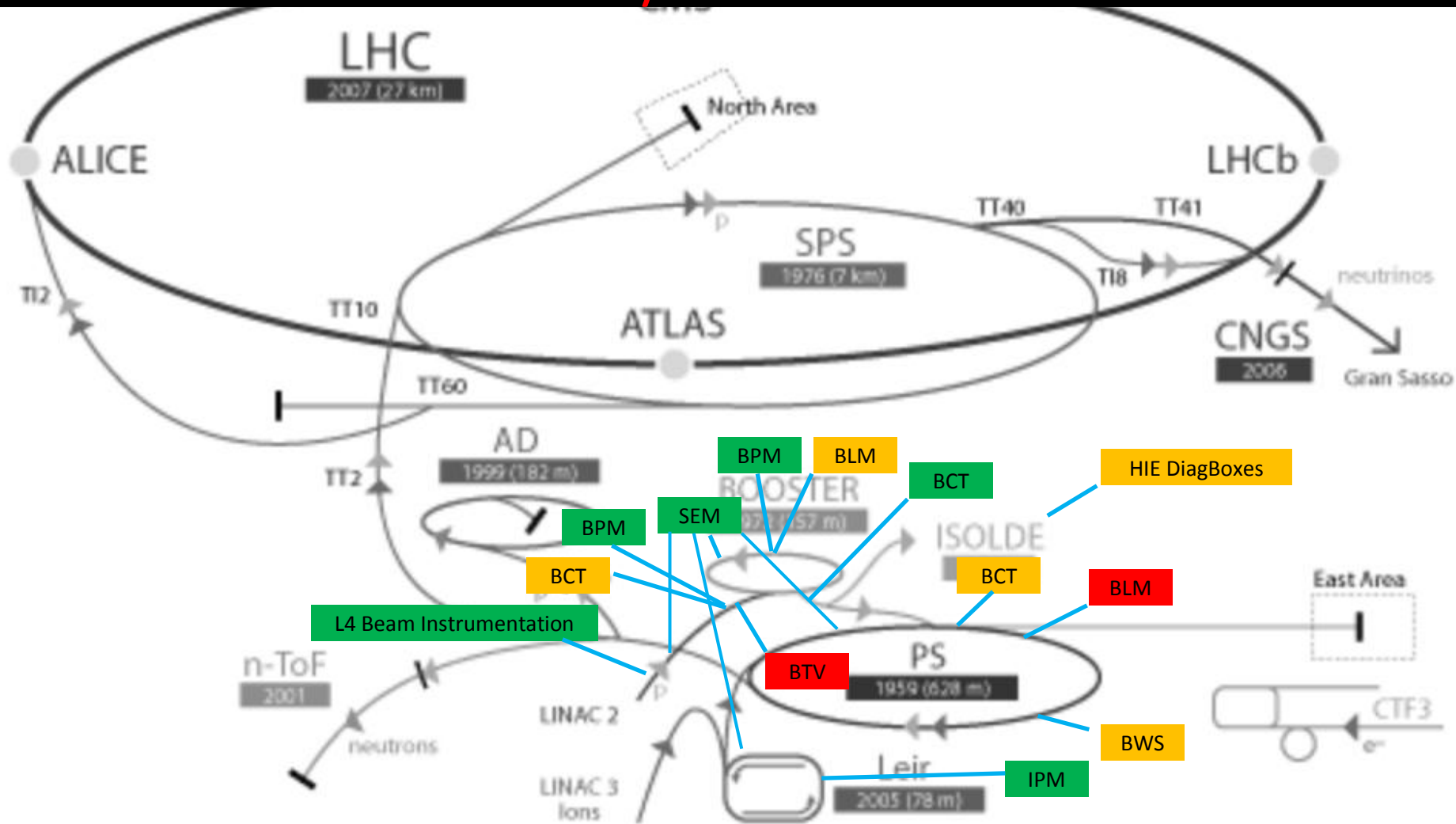
PS[Conso]: \* New cables and monitor for the PS ring fast BCT will be installed \* 1000 turn BCT will be made operational \* BUT cables for TT2 BCTs may not be pulled. A cable tray (~100 m) is missing and would have to be financed.



PS[LIU]: New cables for the PS BLM renovation (ring, TL and fast) will not be pulled during LS1.

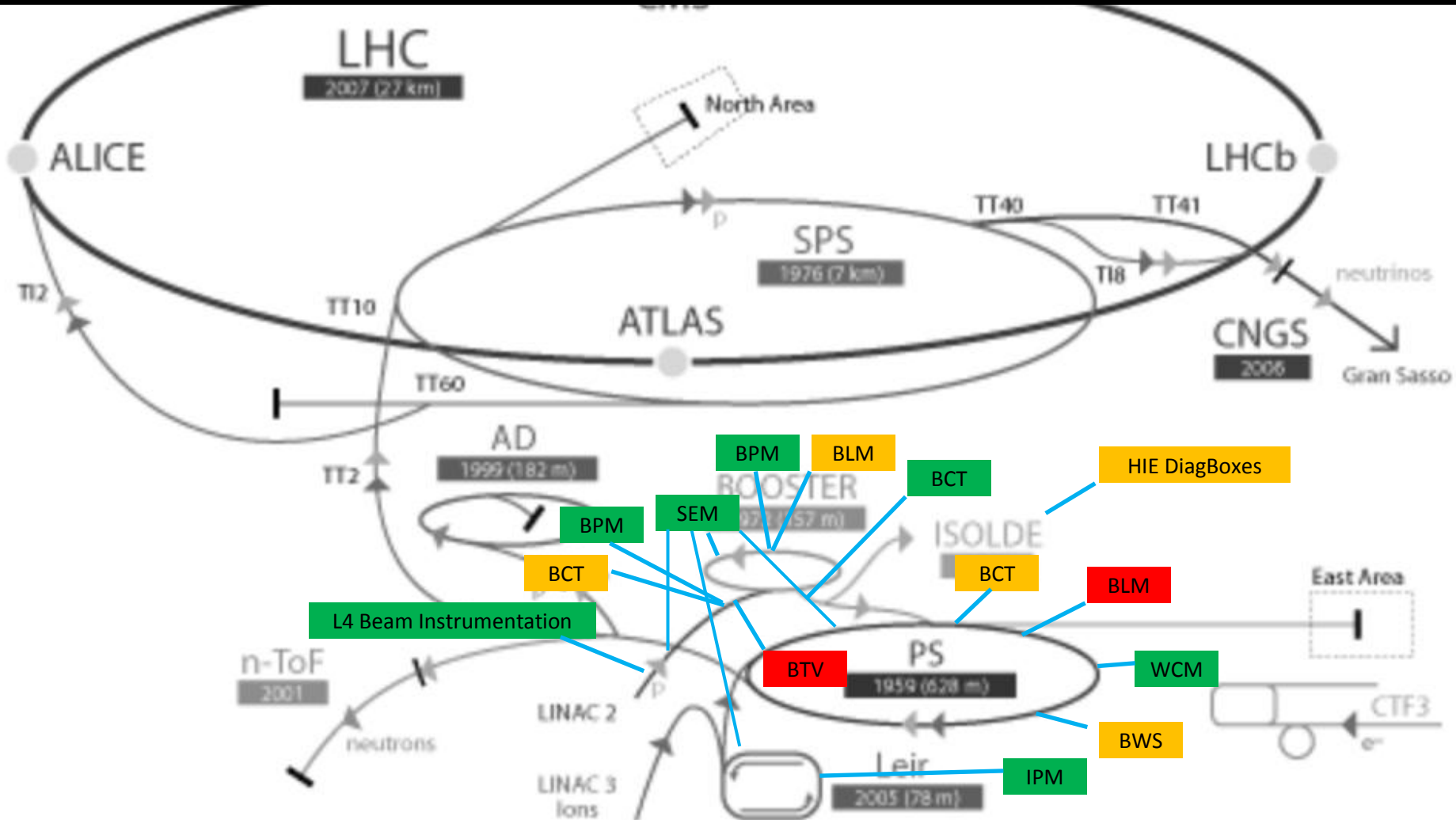


PS[LIU]: New cables for the PS BWS bunch by bunch measurement tests on SD68 will be pulled. We also plan to improve our PM dynamic range during LS1 **but we cannot reach 20 m/s in the PS with current PS.**

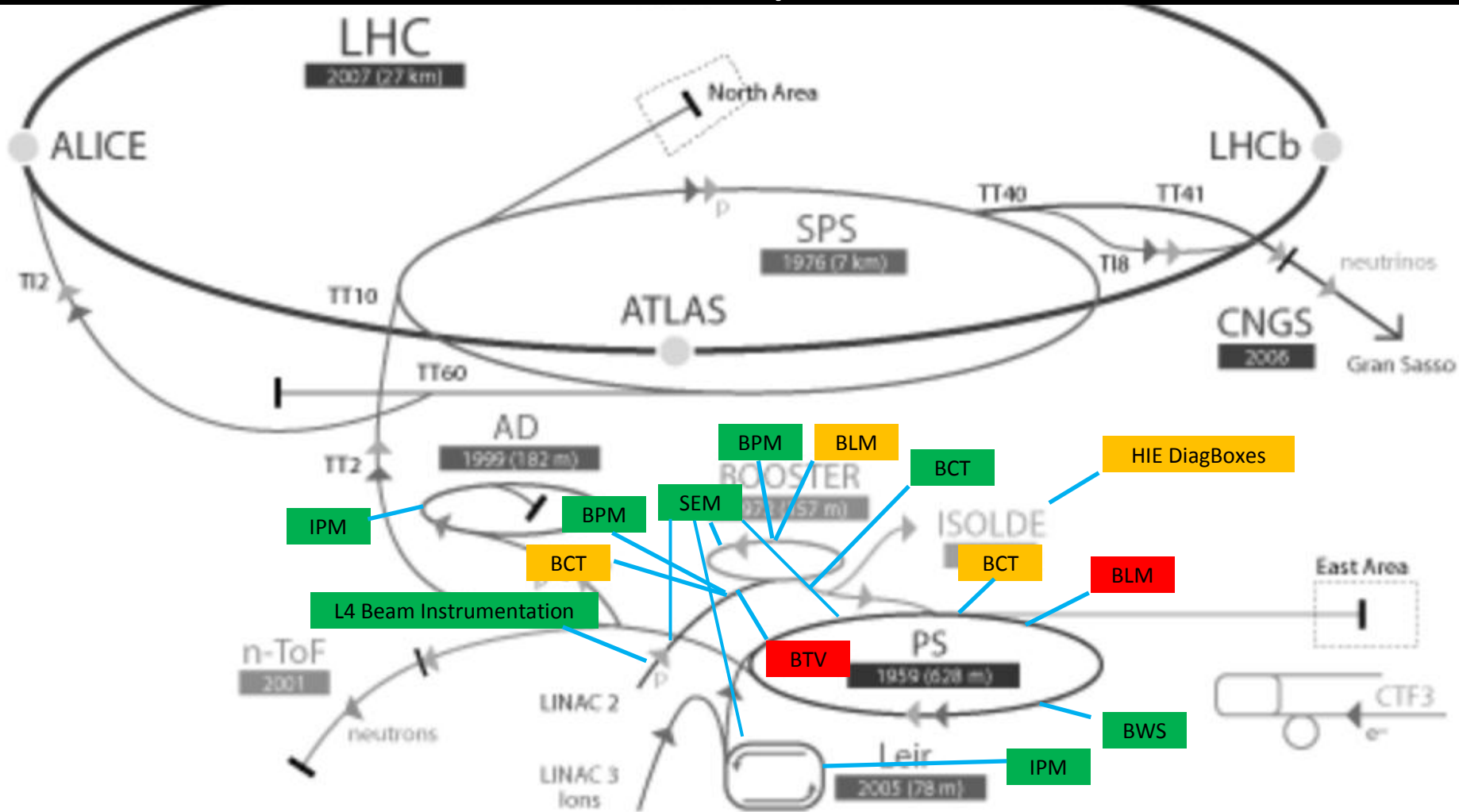




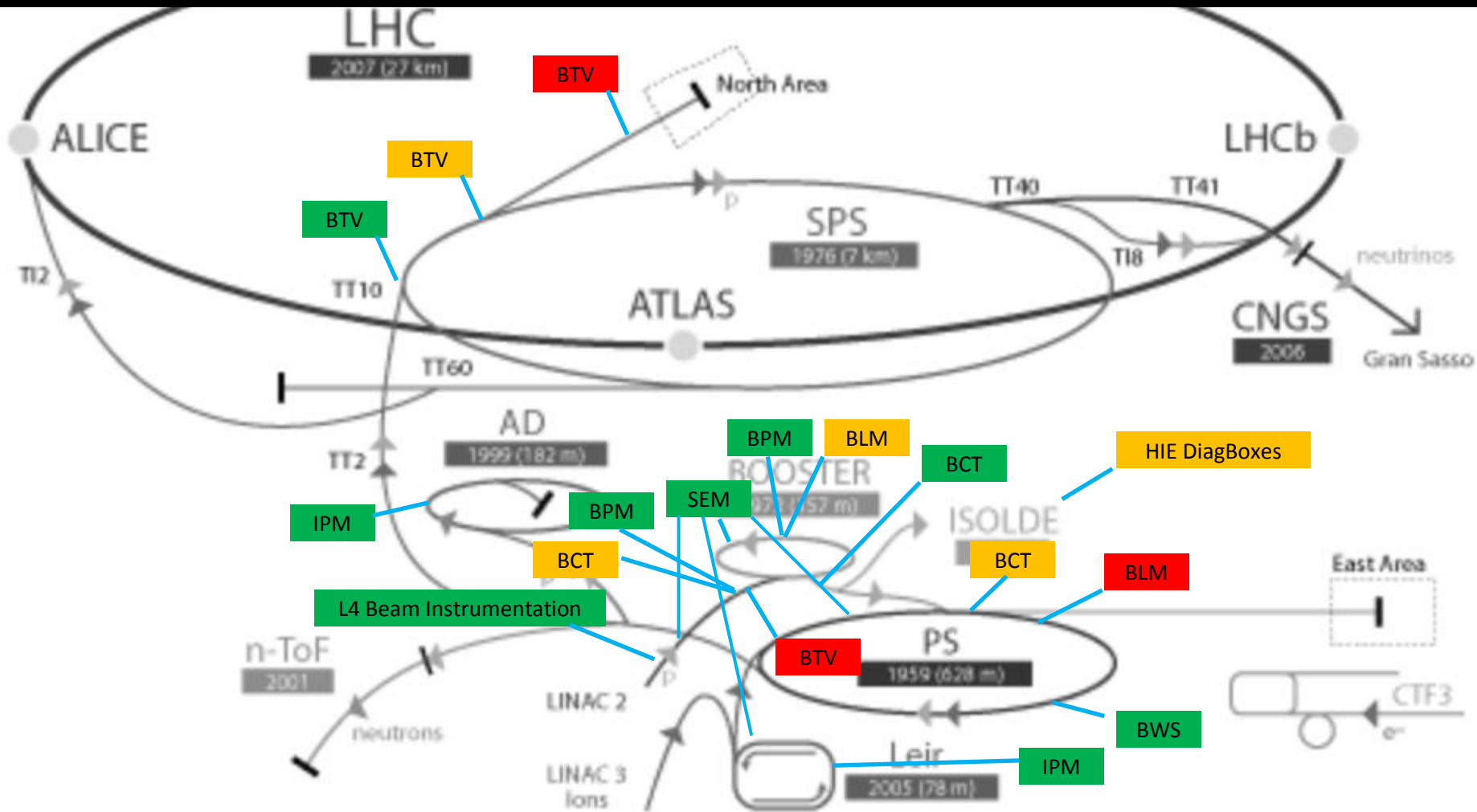
# PS[LIU]: 2 new WCM monitors will be installed.



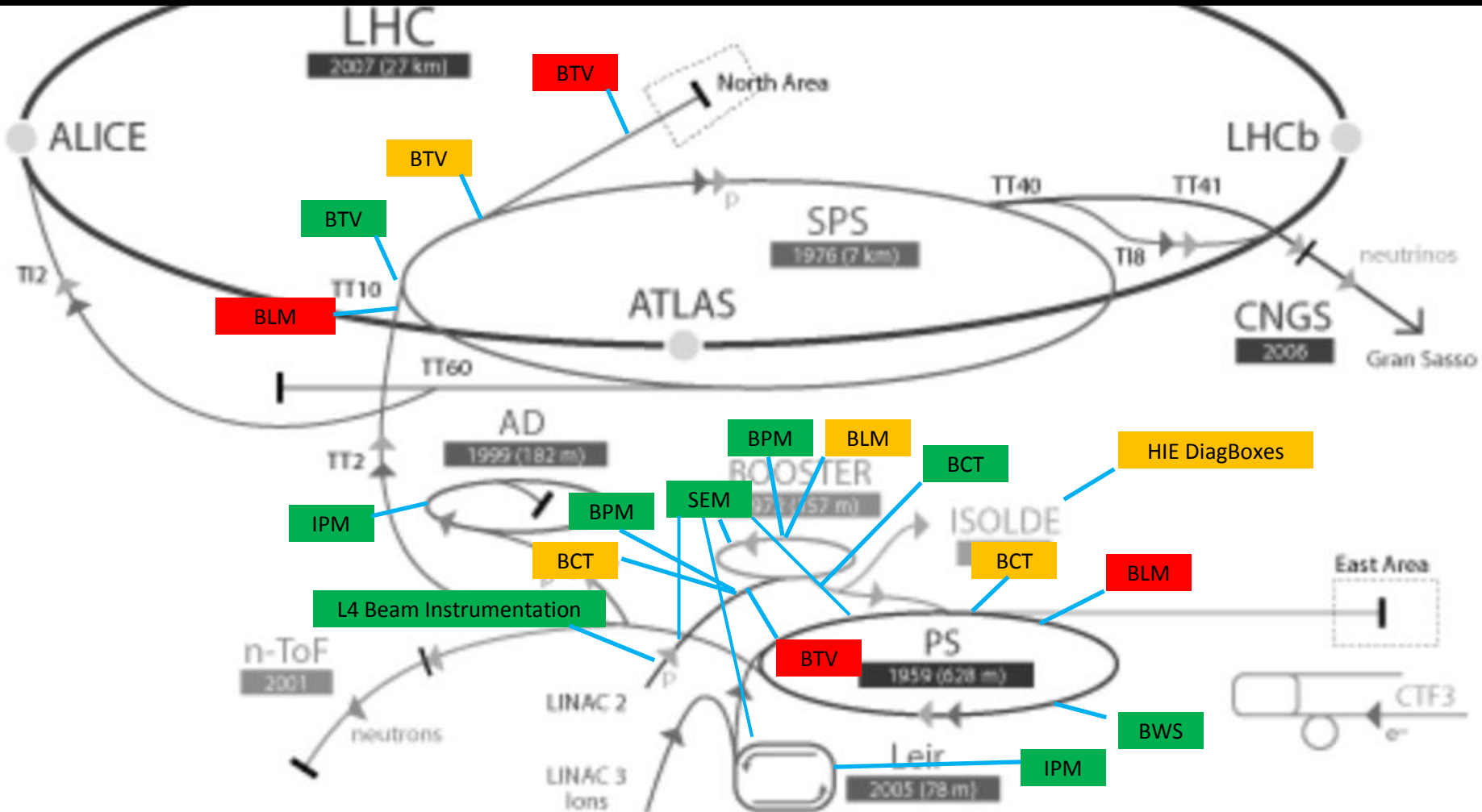
AD[Consol]: \* AD IPM will be moved and modified (strip readers instead of camera) \* BBQ system will be deployed \* Ctrl SW will be upgraded (ACCOR, Men, Linux).



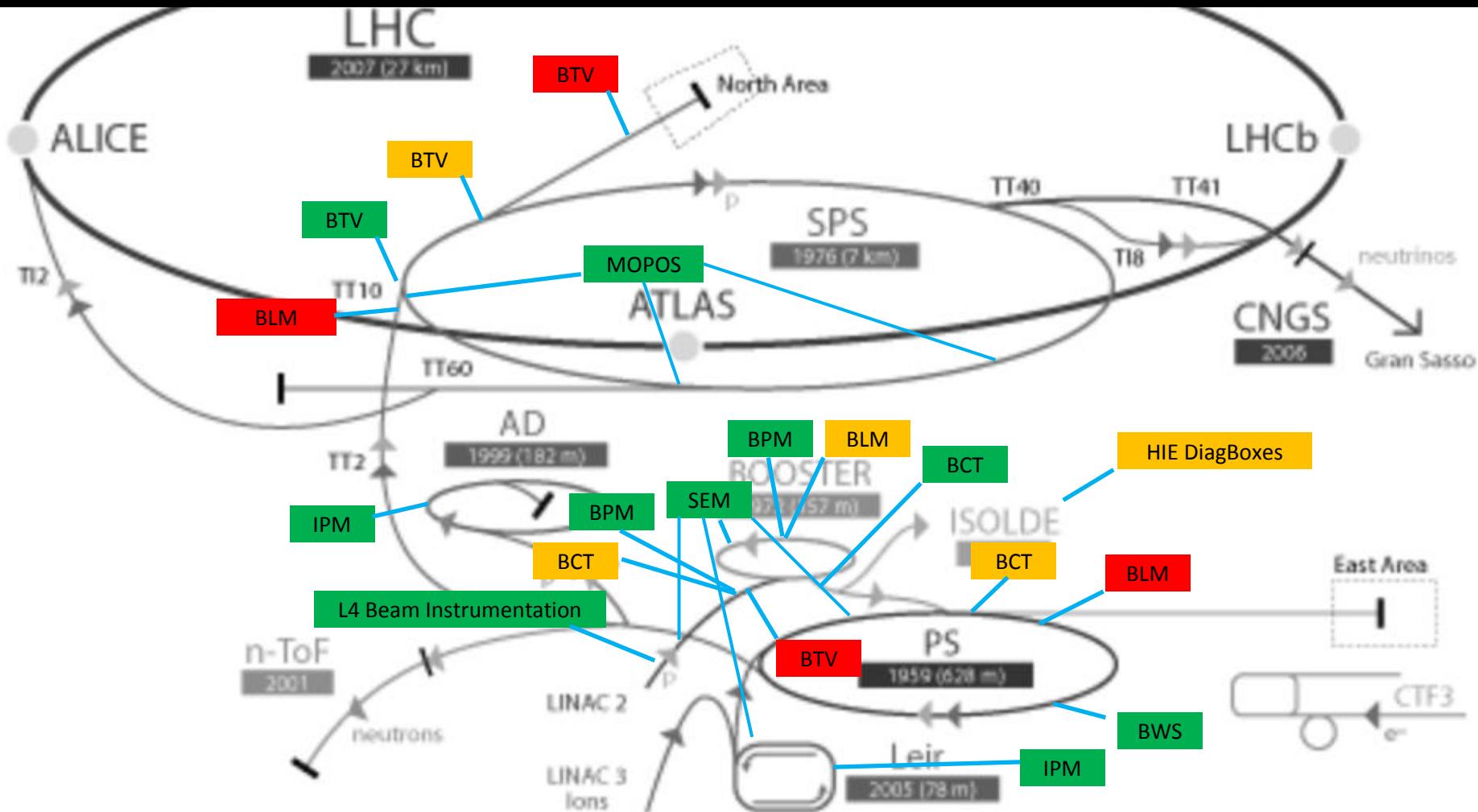
SPS[Consol]: Due to EN/EL constraints, the SPS BTV renovation will only be partial. BA1 will be done. BA2 feasibility is still under discussion. BA80 will only happen in 2015 during TCC2/TDC2 campaign.



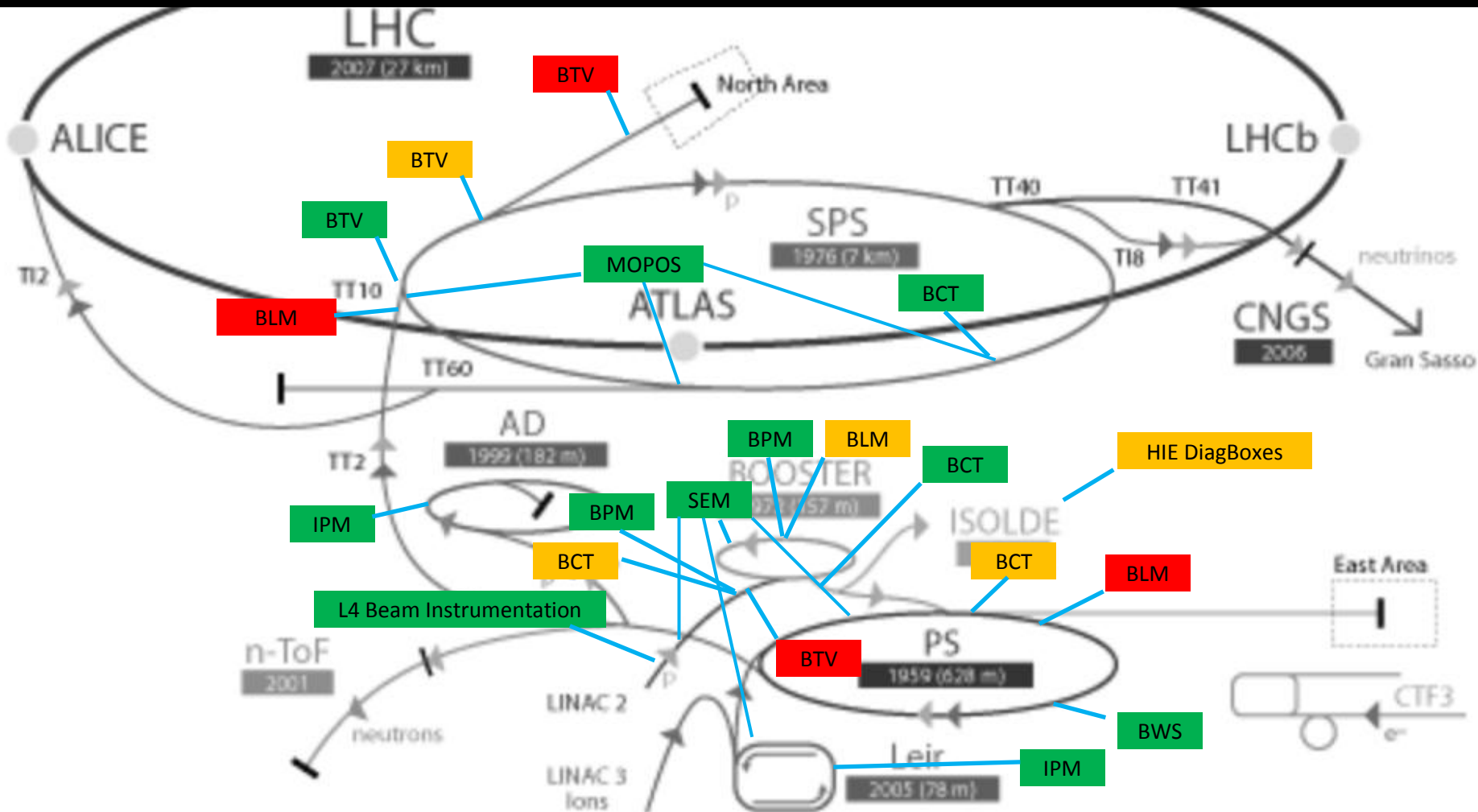
# SPS[LIU]: The cables for TT10 BLM installation will not be pulled.



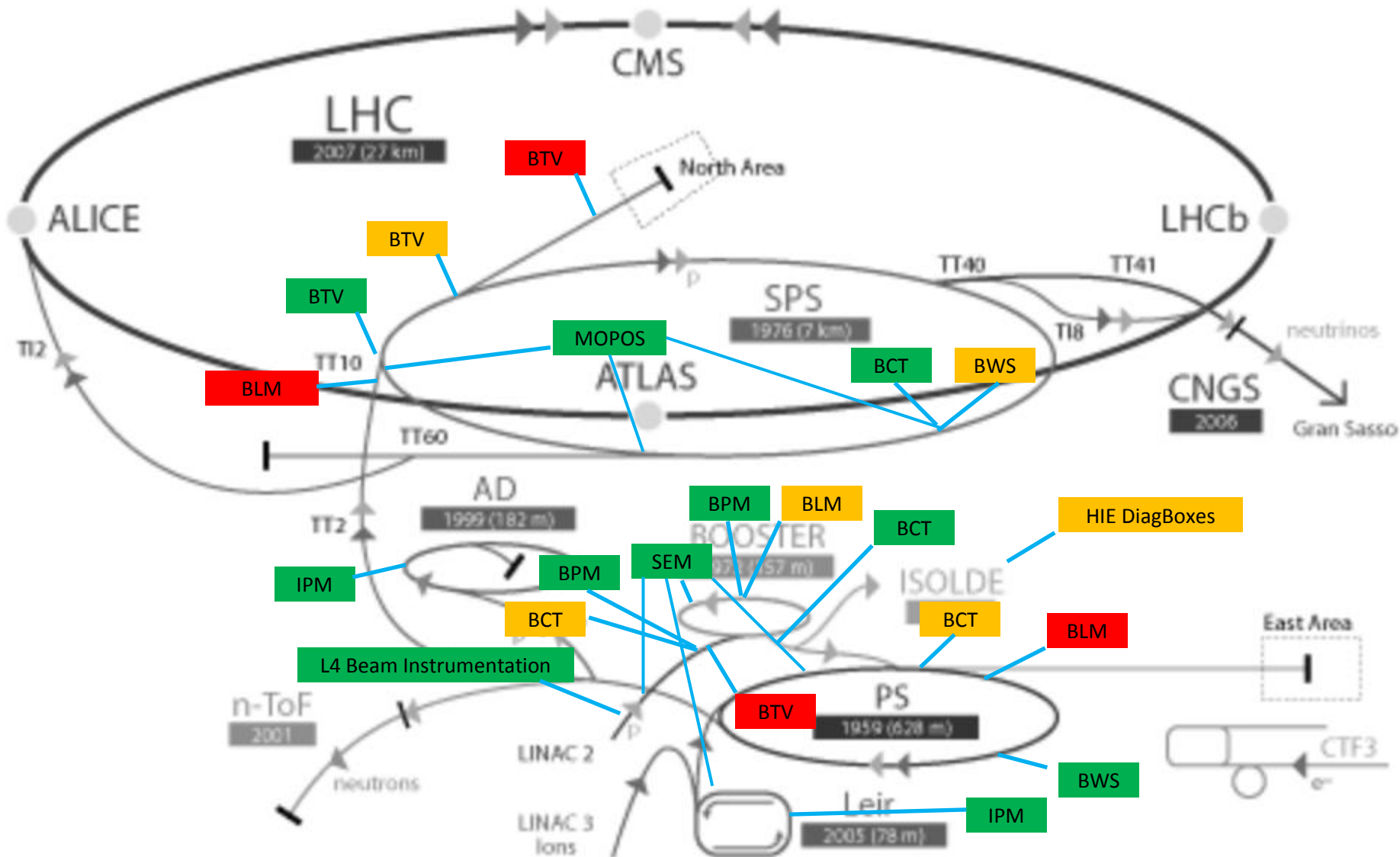
SPS[LIU]: The new orbit and trajectory system fibers and cables will be installed for Pt5, 6 and 1(+). The old system will remain operational. BA 5 will be equipped to commission the new electronics



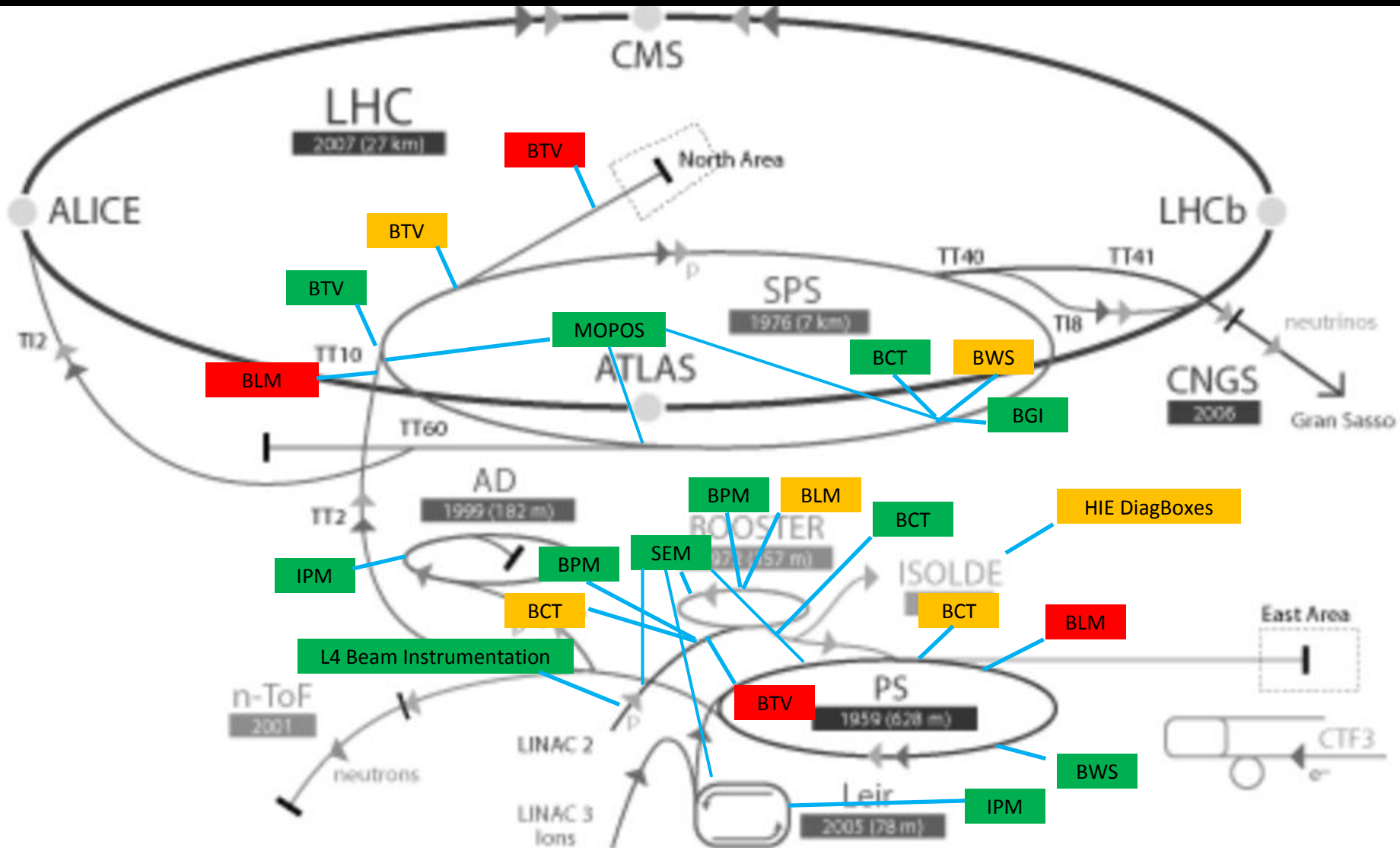
# SPS[NA61]: The new DCCT for personal protection (NA61) will be installed and commissioned at start-up.



SPS[LIU]: A new BWS prototype will be installed, provided enough space is found on cable trays.

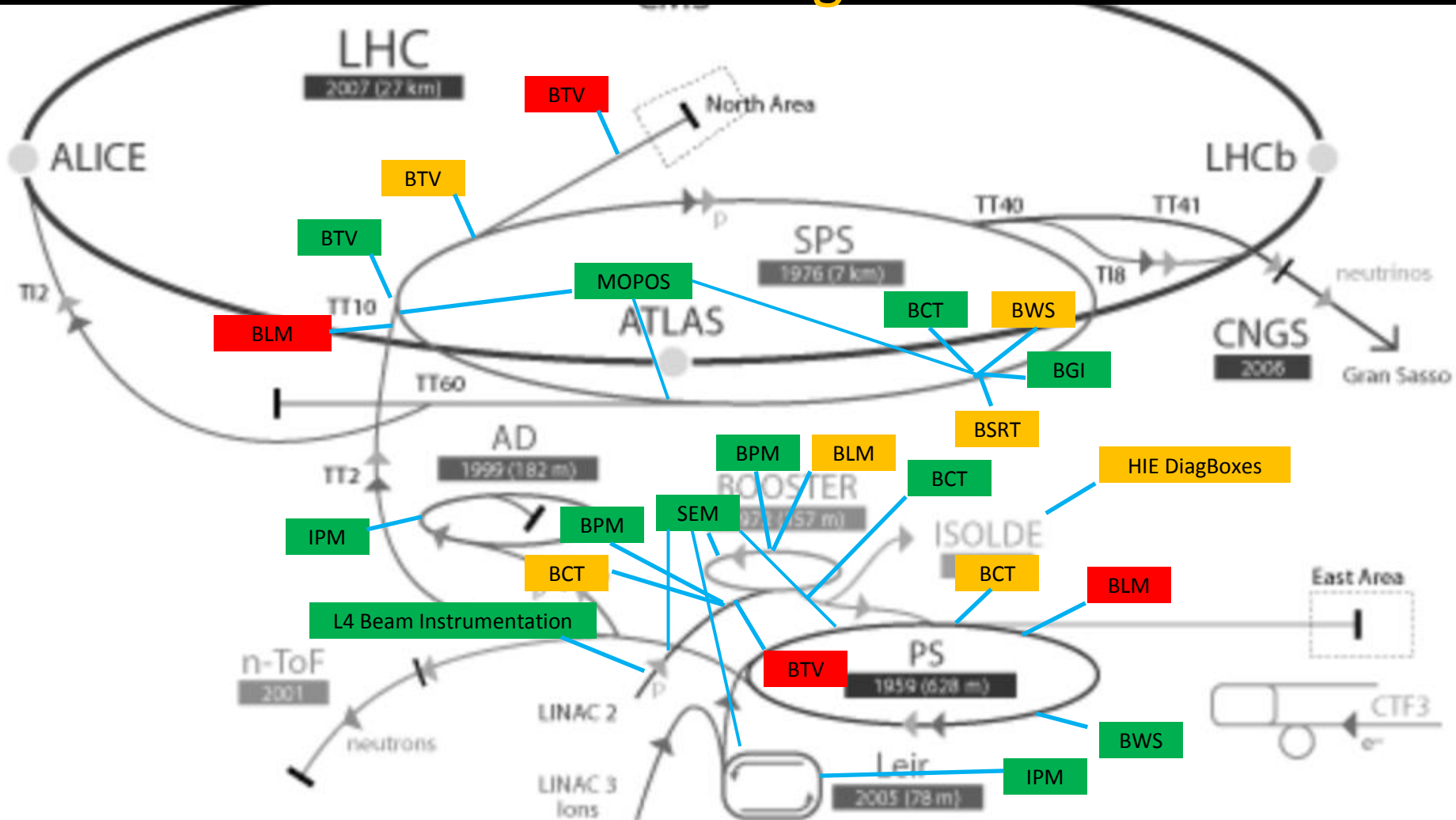


# SPS[LIU]: The SPS BGI will be repaired and optimized (see comment LHC BGI).

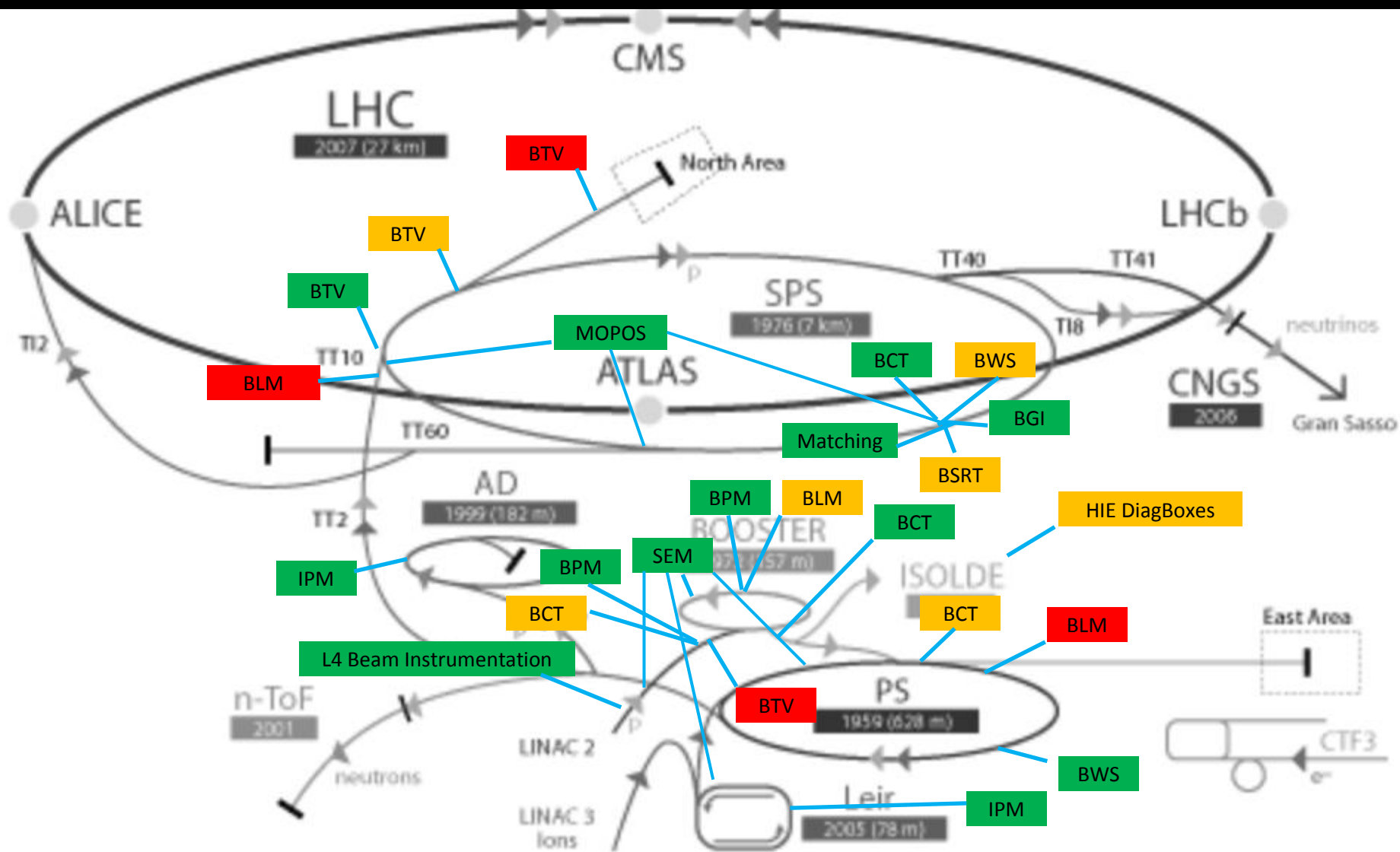




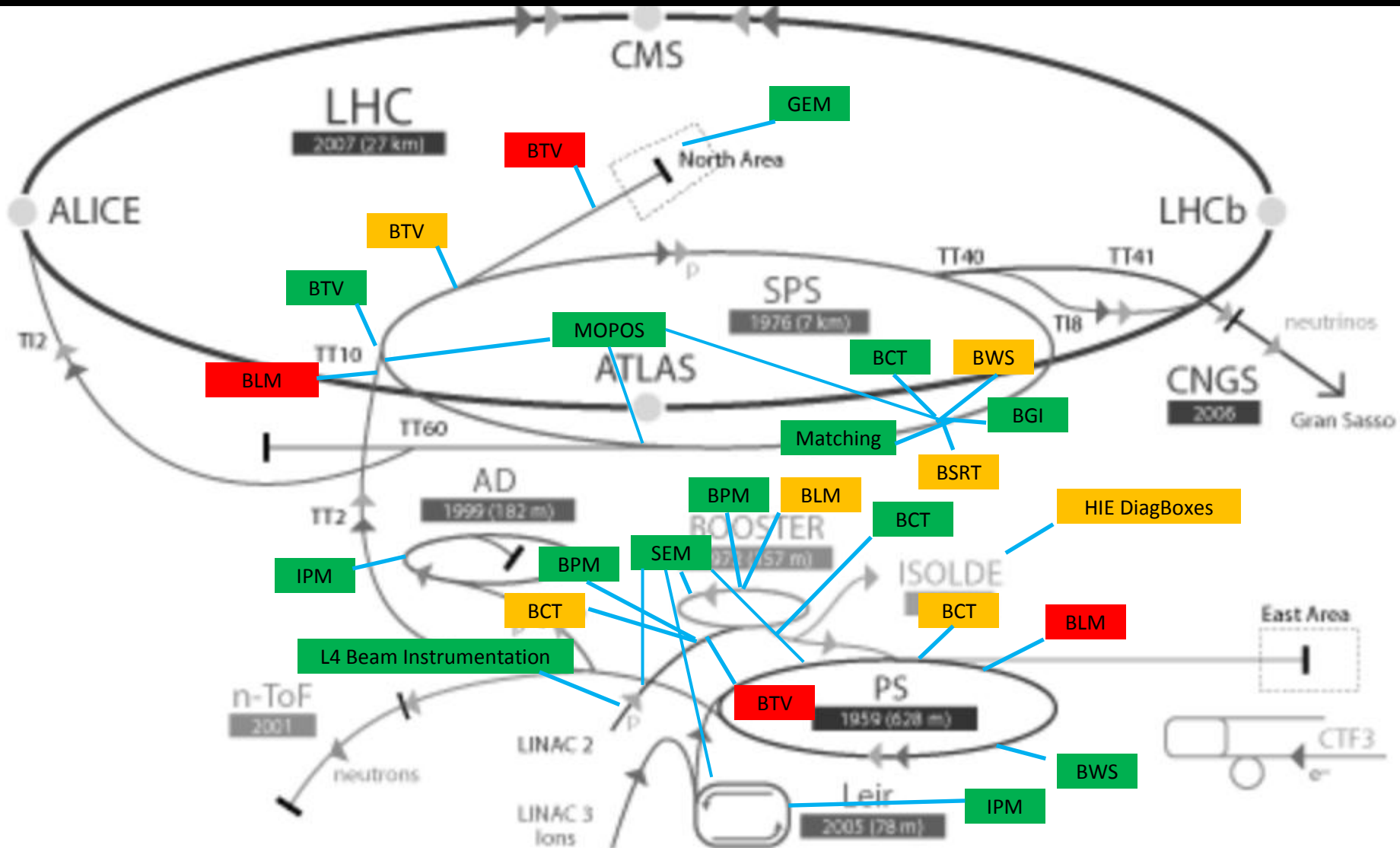
SPS[LIU]: A sync light telescope will be designed and deployed if we manage to find a place for our electronics where we can pull the necessary cables. ...Under investigation...



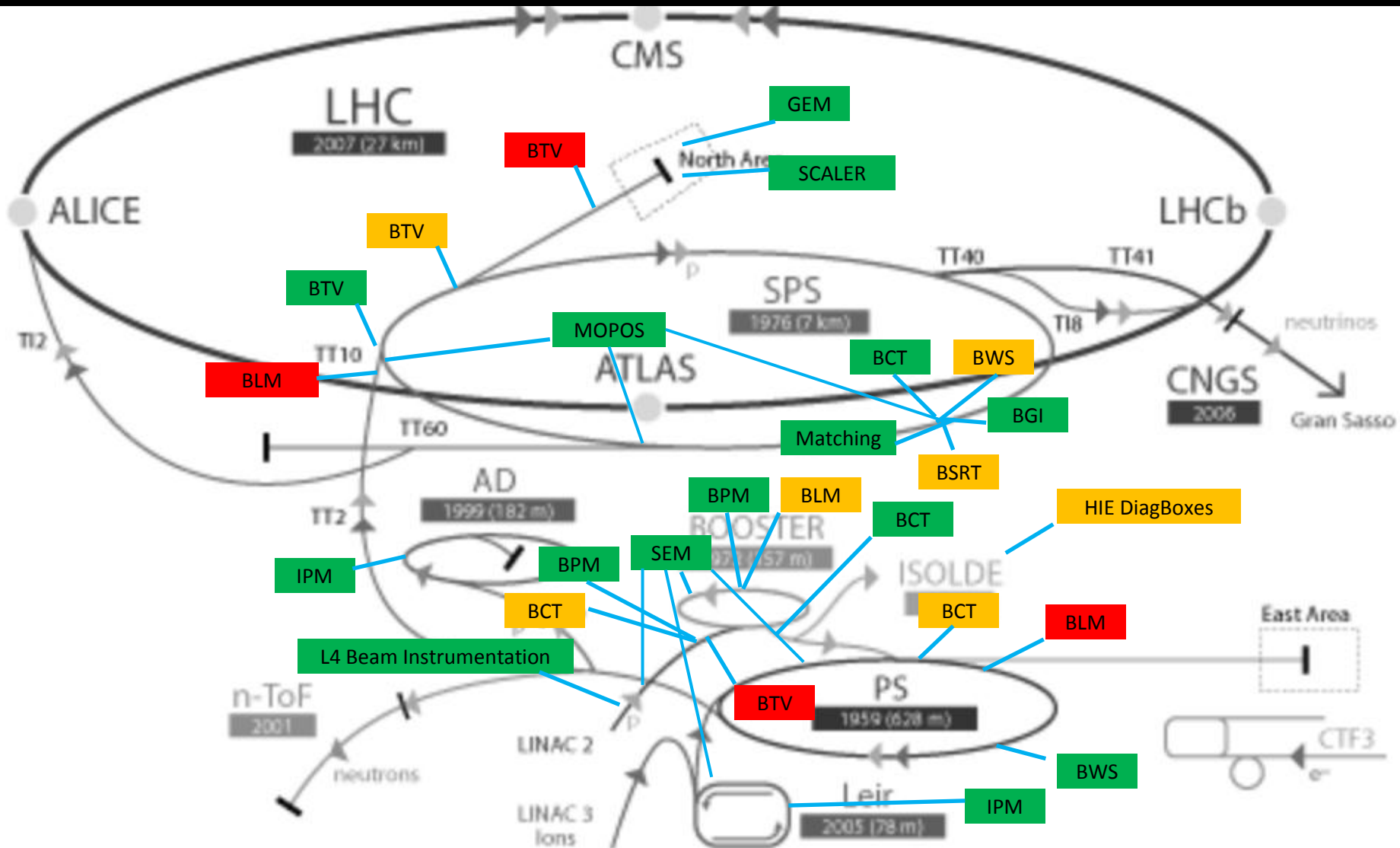
# SPS[LIU]: Matching monitor installation will be finalized (for LHC as well)



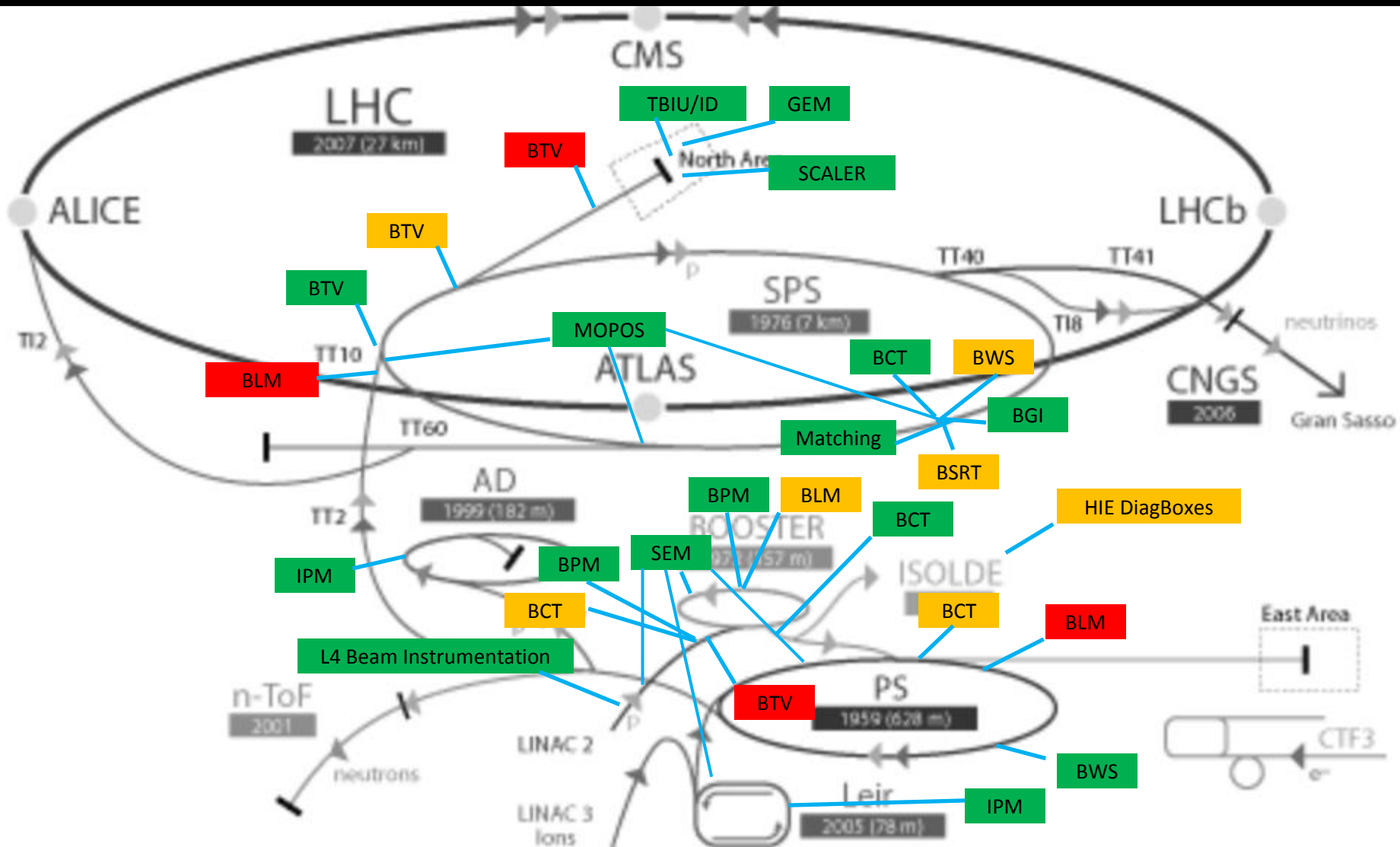
# EAN: New GEMs will be deployed in the north areas



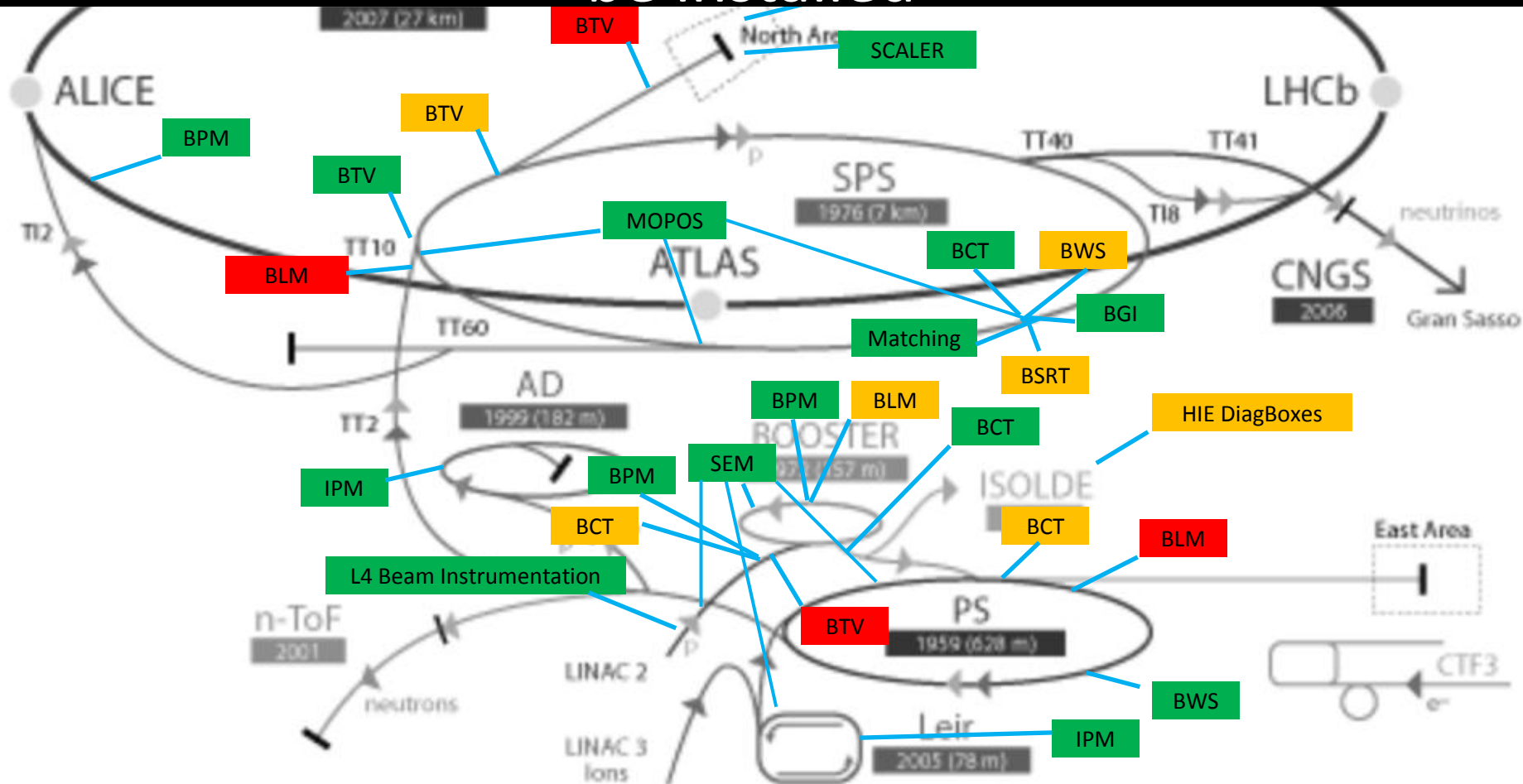
# EAN: New 'Scaler' electronics will be deployed in the north areas with sampling rate $> 100\text{MHz}$



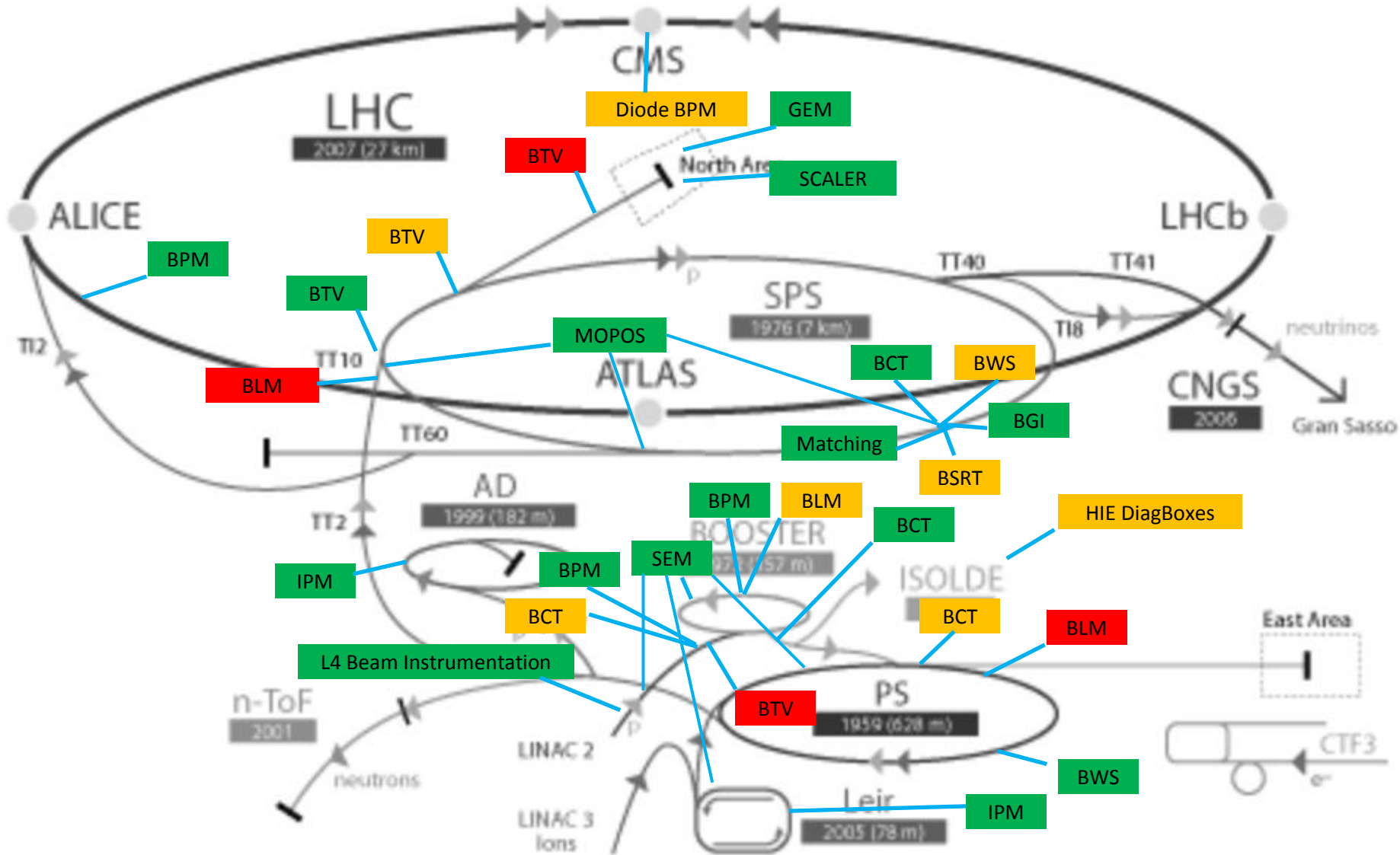
# EAN: TBIU/ID instrumentation monitors and local cabling will be entirely renovated (same but new)



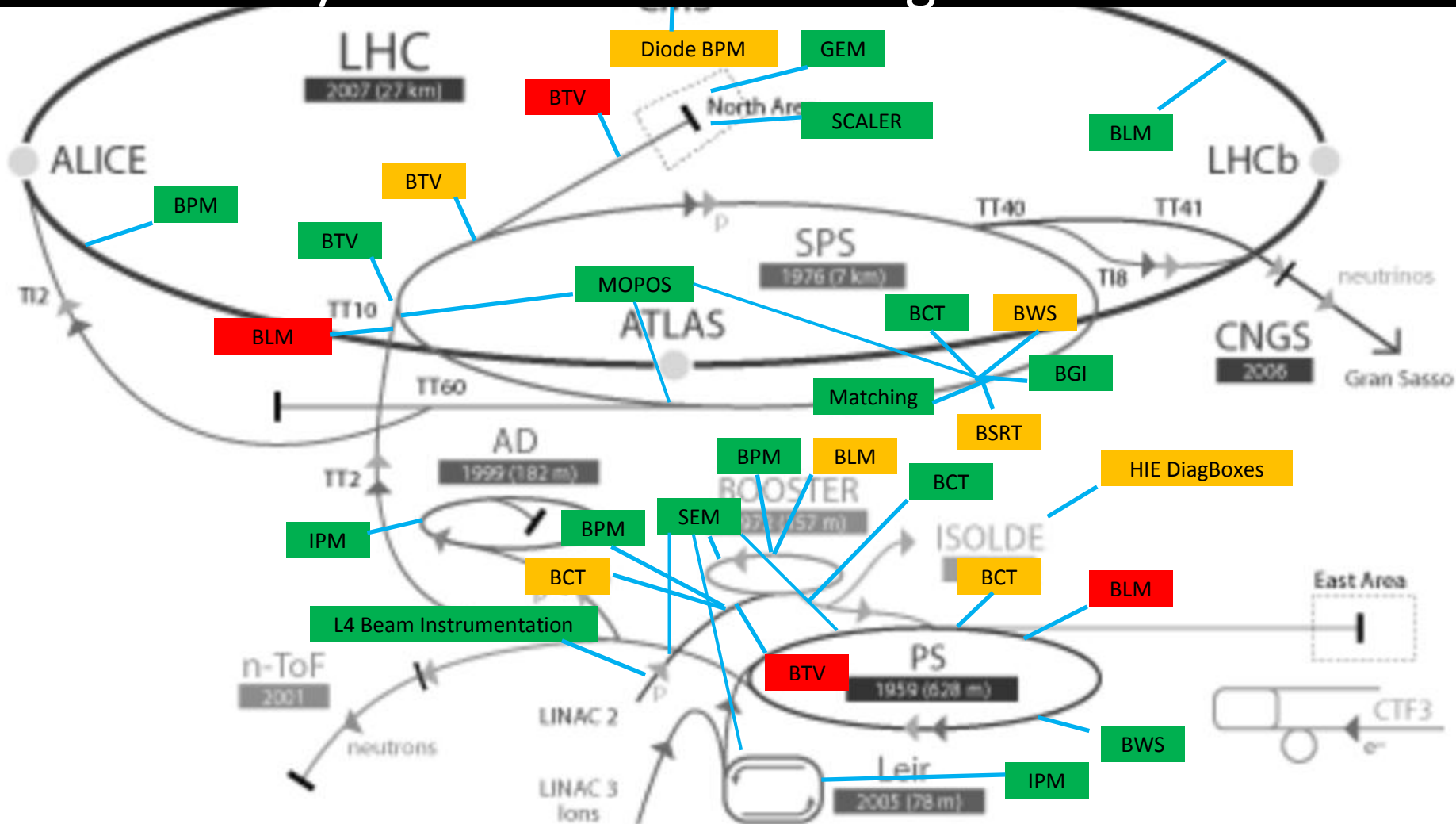
LHC: \* The temperature controlled racks (BPM&BLM) will be installed in all surface buildings. \* The collimator BPMs will be installed \* Cables for BPM defined by ATLAS for their forward physics project will be installed



# LHC: If the corresponding DIC is accepted (under discussion), diode BPM will be available around the experiments

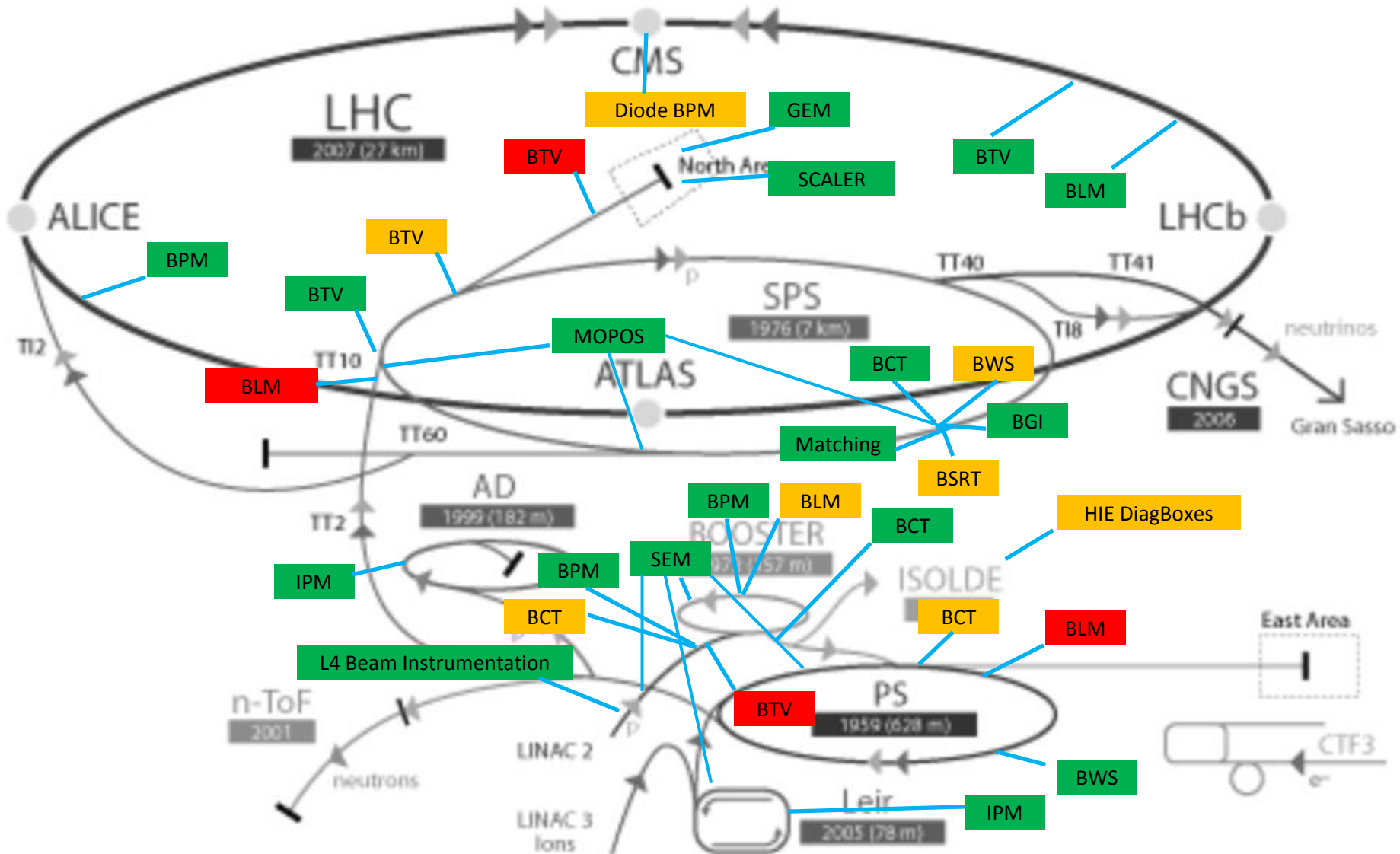


LHC: \* BLM cable upgrade campaign (NGFS18) will be done. \* A prototype of cryo BLM will be integrated into a cryo magnet \* Arc BLMs will be dismantled/remounted following LHC consolidation

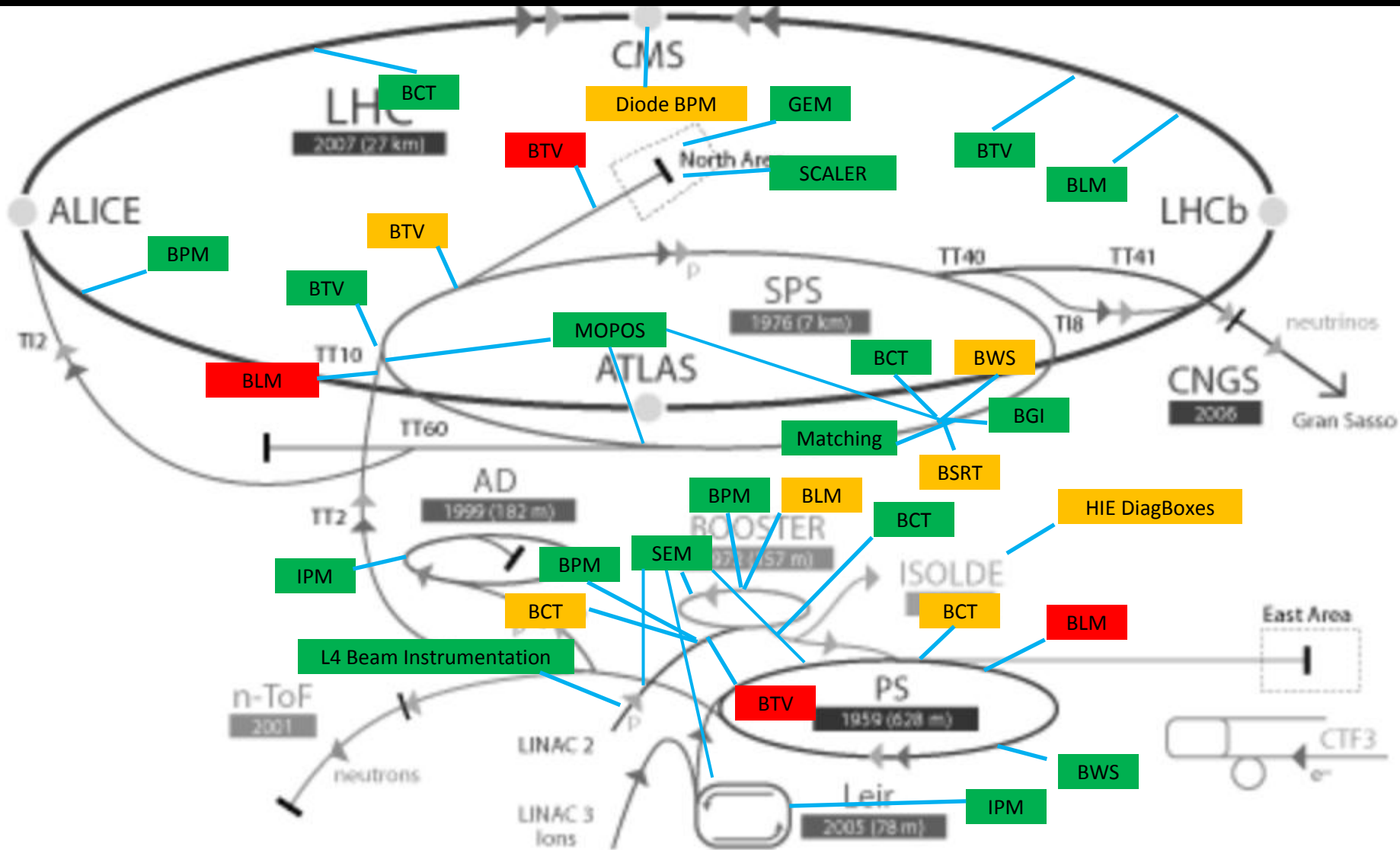




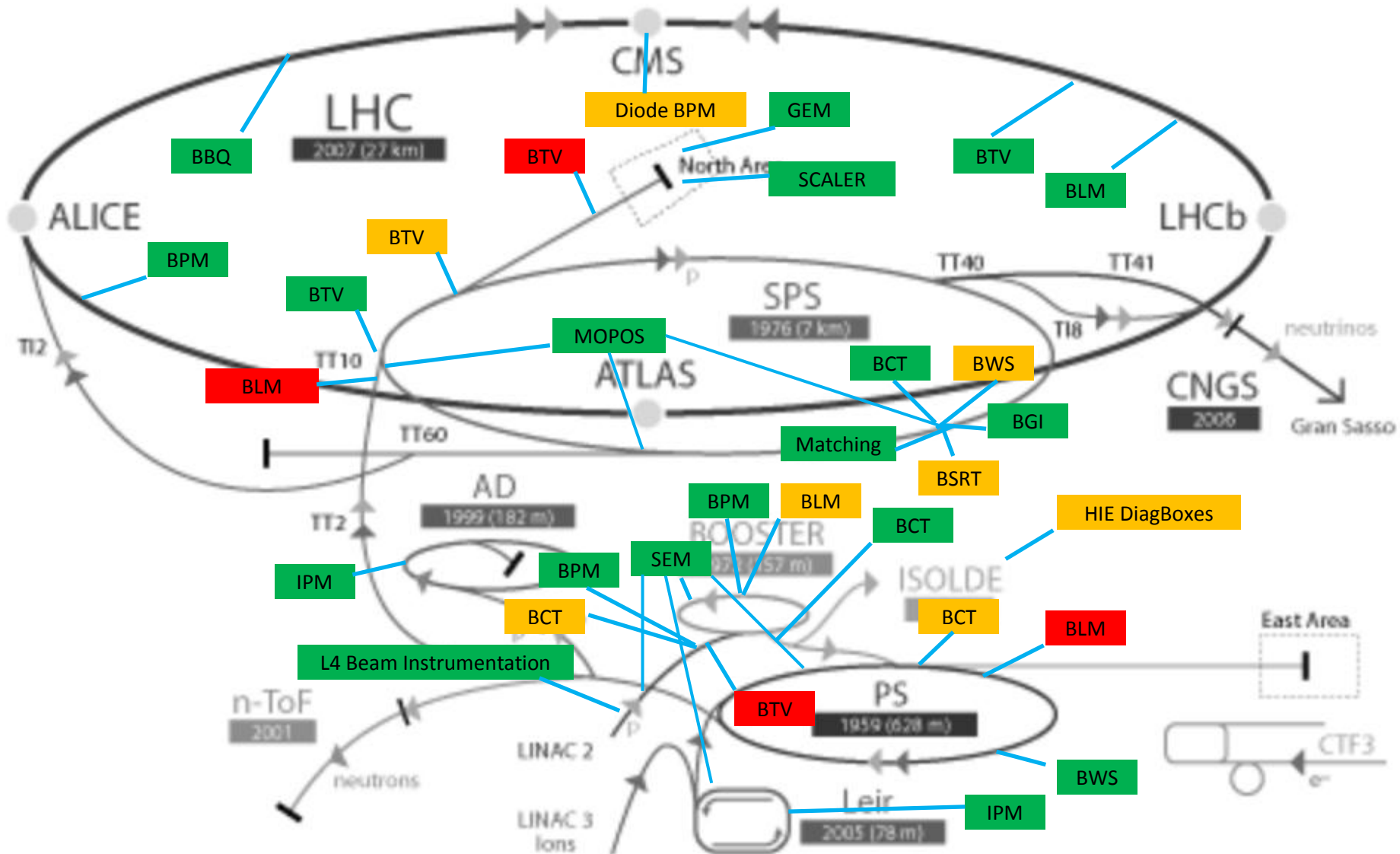
# LHC: BTVSE/T/S repair of RF fingers will be done



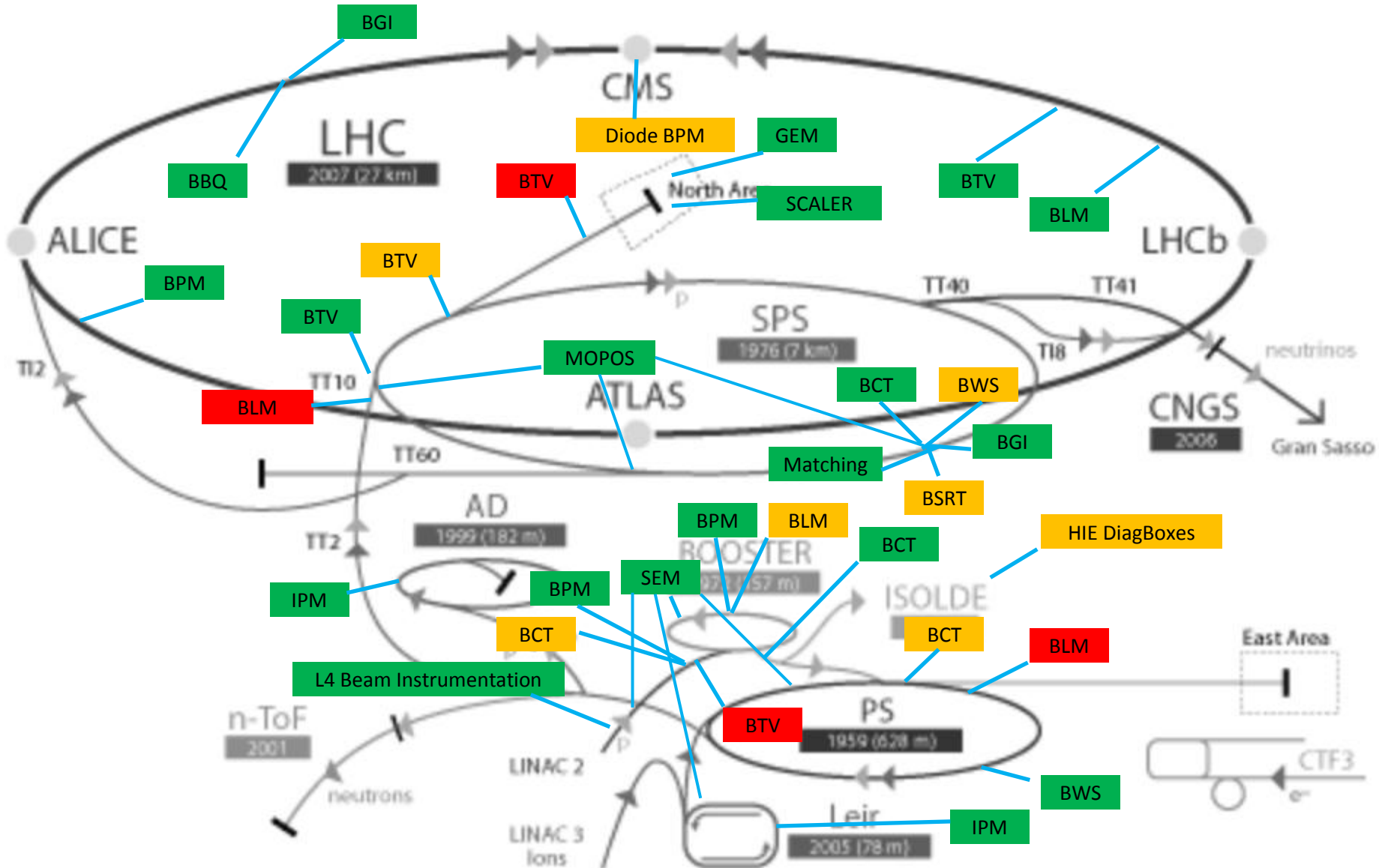
LHC: 2 of our 4 Fast BCTs will be replaced by ICT monitors. dT/dt interlock will be made ready for commissioning



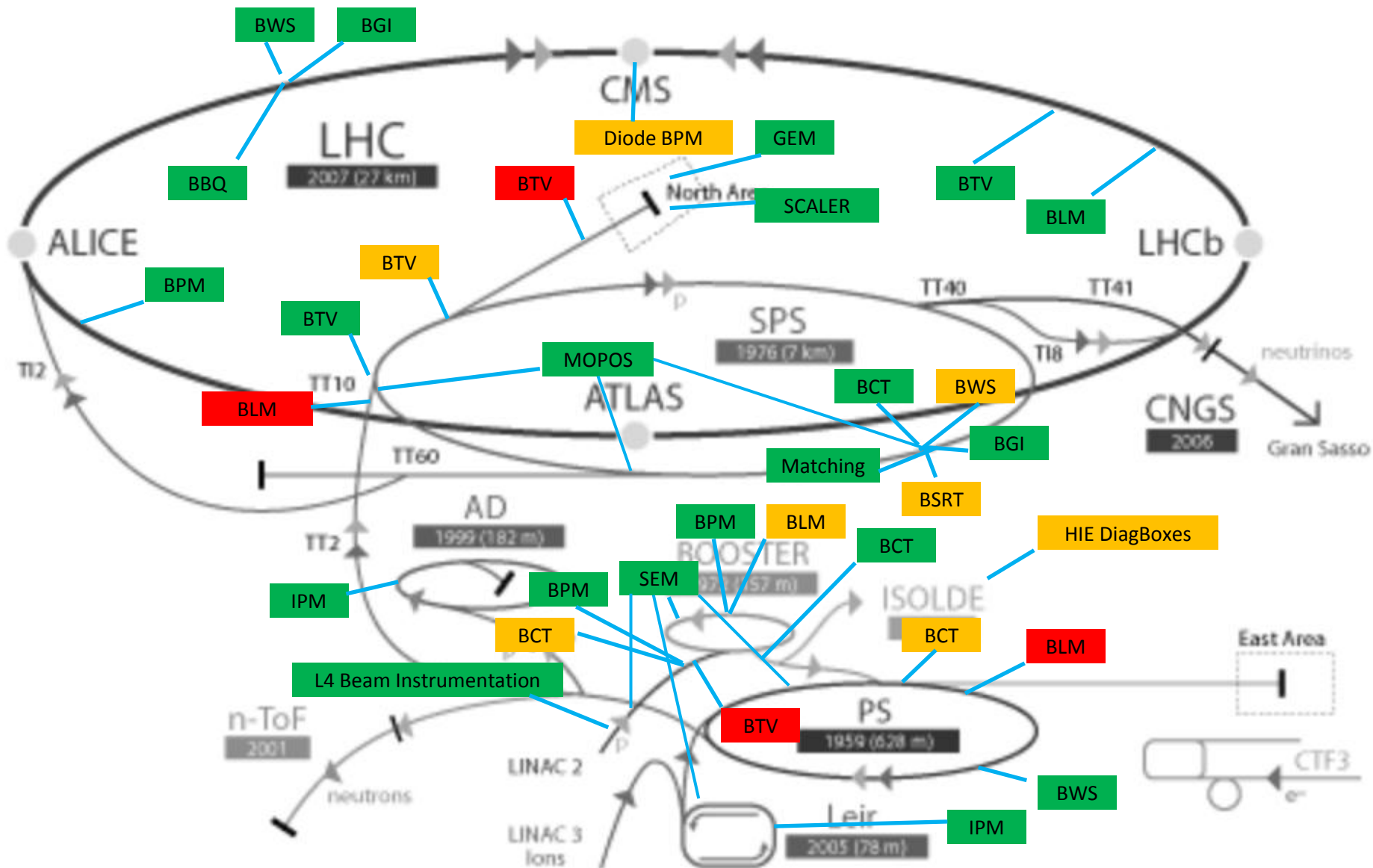
# LHC: Installation of PUs for gated tune measurements will be done



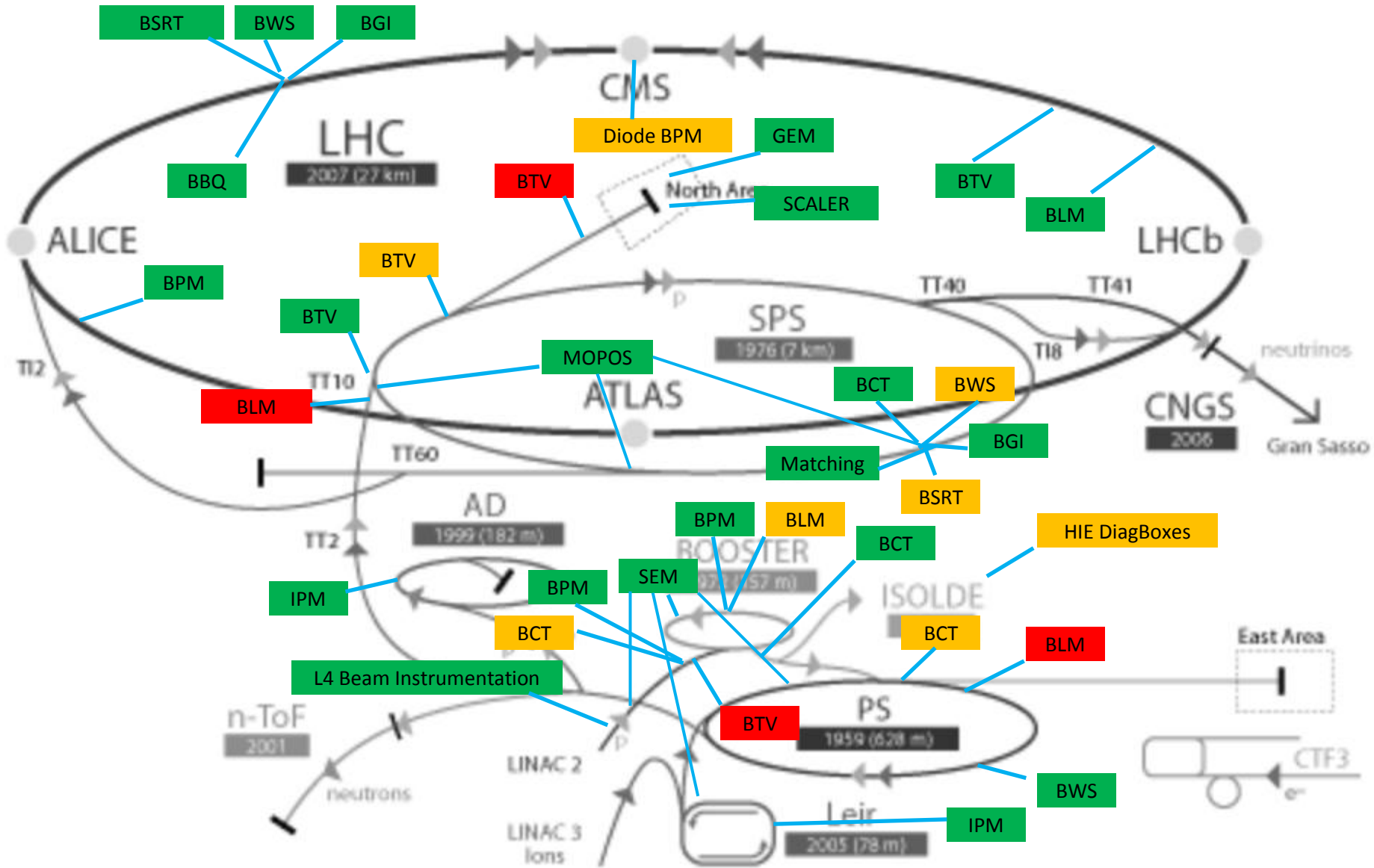
# LHC: \* Installation of PUs for BGI calibration \* BGI monitors repair and optimization will be done



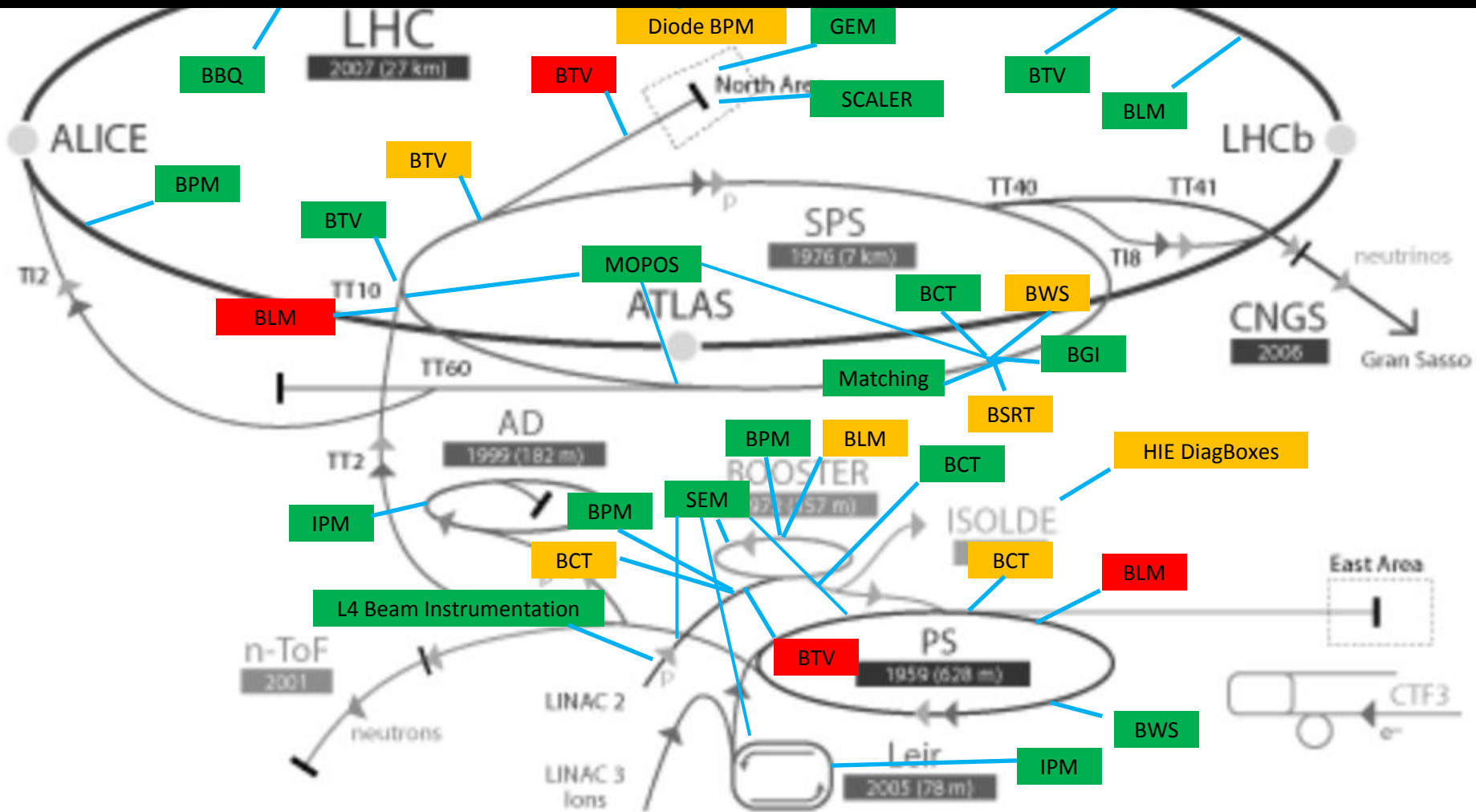
# LHC: \* Full maintenance of the BWS \* Installation of new bellows with extended lifetime will be done



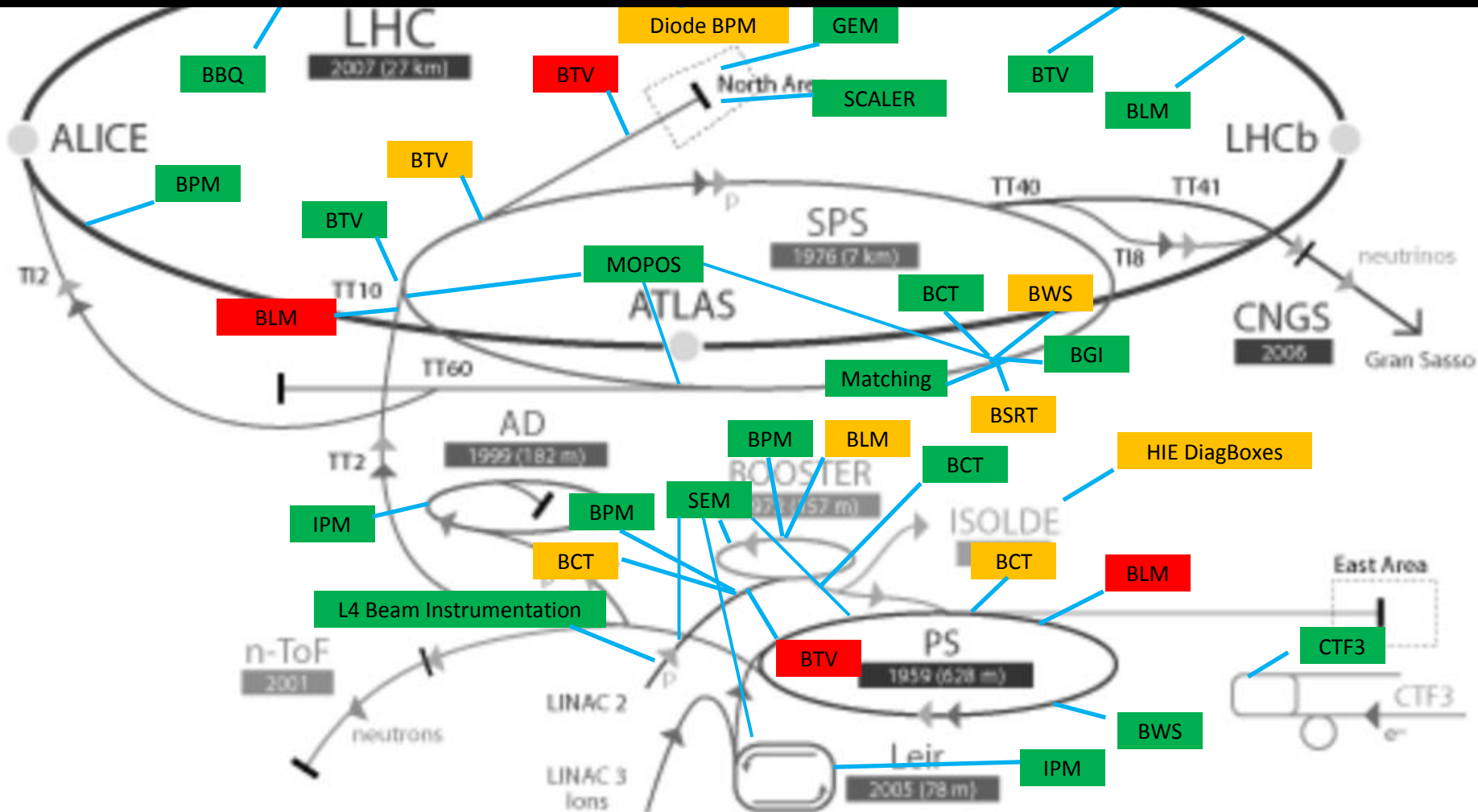
# LHC: \* Redesign of the extraction mirror tanks \* Installation of the optical bench shielding will be done



All: An international workshop on beam profile measurements is being organized (around March April) to review and optimized our developments on our instruments (this includes CPS and SPS monitors)

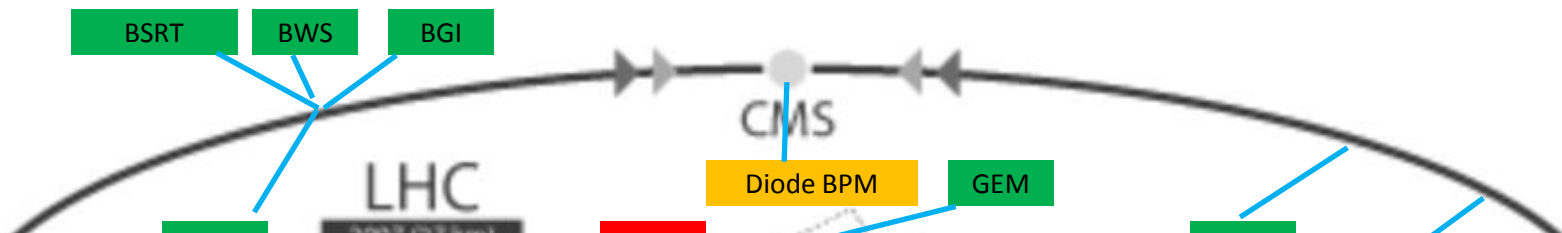


CTF3/CLIC: \* EO bunch length monitor commissioning  
 \* Additional segmented dump installation \* test of Cherenkov fiber BLMs \* Diffraction radiation studies...





Voila! Sorry for the ones I forgot in this list.



Just a word on 2 comments:

- on how to go from specs to proof of success?
- on things disappearing from the requirements

It will clearly be a busy shutdown for all of us

**So let start with a well deserved drink!**

