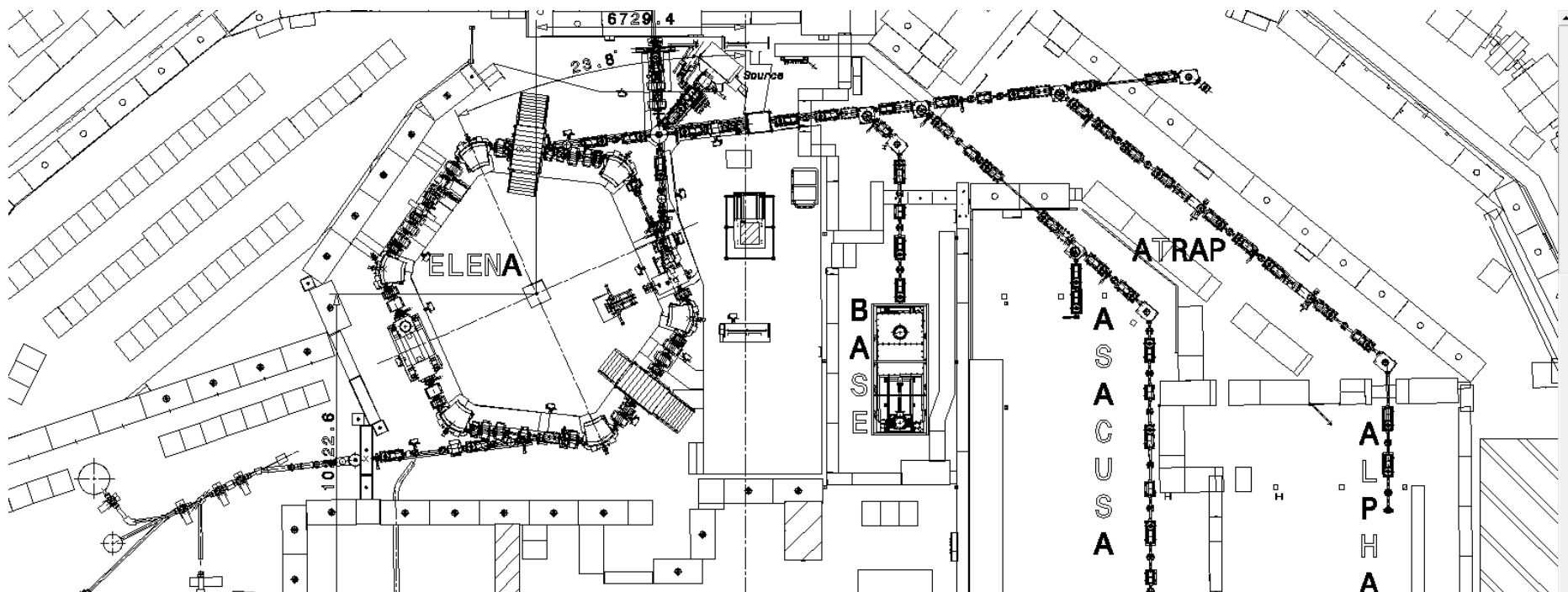


## ELENA Commissioning Conditions for 2019



ANTIMATTER  
FACTORY

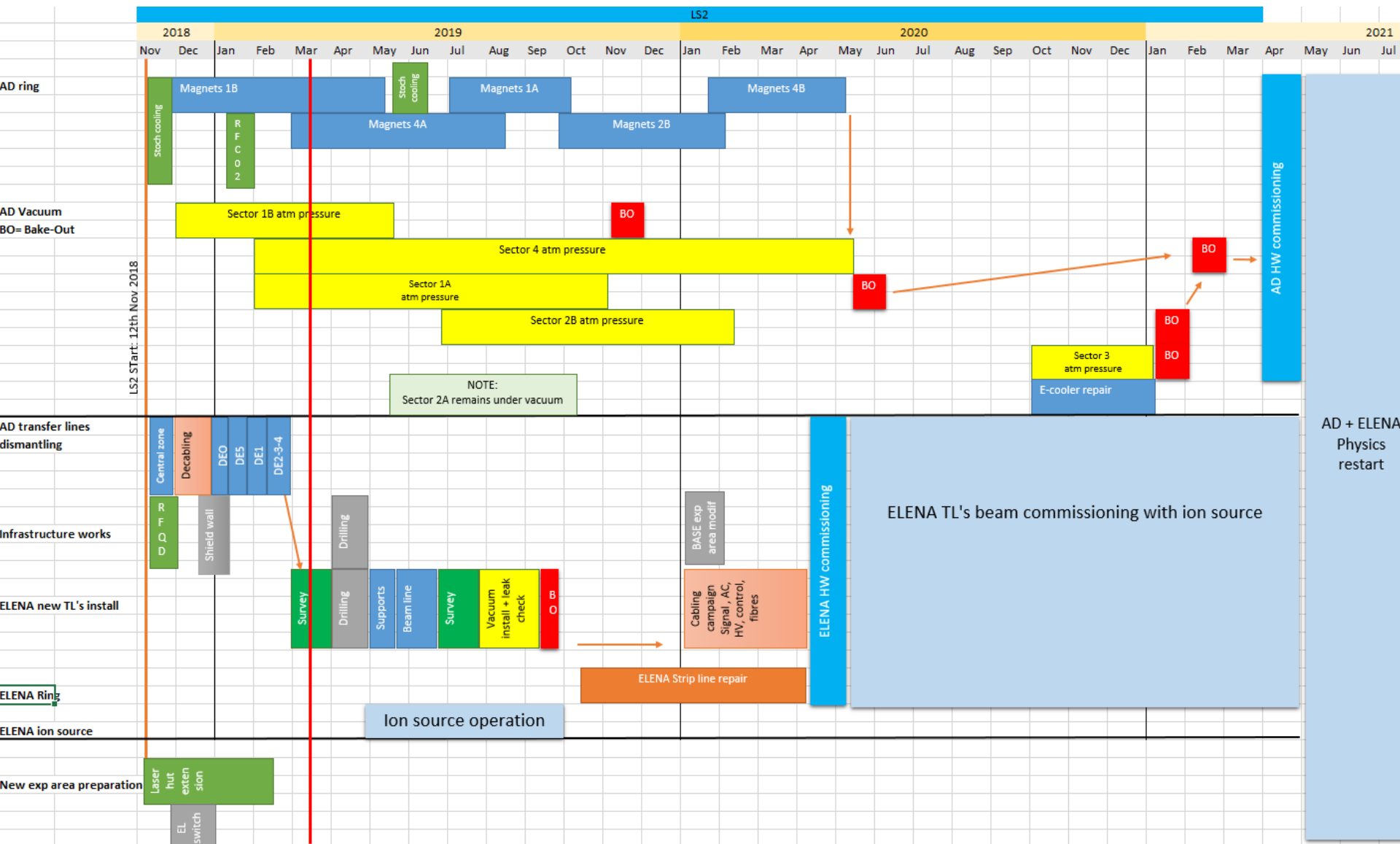




Objectives for 2019:

- Restart the ion Source in May
- Circulate ions in ELENA ring June – September
- If possible use RF
- If possible eject ions to GBAR

# Master planning



# Boundary Conditions

- Operation with ions typically below 1 MeV, is considered safe for RP.
- It is possible to “strap” the EISb (BTV) to allow injection in the ring with the access to ELENA open,
- Needs adequate **compensatory measures**: if no measure is fail safe on its own: **redundancy is acceptable**
- Already checked with main bending magnets: **EPC can propose 2 levels of protection (limit current to 100 A)**
- **What can be done at OP and RF level** in order to “eliminate” this risk of accelerating ions beyond an energy of typically 700 keV.
- **Compatible with Btrain system ?**
- Once clear: propose scheme to PS CSAP / IEFC for a beam permit with strapped EISb