Injector Milestones

1. **Injector Enclosure ready KW28/2013**Water Supply Pipes  
   Light  
   Cable Trays  
   Dump installed and cast in concrete  
   Opening for quadrupole  
   Room thoroughly cleaned  
   No extra coating of floor (Estrich supposedly good enough)
2. **Klystron Gallery ready KW29/2013**Water Supply Pipes  
   Light  
   Cable Trays  
   Double floor installed
3. **Personnel Interlock ready KW36/2013**All installations for XTIN7 and XSIN shaft  
   XTIN shaft blocked  
   Interlock test done  
   Walls closed and provisional shielding in place  
   Operation permit from radiation point of view
4. **Gun and gun RF ready KW34/2013**

Gun installed with blind flange or Faraday cup  
Cathode transfer system

Water system for gun  
Waveguides  
Klystron  
LLRF

1. **Gun Test done KW46/2013**At least 4 weeks of gun operation
2. **Cryo in Injector tunnel ready KW09/2014**Injector transfer line  
   Valve box

Feed cap

End cap

1. **Start Injector Installation KW10/2014**
2. **Warm Beamline Installation finished KW26/2014**Gun vacuum up to end-cap  
   Girder and elements between feed-cap and wall  
   Dump line
3. **Tunnel closed for Gun Operation KW27/2014**
4. **Start Module Installation KW36/2014**
5. **Module Installation done KW39/2014**
6. **Cool Down KW09/2015**
7. **Injector Commissioning finished KW09/2016**