

Offline 2

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People

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Infrastructure

- Mains electricity
- Cooling and ventilation
- HT cage
- Floor
- Basement renovation
- Compressed air
- Alignment grid
- Crane

Installed, aligned and commissioned

- Frontend
- Target power platform
- HT interlocks
- Frontend controls
- Water cooling + controls for target and magnet
- Separator magnet
- Beam scanner and faraday cups at 1st + 2nd focii
- Vacuum + controls for frontend and separator
- Low level controls for target and frontend
- Controls consoles

Tested with beam as far as
separator focus (second focal point)

To do

- Integration

- Move primary vacuum to basement, install pipes
- Fix beam extraction alignment
- ...

- Magnet power + controls

- High-level controls

- TBD (LabView applications)

- Commission RFQ infrastructure

- Vacuum + water cooling
- Cabling
- Beam instrumentation
- Matching section
- HT, transformer, interlocks

- Install and commission RFQ

- Electrodes
- RF power + cooling + sig-gen
- Controls (LabView)
- Test with beam

Budget

- Expected material cost at start of project : 2x 250kCHF
- Spent in 2017 : 228kCHF (+ 47kCHF spent on online frontends)
- Expected 2018 expenditure
 - 20k BI (faraday cups, MCP, RFQ downstream, ToF integration)
 - 10k Cabling (primary pumps in basement, membrane gauge, RFQ dc, interlocks, HT)
 - 10k Cooling (2x water chariots)
 - 10k Lab equipment
 - 30k Mechanical
 - 30k Integration
 - 10k Vacuum (membrane gauge for frontend, venting system)
 - 60k RF amplifier (RF power only)
 - 15k RFQ controls (dc controls + RF sig-gen)
 - 20k RFQ HT platform (3kV 10kW tranformer + interlocks)
 - 20k Separator controls (consoles, FECs, etc)
 - 50k Magnet power (Cobalt + FGC3 system)
 - 29k 10% Contingency
- 314k Total

Still awaiting 2018 budget allocation

GPS & HRS frontends

Offline 2 as equipment test platform:

Commission FE10 + FE11
prior to installation online in LS2

ToF detector

Developed for study of online RFQ
Used during 2018 startup

Probe the cooling and bunching processes
Advanced RFQ design

Emittance meter

- Controls system (Win98/GEM) is not operational
- Mechanics OK
- Electronics missing communication documentation
- Request for technical student made (on hold)

Laser room

- Tables
- Ventilation
- Cooling
- Interlocks

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