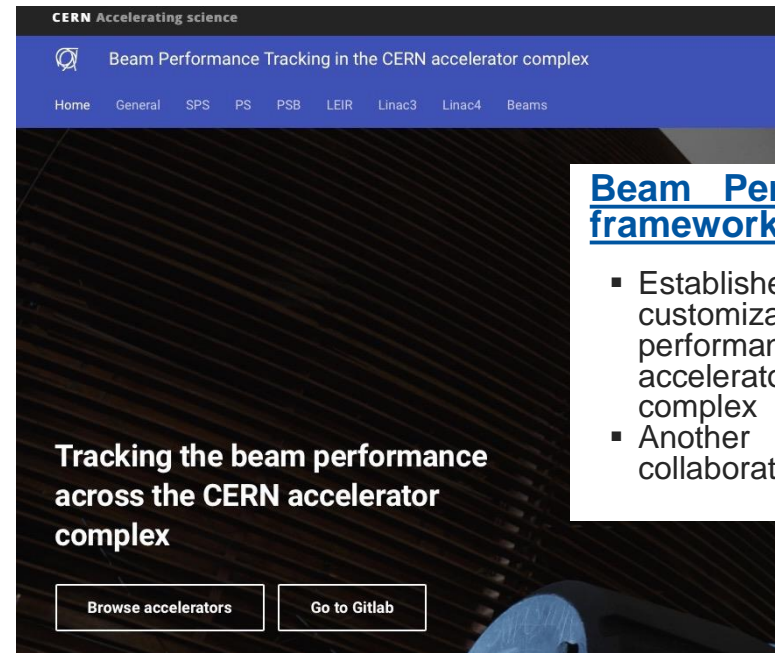


Common optics repository for the complex

- Excellent **collaboration** between the different departments/groups
- Established a **workflow** from the **Layout DB** to uploading optics in **LSA** for the **injectors** → **Consistency between repository and LSA optics**
- **Knob definitions for PSB and PS** established in MAD-X and uploaded to LSA



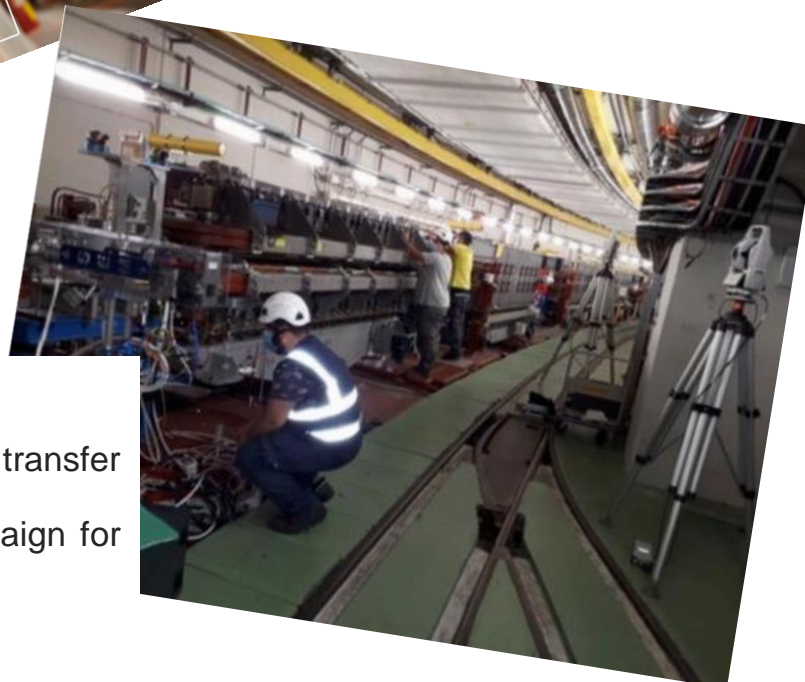
Beam Performance Tracking framework

- Established a generic and customizable framework to track performance parameters within the accelerators and across the complex
- Another great example of collaboration across groups

Tracking the beam performance across the CERN accelerator complex

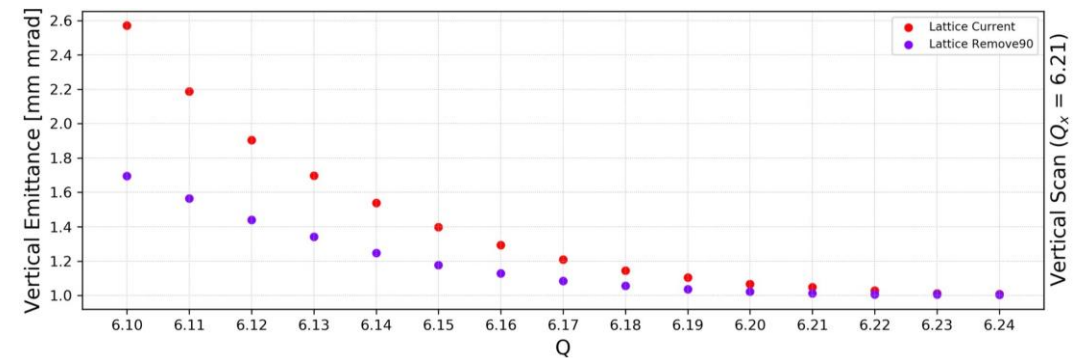
Browse accelerators

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PS alignment campaign

- Smoothing of all PS MUs and transfer lines
- Initiated large alignment campaign for the PS SSs for the first time



Improved optics beating to reduce emittance blow-up for space charge dominated beams (W. Van Goethem)

- Identified an improved configuration of low-energy quadrupoles to reduce optics beating
- Beneficial impact on transverse emittances of LHC beams demonstrated with space charge simulations
- To be experimentally verified in 2021