

**Cycling and Injection Improvements on the ESRF  
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for storage ring injection. It has recently been upgraded for further studies and improved operation. The booster injection was studied and optimised. Higher injection efficiency was achieved by applying the booster RF frequency of 352 MHz on the electron gun. The injection energy, the available aperture, the energy spread of the injected beam and the optimal RF voltage were measured. An additional kicker will soon be implemented which will allow beam accumulation in the different cycles. Furthermore the beam dynamic in different 10 Hz cycles of the synchrotron was investigated. The magnet alignment was studied from the closed orbit point of view. This resulted in an improved closed orbit stability over the cycle. It was shown that beam can be stored in different booster cycles. The achieved lifetimes were compared with the calculated ones. The Eddy current induced chromaticities were measured. A working point comparison was made and the tune stability over the cycle optimised. The emittances and bunch lengths along the cycle were calculated and measured. The results will be presented on the poster.