Present Status

The calculation of the machine availability has never been done at GSI so far. The whole accounting was experiments-oriented. Hence, for the general statistics per beamtime, times were scaled with the number of concerned parallel experiments. The accounting per machine was not possible as OLOG has never used proper nomenclature for the failed asset, which would allow distinguishing the machines. Additionally, a precise failure analysis per technical system was not possible due to the 2 reasons: 1) a pre-defined classification of the systems was not precise enough (for instance just RF, no distinguishing RF supply, cavity or control...); 2) 'first guess' OLOG entry for the failure source was never corrected afterwards, when the failure was completely understood (for instance we have a lot of vacuum failures, though the reason was mainly infrastructure/cooling water).

Future Prospective

There are several main goals concerning the machine availability topic in the future:
- Complement the machine availability criteria with delivered beam quality (data retrieving from archiving system)
- Complement the human OLOG accounting and failure analysis with digitalized data recording (archiving system, post-mortem system)
- Prevent the failures by 1) executing the automated dry runs; 2) HW online tracking (archiving system)