



JAPW23 Session 6 Wrap-Up

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Follow-Ups for 2024

| Actions | Groups | Comments |
|---|----------------------------|---|
| Vertical emittance to be made large at the PSB | | Already agreed at SPS MPC 2022. No request to be made by SPS to make it smaller than 4 mm mrad |
| Decouple SPS SFTPRO vertical emittance request from PSB | | MDs needed. Timeline before LS3. |
| Prepare for operational roll-out of LSS4 crystal | | Downstream mask / thicker crystal / high-level controller. Timeline for 1.8 mm crystal to be defined. |
| Set up EBC monitoring tool in UCAP | | |
| Discuss NA experiment spill requirements and define beam KPIs together with the experiments for 2024 | SY-ABT, BE-EA, SOX WG | Part of the Spill Optimisation for eXperiments (SOX) working group |
| Main experiments to continuously report/update their data taking progress as compared to the approved beamtime for a given year – logged KPI in BPT, presentations... | EATM, BE-EA, BE-OP | |
| Define requirements for < 24 GeV/c East Cycles with longer spill lengths and study limitations of primary and secondary lines. | BE-EA, BE-OP | |
| Implement a time dependent gain of TFB excitation for HEARTS. | | MDs needed |
| Use RF phase displacement for momentum RF gymnastics before extraction in SPS | | MDs needed |
| Improve monitoring of longitudinal beam properties for AWAKE and develop usable flag for SPS+AWAKE | | |
| Finalise funding for FTA/FTN Beam Position Monitor request. FTA has higher priority given the apparently poor transmission | | |
| Accelerate XWCM replacements and production of large XBPFs | SY-BI, BE-EA, NACONS | NACONS C&S review scheduled for 6 th Feb'2024. |
| Follow-up CEDAR issues | NACONS, EATM, SY-BI, BE-EA | |
| Set-up a small taskforce to follow the studies on the intensity measurement of DC beams | SY-BI, SY-ABT, BE-EA, BIFT | |

Follow-Ups for 2024

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|--|-----------------------------------|---|
| NA BSI calibration. | SY-BI, BE-EA | Two 12 hr slots needed in 2024. |
| Study of H2 ion beam intensity fluctuations and beam movement | SY-ABT, BE-EA, BE-OP | MD may be needed. |
| Continuous communication of user priority, required/delivered spills and protons on target. Publish and log figures of merit on fixed-display/webpage (vistar), .e.g. flux or number of cycles to users per unit time. | BE-OP, BE-EA, PS-SPS co-ordinator | |
| Tolerances on the HiRadMat beam parameters to be defined in advance depending on the experiment criticality | BE-OP, SY-ABT, BE-EA | Part of KPI definition. |
| Faster changeover from HiRadMat and faster supercycle changes in general. | BE-OP, SY-ABT | |
| Extraction with momenta < 440 GeV/c but same time structure | | MD may be needed. Test needed before LS3. Safety review - SPS CSAP |
| Roof inspection for East Area to prevent/fix leaks | EATM, SCE | |
| M2 vacuum improvements for AMBER DY run. | EATM, BE-EA | |
| Set up priorities and timeline for the list of planned improvements for the coming years for ISOLDE | | Followed under ISOLDE Consolidation and Improvements Programme. |
| Schedule MDs for future optics and beam delivery studies for High Intensity ECN3 projects. | SY-ABT, BE-EA | |
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Lower priority Follow-Ups for 2024

| Actions | Groups | Comments |
|---|--------|-------------------|
| Characterise measurement noise when magnets are off for low frequency spill quality | | MD may be needed. |
| Follow-up on the tests planned for 90% PS to AD transmission | | |
| Jitter measurements to pinpoint the most relevant power converter for AWAKE Run2c | | |
| Converge on a plan with PS-OP to roll out ODN circuit (octupoles) on East Area slow extraction. | | |
| Any MDs to be scheduled for AD OP team? | | |
| Set up an “alarm-like” detection for PS to AD transmission drift. | | |
| Confirm if collimator slits are to be used downstream of target in AD. | | |
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