Summary of LS2 ECRs
LIU-PSB Scope

T. Birtwistle (EN-ACE-CL)
LIU-PSB meeting 20th March 2018
Information

- The following slides cover only LIU-PSB scope. However, we do also require ECRs for other activities where a change impacts on “Form, Fit or Function”

- Please use the correct template for ECRs, available here: https://quality.web.cern.ch/templates

- Where relevant, integration studies must be done and contained within the ECR, in advance of the formal ECR approval process:
  - Please contact the integration team (Jean-Pierre Corso)
  - ICL (integration) meeting once every ~2 weeks (Wednesday)

- If you have an LIU-PSB activity that is missing from the lists, and you think an ECR may be needed, please contact me
## LIU-PSB LS2 ECRs

### Multiple Groups

<table>
<thead>
<tr>
<th>Description</th>
<th>Group</th>
<th>Responsible</th>
<th>ECR Reference</th>
<th>ECR Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrade of the PS Booster extraction lines BT, BTM and BTP</td>
<td>TE-ABT</td>
<td>Wolfgang Bartmann</td>
<td></td>
<td>Needed</td>
</tr>
<tr>
<td>Magnet modifications in BT, BTM and BTP (including BT.BHZ10 and BTM.BHZ10)</td>
<td>TE-MSC</td>
<td>Antony Newborough</td>
<td>SRR’s approved: PSB-LJ-EC-0010 PSB-LJ-EC-0011</td>
<td></td>
</tr>
<tr>
<td>Beam instrumentation modifications in BTP line (BTV changes in BT line already covered by a separate ECR)</td>
<td>BE-BI</td>
<td>Lars Soby</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation of new BLMs on the PS Booster extraction lines</td>
<td>BE-BI</td>
<td>Christos Zamantzas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN-STI beam stopper in BTP</td>
<td>EN-STI</td>
<td>Edouard Grenier-Boley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All related vacuum changes</td>
<td>TE-VSC</td>
<td>Jose Somoza</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Include reference to the ECRs for the BT Line Septa</td>
<td>TE-ABT</td>
<td>Wolfgang Bartmann</td>
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<tbody>
<tr>
<td>Add a new BPM on the BI line (upstream of BI.SMV10)</td>
<td>TE-ABT, BE-BI</td>
<td>Christoph Hessler</td>
<td>SRR approved</td>
<td>Needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lars Soby</td>
<td>PSB-LJ-EC-0013</td>
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<tbody>
<tr>
<td>Modifications to the Booster extraction main unit and BT1/4.BVT10, BT2/3.DVT10 (upto the BPMs)</td>
<td>TE-MSC, TE-VSC, BE-BI</td>
<td>Antony Newborough Jose Somoza</td>
<td></td>
<td>Needed</td>
</tr>
</tbody>
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# LIU-PSB LS2 ECRs

## TE-ABT

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<tr>
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<tbody>
<tr>
<td>Replace extraction kicker BEr.KFA14L1 (same size, but potential implications on impedance)</td>
<td>TE-ABT</td>
<td>Luc Sermeus</td>
<td></td>
<td>Needed [foreseen this week]</td>
</tr>
<tr>
<td>Installation of Upgraded PSB Recombination Septa BT.SMV10 (BT1 and BT4)</td>
<td>TE-ABT</td>
<td>Michael Hourican</td>
<td>1459318 PSB-MSMIC-EC-0001</td>
<td>Released</td>
</tr>
<tr>
<td>Installation of Upgraded PSB Recombination Septum BT.SMV20</td>
<td>TE-ABT</td>
<td>Michael Hourican</td>
<td>1459320 PSB-MSMID-EC-0001</td>
<td>Released</td>
</tr>
<tr>
<td>Exchange KSW magnet in 16L1, 1L1 and 2L1</td>
<td>TE-ABT</td>
<td>Luis Coralejo</td>
<td>1422350 PSB-MKKSW-EC-0001</td>
<td>Released</td>
</tr>
<tr>
<td>New distributor BI.DIS10</td>
<td>TE-ABT</td>
<td>Wim Weterings</td>
<td>1518483 PSB-MSMIA-EC-0001</td>
<td>Released</td>
</tr>
<tr>
<td>New Septum BI.SMV10</td>
<td>TE-ABT</td>
<td>Michael Hourican</td>
<td>1561343 PSB-MSMIB-EC-0001</td>
<td>Released</td>
</tr>
<tr>
<td>New injection region in the Booster 1L1</td>
<td>TE-ABT</td>
<td>Wim Weterings</td>
<td>1422358 PSB-L-EC-0001</td>
<td>Released</td>
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## LIU-PSB LS2 ECRs

### TE-MSC

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<tbody>
<tr>
<td>Upgrade of the BHZ Main unit bending magnets (including injection bending</td>
<td>TE-MSC</td>
<td>Antony Newborough</td>
<td></td>
<td>Needed (in work)</td>
</tr>
<tr>
<td>magnet and reference magnet)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damping Resistors on PSB Bending and Quad Magnets</td>
<td>TE-MSC</td>
<td>Antony Newborough</td>
<td>1817987 PSB-M-EC-0001</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Booster Injection Transfer Line Magnet Upgrades and Consolidation</td>
<td>TE-MSC</td>
<td>Antony Newborough</td>
<td>1494503 PSB-LJ-EC-0001</td>
<td>Released</td>
</tr>
</tbody>
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*Plus contribution of information for the BT, BTM, BTP Lines*
## LIU-PSB LS2 ECRs

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<tbody>
<tr>
<td>Booster extraction septa transformers modifications (in tunnel)</td>
<td>TE-EPC</td>
<td>Jean-Marc Cravero</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td>Upgrade of PS Booster Corrector and Quadrupole Power Supplies</td>
<td>TE-EPC</td>
<td>Louis De Mallac</td>
<td>1874665 PSB-R-EC-0005</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Booster Power House (BHP) Converters Upgrade</td>
<td>TE-EPC</td>
<td>Serge Pittet</td>
<td>1868992 PSB-R-EC-0003</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Consolidation and upgrade of the power converters of the LT and LTB lines</td>
<td>TE-EPC</td>
<td>David Nisbet</td>
<td>1851780 PSB-R-EC-0006</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Installation of the power converters for BI.SMV10 magnets for LIU PSB injection</td>
<td>TE-EPC</td>
<td>Jean-Marc Cravero</td>
<td>1887658 PSB-R-EC-0007</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Installation of new Power Converters for PSB injection Qstrip, Correctors, Quad.</td>
<td>TE-EPC</td>
<td>Serge Pittet</td>
<td>1821166 PSB-R-EC-0004</td>
<td>Under Approval</td>
</tr>
<tr>
<td>New MPS for LIU Booster (POPS-B)</td>
<td>TE-EPC</td>
<td>Fulvio Boattini</td>
<td>1643409 PSB-LJ-EC-0008</td>
<td>Released</td>
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## LIU-PSB LS2 ECRs

### BE-BI

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<tbody>
<tr>
<td>New BLMs Installation in the LT, LTB and BI Lines for H- exchange monitoring</td>
<td>BE-BI</td>
<td>Christos Zamantzas</td>
<td></td>
<td>Needed</td>
</tr>
<tr>
<td>Wire Scanners (x8) in the PSB 4L1 and 11L1</td>
<td>BE-BI</td>
<td>Raymond Veness</td>
<td>PSB-LJ-EC-0004</td>
<td>Needed</td>
</tr>
<tr>
<td>Relocation of BI.BTV30</td>
<td>BE-BI</td>
<td>Stephane Burger</td>
<td>1572803 PSB-LJ-EC-0006</td>
<td>Released</td>
</tr>
<tr>
<td>Relocation of BT2.BTV10 and BT3.BTV10 in the PS Booster</td>
<td>BE-BI</td>
<td>Stephane Burger</td>
<td>1494819 PSB-LJ-EC-0002</td>
<td>Released</td>
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*Plus contribution of information for the BT, BTP Line, the new BPM in the BI Line, and extraction line BLMs*

### BE-RF

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<tr>
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<tbody>
<tr>
<td>The New PS Booster RF System (Finemet Cavities)</td>
<td>BE-RF</td>
<td>Mauro Paoluzzi</td>
<td>1733551 PSB-ACWFB-EC-0001</td>
<td>Approval Closed</td>
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## LIU-PSB LS2 ECRs

### EN-STI

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<tbody>
<tr>
<td>Removal of 2 beam stoppers (BI.STPFA and BI.STPSW) on the BI line</td>
<td>EN-STI</td>
<td>Edouard Grenier-Boley</td>
<td>1835875 PSB-LJ-EC-0012</td>
<td>In Work</td>
</tr>
<tr>
<td>New PS Booster Absorber in Period 8</td>
<td>EN-STI</td>
<td>Inigo Lamas Garcia</td>
<td>SRR approved</td>
<td>Needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSB-LJ-EC-0007</td>
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*Plus contribution of information for the stopper in BTP line*

### EN-CV

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<tbody>
<tr>
<td>Ventilation system in the PS Booster</td>
<td>EN-CV</td>
<td>Gabor Petrika</td>
<td></td>
<td>Needed</td>
</tr>
<tr>
<td>Consolidation of the Booster chilled water plant (b. 361)</td>
<td>EN-CV</td>
<td>Gabor Petrika</td>
<td></td>
<td>Needed</td>
</tr>
<tr>
<td>Consolidation of the Booster cooling plant (b. 237?)</td>
<td>EN-CV</td>
<td>Gabor Petrika</td>
<td></td>
<td>Needed</td>
</tr>
<tr>
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<tr>
<td>New LBE line plus infrastructure</td>
<td>EN-ACE</td>
<td>Aurelio Berjillos</td>
<td>1805620 CPS-LJ-EC-0005</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Partial dismantling of Linac2</td>
<td>EN-ACE</td>
<td>Aurelio Berjillos</td>
<td>1688400 CPS-LJ-EC-0003</td>
<td>Under Approval</td>
</tr>
<tr>
<td>Connection of Linac4 to BHZ20</td>
<td>EN-ACE</td>
<td>Aurelio Berjillos</td>
<td>1688387 CPS-LJ-EC-0002</td>
<td>Under Approval</td>
</tr>
</tbody>
</table>
Thanks for your attention