

# **OP during LS1**

Mike Lamont

# BE/OP GROUP STRUCTURE June 2012

Group Leader: M. Lamont  
Deputy GL M. Benedikt

Group Secretary  
MedAustron

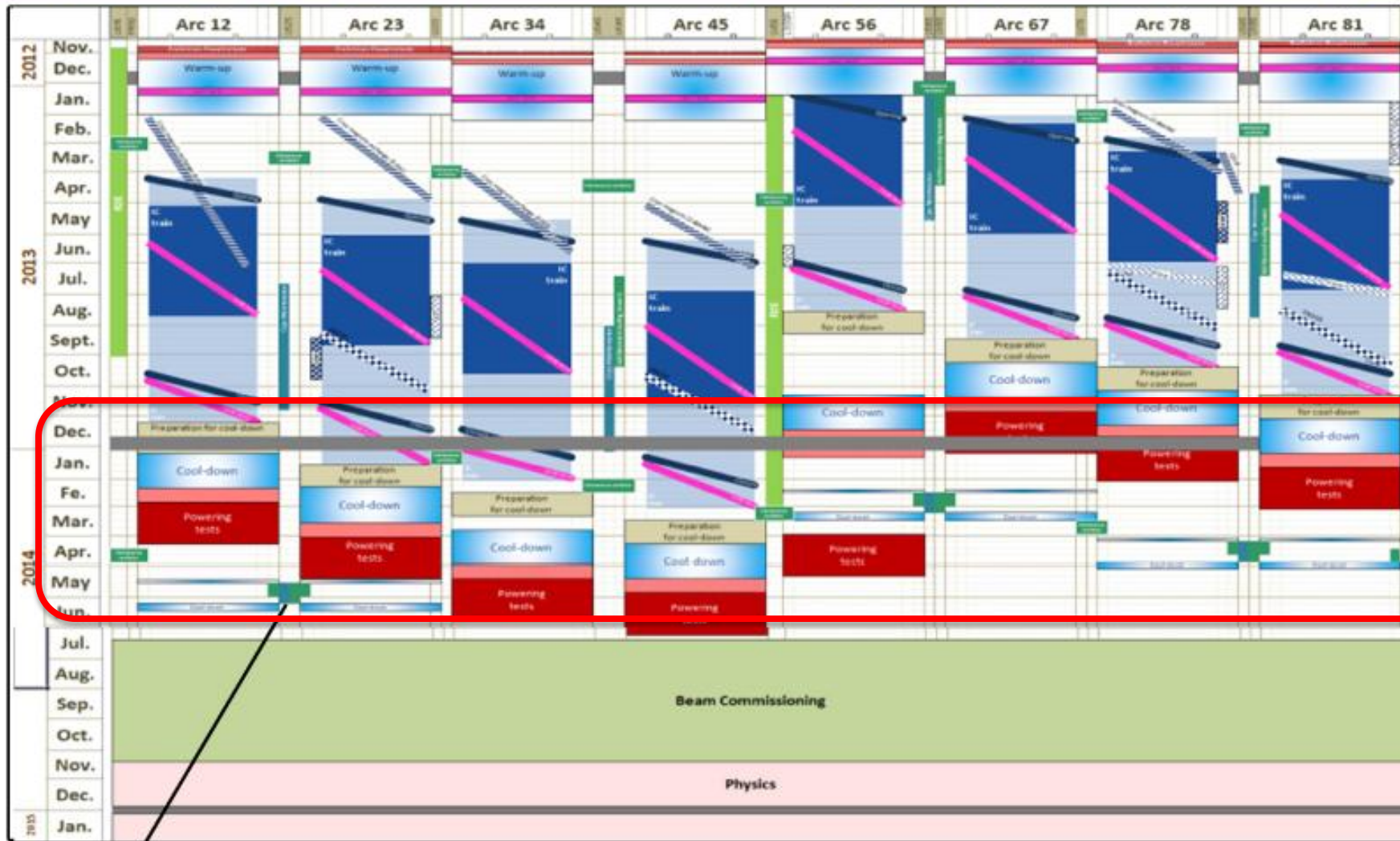
S. Dubourg (BE/ASR)  
J. Schueler (BE/ASR)

AD section AD & LEIR operation	LHC section LHC Operation	PSB section Booster & Isolde Operation	PS section PS & CTF3 Operation	SPS section SPS Operation	TI section Technical Infrastructure	MED Section MedAustron
T. Eriksson	J. Wenninger	K. Hanke	R. Steerenberg	K. Cornelis	P. Sollander	M. Benedikt
P. Belochitskii L. Bojtar B. Dupuy L. Joergensen B. Lefort J.C. Oliveira S. Pasinelli (75%)	M. Albert R. Alemany-Fernandez G. Crockford R. Giachino G.H. Hemelsoet D. Jacquet V. Kain A. Macpherson L. Normann G. Papotti M. Pojer L. Ponce G. Roy M. Solfaroli-Camillocchi R. Suykerbuyk	<b><u>BOOSTER</u></b> A. Akroh D. Allen C. Bidaut F. Chapuis J-F. Comblin B. Mikulec E. Ovalle J-L Sanchez Alvarez  <b><u>ISOLDE</u></b> P. Fernier ML. Lozano Benito E. Piselli E. Siesling D. Voulot	D. Cotte M. Delrieux J-C. Dumont J.L. Duran-Lopez P. Freyermuth H. Genoud O. Hans C. Kittel J. Kuczerowski R. Maillet E. Matli G. Métral J-M. Nonglaton B. Vandonpe  <b><u>CTE</u></b> F. Tecker S. Pasinelli (25%) D. Manglunki (50%)	O. Andujar J. Axensalva S. Cettour Cave K. Cunnington J. Dalla-Costa J. Fleuret F. Follin Y. Le Borgne D. Manglunki (50%) S. Massot L. Pereira D. Perez J. Ridewood E. Veyrunes	F. Hebert J. Juillard R. Ledru E. Lienard J. Nielsen J. Pache C. Pruneaux R. van der Kolk C.J. Wetton	C. Ajayi (PIAS) K. Ambrosch (PIAS) S. Bailly (PIAS) A. Beaumont (PIAS) A. Brett (PIAS) I. De Cesaris (PIAS) E. Feldbaumer (PIAS) M. Feurstein (PIAS) P. Fraboulet (PIAS) M. Furtinger (PIAS) D. Gabriele (PIAS) G. Galluccio (PIAS) H. Grill (PIAS) A. Gyorgy (PIAS) M. Hager (PIAS) T. Hauser (PIAS) P. Hofer (PIAS) L. Jaegerhofer (PIAS) M. Janulis (PIAS) J. Junuzovic (PIAS) A. Kerschbaum (PIAS) G. Kotzian (PIAS) S. Kouzue Teweuchi (PIAS) T. Kramer (PIAS) P. Landrot (PIAS) M. Marchhart (PIAS) S. Marinics (PIAS) R. Moser (PIAS) M. Palm (PIAS) H. Pavetits (PIAS) M. Repovz (PIAS) W. Rupprecht (PIAS) J. Sanchez-Quesada (PIAS) P. Schwarz (PIAS) S. Schwarz (PIAS) C. Siedler (PIAS) T. Stadlbauer (PIAS) C.B. Torcato de Matos (PIAS) J. Wallner (PIAS) S. Auer (TS) N. Chatzigeorgiou (TS) T. Kulenkampff (TS) J. Walter (TS)
	T. Baer (D) L.N. Drosdal (D) M. Kuhn (TS) D. Romano (F)	D. Lanaia (F) A. Moscatelli (TS) V. Raginel (F)	D. Gamba (TS) A. Huschauer (TS)			

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<p>P. Belochitskii L. Bojtar B. Dupuy L. Joergensen B. Lefort J.C. Oliveira S. Pasinelli (75%)</p> <div data-bbox="28 506 227 953" style="background-color: #0056b3; color: white; padding: 10px; text-align: center; writing-mode: vertical-rl; transform: rotate(180deg);">           ELENA CONSOLIDATION         </div>	<p>M. Albert R. Alemany-Fernandez G. Crockford R. Giachino G.H. Hemelsoet D. Jacquet V. Kain A. Macpherson L. Normann G. Papotti M. Pojer L. Ponce G. Roy M. Solfaroli-Camilloci R. Suykerbuyk</p>	<p style="text-align: center;"><b><u>BOOSTER</u></b></p> <p>A. Akroh D. Allen C. Bidaut F. Chapuis J-F. Comblin B. Mikulec E. Ovalle J-L Sanchez Alvarez</p> <p style="text-align: center;"><b><u>ISOLDE</u></b></p> <p>P. Fernier ML. Lozano Benito E. Piselli E. Siesling D. Voulot</p> <div data-bbox="658 839 987 1143" style="background-color: #0056b3; color: white; padding: 10px; border-radius: 15px;"> <ul style="list-style-type: none"> <li>- LINAC4</li> <li>- BOOSTER UPGRADE</li> <li>- HIE-ISOLDE</li> <li>- TSR</li> </ul> </div>	<p>D. Cotte M. Delrieux J-C. Dumont J.L. Duran-Lopez P. Freyermuth H. Genoud O. Hans C. Kittel J. Kuczerowski R. Maillet E. Matli G. Métral J-M. Nonglaton B. Vanderpe</p> <p style="text-align: center;"><b><u>CTF</u></b></p> <p>F. Tecker S. Pasinelli (25%) D. Manglunki (50%)</p> <div data-bbox="987 1015 1296 1319" style="background-color: #0056b3; color: white; padding: 10px; border-radius: 15px;"> <ul style="list-style-type: none"> <li>- ACCOR</li> <li>- PS UPGRADE</li> <li>- CTF3</li> </ul> </div>	<p>O. Andujar J. Axensalva S. Cettour Cave K. Cunningham J. Dalla-Costa J. Fleuret F. Follin Y. Le Borgne D. Manglunki (50%) S. Massot L. Pereira D. Perez J. Ridewood E. Veyrunes</p>	<p>F. Hebert J. Juillard R. Ledru E. Lienard J. Nielsen J. Pache C. Pruneaux R. van der Kolk C.J. Wetton</p> <div data-bbox="1605 572 1914 782" style="background-color: #0056b3; color: white; padding: 10px; border-radius: 15px; text-align: center;">       24/7/365 as usual     </div>



# LS1 – Physics to Physics 24 months

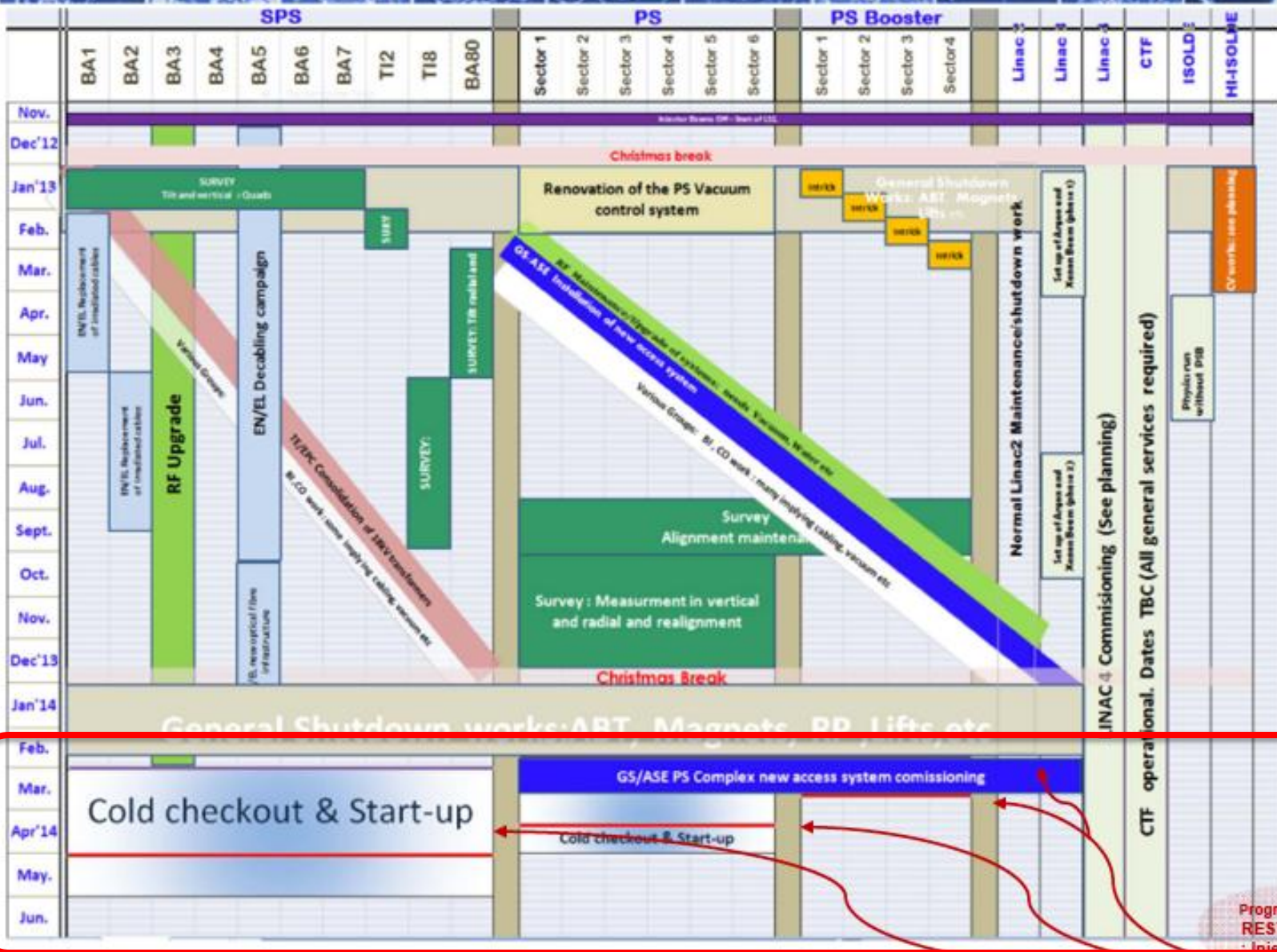


Additional period of maintenance in 2014

Xmas 2014 : only one week of standby (no maintenance)



# LS1: LHC injectors and Facilities



F. Bordry, LS1@L.MC, 5th October 2011

Courtesy of V. Chohan

Progressive RESTART injectors

# BE-OP 2013 to 2014

- Technical infrastructure coverage
  - 2<sup>nd</sup> operator required at all times
- Work on non-LHC projects
  - LINAC4, PSB upgrade, SPS upgrade, HIE-ISOLDE
- Work on non-LHC consolidation
  - AD, PSB, PS, SPS
  - Shutdown coordination
  - Controls renovation
- CTF3 operations

# AD

BELOCHITSKII	Pavel	BE-OP-AD	AD/ELENA	1.0		
BOJTAR	Lajos	BE-OP-AD	AD/ELENA	1.0		
DUPUY	Bruno	BE-OP-AD	LHC QPS related work	0.6	AD	0.4
ERIKSSON	Tommy	BE-OP-AD	SL,AD consolidation, future AD projects	1.0		
JORGENSEN	Lars	BE-OP-AD	AD/ELENA	1.0		
LEFORT	Bertrand	BE-OP-AD	LHC consolidation	0.6	AD	0.4
OLIVEIRA	Joao Carlos	BE-OP-AD	LHC consolidation	0.5	AD (software etc)	0.5
PASINELLI	Sergio	BE-OP-AD	CTF3 related work and CLIC	0.3	Elena	0.7

Largely dominated by AD consolidation and ELENA

# LHC

ALBERT	Markus	BE-OP-LHC	LHC consolidation	0.6	TI shifts	0.4		
ALEMANY FERNANDEZ	Reyes Maria	BE-OP-LHC	HL-LHC	0.4	LHC consolidation	0.6		
CROCKFORD	Guy	BE-OP-LHC	LHC consolidation	0.5	TI shifts	0.4		
GIACHINO	Rossano	BE-OP-LHC	LHC consolidation	0.8	CCC	0.2		
HEMELSOET	Georges-Henry	BE-OP-LHC	LHC consolidation	0.8				
JACQUET	Delphine	BE-OP-LHC	LSA	0.6	LHC consolidation	0.4		
KAIN	Verena	BE-OP-LHC	LIU	0.4	LHC consolidation	0.6		
MACPHERSON	Alick Lachlan	BE-OP-LHC	Crab cavities	0.5	LHC consolidation - cabling CC?	0.5		
NORMANN	Lasse	BE-OP-LHC	VACATION	1.0				
PAPOTTI	Giulia	BE-OP-LHC	RF	0.4	LHC consolidation	0.6		
POJER	Mirko	BE-OP-LHC	LHC consolidation	1.0				
PONCE	Laurette	BE-OP-LHC	LHC consolidation	0.6	LIU/access	0.4		
ROY	Ghislain	BE-OP-LHC	To be assigned	1.0				
SOLFAROLI	Matteo	BE-OP-LHC	LHC consolidation	0.6	Recommissioning after LS1 + LSA	0.4		
SUYKERBUYK	Ronaldus	BE-OP-LHC	LHC consolidation	0.2	TI shifts	0.4	QPS or R2E?	0.4
WENNINGER	Jorg	BE-OP-LHC	Section Leader	0.5	LHC consolidation	0.4		

- Heavy involvement in consolidation
- Have also to look forward to hardware commissioning



# PS

COTTE	Denis Gerard	BE-OP-PS	PS SW development / LSA / Renovation support [60%]	0.6	LHC consolidation ELQC	0.4		
DELRIEUX	Marc	BE-OP-PS	LINAC 4 BE-RF support in PLC related work and commissioning	0.7	LHC consolidation ELQC	0.3		
DUMONT	Jean-Charles		PS software renovation, SIS	0.3	LHC consolidation ELQC	0.4	TI shifts	0.3
DURAN-LOPEZ	Jose-Luis	BE-OP-PS	Support new PS access system integration and issue follow up	0.8	PS complex safety linkman	0.2		
FREYERMUTH	Pierre	BE-OP-PS	Support to CO for generic software development [60%]	0.6	TI support	0.4		
GENOUD	Herve Michel	BE-OP-PS	QPS work [100%]	1.0				
HANS	Oliver	BE-OP-PS	PS superintendent support and PS magnet support	0.7	MedAustron [30%] or TI shifts	0.3		
KITTEL	Christoph	BE-OP-PS	LHC cons WQC [50%]	0.5	PS B-train and magnetic measurement support	0.2	TI shifts	0.3
KUCZEROWSKI	Joseph	BE-OP-PS	Impedance measurement work BE-ABP-ICE and BE-RF [60%]	0.6	TI support (MedAustron?)	0.4		
MAILLET	Rudolphe	BE-OP-PS	PS software renovation [60%]	0.6	LHC cons WQC	0.4		
MATLI	Emanuele	BE-OP-PS	PS software renovation [70%]	0.7	LHC cons ELQC	0.3		
METRAL	Gabriel	BE-OP-PS	PS technical work / Renovation (ACCOR etc.) [60%]	0.6	TI support	0.4		
NONGLATON	Jean-Michel	BE-OP-PS	CTF3 operational and software support [60%]	0.6	TI support	0.4		
STEERENBERG	Rende	BE-OP-PS	PS section management, PS machine follow up, PS-CSAP, ...	0.6	PS access and safety system	0.2	LAGUNA	0.2
TECKER	Frank	BE-OP-PS	CTF3 operation and CLIC project [100%]	1.0				
VANDORPE	Bernard	BE-OP-PS	PS software renovation [60%]	0.6	TI support???	0.4		

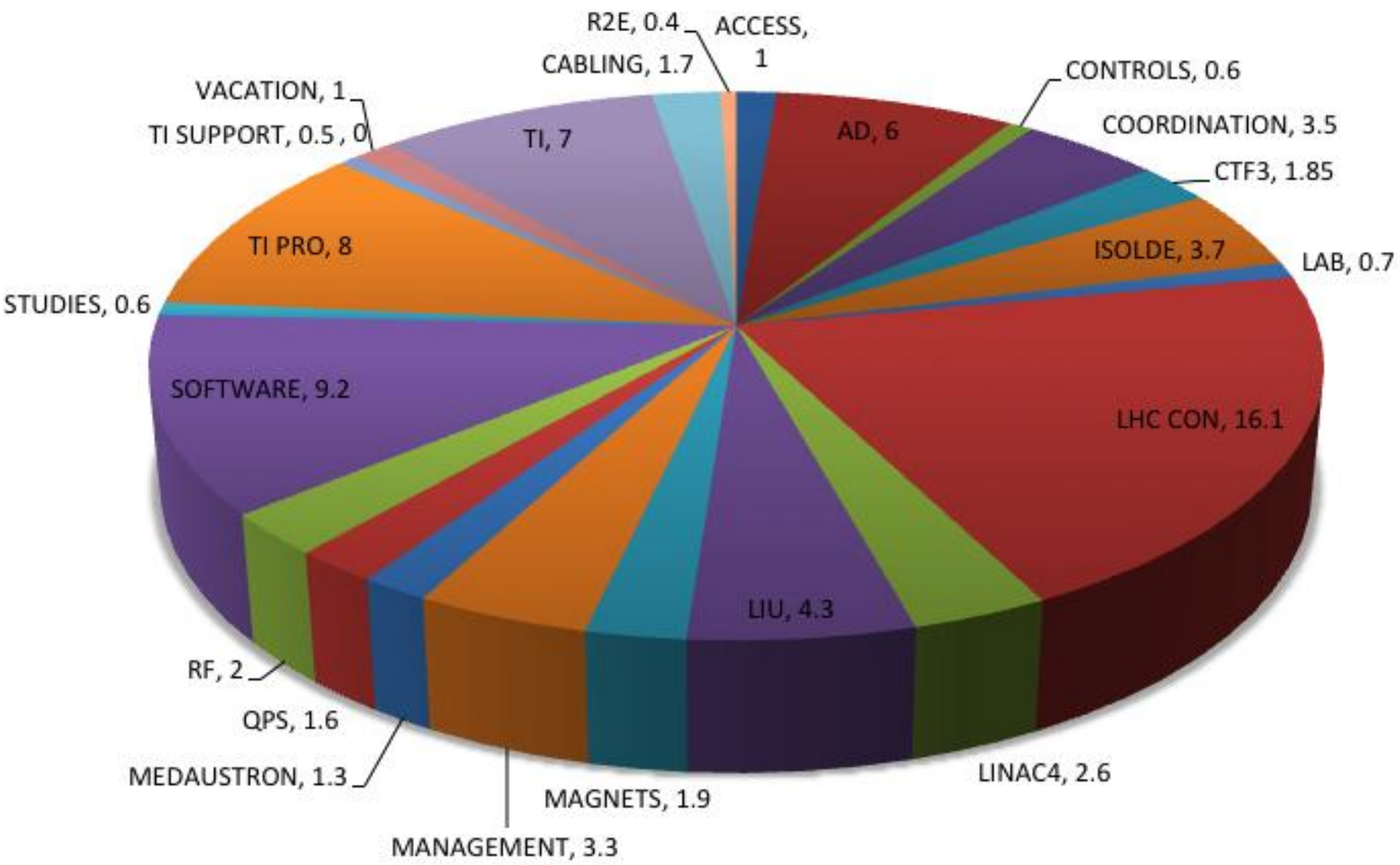
# PSB

AKROH	Abdel		software for ISOLDE/Linac4/Booster	0.6	L4 commissioning	0.4		
ALLEN	David John	BE-OP-PSB	LHC consolidation	0.7				
BIDAUT	Celine	BE-OP-PSB	software for ISOLDE/Linac4/Booster	0.6	L4 commissioning	0.4		
CHAPUIS	Fabrice	BE-OP-PSB	PSB coordination	0.3	Cable supervision	0.4	TI shifts	0.3
COMBLIN	Jean-Francois	BE-OP-PSB	software for ISOLDE/Linac4/Booster	0.6	L4 commissioning	0.4		
FERNIER	Pascal	BE-OP-PSB	ISOLDE and HIE ISOLDE hw work	0.7	Cable supervision	0.3		
HANKE	Klaus	BE-OP-PSB	Booster upgrade/ Linac4 / administrative tasks	1.0				
Lozano Benito	Miguel	BE-OP-PSB	ISOLDE and HIE ISOLDE hw work	1.0				
MIKULEC	Bettina	BE-OP-PSB	Booster upgrade / Linac4	0.7	LHC consolidation	0.3		
OVALLE	Ernesto	BE-OP-PSB	software for ISOLDE/Linac4/Booster	0.5	TI	0.3		
PISELLI	Emiliano	BE-OP-PSB	software for ISOLDE/Linac4/Booster	0.6	L4 commissioning	0.4		
SANCHEZ ALVAREZ	Jose-Luis	BE-OP-PSB	software for ISOLDE/Linac4/Booster	0.4	L4 commissioning	0.3	TI shifts	0.3
SIESLING	Erwin	BE-OP-PSB	HIE ISOLDE installation work	1.0				
VOULOT	Didier	BE-OP-PSB	HIE ISOLDE	1.0				

HIE-ISOLDE, Booster upgrade, LINAC4 commissioning, software

# SPS

ANDUJAR	Oscar	BE-OP-SPS	SPS machine coordination (ring)	0.6	TI	0.4
AXENSALVA	Jerome	BE-OP-SPS	SPS machine coordination (NA)	1.0		
CETTOUR CAVE	Stephane	BE-OP-SPS	SPS magnets	0.7	Timing and cycle related work	0.3
CORNELIS	Karel	BE-OP-SPS	Section Leader	0.2	SPS upgrade	0.8
CUNNINGTON	Kevin	BE-OP-SPS	SPS magnets	1.0		
FLEURET	Jeremie Romain	BE-OP-SPS	LHC consolidation	1.0		
FOLLIN	Fabio	BE-OP-SPS	Software	0.5	TI	0.5
DELLA COSTA	Johan	BE-OP-SPS	LHC consolidation	0.7	TI	0.3
LE BORGNE	Yannick	BE-OP-SPS	LHC related software	0.5	Controls for SPS RF upgrade (LIU)	0.5
MANGLUNKI	Django	BE-OP-SPS	LIU ION projects LHC and SPS FT	1.0		
MASSOT	Serge	BE-OP-SPS	LHC consolidation	0.6	TI (&SW)	0.4
PEREIRA	Louis	BE-OP-SPS	LHC consolidation	0.6	TI (& timing/ROCS)	0.4
PEREZ	Diego	BE-OP-SPS	Mechanical measurement lab	0.7	TI	0.3
RIDEWOOD	James	BE-OP-SPS	SPS machine coordination (ring)	0.7	Software for injectors	0.3
VEYRUNES	Eric	BE-OP-SPS	LHC consolidation	0.5	Software for injectors (kickers SPS)	0.3



# LHC consolidation

Area	Details	Lamont	Lefort	Oliveira	Albert	Aleman	Crockford	Giachino	Hemseloet	Jacquet	Kain	Macpherson	Pappotti	Pojer	Ponce	Solfaroli	Suykerbuyk	Wenninger	Cotte	Delerieux	Dumont	hans	Kittel	Maillet	Matli	Allen	Fleuret	Della Costa	Massot	Pereira	Veyrunes	Total
% real		0.2	0.6	0.5	0.6	0.6	0.5	0.8	0.8	0.4	0.6	0.5	0.6	1.0	0.6	1.0	0.2	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.3	0.8	1.0	0.7	0.6	0.6	0.5	16.8
ELQC	Resp													1.0		1.0																1.0
ELQC	Tool							0.4																					0.3		0.7	
ELQC	Training																									0.4	0.5				0.9	
ELQC	Inspector		0.6	0.5		0.6	0.5	0.4	0.4										0.4	0.3	0.4	0.5			0.3	0.4	0.5	0.7	0.6	0.3	0.5	7.9
TIG	Manage, Analysis				0.6																										0.6	
TIG	Doc										0.6													0.4							1.0	
WQC																							0.4								0.4	
P Office	Resp													1.0																	1.0	
P Office	Access/safety														0.6																0.6	
P Office	Pub rel/Press																0.2														0.2	
P Office	Coord							0.8					0.6																		1.4	
Audit		0.2																													0.2	
Unassigned												0.5						0.4													0.9	
																															16.8	

# Requests

## LHC consolidation

SPLICES QA/QC	Being responsible, for the duration of a shift, to perform all measurements aimed at ensuring the good quality of the splices (visual inspection, mechanical measurements, electrical measurements and photos).	9 technicians	See sheet 1
QA/QC coordination	He/she is first of all responsible for the organization of the shift rota. He/she should ensure the continuity of the job between different shifters and the continuous training of the same shifters. He/she is responsible for the collection of the measurement data and for the check of the coherency between them.	Supervisor of 9 operators	Matteo
Expert in radiation protection, safety and access.	He/she is responsible for the preparation of safety-related procedures (under the advise of the DSO), for most of the activities in the tunnel. He/she will deal with the access constraint and all related procedures. He/she will draw the documents for the safe execution of the pressure tests	Safety/RP expert	Laurette/Ghislain(?)
Project Office	They are responsible for the general coordination of all tunnel activities. They are responsible for the interaction between all teams and activities not related to the splice consolidation (Survey, BLM, instrumentation, transport, QPS, cryogenics. They are also responsible for the reporting tools.	3 responsible for the coordination – Project Office.	Mirko, Rossano, Giulia, Matteo

Fully covered

# Requests

## R2E and support for Engineering for coordination

R2E	to supervise the R2E activities in the LHC during LS1. Each supervisor will be in charge of the coordination and follow-up of the activities to be performed in one point (point 1 & 8, 7 and 5), under the overall supervision of Anne-Laure Perrot.	3 work supervisors	Reyes, Alick, Herve????
EN	planning and coordinating of installation, maintenance and repair activities for the Injectors	PSB	Fabrice Chapuis
EN	planning and coordinating of installation, maintenance and repair activities for the Injectors	SPS	James Ridewood & Oscar
EN	planning and coordinating of installation, maintenance and repair activities for the Injectors	PS	Oliver Hans
EN	For someone to join the section MEF/EBE during the LS1 and take part in the planning and coordinating of installation, maintenance, shutdown and repair activities for secondary beam lines and Experimental Areas. As this involves mainly the North Area this would be best suited to an SPS operator	North Area	Jerome Axensalva

# Requests

QPS, LHC & SPS vacuum, LINAC4, Cabling, RF software, BI, CTF

QPS	To be defined		So far just Herve & Bruno
LHC Vacuum	To be defined		?
LINAC4	Commissioning		See sheet - well covered
EN	Work supervision re-cabling PSB injection region	PSB	We have for example assigned Fabrice for Booster work during LS1, he would be best placed for this job.
EN	Supervision of ISOLDE cabling.	ISOLDE	Pascal Fernier
VAC	SPS vacuum - earth fault checks etc.	SPS	Stefan Cettour Cave
SOFTWARE	RF		See over
BI	Technician		No takers
CTF	Operational support		Sergio & ... Frank & J-MN



# RF software

- Denis Cotte would be a good candidate to help with software for RF in the PS complex in LS1 - noted
- Yannick Le Borgne to work with Anthony on the SPS RF controls renovation as we already discussed.
- Have discussed with Joao Carlos Oliveira he confirms that he is interested in working with us, during the LS1, on PLC projects.
- It was already agreed, with K. Hanke, that Miguel Lozano will help for HIE-Isolde controls with D. Glenat

# Cabling

- At present there are two operators earmarked to work on cable supervision they are:
- **Fabrice Chapuis :**
  - Mainly for any PSB cabling works, since he knows that machine very well. He might also be useful for any Linac4 works.
- **Pascal Fernier:**
  - Mainly for ISOLDE (and HIE-Isolde)
- The only issue here might concern the preparation of the cabling campaigns – if this needs to be done during the running period of 2012. Both will continue working on the operation of the machines until the beginning of LS1.
- **Isabelle Laugier** also now done for 50% cabling support (tbc)

