Plan results
(30 min)

K. Foraz (EN-AE)
Contents

• Deadlines
• Approval phase
• Provisional results
• Next phase & Plan tool development
• Conclusions
Deadlines

Plan Lifecycle of LS2 - Version 1

Initialization
- Group creates activities, adds scheduling and requests contributions

Prioritization
- Plan coordinator prioritizes and schedules all activities

Resource Allocation
- Group allocates resources to the group contributions and confirms validity of the requested contributions

Final Approval
- Plan coordinator submits activity to final state

Group creates activities, adds scheduling and requests contributions

Created

Group submits activity for prioritization

Prioritization

Plan coordinator prioritizes and schedules all activities

Resource allocation

Group allocates resources to the activities
- Group confirms validity of its contributions

Under approval

Plan coordinator submits activity to final state

Finished
- Approved
- Postponed
- Cancelled
Deadlines

Activity Status

- Created
- Prioritization
- Resource Allocation
- Under Approval
- Cancelled
- Finished

5th & 8th November 2016

http://indico.cern.ch/event/564604/
Resource allocation phase

Prior to the start of an LS, we need to define which works will be achieved and which are the potential options, based on priorities given to activities and the resources we have.
Reports

- Reports are available through PLAN tool or Pentaho and on request

FTE/Weeks for TE-MSC

- Associated Personnel - 2
- Personnel - 1 coordinateur technique
- Personnel - 1 Engineer
- Personnel - 1 Technician

SUMMARY

- Associated Personnel - 2
- Personnel - 1 coordinateur technique
- Personnel - 1 Engineer
- Personnel - 1 Technician

CHARM target upgrade

WBS: SEC-BEAM-AREAS-PS
Priority: 4a. Approved project if budgeted
Facilities: East Hall Target

Impact if not done/postponed
Simplification for easier installation of test samples in Charm
Higher personnel doses

Supports - Preparation
- EN-MME design and manufacturing
- HSE-RP intervention support

Design completed.
No known request for fabrication.
LS2

Missing technical information about EN-EL contribution

10007

Design completed.
No known request for fabrication.
LS2

Missing technical information about EN-EL contribution

http://indico.cern.ch/event/564604/
Approval phase

- Meetings were held with key groups in order to understand their issues and to encourage them to clarify their requests

Lot’s of meetings were held between groups
- Missing technical information (but still)
- Wrong group requested to contribute
- Missing contribution groups

Provisional results = No
Approval phase – EL example

- Assuming same level of resources as during LS1
- Clarification with users

EN-EL support requests - availability

- 1. Safety
- 2. Activities needed to reach 300fb-1 during run3
- 3. HL-LHC and LIU projects
- 4. Approved projects
- 4a. Approved project if budgeted
- 5. Approved studies

EN-EL support requests - availability

- 1. Safety
- 2. Activities needed to reach 300fb-1 during run3
- 3. HL-LHC and LIU projects
- 4. Approved projects
- 4a. Approved project if budgeted
- 5. Approved studies

• Assumption same level of resources as during LS1
• Clarification with users
Provisional results - Summary

897 PLAN requests being scrutinized (under approval & Resource allocation)
  • 670 for which all resources are available
  • 227 for which resources are unavailable

12 PLAN requests under prioritization

Never get answers on data quality from responsible!

153 PLAN requests created – will be treated in version 2
Provisional results for eYETs

81% can be approved

Priority 2

- 10294 LHC- MKB Vacuum Pumping Scheme Consolidation BTD62.DR EL Not needed
- 10596 Replacement of 7 BCTs in LINAC2V ABT not needed
- 10854 Replace one injection kicker magnet (MKI) ABT not needed
- 10393 Replacement of obsolete SEMs in the PS Missing Info
- 10466 Replace the existing 35 kW cooling system for cryogenics installation in PM18 Missing Info
- 10489 Consolidate the ventilation system in the SR buildings Missing Info
- 10332 Consolidate PSB Septa Electronics & Controls WIC installed in LS2
- 10389 Linac3 source micro-wave generator No EL resources
- 10590 Replacement of 10% (100) of VPIA pumps [EYETS2016] VSC resources
- 10847 General Maintenance kicker systems in Accelerator Complex (2016-YETS-2017) HSE resources
Provisional results for eYETs

**Priority 3 - LIU**
- 10068  Installation of new Wideband Pick-up in PSB  ABP not needed
- 10070  Installation of new housing for BTV30 in the BI line of the PSB  ABP not needed

**Priority 3 - HL**
- 10843  HL-LHC Crab-cavity cryomodule in SPS  Wrong group
- 10906  Wire collimators TCTW for EYETS  EL Missing Info & MME
- 10082  18kV LHC18 Extension et consolidation de la sous station SE18  HSE resources wrong Prio
Provisional results for eYETs

Priority 4

- 10381 Consolidation of the Fibre Infrastructure in Prevesin  
  wrong group
- 10382 Consolidation of the Fibre Infrastructure in Meyrin  
  wrong group
- 10386 Fibrotheque Database  
  wrong group
- 10278 ALICE O2 infrastructure  
  CV missing info
- 10280 ALICE fibers…during LS2  
  EL – project strategy tbd
- 10391 Provide Electronics & Controls for restart of AD Horn Test …  
  EL missing info
- 10481 Consolidate the NA underground ventilation  
  EL missing info
- 10646 BSRTR for Beam 2.  
  EL & MME missing info
- 10649 LHC orbit system DOROS  
  Missing info
- 10174 CMS GCS new Gas system (GEM)  
  ICS resources
- 10484 Consolidate the NA chilled water network  
  HSE resources
Unavailable support

- 38% No information
- 33% Missing information
- 14% Not in group mandate / not needed anymore
- 9% Missing resources
- 6% schedule issue
Summary BE

Provisionnal results of activities declared by BE

- **BE-ABP**
  - 36% ?
  - 50% Missing Info

- **BE-ASR**
  - 27% ?
  - 18% Missing Info
  - 23% wrong group / not needed
  - 23% Resource issue
  - 5% Schedule issue

- **BE-BI**
  - 50% ?
  - 10% Missing Info
  - 40% wrong group / not needed

- **BE-CO**
  - 68% ?
  - 4% Missing Info
  - 25% Resource issue
  - 3% Schedule issue

- **BE-ICS**
  - 31% ?
  - 5% done
  - 20% Missing Info
  - 15% Wrong group/ not needed
  - 15% Resource issue
  - 12% Schedule issue

- **BE-RF**
  - 23% ?
  - 5% Resource issue
  - 15% Wrong group/ not needed
  - 23% Schedule issue

[7th & 8th November 2016](http://indico.cern.ch/event/564604/)
Summary BE

Provisional results of activities declared by BE

Contributions of BE department
Summary EN

Provisionnal results of activities declared by EN

- **Will be solved**
  - 18% Schedule
  - 20% ?
  - 52% Missing Info

- **80% ?**
  - 10% Missing Info
  - 10% wrong group / done

- **34% ?**
  - 36% Missing Info
  - 20% wrong group / done

EN-ACE | EN-CV | EN-EA | EN-EL | EN-HE | EN-MME | EN-STI

No | Yes
Summary EN

Provisionnal results of activities declared by EN

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Contributions of EN department

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Summary EP

Provisionnal results of activities declared by EP

Contributions of EP department

EP-AIO

EP-LBO

No Yes


Yes Unknown No
Summary HSE

Provisional results of activities declared by HSE

Resources available

HSE-RP

HSE-SEE
Summary IT

Provisionnal results of activities declared by IT

- 93% ? (but all from ITS-CS)
- 7% missing Info

Resources available

- IT-CS
  - Yes
  - Unknown
  - No

- IT-DB
  - Yes
  - Unknown
  - No
Summary SMB

Provisionnal results of activities declared by SMB

- 68% ? (but all from ITS-CS)
- 32% missing Info/strategy

Resources available

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Summary TE

Provisional results of activities declared by TE

- **41% ?**
  - 18% Missing Info
  - 6% wrong group / not needed
  - 29% Resource issue
  - 6% Schedule issue

- **82% Missing Info**
  - 12% Resource issue
  - 6% Schedule issue

- **2% ?**
  - 2% ?
  - 50% Missing Info
  - 21% wrong group / not needed
  - 27% Resource issue

- **25% ?**
  - 25% ?
  - 45% Missing Info
  - 20% wrong group / not needed
  - 5% Resource issue
  - 5% Schedule issue

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7th & 8th November 2016
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Summary TE

Provisional results of activities declared by TE

Contributions of TE department

CERN

LS2 Days

7th & 8th November 2016

http://indico.cern.ch/event/564604/
• In September first results showed that 54% of the PLAN requests related to LIU couldn’t be accepted!
• Today, thanks to LIU pro-activity only, but still 20%.
• Mainly due to Missing information (45%) and unknown reasons (20%)
Summary HL-LHC

HL-LHC project
Provisional results by group responsible

Answered no mainly because of Missing information
Summary Awake

- BE-BI: Resources issue being solved
- TE-VSC: to follow wrt vacuum chamber fabrication
Next phases

1. Still some works for groups
   • Unavailable information in PLAN Mainly EP (35 over 59!)
   • Missing technical information
     • Responsible groups to provide information to their contributors, else the request might be postponed
     • Deadline: Nov. 20th
     • (please keep Mirko & Katy in the loop)
   • Not in group mandate / not needed anymore. Could request responsible group let us know on their final decision

2. Approved / Postponed

3. Final results Mid January

4. Version 2 (see next slide)
Version 2

- Version 2 will be in production as soon as version 1 exercise will be complete
- Small working group to review PLAN tool

Program for the coming weeks

1. Workflow by-pass & which data can be updated by whom
2. Phase per phase:
   a. Review of fields and ergonomic
   b. Mandatory fields and not optional fields (statistics on filled fields)
   c. Excel upload (or not)
   d. Standardization of support requests
3. Communication: notifications, mails...
4. Reference with other systems: JMT, edms, APT
5. Customization: specific forms
6. Filters and ergonom
7. Report
Version 2 - open questions

• In order to get the same level of granularity:
  ➢ Project leaders will be from now on, invited to declare the activities for their project

• Maintenance activities - Do we need them in PLAN?
  • Most of them concerns only the responsible group
  • But some groups need to include them to have an overview of resource load

• Shall we consider, in the future, one year to perform the exercise
  • What do we do in the meantime with approved project during the year?

• Shall we suggest some key support / checking list? RP, HE….
Conclusions

• PLAN «LS2» version 1
  • Huge effort from groups to complete PLAN «LS2» version 1
  • 75% of requests have no show-stopper (81% for eYETS)
  • From June to now, most of requests were clarified between groups (in September, only 61% = no show-stopper)
  • Support groups have a clearer picture of the resources needed, but not all are in PLAN!

• PLAN «LS2» version 2
  • Will start after Chamonix
  • It’s crucial to include all requests needing support, and we know there are more, in order to align our effort, especially in matter of resources.
  • Support groups will have a better view w.r.t. to version 1 results
Back-up
Which tool is for what

- **PLAN**
  - A unique repository
  - gathering all main activities for a given period of time
  - committing or not the support groups
  - with a simple approval process
  - Capacity management & projects portfolio analysis

- **Documentation management: layout, EDMS…**

- **Scheduling tools: MsProject, Excel (linked with VBA Automation)**
  - Infor-EAM

- **IMPACT**
  - One single database of intervention data
  - One workflow engine (EDH based)
  - A web tool to collect work intentions, and to plan-schedule-prepare and coordinate all of the activities.

Align Vision & Effort

Technical approvals

Planning

Worksite Coordination

Months before

D day
Show-stoppers for LIU 2016 & 2017

- 10068 Installation of new Wideband Pick-up in PSB  
  ABP not needed
- 10070 Installation of new housing for BTV30 in the BI line of the PSB  
  ABP not needed
- 10132 Installation of a new Beam Gas Ionisation monitor (BGI)  
  ABP – done
- 10001 TCDI SPS to LHC transfer line collimator renewal for LIU  
  wrong group & EL missing info
- 10171 Linac3 source oven design  
  MME warning on schedule
- 10274 Provide high voltage pulsed generators, …for PSB BI.KSW  
  EL missing info (LS2)
- 10311 Supply new converters for Booster Main Magnets …  
  EL missing info (2017-2018)
- 10448 Install new cooling towers ….of point 18 - SF18  
  EL missing indo, ICS schedule
- 10675 Modification of the injection and extraction. Dismantle and rebuild …  
  MME missing info
- 10924 PS 80 MHz Fast Tuner.  
  MME schedule
- 10964 Cooling plant for BAF3 and RF equipment  
  EL & ICS missing info
- 10004 LBE Dump shielding for LIU  
  EL resources (LS2)
- 10334 Replacement of upgraded ZS and installation of ZS interconnects  
  BI ?
- 10439 Wire scanners for LIU in the SPS (BWSRE) x5  
  MME ? (2017-2018)
- 10835 LIU-SPS RF power upgrade BAF3  
  ICS schedule & MME ?
- 10836 LIU-SPS RF power upgrade LSS3  
  MME ? & VSC
- 10921 PS Longitudinal Damper  
  MME ? (LS2)
- 10923 PSB Finemnet RF Systems  
  ABP done & MME ?
Show-stoppers for HL-LHC 2016 & 2017

- 10677  Installation of 2 cryo-assemblies with 11T Magnets  EL missing info
- 10545  New TCAP - passive absorber  MME schedule
- 10843  HL-LHC Crab-cavity cryomodule in SPS  ACE wrong group
- 10544  Installation of four new robust TCTPH  ABP ?
- 10627  Prototype Head-Tail Monitor  MME ?
- 10643  2 TCLD (DS collimator) for P2  CV missing info & ABP
- 10645  Second BGV Detector for HL-LHC  ACE resources (LS2)
- 10834  Beam gas curtain profile monitor  CRG ?
- 10905  replacement of 8 TCP by TCP?  ABP ?
- 10906  Wire collimators TCTW for EYETS  EL missing info & MME
Show-stoppers for 2016 & 2017 – P1 *(excl. LIU & HL)*

- 10083  ME9 JURA : Renovation ..sous station …18 kV NORMAL …Meyrin  HSE ?
- 10747  Renovation - Fire Detection - SURFACE LHC & AWAKE - …  ICS resources
- 10748  Renovation - Fire Detection & Evacuation - … N.VEGA Zone 9 (ECN3-BA82-EHN2) …  ICS resources
- 10749  Renovation - Fire Detection & Evacuation - …(TDC2-TCC2-BA80)…  ICS resources
- 10776  Install - Automatic Fire Extinguishing - SPS - TA, Shaft & High Rad…  EL ?
- 10777  Renovation - Beam Imminent Warning & Evacuation - SPS - …  HSE ?
Show-stoppers for 2016 & 2017 – P2  (excl. LIU & HL)

- 10294 LHC- MKB Vacuum Pumping Scheme Consolidation BTD62.DR
  EL not needed
- 10296 LHC- MKB Vacuum Pumping Scheme Consolidation BTD68.DB
  EL not needed
- 10596 Replacement of 7 BCTs in LINAC2
  ABP not needed
- 10854 Replace one injection kicker magnet (MKI)
  ABP wrong group
- 10012 Replace 8-10 LHC TCS for TCSPM
  ABP schedule, MME schedule
- 10161 Survey the ALICE experiment
  ACE resources
- 10162 Survey the CMS experiment
  ACE resources
- 10163 Survey the ALICE experiment 2018
  ACE resources
- 10164 Survey the CMS experiment 2018
  ACE resources
- 10219 Consolidation of 400 kV protection system
  ACE wr. group & CV missing info
- 10319 ATLAS New Small Wheel Installation
  MME missing info
- 10466 Replace the existing 35 kW cooling …in PM18
  EL missing info
- 10489 Consolidate the ventilation system in the SR buildings
  EL missing info
- 10524 Build and instal the new detector cooling station for RICH 1 & 2 – LHCb
  EL missing info
- 10526 Build and install the new detector cooling station for SCiFi – LHCb
  EL missing info
- 10819 WIC - …in the transfer lines PSB to PS
  EL schedule
- 10821 Consolidation of the Oasis Trigger network
  EL & MPE missing info
- 10829 Renovation of the Oasis VXI systems
  EL missing info
- 10226 LHC Tunnel monitoring system installation
  SMB resources
- 10092 SPS BA2 renovation reseaux et sous stations HT/ BT
  HSE ?
- 10093 SPS BA3 renovation reseaux et sous stations HT/ BT
  HSE ?
- 10094 SPS BA4 renovation reseaux et sous stations HT/ BT
  HSE ?
- 10095 SPS BA5 renovation reseaux et sous stations HT/ BT
  HSE ?
Show-stoppers for 2016 & 2017 – P2 (excl. LIU & HL)

- 10097 SPS BA7 renovation reseaux et sous stations HT/BT
- 10393 Replacement of obsolete SEMs in
- 10414 Consolidate the cooling plant of the PS central building
- 10424 Consolidate the cooling plant of the PS main magnet
- 10427 Consolidate the PSB chilled water cooling plant
- 10430 Consolidate the PSB cooling plant
- 10332 Consolidate PSB Septa Electronics & Controls
- 10389 Linac3 source micro-wave generator the PS
- 10493 Execute the maintenance of CV installations in the PS complex & Meyrin …
- 10494 Execute the maintenance of CV installations in the SPS complex & Preveissin …
- 10495 Execute the maintenance of CV installations in the LHC and its Experiments …
- 10508 Upgrade the ventilation system in UX15
- 10590 Replacement of 10% (100) of VPIA pumps [EYETS2016]
- 10608 Replacement of 5/10% (50/100) of VPIA pumps [YETS2017]
- 10654 Alice Experiment routers hardware upgrade
- 10661 Atlas Experiment routers hardware upgrade
- 10664 CMS Experiment routers hardware upgrade
- 10782 Preventive Maint. 2015-LS2- Fire Detection & Evacuation - …
- 10783 Preventive Maint. - Fire Detection & Evacuation - …. 
- 10837 Replacement of Linac3 101 MHz amplifiers
- 10847 General Maintenance kicker systems in Accelerator Complex …
- 10848 General Maintenance kicker systems in Accelerator Complex ….

HSE ?
MME ? & EL missing info
EL missing info, & HSE ?
EL missing info, & HSE ?
EL missing info, & HSE ?
EL missing info, & HSE ?
EL res. & MPE wr. group
EL resources
HSE ?
HSE ?
HSE ?
CV resources
VSC resources
VSC resources
ICS resources
ICS resources
ICS resources
HSE ?
HSE ?
RF res.& CV miss. info
HSE ?
HSE ?
Show-stoppers for 2016 & 2017 – P3 (excl. LIU & HL)

- 10015  TDIS for HL-LHC
- 10082  18kV LHC18 Extension et consolidation de la sous station SE18

EL mssing info (LS2)
HSE ?
Show-stoppers for 2016 & 2017 – P4 (excl. LIU & HL)

- 10020 Replace n_TOF spallation target
  - ABP wrong group
- 10133 Installation of 7 BTV beam monitors for AWAKE
  - AP wrong group
- 10981 Adapt to changes in public interfaces due to consolidation of widely …..
  - EPC not needed
- 10450 Install new cooling and ventilation systems in the new 311 building
  - EL missing info
- 10889 SPS- Consolidation VSC racks electrical distribution
  - EL missing info
- 10991 Adapt to suppression of COPUB specific database account
  - HSE ? & ABT wrong group
- 10993 Adapt to changes in Logging Service data extraction API.
  - HSE ? & STI ?
- 10994 Adapt to changes in the Layout Service.
  - CV, HE; MME, ABT ,EPC ?
- 11079 AWAKE phase II vacuum system installation
  - MME schedule
- 11096 Diagnostics for AWAKE electron-proton line
  - ACE resources
- 11097 Diagnostics for AWAKE Spectrometer line
  - ACE resources
- 11098 Diagnostics for AWAKE electron line
  - ACE resources
- 10035 Deploy pilot installation of new SPS PPS (Personnel Protection System)
  - EL resources
- 10036 New SPS PPS (Personnel Protection System)
  - EL & ICS resources
- 10899 Installation and commissioning of CM4
  - RF resources
## Show-stoppers for 2016 & 2017 – P4a (excl. LIU & HL)

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<td>ALICE fibers</td>
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<td>Provide Electronics &amp; Controls for restart of AD Horn Test Bench,</td>
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Show-stoppers for 2016 & 2017 – P4a (excl. LIU & HL)

- 10037 CHARM Target and conveyor upgrade
- 10077 18 kV _liaisons 18 kV MEYRIN ...
- 10078 18 kV ME65 _ nouvelle sous station ME65 ...
- 10174 CMS GCS new Gas system (GEM)
- 10237 CMS - Extension of assembly hall SX5 (1000 m2)
- 10247 Consolidation of site infrastructure programme
- 10250 Civil Engineering works for the PS TT2 bld 269 renovation
- 10251 Civil Engineering works for the New Online/Offline computing farm (O2)
- 10252 Civil Engineering works for the New cleanroom in bld 167 200m2
- 10253 Civil Engineering works for the New cleanroom in bld SXL2
- 10254 Civil Engineering works for the …for UPS upgrades
- 10369 Consolidate PS Septa Electronics & Controls
- 10392 Consolidate the Linac 3 HVAC system
- 10484 Consolidate the NA chilled water network
- 10516 Upgrade of the cooling power at the chilled …by 1.5 MW
- 10595 Consolidate the main ventilation system of the computing centre