



# Plan results

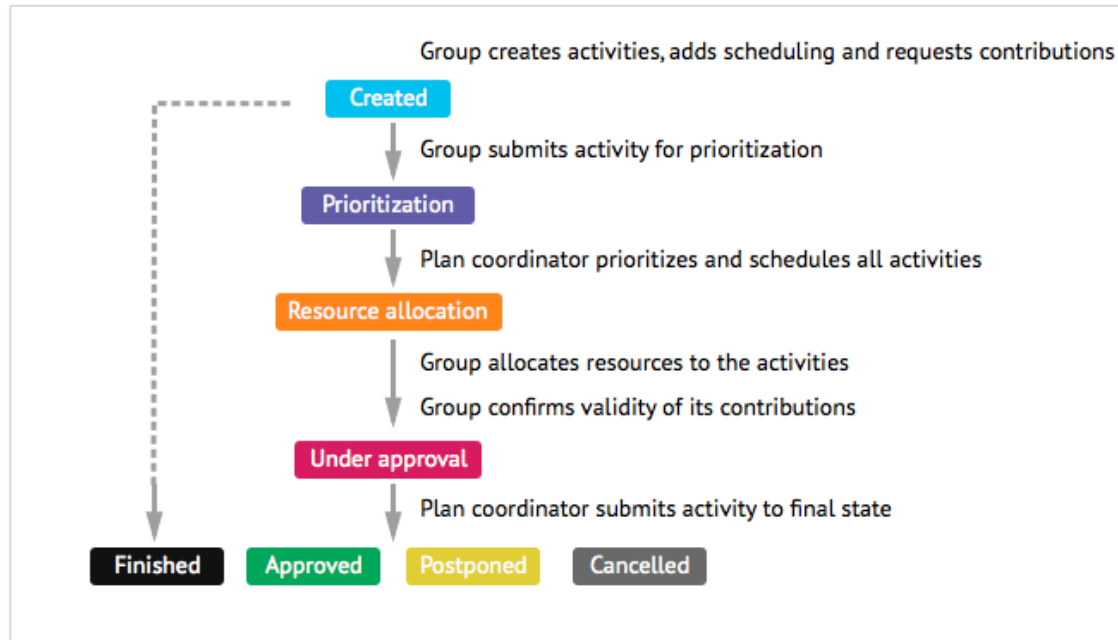
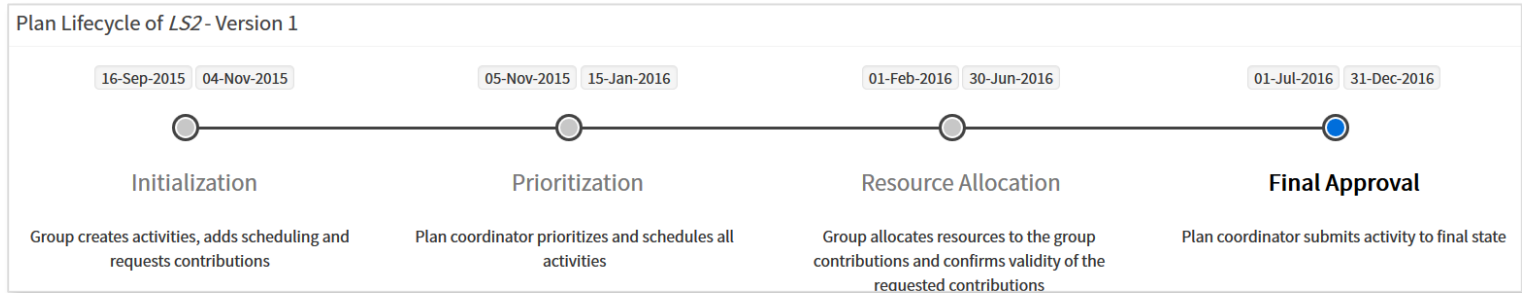
(30 min)

K. Foraz (EN-AE)

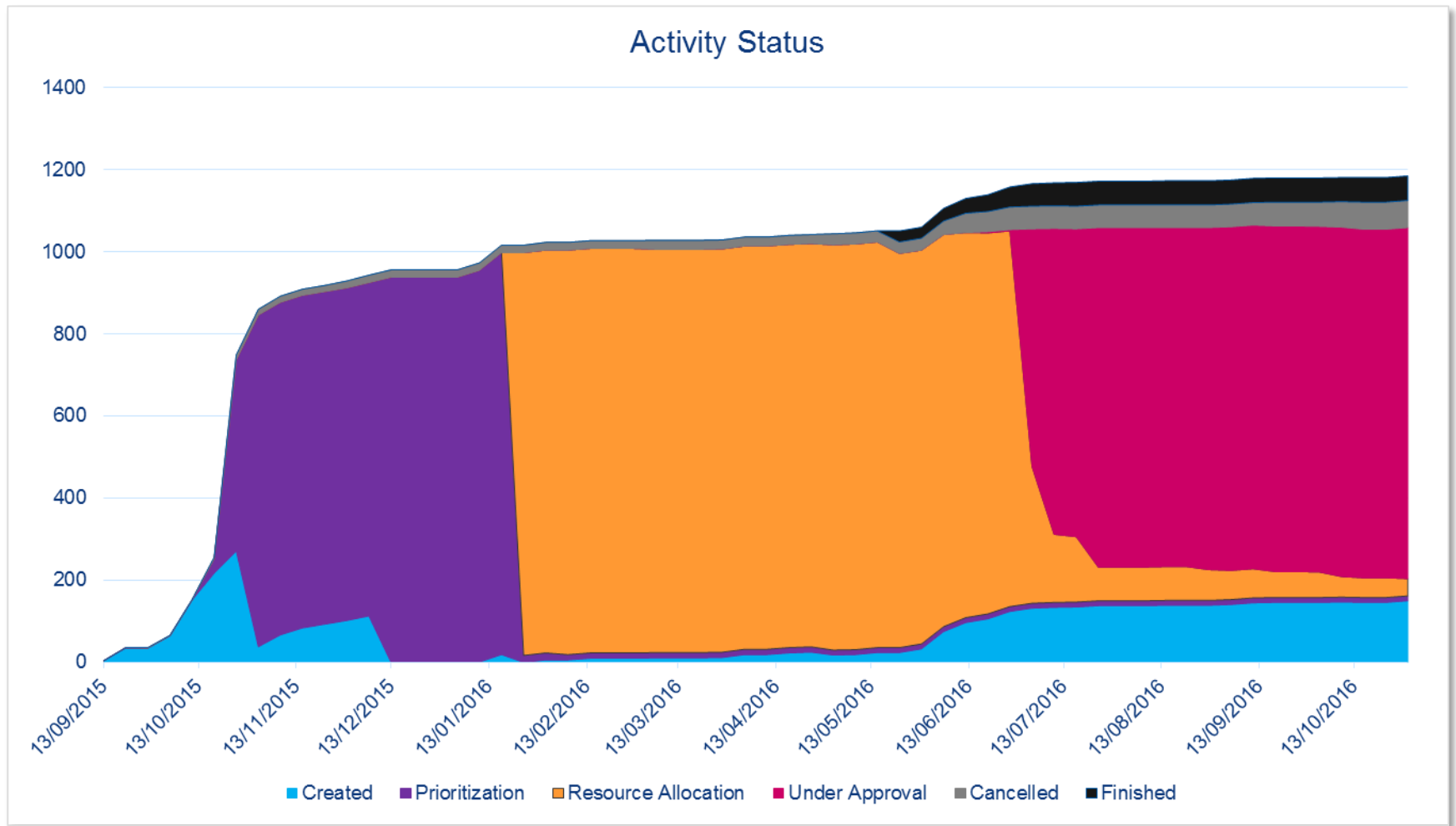
# Contents

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

# Deadlines

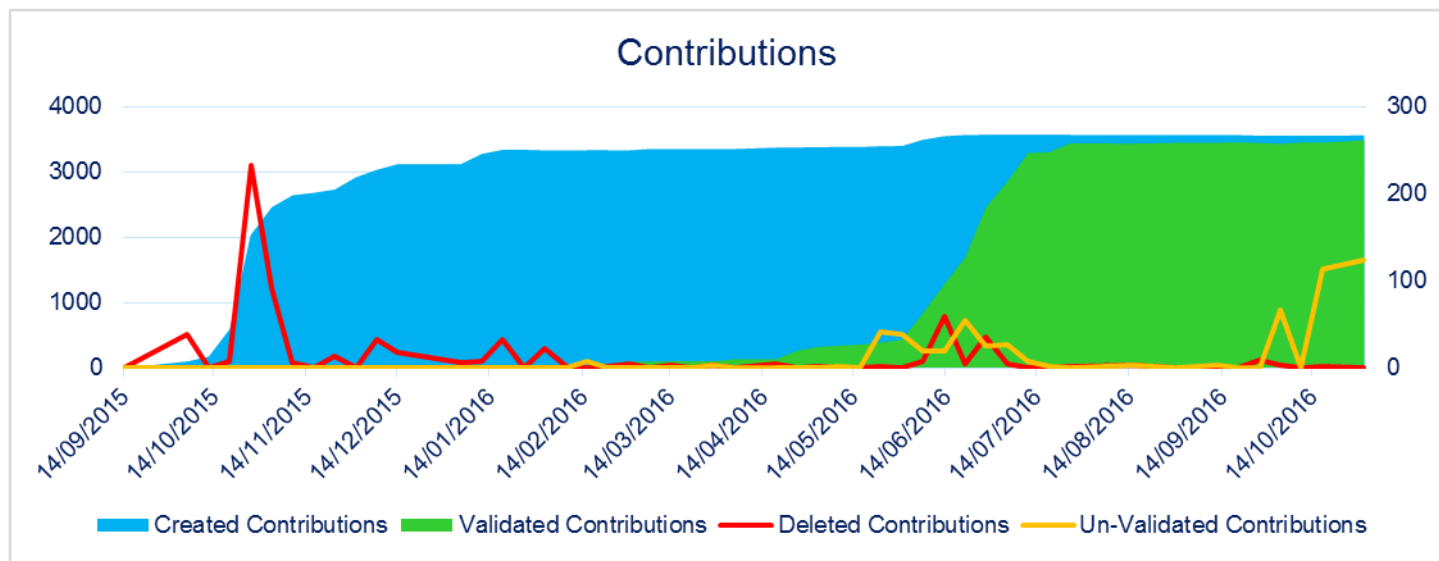


# Deadlines



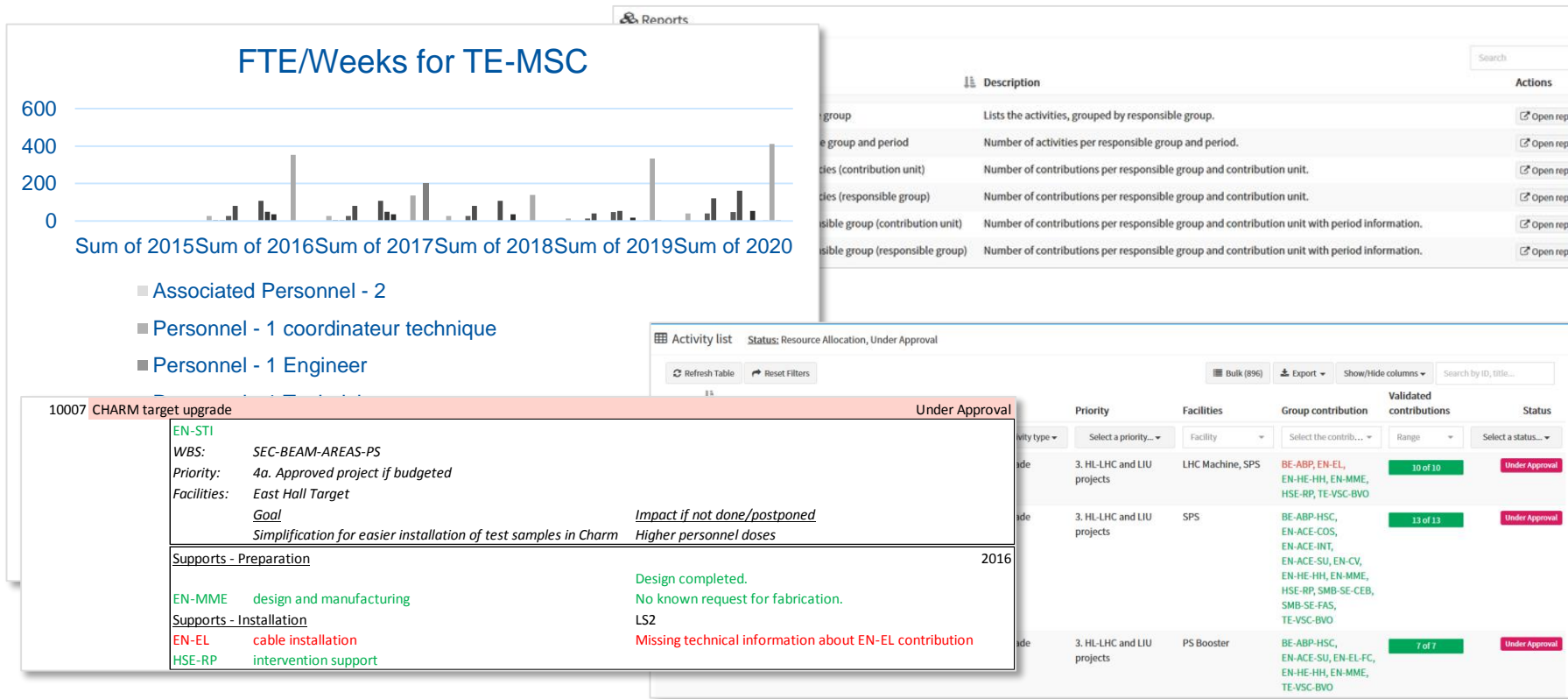
# Resource allocation phase

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

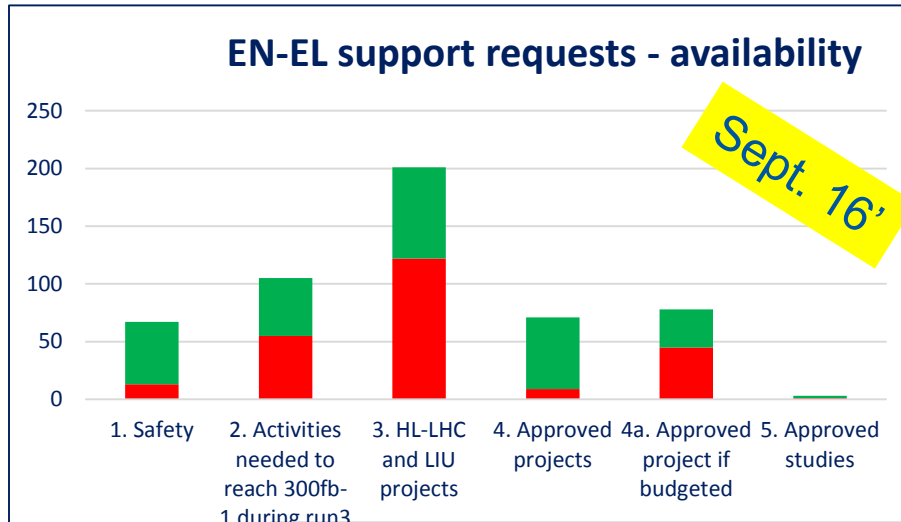
- Reports are available through PLAN tool or Pentaho and on request



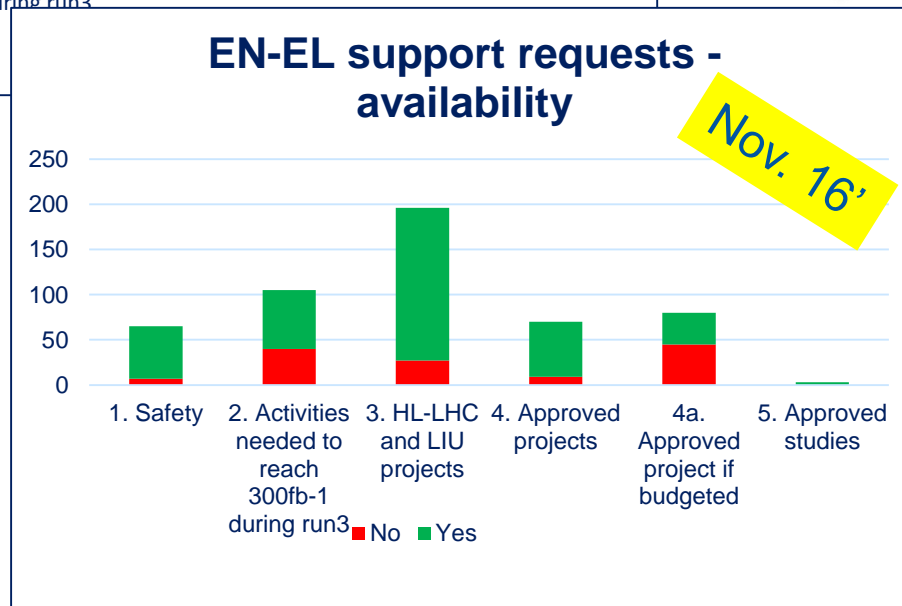




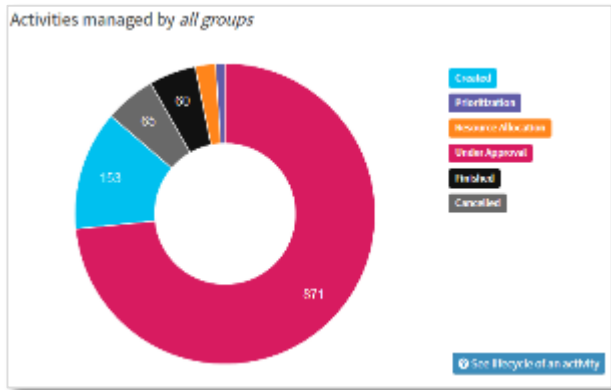
# Approval phase – EL example



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



# Provisional results - Summary

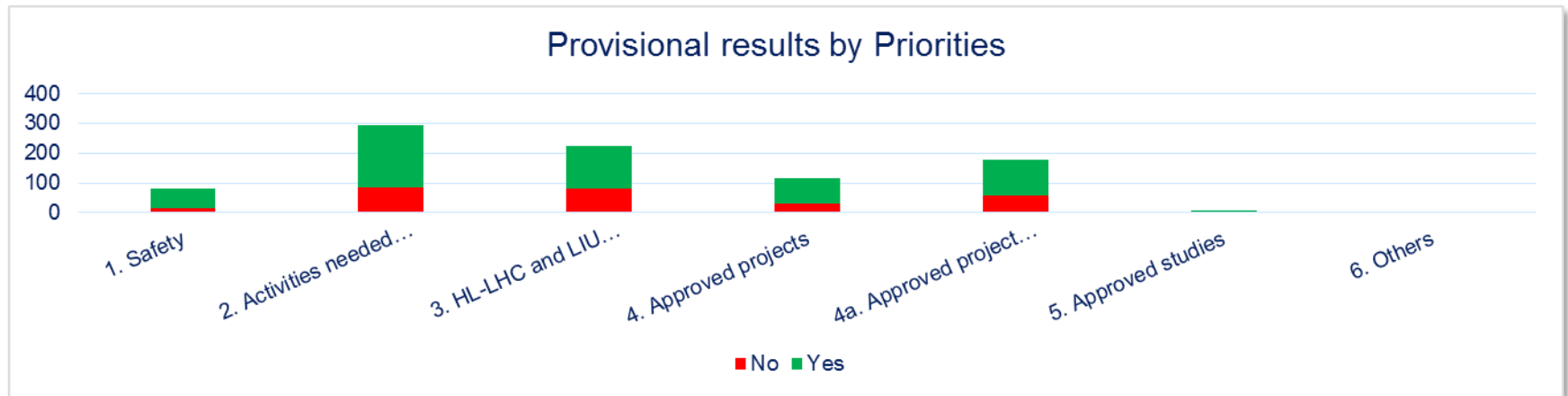


897 PLAN requests being scrutinized (under approval & Resource allocation)

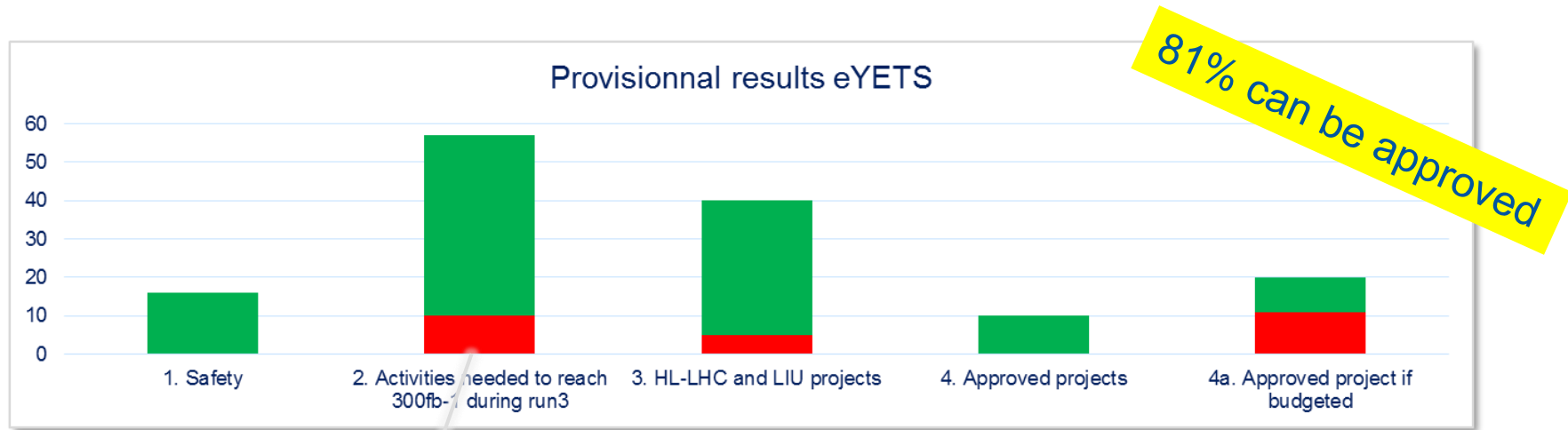
- 670 for which all resources are available
- 227 for which resources are unavailable

12 PLAN requests under prioritization ◀ Never get answers on data quality from responsible!

153 PLAN requests created – will be treated in version 2



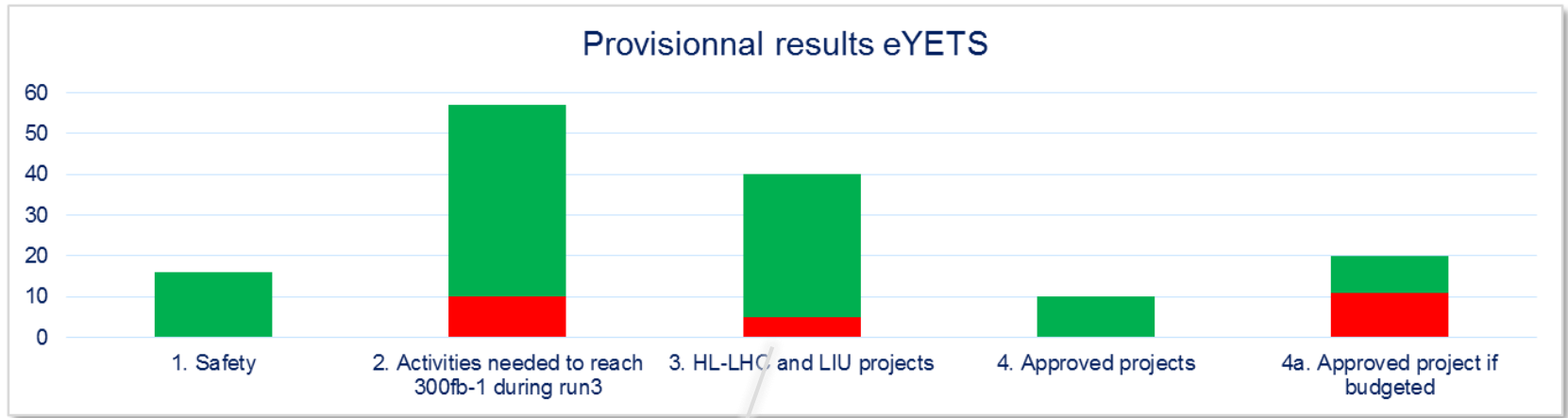
# Provisional results for eYETs



## Priority 2

- |         |                                                                               |                      |
|---------|-------------------------------------------------------------------------------|----------------------|
| • 10294 | LHC- MKB Vacuum Pumping Scheme Consolidation BTD62.DR                         | EL Not needed        |
| • 10596 | Replacment 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



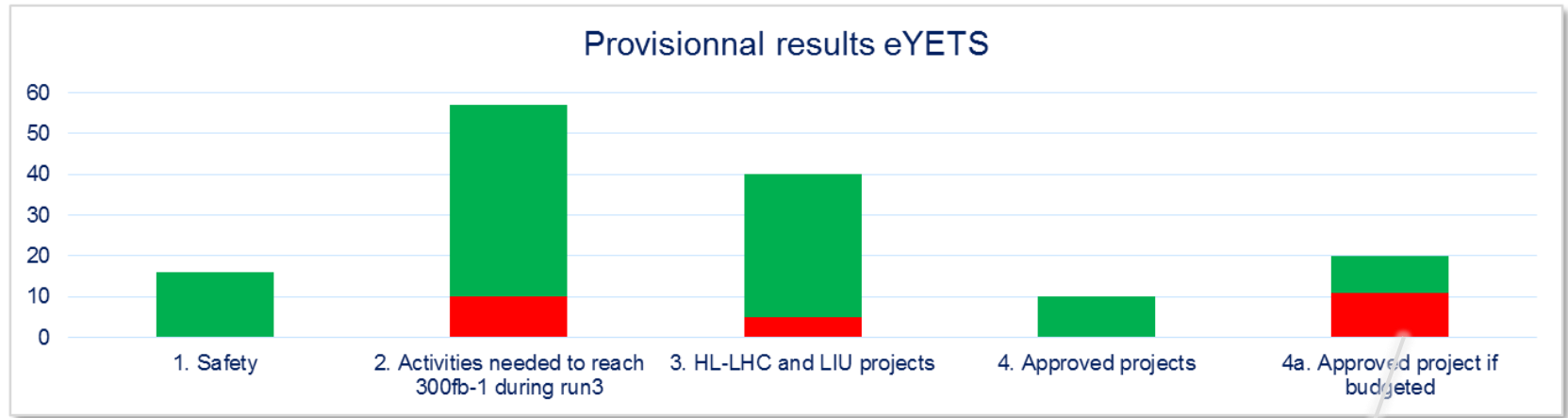
## Priority 3 - LIU

- 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

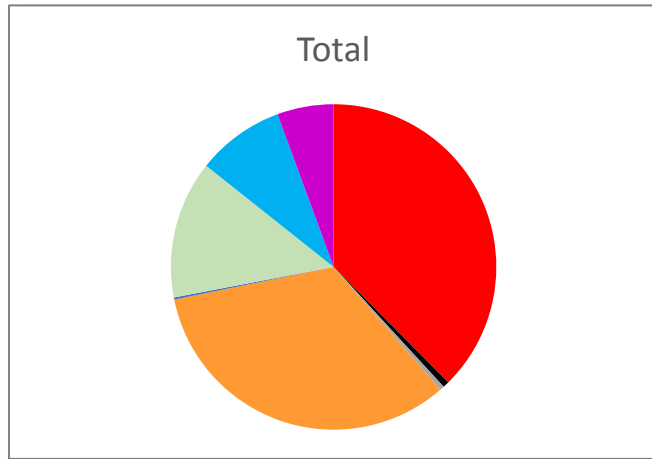
# Provisional results for eYETs



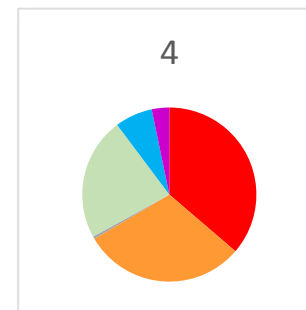
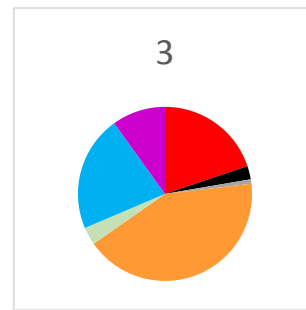
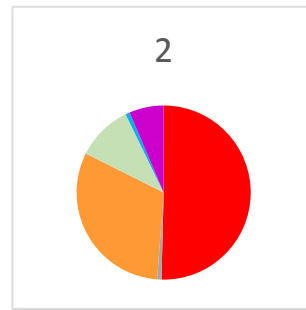
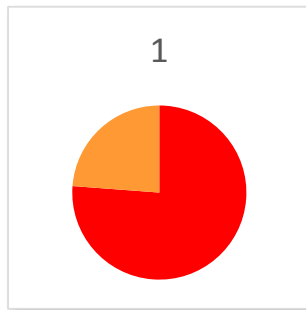
## Priority 4

- |                                                                        |                           |
|------------------------------------------------------------------------|---------------------------|
| • 10381 Consolidation of the Fibre Infrastructure in Preveessin        | 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

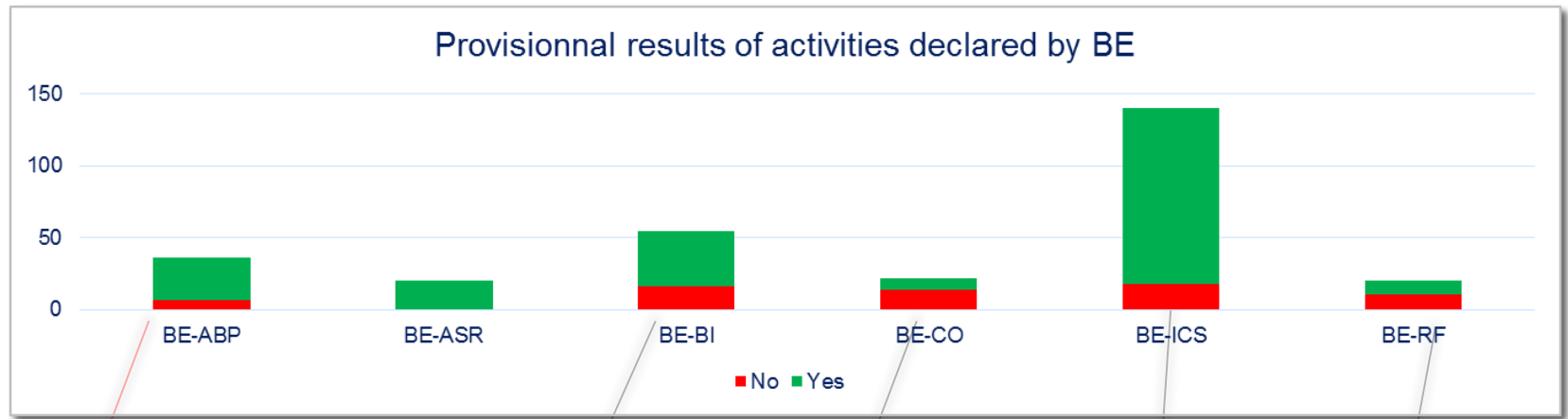


- 38% No information
- 33% Missing information
- 14% Not in group mandate / not needed anymore
- 9% Missing resources
- 6% schedule issue



- ?
- Missing information / Project strategy tbd
- Resources not available
- Done
- Missing own resources
- Schedule issue
- Doublet
- not in group mandate / No need anymore

# Summary BE



- 36% ?
- 50% Missing Info

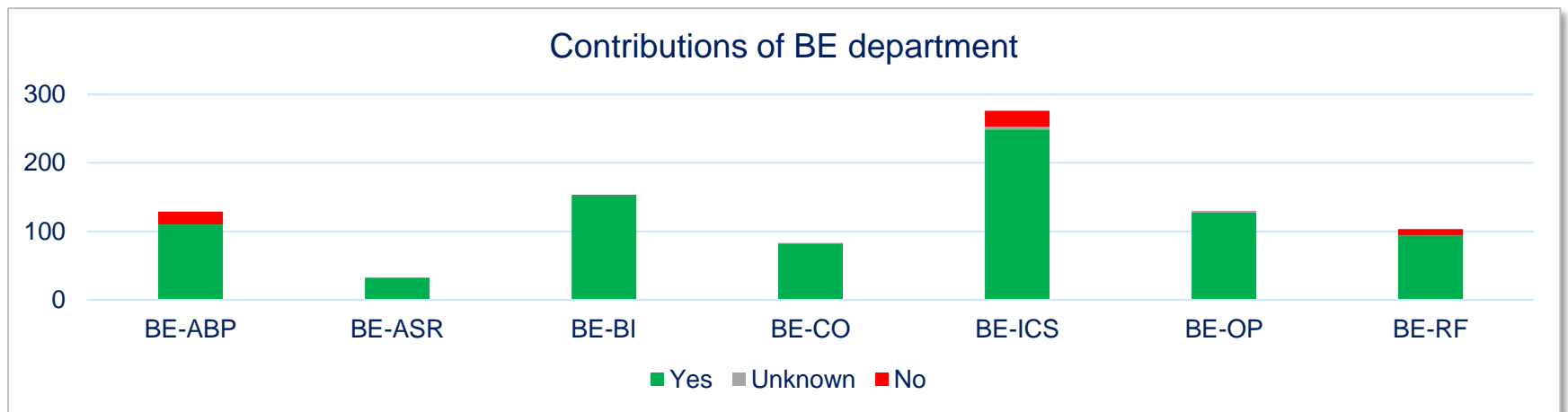
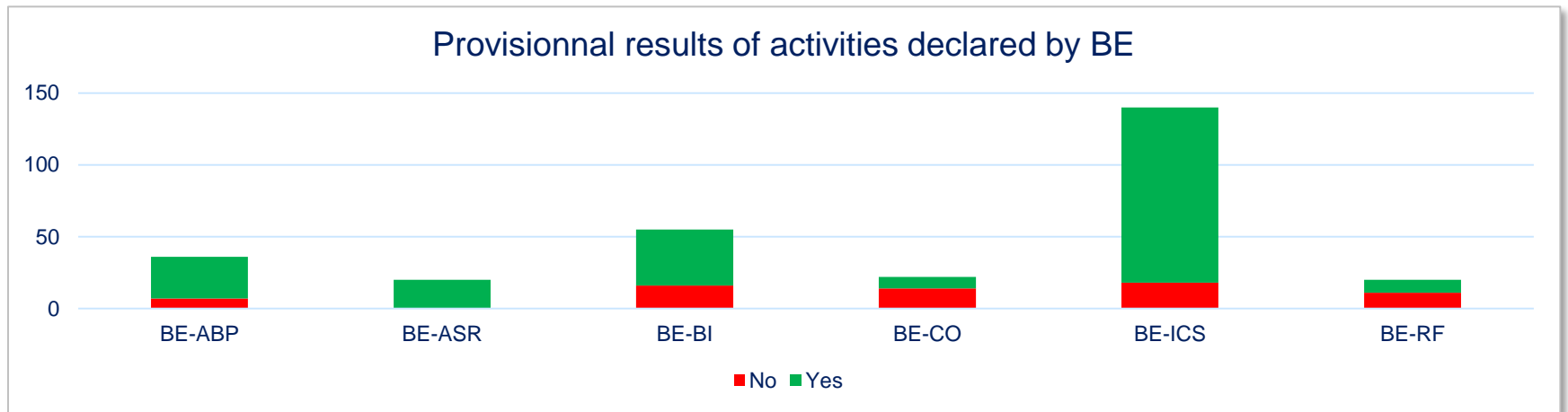
- 50% ?
- 10% Missing Info
- 40% wrong group / not needed

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

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

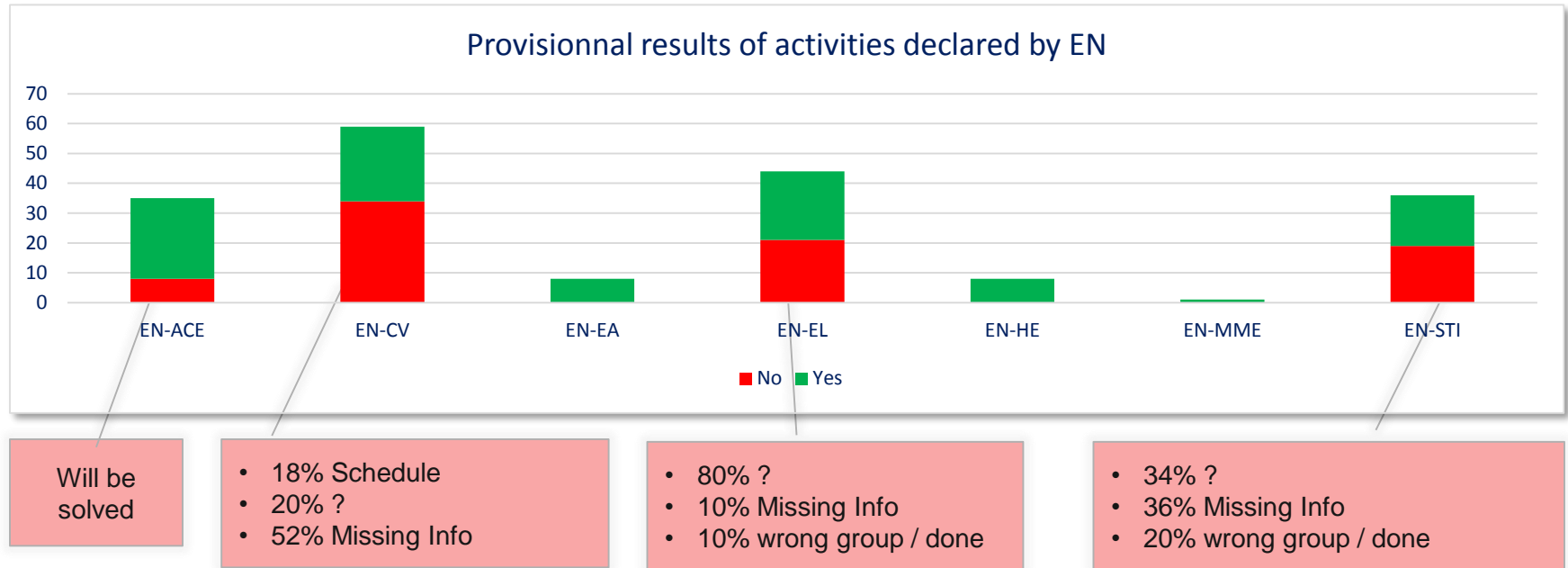
- 31% ?
- 5% done
- 20% Missing Info
- 15% Wrong group/ not needed
- 15% Resource issue
- 12% Schedule issue

# Summary BE

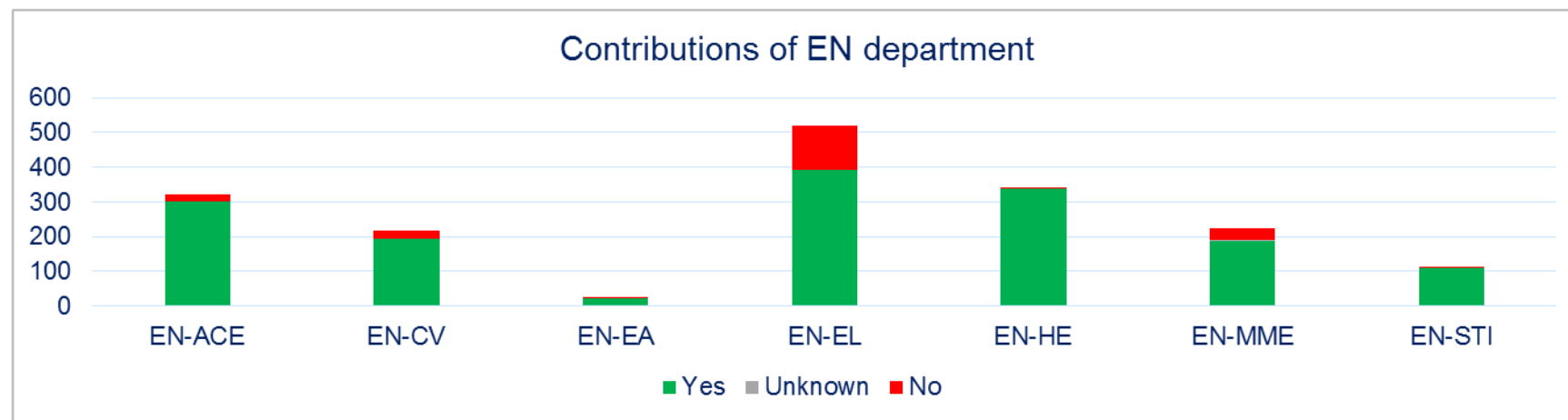
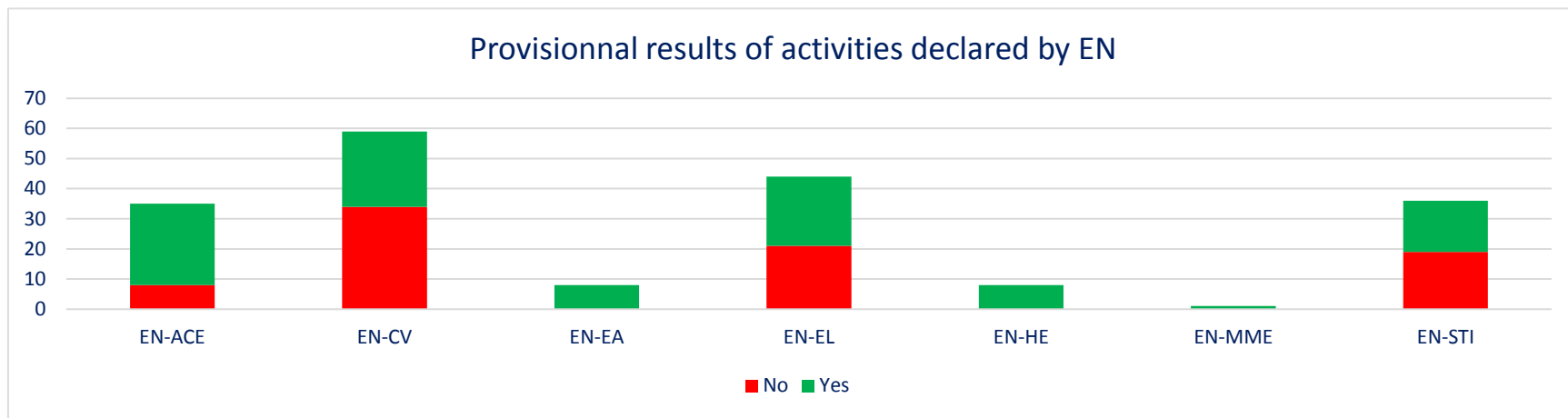




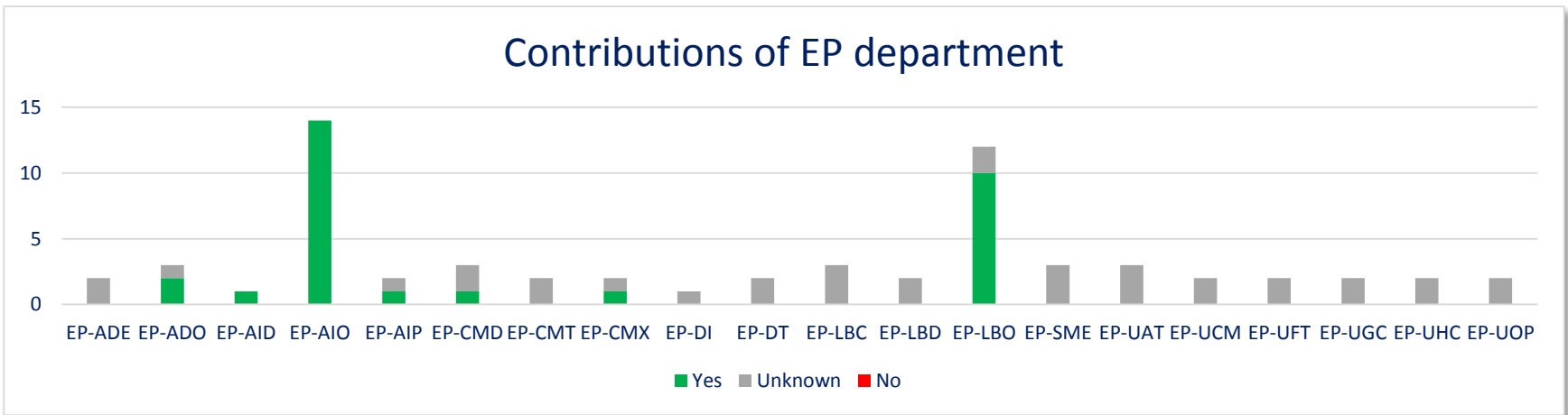
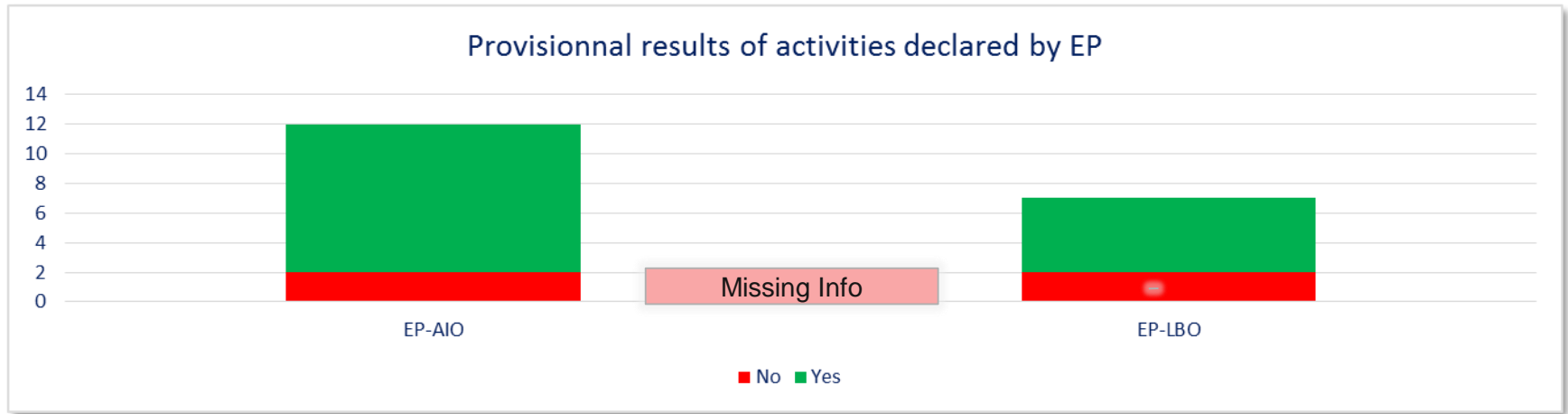
# Summary EN



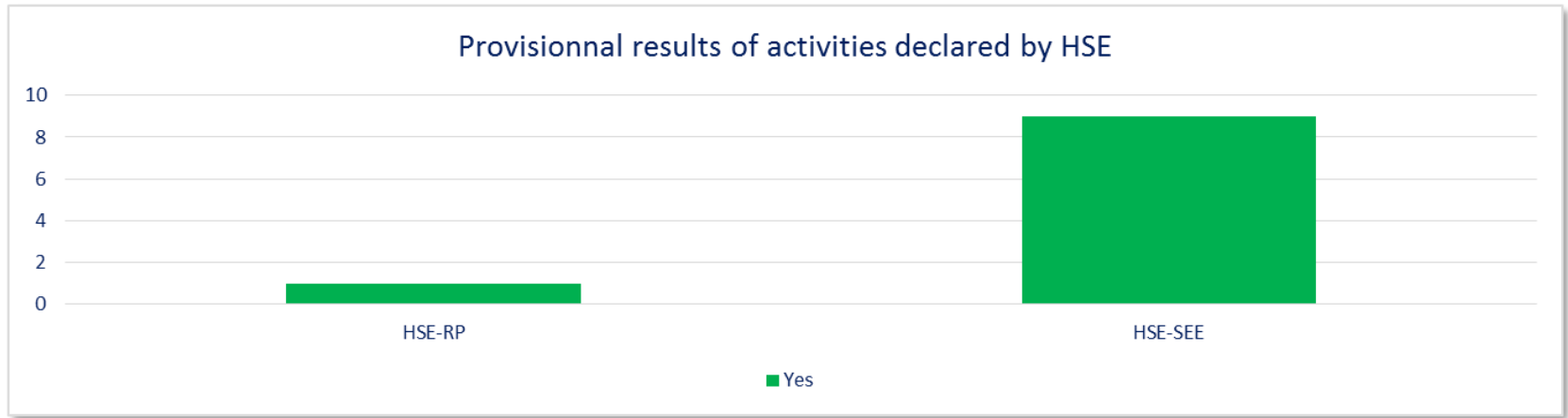
# Summary EN



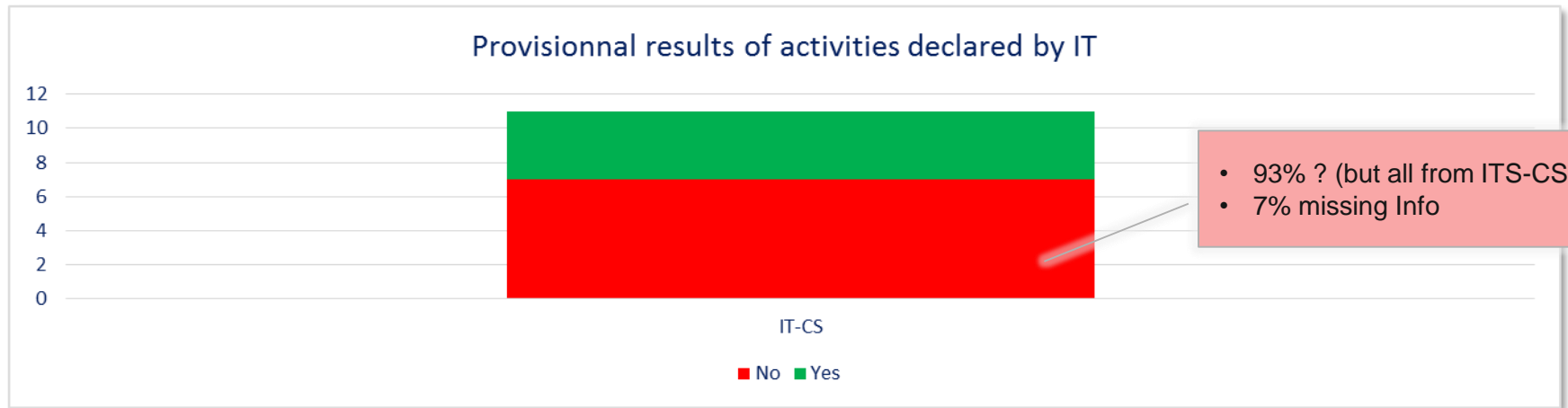
# Summary EP



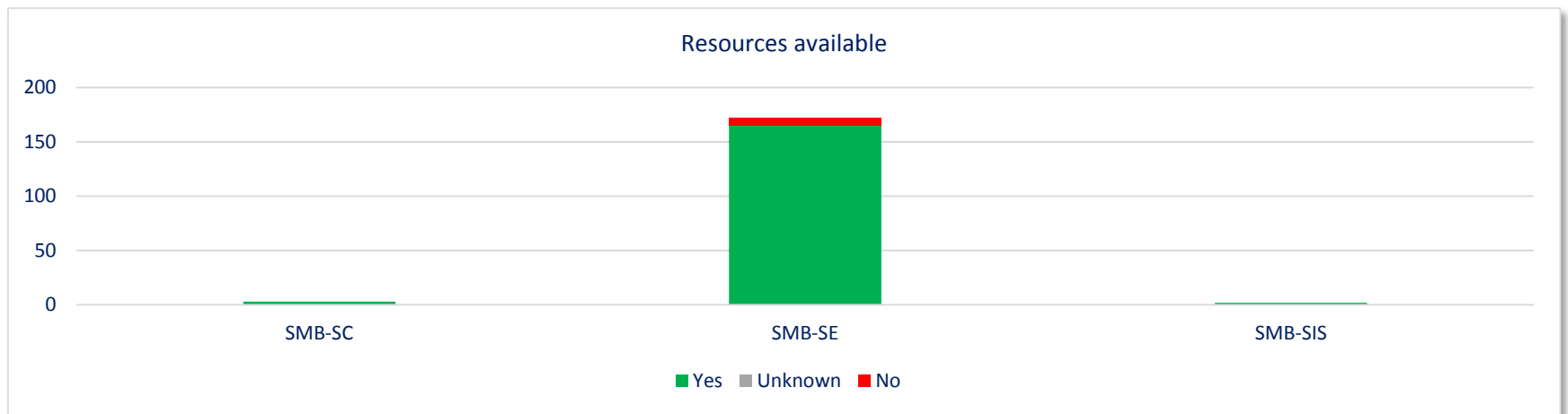
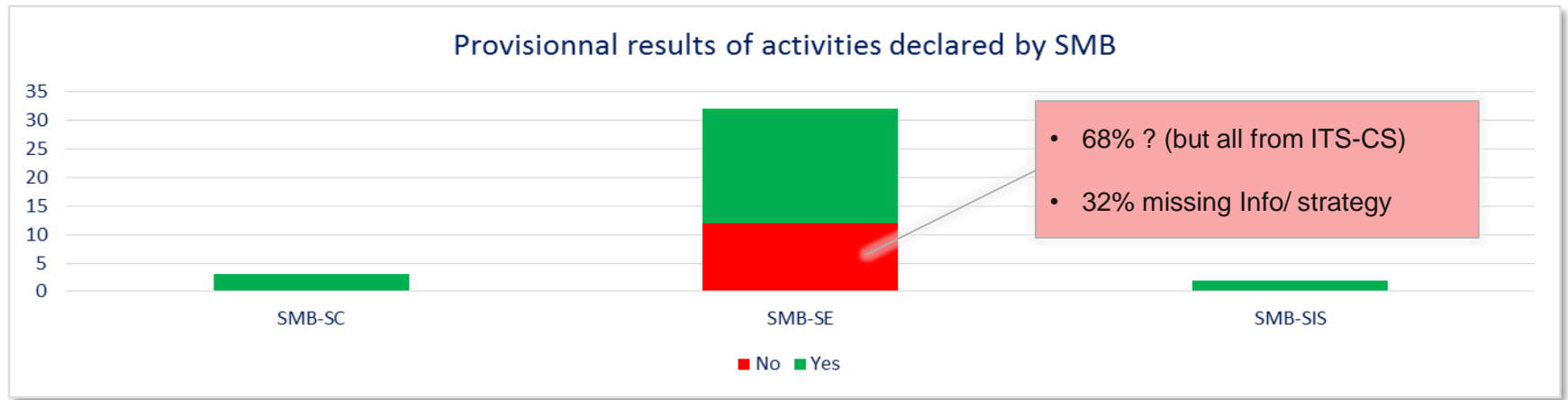
# Summary HSE



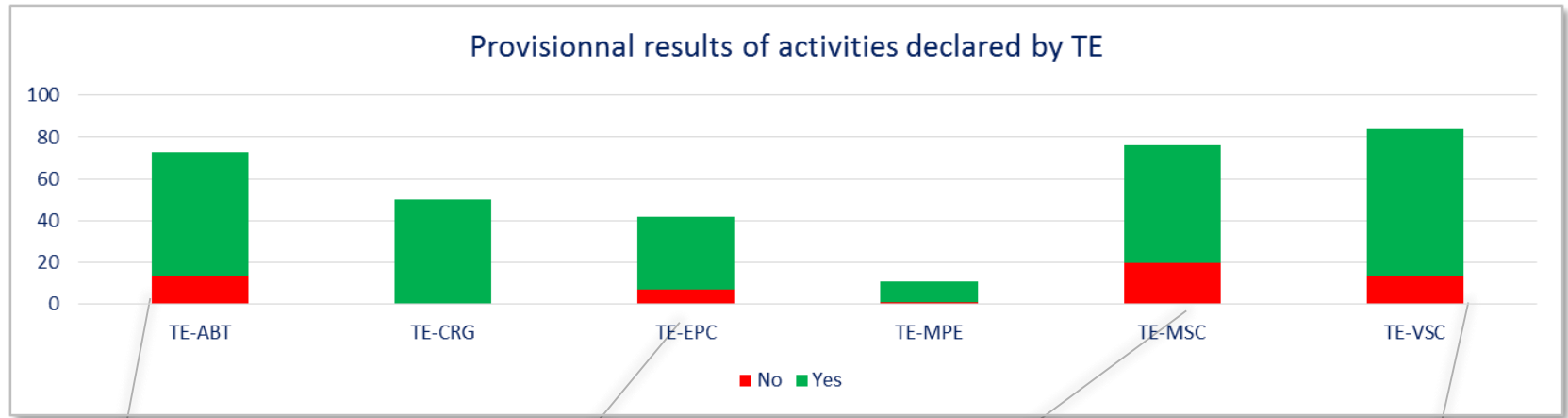
# Summary IT



# Summary SMB



# Summary TE



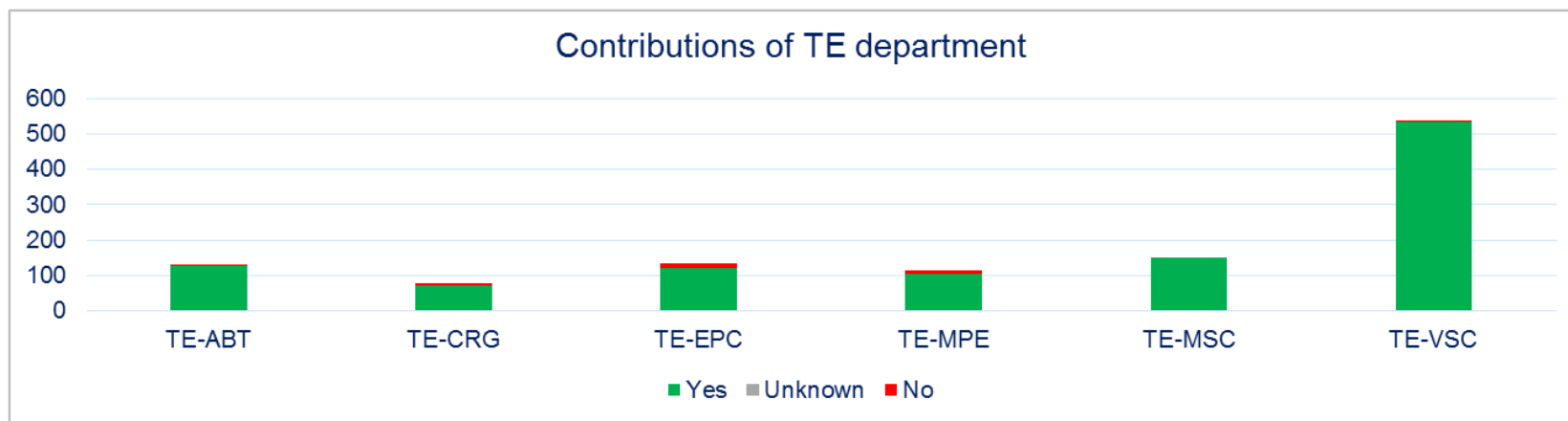
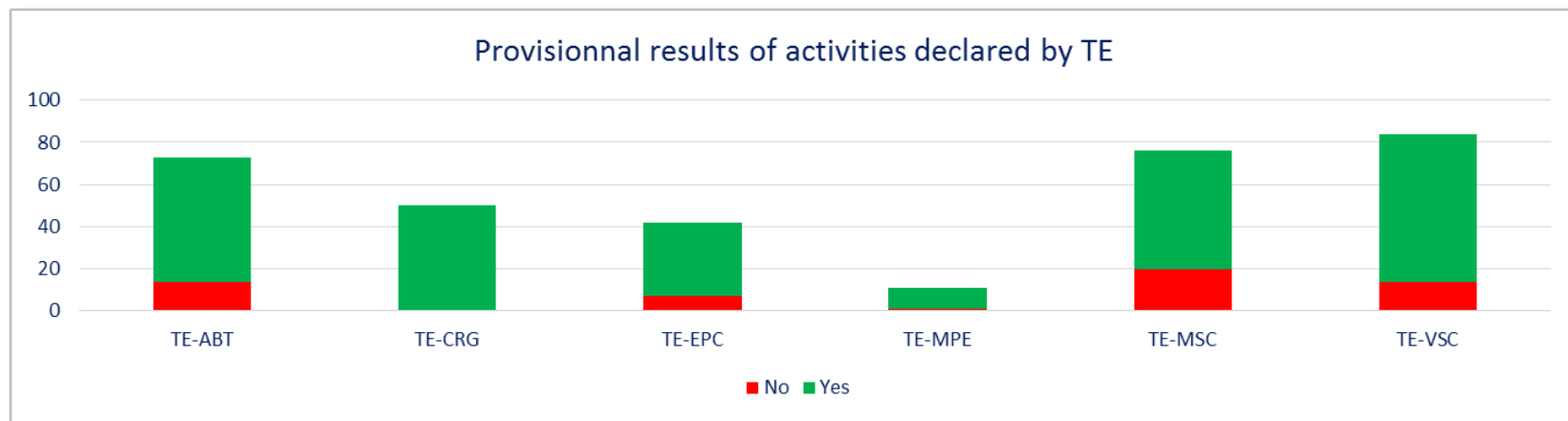
- 41% ?
- 18% Missing Info
- 6% wrong group / not needed
- 29% Resource issue
- 6% Schedule issue

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

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

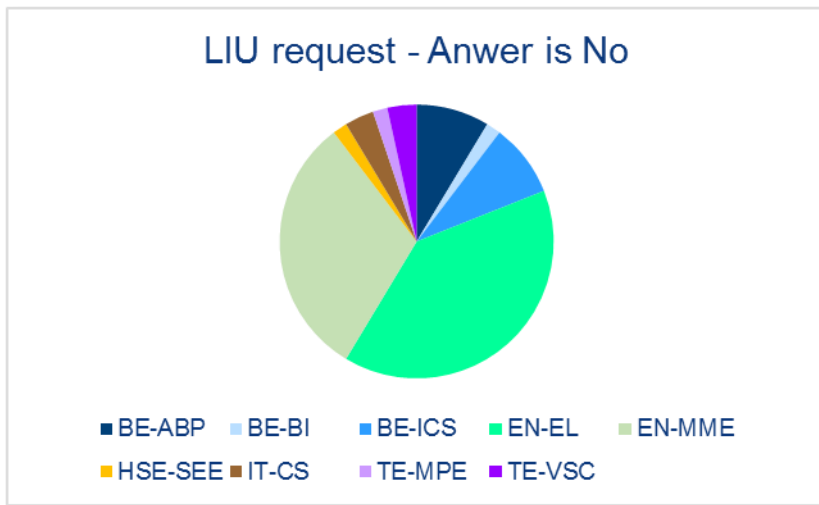
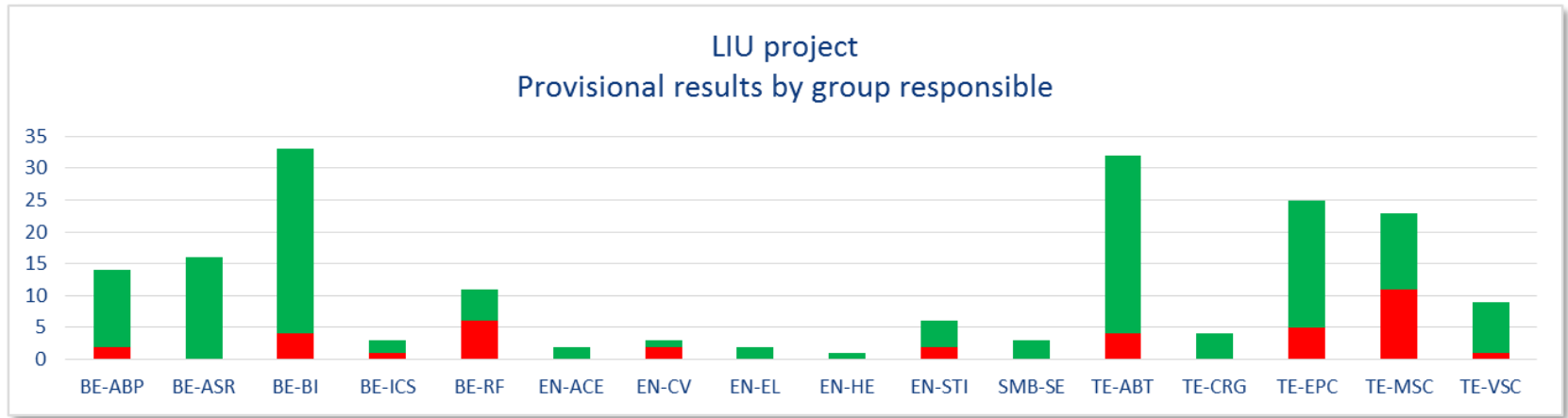
- 25% ?
- 45% Missing Info
- 20% wrong group / not needed
- 5% Resource issue
- 5% Schedule issue

# Summary TE



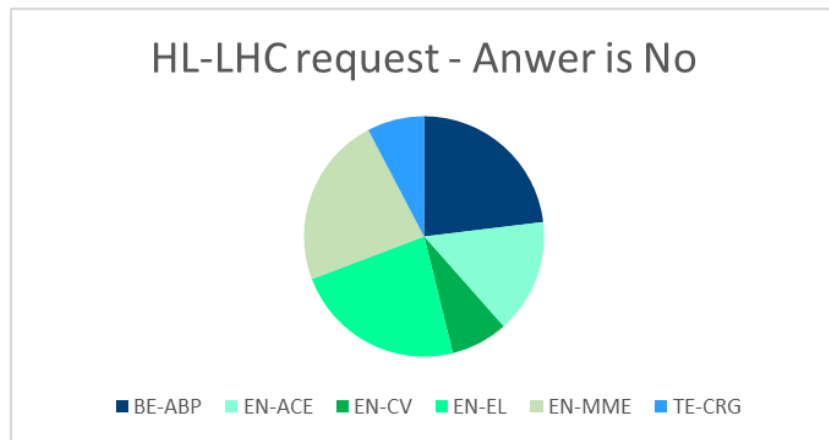
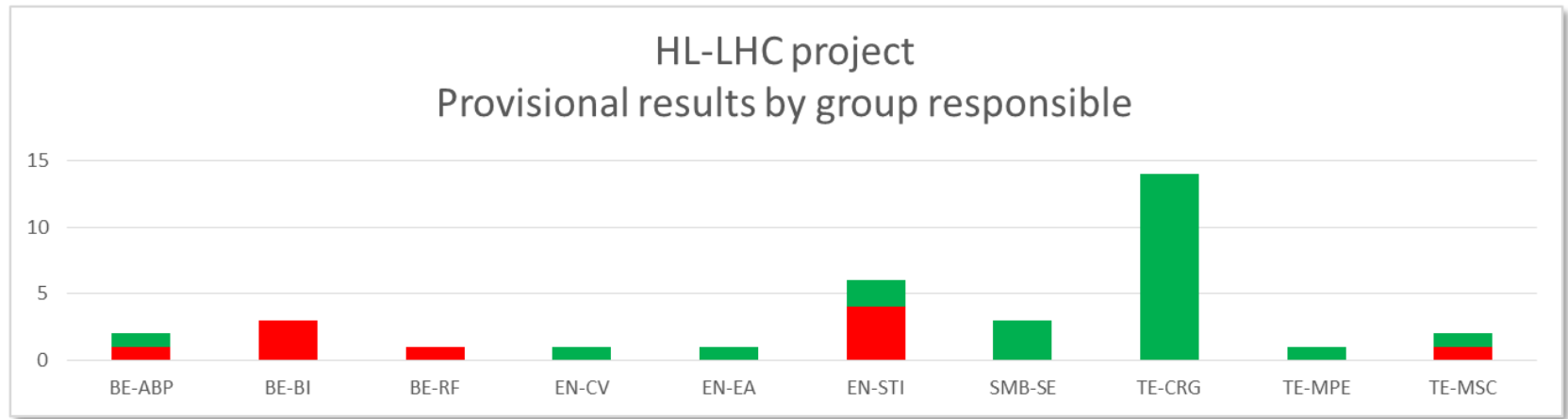


# Summary LIU



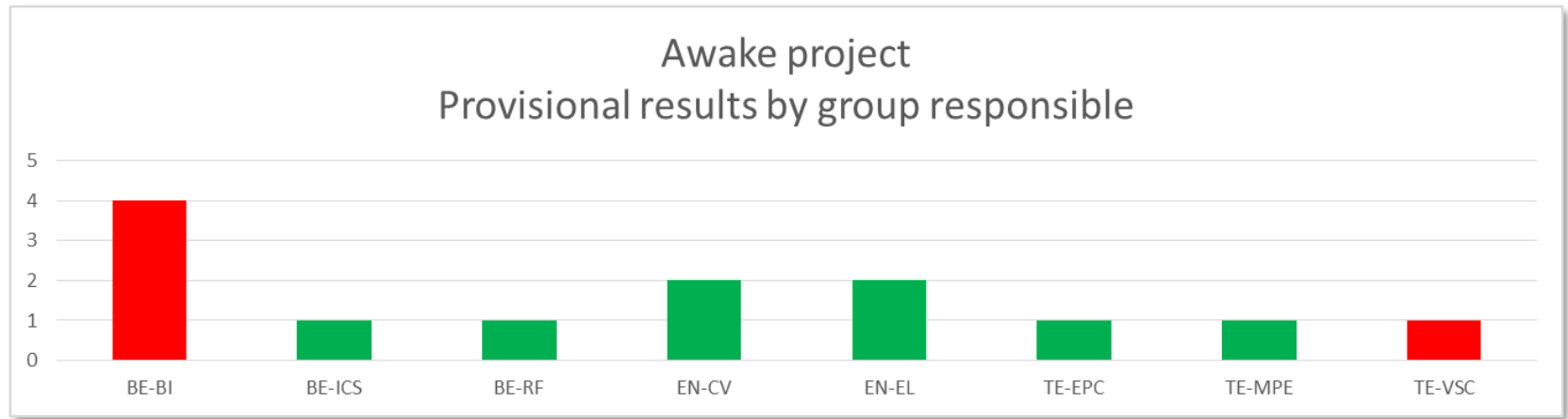
- In September first results showed that 54% of the PLAN requests related to LIU couldn't be accepted!
- Today, thanks to LIU pro-activity only, but still 20%.
- Mainly due to Missing information (45%) and unknown reasons ( 20%)

# Summary HL-LHC



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. 20<sup>th</sup>
    - *(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

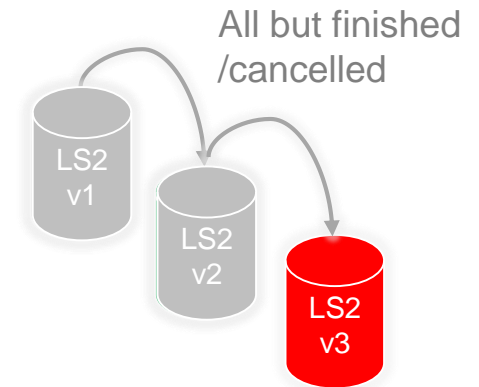


2. Approved / Postponed
3. Final results Mid January
4. Version 2 (see next slide)

10681 Deploy - Beam Imminent Warning & Evacuation system - new line in nTOF EAR2		Under Approval
<b>BE-ICS</b>		
WBS:	SEC-BEAM-AREAS-PS	
Priority:	1. Safety	
Facilities:	nTOF	
Goal	Deploy BIW in nTOF EAR2	<u>Impact if not done/postponed</u> Safety compromised.
Supports - Installation		2019 Subjected to further evaluation of planning, co-activities and access constraints
EN-EL Control cabling		
Supports - Commissioning		2019
<p>- An HSE-SEE Safety correspondent is already following this project (NTOF EAR2) together with the project leader. His participation is not limited to the commissioning of the detection systems. The HSE-SEE Safety correspondent will identify the need for other HSE services during the project (e.g. inspection services, safety training, safety expertise, reception of alarm systems, ...). The identified needs shall be supported by the project if they are not available.</p> <p>- At this stage not all the project are inserted in the PLAN tool (i.e. HL-LHC, ATLAS upgrade, CMS upgrade, ...), so once these projects are inserted in the tool and the priorities defined, we may need to rearrange the resources accordingly, and the project maybe affected if its priority changes.</p> <p>All the above points should be taken into account.</p>		
HSE-SEE	Safety validation	

# 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 comings 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 ergonomoy
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

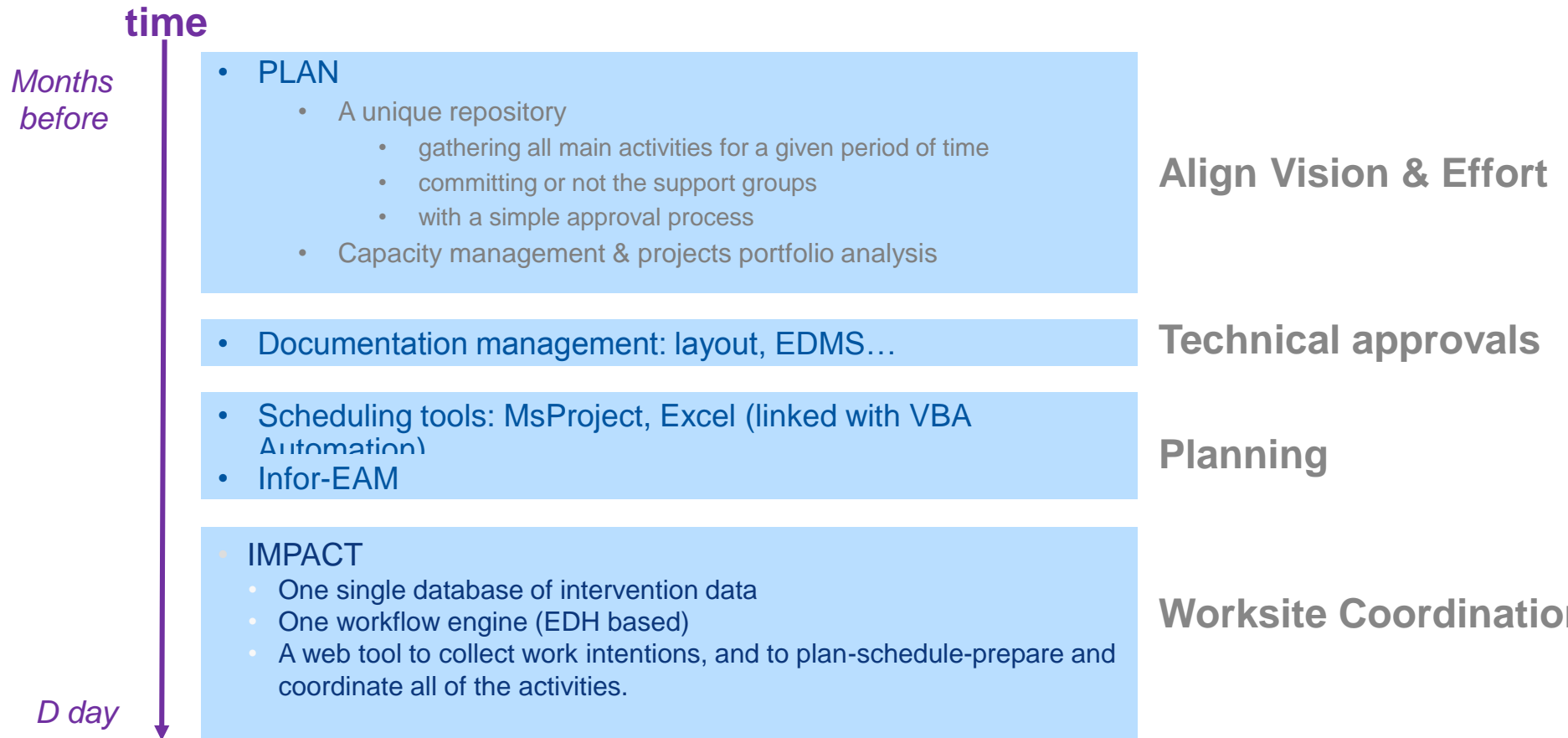
- PLAN «LS2» version 1
  - Huge effort from groups to complete PLAN «LS2» version 1
  - 75% of requests have no show-stopper (81% for eYETS)
  - From June to now, most of requests were clarified between groups (in September, only 61% = no show-stopper)
  - Support groups have a clearer picture of the 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



# 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 info, 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 Finemet RF Systems ABP done & MME ?

# Show-stoppers for HL-LHC 2016 & 2017

---

- 10677 Installation of 2 cryo-assemblies with 11T Magnets
  - 10545 New TCAP - passive absorber
  - 10843 HL-LHC Crab-cavity cryomodule in SPS
  - 10544 Installation of four new robust TCTPH
  - 10627 Prototype Head-Tail Monitor
  - 10643 2 TCLD (DS collimator) for P2
  - 10645 Second BGV Detector for HL-LHC
  - 10834 Beam gas curtain profile monitor
  - 10905 replacement of 8 TCP by TCPP
  - 10906 Wire collimators TCTW for EYETS
- EL missing info
  - MME schedule
  - ACE wrong group
  - ABP ?
  - MME ?
  - CV missing info & ABP
  - ACE resources (LS2)
  - CRG ?
  - ABP ?
  - 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 Replacment 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 schdeule
- 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 HSE ?
- 10393 Replacement of obsolete SEMs in MME ? & EL missing info
- 10414 Consolidate the cooling plant of the PS central building EL missing info, & HSE ?
- 10424 Consolidate the cooling plant of the PS main magnet EL missing info, & HSE ?
- 10427 Consolidate the PSB chilled water cooling plant EL missing info, & HSE ?
- 10430 Consolidate the PSB cooling plant EL missing info, & HSE ?
- 10332 Consolidate PSB Septa Electronics & Controls EL res. & MPE wr. group
- 10389 Linac3 source micro-wave generator the PS EL resources
- 10493 Execute the maintenance of CV installations in the PS complex & Meyrin ... HSE ?
- 10494 Execute the maintenance of CV installations in the SPS complex & Preveessin ... HSE ?
- 10495 Execute the maintenance of CV installations in the LHC and its Experiments ... HSE ?
- 10508 Upgrade the ventilation system in UX15 CV resources
- 10590 Replacement of 10% (100) of VPIA pumps [EYETS2016] VSC resources
- 10608 Replacement of 5/10% (50/100) of VPIA pumps [YETS2017] VSC resources
- 10654 Alice Experiment routers hardware upgrade ICS resources
- 10661 Atlas Experiment routers hardware upgrade ICS resources
- 10664 CMS Experiment routers hardware upgrade ICS resources
- 10782 Preventive Maint. 2015-LS2- Fire Detection & Evacuation - ... HSE ?
- 10783 Preventive Maint. - Fire Detection & Evacuation - .... HSE ?
- 10837 Replacement of Linac3 101 MHz amplifiers RF res.& CV miss. info
- 10847 General Maintenance kicker systems in Accelerator Complex ... HSE ?
- 10848 General Maintenance kicker systems in Accelerator Complex .... HSE ?

# Show-stoppers for 2016 & 2017 – P3 *(excl. LIU & HL)*

---

- 10015 TDIS for HL-LHC EL mssing info (LS2)
- 10082 18kV LHC18 Extension et consolidation de la sous station SE18 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)*

- 10028 Booster Head/Tail clipper MME not needed
- 10194 ISOLDE Frontends MME not needed
- 10381 Consolidation of the Fibre Infrastructure in Preveessin ACE wrong group
- 10382 Consolidation of the Fibre Infrastructure in Meyrin ACE wrong group
- 10386 Fibrotheque Database ACE wrong group
- 10006 AD target area renewal ABP wrong group & EL missing info
- 10007 CHARM target upgrade EL missing info
- 10023 renew AD beam stopper EA wrong group & EL missing info
- 10278 ALICE O2 infrastructure CV missing info
- 10280 ALICE fibers EL missing info
- 10390 Consolidate Isolde target modulator & power supplies EL resources
- 10391 Provide Electronics & Controls for restart of AD Horn Test Bench,, EL missing info
- 10453 Install demineralised water skid in SM18 EL missing info
- 10481 Consolidate the NA underground ventilation EL missing info
- 10485 Consolidate the cooling system of the AD hall EL missing info
- 10491 Consolidate the compressed air production system of Meyrin EL missing info
- 10549 Consolidate the compressed air production system in Preveessin EL missing info
- 10633 EN-EL Long distance Optical fibers installation for LHCb EL missing info
- 10646 BSRTR for Beam 2. EL not needed & MME missing info
- 10649 LHC orbit system DOROS EL missing info
- 10650 New BCTs for AD ABP wrong group & EL missing info
- 10750 LHCb PC farm - data center CV, EL, SMB missing info
- 10960 SPS Underground toilet - ... CV & EL missing info

# Show-stoppers for 2016 & 2017 – P4a *(excl. LIU & HL)*

---

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