# European XFEL Schedule and Integration Planning

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Photon System Coordinator

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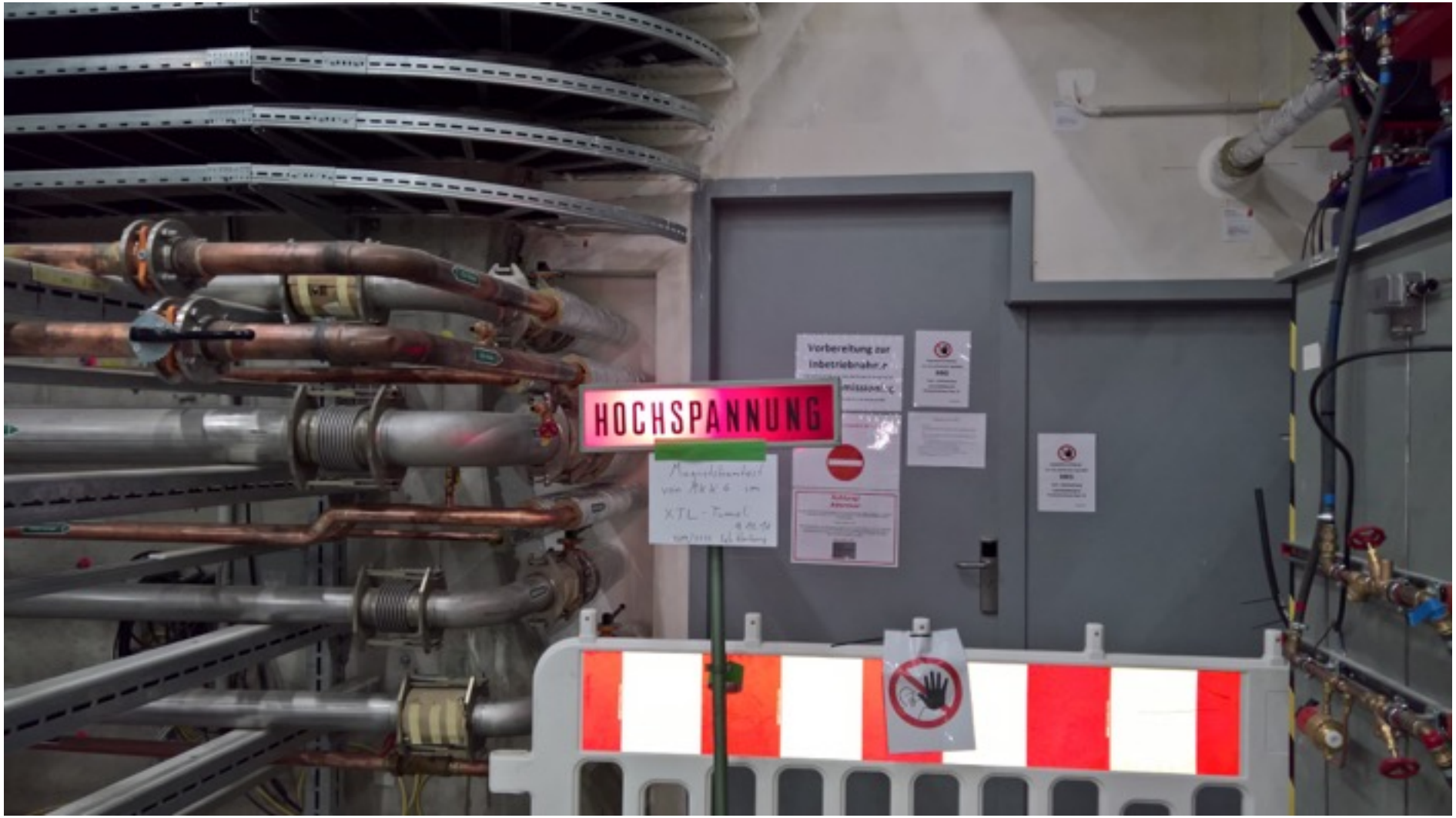
# Top-Level Milestones

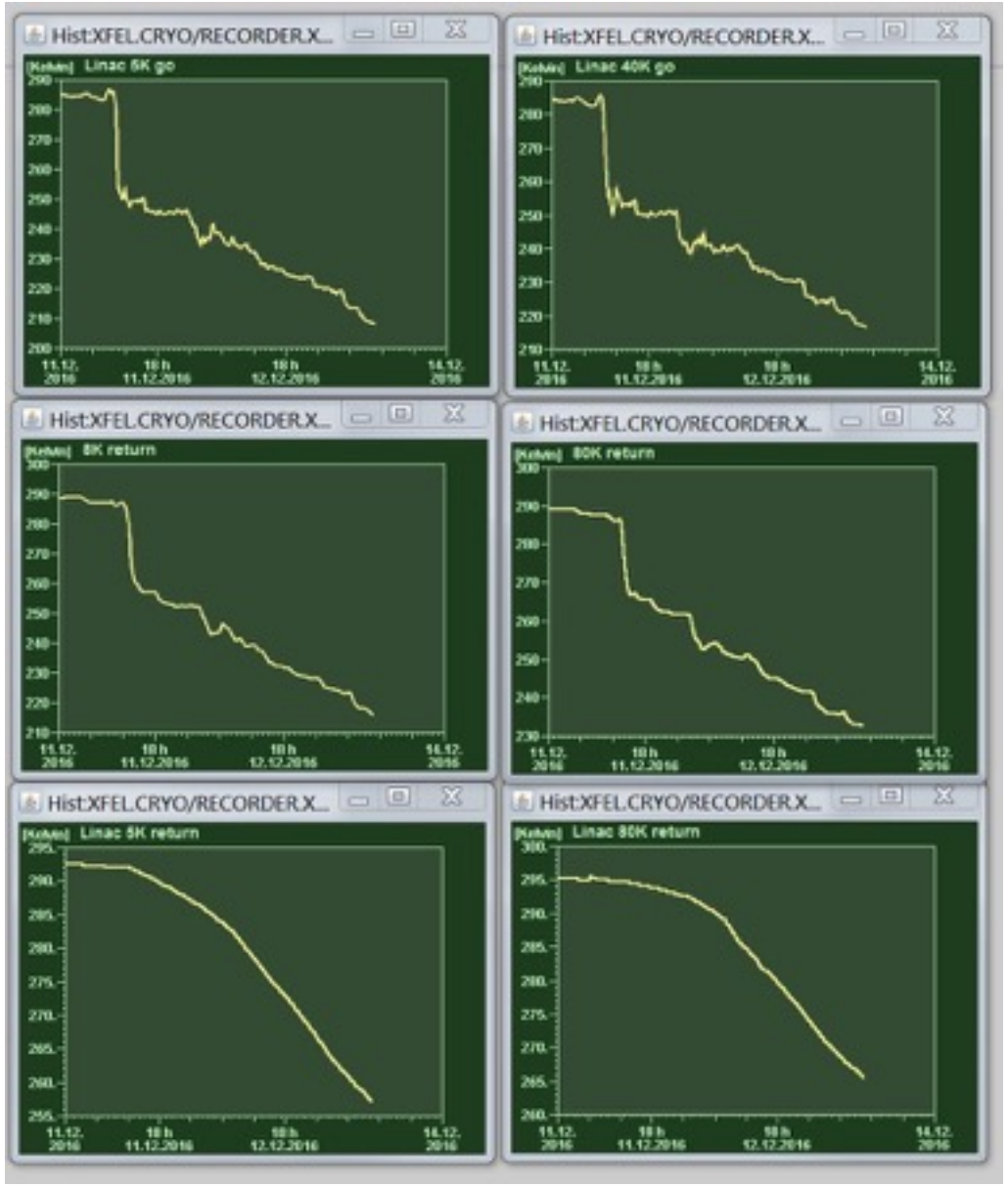
| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | Milestone Name | Top-level date | Last DAC | Current Date | Slip |
| 2 | **LINAC** | | | | |
| 3 | First Beam to Injector Dump | 31 August 2015 | 22 December 2015 | 22 December 2015 | |
| 4 | LINAC Tunnel closed | 30 June 2016 | 30 September 2016 | 06 December 2016 | 2 mo |
| 5 | Start Operation | 30 April 2016 | 30 June 2017 | 15 August 2017 | 1.5 mo |
| 6 | Extended Beam Delivery | 30 June 2018 | 31 October 2018 | 31 October 2018 | 2 mo |
| 7 | **SASE1** | | | | |
| 8 | XTD2, XTD9 ready to be closed | 31 December 2015 | 30 June 2016 | 28 February 2017 | 8 mo |
| 9 | First Lasing SASE1 possible | 31 December 2016 | 31 March 2017 | 31 May 2017 | 2 mo |
| 10 | SASE1 Instruments User Operation | 30 April 2017 | 30 June 2017 | 01 September 2017 | 2 mo |
| 11 | **SASE3** | | | | |
| 12 | XTD4, XTD10 ready to be closed | 31 December 2015 | 30 June 2016 | 30 April 2017 | 10 mo |
| 13 | First Lasing SASE3 possible | 15 February 2016 | 15 May 2017 | 30 June 2017 | 1.5 mo |
| 14 | SASE3 Instruments User Operation | 31 May 2017 | 31 July 2017 | 31 January 2018 | 6 mo |
| 15 | **SASE2** | | | | |
| 16 | XTD1, XTD3, XTD5, XTD6, XTD7, XTD8 ready to be closed | 15 December 2016 | 31 March 2017 | 30 June 2017 | 3.5 mo |
| 17 | First Lasing SASE2 possible | 15 April 2017 | 15 July 2017 | 31 October 2017 | 3.5 mo |
| 18 | SASE2 Instruments User Operation | 31 July 2017 | 31 October 2017 | 30 June 2018 | 8 mo |
| 19 | | | | | |

Slips of 2/6/8 months in SASE1/3/2

# LINAC Tunnel Closed for Cooldown



# LINAC Cooldown

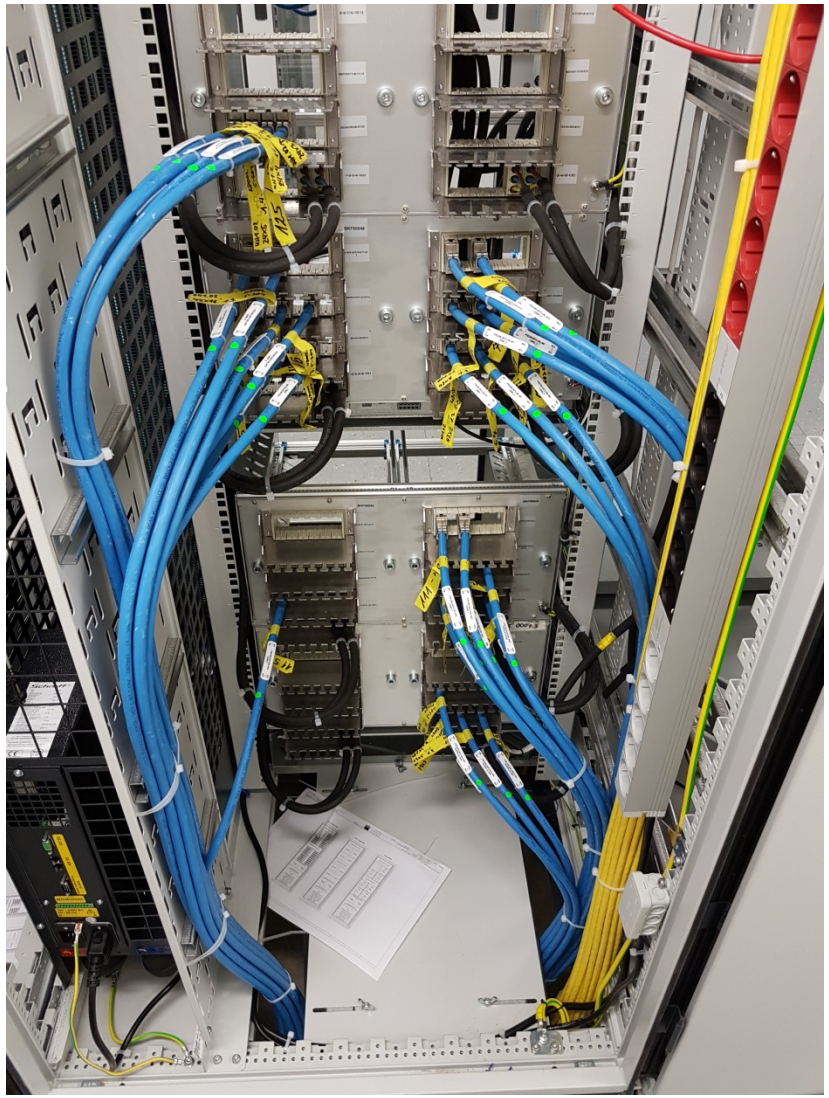


# SASE1: FXE starts vacuum pumping

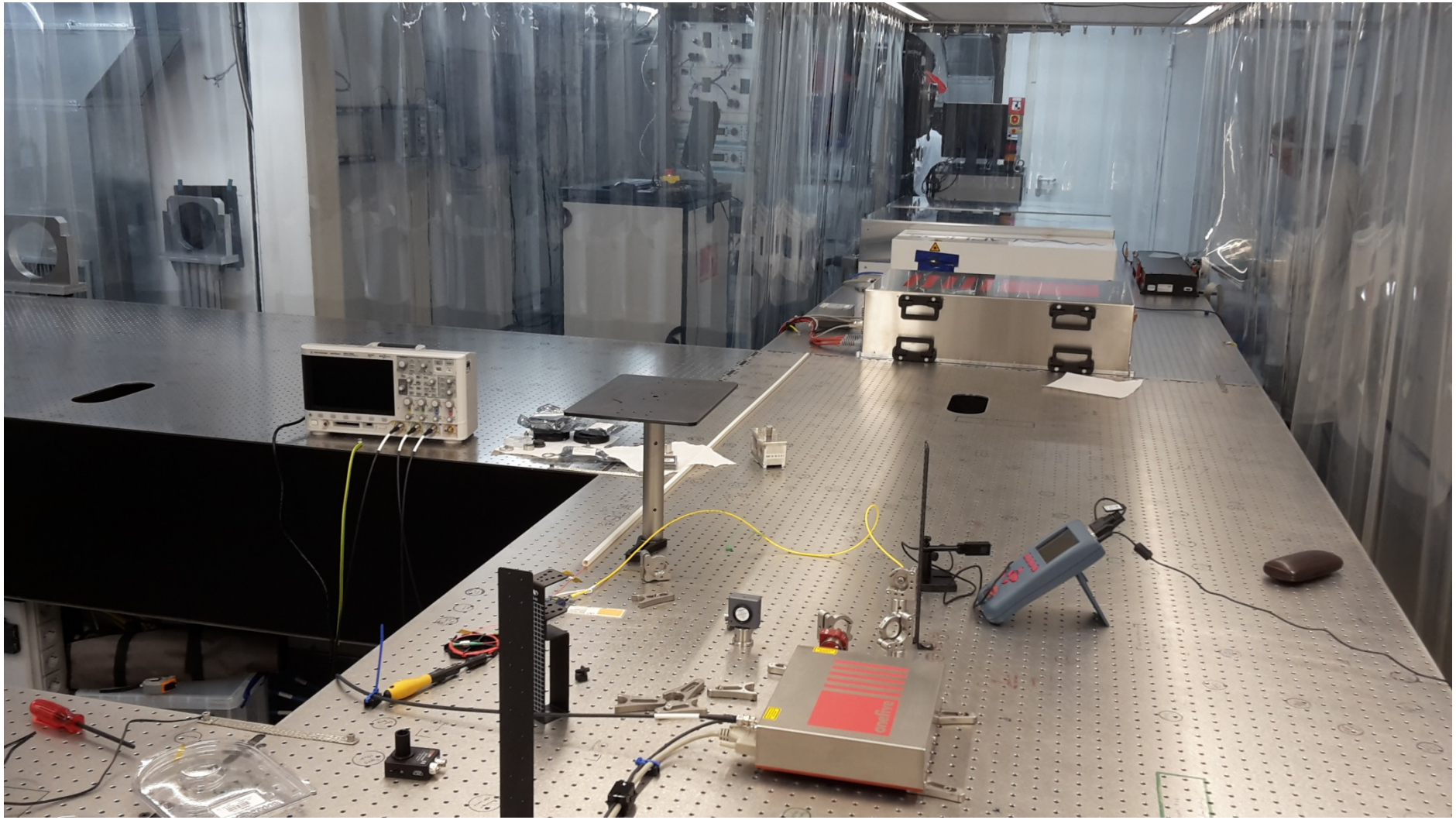
# SASE1: SPB Hutch

# Arrival of racks for SASE1


# Racks and Motor Cables for FXE



# SASE1: Ongoing PP Laser installations



# Status SASE1

- Infrastructure
  - Mostly running and being tuned
- IT Cables and Racks
  - Installed and tested, small amount of rework required
- Phase II Cables and electronics
  - Motor cables for FXE are installed. Cabling continues in January
  - Electronics installations about to start
- FXE Installation well advanced
- SPB Installation about to start
- Laser installations started

# SCS: Hutch and first technical installations

# SQS: Hutch and first technical installations

# SCS Control Room

# SASE3 Status

- Civil construction
  - Still ongoing
- Infrastructure
  - Major problems and delays with AC contractor
    - ► Delay of > 6 mo
- IT Cabling and Racks:
  - Contracted, installation starts in February
- Phase 2 Cabling and electronics:
  - Internal planning still ongoing
  - Progress currently limited by internal resources

# SASE2 Civil Construction

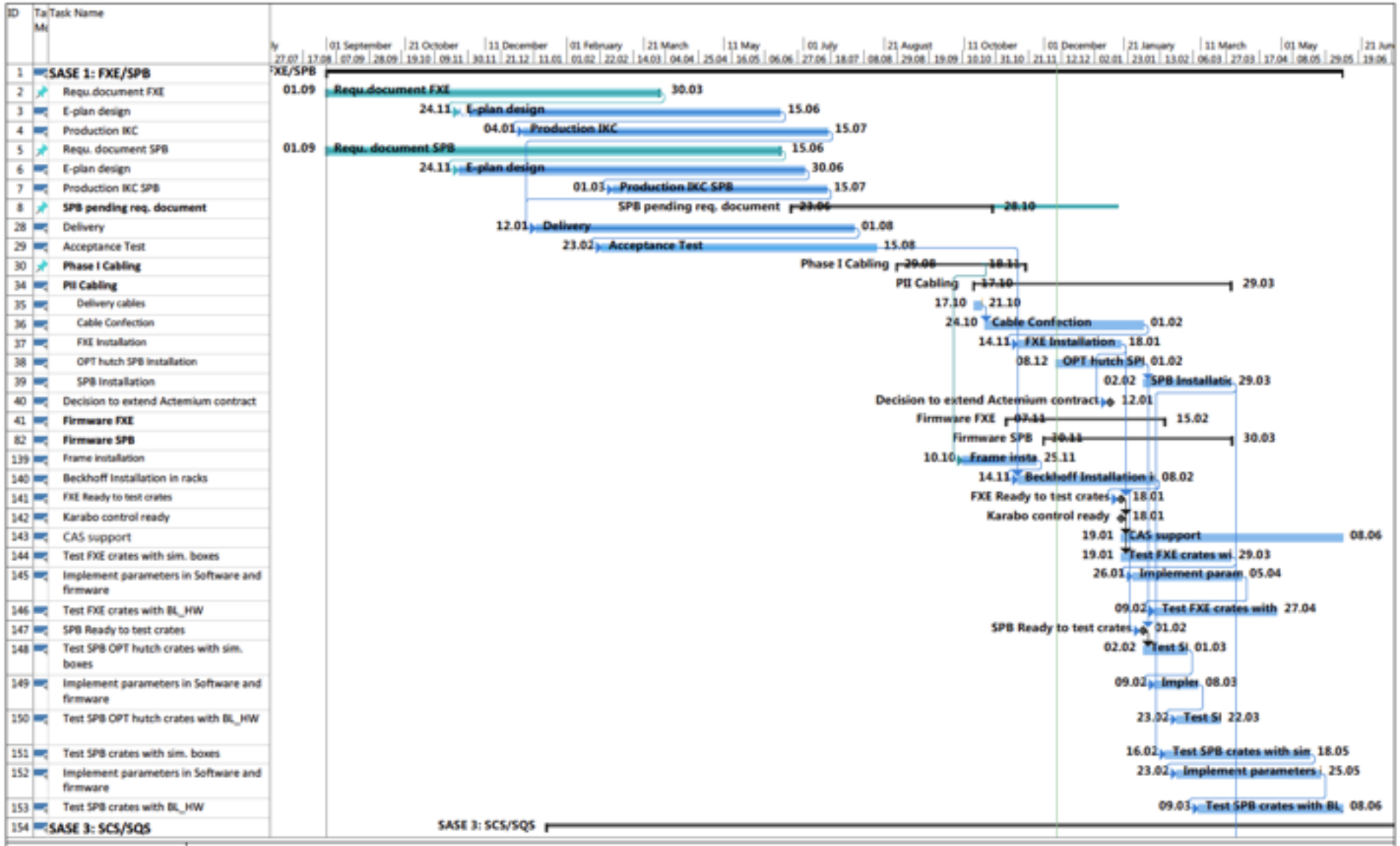
# SASE2: Doors MID Hutch

# SASE2: AC installations Laser room

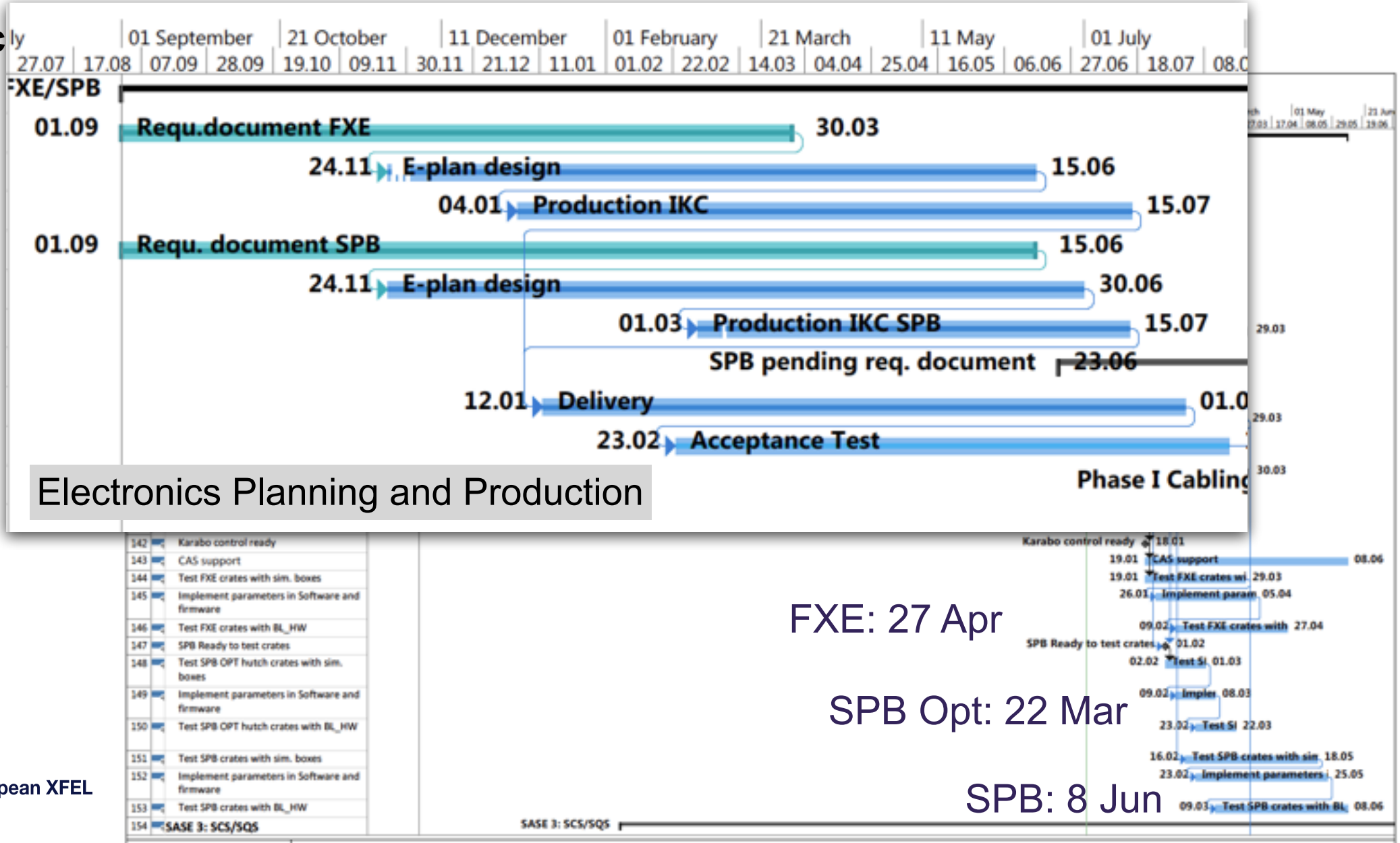
# SASE2 Status

- Civil Construction
  - Civil construction almost complete
  - Work on the ceiling of High Power laser room suspended might be a bit delayed
    - Detailed layout of laser still under discussion
- Infrastructure
  - Installation has started and is on track
- IT Cabling and Racks
  - Tender will go out in January
- Phase2 Cabling will depend on progress of internal planning

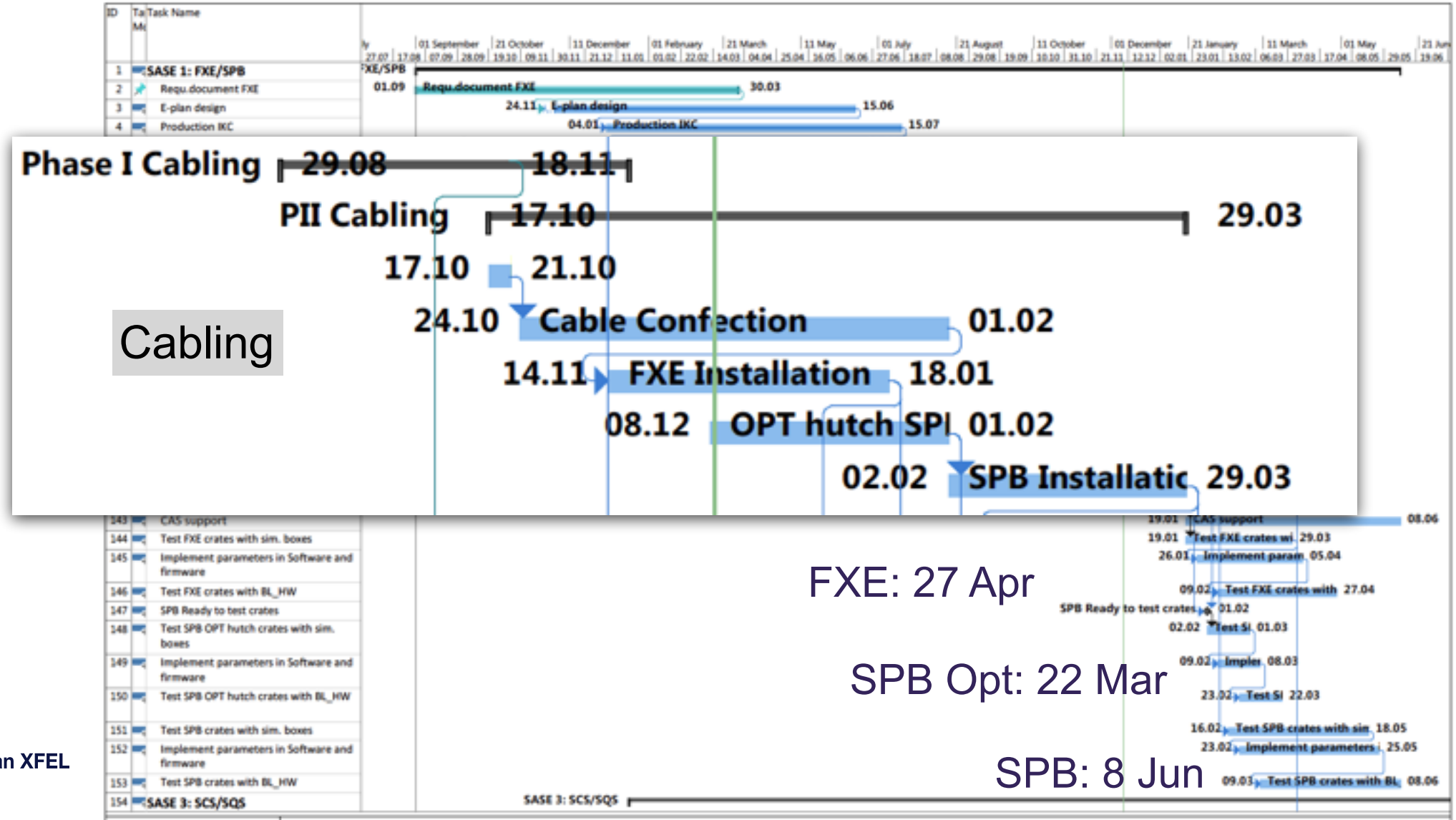
# SASE1: Electronics, Cabling and Technical Commissioning



# SASE1: Elec

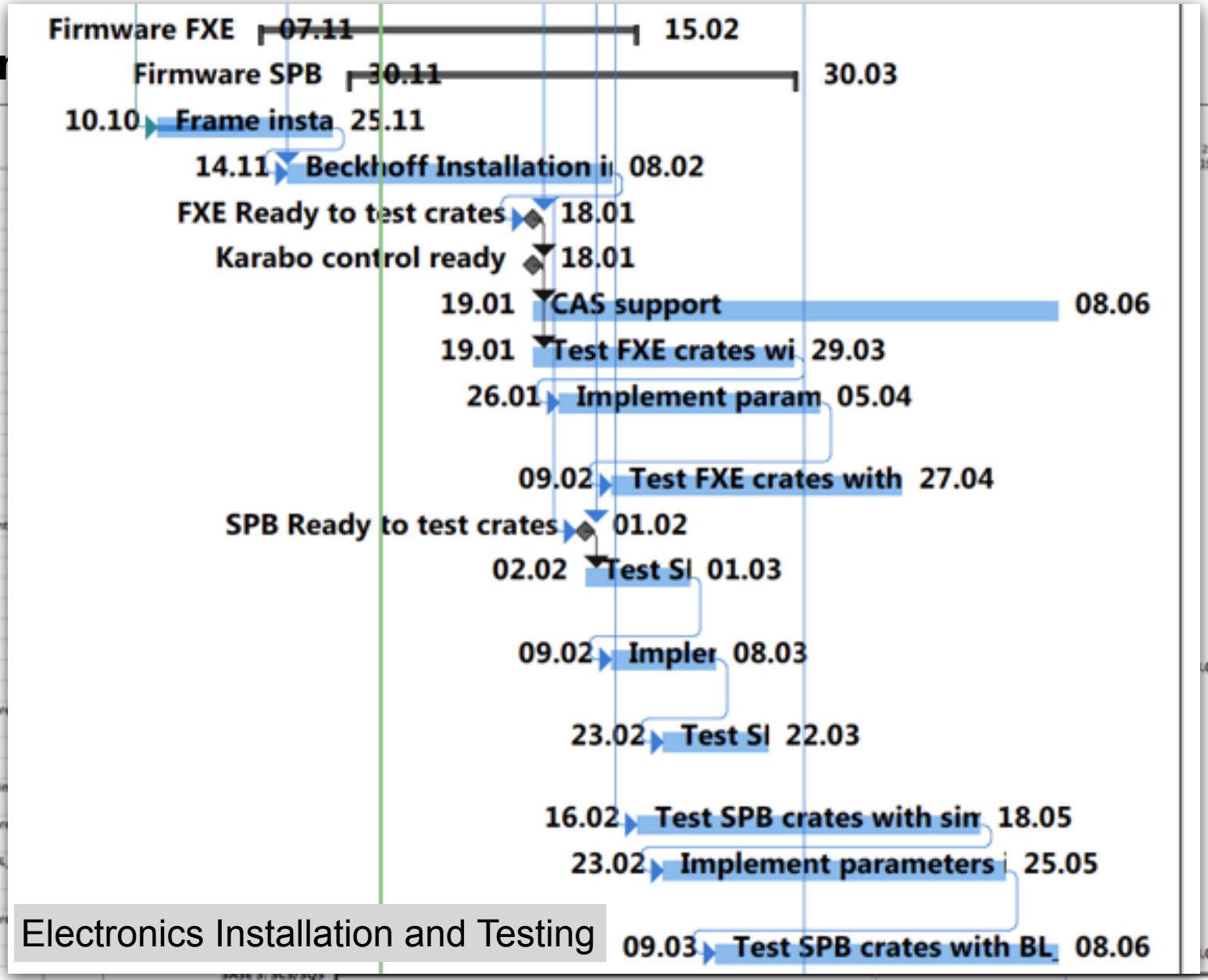

01 September
21 October
11 December
01 February
21 March
11 May
01 July
27.07
17.08
07.09
28.09
19.10
09.11
30.11
21.12
11.01
01.02
22.02
14.03
04.04
25.04
16.05
06.06
27.06
18.07
FXE/SPB
01.09 Requ.document FXE 30.03
24.11 E-plan design 15.06
04.01 Production IKC 15.07
01.09 Requ. document SPB 15.06
24.11 E-plan design 30.06
01.03 Production IKC SPB 15.07
SPB pending req. document 23.06
12.01 Delivery
23.02 Acceptance Test
Phase I Cabling
Electronics Planning and Production
142 Karabo control ready
143 CAS support
144 Test FXE crates with sim. boxes
145 Implement parameters in Software and firmware
146 Test FXE crates with BL_HW
147 SPB Ready to test crates
148 Test SPB OPT hutch crates with sim. boxes
149 Implement parameters in Software and firmware
150 Test SPB OPT hutch crates with BL_HW
151 Test SPB crates with sim. boxes
152 Implement parameters in Software and firmware
153 Test SPB crates with BL_HW
154 SASE 3: SCS/SQS
SASE 3: SCS/SQS
FXE: 27 Apr
SPB Opt: 22 Mar
SPB: 8 Jun

# SASE1: Electronics, Cabling and Technical Commissioning

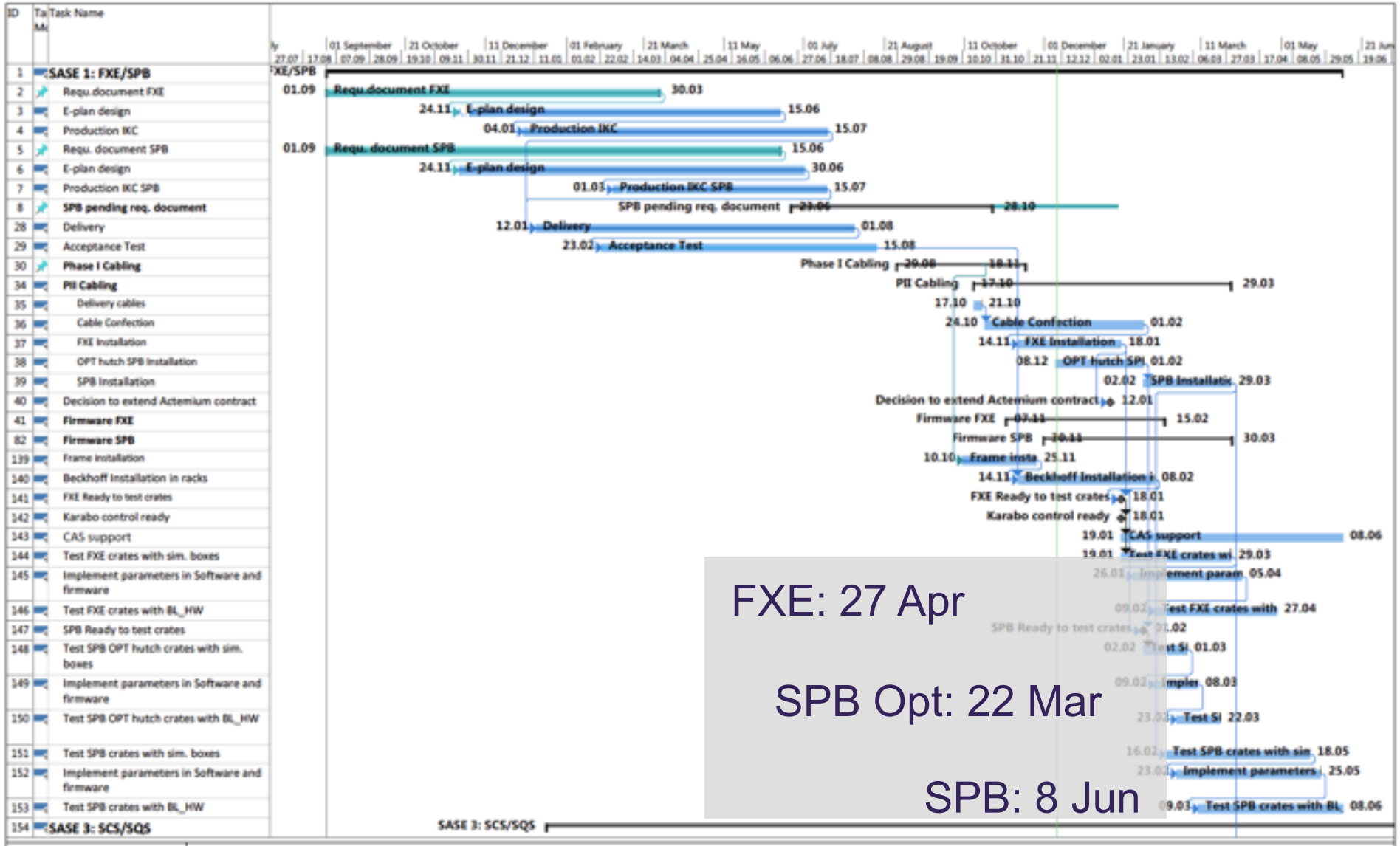


# SASE1: Electronics and Cablin

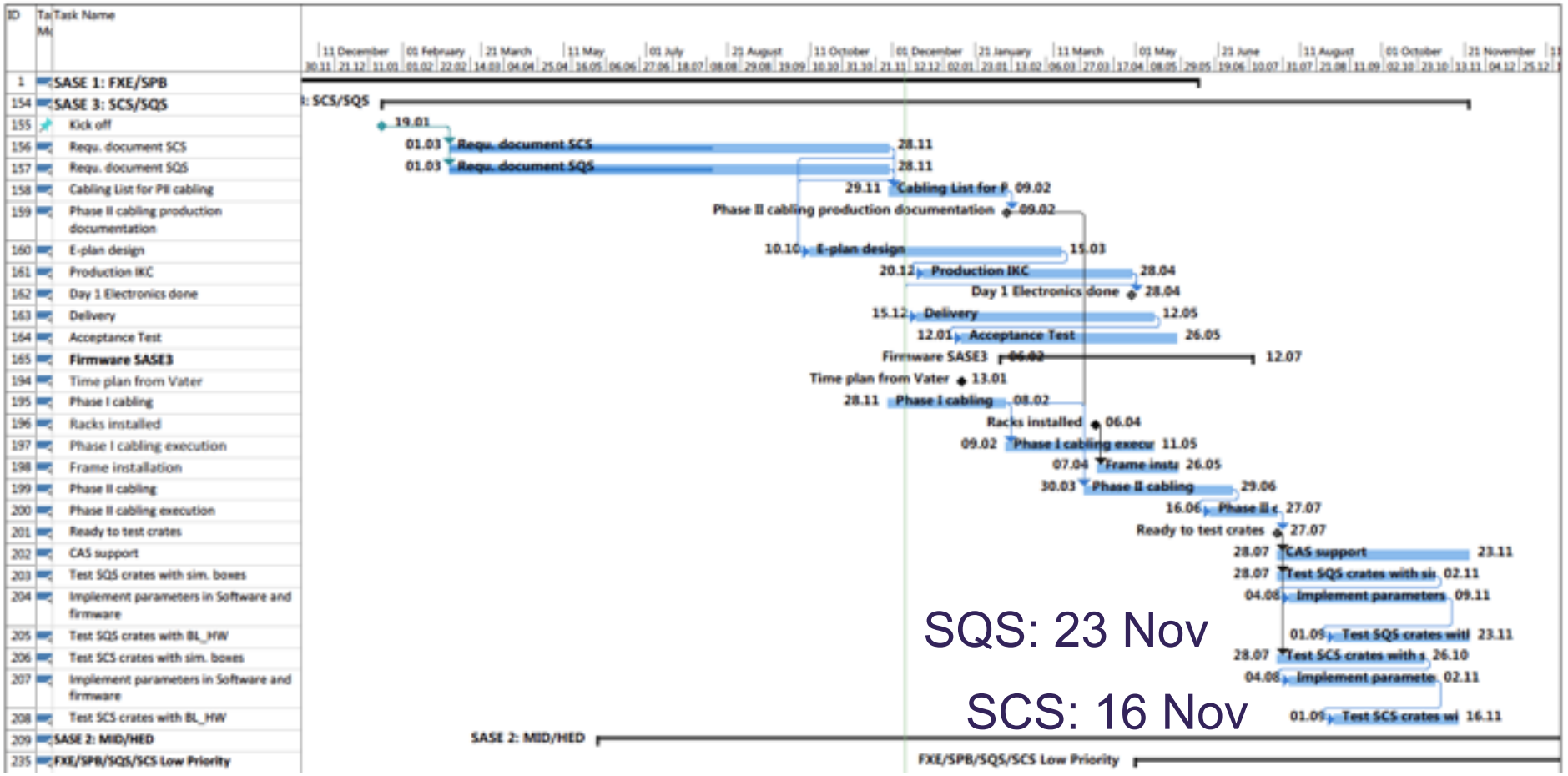
| ID | Ta | Task Name |
|---|---|---|
| 1 | | SASE 1: FXE/SPB |
| 2 | | Requ.document FXE |
| 3 | | E-plan design |
| 4 | | Production IKC |
| 5 | | Requ. document SPB |
| 6 | | E-plan design |
| 7 | | Production IKC SPB |
| 8 | | SPB pending req. document |
| 28 | | Delivery |
| 29 | | Acceptance Test |
| 30 | | Phase I Cabling |
| 34 | | PII Cabling |
| 35 | | Delivery cables |
| 36 | | Cable Confection |
| 37 | | FXE Installation |
| 38 | | OPT hutch SPB Installation |
| 39 | | SPB Installation |
| 40 | | Decision to extend Actemium cont |
| 41 | | Firmware FXE |
| 82 | | Firmware SPB |
| 139 | | Frame installation |
| 140 | | Beckhoff Installation in racks |
| 141 | | FXE Ready to test crates |
| 142 | | Karabo control ready |
| 143 | | CAS support |
| 144 | | Test FXE crates with sim. boxes |
| 145 | | Implement parameters in Softwar firmware |
| 146 | | Test FXE crates with BL_HW |
| 147 | | SPB Ready to test crates |
| 148 | | Test SPB OPT hutch crates with sim boxes |
| 149 | | Implement parameters in Softwar firmware |
| 150 | | Test SPB OPT hutch crates with BL |
| 151 | | Test SPB crates with sim. boxes |
| 152 | | Implement parameters in Softwar firmware |
| 153 | | Test SPB crates with BL_HW |
| 154 | | SASE 3: SCS/SQS |



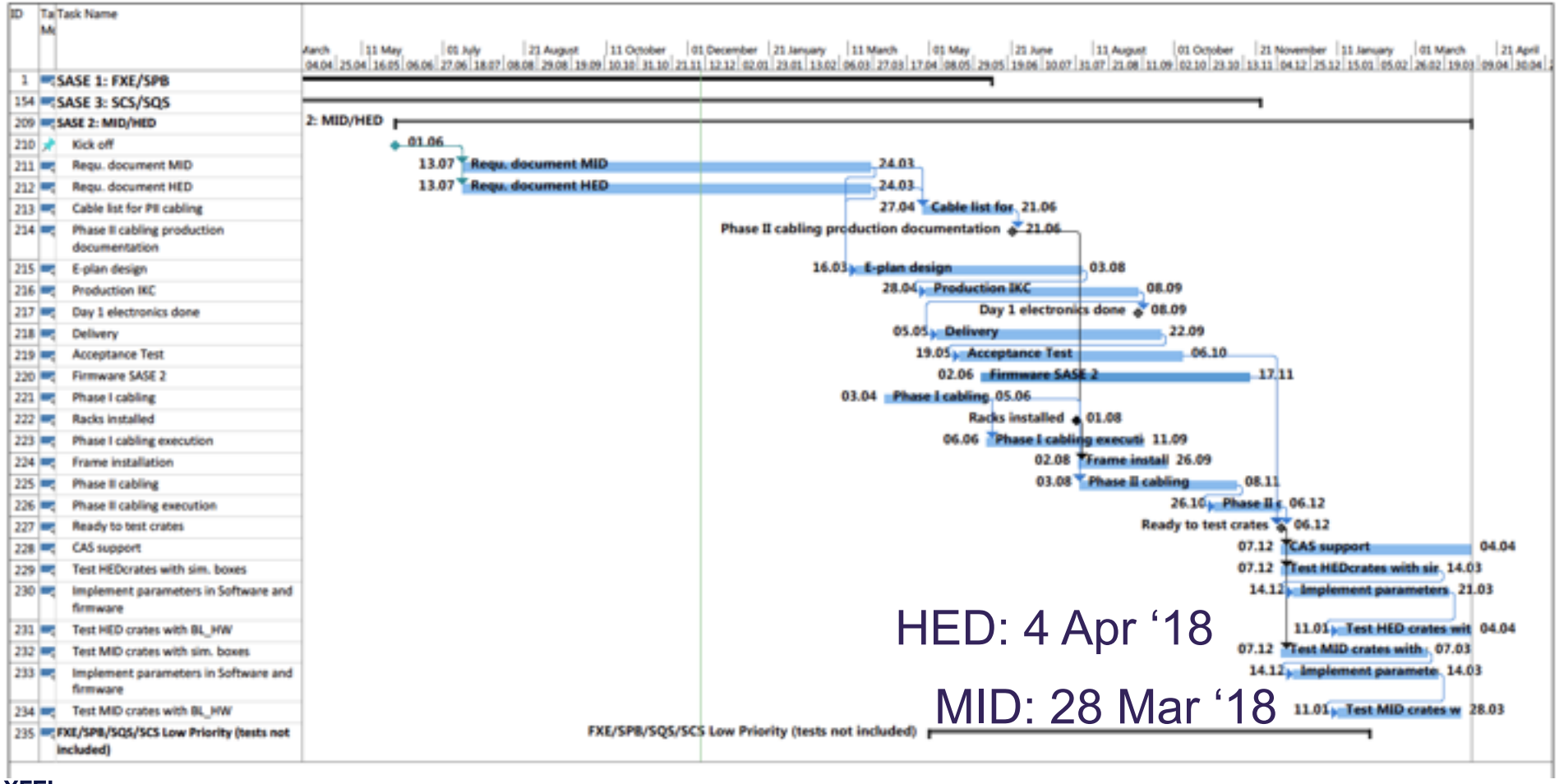
# SASE1: Electronics, Cabling and Technical Comissioning



# SASE3: Electronics, Cabling and Technical Comissioning



# SASE2: Electronics, Cabling and Technical Comissioning



# PSPO Team