

AWAKE Collaboration Meeting

CERN, 6 – 8 November 2024

Edda Gschwendtner, CERN

Agenda

Wed, 6 Nov 2024

Welcome	<i>Edda Gschwendtner</i>
6/2-004, CERN	14:00 - 14:10
Introduction	<i>Patric Muggli</i>
6/2-004, CERN	14:15 - 14:30
Summary of run 2024	<i>Dr Michele Bergamaschi</i>
6/2-004, CERN	14:30 - 14:45
Operation of the electron beam for acceleration, and SM and hosing seeding	<i>Nikita Zena van Gils</i>
6/2-004, CERN	14:50 - 15:05
Measurement of the effect of the plasma density step on electron energy gain	<i>Fern Elizabeth Pannell</i>
6/2-004, CERN	15:10 - 15:25
Discussion	
6/2-004, CERN	15:25 - 15:40
Coffee Break	
6/2-004, CERN	15:40 - 16:00
Seeding of SM as a function of p+ bunch and plasma parameters	<i>Jan Pucek</i>
6/2-004, CERN	16:00 - 16:20
Validation of the "plasma light" diagnostic and measurement of SM growth	<i>Jan Aaron Mezger</i>
6/2-004, CERN	16:25 - 16:40
Measurement of SM growth from radius of beam halo	<i>Arthur Clairembaud</i>
6/2-004, CERN	16:45 - 17:00
Measurements of the behavior of the first microbunch of SM	<i>Helena Jaworska</i>
6/2-004, CERN	17:05 - 17:20
Discussion	
6/2-004, CERN	17:20 - 17:35

Run 2b results

Thu, 7 Nov 2024

Suppression of SM growth by density gradients	<i>Marlene Turner</i>
6/2-004, CERN	09:00 - 09:15
Growth of hosing as a function of plasma length	<i>Dr Michele Bergamaschi</i>
6/2-004, CERN	09:20 - 09:30
Schlieren measurements results and plans	<i>Lucas Alexei Ranc</i>
6/2-004, CERN	09:35 - 09:50
Miscellaneous experimental results	<i>Patric Muggli</i>
6/2-004, CERN	09:55 - 10:10
Coffee break	
6/2-004, CERN	10:15 - 10:35
Update on UoL's activity for AWAKE run 2c	<i>Debdeep Ghosal</i>
6/2-004, CERN	10:40 - 10:55
Scalable plasma sources update	<i>Alban Sublet</i>
6/2-004, CERN	11:00 - 11:20
Introduction	<i>John Patrick Farmer</i>
6/2-024 - BE Auditorium Meyrin, CERN	13:30 - 13:35
Effect of short inter-plasma vacuum gap on multi-bunch driver in plasma wakefield accelerator	<i>Vlada Yarygova</i>
6/2-024 - BE Auditorium Meyrin, CERN	13:40 - 13:55
Oscillation damper for misaligned witness in plasma wakefield accelerator	<i>Konstantin Lotov</i>
6/2-024 - BE Auditorium Meyrin, CERN	14:00 - 14:15
Offset tolerances for Run 2c	<i>Dr Thomas Wilson</i>
6/2-024 - BE Auditorium Meyrin, CERN	14:20 - 14:35
Towards Laboratory Astrophysics in Plasma Wakefield Accelerators	<i>Erwin Walter</i>
6/2-024 - BE Auditorium Meyrin, CERN	14:40 - 15:00
Considerations for a proton-driven collider	<i>John Patrick Farmer</i>
6/2-024 - BE Auditorium Meyrin, CERN	15:05 - 15:20
Towards full baseline simulations of Run 2c	<i>Mariana Moreira</i>
6/2-024 - BE Auditorium Meyrin, CERN	15:25 - 15:45
General discussion	
6/2-024 - BE Auditorium Meyrin, CERN	15:50 - 16:00
Coffee Break	
6/2-004, CERN	16:00 - 16:15
Collaboration Board	

Run 2b results

Run 2c/d

Simulations

Collaboration Dinner



Fri, 8 Nov 2024

AWAKE Run 2c schedule and milestones	<i>Eloise Daria Guran</i>
6/2-004, CERN	09:00 - 09:15
Status of integration, installation, interfaces for AWAKE Run 2	<i>Alena Puckova</i>
6/2-004, CERN	09:20 - 09:35
Status of the Run 2c electron source prototype in CTF2	<i>Anton Eager et al.</i>
6/2-004, CERN	09:40 - 09:55
Status of Uppsala contributions to the electron source	<i>Seyed Alireza Mohadeskasaei</i>
6/2-004, CERN	10:00 - 10:15
Laser tests in CTF2 and first designs of the Run 2c laser lines	<i>Eduardo Granados</i>
6/2-004, CERN	10:20 - 10:35
Coffee break	
6/2-004, CERN	10:35 - 10:55
Beam arrival time monitors for Run 2c (tbc)	<i>Joshua Thomas Gregory</i>
6/2-004, CERN	10:55 - 11:05
Progress of the Run 2c beam instrumentation	<i>Stefano Mazzoni</i>
6/2-004, CERN	11:10 - 11:25
Bunch-length measurements with EOS	<i>Dr Morgan Hibberd</i>
6/2-004, CERN	11:30 - 11:45
Plans for the coherent ChDR bunch length monitor study	<i>Jack McGunigal</i>
6/2-004, CERN	11:50 - 12:00
Electron spectrometer integration considerations for Run 2c	<i>David Andrew Cooke</i>
6/2-004, CERN	12:05 - 12:15
Close-out	
6/2-004, CERN	12:15 - 13:00

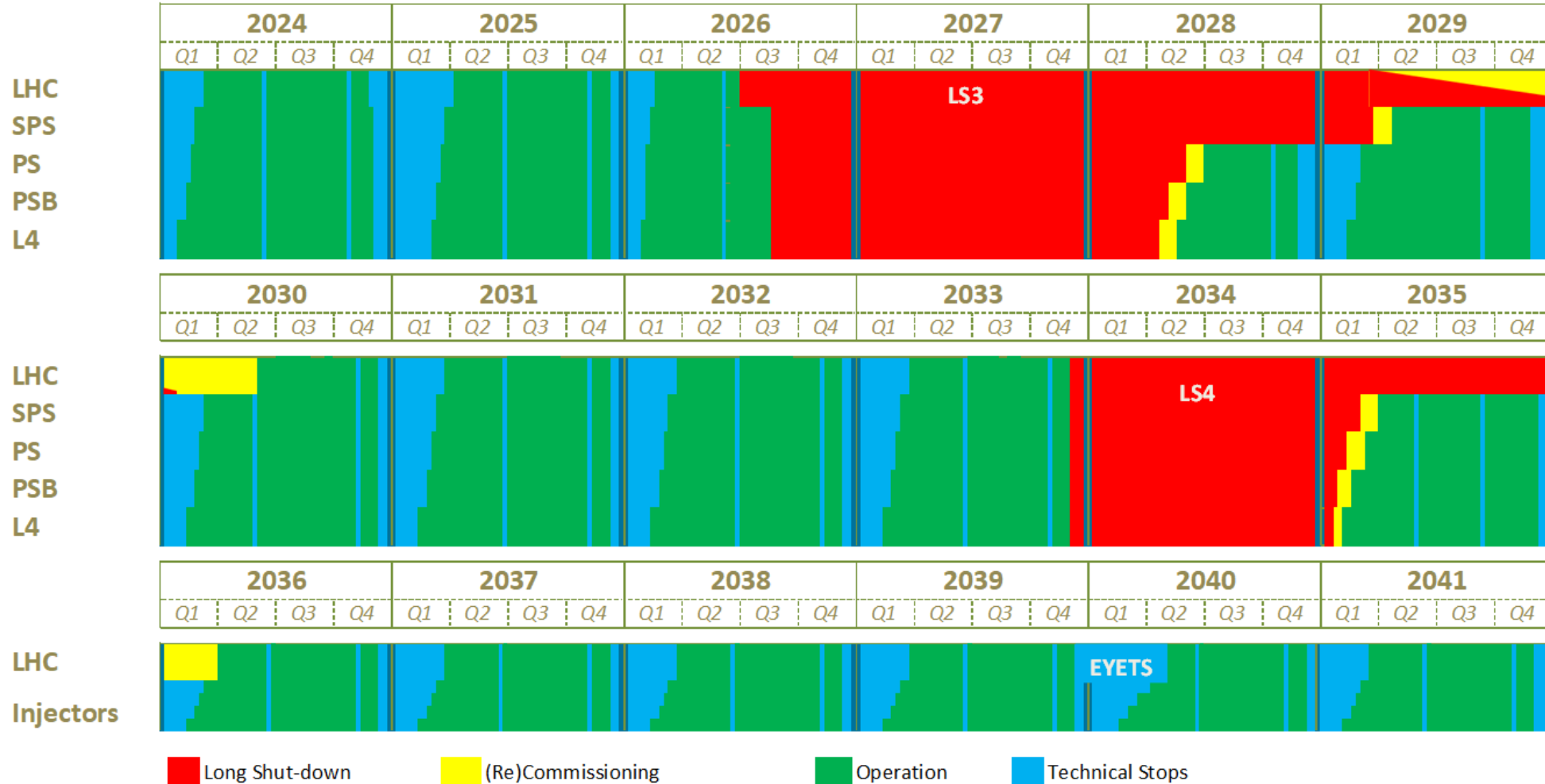
Run 2c

AWAKE Run 2c and 2d has been approved in this year's MTP
(CNGS Target area Dismantling, **CTD**, was already approved in 2022)

"An amount of 10 MCHF is allocated in addition to AWAKE for the construction, during LS3, of the necessary hardware (e.g. second electron line) to be deployed in Runs 2c and 2d. Additional funds may be necessary for these runs."

LS3 has been delayed

Long Term Schedule for CERN Accelerator complex



New Master Schedule for CNGS Target Area Dismantling and AWAKE

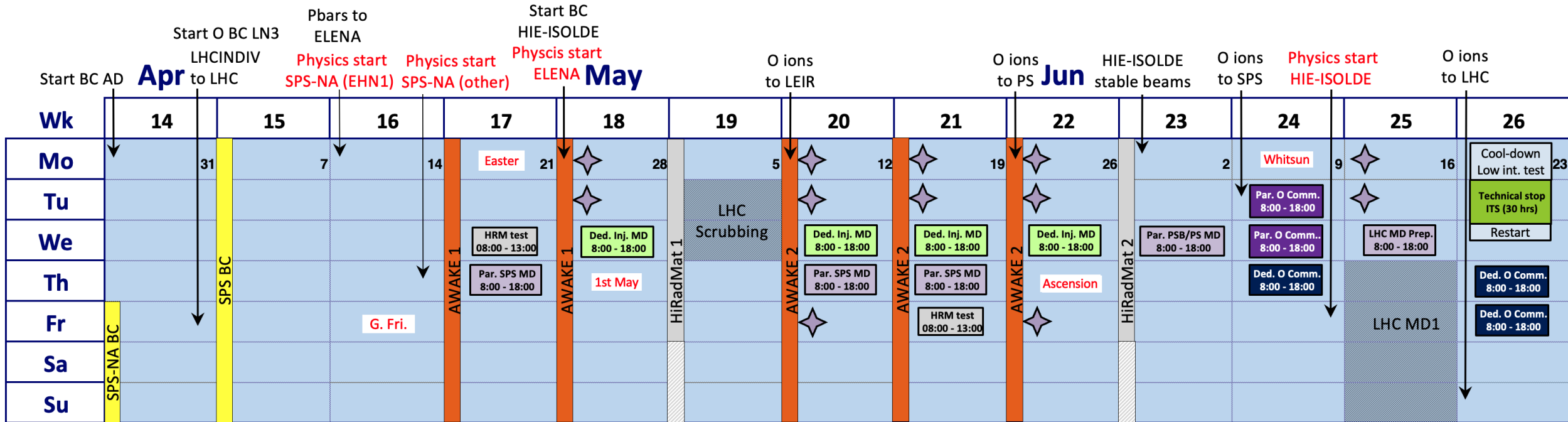
LS3 starts 1/10/2026 (+10mo)

CTD/AWAKE shifts by 7mo

	2024		2025				2026				2027				2028				2029			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Injector schedule (SPS)		YETS				YETS									LS3 SPS - shifted October 2026							
B.697 SCE works																						
B.697 services installation																						
AWAKE Run 2b operation (electrons during YETS)																						
Run 2b removal																						
Awake decabling (outside of YETS)																						
CTD - set-up of the area																						
CTD - main works																						
CTD - decontamination & cleaning																						
Run 2c - Installation services, cables																						
Run 2c - Equipment installation																						
Run 2c - Hardware commissioning																						
Run 2c - Commissioning with beams & operation																						

- Strategy:
- In order to guarantee funding and keep the momentum of the collaborating institutes (e.g. students, post-docs,...), we need to keep the proton down-time as short as possible and start with the Run 2c program as soon as possible.

AWAKE Proton Beam Request for 2025



Collaboration Dinner

CAFÉ PAPON

Café PAPON

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CH-1204 Genève
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Take the tram 18 from CERN to Place de Neuve,
walk to Café Papon

