



ATS update

Mike, Malika, Katy, Bren, Miguel, Rhodri
29th June 2023

Council Week!

4 times a year, ATS gets to present:

Status of the Accelerator Complex, and upgrades (HL-LHC), and FCC Feasibility Study to:


- Scientific Policy Committee (SPC) - Monday/Tuesday
- Finance Committee (FC) - Wednesday
- Council (Restricted, Closed, Open) – Thursday/Friday

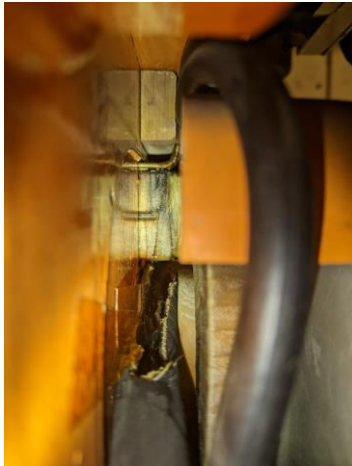
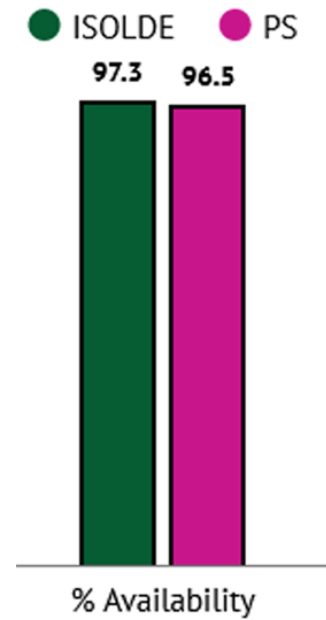
plus occasionally more targeted subjects (this time Medical Applications Strategy)



PS Booster

- Good availability at > 96%
- In 50 years of the PSB there have been no water leaks on the main quadrupole magnets
 - Since LS2 leaks have appeared with several magnets exchanged during the YETS
 - One new small leak has appeared since and is being closely monitored

Global Availability by Destination 

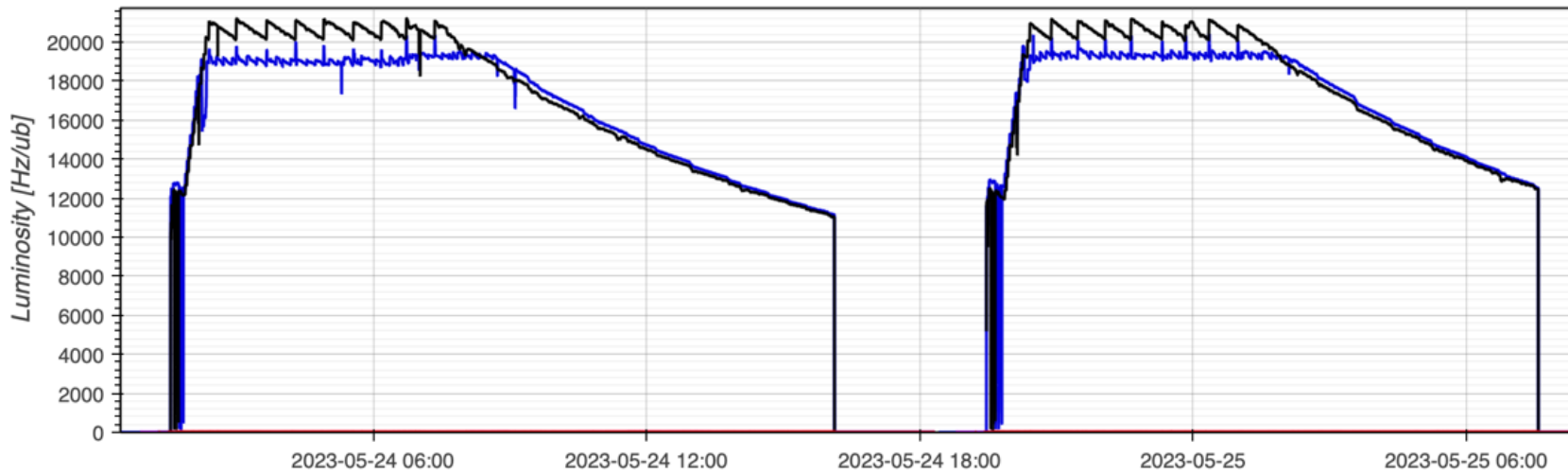


A task force is in place to investigate the origin of these new leaks and propose mitigation measures and will report to LHC Injectors and Experimental Facilities Committee next week

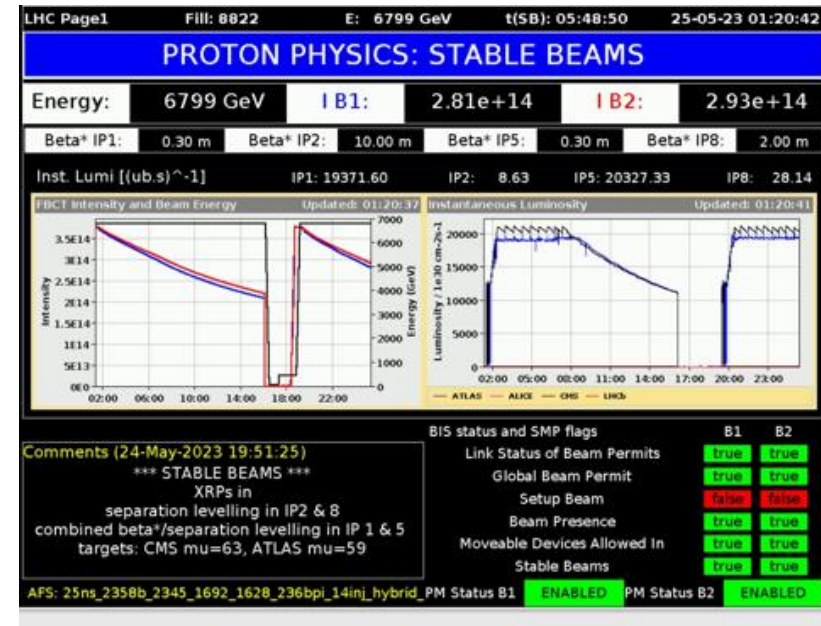
LHC Physics Performance to Date

- **New record: Integrated luminosity of 1.2 fb⁻¹ in 24h!**
- **Peak levelling just above 2.0 x 10³⁴ cm⁻²s⁻¹**
- **Pileup targets ATLAS/CMS = 59 / 63**
 - Thanks to combined separation β^* levelling and separation levelling we can deliver different pile up to ATLAS and CMS

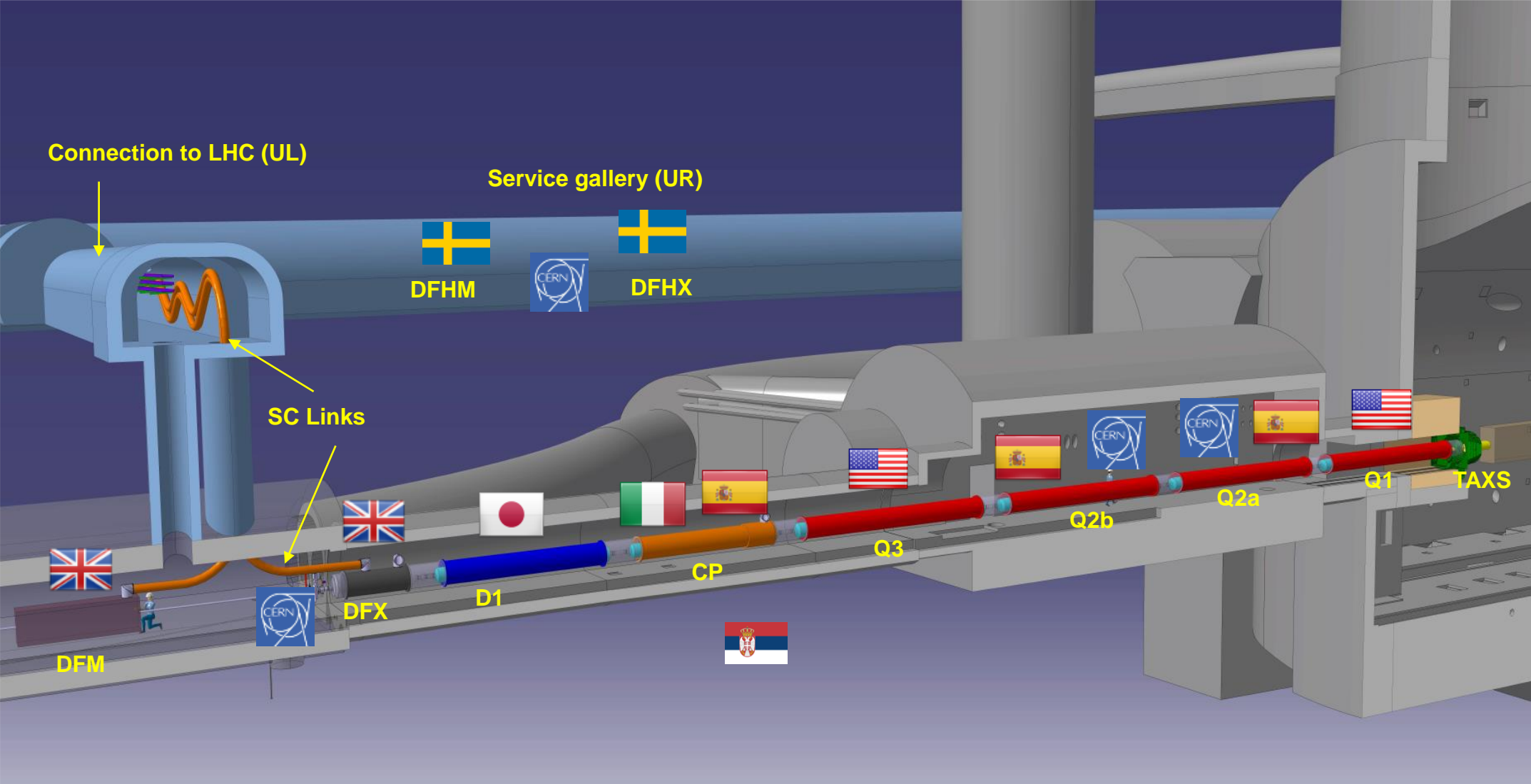
Max energy per beam at start of stable beams: **409 MJ**
 1.59 x 10¹¹ p/b (Injected: 1.61)



24th to 25th of May 2023



High Luminosity LHC – Interaction Region



Q2: MQXFB Cryo-Module Assembly at CERN

- **MQXFBP3 test at CERN**
 - Nominal +300A @ 1.9K and TC ✓
- **MQXFB02 test at CERN**
 - nominal +300A @ 1.9K and TC ✓
- **Limitation @ 4.5K, but margins compatible with ultimate operation energy @ 1.9K**
- **Both P3 and B02 went through 3 thermal cycles without degradation**

On Track for Series Production of Nb₃Sn HL-LHC Triplet Quadrupole Magnets



Fast & Luminous: third place in the Open Mixte Category of the 51st CERN Relay Race

On Wednesday 31 May 2023 at 12.15, the first ever bunch of HL-LHC particles accelerated itself around the 3.8 km circumference of the legendary CERN Relay Race.



Eliezer Rabinovici – President of Council



“Please pass on my personal appreciation to everyone for the tremendous job they’re doing...”

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

Action to be taken

Voting procedure

For recommendation to the Council	<p>SCIENTIFIC POLICY COMMITTEE 334th Meeting 19-20 June 2023</p>	—
For recommendation to the Council	<p>FINANCE COMMITTEE 386th Meeting 20-21 June 2023</p>	<p>Chapters I and IV.1: Simple majority of Member States represented and voting (abstentions are not counted) and 70% of the contributions of the Member States represented and present for the voting (abstentions are counted as votes against) and at least 51% of the contributions of all Member States.</p> <p>Chapter III: Two-thirds majority of Member States represented and voting (abstentions are not counted) and 70% of the contributions of the Member States represented and present for the voting (abstentions are counted as vote against) and at least 51% of the contributions of all Member States.</p>
For decision	<p>RESTRICTED COUNCIL 212th Session 22-23 June 2023</p>	<p>Chapters I and IV.1: Simple majority of Member States represented and voting (abstentions are not counted).</p> <p>Chapter III: Two-thirds majority of Member States represented and voting (abstentions are not counted).</p>

**Medium-Term Plan for the period 2024-2028 and Draft Budget
 of the Organization for the seventieth financial year 2024**

GENEVA, June 2023

Council is invited to:

- approve the overall strategy for the reference period as outlined in Chapter I of this document and elaborated upon in the Appendices (Chapter IV.1);
- take note of the Resources Plan for the years 2024 to 2028 (Chapter II);
- approve the 2024 Draft Budget in 2023 prices (Chapter III).

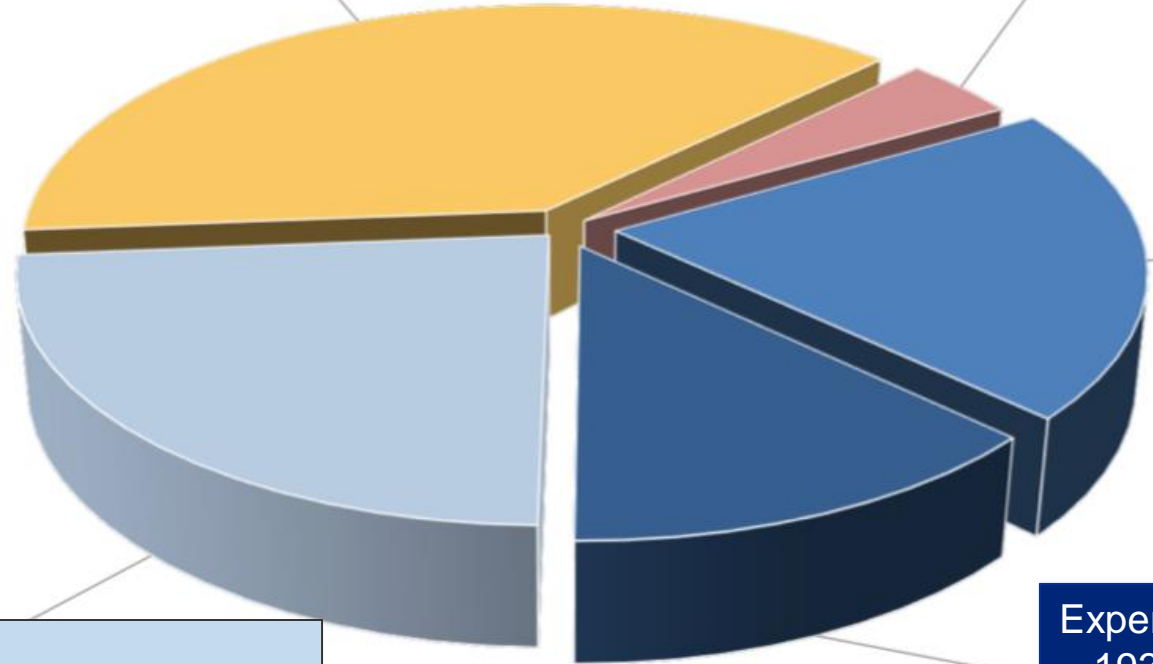
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2024 Budget (M+P expenses)

Infrastructure, services and centralised expenses
~ 570 M (38.8%)
Safety, environment, energy, technical infrastructure,
computing support, buildings and site facilities,
international relations, etc.

Recapitalisation of Pension Fund:
60 M (4.1%)



Accelerator programme:
~ 300 M (20.4%)
Injectors, LHC, accelerator support

Experiments and research programme
~ 193 M (13.1%)
LHC and non-LHC experiments, theory,
computing, scientific support

Scientific projects
~ 345 M (23.5%)
HL-LHC, detectors upgrades
Neutrino Platform
Accelerator R&D, Detector R&D
Future colliders (FCC, CLIC, muon colliders)
Physics Beyond Colliders

~ **60%** of Budget invested **directly** in the **scientific programme**
~ **40%** for safety, environment and maintenance and renovation of **scientific and general infrastructure** → attractive lab and efficient services for worldwide CERN community

Medium Term Plan 2023 - a balancing act

Cost reductions and savings: 316 M (2024-2028), 776 M (2024-2033) needed to offset additional expenses and reduce the Cumulative Budget Deficit (CBD)

- Cost saving measures for 74 M implemented in 2022-2023 prior to this MTP + 15 M of other savings in 2023
- Including staff contribution of 2.5% salary reduction in 2023
- Cost saving measures from the “440 M package” for 190 M implemented over 2024-2028 in this MTP
- 125 M cost reductions over 2024-2028 linked to decrease of electricity costs (mainly from reduced tariffs)

Additional expenses: 187 M (2024-2028), 330 M (2024-2033)

- high-priority scientific projects requiring additional resources (mainly because of cost overrun due to inflation);
- consolidation of technical and site infrastructure
- safety, environment and sustainability

Additional revenues: 73.8 M in 2023 - additional contribution from MS & AMS

Reduction and savings have an impact: descoping, delaying, stopping activities; reliability, availability.

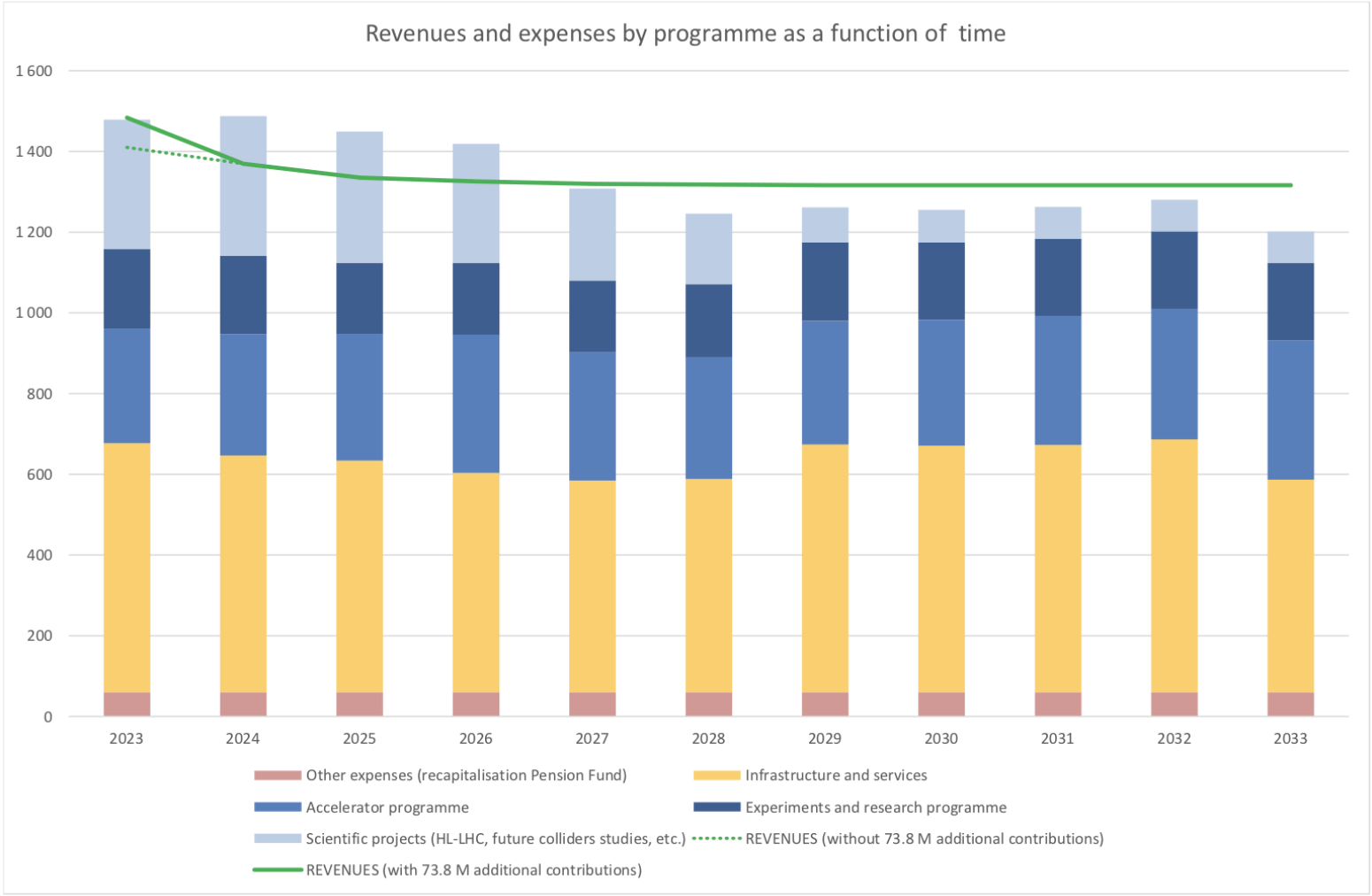
Cost savings measures from “440 M package”

NB To be revisited annually (i.e. update numbers, removing or adding items – not approved, not final.

	Measures	Savings by 2032 (MCHF)	Advance notice required
1.	Extend LS3 at the North Area from 2 to 3 years	26	Already implemented in 2023 draft MTP
2.	Stage part of building 140	22	Already implemented in 2023 draft MTP
3.	Slow down site and building renovation	20	Already implemented in 2023 draft MTP
4.	Stage half of the technical gallery consolidation work	16	Already implemented in 2023 draft MTP
5.	Reduce budget for department operation and services	128	Already implemented in 2023 draft MTP
6.	Reduce IT resources	10	1 year
7.	Slow down accelerator consolidation	27	6 months
8.	Reduce accelerator operation by 20% in 2024 and from 2029 to 2032	83	3 months
9.	Slow down the high-field magnet R&D programme	18	6 months
10.	Close down MEDICIS	5	1 year
11.	Close down CLEAR	14	1 year
12.	Charge two EP department services to the experiments	18	1 year
13.	Scale back education/outreach programme	4	1 year
14.	Close down the Neutrino Platform at the end of 2027	8.6	At least 1 year (needs to be discussed with international partners)
	Total savings	~ 400	



Revenues and expenses (M+P) versus time

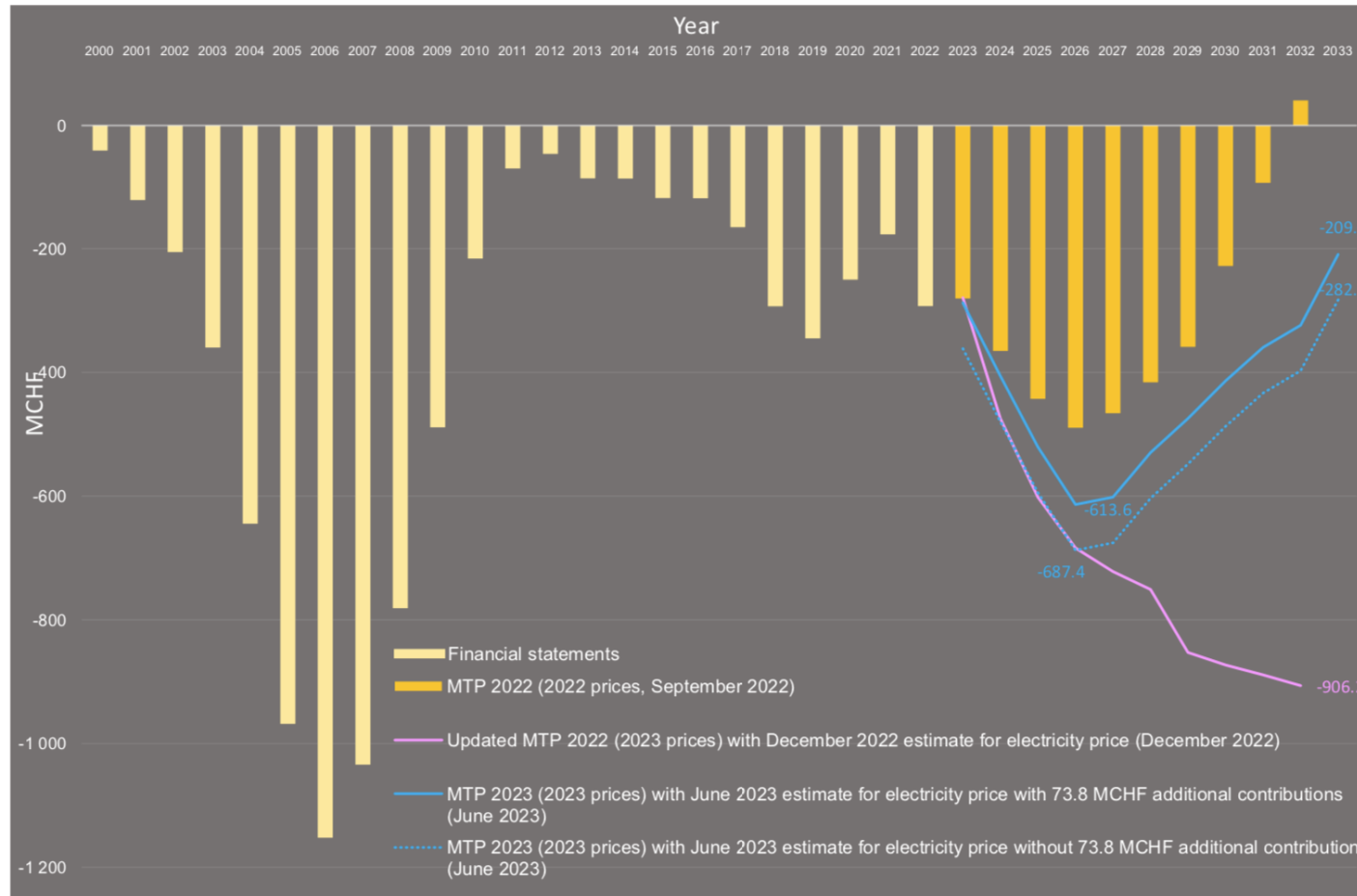


Revenues are ~ constant

Expenses:

- higher than revenues until 2026 (HL-LHC construction) ➤ CBD increases until 2026
- kept lower than revenues at the end of HL-LHC construction ➤ reduce CBD to allow eventual investment in new projects

Cumulative budget deficit



CBD in 2023 MTP is back to reasonable shape, despite additional expenses, thanks to reduction of electricity costs, additional 73.8 M contribution from MS/AMS, and significant savings from CERN's Budget.

Additional expenses

187 M (2024-2028), 330 M (2024-2033)

To cover:

- high-priority scientific projects requiring additional resources (mainly because of cost overrun due to inflation);
- consolidation of technical and site infrastructure
- safety, environment and sustainability

ATS activities supported include HL-LHC, FCC, Muon Collider, NA-CONS, ECN3 upgrade, ISOLDE consolidation, Superconducting RF

Shows strong support and trust in our operational and long-term programmes – really reflects the great work that it being done across the sector.

MTP - summary

This year's MTP follows the turmoil of last year - things are settling down.

CERN's scientific programme is supported: LHC programme and its upgrade; facilities and experiments at the injectors; accelerator, detector and computing R&D, and design studies for future colliders.

Additional resources are allocated to high-priority items: North Area consolidation, new SRF building, high-energy frontier, continuation of Detector R&D activities, etc.

These expenses are offset by the additional contribution, reduction in electricity costs and savings from the overall budget

CBD looking better... not dipping to ~zero in early 30s but heading in the right direction to support a bright future for the lab.

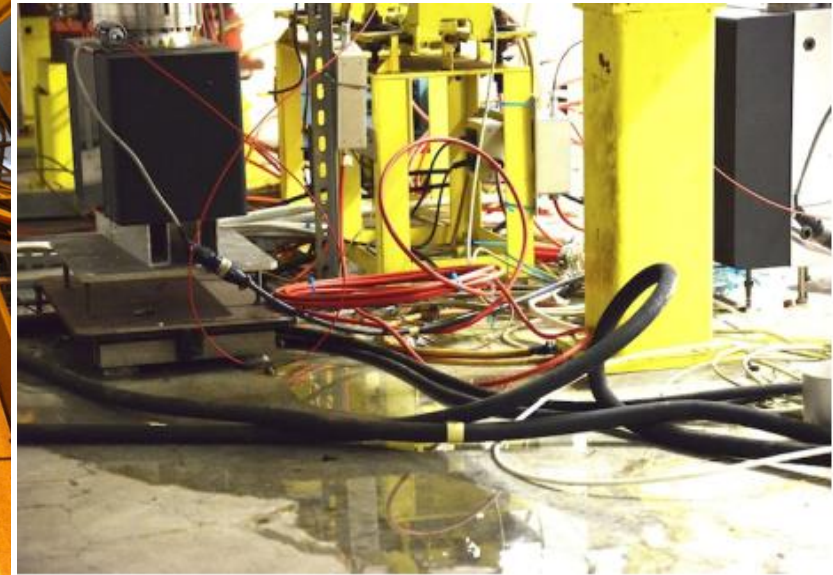
North Area: the future is colourful and dark and interesting!

Physics motivation remains strong

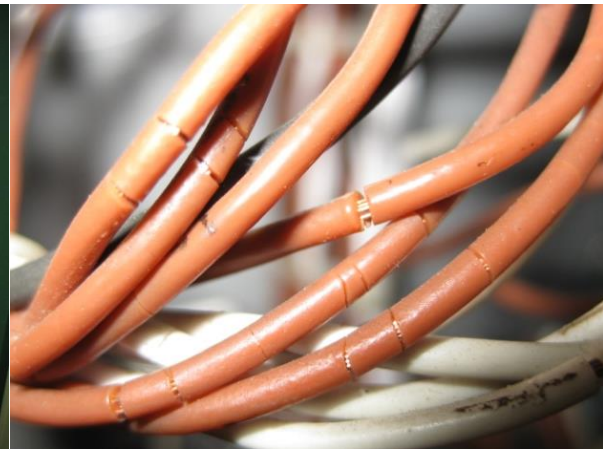
The North Area is an ideal place to Hidden Sector searches in $< O(10)$ GeV range
Unique QCD possibilities

SPS is adapting well to the foreseen challenges

NA remains vitally important as a test facility



**Some loving
care and
attention
required!**



North Area Consolidation

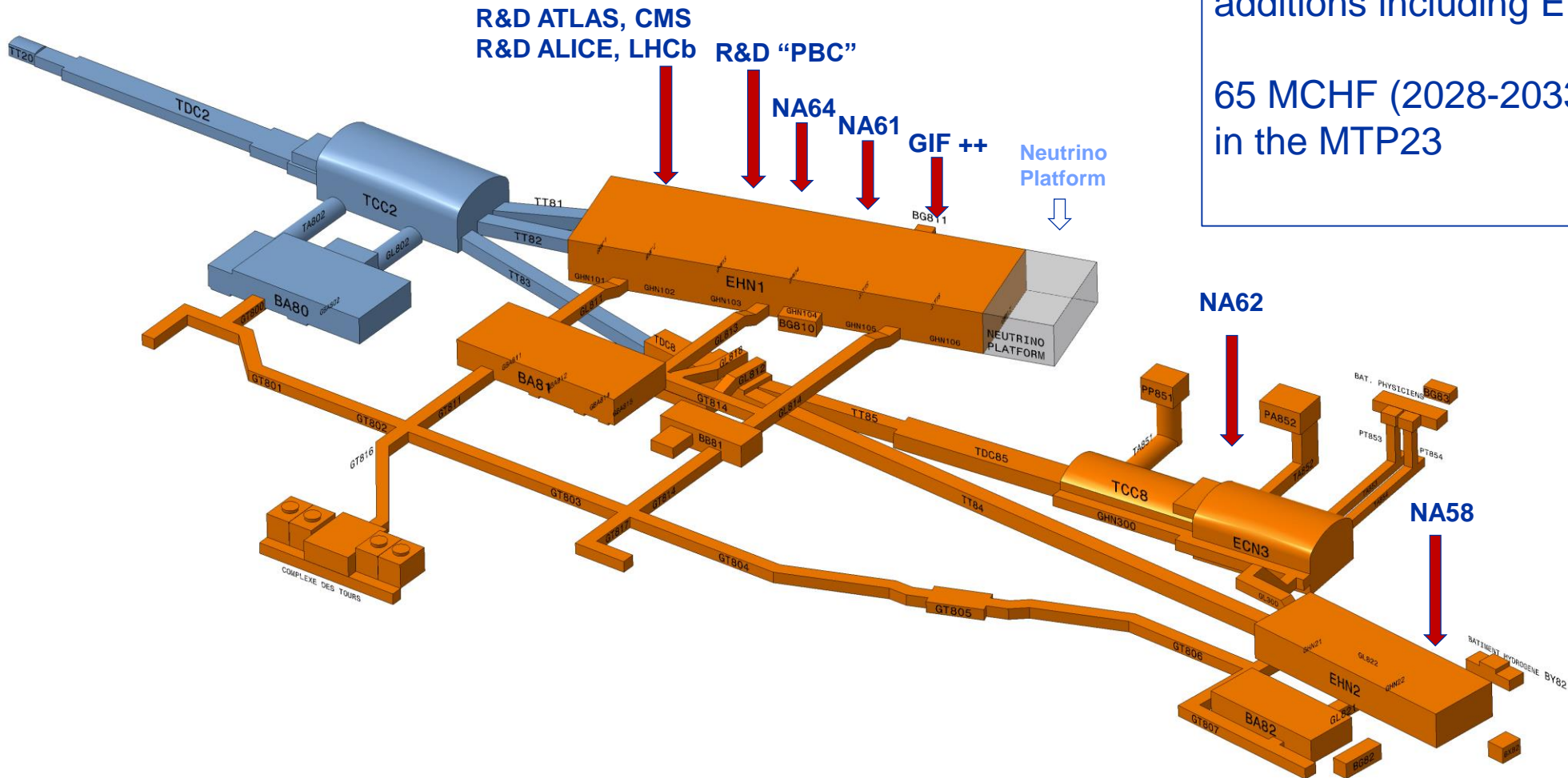
Phase 1: 2019 - 2028 => priority to TT20 & NA transfer tunnels

Phase 2: 2029 - 2034 => H2, H4, H6, H8, M2 and K12 beam lines

A **phase 2** extending up to LS4 will be mandatory to address all issues and reap the full benefits of the programme.

+20 MCHF assigned to Phase 1 – important additions including EL-CONS

65 MCHF (2028-2033) assigned to Phase 2 in the MTP23



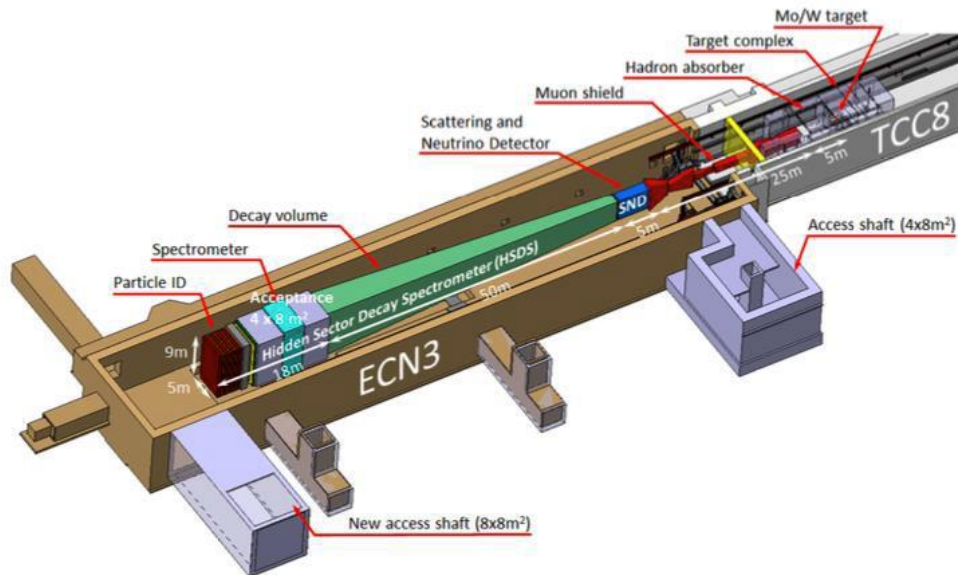
ECN3

A new high intensity facility in ECN3 is technically feasible and can be implemented in synergy with NA-CONS for operation in Run 4

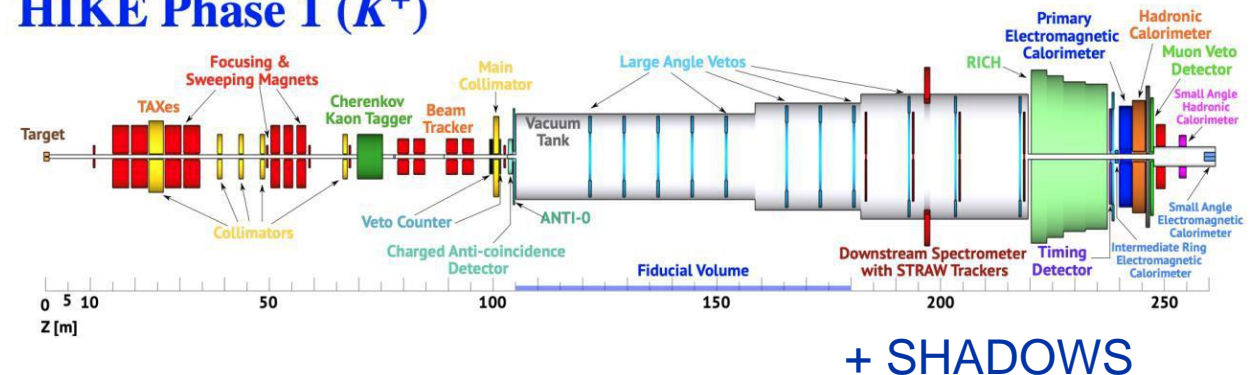
An experiment-specific decision needed from the Research Board before the end of 2023 to start experiment specific detailed TDR phase in 2024

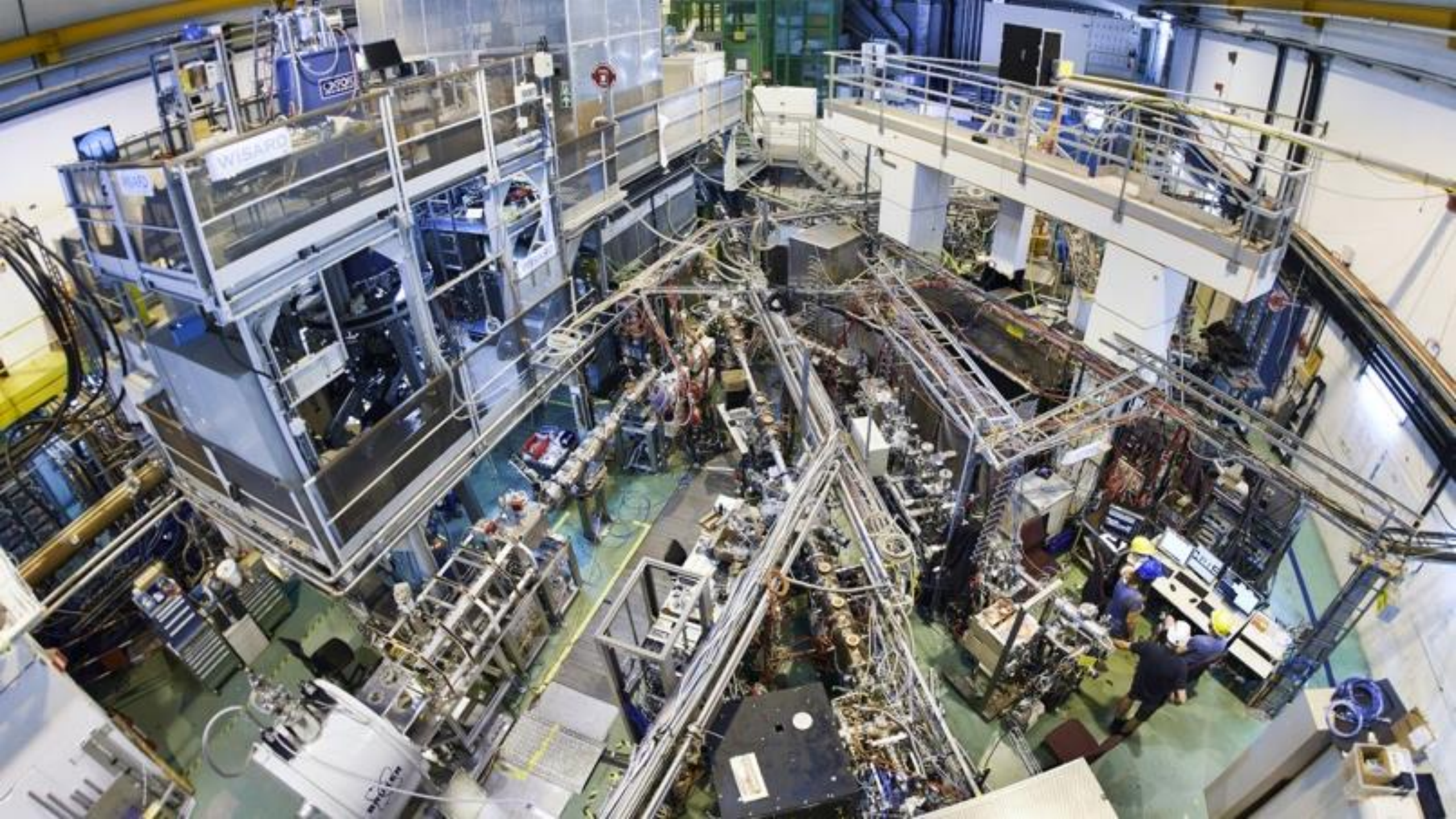
Facility and experiment approval at the end of 2023

First funding envelope approved for essential studies required for the project to go ahead in LS3 if approved



HIKE Phase 1 (K^+)





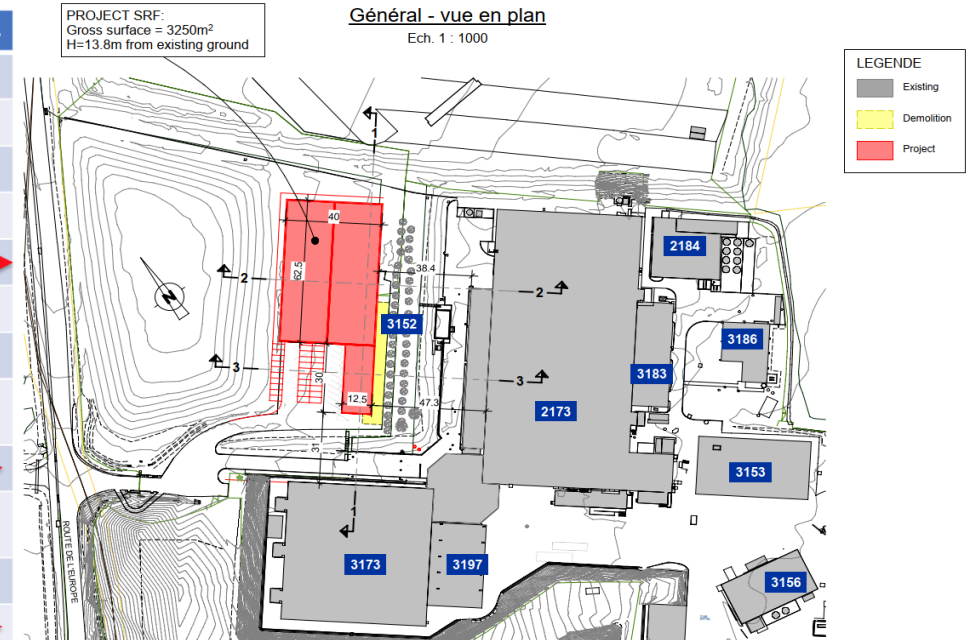
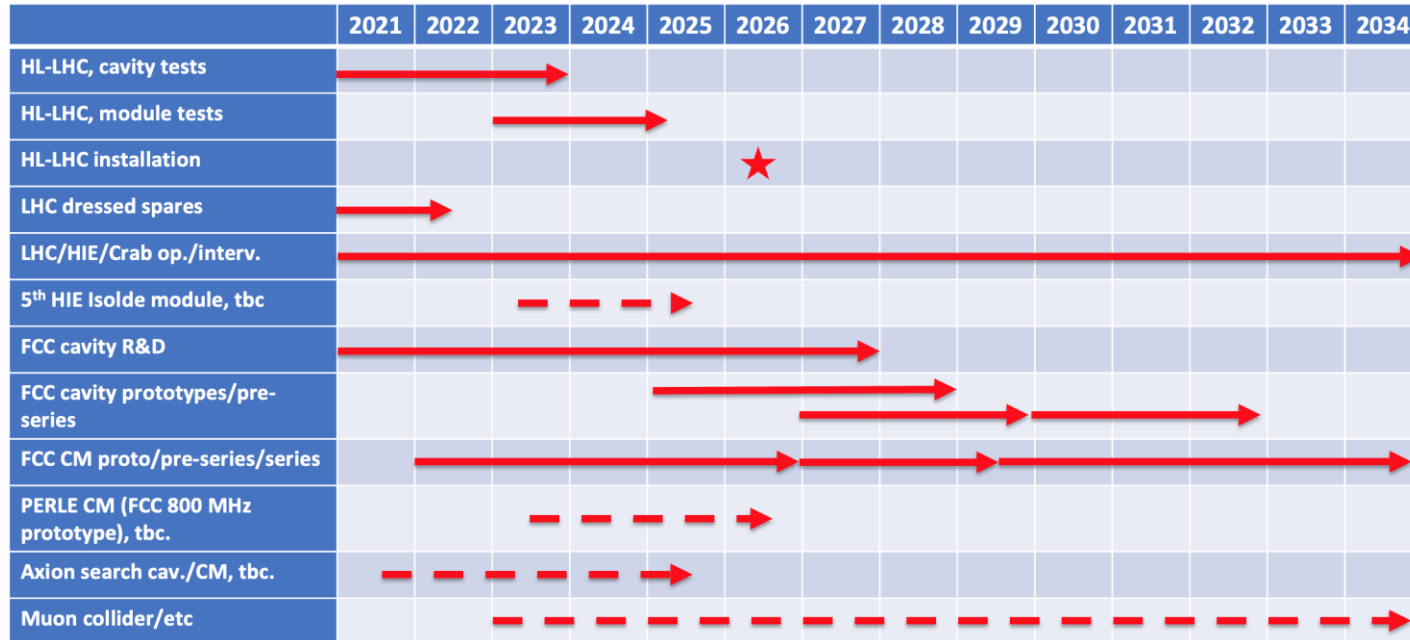
ISOLDE Consolidation

MTP23: urgent items (3.8 MCHF) as part of a combined package with accelerator consolidation to address most immediate needs:

Item	Comment
BTY line power converter consolidation	Compatible with 2 GeV
Beam dumps replacement in LS3	Estimate ~12 MCHF (class 4) Further study + Market Survey
Fire Safety and Ventilation upgrade for ISOLDE primary areas (B197)	HSE stipulation
REXEBIS solenoid, long term spare	2023 - 2026
Replacement of REX-ISOLDE solid state amplifiers	2024+
Maintain HIE SC RF-cavities at ~100K during YETS	Study

New CERN SRF building

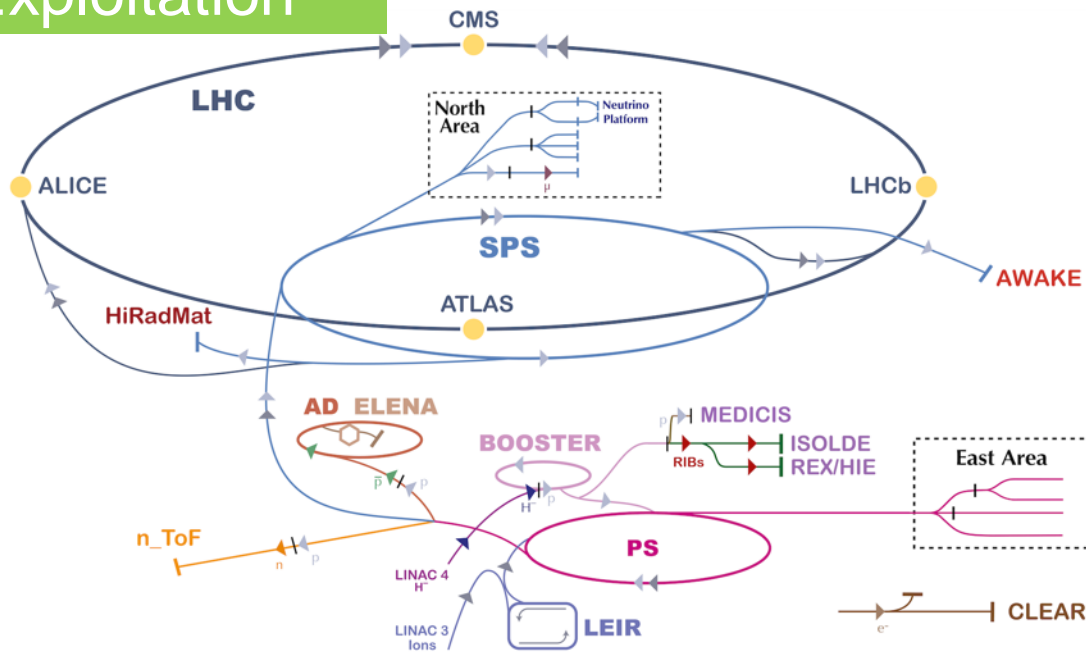
Regrouping of the various scattered RF facilities vital for efficient R&D essential for any future CERN project using Superconducting RF



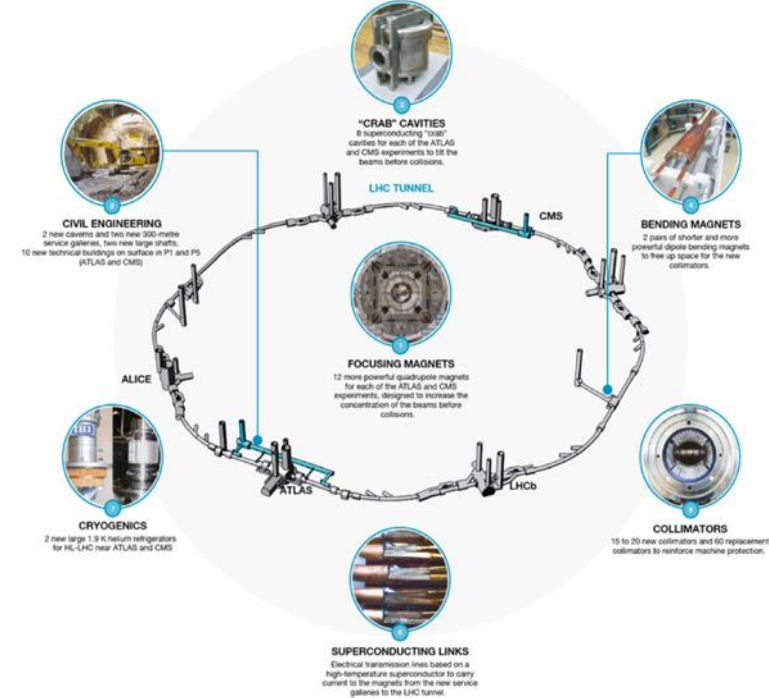
(Thin Film) SRF R&D is key to:

- i) limit the power consumption of all new big projects
- ii) reduce capital investment in the SRF systems
(no. of cavities, size of cryo-plants, electrical infrastructure, ...)

Exploitation



HL-LHC



Future Options



- A unique complex
- Unique expertise and capabilities
- A rich and well-motivated programme
- A great future in front of us

Technology/Engineering/R&D



Aligned, and continuing to align, with ESPPU-2020

Full, safe, exploitation of the remarkable potential of the complex

- Due regard to longevity & facility upgrades.
- Backed by a profound technology and engineering base and world-class support facilities.

HL-LHC - flagship machine at the energy frontier out to end ~2041

Future Colliders with FCC-FS as lead

Execution of a European Accelerator R&D Roadmap (High Field Magnets, RF, Muon Collider, Plasma Wakefield Acceleration)

Scientific diversity programme exploiting complex and facilities via Physics Beyond Colliders. Enthusiastic and ambitious user communities.

Sustainability and Societal impact, Outreach and Education as part of our mission. Nexus of an impressive collaborative ecosystem.

CERN's future

Injector complex facilities and HL-LHC and associated engineering and technology is going to take us out until the early 2040s

Our first choice next big machine is the FCC

- It is a credible option and a real possibility.
- There is strong physics motivation.
- If approved this will keep us busy for a long time.
- Hugely challenging infrastructure and technology.
- Sustainability will be key.

There are plan Bs.

An operating HL-LHC and preparation for the FCC should not prevent us from exploiting our remarkable capabilities to invest in R&D, diversity, innovation, knowledge transfer, medical applications, plasma, sustainable energy etc.

473 participants

- 362 on site incl. 62 1-day passes
- 111 remote

A very intense and productive week



A good start!

FCC-ee the best Higgs factory, and UK fully supportive !



Ian Shipsey,
Oxford,
Opening Chair



Mark Thomson,
Executive Chair STFC



Fabiola Gianotti,
CERN DG



Eliezer Rabinovici,
President of
CERN Council



COMMON: MAINTAIN A LEADERSHIP VIA A VISION

CERN TO PROVIDE THE BEST SCIENCE AND TECHNOLOGY ARENA.

• WHAT VISION? CONSIDERATIONS AND CONCERNS

- Scientific (Higgs and?)
- Technological (HL and High Field Magnets)
- New Detectors
- Construction: Geology , Environment
- Financial
- ECRs?
- Politics and overlap issue.

THE FUTURE REQUIRES SCIENTIFIC AND TECHNOLOGICAL VISION.

EXCELLENCE IS EXTREMELY HARD TO ACHIEVE AND SO EASY TO LOOSE.

FCC Week 2023

473 participants

362 in person
and 111 remote

Great progress
everywhere!

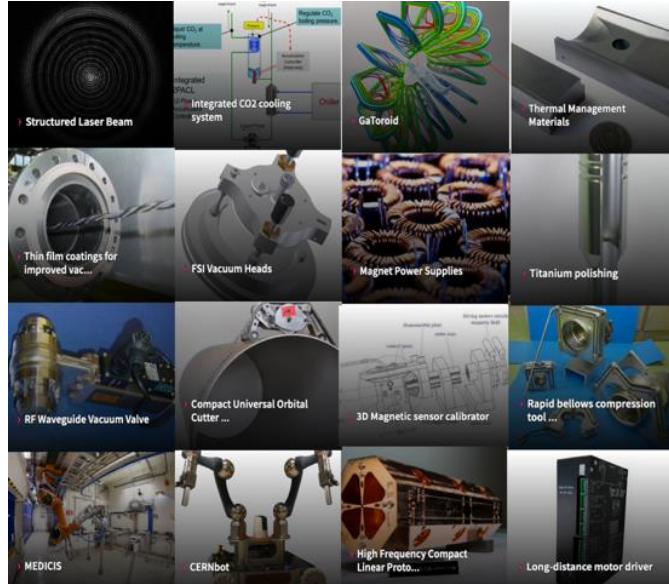
A wonderful energetic &
competent team and
getting younger



Environmental and societal impact

Awareness of knowledge and technology transfer and the associated societal impact is important at all phases...

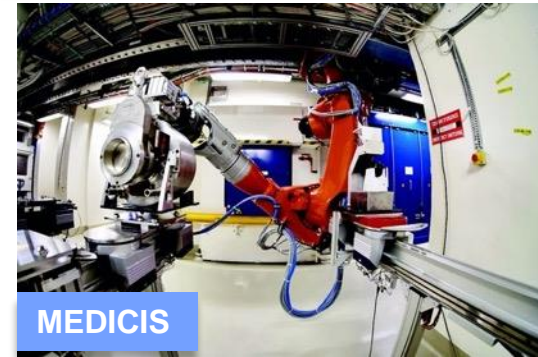
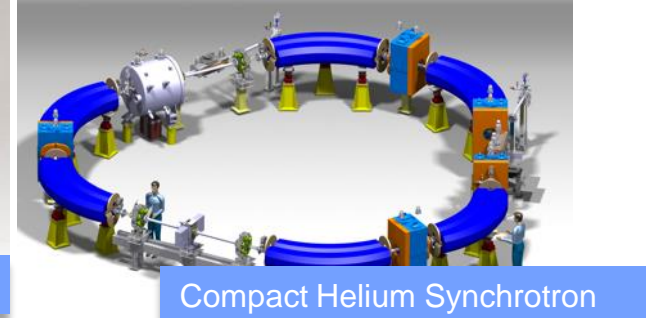
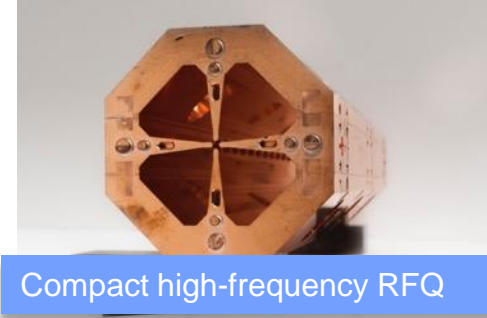
Knowledge Transfer



Sustainability



Medical Applications

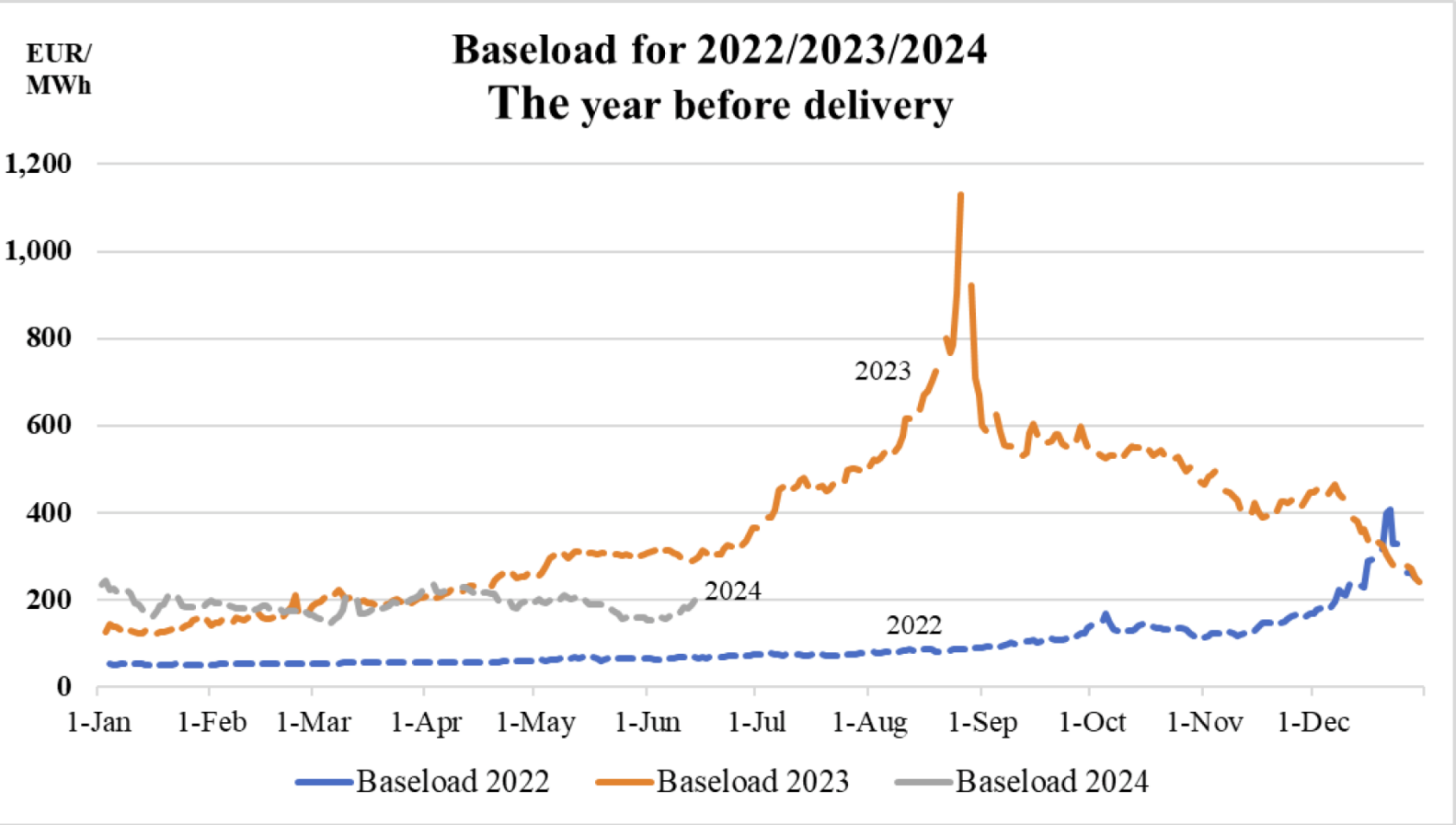


Horizon

I.FAST	Fostering Innovation in Accelerator Science and Technology
RADNEXT	Radiation facility network
PRISMAP	European Medical Isotope programme
HITRIplus	Heavy Ion Therapy Research Integration
FCC-IS	FCC Innovation Study
EURO-LABS	European Labs for Accelerator Based Sciences

Electricity

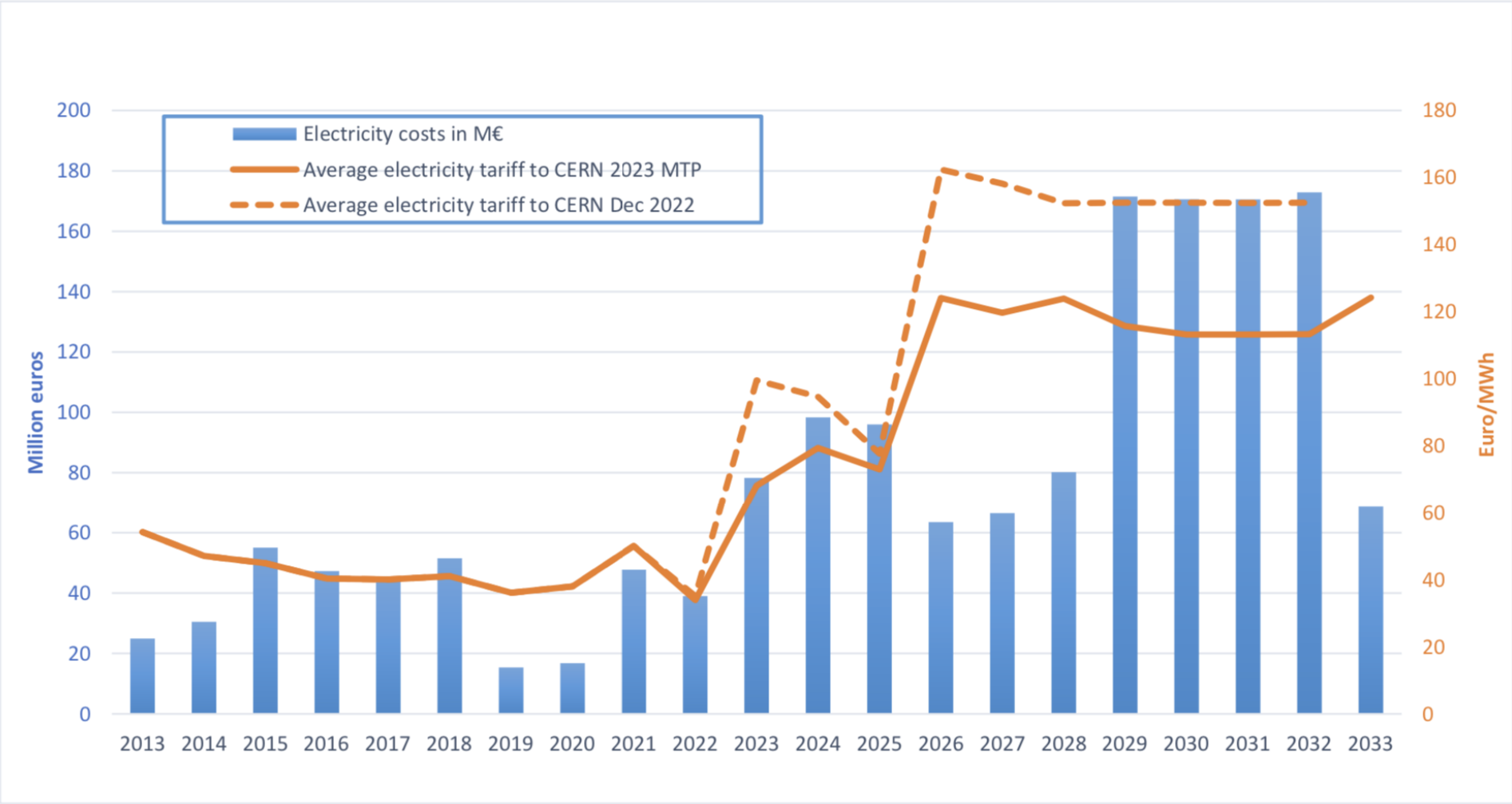
Baseload for 2022/2023/2024
The year before delivery



EEX yesterday

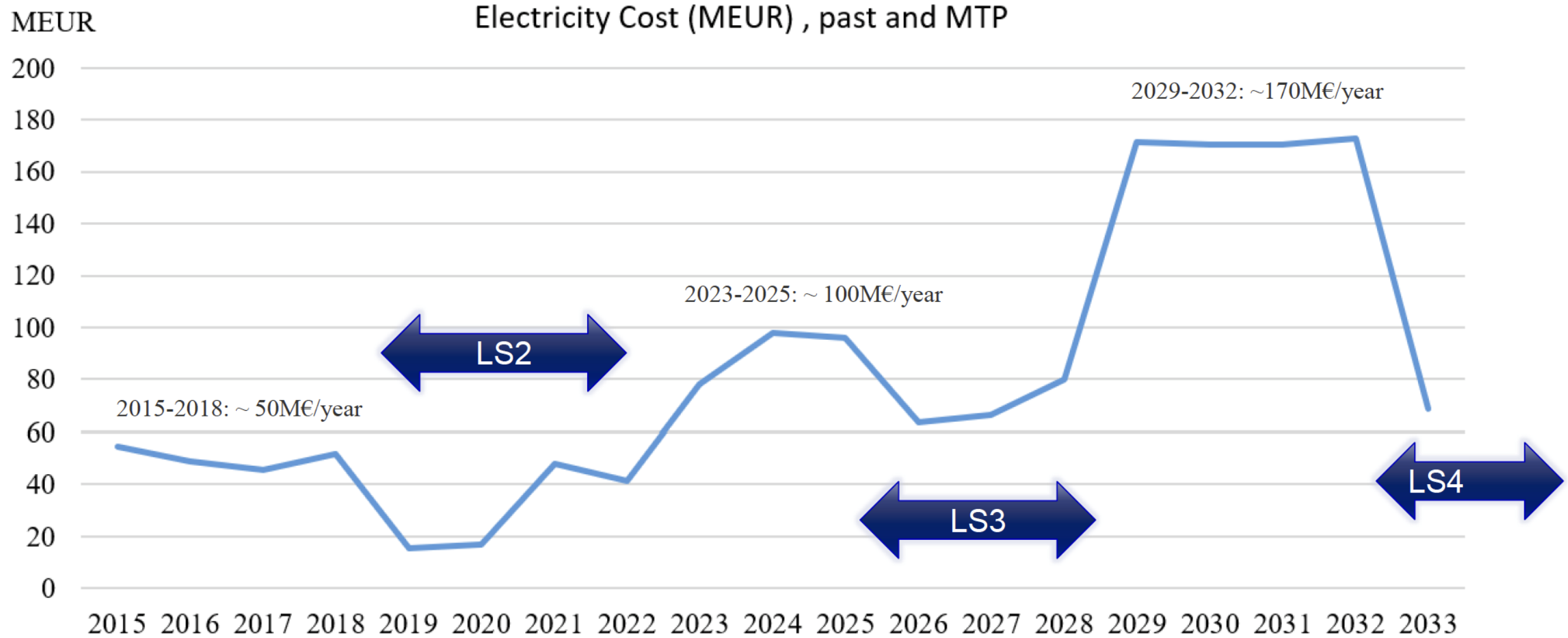
Year	Euro/MWh
2024	177
2025	144
2026	109
2027	96
2028	79

Cost reduction - electricity



Adaption of accelerator schedule in 2024/2025 to minimize electricity costs while not impacting the overall number of days of physics production

Comparison of electricity costs over 15 years



European electricity market design

The Commission presented a proposal on 14 March to revise the rules for electricity market design and for improving the EU protection against market manipulation in the wholesale energy

This can be done by way of

- using more long-term contracts, such as power purchase agreements, and
- investment support should be structured as two-way contracts for difference

The energy ministers of the 27 member states scrapped Monday (19 June), without finding an agreement, on the question of the financing of existing nuclear assets within the framework of the reform of the European electricity market.

The 27 met on Monday (19 June) in Luxembourg to discuss the reform of the European electricity market.

All, **after some back and forth**, are ready for the reform to bear fruit as quickly as possible and contribute to lower electricity prices, before the end of the year.

Power Purchase Agreements

Long term agreements (~15 years) based on renewables at agreed prices

Two ongoing projects at CERN

One PPA provider proposes ~45 GWh per year for a start in 2027. CERN has signed an NDA with the provider

- Management will come back to Finance Committee in Oct. 2023 for a decision

Another PPA provider up to ~170 GWh per year (split in 4 tranches) for a start in 2027. CERN has signed an NDA with the provider.



ATS Fusion Technology Coordination Unit (FTCU)

Coordinate efforts to support Fusion Technology

Technical experts with prior direct experience of activities within the field of magnetically confined fusion

- Provide in-person technical contributions to conceptual and engineering studies, analyses and reviews
- Act as point of contact for specific contributions that could be undertaken by CERN within their domain of expertise
- Liaising with KT and LS on administrative, IP and legal matters
- Liaising with energy and sustainability initiatives

Work compensated by the external contribution covering the full M+P engaged in the activity



Electrical Safety Project

Deadlines
Pilot deployment: YETS before LS3 (Nov. 2024).
Prioritized deployment start for LS3 (Nov. 2025)

Context

Electrical safety reported as one of the main concerns in ATS, especially in injectors complex, during LS1 and during LS2.

Electrical Safety Project launched in ATS in 2021 to set-up Electrical Safety Management.

Phase 1 (2021-2022)

- Report: EDMS 2691446;
- External and internal benchmarking;
- External expertise by E.S.T.I. with list of open points;

Phase 2: towards implementation (2023 - 2025)

- Mandate 8th May 2023

Scope

Electrical safety;

Accelerators complex: injectors, LHC and transfer lines.

Experimental areas: EA, NA, ISOLDE/HIE- ISOLDE, CLEAR, NTOF, AD, HiRadMat.

ATS projects: HL-LHC, AWAKE, NA-CONS.

Machine buildings linked to the accelerators complex.

Excluded from the scope: LHC experiments and CERN campus.

Mandate

Main objectives

- Provide a **clear knowledge of the electrical risk** at a given point in time (operation / machines stop) in the ATS accelerators/ facilities.
- **Help make work / interventions safer** w.r.t. to the electrical risk in the ATS accelerators/ facilities.

To achieve this, ESP will

- Set-up processes (procedures/workflows).
- Identify /define roles & responsibilities throughout the processes.
- Put in place the Electrical Safety Expert Team (ESET).
- Organize /provide documents & data, develop tools to support equipment groups and ESET in its future activity.

Anne Laure Perrot (PL) – Christophe Mugnier (DPL)

Staff Survey – ATS – January 23

Development Opportunities

- Career development
- Internal mobility
- Training

Work Environment

- Resources, resources, resources
- Retention of expertise
- State of offices and catering facilities

Vision

- Need to think about tailoring communications to reach all personnel
- Uncertainty about post HL-LHC era
- Resource prioritization



Results of Staff Surveys

Engagement

Engagement is the degree to which your employees are inspired and energised by their work. It also refers to their positive connection to your organisation. Engaged employees experience their work as meaningful and rewarding, are proud of their jobs, and feel that they fit in at the organisation. They can go the extra mile because they love what they do and where they work. Your engagement score will tell you how enthusiastic your employees are about their work and how connected they feel to your organisation.

ATS lowest score < **CERN** < ATS highest score

79,3 < **83,2** < **85,3**

86.2% enjoy their work
91.2% are proud to work at CERN
91.4% care about the future of CERN
but...!

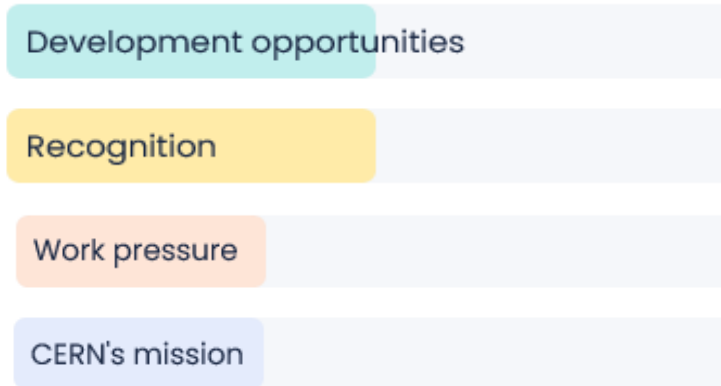
Warm thanks for your participation with a representative response rate and your overall commitment.
The departments/units come back to you with the detailed answers and analysis.

Recent staff survey - qualitative analysis

Top topics +



Top areas for growth



ATS Survey Oct 2022 Topics to address

Work environment (conditions, resources)	58.9%
Vision	45.8%
Development opportunities	35.6%
Workload	30.3%

Conclusion :

- People happy in their daily and immediate work environment (content and colleagues) and having the feeling to contribute directly to CERN mission
- But if we compare with the ATS Survey results, we can find similar outcome on Development opportunities and the vision (prioritisation of activities and resources) and, in addition, a need for recognition.

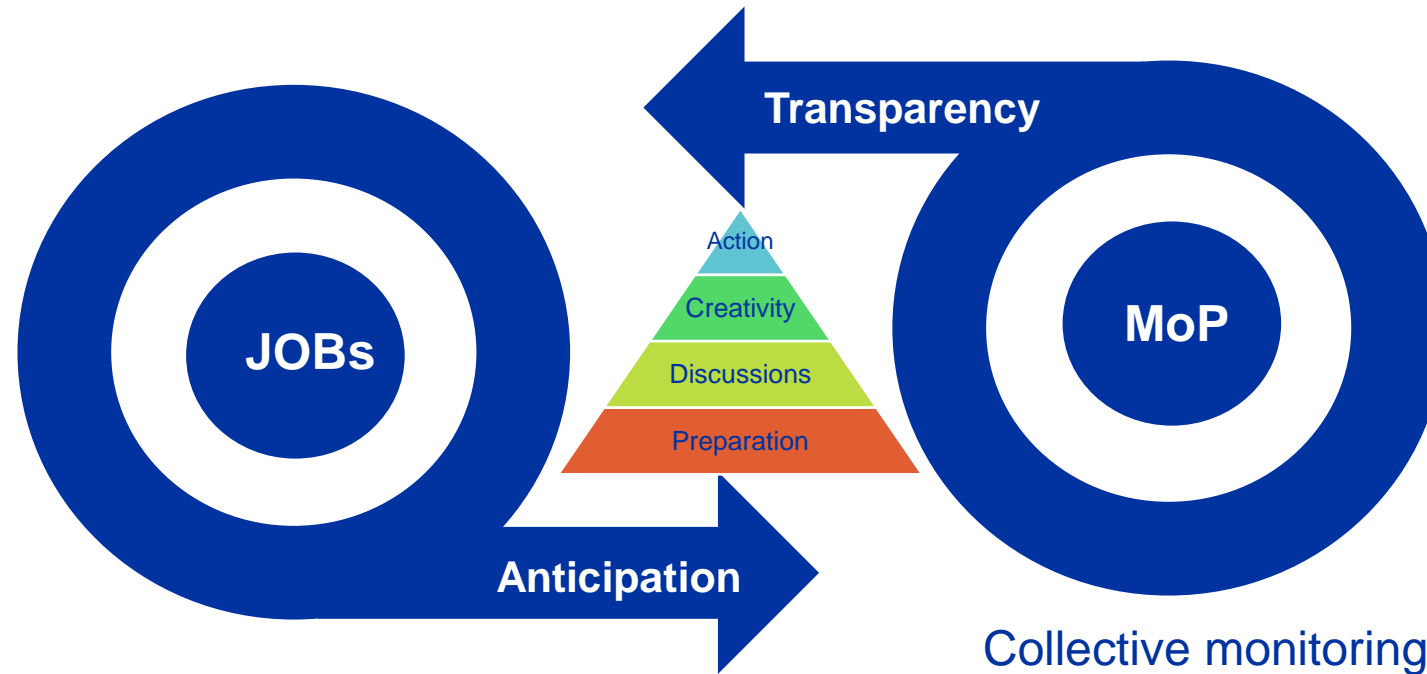
In addition to global ATS actions, each department is now working to towards implementing their own adapted actions following the surveys

ATS Internal Mobility

- IM pool in place – a data base of available candidates who have raised their hands
- Concerted drive by ATS management to systematically cross-check vacancies against IM pool for matches
- IM dedicated slots at ATS-MB (quarterly)
- End of year review to reallocate resources if needed

- Well prepared : ATS wide consolidated data based* on APT/MPP
- Sharing and brainstorming at ATS and dpmt levels in the Organization interest
- Priority on IM when possible : temporary, short assignments...
- Co-funding : agreeing on taking risks, including financial ones

Being deployed



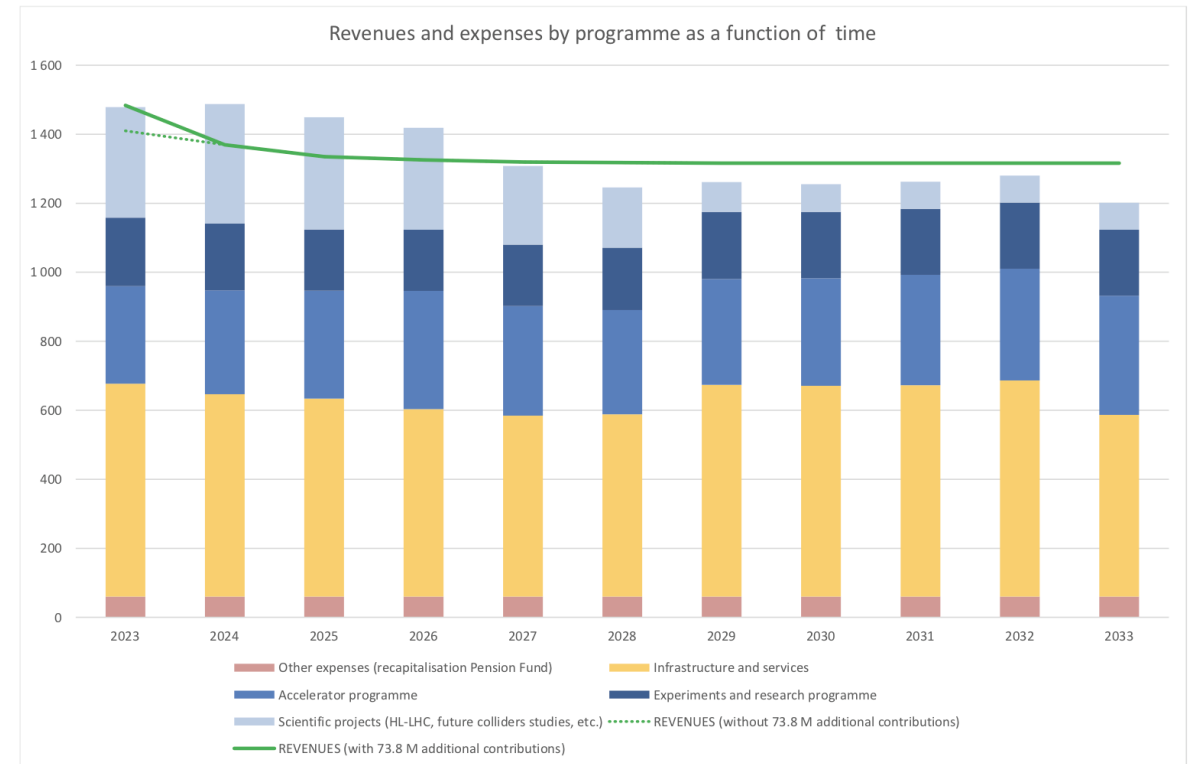
Workload

Difficult one – there's no doubt that the next 3 to 4 years are going to be (very) busy

Completion of HL-LHC construction will allow re-allocation of resources to other areas.

Nevertheless – we are aware of the issue

- Last year succeeded in getting replacement project posts (total 57 from various sources)
- All new activities must be resourced appropriately
- Looking for increased adaptability & mobility



Welcome to the BE Newsletter!

CERN Accelerating science

Accelerators & Technology Sector

About ATS Organisation Sustainability Innovation Activities Resources

New ATS Website incoming

Responsible for the operation and exploitation of the whole accelerator complex, the LHC and for the development of new projects and technologies

+ More about ATS

SY Insights
March 2023

News from the SY Department

At the start of spring the 2023 Operational run is beginning, with the commissioning of the equipment, software and beams. The usual spectrum of work by the teams, and in front of us is an exciting year of physics, the period of ion running at HL-LHC performance, the culmination of all the ion chain over the last decade.

In addition to the increasingly focused preparations for LS3, being defined by the various studies and in the CERN committee, the facility in ECNS of the SPS North Area has been scrutinised by the Committee, and a decision will soon be taken on whether to reach late this year with the mid-term review, works. For FCC, the siting and design studies continue alongside the technical work we are still striving for.

Alongside the streamlining of our environment and the HR sur- ties. The outcomes of the ATS and HR sur- several areas in which improvement is needed. The Department-level action plan finalise the Department-level action plan

As always, this complex mixture of short- term projects and long-term challenges and opportunities, enough effort to keep the diffe- above all opportunities in de- and directly shaping our fut-

Brennan and Simone

SY-RF NEWSLETTER

March 27, 2023

News from Operation

OP weekly machine reports: <https://be-dep-op.web.cern.ch/en/node/178>

IEFC: <https://indico.cern.ch/category/14658/>

LMC: <https://indico.cern.ch/category/1466/>

FOM: <https://indico.cern.ch/category/1466/>

LHC morning meetings

News from IEFC (17.03.2023)

Welcome to our EN workshop

The aim of the Workshop is to increase mutual knowledge in between the groups, give visibility to young colleagues, identify improvement areas and to highlight all that is positive in the Department.

ATS Common Hardware & Software Technologies Technical Board (CTTB) set-up to improve cross-group and synergetic developments



BElieve in Teams!

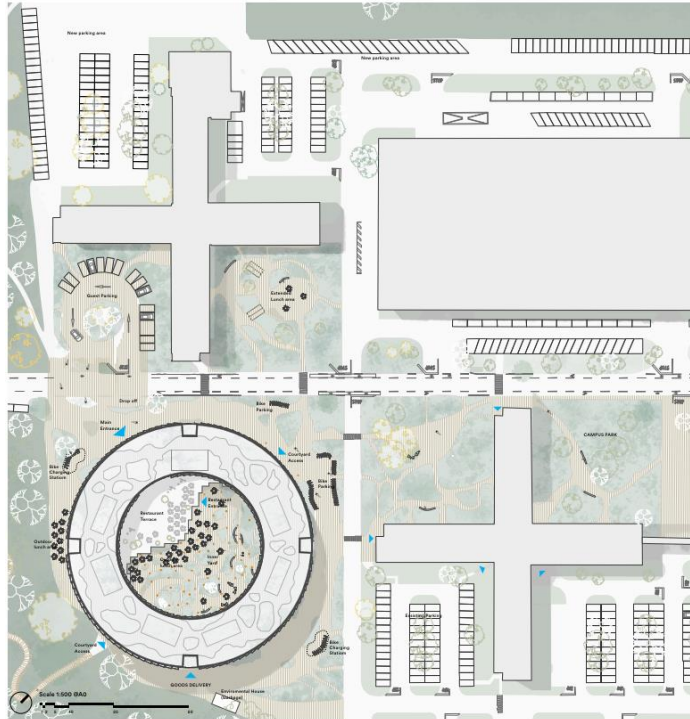
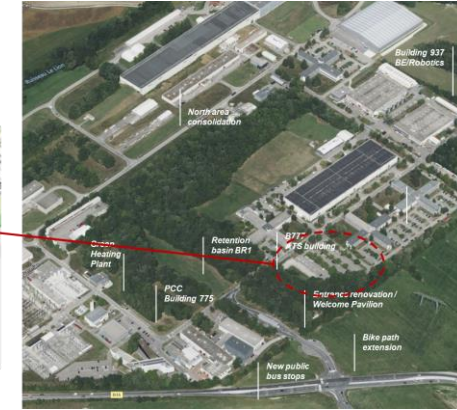


PARKING

RECEPTION
SALOON
CAFETERIA
CHAIR

777 Prévessin

Passed adjudication last week
Should move in ~2027
~500 members of ATS





Diversity – actions within Departments

- Conscious selection with diversity in mind for TECH/DOCT/FELLOW
- Supervisors asked to look for candidates from a diverse population & to select most suitable candidate
- Has significantly increased the number of females and personnel from lowly represented MS in particular for TECH/DOCT
- **Will result in more diverse talent pipeline in future for other statuses**
- General initiative from HR with diversity followed-up at all stages of the staff recruitment process – still being improved
- All Departments now have a departmental action plan with concrete actions to be put in place with regular follow-up with the Departmental Diversity & Inclusion Officers

GENDER target
(aspirational)

OUR VISION

scientific excellence through diversity and inclusion

OUR GOAL

to increase the nationality and gender diversity of Staff & Fellows (MPE) population by 2025

25 by '25

Accelerating diversity at CERN

NATIONALITY indicator
(not a cap, not a quota)

GOAL

With a particular focus on under-represented MS and a **more balanced return** by 2025:



and increase our conscious efforts toward nationality diversity in recruitment & retention

GOAL

With a particular focus on **women in STEM**:

from 21% in 2020

25% in 2025

25 by '25 Periodic Update: 01 June 2023

2020

- 25 by '25 Strategy Proposal submitted to **Director-General**

2021

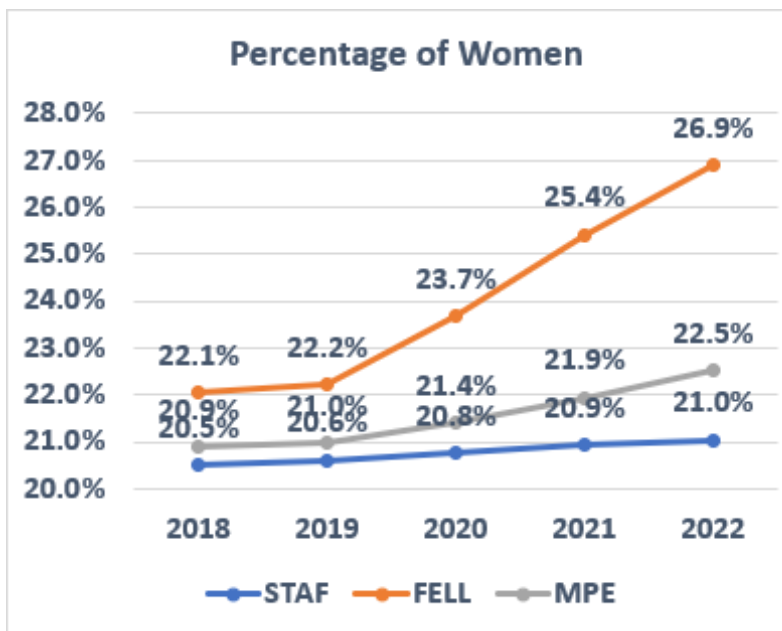
- **Enlarged Directorate** endorses Strategy Proposal
- Department Heads appoint 33 **Focal Points**
- **Kick-off** meetings: Department Head + Focal Points
- Focal Points create & consult **Focus Groups**
- HR designs Departmental Nat / Gen **Dashboards**

2022

- 1st **D&I Review Exercise** *
- **Action Menu** launched + **Fitness Plans** approved **
- Departmental Diversity & Inclusion Officers (**19 DIOs**) appointed
- DIOs establish a **Community of Practice**

2023

- **"Transforming Bias"** Workshop Pilot
- D&I analysis on **nationality** representation



% of Women Among New Arrivals / STEM					
	2018	2019	2020	2021	2022
ALL STAFF	16.9%	21.4%	21.4%	24.5%	23.8%
STEM	10.2%	8.9%	11.6%	14.0%	17.9%
ALL FELLOW	21.8%	24.5%	27.0%	26.3%	28.8%
STEM	17.7%	20.5%	24.1%	24.0%	24.7%
ALL MPEs	20.2%	23.6%	25.5%	25.7%	27.7%
STEM	15.5%	17.8%	21.3%	21.1%	23.3%

Women in STEM, MPEs professional categories 1,2,3	
2020	12.36%
2021	13.22%
2022	14.00%

* **Departmental Review Exercise**
D&I maturity assessment across 6 «GDEIB» benchmark categories:

- Recruitment
- Career Evolution
- Benefits, Work-life integ
- Leadership
- Communications
- L&D



** **Departmental Fitness Plans**
Selecting from >40 **Action Menu** items toward greater Nat / Gen diversity:

- Appointment of DIO
- Exit survey
- Recruitment stats
- Address unconscious bias in recruitment / promotion
- Promote D&I learnings
- Networking / Mentoring

Closing remarks

We've come through a difficult period with the help of everyone!

Challenges remain, adaptability and anticipation are going to be key.

Issues identified by the staff surveys are being actioned, we'll keep on it, and report back periodically.

Really great to see the dedication, engagement, our creativity, ability to work together to solve problems... continuing to make CERN, as Eliezer put it, "a very special place".

We can, and will, leverage our capabilities, reputation, and the strong support to assure a bright future for the lab.

Thanks and have a great summer!