



CERN Status and News

Plenary RRB 57th Meeting

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October 23rd, 2023

Main Discussion Points 57th LHC RRB

M&O budget approvals for 2024

- Be aware of Council decision on Russia & Belarus expected in December 2023

Status & Progress Phase II Upgrades ATLAS and CMS

- Schedule and cost developments
- Compensation for contributions from institutes in Russia, Belarus & JINR

Phase IIb upgrades ALICE and LHCb

- Special meetings on Wednesday

Collaboration with Russian and Belarus Institutions

Reminder Council Resolution June 17th, 2022:

The Council declared that it intends to terminate CERN's International Cooperation Agreements (ICAs) with the Russian Federation and the Republic of Belarus at their expiration dates in 2024 (Dec 2024 and Jun 2024, respectively). However, the situation will continue to be monitored carefully and the Council stands ready to take any further decision in the light of developments in Ukraine.

The Council also decided to review CERN's future cooperation with the Joint Institute for Nuclear Research (JINR) well in advance of the expiration of the current ICA in January 2025.

(see <https://council.web.cern.ch/en/content/resolutions> for details)

Note:

- Council will have to decide & announce its decision on the termination/continuation at least 6 months before the expiration date
- Therefore **Council will decide on Russia and Belarus in December 2023**, decision on JINR in 2024
- Experiments will present the 2024 M&O A/B requests including the expected contributions from Russia/Belarus and JINR and **alternative tables without 2024 contributions from Russian and Belarus institutions**

Open Quantum Institute (OQI)

GESDA (Geneva Science and Diplomacy Anticipator)

- ❑ Foundation established in 2019 by the Swiss government and the Canton and City of Geneva
- ❑ Anticipate future breakthroughs in science and technology across the world
- ❑ Facilitate transformation into concrete initiatives with potential to impact positively on society at large

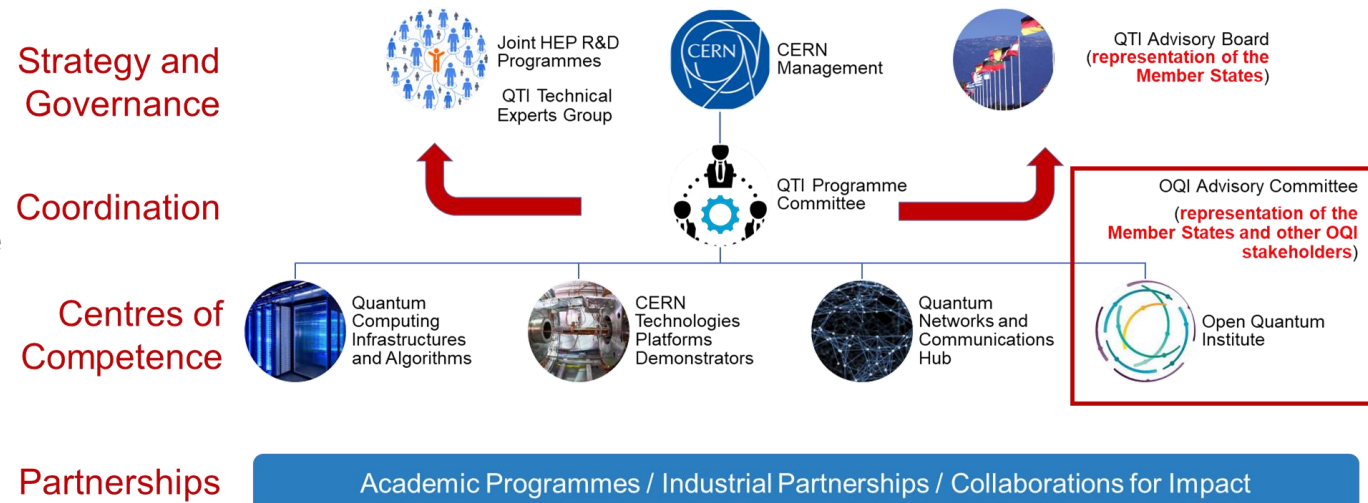
Quantum technologies prioritised as among the most promising directions

- ❑ GESDA proposed to establish OQI, to be hosted at CERN as a 3-years pilot project
- ❑ Fully funded by donation (2 MCHF/year)
- ❑ Overarching goal of the OQI is to find ways to enable quantum computing to have the widest possible societal impact by promoting and facilitating access to quantum resources and technical quantum expertise
- ❑ Ensure that quantum technologies - in particular quantum computing - are leveraged to address today's most pressing societal challenges, notably those articulated in the United Nations Sustainable Development Goals (SDGs)
- ❑ Ensure also that people from all over the world can benefit from these technologies in order to mitigate the risk of a quantum-based digital divide

OQI at CERN approved by Council in October 2023

OQI will be integrated as societal arm in the CERN Quantum Technology Initiative

Organisational structure of the CERN Quantum Technology Initiative (QTI).



Library Renovation Completed

- ❑ All renovation work finished and books moved back into the main Library premises
- ❑ Project completed on time and schedule
- ❑ Reopening ceremony took place September 28th with a 2-day programme of different activities for the CERN community to discover the new premises
- ❑ The library is open 24/7.
- ❑ Welcome desk & Bookshop is staffed Monday-Friday, from 9 a.m. – 6 p.m.
- ❑ CERN Library & Bookshop information on <http://library.cern/> and on the Campus App

A brand-new library for the CERN Community! You are welcome to visit it in Building 52, first floor

Library re-opening 28.09.2023

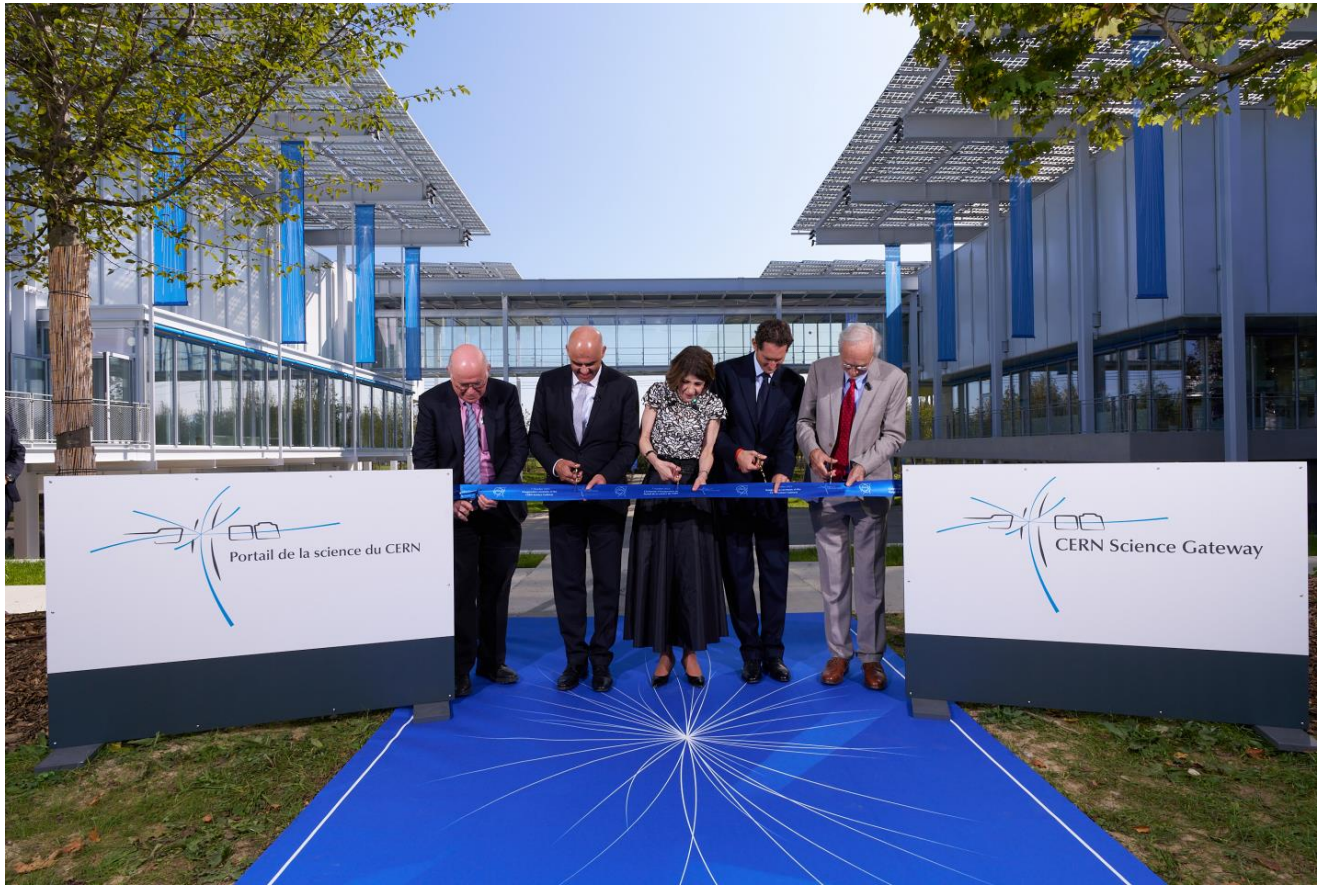


CERN – NASA Open Science Summit 2023

- ❑ Organized by CERN Scientific Information Service & NASA Transform to Open Science team
- ❑ Objective: Actively exchange experiences, ideas, and expertise, towards promoting OS policies and practices and to develop practical action plans for participants' institutions
- ❑ Over 100 open science practitioners and policy makers, representing 70+ institutions, across 5 continents
- ❑ All meeting materials and recordings made available on Zenodo:
<https://zenodo.org/communities/cern-nasa-open-science-summit-july-2023>



Science Gateway Opening October 7th, 2023




Ribbon-cutting ceremony; from left to right: Eliezer Rabinovici, President of the CERN Council, Alain Berset, President of the Swiss Confederation, Fabiola Gianotti, CERN Director-General, John Elkann, Chair of Stellantis, and Renzo Piano, architect of CERN Science Gateway.



First Scientific Event in Science Gateway

- Celebrate 50 years of neutral current and 40 years of W/Z discoveries
 - looking back at the discovery,
 - what has been learned since then,
 - prospects for future precision measurements

- **October 31st, 2023**
- **Please register at the Indico page**

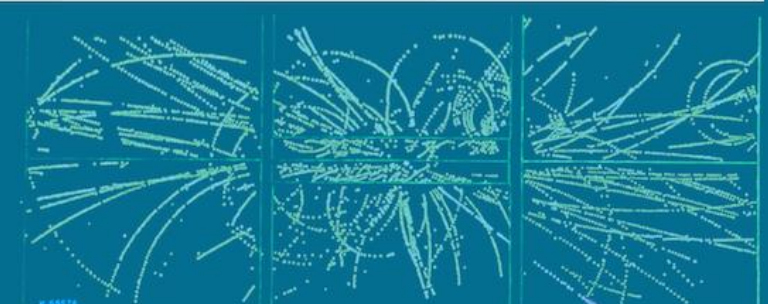
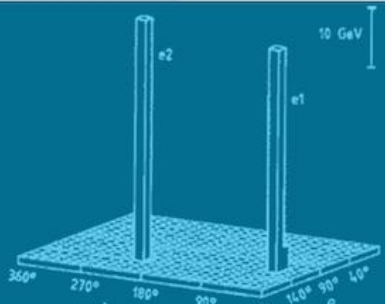


Electroweak milestones –
50 years of neutral currents, 40 years of W and Z bosons

31st October 10:00 – 17:30
SCIENCE GATEWAY

Neutral currents and Gargamelle: Dieter Haidt The W and Z at UA1: Jean-Pierre Revol The W and Z at UA2: Pierre Darriulat The SPS Collider: Lyn Evans	The evolution of electroweak theory : Wolfgang Hollik Z and W measurements at LEP and SLD: Guy Wilkinson CDF, D0 and HERA: Bo Jayatilaka	The W mass at the LHC: Maarten Boonekamp Measurements with W and Z bosons at LHC: Elisabetta Manca A forward look (FCC-ee): Rebeca Gonzalez Suarez
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<https://indico.cern.ch/event/1301000/>



Protocol visits in 2023 and CERN 70th Anniversary

Member States: 65

Austria	3
Belgium	2
Czech Republic	4
Finland	2
France	13
Germany	3
Greece	2
Hungary	2
Israel	3
Italy	4
Netherlands	2
Norway	1
Poland	2
Portugal	2
Romania	1
Serbia	1
Slovak Republic	2
Spain	1
Swiss Confederation	9
United Kingdom	6



President of the Republic of Hungary J. Áder



President of the Slovak Republic Z. Čaputová



President of the Swiss Confederation I. Cassis

Others: 12

ECB President	1
IOM DG	1
ASN FR/ENSI CH	1
ASEAN (NMS)	1
ITER Chief Scientist	1
SGW donors (IL, FR, US)	1
Visits for Delegates	3
BL4S (EG, FR, ES)	1
DSK Nuclear Safety (CH-DE)	1
ILLA SG	1

Associates : 19

Croatia	4
Cyprus	1
Estonia	1
India	2
Latvia	2
Lithuania	3
Pakistan	1
Türkiye	2
Ukraine	2
Baltic Assembly (EE, LT, LV)	1

Observers : 10

Japan	3
Russian Federation (suspended)	2
UNESCO	1
United States	4

Non-Member States : 26

Brazil	1
Chile	2
China	1
Costa Rica	1
Dominican Republic	1
Egypt	1
Georgia	1
Holy See	1
Honduras	1
Ireland	1
Kazakhstan	1
Korea	1
Lebanon	1
Mexico	4
Morocco	2
Saudi Arabia	1
Singapore	1
Thailand	1
Timor-Leste	1
Uruguay	1
United Arab Emirates	1



President of the Republic of Croatia Z. Milanović

132 protocol visits since January 2022

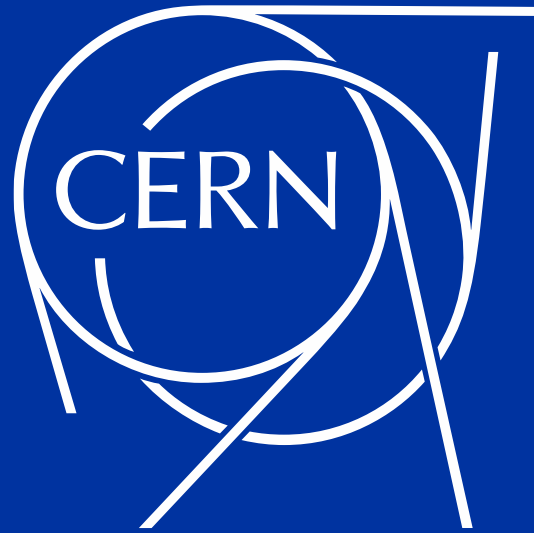
Compare to

- ❑ 2018: 120 visits
- ❑ 2019: 148 visits
- ❑ 2020: 37 visits
- ❑ 2021: 79 visits

Date for CERN's 70th anniversary celebration

October 1st, 2024

Thank you for your attention!



Backup

Publications

Agreement between the 4 large LHC collaborations found:

- ❑ Common voting of the Collaboration Board members
- ❑ Largest support found for so-called option C (see below)
- ❑ LHC collaborations are gradually starting publishing again (backlog was > 100 papers)
- ❑ Management strongly encourages all other CERN experiments to adopt the same procedure

Authors affiliated with Russian or Belarussian institutes, or with JINR, sign the Collaboration's scientific publications with their names and ORCID identifiers (where available), and the institute affiliation is replaced, respectively, by the reference:

"Affiliated with an institute [or an international laboratory] covered by a cooperation agreement with CERN."

The complete author list including all institute affiliations is made available to the journal in a non-public form for the purpose of machine-readable analysis or as historical data.

The publication committees of the collaborations will be charged with investigating the technical implementation details with the journals.

No acknowledgement to the Russian and Belarussian funding agencies and JINR is made.

On request, the experiment management will release a certificate attesting the contribution of the aforementioned institutes and funding agencies, or of JINR, to the work presented in the publication

This agreement has been communicated in two letters to Russian Minister Falkov and JINR Director Trubnikov

Brief Update on Consequences for the Experiments if ICAs with Russia, Belarus and/or JINR are terminated

- ❑ Missing in-kind deliverables for the High-Luminosity LHC (HL-LHC)
Action taken: all in-kind contributions in-sourced, 40 MCHF allocated in MTP 2022
- ❑ Missing annual contributions to the maintenance and operation (M&O) costs of the LHC experiments about 2.3 MCHF (Russia) and 0.8 MCHF (JINR); corresponding to 4.4% and 1.6% of the total M&O budgets
Action taken: to be compensated by other funding agencies (FA) as discussed at the April 2022 RRB
- ❑ Missing contributions to the Phase II upgrades of ATLAS and CMS (19.8 MCHF, about 3.5% of the total costs) subject to sanctions, thus clear recommendation to distribute these contributions among the other collaborators
Action taken: Discussed with FAs in the RRB:
ATLAS: the “fair share” principle is applied within the sub-detector concerned and 7 amendments to the MoU prepared
CMS: mainly HGCAL concerned, “fair share” principle across whole collaboration, letters to FAs sent
Note: not all technical issues are solved
- ❑ Missing people essential to the operation of the experiments, estimated at 80 FTE would require financial compensation, e.g. M&O budget increase
- ❑ Associated Members of the Personnel (MPAs) facing difficulties
37 MPAs affiliated with Russian institutions and 18 MPAs affiliated with JINR living in the local area would face real difficulties if they have to return to the Russia
Actions taken: CERN is approaching the 55 individuals to assess their issues and possible solutions, discussions with host states started, institutes should continue to make efforts to hire these people
Note: most of these persons are part of the 80 FTE essential for the experiment operation