



CERN Status and News

Plenary RRB 55th Meeting

Joachim Mnich

October 24, 2022

10th Anniversary of Higgs Boson Discovery

On 4 July 2022, CERN marks 10 years since the ATLAS and CMS experiments announced the discovery of the Higgs boson

Centrepiece was a full-day scientific symposium in CERN's main auditorium celebrating the discovery, give an overview of what's been learned since then, and take a look forward at what's still to come

<https://indico.cern.ch/event/1135177/>



Start of Run 3 on July 5th



Main Discussion Points 55th LHC RRB

☐ **M&O budgets for 2023**

- ☐ Including M&O reports and requests

☐ **Status & Progress Phase II Upgrades**

- ☐ Schedule and cost developments

☐ **Russian War on Ukraine**

- ☐ Impact and mitigation measures on operation and Phase II upgrades

☐ **Phase IIb upgrades ALICE and LHCb**

- ☐ Special meetings on Thursday

Council Resolution June 17th, 2022

See <https://home.cern/news/news/cern/cern-council-cooperation-agreements-russia-belarus> and <https://council.web.cern.ch/en/content/resolutions>

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. 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.

❑ Note that all previously (March 8th and 25th) decided measures stay in place!

See <https://council.web.cern.ch/en/content/resolutions> for details

Impact on the LHC Experiments

- ❑ Institutes in Russia, Belarus and JINR remain members of the collaborations (until 2024/25)
 - ❑ Collaborators from these institutes continue to contribute to the operation of the experiments
 - ❑ Expect contributions, incl. outstanding contributions, to the M&O budgets from these institutes
Note: transfer of money from Russia to CERN is complicated but at the moment still possible
- ❑ Contributions (ca. 20 MCHF) to ATLAS & CMS Phase II upgrades from institutes in Russia, Belarus and JINR
 - ❑ Strong recommendation by LHCC to develop plans to become as much as possible independent of (time-)critical in-kind contributions
 - ❑ Will require additional contributions from collaborating partners
Fair share may not be fully applicable as special expertise and infrastructures are required to avoid time delays and loss of quality
 - ❑ Note: contributions to the HL-LHC accelerator upgrade have been fully in-sourced by CERN

Publications

- ❑ Following the Russian invasion of Ukraine, the four big LHC experiments proposed a suspension of publications
 - ❑ Papers are sent to arXiv and to journals for peer-review without authorlist publication is paused by journals until agreement is found
- ❑ Discussion in the collaborations is very difficult!
 - ❑ None of the options discussed finds consensus
- ❑ **But we need to find a compromise**
- ❑ **Appeal to all collaboration members, heads of institutes, funding agencies, ... to be open to accept a reasonable compromise**

CERN's Response to the Energy Crisis

- ❑ In response to the apparent shortage of (electrical) energy in Europe, and in particular France, and as a mark of social responsibility CERN decided to
 - ❑ Start the 2022 Year-End-Technical-Stop (YETS) 2 weeks earlier (November 28 rather than mid December)
 - ❑ Prepare reduced power configurations for possible EDF load shedding scenarios
 - ❑ Reduce the operation of the accelerator complex in 2023 by 20% (YETS 2023/24 will be extended from 15 to 19 weeks)
- ❑ To address the potential longer-term impact of high electricity costs a package of measures for 2024-2032 is being prepared to be discussed with Council in December
 - ❑ Including stretching/de-scoping of CERN's activities, savings on personal costs, indexation of member states contribution beyond the 2% cap
 - ❑ Measures to reduce energy consumption on the CERN campus are being implemented

Resources and Computing Resources Scrutiny Groups

Many thanks to the members of the Scrutiny Groups for their work!

Hans Danielsson (CERN)

Ariane Frey (Göttingen)

Joel Goldstein (Bristol)

Edoardo Mazzucato (CEA/IRFU)

Monica Pepe (INFN, Perugia)

Kevin Pitts (Fermilab)

Roman Pöschl (LAL)

Agata Rozycka (CERN; Service Contracts)

Heidi Sandaker (Oslo; chair)

Burkhard Schmidt (CERN; Secretary)

Christoph Schwanda (HEPHY)

Jan Troska (CERN)

James Yeck (BNL)

Computing Resources SG:

C Allton (UK)

P Christakoglou (The Netherlands)

A Connolly (USA)

J Hernandez (Spain),

J Kleist (Nordic countries)

T Mkrtchyan (Germany)

N Neyroud (France)

P Sinervo (Canada, chair)

V Vagnoni (Italy)

A Valassi (CERN, scientific secretary)

J van Eldik (CERN)

Backup

Previous measures decided by CERN Council

Statement from 25 March:

<https://home.cern/news/news/cern/cern-council-takes-further-measures-response-invasion-ukraine>

In response to the military invasion of Ukraine by the Russian Federation, the 23 Member States of CERN today decided to:

- suspend the participation of CERN scientists in all scientific committees of institutions located in the Russian Federation and the Republic of Belarus, and vice versa;
- suspend or, failing that, cancel all events jointly arranged between CERN and institutions located in the Russian Federation and the Republic of Belarus;
- suspend the granting of contracts of association as associated members of the CERN personnel to any new individuals affiliated to home institutions in Russia and Belarus.

Previous measures decided by CERN Council

Regarding relations with the Joint Institute for Nuclear Research (JINR), with which CERN holds reciprocal Observer status, the CERN Council decided:

- to suspend the participation of CERN scientists in all JINR scientific committees, and vice versa;
- to suspend or, failing that, cancel all events jointly arranged between CERN and JINR;
- that CERN will not engage in new collaborations with JINR until further notice;
- that the Observer status of JINR at the Council is suspended and CERN will not exercise the rights resulting from its Observer status at JINR, until further notice.

Council have asked for more information with a view to making a decision in June on the suspension of international cooperation agreements

Guidance on publications

Following the Russian invasion of Ukraine, the spokespersons of the four big LHC experiments proposed a suspension of publications.

CERN management will not interfere with the publication choices of the Collaborations, but supported this approach as being pragmatic given the current circumstances.

CERN management can now pass on guidance from the closed Council session regarding publications:

“Authorship should be based on scientific grounds, and that Council would be favourable of having a cover statement that a given paper is based on work performed before Feb 24th 2022”