



News from CERN

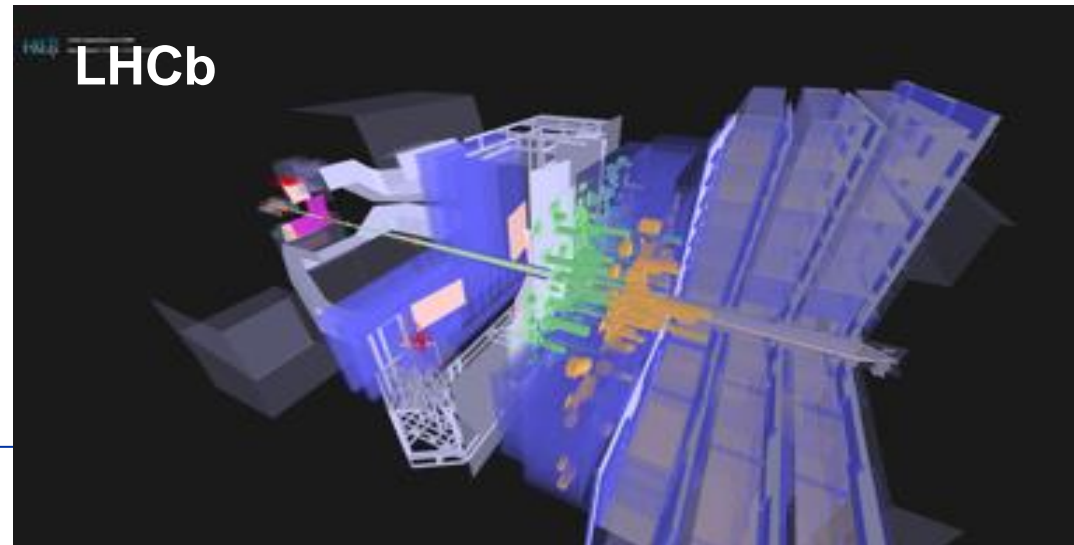
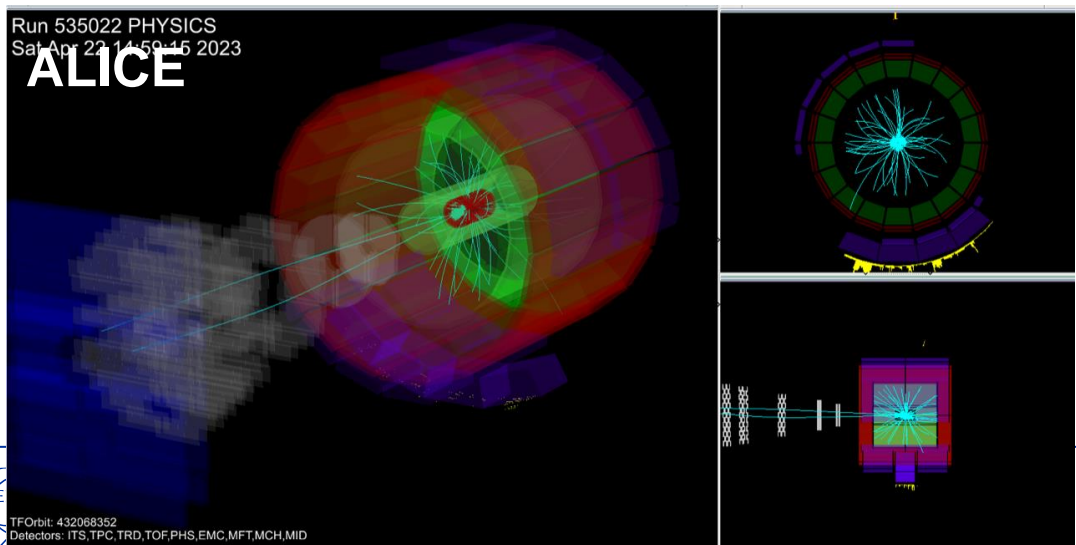
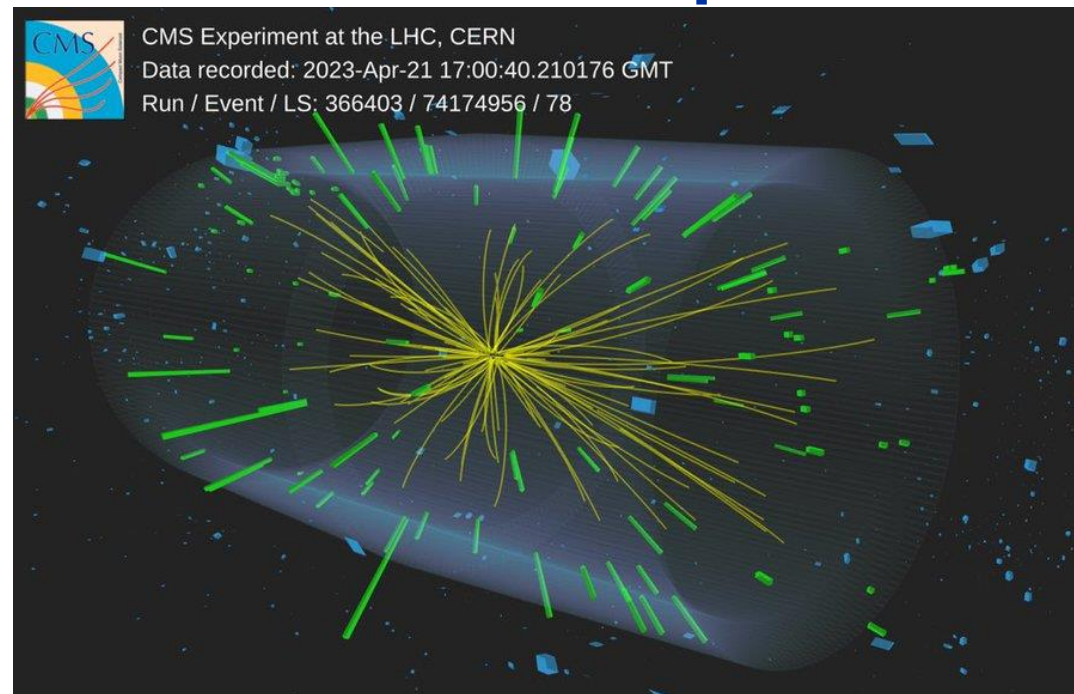
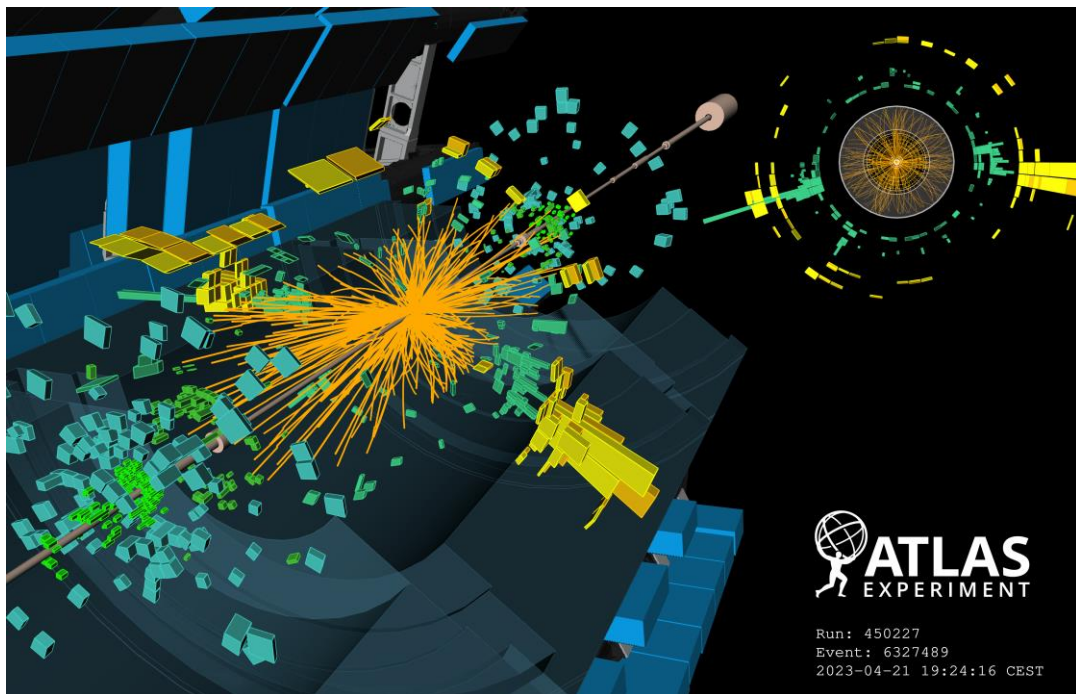
11th CERN Baltic Group General Meeting

Prof. Emmanuel Tsesmelis

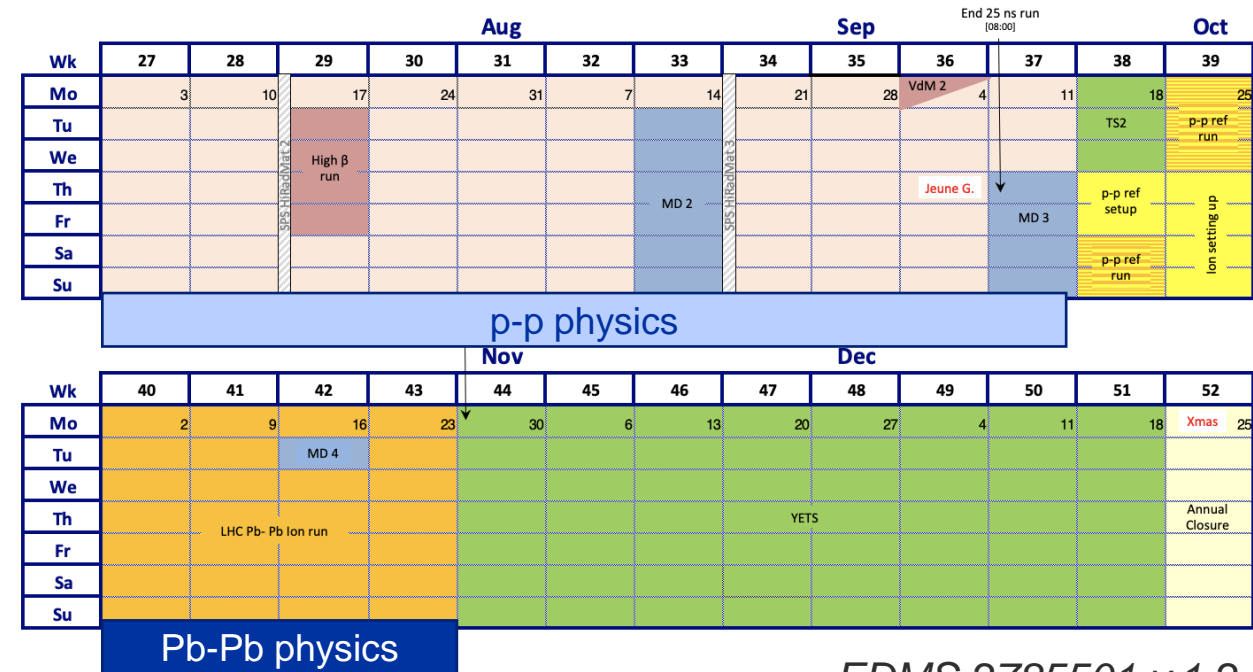
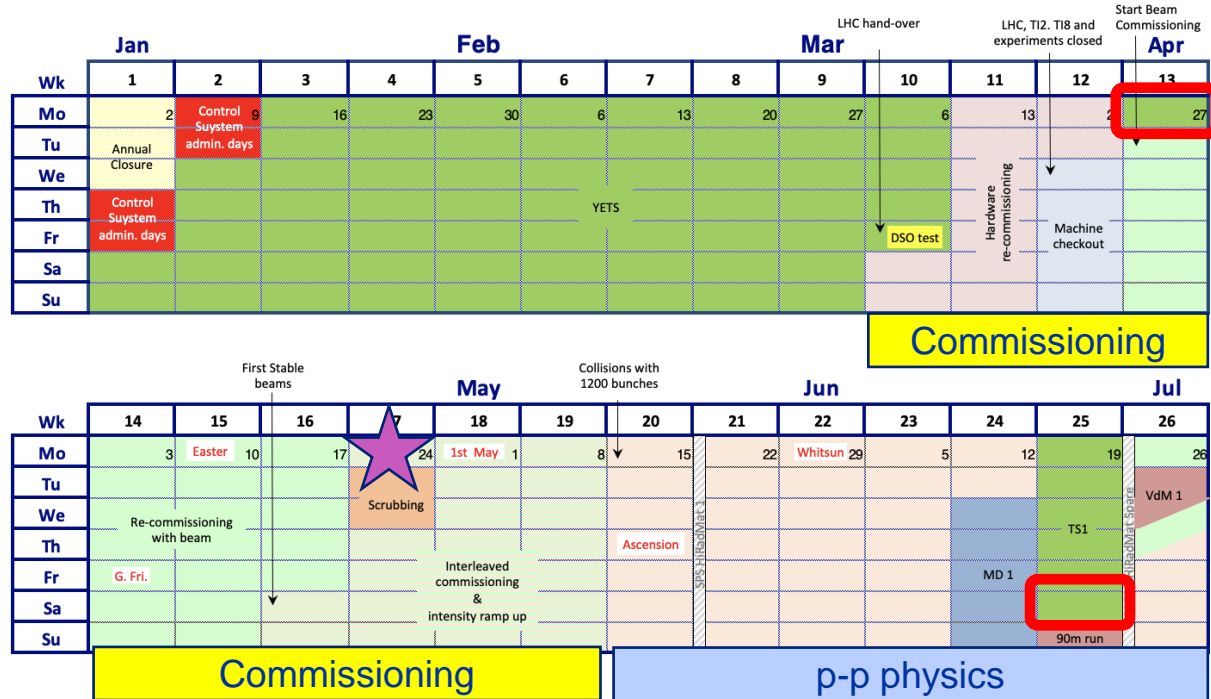
Head of Associate Member State and Non-Member State Relations, CERN

4 May 2023

2023 Run Started: First 13.6 TeV Collisions 21 April 2023



2023 LHC Schedule



EDMS 2785501 v.1.2

ATLAS / CMS Target: 75 fb⁻¹

Forecast based on present LHC schedule and projected performance

- Largely influenced by machine availability and stable beam time ratio

Visitors: 49 Protocol Visits Jan-Mar 2023

Member States: 33

Austria	1
Czech Republic	1
Denmark	1
France	9
Germany	2
Greece	1
Israel	2
Italy	3
Netherlands	2
Poland	2
Romania	1
Spain	2
Swiss Confederation	3
United Kingdom	3

Associates : 3

Croatia	1
India	1
Lithuania	1

Observers : 4

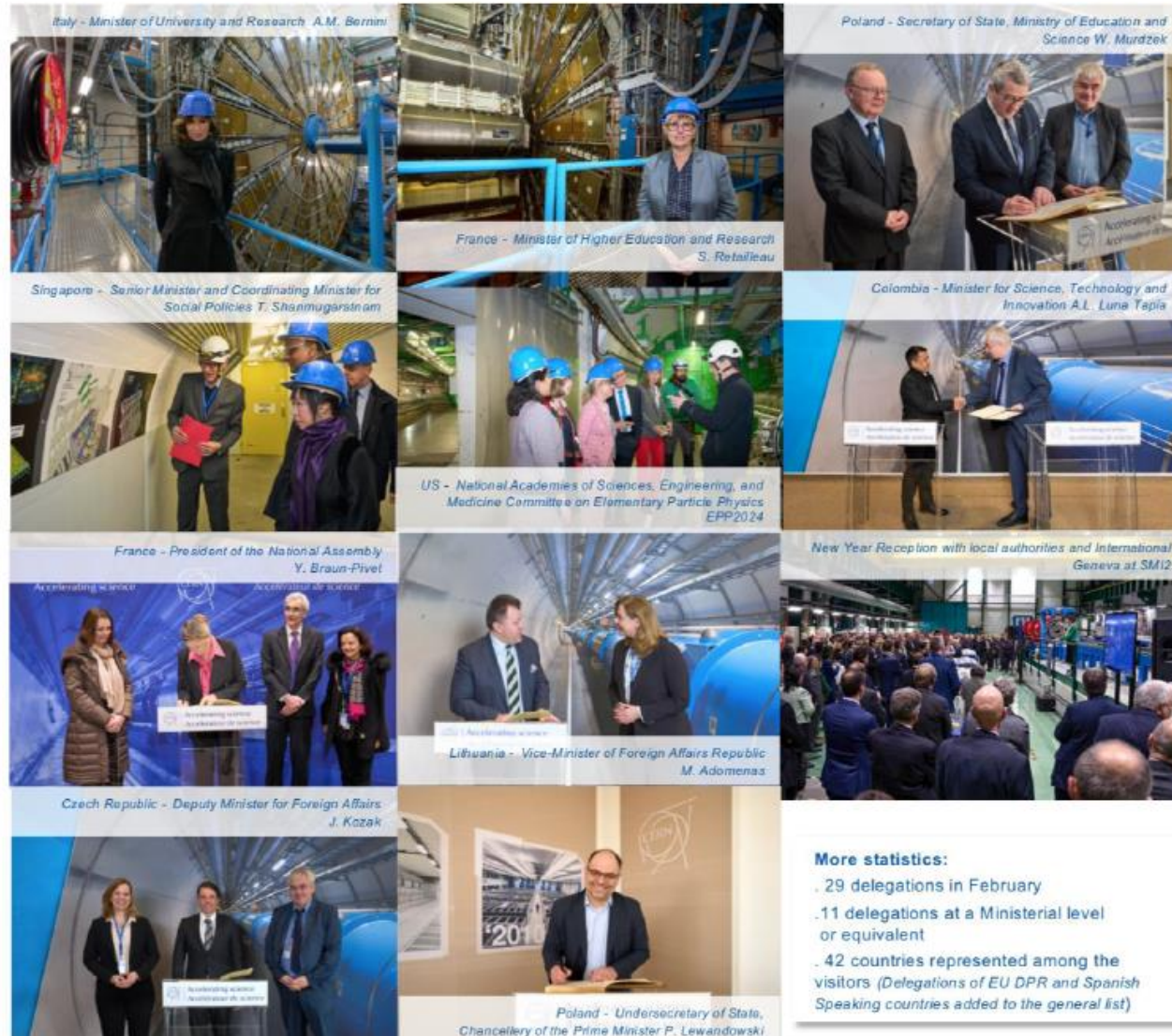
UNESCO	1
United States	3

Non-Member States : 4

Chile	1
Colombia	1
Singapore	1
Venezuela	1

Others: 5

. DG New Year Reception	1
. EU Deputy Permanent Representatives	1
. Ambassadors of of Spanish Speaking Countries	1
. Cercle des amis du SGW	1
. ICRC Director	1



To be compared with:

2018: 49 visits

2019: 19

2020: 18

2021: 7

2022: 39



Dr. Mantas Adomėnas, Vice-Minister of Foreign Affairs, Lithuania



Ms. Anda Čakša, Minister for Education and Science, Latvia

More statistics:

- . 29 delegations in February
- . 11 delegations at a Ministerial level or equivalent
- . 42 countries represented among the visitors (Delegations of EU DPR and Spanish Speaking countries added to the general list)

Science Gateway

Nearing completion

- ❑ Inauguration Saturday October 7th, 2023
- ❑ Event with High-level invitees planned

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
- ❑ Date still to be announced





**Associate Member State
in pre-stage to Membership
since 1 February 2021**

CERN and Estonia

CMS Experiment at the LHC
National Institute of Chemical
Physics and Biophysics

CLOUD Experiment
University of Tartu

RD18 Novel Scintillation Materials
University of Tartu

Estonia operates in Tallinn a
Tier-2 centre of the WLCG

FCC

National Institute for Chemical Physics
and Biophysics, Tallinn University of
Technology, University of Tartu,

GScan (industry), NPM Silmet (industry),
Testonica (industry)

CLIC / CTF3
University of Tartu

**Associate Member State
since 2 August 2021**

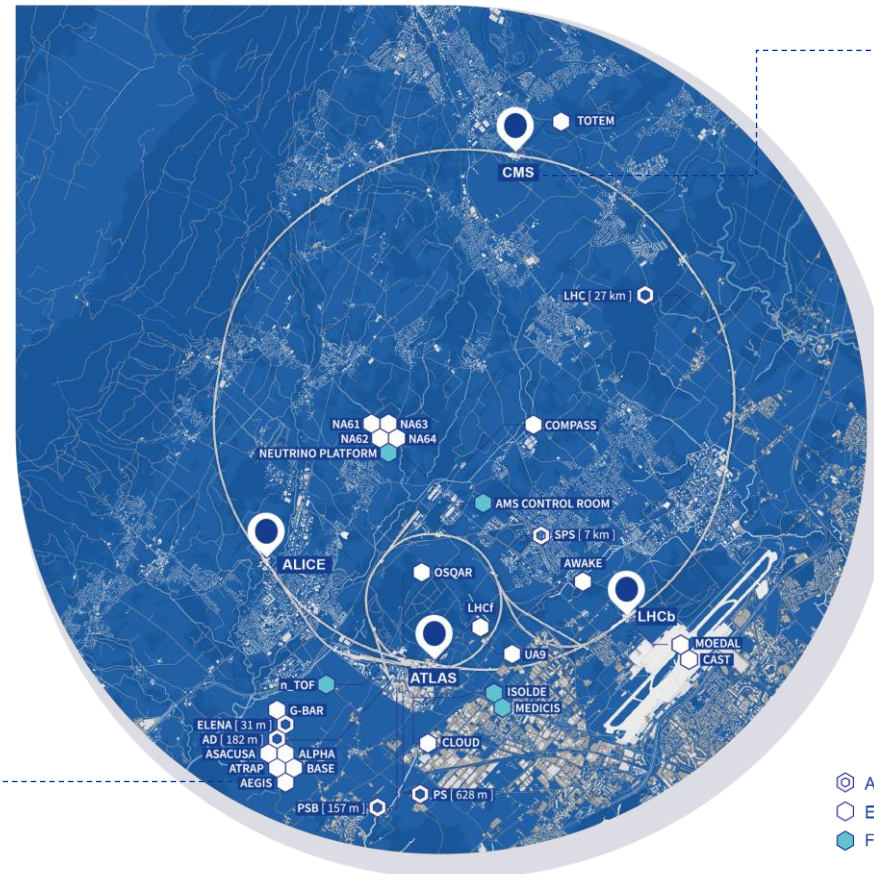
CERN and Latvia

AEGIS



AEGIS Experiment :

- Antihydrogen Experiment Gravity Interferometry Spectroscopy
- University of Latvia



CMS



CMS Experiment :

- Compact Muon solenoid – Data Tracking
- RTU & University of Latvia

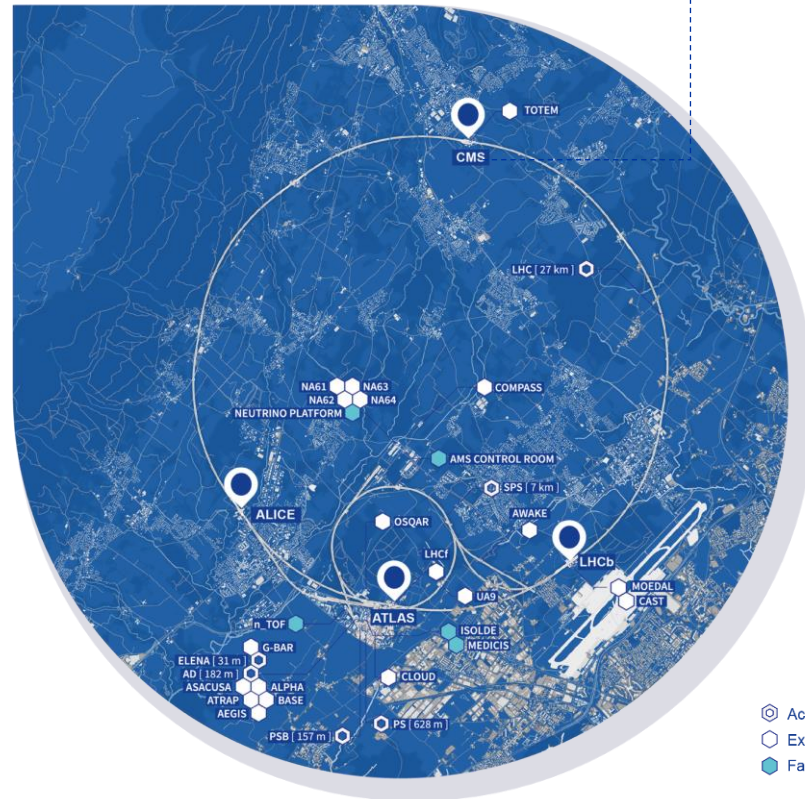


University of Latvia



**Associate Member State
since 8 January 2018**

CERN and Lithuania



CMS Experiment:

Vilnius University

Lithuanian Academy of Sciences



CERN Scientific Priorities for the Future

Implementation of the recommendations of the 2020 Update of the European Strategy for Particle Physics:

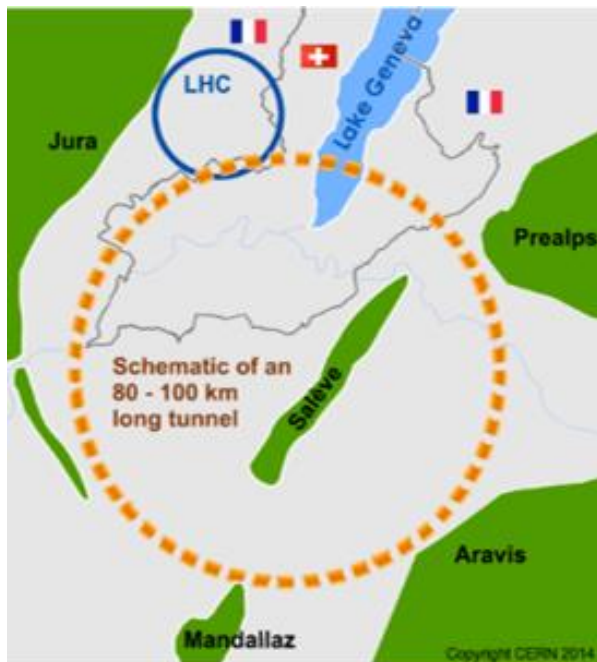
- Fully exploit the LHC & HL-LHC.
- Build a Higgs factory to further understand this unique particle.
- Investigate the technical and financial feasibility of a future energy-frontier 100 km collider at CERN.
- Ramp up relevant R&D.
- Continue supporting other projects around the world.

The FCC Integrated Programme

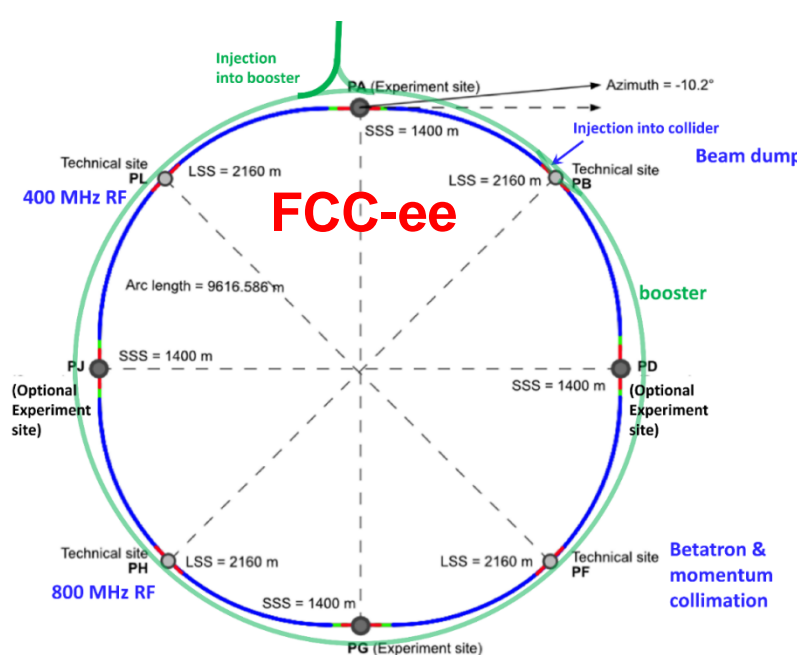
Inspired by Successful LEP – LHC Programmes at CERN

Comprehensive long-term programme maximising physics opportunities

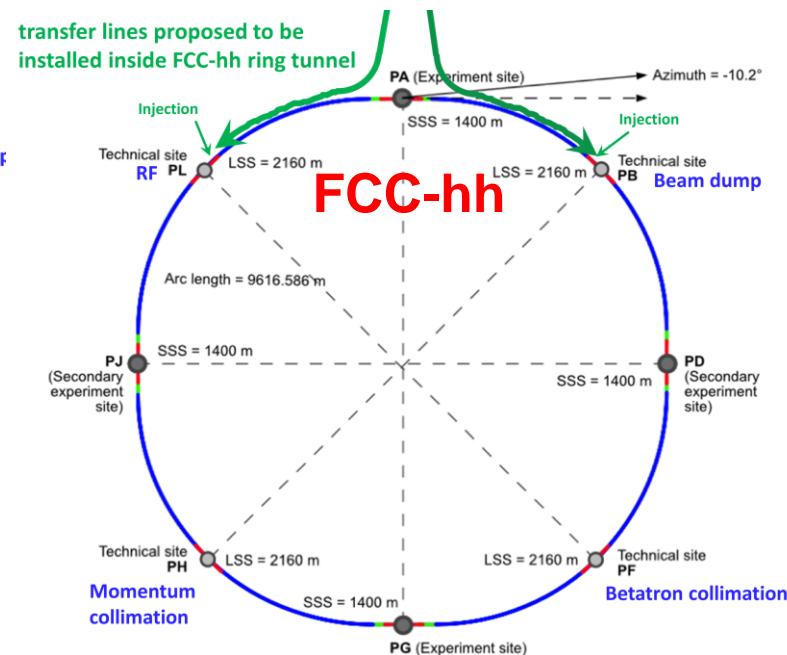
- **Stage 1: FCC-ee (Z, W, H, $t\bar{t}$) as Higgs factory, electroweak & top factory at highest luminosities**
- **Stage 2: FCC-hh (~100 TeV) as natural continuation at energy frontier, with ion and eh options**
- Complementary physics
- Common civil engineering and technical infrastructures, building on and reusing CERN's existing infrastructure
- FCC integrated project allows seamless continuation of HEP after completion of the HL-LHC programme



2020 - 2040



2045 - 2060



2070 - 2090++

Status of Global FCC Collaboration

Increasing international collaboration as a prerequisite for success:

links with science, research & development and **high-tech industry** will be essential to further advance and prepare the implementation of FCC

147

Institutes

30

Companies

34

Countries



Latvia: Riga Technical University

Estonia: National Institute for Chemical Physics and Biophysics, Tallinn University of Technology, University of Tartu, GScan (industry), NPM Silmet (industry), Testonica (industry)

Feasibility Study Collaboration Membership



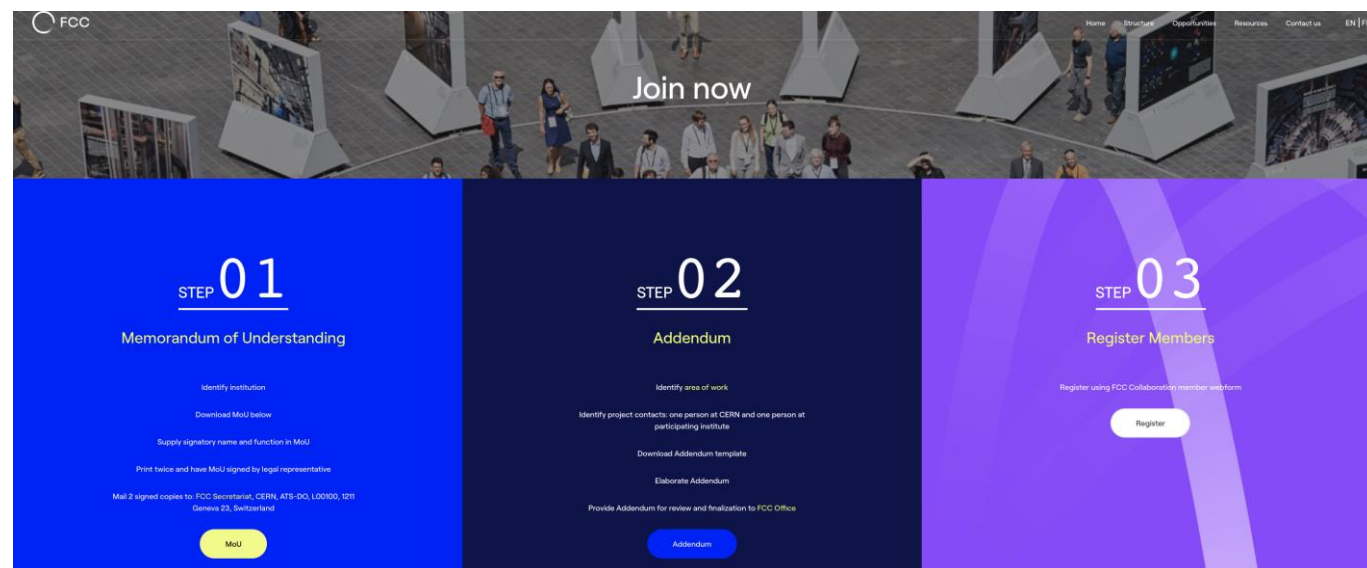
Participation in FCC through **MoU and Addenda**.



The FCC MoU for the first phase of the study is being **updated to cover the Feasibility Study**.



The current participating institutes who wish to take part in the Feasibility Study can continue to participate on the basis of the previously signed MoU until the updated MoU is signed.



<https://fccis.web.cern.ch/join-now>

FCC WEEK

2023

5 – 9 June

STAY
TUNED



