



# ESTONIA-CERN: STATE OF PLAY

11<sup>TH</sup> CERN BALTIC GROUP GENERAL MEETING 4-5 MAY, KAUNAS

# RECENT ADVANCES IN COLLABORATION WITH CERN



- CERN Council task force visit 23.05 (Tartu) – 24.05.2023 (Tallinn)
- Delegation members

Charlotte Lindberg Warakaulle, Director for International Relations

Florin Buzatu, Coordinator of the Research and Development (R&D) programmes supporting the Romanian participation in European programmes/organisations

Joachim Minch, DG-DI-RCS

Emmanuel Tsesmelis, IR-DS-NMS, Internat.Relations, links with Assoc. Member states

Andrzej Charkiewicz, EP-CMO



# RECENT ADVANCES IN POLITICS



- Mario Kadastik, KBFI, has been elected to the Parliament of Estonia.
- The government coalition agreement includes the promise to follow the commitment of „Teaduslepe“ (Science financing agreement, 2018, signed by major political parties) to spend 1% of GDP on science. There are hesitations that the agreement has not been actually followed so far.
- The coalition agreement includes the promise to increase higher education funding 15% each year for the following 3 years with the target to reach 1.5% of GDP (... year unspecified). „Hariduslepe“ (Education financing agreement, 2021) is a similar document to „Teaduslepe“, being initiated and signed by student organizations and academic trade unions setting the funding target to 1,5% of GDP.



# RESEARCH AND EDUCATION NICPB



- CERN CMS MoU from 1996
- Collaboration with CERN TH from 2001, new MoU in preparation (theory)
- Collaboration centered around
  - Theory
  - WLCG computing (Tier 2 center for CMS)
  - CMS Data Analysis
  - Detector development (muon DT and Trigger)
- Students and Physics teachers study visits in CERN



# RESEARCH AND EDUCATION UNIVERSITY OF TARTU



- Existing and ongoing cooperation with Cern within projects:
  - Crystel Clear Collaboration (CCC)
  - Compact linear collider and FCC
  - CLOUD experiment
  - COMPASS experiment
- FCC MoU-s and addendums signed with CERN by Tartu University and Tallinn University of Technology
- Marie Curie doctoral networks
  - CLOUD Doctoral Network, started Sept 2022
  - e-MITTER DN (electron sources for future applications) in preparation
- Participation in EMDM led by RTU
- CERN School of Computing 2023 <https://csc.web.cern.ch/>
- Ion mobility ToF mass spectrometer purchase for cooperation in CLOUD experiment



# RESEARCH AND EDUCATION TALTECH



- FCC MoU-s and addendums signed with CERN by University of Tartu and Tallinn University of Technology
- CMS Associated Member from August 2022, cooperation since 2013 (LHC/CMS bit error rate test -BERT)
  - BRIL, preparation for CMS Phase-2 Upgrade. Fast Beam Condition Monitor (FBCM) detector integrated circuit (ASIC) development (2022-2024)
  - TalTech researchers participate in a national project PRG780 "Preparing the CMS experiment for high luminosity operations through trigger improvements" (1.01.2020–31.12.2024)
- Integration of energy storage in converters feeding particle accelerator magnets, incl. thesis co-supervision (CERN EPC Group)
- Participation in I-FAST Project, aims to develop a new generation of particle accelerators and related technologies (metal 3D printing)
- 2nd CERN Baltic doctoral summer school organized in August 2022 (venue TalTech Kuressaare college)



# FINANCE AND ORGANIZATION



- New financing instrument from behalf of Ministry of Education and Science.  
Competitive financing, +500k€/year, for participation in international science frameworks (CERN, ESA, ...).
- CERN Consortium formed with members: NICPB, Tartu University, Tallinn University of Technology. Leading partner for the first period – NICPB. First tasks:  
Estonian CERN strategy revision  
Application to the new financing instrument.



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