

FCC preparatory meeting

13 March 2026

<https://indico.ific.uv.es/event/8503/>



- *The **European Strategy for Particle Physics** is a cornerstone of Europe's decision-making process for the long-term future of the field.*
- *Mandated by the CERN Council, the Strategy is formed through a broad consultation of the particle physics communities in the CERN Member and Associate Member States, and beyond.*
- *In the Strategy process recommendations are developed which will be submitted to the CERN Council for an update of the Strategy.*

The European Strategy for Particle Physics is not a project approval process. Projects are approved by the CERN Council through a separate decision process, taking the Strategy recommendations into account.

Original Strategy (2006): LHC, mooted of luminosity upgrade of LHC, R&D in accelerator technologies, coordination with a potential ILC project

1st Update (2013): High Luminosity LHC, need for a post-LHC programme

2nd Update (2020): FCC feasibility study

3rd Update (2026): → **recommendation for the next large-scale accelerator project at CERN**
(reach consensus on the preferred option and possible alternatives)



Timeline for the update of the European Strategy for Particle Physics



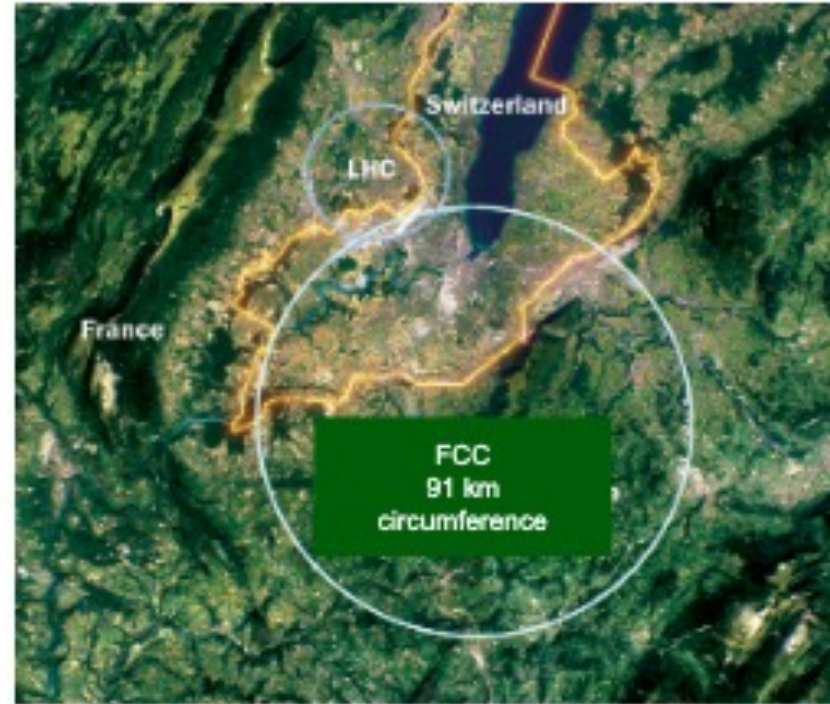
More details on ESPP web page: <https://europeanstrategyupdate.web.cern.ch/>



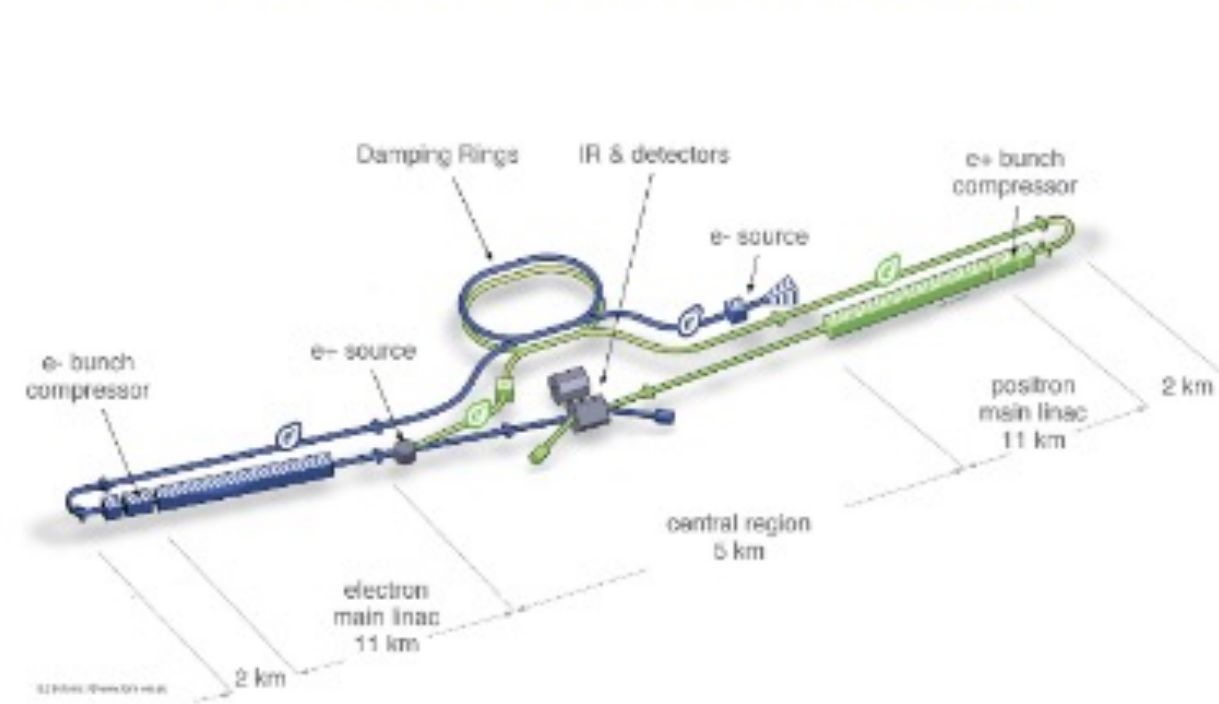
Proposed large-scale projects at CERN, ~ 2045

e^+e^- colliders
("Higgs factories")

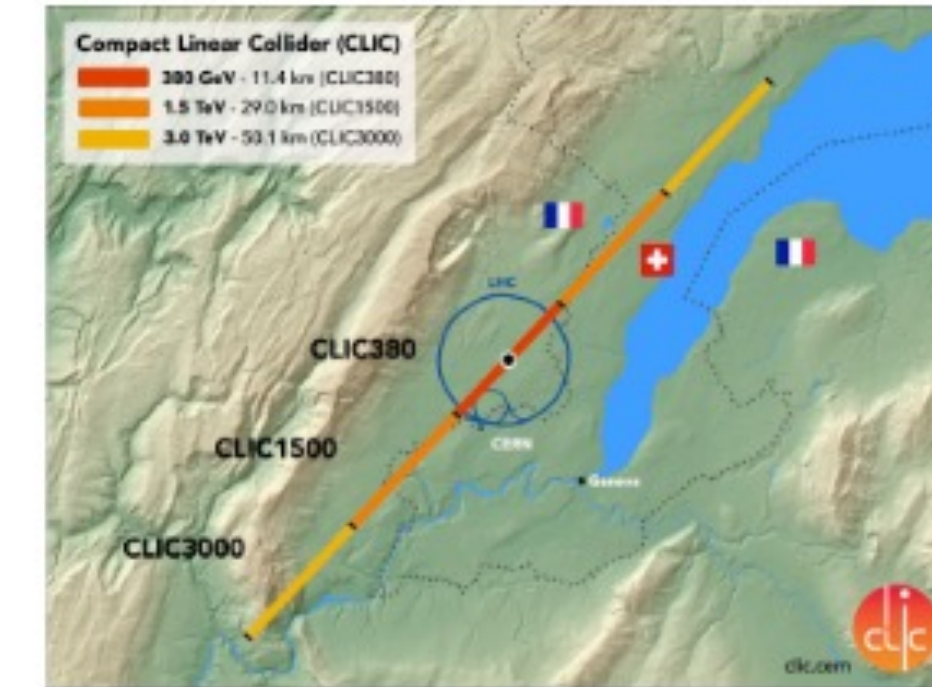
FCC-ee (e^+e^- , circular, 91 – 365 GeV)



LCF (e^+e^- , linear, 91 – 240, 550 GeV)



CLIC (e^+e^- , linear, 380 GeV, 1.5 TeV)



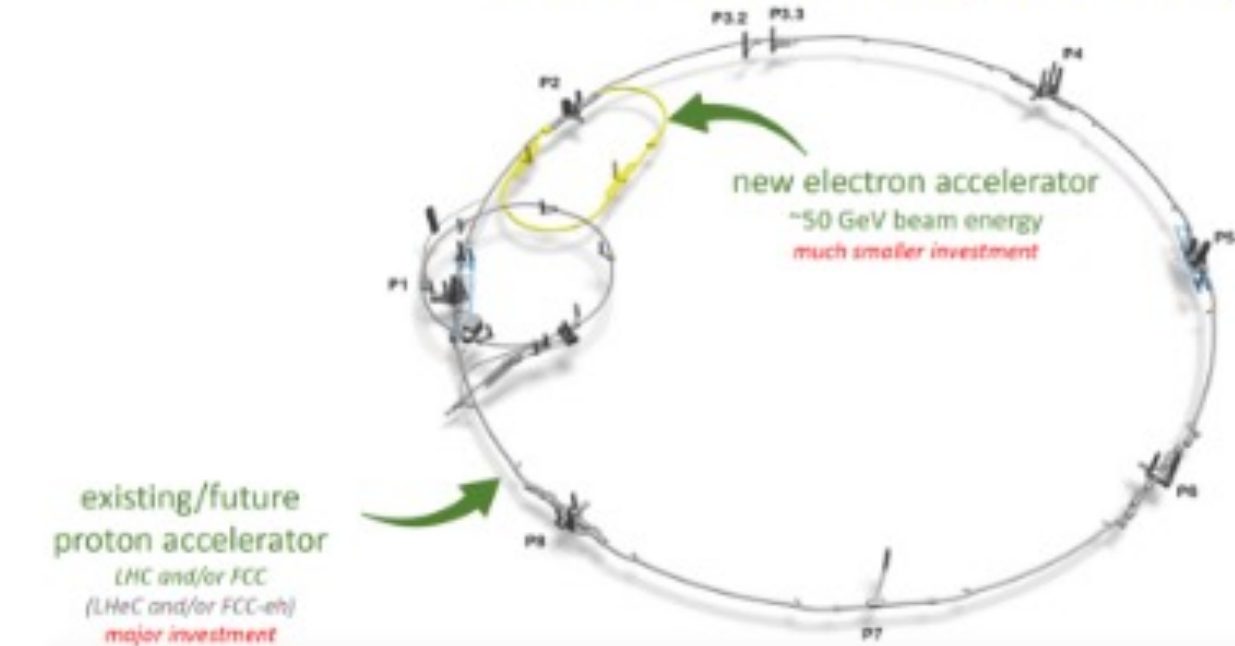
Intermediate projects

(Leave room (time, budget, resources) for further development of THE machine that can probe directly the energy frontier at the 10 TeV parton scale)

LEP3 (e^+e^- , circular, 91 – 230 GeV)



LHeC (ep , circular, electron ERL, 50 GeV e^- , > 1 TeV ep collisions)



What is the preferred large-scale post LHC accelerator at CERN?

Member States (MS)	Preferred Collider
Austria	FCC-ee
Belgium	FCC-ee
Bulgaria	Muon Collider
Czech Republic	FCC-ee
Denmark	FCC-ee
Estonia	FCC-ee *
Finland	FCC-ee
France	FCC-ee *
Germany	FCC-ee
Greece	FCC-ee
Hungary	FCC-ee
Israel	FCC-ee
Italy	FCC-ee
Netherlands	FCC-ee
Norway	FCC-ee
Poland	FCC-ee
Portugal	FCC-ee
Romania	FCC-ee
Serbia	FCC-ee
Slovakia	FCC-ee
Slovenia	FCC-ee
Spain	FCC-ee
Sweden	FCC-ee
Switzerland	FCC-ee
United Kingdom	FCC-ee/FCC-hh

Associate Member States (AMS)

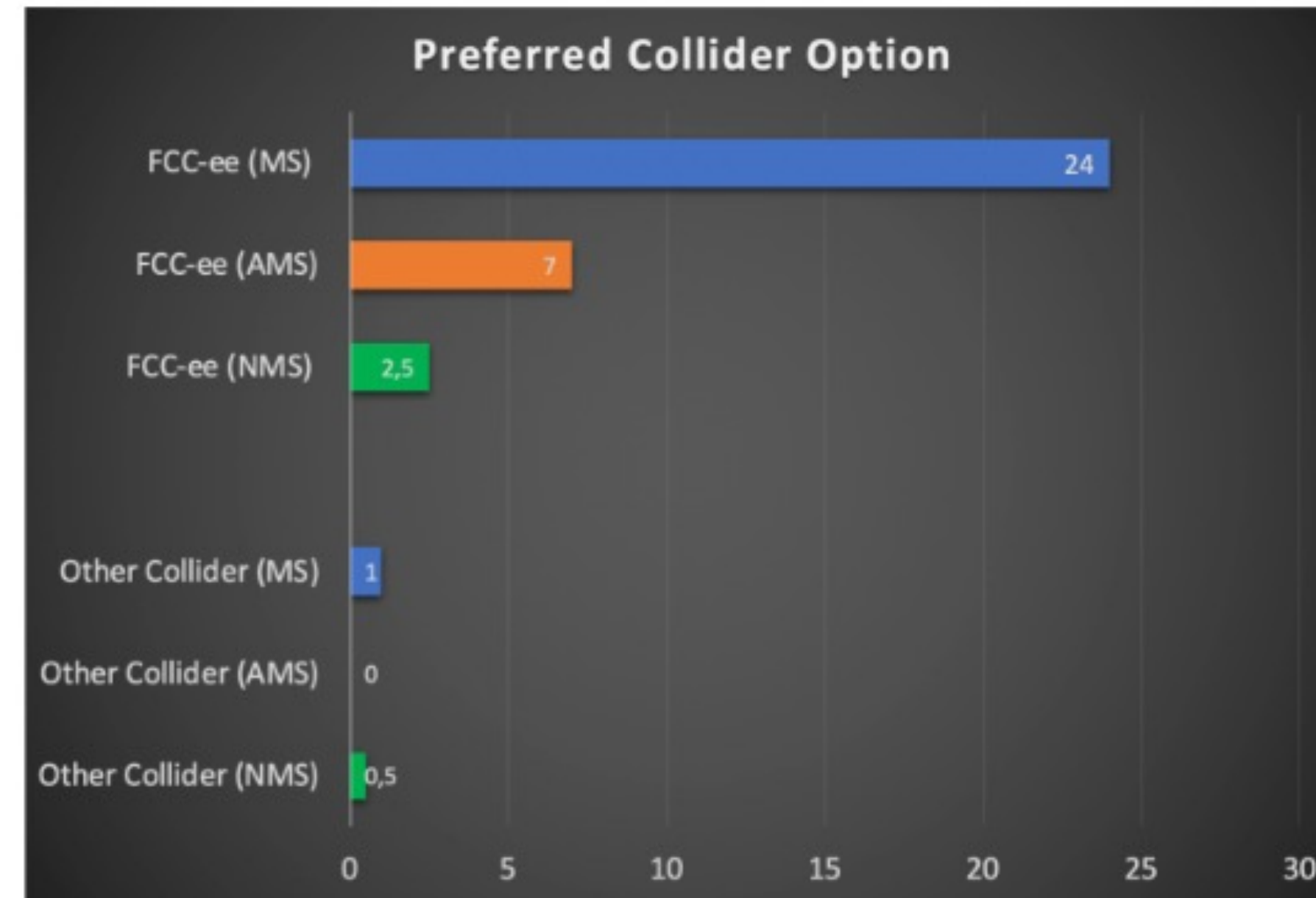
Brazil	FCC-ee
Croatia	FCC
Cyprus	
India	
Ireland	
Latvia	FCC-ee
Lithuania	FCC-ee
Pakistan	FCC-ee
Turkey	FCC-ee
Ukraine	FCC-ee

Non-Member States (NMS)

Australia	FCC-ee
Japan	FCC-ee or LCF
USA	FCC-ee

* No updated input received, preference expressed in the previous submission taken

Update by France (30 Nov): FCC-ee / hh
(integrated programme)



- Overwhelming support (24/25 CERN Member States HEP communities) in favour of the FCC-ee programme
- Support as well from **Associate Member States (AMS)** and **Non-Member States (NMS)**



General Recommendations

- i. The full exploitation of the physics potential of the LHC and the HL-LHC and the completion of the high-luminosity upgrade remain the highest priorities of European particle physics. Every effort must be made to complete the HL-LHC upgrade within the current schedule.*
- ii. The unique ecosystem of particle physics research centres and universities in Europe should be further strengthened in order to address the objectives set out in this Strategy.*
- iii. The implementation of the Strategy should be pursued in strong collaboration with global partners and neighbouring fields.*
- iv. The relationship between the particle physics community and the European Commission should be further strengthened, exploring funding opportunities for the realisation of infrastructure projects and R&D programmes in cooperation with other fields of science and industry.*



K. Jakobs, CERN Colloquium, 26th February 2026

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I. The next CERN flagship collider project

- i. The electron–positron Future Circular Collider (FCC-ee) is recommended as the preferred option for the next flagship collider at CERN.*
- ii. A descoped FCC-ee is the preferred alternative option for the next flagship collider at CERN.*

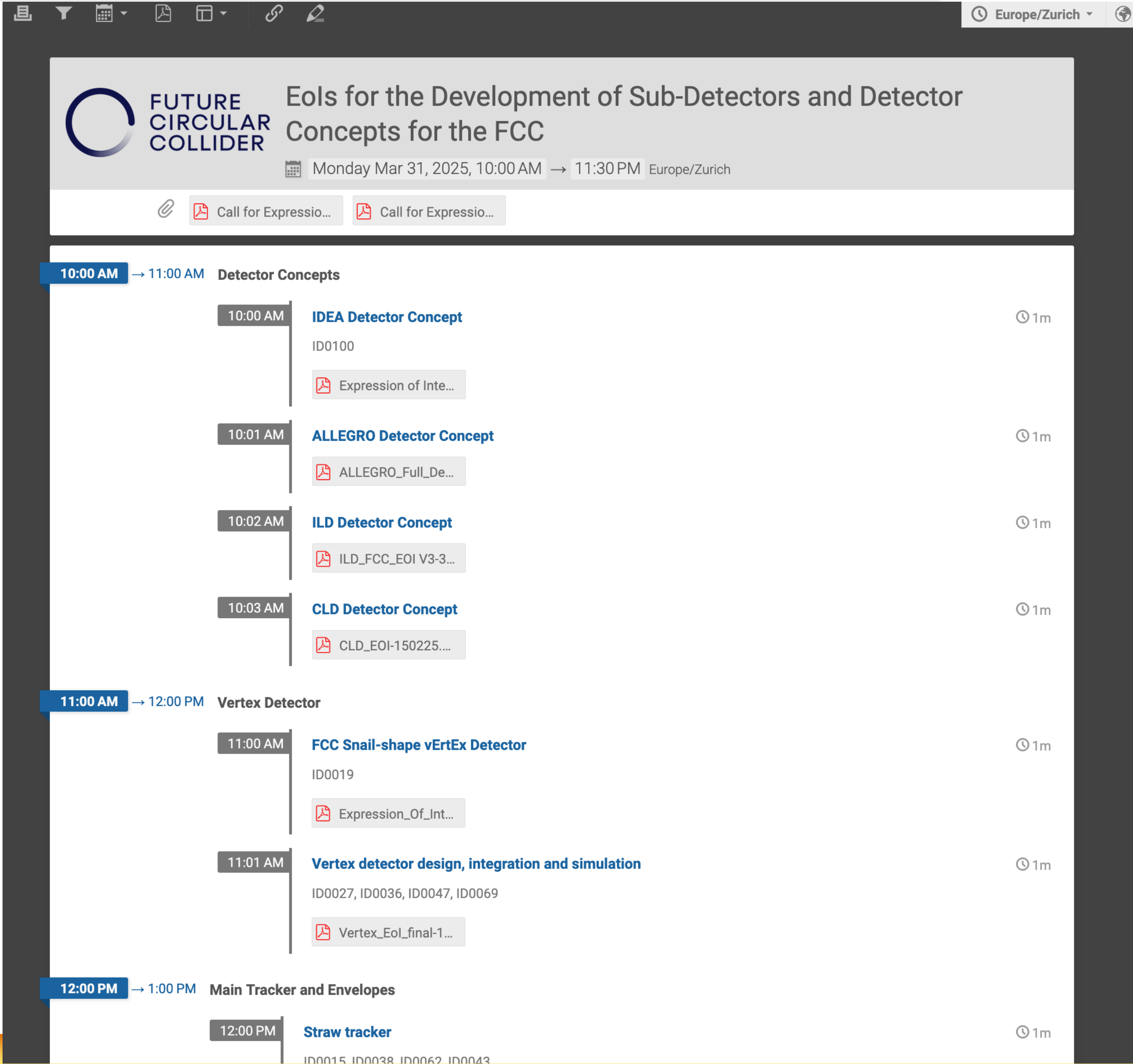
FCC Collaboration

- <https://fcc.web.cern.ch/collaboration>

Country	Institute	City
Spain	ICMAB-CSIC	Bellaterra (Barcelona)
Spain	Institut de Física d'Altes Energies (IFAE)	Bellaterra (Barcelona)
Spain	Universidade de Santiago de Compostela	Santiago de Compostela
Spain	Universitat Politècnica de València	Valencia
Spain	CELLS/ALBA	Cerdanyola del Vallès
Spain	Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)	Madrid

Eols for the development of detector concepts

- [Link](#)



The screenshot shows a meeting agenda for 'Eols for the Development of Sub-Detectors and Detector Concepts for the FCC' on Monday, Mar 31, 2025, from 10:00 AM to 11:30 PM in Europe/Zurich. The agenda is organized into three time slots:

- 10:00 AM → 11:00 AM: Detector Concepts**
 - 10:00 AM: IDEA Detector Concept** (ID0100) - 1m. Includes 'Expression of Inte...'.
 - 10:01 AM: ALLEGRO Detector Concept** - 1m. Includes 'ALLEGRO_Full_De...'.
 - 10:02 AM: ILD Detector Concept** - 1m. Includes 'ILD_FCC_EOI V3-3...'.
 - 10:03 AM: CLD Detector Concept** - 1m. Includes 'CLD_EOI-150225...'.
- 11:00 AM → 12:00 PM: Vertex Detector**
 - 11:00 AM: FCC Snail-shape vErtEx Detector** (ID0019) - 1m. Includes 'Expression_Of_Int...'.
 - 11:01 AM: Vertex detector design, integration and simulation** - 1m. Includes IDs ID0027, ID0036, ID0047, ID0069. Includes 'Vertex_EoI_final-1...'.
- 12:00 PM → 1:00 PM: Main Tracker and Envelopes**
 - 12:00 PM: Straw tracker** - 1m. Includes IDs ID0015, ID0038, ID0062, ID0043.

- **LIII IMFP (Winter meeting) in Granada:**

- 11-15 May 2026
- <https://indico.cern.ch/event/1615834/>

- **Tentative agenda**

- **11/May FCC project**

- Introduction
- CERN Council & FCC
 - Inmaculada FIGUEROA
- FCC: status and global collaboration
 - Gregorio BERNARDI (APC Paris CNRS/IN2P3)
- FCC-ee: Physics, experiments and detector activities
 - Guy WILKINSON (Oxford)
- FCC-ee: Detector concepts
 - Mogens DAMM (Niels Bohr Institute)
- FCC-ee Industrial opportunities
 - Manuel MORENO BALLESTEROS (CDTI)

- **12/May FCC Spain**

- Past, current and planned Spanish contributions to FCC Physics&Experiment performance studies
 - María CEPEDA (CIEMAT)
- Discussion: potential Spanish contributions to detectors for FCC-ee
 - MC. FOUZ, I. VILA, A. GALLAS, S. GRINSTEIN & S. MARTI
- Accelerator R&D in Spain: FCC-ee current and potential contributions
 - C. OLIVER (CIEMAT)
- Discussion on possible contributions to FCC from industry
 - M. VOS & E. FERNANDEZ
- General discussion on evolution of structures in Spain in the context of FCC:
 - introduction by Juan Alcaraz + José Santiago,
 - Contactos por instituto
 - Foro para canalizar contribuciones al FCC
 - Proyectos Plan Nacional focalizados en FCC
 - Solapamiento con actividad HL-LHC (cara a proyectos)

- **Include IFIC in FCC collaboration?**

- FCC grey book: <https://greybook.cern.ch/experiment/detail/teams?id=FCC>
- Should we sign a MoU with FCC ?
 - <https://fcc.web.cern.ch/collaboration>

- **If the answer is yes? Should we choose an IFIC FCC contact?**

- What other Spanish group will do? Wait till Granada meeting?
- Election, mandate and rotation

- **How to organise IFIC participation in the “detector” working groups?**

- Well .. both within València and in Spain
- By technology?

- **How to organise IFIC participation in the “physics” working groups?**

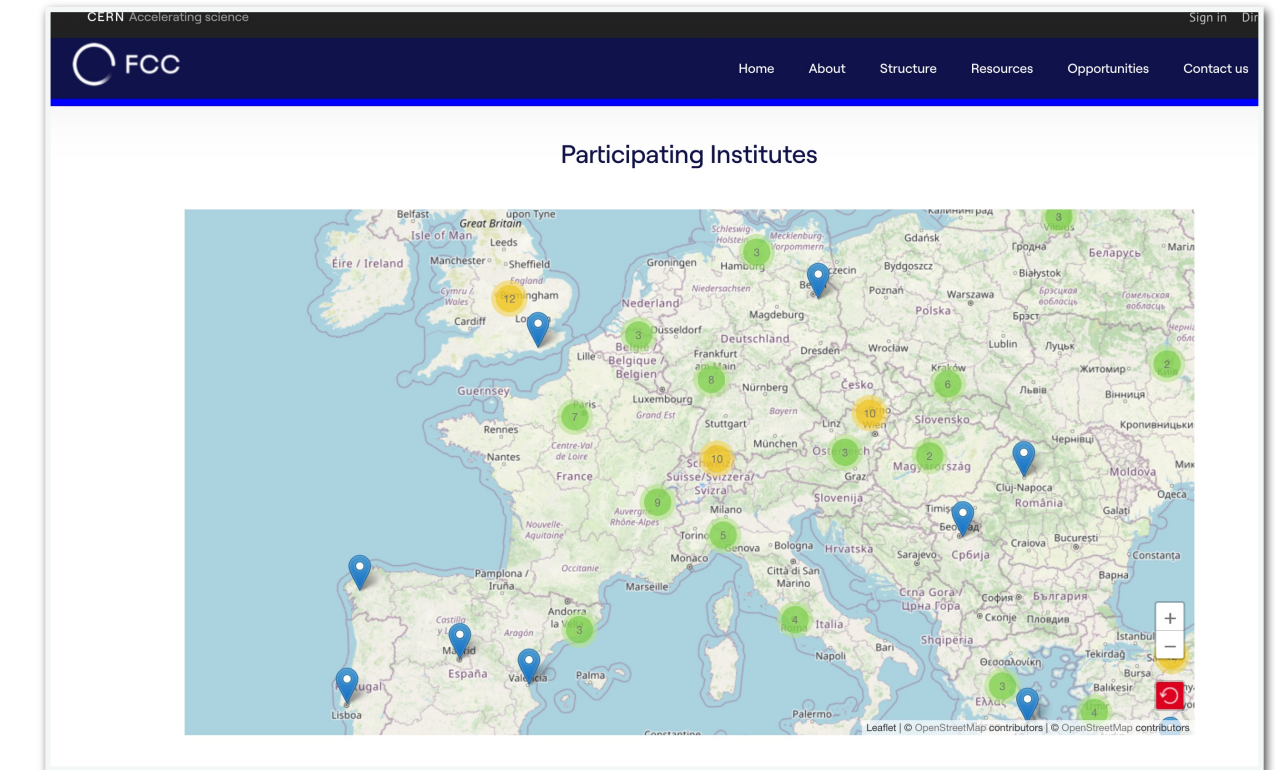
- Our Pheno/Theo colleagues at IFIC should be also part

- **How to profit the existing efforts?**

- Red Futuros Colisionadores: <https://indico.ific.uv.es/event/8184/>
- SuperKEKB and implications for FCCee: <https://indico.cern.ch/event/1542123/sessions/603373/#20250508>
- DRDs: IFIC DRD days: <https://indico.ific.uv.es/event/8413/>
- CNID: CPAN Network on Instrumentation and Detectors: <https://indico.global/event/16219/>

- **Funding?**

- FCC PID project ? Probably wait till Granada Spanish wide discussion and hear plans from AEI-HEP manager (J. Santiago)
- Generalitat Valenciana, and other funding sources are a plus 😊



Open for discussion

- Include IFIC in FCC collaboration?
 - FCC grey book: <https://greybook.cern.ch/experiment/detail/teams?id=FCC>

The CERN Experimental Programme
Grey Book database

Find in Greybook...

Welcome Experiments & Projects **Teams** Participations Countries

Research Programme

- LHC
- SPS
- PS
- AD
- ISOLDE Facility
- Irradiation Facility
- Neutrino Platform
- GRADE
- CTF3
- R&D
- Non-accelerator experiments
- Approved Studies for Future Projects

Research Activities

- Experiments and Projects under Study
- External Experiments
- Recognized Experiments
- Completed Experiments

Related Links

- EP Department Users' Office
- Scientific Committees
- Conditions for experiments
- Accelerators and Beams
- Accelerator Schedules

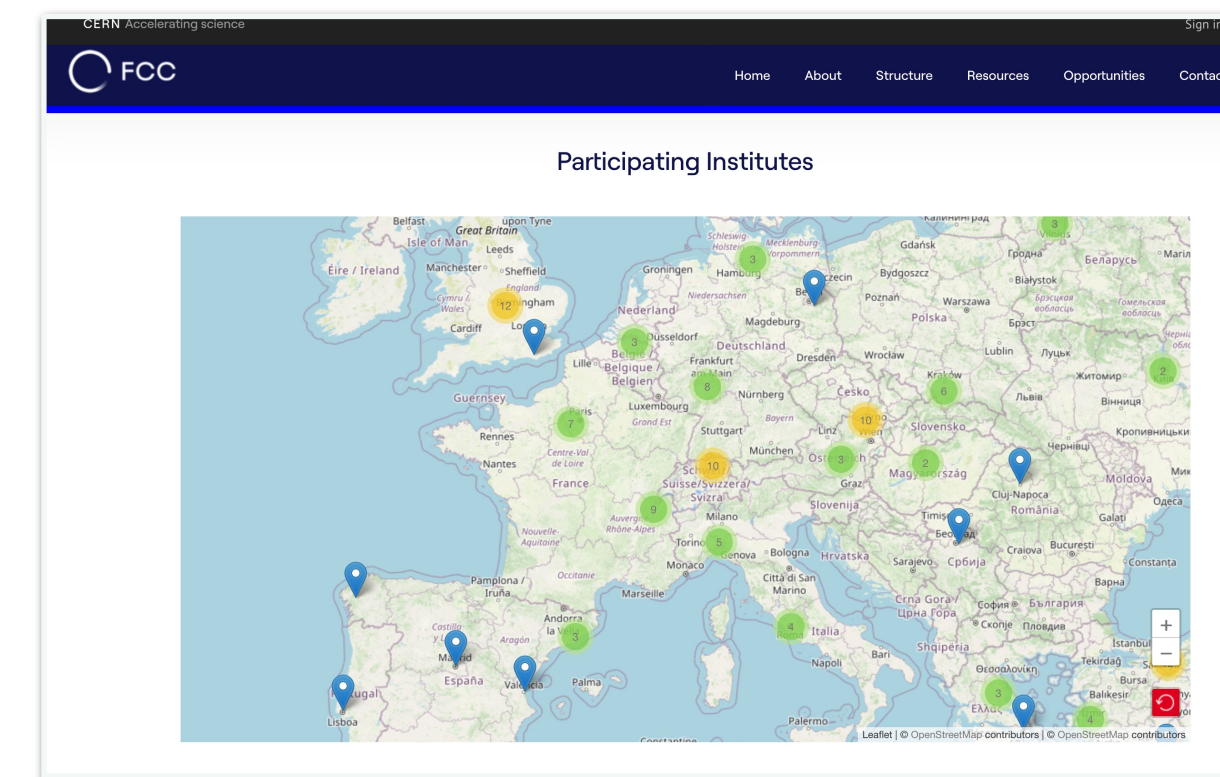
FCC
Future Circular Collider

Synonym:
Research Programme: FCOLLIDER
Approved:
Beam:
Status: Preparation

Overview **Teams** Participations

Search criteria: Search

Institute Name	Institute Parent Name	Town	Country	Team Leader & Deputy Team Leader(s)
Abant Izzet Baysal University		Bolu	Türkiye	(TL) DENIZLI, HALUK
Ankara University		Ankara	Türkiye	(TL) TURK CAKIR, ILKAY
Brookhaven National Laboratory		Upton	United States	(TL) PLEIER, MARC-ANDRE (DTL) RAJAGOPALAN, SRINIVASAN
Cavendish Laboratory	University of Cambridge	Cambridge	United Kingdom	(DTL) KENZIE, MATTHEW WILLIAM
Department of Physics	University of Florida	Gainesville	United States	(TL) TAKAHASHI, YUTA (DTL) CHANG, PHILIP
Department of Physics	University of Tehran	Tehran	Iran	(TL) AZIZI, KAZEM
Department of Physics	University of Zurich	Zurich	Switzerland	(TL) CANELLI, FLORENCIA MARIA (DTL) KILMINSTER, BENJAMIN JOHN (DTL) MACCHIOLO, ANNA
Department of Physics & Astronomy	Stony Brook University	Stony Brook	United States	(TL) PIACQUADIO, NICOLA GIACINTO (DTL) TSYBYSHEV, DMITRY



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Future Circular Collider

Synonym:
Research Programme: FCOLLIDER
Approved:
Beam:
Status: Preparation

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No results