



Report from the CLIC Communication Initiative (CCI)

CLICdp Collaboration Meeting, August 28-29, 2018

Rickard Ström (CERN)
on behalf of the CLIC Communication Initiative

CLIC Communication Initiative (CCI)



• **What do we do?**

- Dedicated task force to improve and coordinate the communication of the whole CLIC project (CLIC acc. study + CLICdp)
- General outreach, both inside and outside CERN
- Increase media coverage (CERN editorial meetings, ...)
- Increase visibility (graphics, CLIC gallery, showroom, wiki, ...)
- Help is always welcome!
- Please contact us at: clic-cci@cern.ch

• **Who are we?**

- Alexia Augier
- Philip Burrows
- Konrad Elsener
- Davide Gamba
- Nikos Kokkinis
- Lucie Linssen
- Aidan Robson
- Steinar Stapnes
- Rickard Ström
- Walter Wuensch

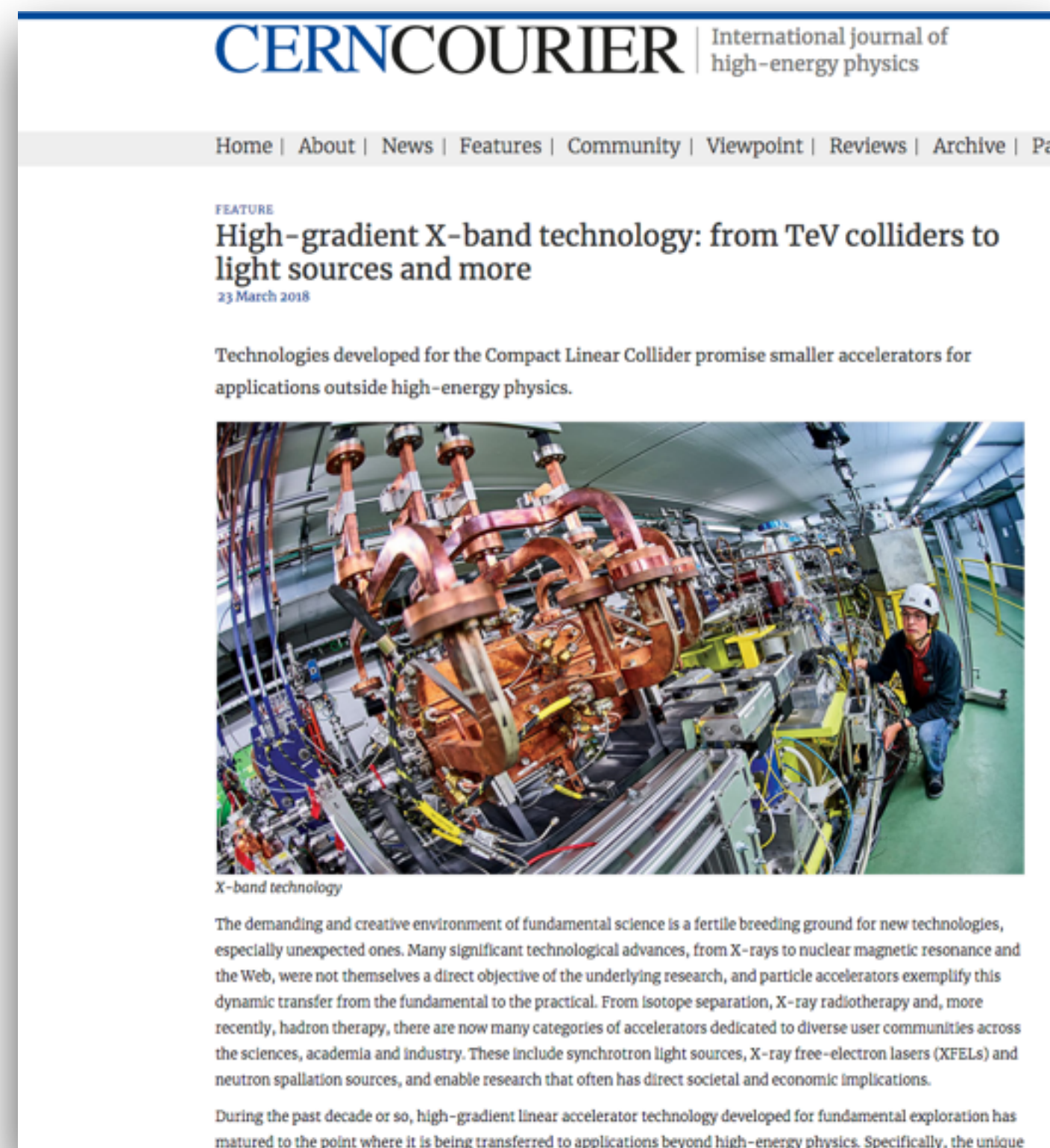
CLIC in the news



Articles published since CLIC Week 2018

- *Reports from CLIC Week 2018 ("CLIC workshop focuses on strategy" in CERN Courier Feb 2018, "Report from CLIC Week 2018" in EP newsletter)*
- "New spokesperson for CLICdp", University of Glasgow News & Events, Feb 2018
- "Towards TeV-scale electron-positron collisions with the Compact Linear Collider (CLIC)" in Europhysics News Feb 2018
- "High-gradient X-band technology: from TeV colliders to light sources and more" in CERN Courier Mar 2018 and CERN web July 2018
- "CLIC technology lights the way to compact accelerators" in Accelerating News Mar 2018
- "First experimental results from the CLEAR facility at CERN" in Accelerating News Jul 2018
- *LC Newslines*, incl. several CLIC-related stories

Special thanks to the authors/reviewers of all of these articles!



CLIC engagement



- **Academic talks:**

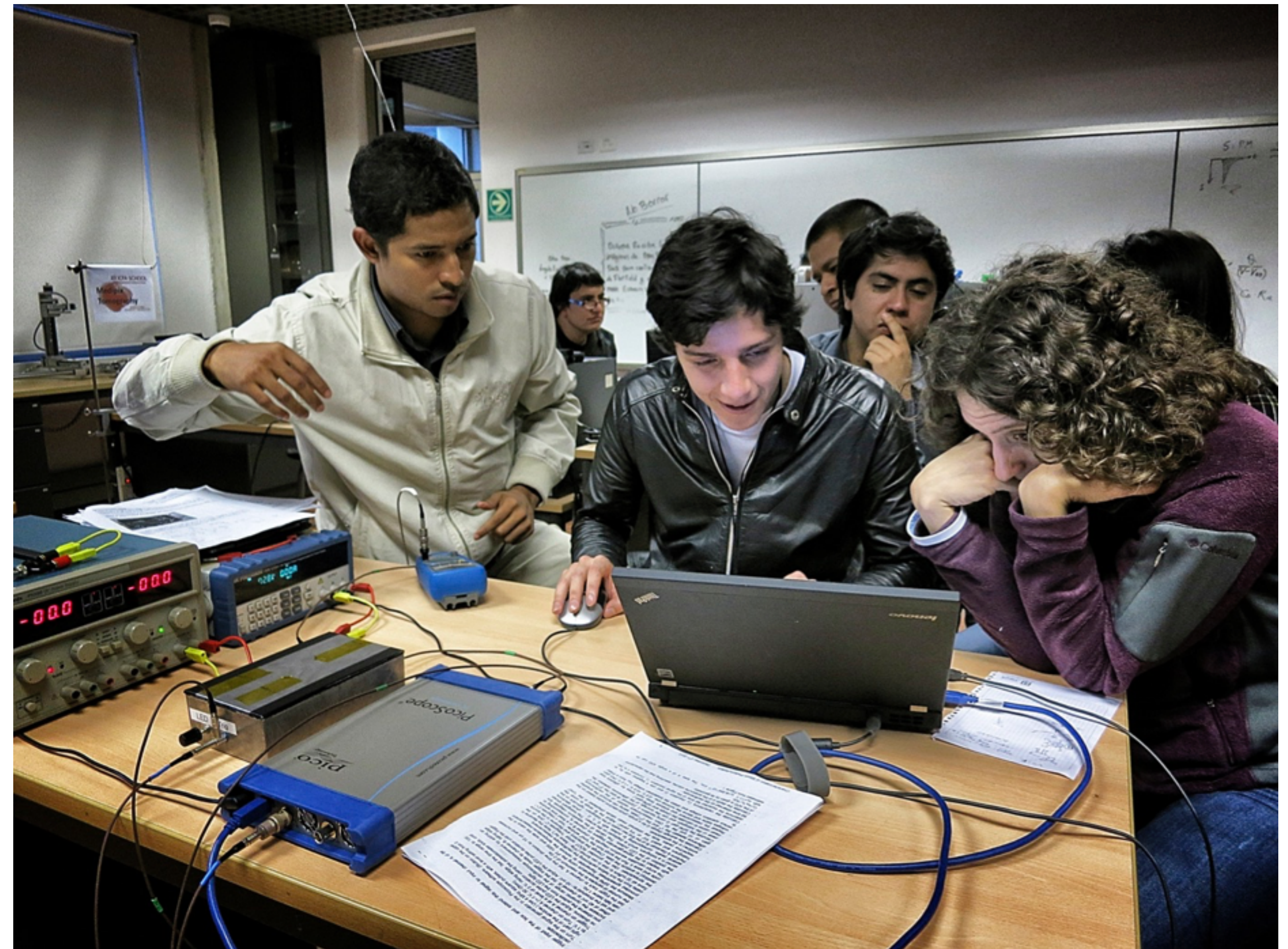
- Seminars
- Conferences/workshops
- CERN academic training lecture programme on CLIC

- **Hands-on activities:**

- For example detector technology teaching experiments (instrumentation schools and summer students)

- **Guided tours:**

- CLIC showroom, CTF3/CLEAR, etc.



CERN academic training lecture programme on CLIC



- **Took place:** March 5-9, 2018 in the Main auditorium
- **What?** 5 lectures on CLIC/high-gradient applications
 - “Physics potential of a high-energy e^+e^- collider” by *Philipp Roloff*
 - “Detector technology R&D for CLIC” by *Eva Sicking*
 - “The CLIC accelerator design and performance” by *Daniel Schulte*
 - “Key technology developments for the CLIC accelerator” by *Nuria Catalan*
 - “Overview of applications using high-gradient acceleration, from photon sources to medical physics” by *Walter Wuensch*
- **Links** at clic.cern



CLIC graphics



- **CLIC maps/footprint**

- Staging
- Zoom-in on CLIC380 featuring more details (drive/main beam injectors)
- Developed in collaboration with the CLIC civil engineering team
- Special thanks to: Emilie Ter Laak, Matthew Stuart and John Osborne

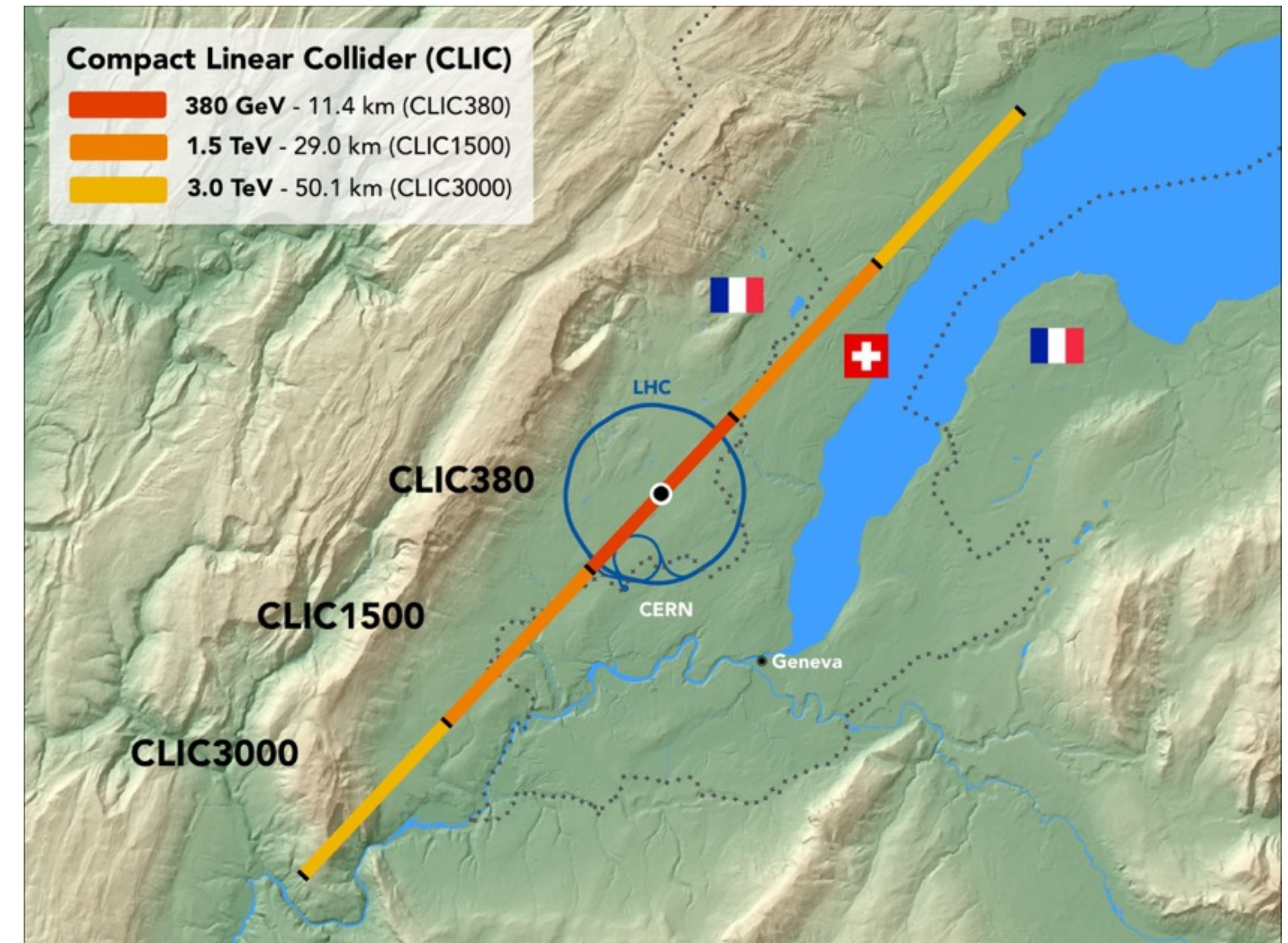
- Located in CDS

- **CLIC project timeline**

- Located in CDS

- **Template for presentations** (CLICdp GitLab)

- Powerpoint, Keynote, Latex-Beamer



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Available in sizes: (16:9), (4:3)

CLIC portal - clic.cern



The screenshot shows the CLIC portal homepage. At the top is an orange navigation bar with the CLIC logo on the left and two main menu items: 'CLIC Accelerator' and 'CLIC Detector & Physics', each with sub-links for 'Organisation' and 'Publications'. Below the navigation bar is a breadcrumb trail: 'Home / About CLIC / News / Gallery'. The main heading is 'Welcome to the Compact Linear Collider (CLIC) Portal'. A paragraph describes CLIC as a future linear particle accelerator. A bulleted list provides key facts: CLIC collides electrons with positrons; the accelerator is 11-50 km long, proposed for CERN with first beams around 2035; it uses a novel two-beam acceleration technique at 100 MV/m; its staged construction allows collisions at up to 3 TeV; and it is a global project involving over 70 institutes in 30 countries. An image of a Timepix assembly with a 50 um thick active-edge sensor is shown, with a caption below it. At the bottom are two large orange buttons: 'CLIC Accelerator' and 'CLICdp Detector & Physics'. A section for 'CERN Academic Training lectures on CLIC' lists four topics: Physics potential of a high-energy electron-positron collider, Detector technology R&D for CLIC, The CLIC accelerator design and performance, and Key technology developments for the CLIC accelerator.

CLIC Accelerator

CLIC Detector & Physics

Home / About CLIC / News / Gallery

Welcome to the Compact Linear Collider (CLIC) Portal

The Compact Linear Collider (CLIC) is a concept for a **future linear particle accelerator** that aims to explore the next energy frontier

- CLIC would collide **electrons** with **positrons** and is currently the only mature option for a multi-TeV linear collider
- The accelerator would be between 11 km and 50 km long and is proposed to be built at CERN, with first beams around 2035
- The CLIC accelerator is based on a **novel two-beam acceleration technique** at an acceleration gradient of 100 MV/m
- Its staged construction would provide collisions at three centre-of-mass energies up to 3 TeV for optimal physics reach
- CLIC is a **global project** of more than 70 institutes in more than 30 countries. It consists of two collaborations: the CLIC detector and physics collaboration (CLICdp), and the CLIC accelerator study

Timepix assembly with 50 um thick active-edge sensor

CLIC Accelerator >>

CLICdp Detector & Physics >>

CERN Academic Training lectures on CLIC

- [Physics potential of a high-energy electron-positron collider](#)
- [Detector technology R&D for CLIC](#)
- [The CLIC accelerator design and performance](#)
- [Key technology developments for the CLIC accelerator](#)

- **Joint portal** for entering the CLIC accelerator and CLICdp homepages
- Complies with the CERN style guide, principles, and rules for a .cern domain
- Please help us make this even better!
- More features can be added on request (at the moment a minimal portal to fulfil the requirements by CERN)
- Migration to Drupal 8 later this year

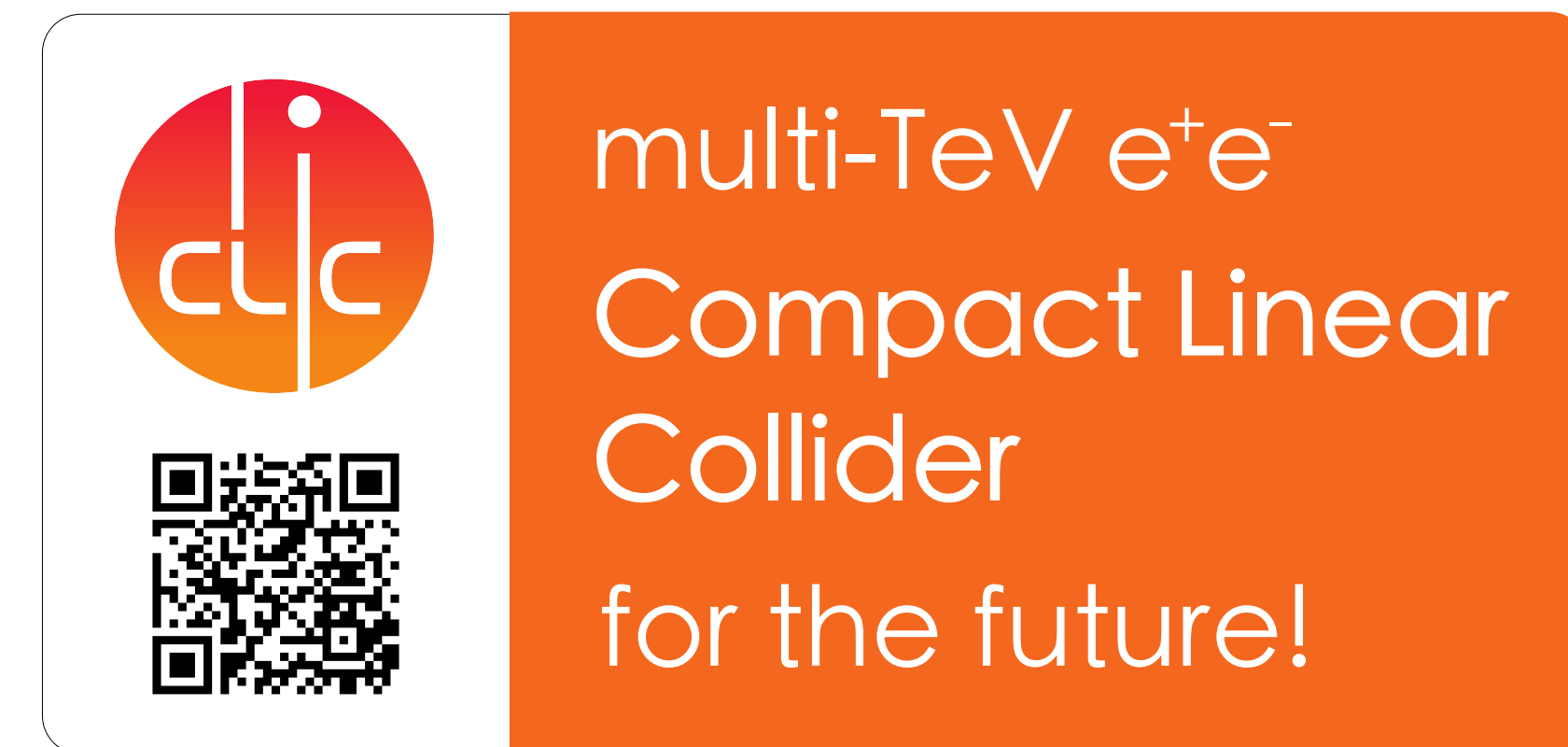
Increased visibility - stickers



Logo stickers



Door/Computer stickers with QR code

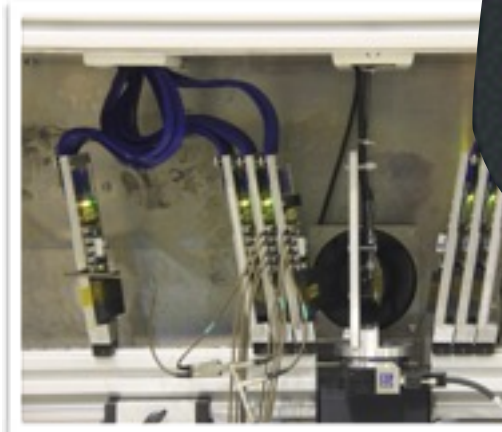
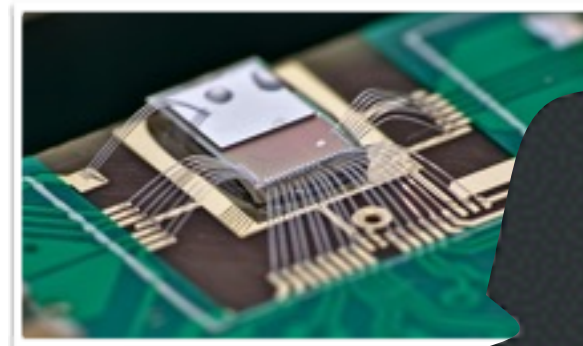


Increased visibility - gallery in corridor 51



- Images showing **CLIC activities**
- With explanatory labels

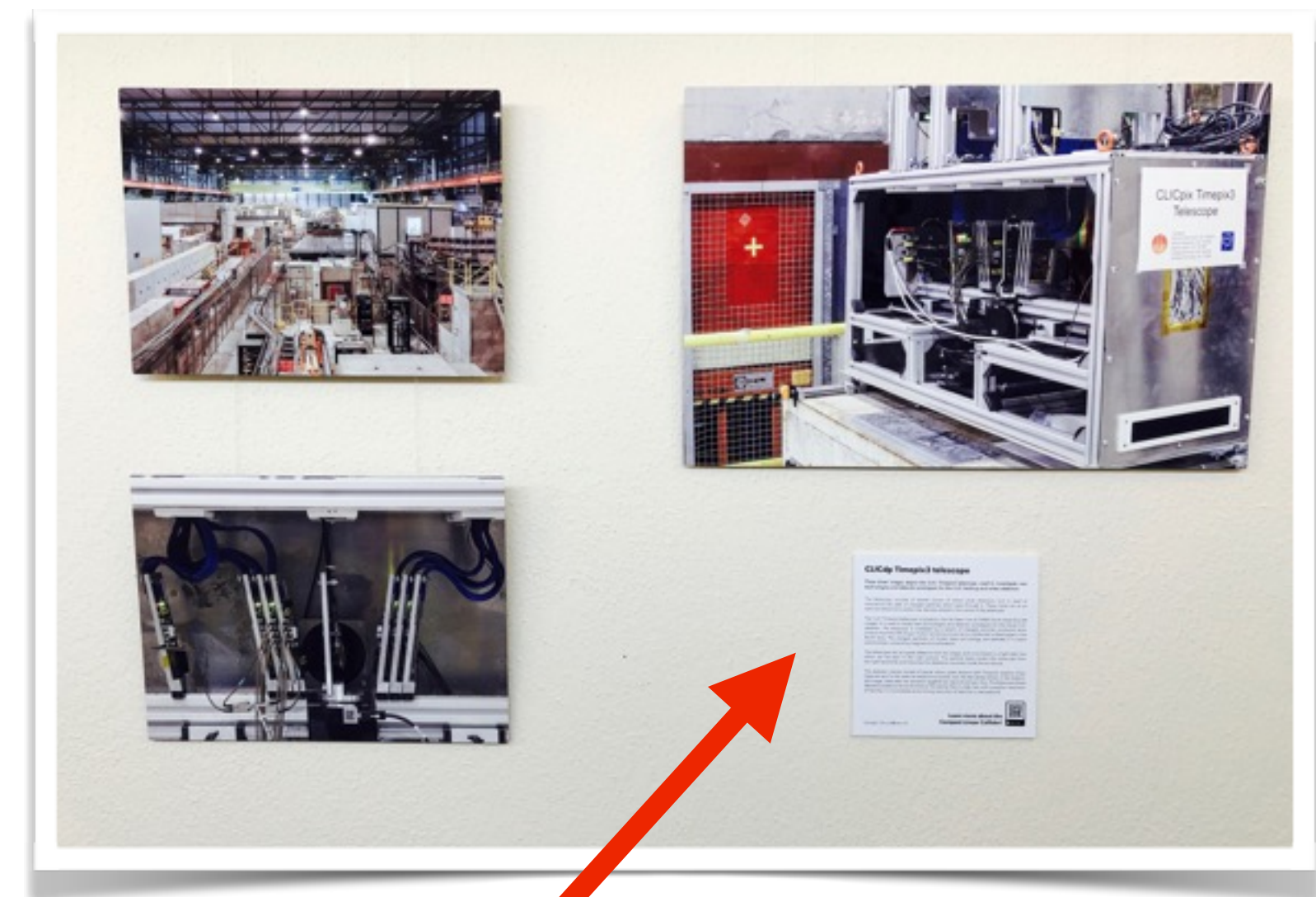
*Special thanks to:
Dominik Dannheim, Eva
Sicking, Simon Spannagel*



Increased visibility - gallery in corridor 51



*Special thanks to:
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Explanatory labels

CLIC showroom renewal



- **Renewal of the CLIC showroom - update**

- Air-flow model of vertex detector (in place)
- Tracking detector support structure equipped with dummy sensor modules (in place)
- Complete CALICE AHCAL prototype plane: scintillator tiles, PCB, etc. (ongoing)
- Two-beam module from CTF3 (ongoing)
- Working towards adding the showroom to the regular CERN tours (ongoing)
- General renovations (painting, lighting, sound proofing)



CLIC Wikipedia page



- Wikipedia is a web-based free-content encyclopedia project and is based on a model of **openly editable content**
- Wikipedia is written collaboratively by largely anonymous volunteers. **Anyone with Internet access can write and make changes to Wikipedia** articles (exceptions to this rule exists)
- The old CLIC wikipedia article was outdated and not objective
- Text and figures now updated
 - Special thanks to Morag Williams
- **Everyone is encourage to help us keep this page up to date and as objective as possible**

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Compact Linear Collider

From Wikipedia, the free encyclopedia

The **Compact Linear Collider** (CLIC) is a concept for a future linear particle accelerator that aims to explore the next energy frontier. CLIC would collide **electrons** with **positrons** and is currently the only mature option for a multi-TeV linear collider. The accelerator would be between 11 km and 50 km long,^[1] more than ten times longer than the existing **Stanford Linear Accelerator (SLAC)** in California, USA. CLIC is proposed to be built at CERN, across the border between France and Switzerland near Geneva, with first beams starting by the time the Large Hadron Collider (LHC) has finished operations around 2035.^[1]

The CLIC accelerator would use a novel two-beam acceleration technique at an acceleration gradient of 100 MeV/m, and its staged construction would provide collisions at three centre-of-mass energies up to 3 TeV for optimal physics reach.^[1] Cutting-edge research and development (R&D) are being carried out in the study to achieve the high precision physics goals under challenging beam and background conditions.

CLIC aims to discover new physics beyond the Standard Model of particle physics, through precision measurements of Standard Model properties as well as direct detection of new particles. The collider would offer superior sensitivity to **electroweak** states, exceeding the predicted precision of the full LHC programme.^[1] The current CLIC design includes the possibility for electron beam polarisation, further constraining the underlying physics.^[1]

The CLIC study produced a Conceptual Design Report (CDR) in 2012 and is working to present the case for the CLIC concept for the next Update of the European Strategy for Particle Physics in 2019-2020.

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 - 3.2 Top-quark physics
 - 3.3 New phenomena
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 - 4.1 Main beam
 - 4.2 Drive beam
 - 4.3 Test facilities
- 5 CLIC detector
 - 5.1 Detector Layers
 - 5.2 Power pulsing and cooling
- 6 Status
- 7 See also
- 8 References
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Background [edit]

There are two main types of particle colliders, which differ in the types of particles they collide: **lepton** colliders and **hadron** colliders. Each type of collider can produce different final states of particles and can study different physics phenomena. Examples of hadron colliders are **ISR** at CERN, **SPS** at CERN, **Tevatron** in United States, and the **LHC** at CERN. Examples of lepton colliders are **SuperKEKB** in Japan, **BEPC II** in China, **DAFNE** in Italy, **VEPP** in Russia, **SLAC** in United States, and **Large Electron-Positron Collider** at CERN. The LHC is the only one of these colliders currently running.

Hadrons are compound objects, which leads to more complicated collision events and limits the achievable precision of physics measurements. Lepton colliders collide **fundamental** particles, therefore the initial state of each event is known and higher precision measurements can be achieved.

Contact us



Contact us if you have an idea on:

- How to make CLIC more visible
- An article about CLIC or other contribution
- Master/PhD students interested in CLIC

Contact us using clic-cci@cern.ch



Cake by Mirka Vanatova