



- CLIC review report and follow up. Report is at:  
[https://indico.cern.ch/event/545832/contributions/2214883/attachments/1298733/1937710/CLIC\\_review\\_03\\_16\\_report.pdf](https://indico.cern.ch/event/545832/contributions/2214883/attachments/1298733/1937710/CLIC_review_03_16_report.pdf)
- MTP 2016 approved
- Re-baselining paper almost ready, yellow report, CLIC note, ATS report, CLICdp note

Main resource issues that have been discussed in May – June

- Further prototyping of high efficiency klystrons (L-Band and X-Band), support for outside institutes planning “XBOXes”, modulator plans 2016-19
- CALIFES workshop and support 2017-18 (see talk of Adli)
- Plans for ATF2 (see talk later today)
- Structure manufacturing and testing 2016-2019

These elements will be folder into a revised work-package planning in July for 2017-2019.

In September start a series of meetings/seminar every Friday 9:00-11:00

Alternate between topical CLIC implementation meetings and CLIC seminars

- Topics for meetings: further rebaselining studies, module and structure production and condition strategy, reviewing major cost and power items, staging baseline and options, a 2<sup>nd</sup> generation module ... covering and looping over all the topics that need work and conclusions for the Project Implementation Plan in 2019. Typically one topic per meeting.

Preparatory work many cases done in other (existing) WGs. Create actions and special study groups as needed. Meetings are open but meant to be “expert” meetings for each topic.

Common meetings with phys. & det. in some cases.

- Seminars: similar to the old CLIC seminars

- MTP 2016 approved – no significant change wrt 2015
- Our current planning remains largely valid but we will need to work in the adjustments suggested by the review as mentioned earlier

## 2016 targets

- Follow up and document new baseline parameters including new power estimates for an optimized staged implementation.
- Compile options for electron beam tests at CERN beyond the CTF3 programme.
- Execute the CTF3 programme measurements for the X-band structure breakdown rate with beam, phase stability and module performance studies.
- Obtain first results from the drive beam gun and sub-harmonic buncher.
- Define with the ATF team the CLIC specific programme for the period 2016-2019.
- Pursue the experimental program for CLIC damping ring technologies with collaborators.
- Get all X-band test-stands into full operation, and define optimized/new structures for 3000GeV/380GeV, followed by preparation for industrial production of disks and full structures.
- Follow up XFEL collaboration plans and integrate in common studies with CLIC where possible.
- The 2<sup>nd</sup> generation module plans to be firmed up and defined as a work-package for 2016-2019.
- Summarize the beam based alignment studies, progress and tools.
- Follow and participate in ILC preparation activities in collaboration with European laboratories and universities and facilitate the European preparatory studies in selected technical domains.

## 2017 targets

- Publish and summarize main results from the CTF3 programme.
- Obtain first results from drive-beam klystron and modulator prototypes.
- Pursue experimental tests of nanobeams in ATF2, FELs and Light sources.
- Operate X-band test-stands for extensive tests of baseline CLIC accelerating structures.
- Initiate cost and power revisions for the CLIC project implementation plan 2018-19.
- Summarize the CLIC experimental module programme as preparation for an updated technical design.
- Follow and participate in ILC preparation activities in collaboration with European laboratories and universities and facilitate the European preparatory studies in selected technical domains.



- Contain updated general information similar to CDR volume 3

- Paper now ready (final comments being implemented):

[https://edms.cern.ch/file/1690625/1/ClicStagingBaselinePaper\\_2016-06-01\\_r211.pdf](https://edms.cern.ch/file/1690625/1/ClicStagingBaselinePaper_2016-06-01_r211.pdf)

## Abstract

The Compact Linear Collider (CLIC) is a multi-TeV high-luminosity linear  $e^+e^-$  collider under development. For an optimal exploitation of its physics potential, CLIC is foreseen to be built and operated in a staged approach with three centre-of-mass energy stages ranging from a few hundred GeV up to 3 TeV. The first stage will focus on precision Standard Model physics, in particular Higgs and top measurements. Subsequent stages will focus on measurements of rare Higgs processes, as well as searches for new physics processes and precision measurements of new states, e.g. states previously discovered at LHC or at CLIC itself. In the 2012 CLIC Conceptual Design Report, a fully optimised 3 TeV collider was presented, while the proposed lower energy stages were not studied to the same level of detail. This report presents an updated baseline staging scenario for CLIC. The scenario is the result of a comprehensive study addressing the performance, cost and power of the CLIC accelerator complex as a function of centre-of-mass energy and it targets optimal physics output based on the current physics landscape. The optimised staging scenario foresees three main centre-of-mass energy stages at 380 GeV, 1.5 TeV and 3 TeV for a full CLIC programme spanning 22 years. For the first stage, an alternative to the CLIC drive beam scheme is presented in which the main linac power is produced using X-band klystrons.

## Updated baseline for a staged Compact Linear Collider

### The CLIC and CLICdp collaborations (list incomplete)

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