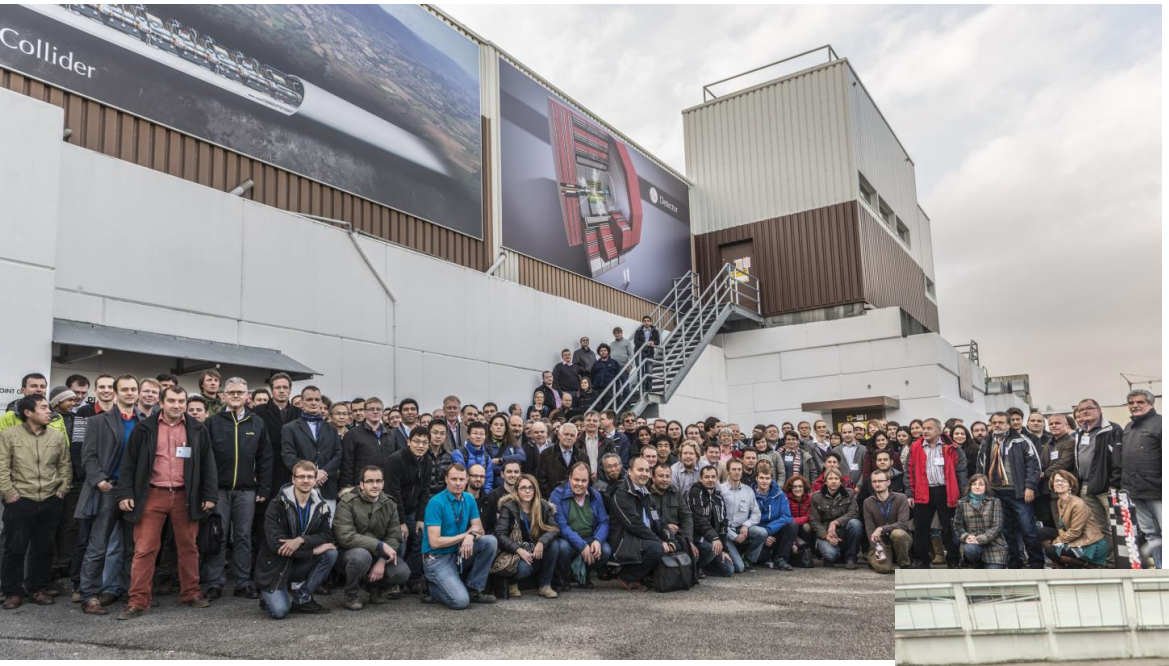
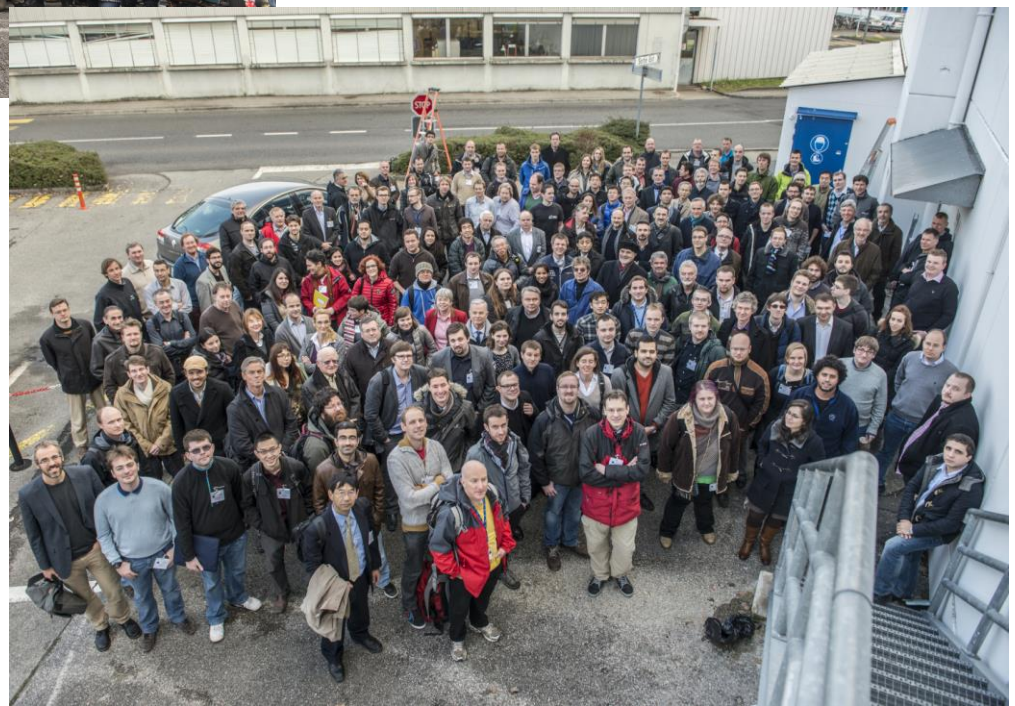
CLIC WS 2014





2013 in one page

The Conceptual Design Report (CDR) published in 2012 demonstrated and documented the main feasibility issues for CLIC; two-beam acceleration above 100 MV/m, accelerating gradients at the same level within the required breakdown rates for a 3 TeV machine, and key performance parameters for alignment, stability and beam instrumentation.

- In 2013 the first klystron-based X-band test facility at CERN has become operational and has successfully been used for accelerating structure conditioning and operation, and two more facilities are being prepared providing a factor three increase of the overall test capacity.
- The CTF3 measurements have further established the two-beam acceleration principle as well as the most central drive-beam performance and deceleration parameters.
- Increased effort has been directed at development of high-efficiency RF sources, modulators and klystrons, including studies & specification towards procurement of prototypes.
- A re-baselining of the CLIC parameters for cost and power performance gains, also targeting stages as needed for initial Higgs-measurements, is well underway and is expected to conclude in 2014.
- A very significant interest in using CLIC technology for compact X-FELs has led to the initiation of specification studies of several such facilities in collaboration with numerous light source laboratories. For CLIC this will increase the overall industrial basis for X-band and high-gradient technology.
- Dedicated high-gradient studies and interactions with key industrial partners have shown the potential of the X-band technology also in medical and industrial accelerator systems.
- Very important demonstrations of beam-based alignment and emittance preserving methods have successfully been implemented at the FACET facility at SLAC and further progress has been made concerning final focus parameters at ATF at KEK.
- The FP7 initial training network PACMAN covering key elements of alignment, stability, magnet and instrumentation developments has been initiated and 10 young researchers/Ph.D students are being/have been hired.
- The first complete mechanical main linac module has been constructed and measured in the laboratory, and more modules – including one for CTF3 – are being prepared.
- The CLIC development programme until 2018 has been redefined as a result of the CERN resource planning made after the European Strategy update in Spring 2013, and optimized towards the goal of providing a Project Plan by that time.
- CLIC performance documentation, based on the CDR of 2012, has been submitted to the US “Snowmass” process.
- Seven new collaboration partners have joined (The Hebrew University Jerusalem, Vinca Belgrade, ALBA/CELLS, Tartu University, NCBJ Warsaw, Shandong University, Ankara University Institute of Accelerator Technologies (IAT)) and numerous updated agreements between CERN and collaboration partners for the CLIC development programme in the next 5 years have been signed.

CLIC Workshop 2014

3-7 February 2014
CERN
Europe/Zurich timezone

Search

Link: http://indico.cern.ch/conferenceDisplay.py?confId=275412

- Overview
- Timetable
- Registration
  - Registration Form
- List of registrants
- Accommodations
- Insurance and Visa information
- How to come to CERN
- Visitors' Portable Computers Registration
- CERN Shuttle service
- CERN Bike sharing service
- CLIC Study Website
- Physics and Detector Study Website

306 registered

Main elements:
Open high energy frontier session session, including hadron options with FCC

Accelerator sessions focusing on collaboration efforts and plans 2013-2018, parallel sessions and plenary

High Gradient Applications for FELs, industry, medical

Physics and detector sessions on current and future activities

Collaboration and Institute Boards

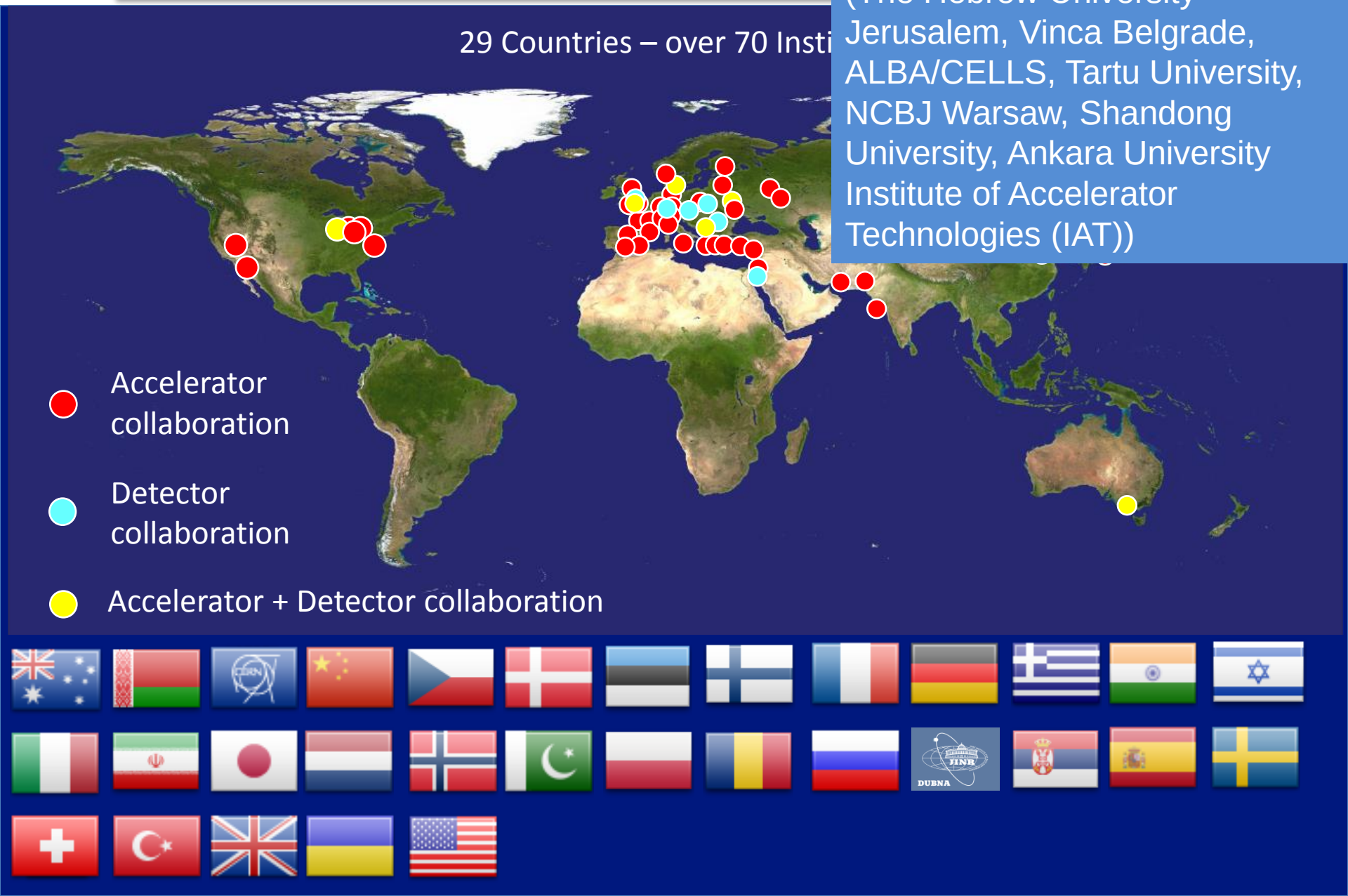
Dinner

CLIC 2014 goals

- Complete re-baselining of a staged implementation taking into account the Higgs energy scale and improved power/cost models
- Some work-areas:
  - Aim to get XBOX 2 operational, place main contracts for DB FE project, Lab and CTF3 modules, CTF3 programme in general incl. feed-forward and beamloading experiments - … this list is much longer but these are the highest cost items …
  - Relations and planning with industrial suppliers where the programmes are currently still being defined (work-packages for industrialization and technology transfer)
  - Power/energy reduction programmes (high visibility)
  - Define the future systemtest plans and opportunities
- Exploitation of EU programmes (Horizon 2020), submitting MC, ECR, DS
- Detector and Physics studies towards Energy Frontier physics and common goals with FCC where possible
- Complete update of WEB, EDMS and outreach material/showroom (need collaboration help)
- Adapt and prepare CLIC presentation for appropriate machine committees (PAC and CMAC)
- Work-package implementation agreements with existing and new collaborators (annexes, k-contracts)

CLIC Collaborati

Seven new collaboration partners have joined in 2013 (The Hebrew University Jerusalem, Vinca Belgrade, ALBA/CELLS, Tartu University, NCBJ Warsaw, Shandong University, Ankara University Institute of Accelerator Technologies (IAT))



http://clic-meeting.web.cern.ch/clic-meeting/CTF3_Coordination_Mtg/Table_MoU.htm

Countries	Funding Agencies	Laboratory	Representatives & Advisory	Team Leader	MoU _ Addenda or legal documentation
AUSTRALIA	ACAS	Australian Synchrotron ANSTO University of Melbourne Australian National University	R. Rassool	M. J. Boland K. Wootton	Addendum
BELARUS	National Academy of Sciences of Belarus	Joint Institute for Nuclear Research (SOSNY)	I. Zhuk	I. Zhuk	Addendum
CERN		CERN	S. Stapnes R. Corsini	S. Stapnes R. Corsini	Addendum
CHINA	Chinese Academy of Sciences	Institute of High Energy Physics (IHEP)	F. Zhao	*Not yet nominated*	Addendum
		Tsinghua University	H. Chen, W. Huang	*Not yet nominated*	Addendum 1 Addendum 2
		Shandong University	L. Ma	L. Ma A. Latina	Addendum
DENMARK		Aarhus University	U. Uggerhoj	U. Uggerhoj R. Corsini	Addendum
ESTONIA		Tartu University	V. Zadin	V. Zadin	Addendum
FINLAND		Helsinki Institute of Physics (HIP)	J. Aysto, K. Österberg	K. Österberg	Addendum 1 Addendum 2 Addendum 3
FRANCE	CEA/DSM-Saclay	IRFU	F. Staley	W. Farabolini F. Peauger	Addendum
	CNRS/IN2P3	LAL	A. Stocchi	R. Roux	Addendum 1 Addendum 2
		LAPP	Y. Kariotakis	S. Vilalte	Convention cadre 2010 2011 2012 2013
GERMANY	Universität Karlsruhe (TH)	LAS	A.Bernhard	J. Peiffer Y. Papaphilippou	Addendum
GREECE		NTU-Athens UoPatras UoThrace	E. Gazis	E. Gazis	Addendum 1
		NTU-Athens University of Patras Democritus University of Thrace AUEB NCSR Demokritos Kavala Institute of Technology Prisma Electronics SA			Addendum 2
INDIA*	Indian DAE	RRCAT, Indore	P.D. Gupta, P. Shrivastava	P.D. Gupta P. Shrivastava	Protocol Addendum M1 Addendum M2 Addendum T1 Addendum M3

ISRAEL		The Racah institute of Physics at the Hebrew University	Y. Ashkenazy	Y. Ashkenazy	Addendum
ITALY	INFN	LNF	A. Ghigo	A. Ghigo (Deputies: C. Biscari & F. Marcellini)	Addendum
		Sincrotrone Trieste (ELETTRA)	G. D'Auria	G. D'Auria C. Serpico	Addendum
JAPAN		KEK	T. Higo	*Not yet nominated*	Agreement on Collaborative Work
MADAGASCAR		University of Antananarivo	H. Rakotondramanana R. Raboanary	H. Rakotondramanana R. Raboanary	Addendum
NETHERLANDS	NIKHEF		F. Linde	*Not yet nominated*	Addendum
		KVI (University of Groningen)	H. Beijers	*Not yet nominated*	Addendum
NORWAY	The Research Council of Norway	University of Oslo	S. Stapnes	S. Stapnes E. Adli	Addendum 1 Addendum 2
PAKISTAN		National Centre for Physics (NCP)	H. Hoorani, S. Ahmad	H. Hoorani	Protocol 2006 Protocol 2013
POLAND		National Centre for Nuclear Research (NCBJ)	P. Krawczyk	Not yet nominated	Addendum
RUSSIA		Budker Inst (BINP)	A. Skrinski	*Not yet nominated*	Link to pdf - Draft Amendt pdf
		IAP	A.G. Litvak	*Not yet nominated*	Addendum 1 Addendum 2 Addendum 3
	Dubna	JINR	V. Samoilov	G. Shirkov A. Karlov	Link to pdf
SERBIA		Vinca Institute for Nuclear Sciences	I. Bozovic-Jelisavcic	Not yet nominated	Addendum
SPAIN	Ministry of Education & Science (MEC)	CIEMAT, UPC, IFIC	J. Fuster, L. Garcia-Tabares	CIEMAT F. Toral L. Garcia-Tabares IFIC A. Faus-Golfe	Link to pdf
	Vigo University		Professor Salustiano Mato de la Iglesia	*Not yet nominated*	Addendum
SWEDEN	Swedish Research Council	Uppsala Univ and Svedberg Lab (TSL)	T. Ekelof, V. Ziemann	T. Ekelof V. Ziemann	Link to pdf
	Wallenberg Foundation				Link to pdf
SWITZERLAND		Paul Scherrer Inst (PSI)	L. Rivkin, T. Garvey	L. Rivkin T. Garvey	Addendum
		ETH Zurich (ETHZ)	M. Rothacher, B. Bürki	S. Guillaume	Addendum

TURKEY		Ankara Univ & Gazi Univ	A.K. Ciftçi	Ankara A.K. Ciftçi S. Sultanov Nidge H. Aksakal	Link to pdf
UKRAINE	National Academy of Sciences of Ukraine	Institute of Applied Physics (IAP NASU)	V. Storizhko	*Not yet nominated*	Link to pdf
UNITED-KINGDOM	STFC	John Adams Institute for Accelerator Science (JAI) - University of Oxford	A. Seryi, P. Burrows	P. Burrows	Addendum
		John Adams Institute for Accelerator Science (JAI) - Royal Holloway University of London	G.Blair	G. Blair P. Karataev	Addendum 1 Addendum 2
		RAL	G. Hirst, H. Hutchinson		
		Cockcroft Institute	S. Chattopadhyay, J. Dainton	*Not Yet nominated*	Addendum
USA	DOE	Argonne National Laboratory (ANL)	W. Gai	*Not yet nominated*	Addendum
		Cornell University	R. Patterson	*Not yet nominated*	Link to pdf
		Fermilab (FNAL)	M. Wendt	*Not yet nominated*	Addendum
		Jefferson Laboratory (JLAB)	A. Hutton	*Not yet nominated*	Addendum
		Northwestern University Illinois (NWU)	M. Velasco	*Not yet nominated*	Addendum
		SLAC	R. Ruth, S. Tantawi	*Not yet nominated*	Link to pdf Addendum 2 Addendum 3
		University of California, Santa Cruz Institute of Particule Physics (UCSC/SCIPP)	M. Battaglia	M. Battaglia B. Schumm	Addendum

CLIC Project Meeting

December 2014

16 Dec CLIC Project Meeting #18

September 2014

26 Sep CLIC Project Meeting #17

June 2014

13 Jun CLIC Project Meeting #16

April 2014

11 Apr CLIC Project Meeting #15

LC workshop May 12-15.5 at Fermilab: http://www.linearcollider.org/awlc14/

LCWS 2014 Oct 6-10 in Belgrade

CLIC workshop 2015 early February next year