



CLIC Parameters and Design Work 2012-2016

D.S. 4.11.2011



List of Workpackages

Area packages

- Main beam electron source (Steffen Doebert)
- Main beam positron source (Steffen Doebert, interim)
- Damping rings (Yannis Papaphilippou)
- RTML: ring to main linac transport (Andrea Latina)
- Two-beam acceleration (D.S. interim)
- BDS: beam delivery system (Rogelio Tomas)
- MDI: machine detector interface (Lau Gatignon)
- Drive beam complex (Bernard Jeanneret)

Integrating packages

- Integrated design (D.S.)
- Simulations and integrated studies (Andrea Latina)
- Feedback design (D.S., interim)
- Machine protection and operation (Michael Jonker)
- Background (D.S., interim)
- Polarisation (?)



Observations

- Very active collaboration
 - 24 presentations, some for more than one institute
 - I had guessed 15-20
 - 24 forms filled in
 - But not matched one to one
 - At least one is still flying around
- Continuation of existing collaborations on many topics
- New collaborations on many topics
- Resources are mostly uncertain



Existing Forms

Department of Physics and Astronomy, Aarhus University	Ulrik I. Uggerhøj	BCKG
Australian Collaboration for Accelerator Science (ACAS)	M. Boland, R. Rassool	DR
Ankara University; Uludag University; İ. Baysal Un.	A. Kenan Çiftçi (A.Un.) and İlhan Tapan (U.Un.)	BCKG
Ankara University, Accelerator Technology Institute	Prof. Dr. Ömer Yavaş	DRV, BCKG
Ankara University	A. Kenan Ciftci (A. Un.)	RTML
Budker Institute of Physics	E. Levichev, K. Zolotarev	DR
Cornell University (CESRTA)	M. Palmer	DR
Valencia, IFIC	Angeles Faus-Golfe	BDS
Valencia, IFIC (Coll: CIEMAT, CERN)	Angeles Faus-Golfe	DR
Valencia, IFIC	Angeles Faus-Golfe	RTML
Valencia, IFIC	Angeles Faus-Golfe	SIM
IHEP	Prof. Jie GAO for IHEP	BASE?

Form for ANKA is not yet included



Existing Forms

INFN-LNF - CLIC Resp. A.Ghigo	M.Biagini	DR
INFN-LNF - CLIC Resp. A.Ghigo	C.Biscari	DRV
INFN-LNF - CLIC Resp. A.Ghigo	C.Biscari	RTML
John Adams Institute (Oxford Un.), DIAMOND	R. Bartolini	DR
John Adams Institute, Oxford University	Philip Burrows	MDI, LUMI
LAL	Philip Bambade	BDS
LAPP-IN2P3/CNRS-Université de Savoie	Andrea JEREMIE	LUMI/CTC
Department of Physics, University of Oslo (UiO) / NorduCLIC	Erik Adli, Steinar Stapnes	ML
PSI, INFN/LNF	M. Biagini (INFN-LNF), M. Boege, A. Streun (PSI-SLS)	DR
RHUL	G. Blair	BDS
SYMME Université de Savoie (formerly ESIA)	Bernard Caron	LUMI
Uludag University	İlhan Tapan (U.Un.)	PSRC
UPC - Universitat Politècnica de Catalunya (Technical University of Catalonia)	Yuri Kubyshev	RTML/BDS



Other Presentations

- DESY collaboration
 - Sabine Riemann, Jenny List
- SLAC collaboration
 - Mauro Pivi
- LAL will not be able to continue positron source work
 - A. Variola
- Additional contributions
 - B. Dalena, S. Wagner



Observations

- We have collaborations that do not fit easily into a formal scheme
 - E.g. collaboration on generic R&D or code benchmarking
 - E.g. collaboration with ILC/EU-funded projects and some institutes
 - E.g. private volunteer contribution (in spare time)
- These are often very valuable
 - But have sometimes have to think how to include them in this formal process
 - Some may just fly under the radar



Observations

- Total of resources requested according to forms is high
 - If all contributions would appear we would have O(40) FTE
 - Of which O(10) would be at CERN
 - But almost all are requests only
 - Need to check for correctness of numbers
- Not for all forms resources are given



Observations

- A number of collaborations have well defined plans
 - In some cases the mapping onto workpackages remains to be done
 - E.g. laser wire integration in RTML and BDS
 - E.g. Ankara University contribution to background/feedback
- In some cases the topics still need to be defined in detail
 - Mainly for new contributions
- There is some potential overlap between contributions
- But not everything is covered (including the CERN estimate)



Observations

- Many PhD students
 - E.g. 14 students from Ankara University, Uludag University and İ. Baysal University
 - With supervision in the home institute
 - But need to identify good PhD topics
 - Need to identify link at CERN
- Maybe a bit short on experienced staff and post-docs
- But most resources are uncertain



Next Steps

- We value all collaborations and will continue and foster them
 - Even if we cannot fill them into a form
- We will try to attract additional contributions
 - Continuing process
- We will try to formalise collaborations to make them stable



Next Steps

- Fix some issues with the forms
 - Some need to be split into more than one
 - For some the attribution to a workpackage needs to be reviewed
 - With collaborators and concerned workpackage coordinators
 - Fill in best estimates for all resources
 - Sometimes just question marks
 - Some contributions may depend on our help
 - E.g. shared students, stay of students at CERN
 - This should be done as soon as possible (before 15.11.)
 - Some things already were mentioned during the session yesterday



Next Steps

- Complete definition of contributions in workpackages
 - Small (phone) meetings of concerned collaborators and workpackages coordinator(s)
 - To be initiated by workpackage coordinators
 - Understand and define the contributions in more detail
 - E.g. define list of thesis topics for PhD students
 - Review adequacy of resources types/estimates
 - Identify overlap between different collaborators and find a solution
 - Especially what to do if contributions are uncertain?
 - Identify uncovered tasks
 - Very difficult given uncertainties of contributions
 - This may lead to some modifications of the technical content of the forms



Next Steps

- Include CERN groups (by end of the year)
 - Based on uncovered topics
 - To ensure links are provided
- Need to make priorities soon (January)
 - Verify the existence of other workpackages that you need for your workpackage
 - E.g. hardware items, tests, etc.
 - Has been done to some extent, but please check
- Will have to iterate
 - we will use a lean management, i.e. a “feedback based approach”



Conclusion

- Very impressive interest in collaboration
- Very many excellent proposals
- Most resources are currently uncertain
 - Need also to specify type of resource for each task in more detail
- Will have to update workplan until resource situation is more clear