

# CLIC/ILC collaboration: BDS & MDI



D. Schulte, R. Tomás and E. Tsesmelis

January 2008

# Color code

yellow Inactive task in CERN and/or contribution to ILC unlikely

green Active task in CERN and potential contribution to ILC

# BDS collaboration subjects I

## 1. Alignment (with and without beam)

- ILC has a successful algorithm by one group but a supporting 2<sup>nd</sup> study is missing.
- We started developing new algorithms for CLIC and ATF2.

## 2. FFS design and optimization

- ILC has very good experts. The CLIC 500GeV FFS optics not yet optimized and we can offer optimization tool.

## 3. Collimation

- Failure modes and collimator survival studies.
- Synergy with LHC collimation?

# BDS collaboration subjects II

## 4. Instrumentation and diagnostics

- Hardware, simulation and post-collision line design (presently out of CERN).

## 5. Halo and tail generation studies

# MDI collaboration subjects

6. Forward calorimeter
  - ILC expertise
7. Support and stabilization
  - Collaboration on stabilization technology started.
  - Measurement of noise levels.
8. IP feedback performance
  - Considering background in the BPMs
9. IR Beam pipe design
10. Quadrupole design
11. Interaction region design (LHC expertise?)
12. Crossing angle review

# Miscellaneous collaboration subjects

13. BDSIM+PLACET, ATF2 Flight Simulator+PLACET, and PLACET development
14. HADES and CALYPSO libraries, towards to an ILC/CLIC common library.

For some of these activities CERN resources/activities need to be better defined, as for example the IR beam pipe design with C. Hauviller et al