



Introduction & History

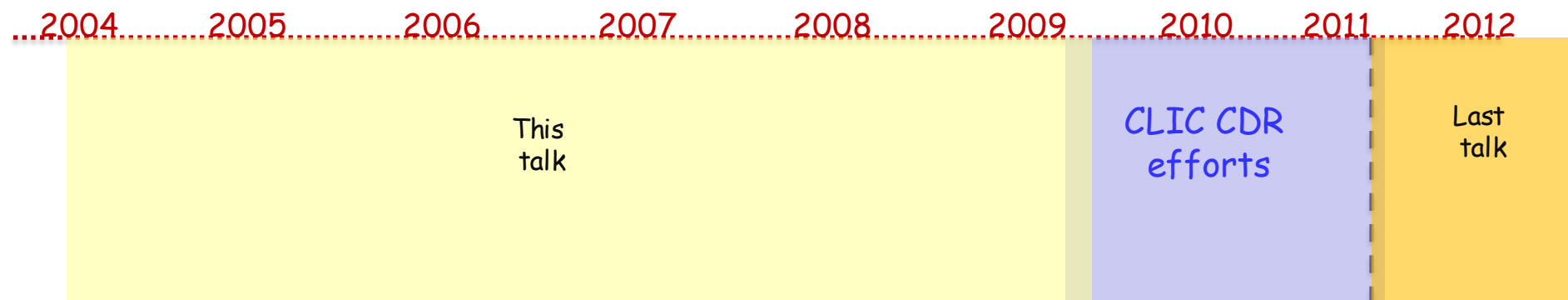
"Physics & Detector" CDR review
Manchester, UK
18-20 October 2011

H. Weerts
Argonne National Laboratory
USA

Put the CLIC efforts/work on Physics & Detectors, resulting in the **Conceptual Design Report (CDR)**, Vol 2 in context of Linear Collider(LC) efforts worldwide. Provide some history and background.

This introduction is about history and context, then you will hear about the CDR work and we will conclude presentations with a view towards future activities, as part of worldwide LC efforts.

Emphasis is on "Physics & Detectors" not an accelerator





ILC

CLIC

Many activities over last ~20 years
 First Linear Collider Workshop (LCWS) 1991

Series of workshops, now nearly every year.
 Last one just in Granada, Spain

In 2002 ICFA created the International Linear Collider Steering Committee (ILCSC) to oversee the ILC activities.

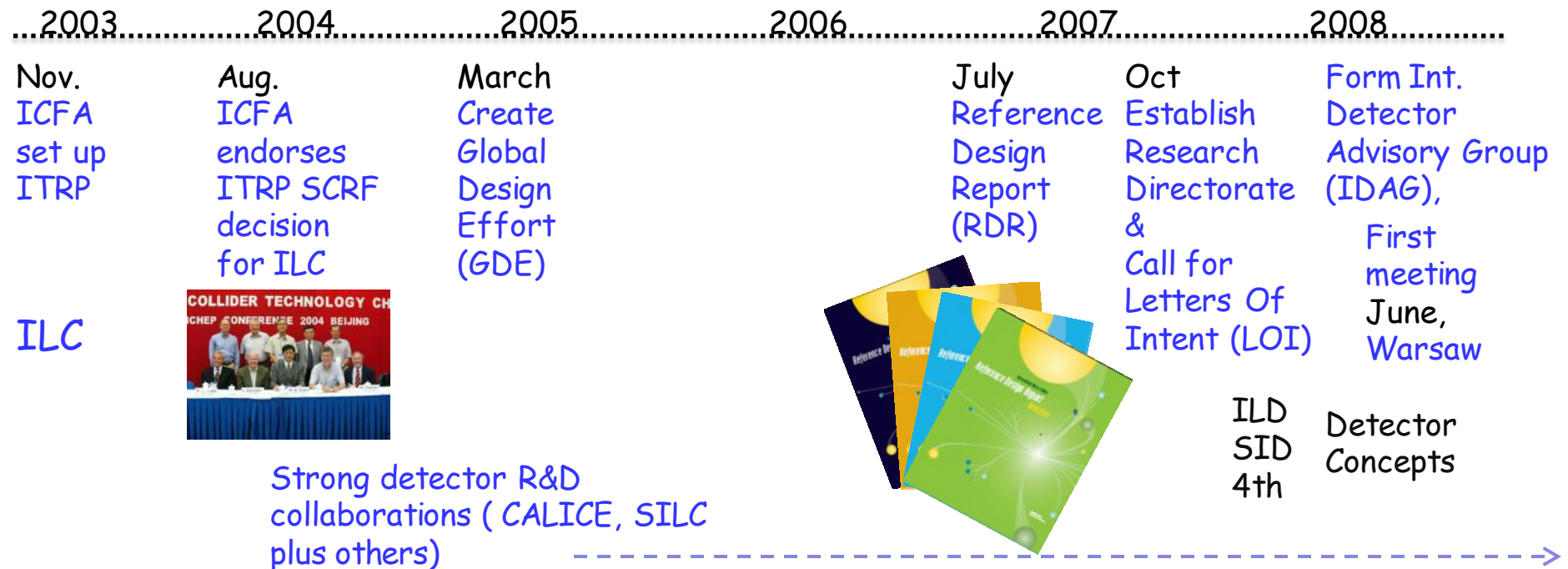
Decision in 2004 that ILC will be "cold technology" i.e. SCRF.

CERN started CLIC development ~1995 and continued this development. CLIC has its own governing structure

In following history slides will describe path of ILC and CLIC separately, they were separate....now starting convergence towards one LC

Activities

sketchy



ILC

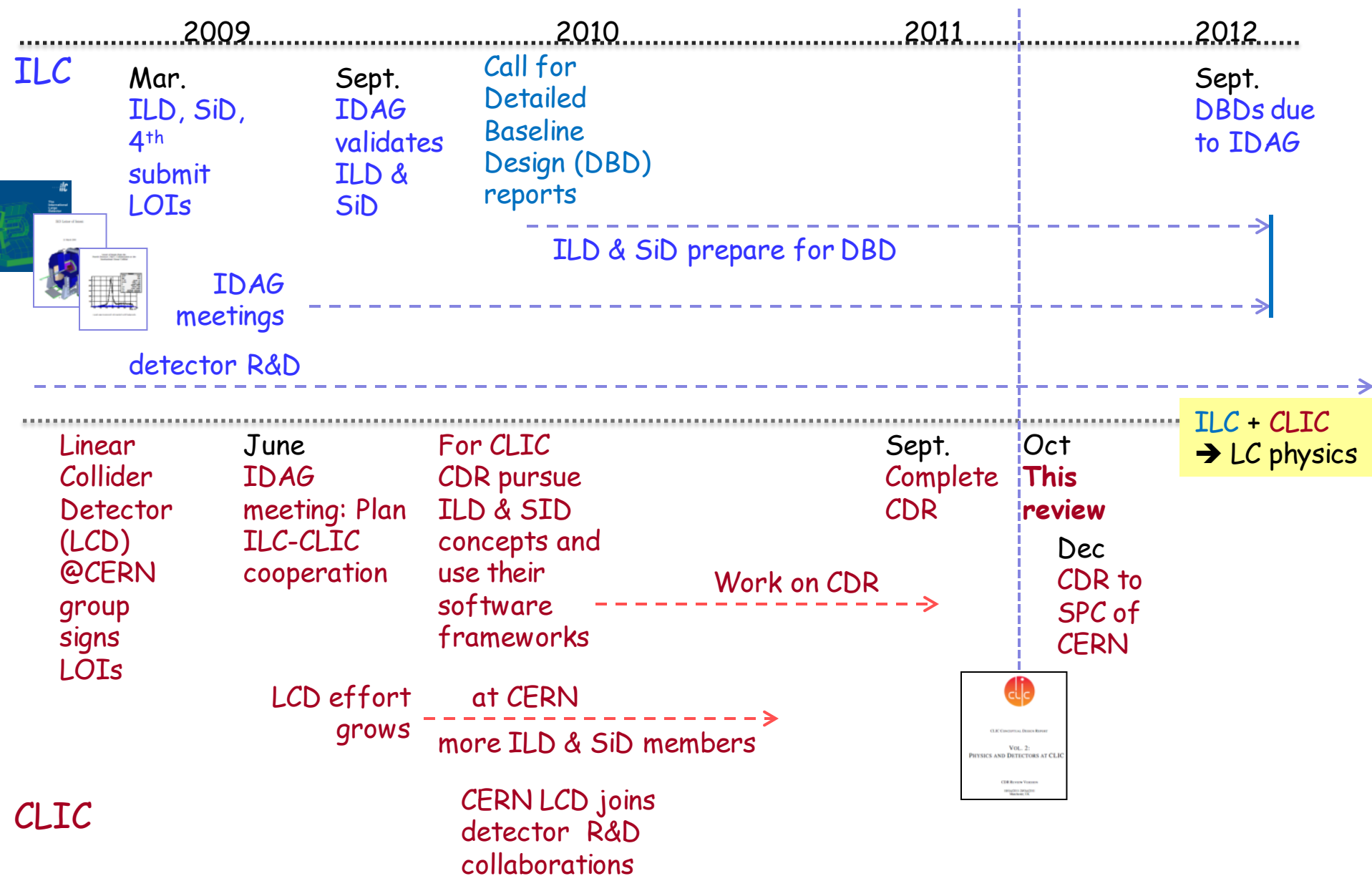
CLIC

"Physics at the CLIC multi-TeV linear collider"

Report on physics potential

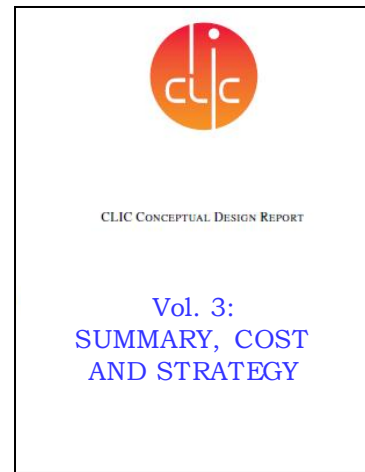
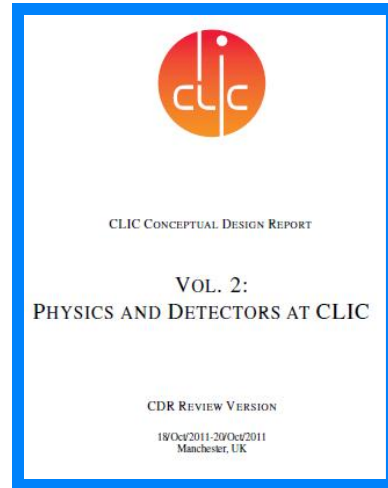
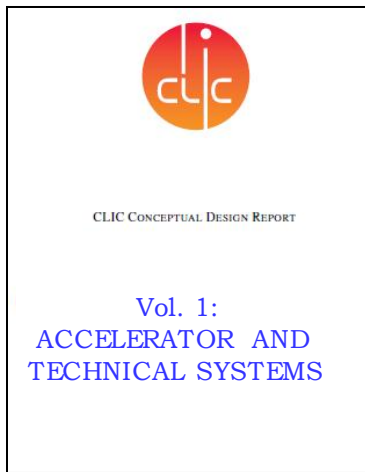
First meetings between ILC and CLIC physics efforts

"Start" Linear Collider Detector (LCD) effort @ CERN





CLIC Conceptual Design report (CDR)



CDR plans series of 3 volumes.



Vol. 1: end 2011

Vol. 2: draft now

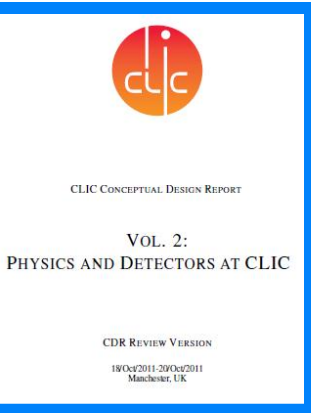
Vol. 3: 2012

Focus of Vol 2. Using ILD & SID detector concepts as starting points, show that **physics** can be done at **3TeV** in the **CLIC environment**.
Use it to guide future R&D program

Future
After
your input

This is more the "starting" point of the LC program with intention to continue studies at different energies, R&D program and potentially a TDR in the future.

More in last summary talk



CERN Linear Collider Detector project: Physics and Detectors

[Go to parent category](#) | [View](#) | [Create](#)

Managers: Elsener, K.; Linssen, L.; Ross, K.

[LCD general Physics/Detector Meetings \(34\)](#)

[Weekly round-up at/near CERN \(130\)](#)

[LCD-WG1 CLIC physics potential \(3\)](#)

[LCD-WG4 Vertex detector technology \(21\)](#)

[LCD-WG5 Engineering, layout, solenoid, cost \(53\)](#)

[LCD-WG6 CLIC detector benchmark studies \(81\)](#)

[Magnet System Meetings \(9\)](#)

[LCD Muon Studies \(30\)](#)

[Tungsten Calorimeter meetings \(83\)](#)

[TPC simu/reco discussion meetings \(9\)](#)

[LCD Electronics \(0\)](#)

[CLIC_SiD reconstruction meetings \(6\)](#)

[Core software, grid etc. meetings \(4\)](#)

[SUSY model for staged energy approach \(2\)](#)

[CLIC staged energy approach \(4\) \(protected\)](#)

[Polarisation \(4\)](#)

[Rehearsal Talks \(7\)](#)

[Seminars \(22\)](#)

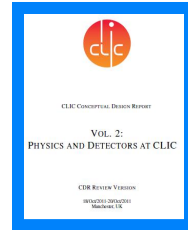
[Workshops \(14\)](#)

Indico page with activities towards CDR

<https://indico.cern.ch/categoryDisplay.py?categId=1954>

CDR Volume 2

Main editors:



Chapter editors:

Chapter 1: CLIC physics potential-----

Chapter 2: CLIC experimental conditions----
and detector performance requirements

Chapter 3: CLIC detector concepts-----

Chapter 4: CLIC vertex detectors-----

Chapter 5: Tracking systems-----

Chapter 6: Calorimetry-----

Chapter 7: Solenoids and magnet systems--

Chapter 8: Muon systems at CLIC-----

Chapter 9: Very forward calorimeters-----

Chapter 10: Readout electronics and-----
data acquisition

Chapter 11: Detector integration-----

Chapter 12: Physics performance-----

Chapter 13: Future plans and R&D proposals

Chapter 14: Detector costs-----

Editors of CDR Volume 2

Lucie Linssen , Akiya Miyamoto, Marcel Stanitzki, Harry Weerts

Gian Giudice, James Wells

Mark Thomson

Jim Brau, Dieter Schlatter, Frank Simon, Graham Wilson

Bill Cooper, Dominik Dannheim, Steve Worm

Marcel Demarteau, Carlos Lacasta, Takeshi Matsuda, Tim

Nelson, Jan Timmermans

Felix Sefkow, Tohru Takeshita, Andy White

Andrea Gaddi, Yasuhiro Makida

Burkhard Schmidt

Halina Abramowicz, Wolfgang Lohmann

Alex Kluge

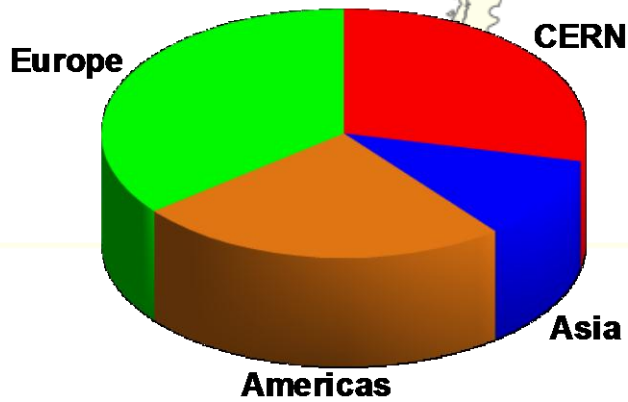
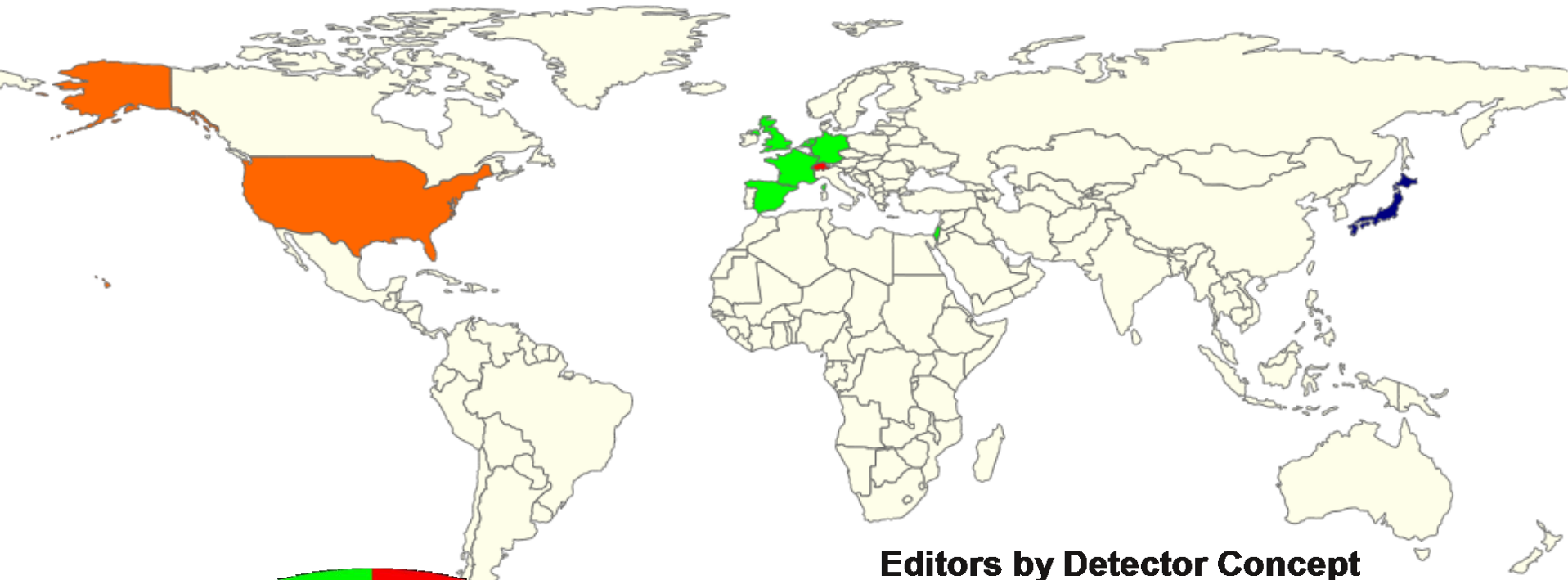
Hubert Gerwig, Marco Oriunno

Jean-Jacques Blaising, Jan Strube, Frederic Teubert

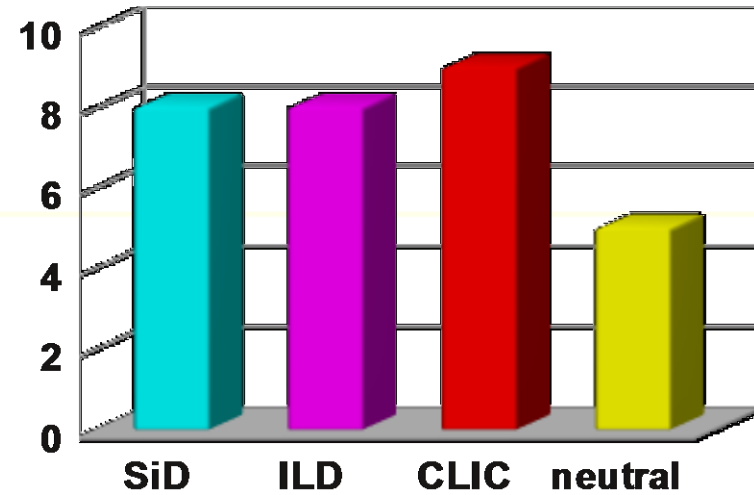
Main editors

Marty Breidenbach, Catherine Clerc,

Markus Nordberg



Editors by Detector Concept





The end of Introduction

now to

CDR and real contents



Possible Organization

