



The SiD Road Forward

(Thoughts on Roadmap & SiD)

H.Weerts

Argonne National Lab



Current state of affairs

H.Weerts

At Beijing things were rather clear and a path forward was defined

"Turmoil" created in US/globally by statement of R.Orbach at HEPAP meeting in Feb 2007, related to when ILC could/would turn in.

However GDE (B.Barish) firmly re-stated GDE goal:

Engineering Design Report (EDR) by 2010

In meantime there is still uncertainty, different interpretations of what US lab directors say, have said, meant.....enough material to fill hallway conversations.

However path forward for SiD is rather clear though.....



Beijing ILCSC Minutes

(From J.Brau talk on Monday)

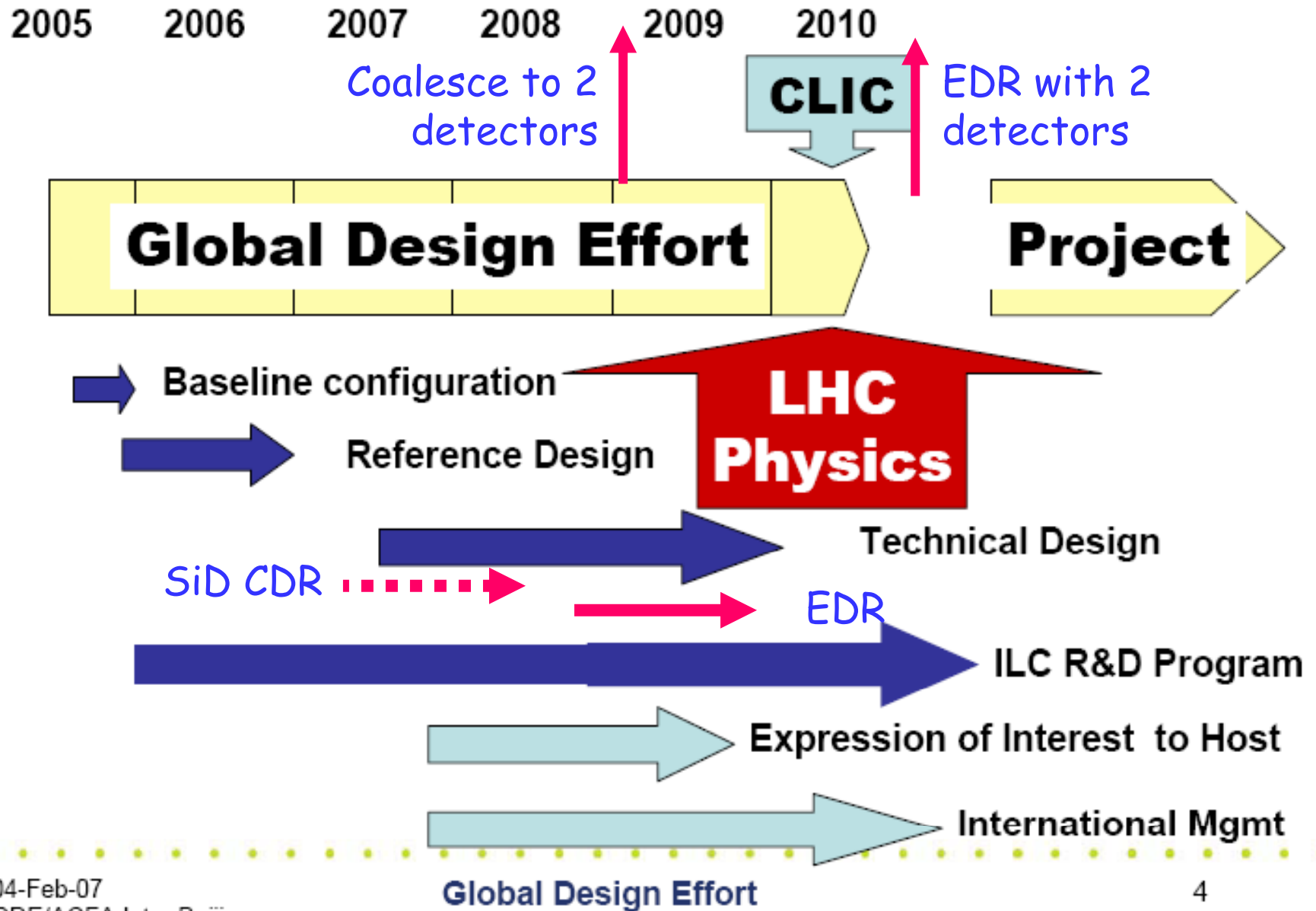
- **6. Worldwide Study**
- Francois Richard reported on progress towards producing the Detector Conceptual Report. Given the need for an **Engineering Design Report (EDR) for 2 detectors in 2010-2011**, there should be a **selection of 2 detectors by the end of 2008**. ILCSC supported the concept of an International Detector Advisory Group to unify efforts towards 2 detectors on this timescale, and requested that WWS produce by June 2007 a plan to lead to this.

SiD goal: **Participate in this process and SiD concept is one of the two detector EDRs**

.....and ultimately a first rate detector for ILC physics



The GDE Plan and Schedule





First step for SiD I

How to approach the coalescing/down select to 2 detectors by end of 2008?

Keeping goal in mind

Strengths and "weaknesses" of SiD

Build on strengths and fix "weaknesses"

Strengths/well understood areas

Integrated Detector/Cost minim.

Beam backgrounds

MDI -forward region

Vertexing ... Identify hardware

Tracking is Si strip based/advanced

EMCAL is W/Si pixel

Solenoid, concept clear a la CMS

Muon system can be solved

Have simulation of SiD

Fast physics simulation

Beijing review went very well.....

Even theorists are using it
Main role & contribution from
concept ! Enable physics studies



First Steps for SiD II

H.Weerts

Areas not well understood/not fixed/need work

PFA concept.....improving
Many concept choices based on it
(driving the design & \$\$\$)
A lot of progress....

HCAL configuration/technology
(discussions here very useful)

Engineering - mechanical

Go more global—not regional

Approaches.....

Need to continue effort

Do not attempt decision soon
Keep options; include others;
evaluate within SiD..... Be
open/not closed

Start a group, manpower available

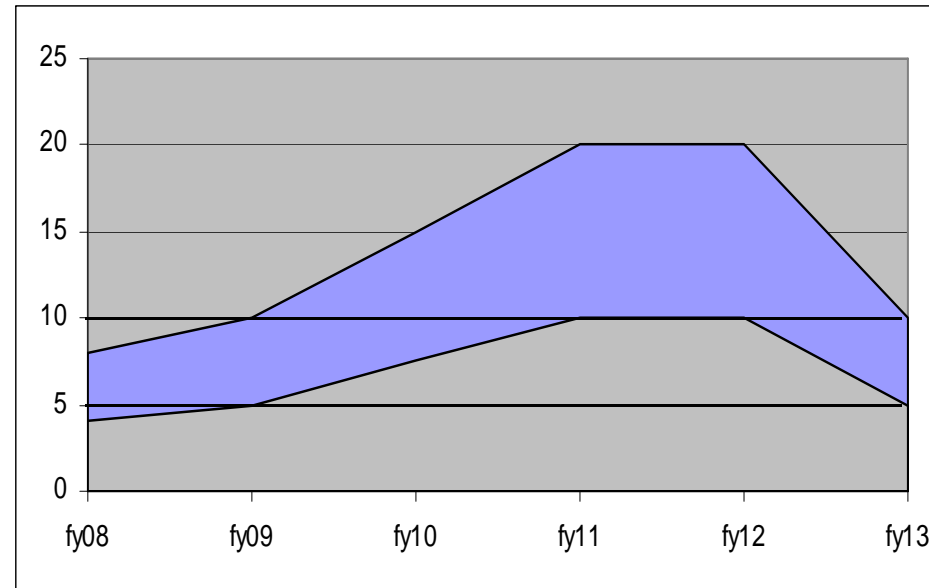
Need seminars/workshops short
around globe



Reality/DoE views are sinking in

H.Weerts

Just an example of problems ahead..... External to SiD



DOE detector
R&D funding
profile

This does not support a detector EDR by FY11.....

Not quite know what to do with this.....except

That we should respond/pursue our path towards becoming one of the two ILC detectors.



Suggestions

Define our R&D needs(is being done)

Interactions with R&D collaborations should/could improve

Be open/receptive to alternate approaches

For those areas, where choices are not obvious

Bring in new expertise to work on this within SiD

Make decisions later.....within SiD

Become more global and grow collaboration

Individual seminars; small workshops after

before conferences/larger workshops. Others ?

Grannis suggested name change (do not agree).

To make it clear where we stand and want to go, the suggested name is

Detector 1 or I,a,A, α
Based on Si tracking

You get drift