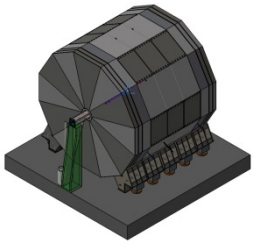
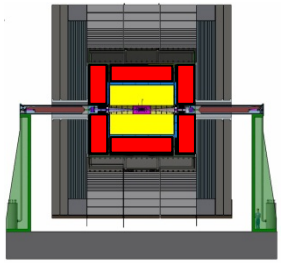
ILD – Integration status

Krakow– September the 24th 2013

ILD – Integration status





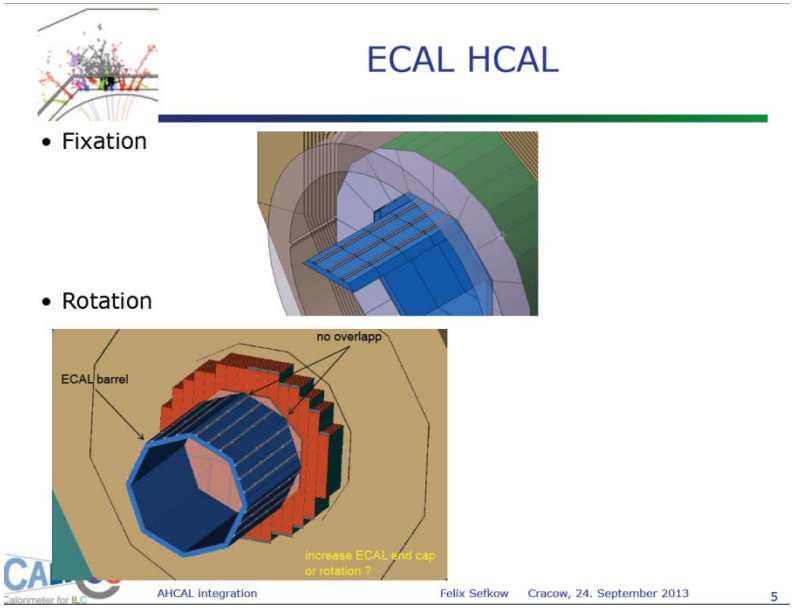
Outline

I. Introduction,
II. Needs for overall detector
III. How to manage ?
IV. Conclusion

ILD – Integration status

- We have been working on different ILD sub-detectors.
- Each sub-detector has its own :
  - » Placeholder already defined
  - » Fixations
  - » Cables
  - » Cooling or gaz (if it is necessary)
  - » Integration tools
  - »
- Risks of technical conflicts :

(See Felix Sefkow's talk)



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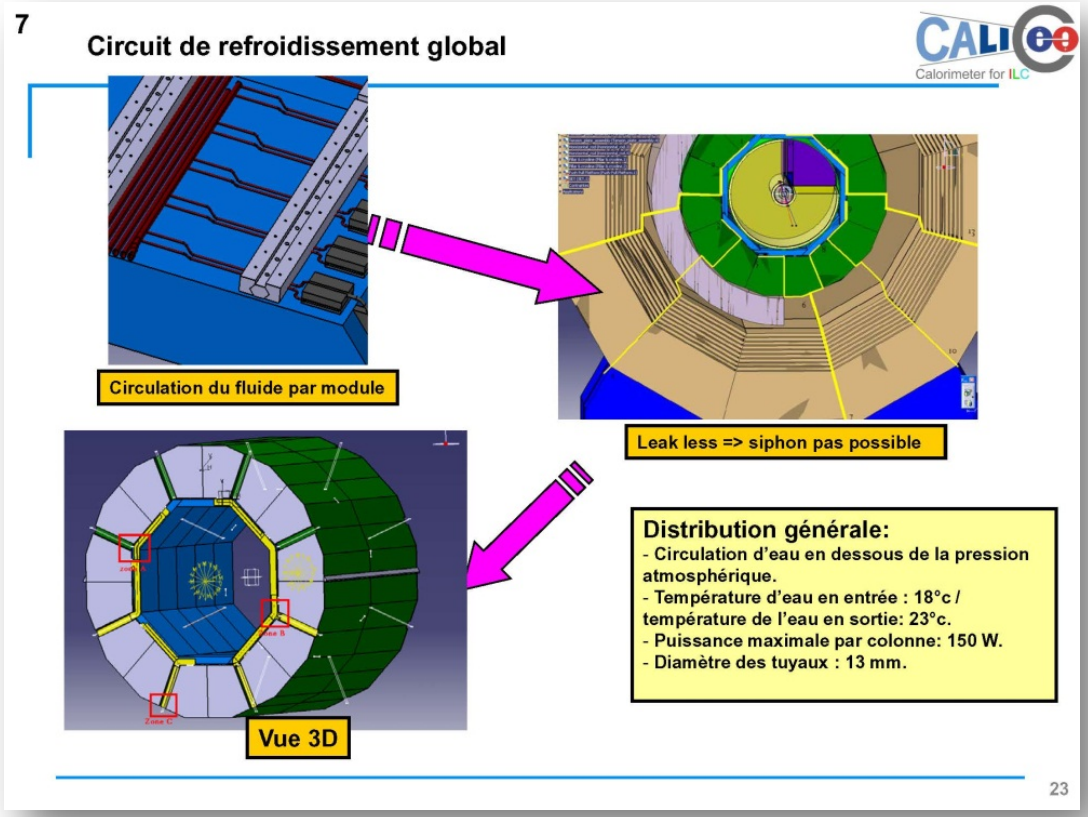
Now, we need to check every progress step of studies, to integrate them in a whole design.

For example :

Cooling studies for ECAL detector, slides from Julien GIRAUD from LPSC



Now, we are able to integrate in CATIA 3D model and release the interfaces.

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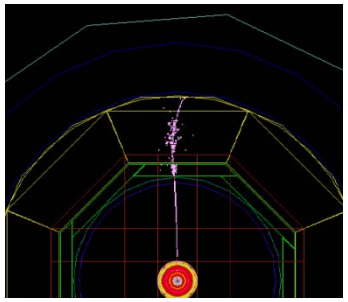
II. Needs for overall detector :

- **To validate each sub-detectors dimensions**

  -> physical simulations

  -> 3D model



On 3D model currently the gaps are respected, but :

- **Missing :**

- sub-detectors fixations, sized according to the calculations (+ earthquake acceleration)
- most of the services.

- **Need to study :**

- An integration scenario : provide space and fixations for assembling tools
- An open scenario for maintenance
- Services, cables patch panel placeholders and fixations

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III. How to manage ?

After an update of the integration contact list and the creation of a mailing-list.

I'm going to :

- **Write matrix interfaces** to know all interfaces.
- Send a **template of Interface Control Document (**ICD)

  This document will evolve and will ask you details of :

  -Sub-detectors (weight, dimensions,)
  -Services (cabling, cooling, gaz)
  -Preliminary integration scenario
  -Integration tools
  -Maintenances
  -

If there is any dimensions changed, we see directly the consequences and implications on the other sub-detectors.

- **Collect all the informations (3D model, services placeholders..)**

ILD – Integration status

IV. Conclusion

Also, to progress, I need your **P**roduct **B**reakdown **S**tructure (PBS).

Certainly, it ‘s time to write **W**ork **B**reakdown **S**tructure (WBS)

Many tasks must still be done

untill the TDR.