



Franck PEAUGER

## Points of interests for CEA Saclay

Remind of the french special contribution to CERN 2009 – 2011:

|                                                | Material       | FTE           |
|------------------------------------------------|----------------|---------------|
| <i>Modulator for 12 GHz Test Stand at CERN</i> | 437 k€         | } <b>10.6</b> |
| <i>X-band high power RF components</i>         | 250 k€         |               |
| <i>X-band accelerating structures with WFM</i> | 283 k€         |               |
| <i>L-band klystron for CTF3</i>                | 173 k€         |               |
| <i>Stabilization</i>                           | 100 k€         |               |
| <i>Operation of CALIFES and TBTS</i>           | -              |               |
| <b>Total:</b>                                  | <b>1243 k€</b> |               |

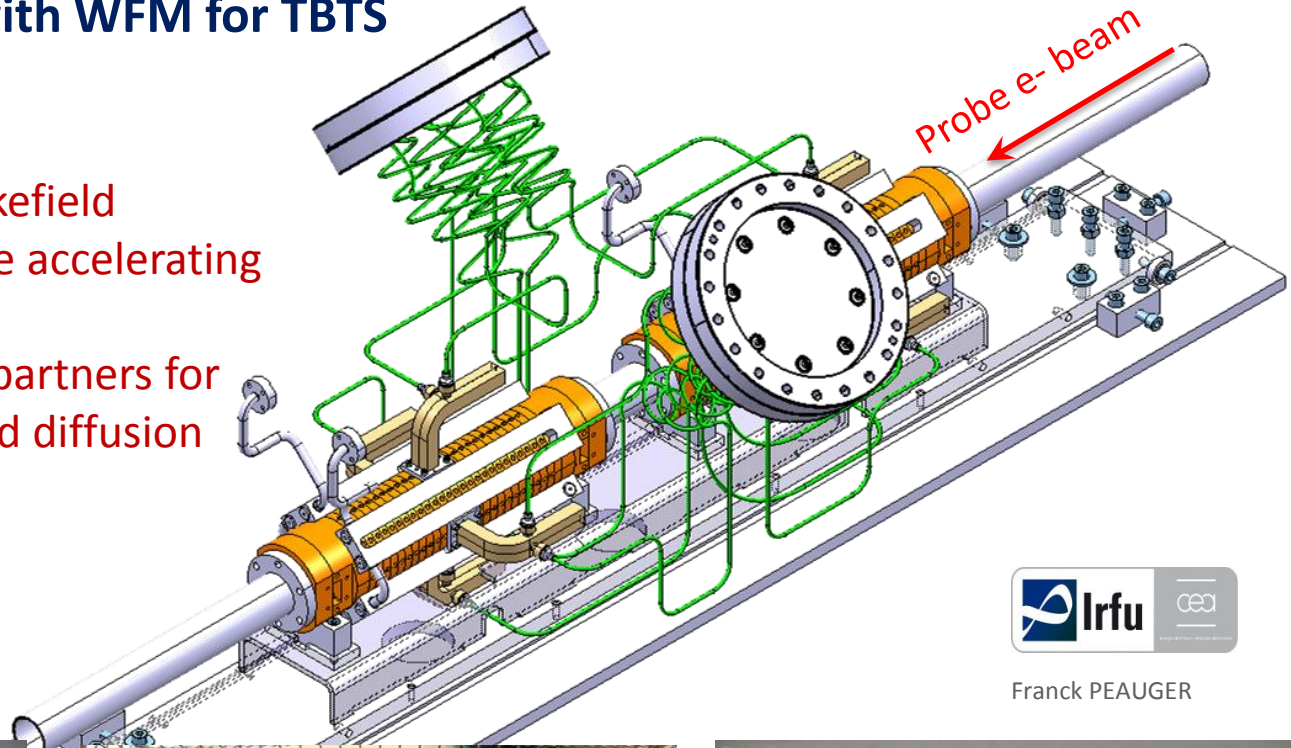
This contribution is almost finished (will be finished in the beginning of 2012)



## Accelerating structures with WFM for TBTS

### Challenges:

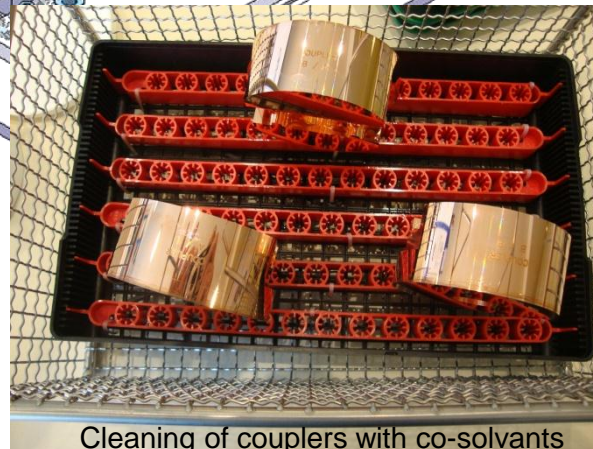
- First experiment of wakefield monitors with CLIC type accelerating structures
- Qualify new industrial partners for diamond machining and diffusion bonding



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Storage of couplers in alcohol



Cleaning of couplers with co-solvents



Regular disk after diamond machining



## Future CLIC collaboration 2012 - 2016

In the beginning of 2011, we have discussed with CERN some possible extensions of the special french contribution

The following items have been identified:



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|                                        | <u>Material</u> | <u>FTE</u>      |
|----------------------------------------|-----------------|-----------------|
| <i>12 GHz Test Stand at CEA Saclay</i> | <i>1820 k€</i>  | <i>6</i>        |
| <i>X-band accelerating structures</i>  | <i>160 k€</i>   | <i>2</i>        |
| <i>Stabilization</i>                   | <i>200 k€</i>   | <i>1.5</i>      |
| <i>Operation of CALIFES and TBTS</i>   | <i>-</i>        | <i>2</i>        |
| <u>Total:</u>                          | <b>2180 k€</b>  | <b>11.5 FTE</b> |

Unfortunately, no additional budget is existing to cover these items

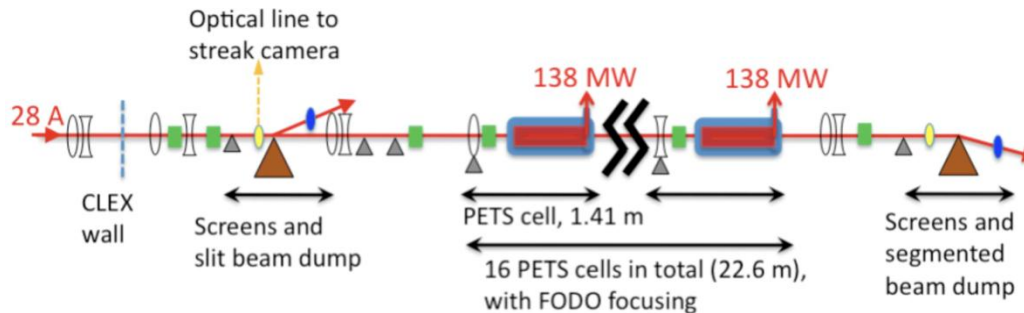
Discussions are foreseen between French institutes and CERN direction to make progress in this collaboration

**CTF3-001/CTF3-004**

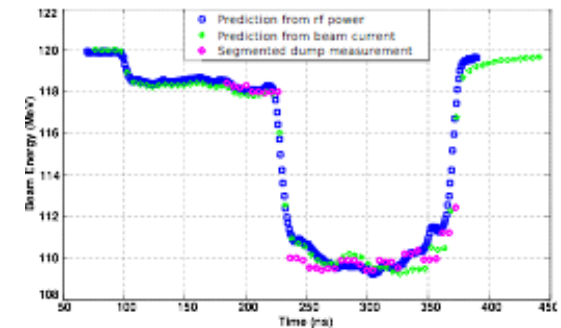


## CTF3 : Decelerator Test Beam Line and Two Beam Modules

- *We have performed extensive studies of beam physics and instability studies of heavily decelerated electron beams*

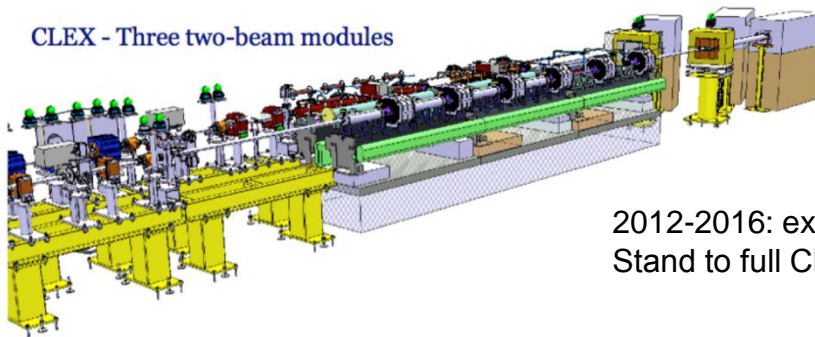


The Test Beam Line (TBL)



- *We plan to follow the experimental verification in the decelerator TBL until the completion of the program as well, as the verification of drive beam transport in the two beam*

CLEX - Three two-beam modules



CTF3-003/CTF3-004

2012-2016: extension of the Two-beam Test Stand to full CLIC modules (1, 3, N ...)

Erik Adli – Oslo/NorduCLIC

- *This includes operational and analysis support for the two experiments. See also talk by Uppsala/NorduCLIC and HIP/NorduCLIC on TBM*





## Beam phase measurement

- Goal: Measurement of beam phase/bunch arrival time with electro-optical methods
- Part of EuCARD project
- Running until 2012
- Prototype system at PSI injector – interest in doing beam tests and experiments post-EuCARD?

Terry Garvey - PSI

CTF3-001...



