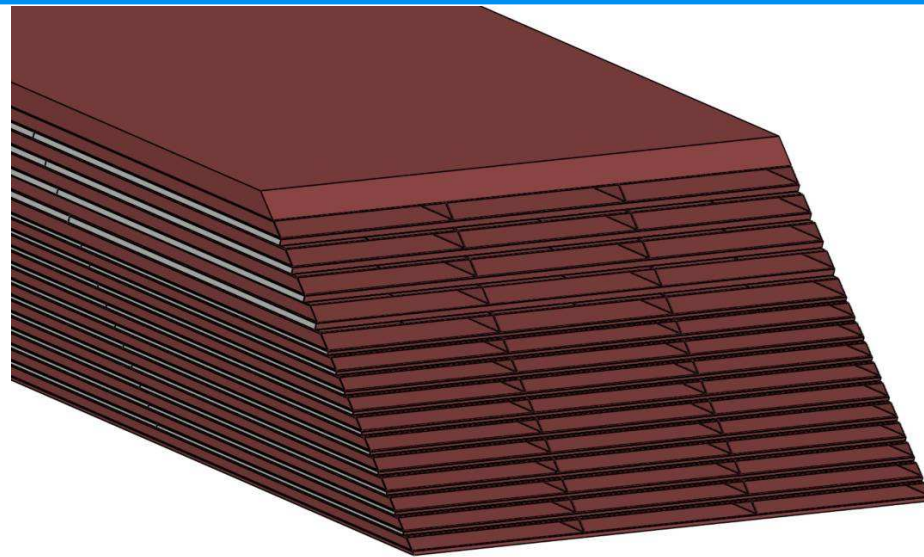
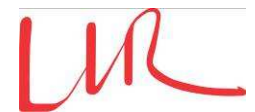


# *ECAL MECHANICAL R&D*



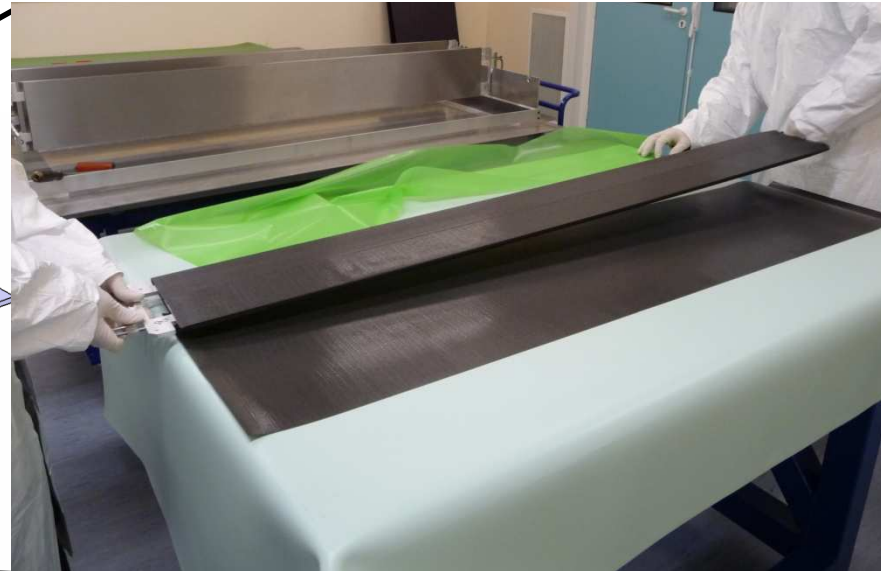
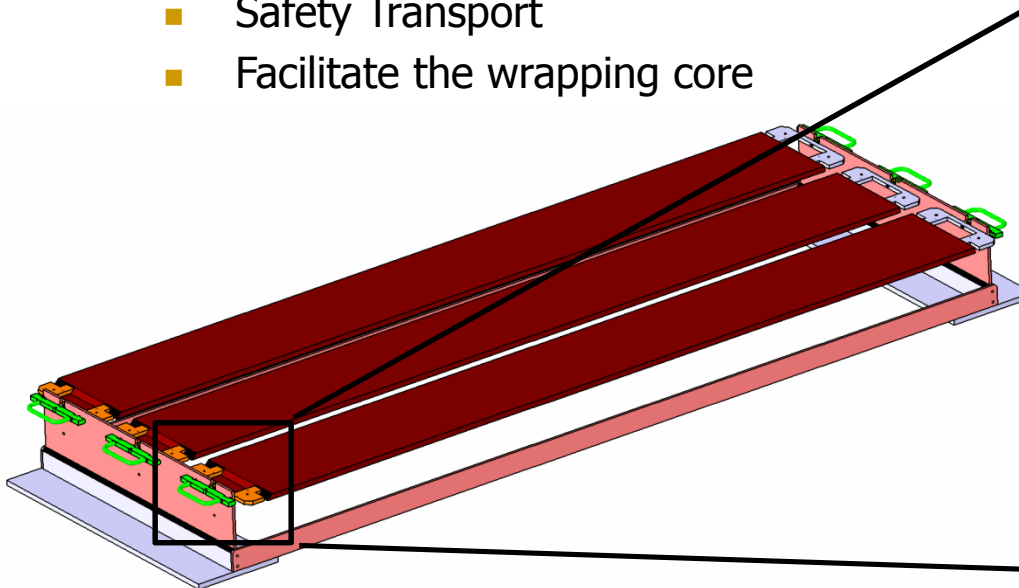
**EUDET news -**



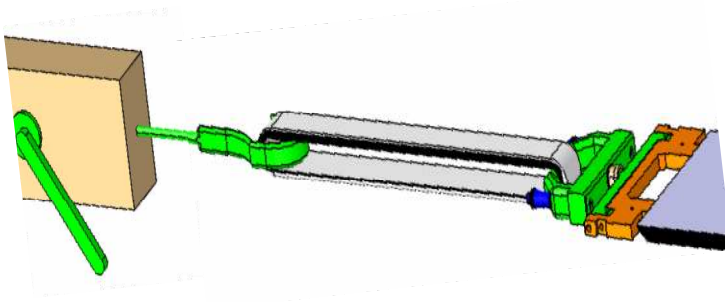
# State of mechanical EUDET.

# EUDET TOOLS : Study and design

- EUDET handle core
  - Safety Transport
  - Facilitate the wrapping core



- Winch extraction core
  - Control the traction force



# EUDET – Product layer (1/3)

Main process steps :

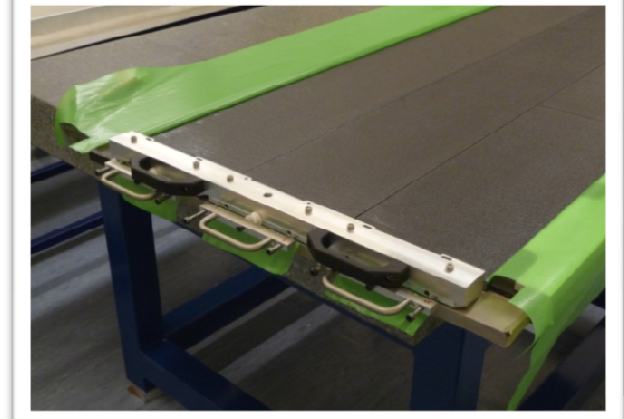
**1 - mould release preparation**



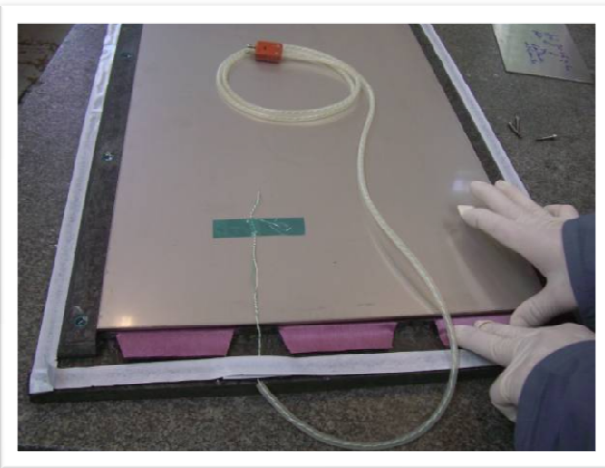
**2 - Cores wrapped with prepreg**



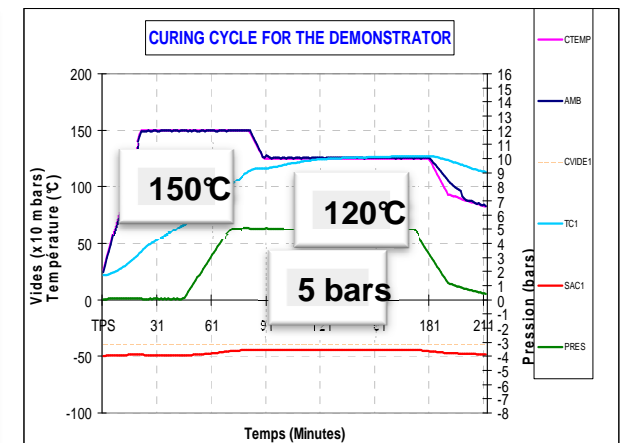
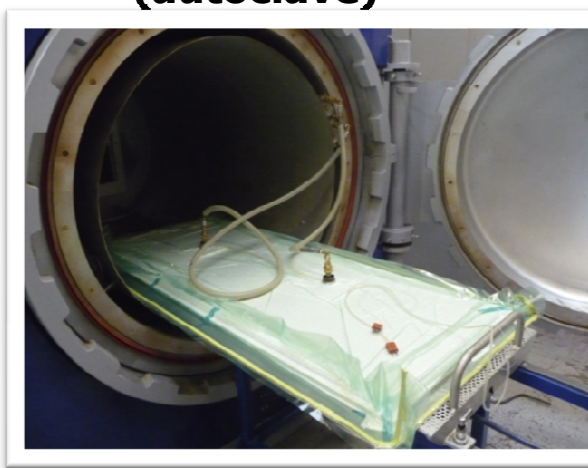
**3 – Compression step**



**4 – Thermal sensor equipment**



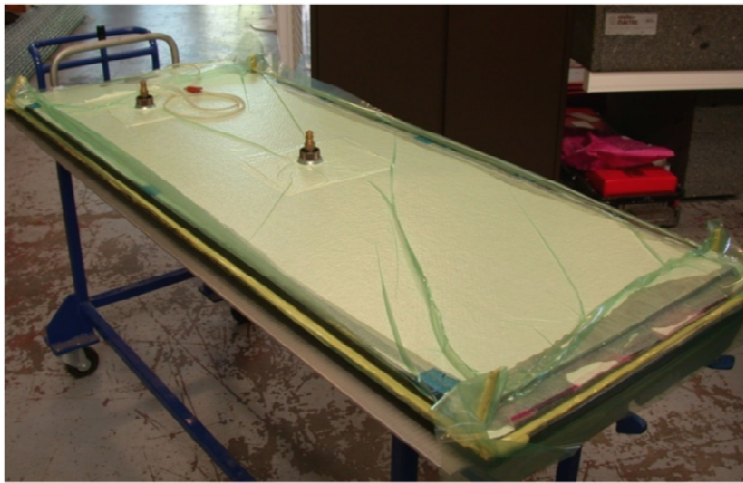
**5 – Curing operation (autoclave)**



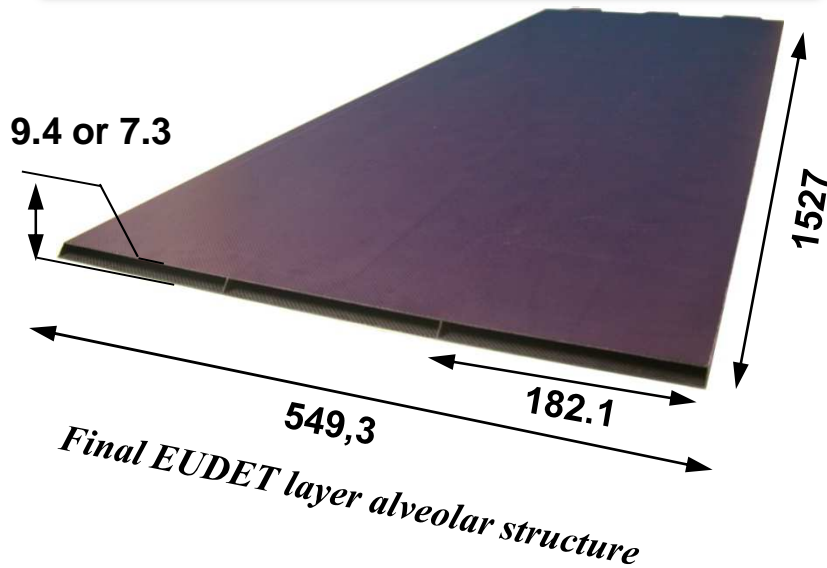


# EUDET – Product layer (2/3)

## 6 – After curing step

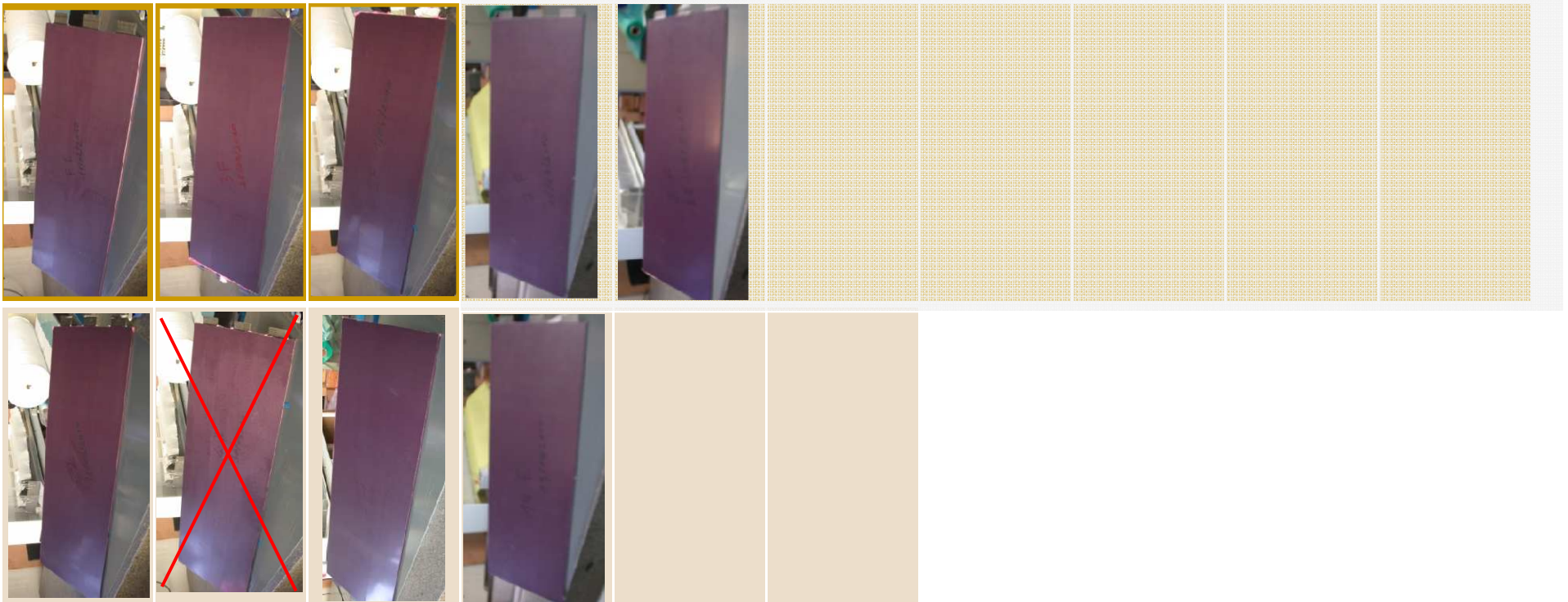


## 7 – Main issue : 1200 Newtons of cores traction



# EUDET – Product layer (3/3)

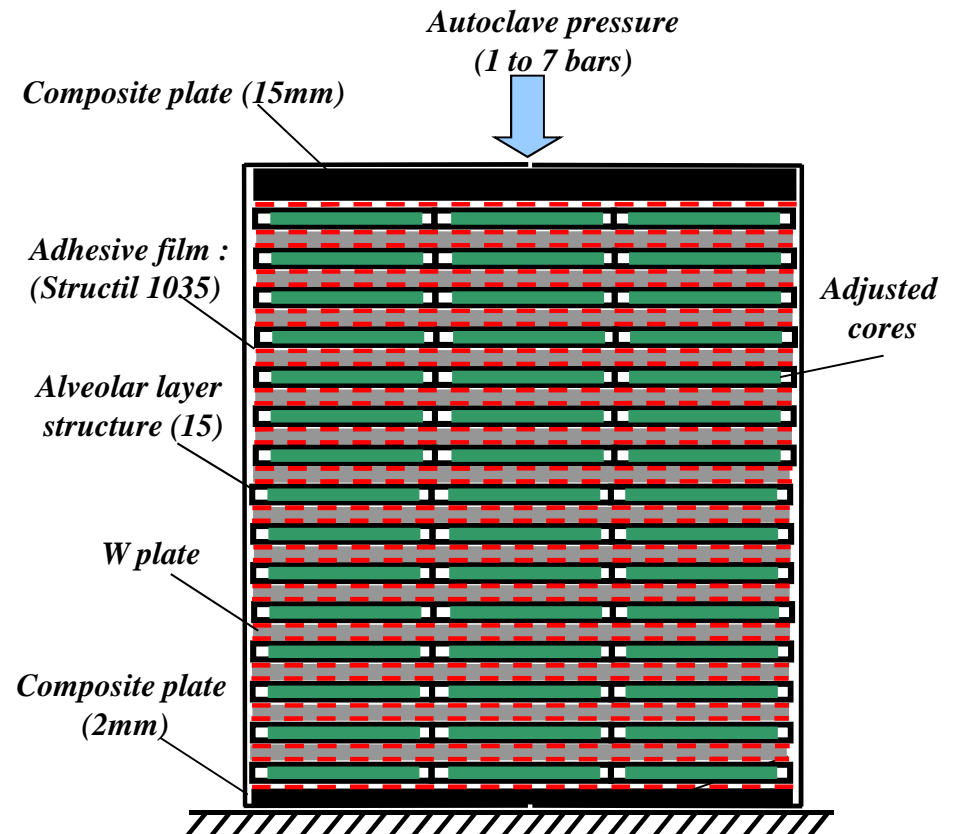
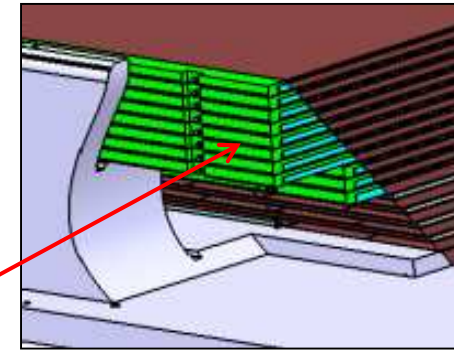
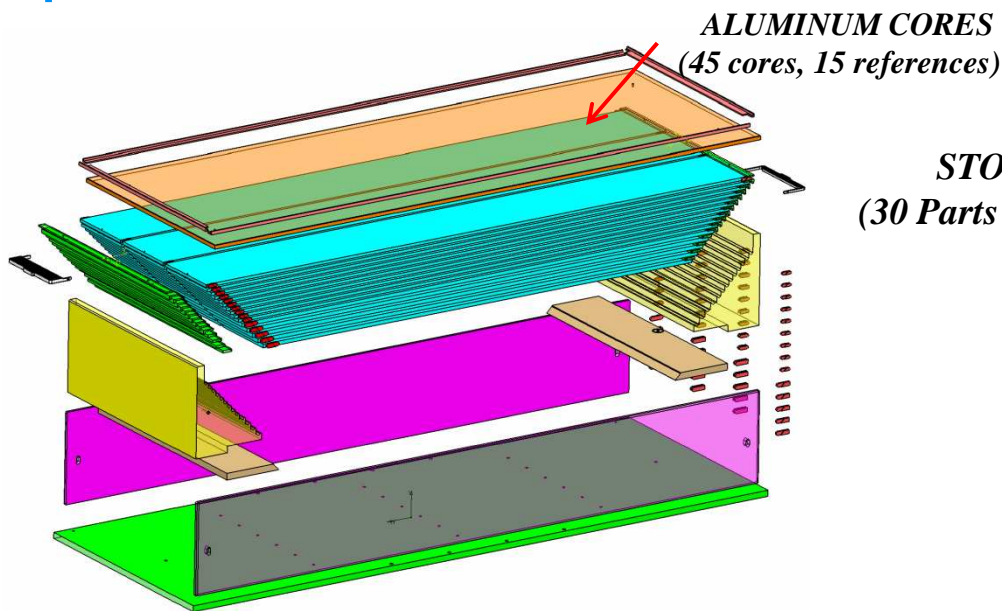
Layer 7.3 ⇒ 5/10 "Alveolar EUDET layer" structure : *On going*



Layer 9.4 ⇒ 3/5 "Alveolar EUDET layer" structure : *On going*

# EUDET- Assembly Mould

Now, here is the EUDET assembly mould :



- ⇒ Global design : **OK**
- ⇒ W and Carbon Needs : **OK**
- ⇒ Detailed design description : **OK**
- ⇒ Technical drawing : **OK**
- ⇒ Ordered : **AVRIL 10**

# The schedule:

- We will plan:
  - 10 alveolar layers in **first half-year (2010)**
  - Eudet structure assembled in the **Second half-year (2010)**
  - "14" H or U Short structure in **second half-year (2010)**
  - "1" H or U long structure in **second half-year (2010)**
  - Mould reception EUDET **Jun 2010**
  - Cutting layer operations **July 2010**
  - Studies the thermals inerties parameters **September 2010**
  - Build the EUDET module **September 2010**
  - EUDET tools and beam tests **Second half-year (2010)**



