

ONGOING PROJECT: C3N

Composites à matrice Céramique pour Chemisage déchet Nucléaire – 1st project addressing CMCs for non aeronautical use



Objectif : Identify a CMC solution for lining High-Level Nuclear waste container pipes

Set up specific characterization means and modelling CMC material creeping over 100yrs at low temperatures

Develop processes capable of automated manufacturing



600K



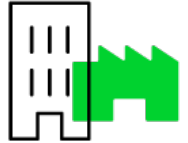
30
months



ANDRA, Safran
Ceramics, LCTS



16
Delivrables
1+
Publication



1,25
FTE
Staff Member

Delivrables

Bibliographic studies on suitable CMC's

Develop numerical models

Installation of testing and material characterization devices



Develop manufacturing processes and a technology demonstrator as proof of concept

Value proposition

Secular storage requiring corrosion resistant materials under high mechanical loads

To improve impregnation industrial means for large range composites manufacturing, from low cost fibers to alumina fibers.

To Develop alternative CMC materials, at lower costs by using knowledge acquired on high performance CMC's.

To improve modelling of CMC's by developing accurate models including under load

Cross-fertilization of cutting-edge techno between industries possible thanks to the IRT

