

NUCLEAR COMPONENT BASED ON ADDITIVE MANUFACTURING

- Establish a **qualification methodology** for AM nuclear components to be proposed for **standardization** and to be communicated to **nuclear design code committees**
- Develop a manufacturing plan that ensures and demonstrates process stability, **repeatability** and **reproducibility** that meet nuclear quality standards
- Demonstrate that laser powder bed fused **material performance** meets qualification requirements
- Demonstrate that **in-core** AM use case meets its **safety-related** function and operational requirements



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 945313

CONSORTIUM

CEA, France
EDF, France
ENGIE Laborelec, Belgium
ENGIE Tractebel, Belgium
Naval Group, France
Framatome, France
CIEMAT, Spain
AMRC / University of Sheffield, UK
VTT, Finland
SCK CEN, Belgium
JRC Petten, Netherlands
Ramén Valves, Sweden
IRSN, France

REGISTRATION

<http://events.ciemat.es/web/nucobam/home/>
[https://nucobam.eu/
contact-nucobam@cea.fr](https://nucobam.eu/contact-nucobam@cea.fr)

VENUE

ENGIE_Laborelec, Rue de Rhode 125, 1630
Linkebeek, Brussels

20 & 21 SEPTEMBER, 2023

FAB LAB EVENT WORKSHOP



Laser Powder Bed Fusion

AGENDA



NUCOBAM RESULTS*

Main results on process qualification, manufacturing plan for specimens & components, mechanical and physical L-PBF material properties, compatibility of AM stainless steel 316L in irradiated environment.



LAB TOUR

Additive Manufacturing Lab, presentation of printed valves & filters within NUCOBAM project, 3D scanning, non-destructive testing demonstration...



WORKSHOP*

Themes: Codification, material performance for NPP in operation, qualification strategy...

*Hybrid Meeting: in person & remotely

INVITATION TO PARTICIPATE

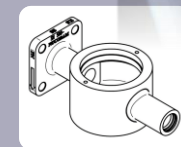
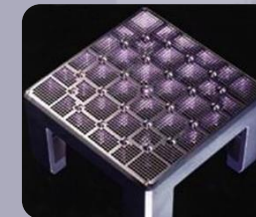
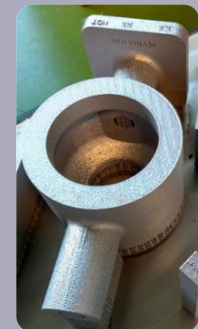
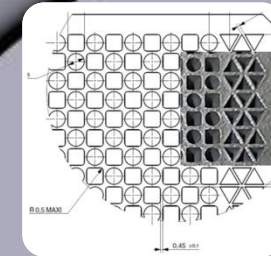
All actors from the nuclear research framework, industry and safety regulators are invited to share their experiences, coding routes and expectations in Additive Manufacturing with partners involved in Nucobam project.

- **END USER GROUP**

13 members from 6 countries are following our project and guide us in our objective to qualify L-PBF process for 316L stainless steel component and to obtain the most successful and consensual text in pre-codification

- **A COMMON FUTURE FOR ADDITIVE MANUFACTURED COMPONENTS**

Come to share your experience and build with us a common future for additive manufacturing now & tomorrow for our NPPs.



L-PBF NUCOBAM demonstrators: valve body and debris filter respectively developed by Ramén Valves and Framatome, and manufactured by AMRC and ENGIE Laborelec.