

## 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

## CONSORTIUM

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

## REGISTRATION

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

## VENUE

CIEMAT, Avenida Complutense 40, 28040  
Madrid, SPAIN

19 SEPTEMBER, 2024

## FINAL MEETING



Laser Powder Bed Fusion



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## 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.



### IDENTIFYING TOPICS OF INTEREST...

Finding Additive Manufacturing topics of interest to address crucial challenges faced by academic research, nuclear industries and component suppliers.

## INVITATION TO PARTICIPATE

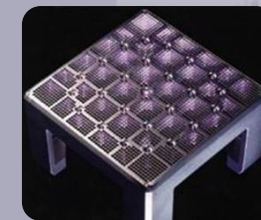
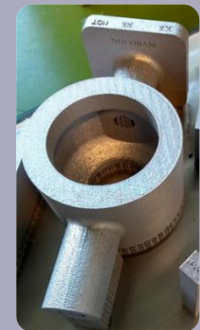
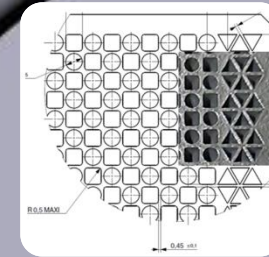
All actors from the nuclear research framework, industry and safety regulators are invited to share their experiences, coding routes and expectations in Additive Manufacturing with partners involved in Nucobam project.

- **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 Ramón Valves and Framatome, and manufactured by AMRC and ENGIE Laborelec.