

**framatome**

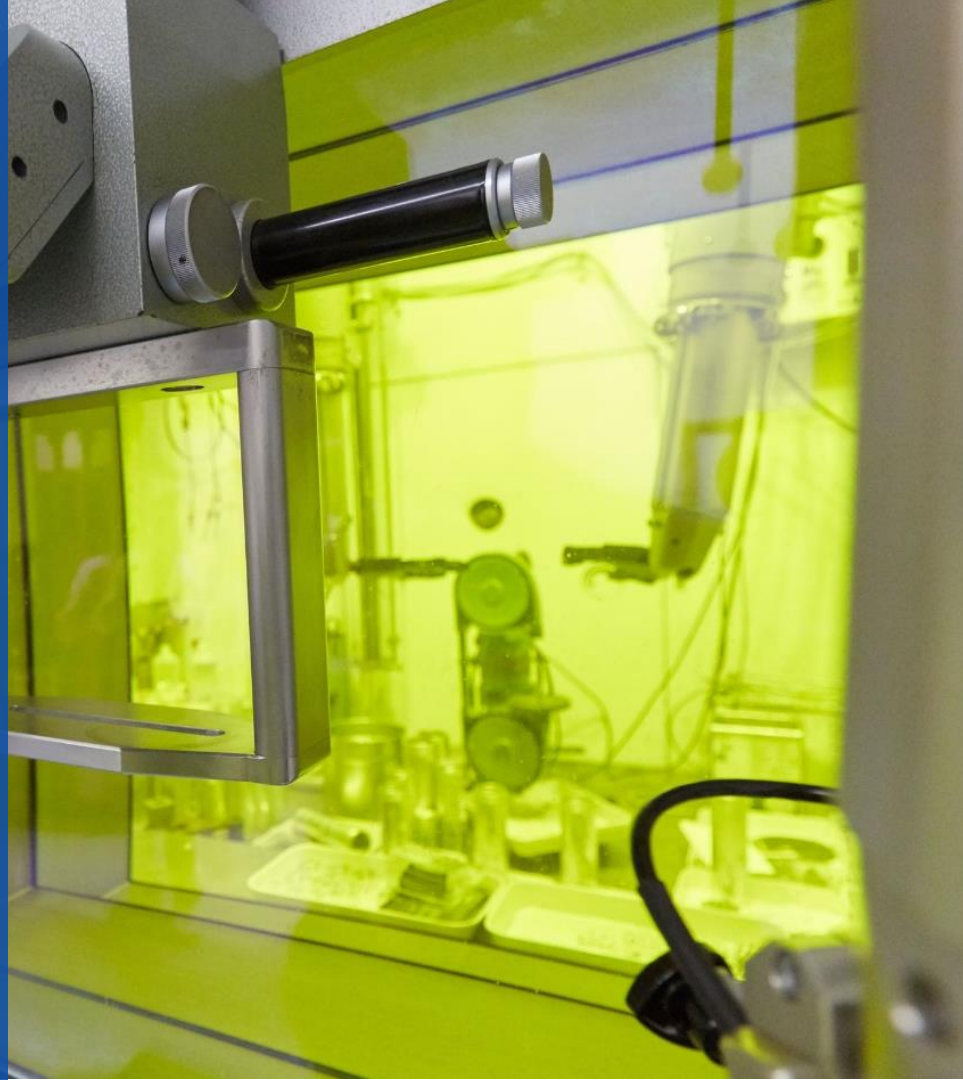
# Solutions from a Nuclear Full-Service Provider

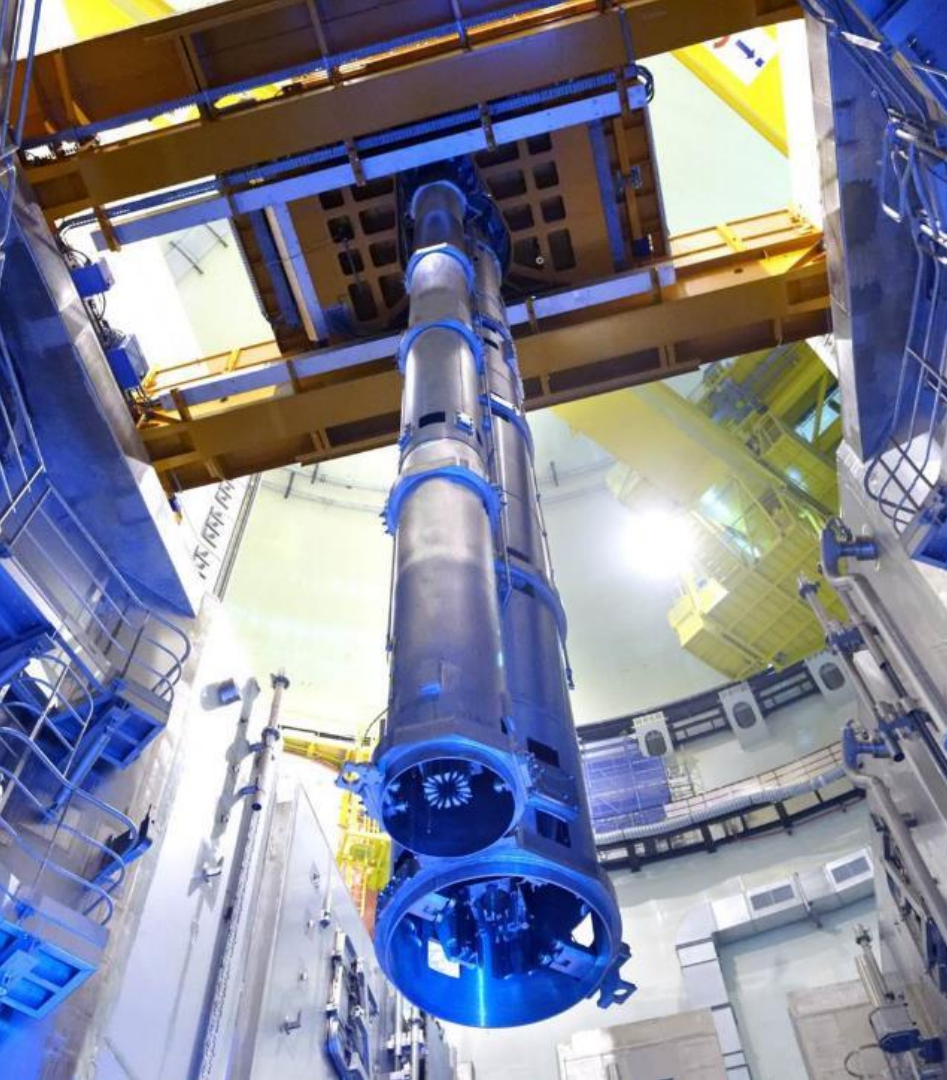
Martin Winkler

France@FAIR 2023

April 19, 2023

AL:N, ECCN:N - © 2021 Framatome





# Framatome at a glance

For over 60 years, Framatome's teams have been involved in developing safe, competitive, clean, low-carbon nuclear energy worldwide.

**€4.1 billion revenue in 2022**

- Designing nuclear power plants
- Supplying nuclear steam supply systems
- Designing and manufacturing components and fuel assemblies
- Integrating automation and electrical systems
- Servicing all types of nuclear reactors

**Our drivers: plant safety and system availability**

**Expert knowledge, systems components, specialty laboratory services**

**15,000 employees at 60+ sites in 20 countries  
(including in France and in Germany)**

# Framatome: Nuclear Full-service Provider

Various services available for adjustment to FAIR (and its suppliers) needs, e.g.:

## Materials

- Material testing (active / non-active)
- Failure / Root Cause Analyses
- Component Fitness-for-Service assessment
- Welding monitoring system
- Material science and welding consulting

## Inspections

- NDE
- Destructive testing

## Monitoring & Diagnostics

- For rotating machinery
- Advanced fatigue monitoring system for aging management
- Vibration monitoring systems
- Asset monitoring and optimization using data analytics

## Simulator Solutions

- CORYS is part of Framatome

## Hot Cells

- Experienced Hot Cell operator
- Integrator for Hot Cell facilities

## Electrical Systems

- Analysis, design and calculations of systems, components, cables
- Qualified software-free power supplies

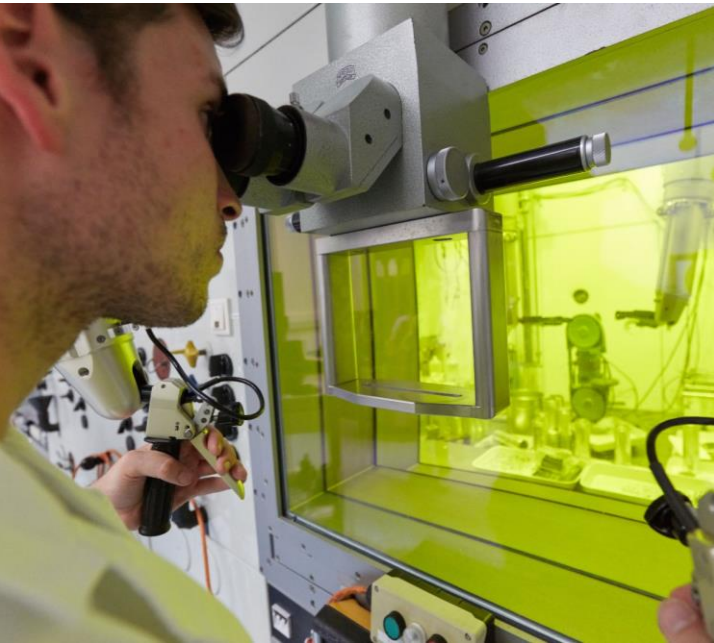
## Instrumentation and Controls

- Measurement and automation solutions
- Remote handling systems / robotics
- Verification & validation



# Material Assessment Services in Hot Cell Labs

Trusted partner of CERN for target capsule / material assessments



Framatome's Technical Center features one of only few facilities in the world that can flexibly assess highly activated materials

- Disassembly of capsules and target materials
- Comprehensive material assessments

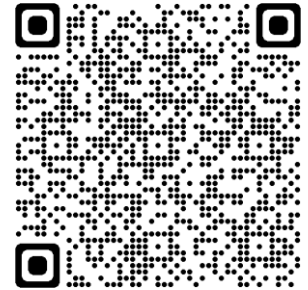
Supporting CERN's Targets, Collimators and Dumps Section at the Engineering Department

- Materials research for the High-Luminosity Large Hadron Collider
- Design validation for the Beam Dump Facility

*Similar material assessment & testing opportunities to support FAIR?*



Last Press Release:

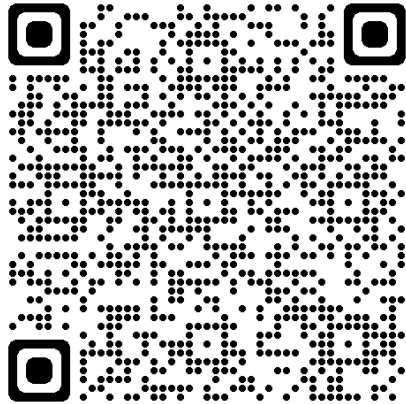


# Contact and further resources

## Selected Solutions Portfolio

(featuring detailed Product Sheets)

<https://www.framatome.com/solutions-portfolio/portfolio/basket?basket=7fa91caf-bd7e-42f0-97af-b91dd1fb200c>



**Martin Winkler**

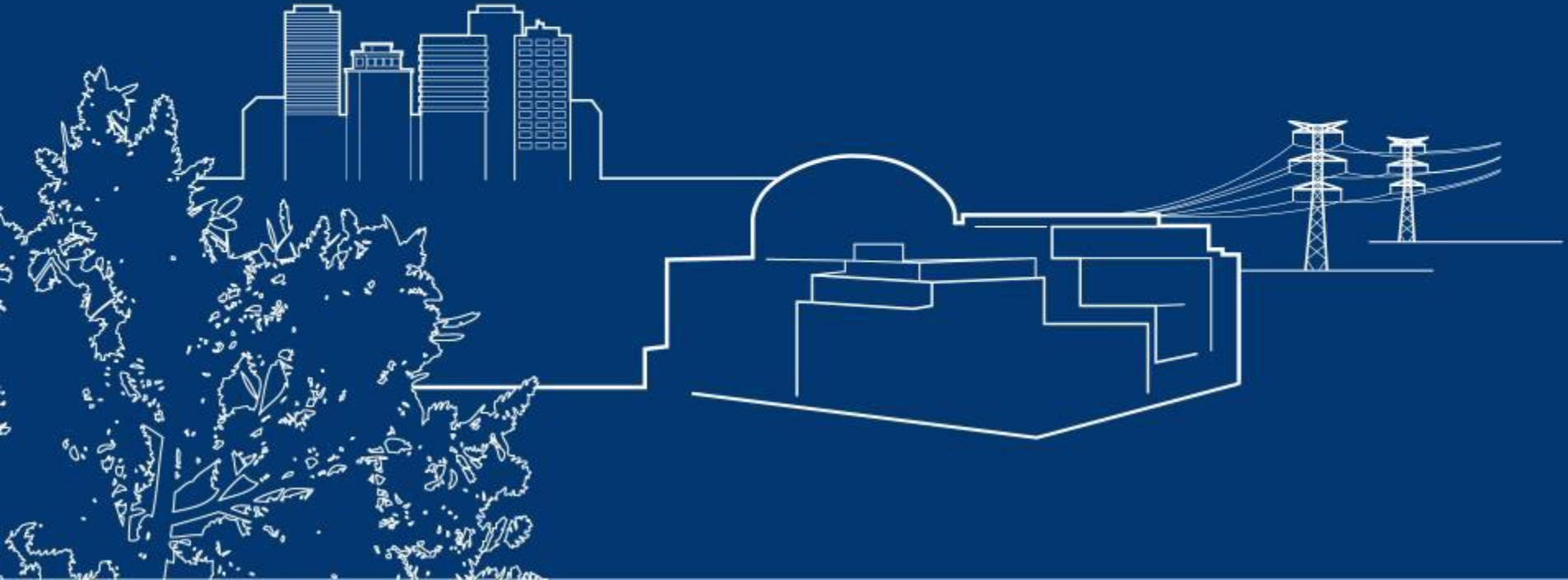
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