A French research institute specialized in advanced welding techniques is looking for industrial partners or collaborative projects with other research centres under outsourcing agreement

Summary

Profile type	Company's country	POD reference
Business Offer	**France**	**BOFR20250402018**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Outsourcing agreement**	**• World**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**4 Apr 2025** **4 Apr 2026**	**4 Apr 2025**

General Information

Short summary

The French welding and research institute with expertise in research and development, tests and control focusing on welding techniques, metallic and composite materials is looking for to establish B2B partnerships with industrials who need advanced expertise in the field of welding or with other research centres with complementary activities under outsourcing agreement.

Full description

Created in 1905, the French Research Institute is recognised as the technical reference in France in the fields of welding, related techniques, assembly, associated controls (Non-Destructive Tests = NDT and Destructive Tests = DT in all conditions), and monitoring.
Here are some examples of advanced welding techniques developed:
- Wire Arc Additive Manufacturing (WAAM), is a production process used to 3D print or repair metal parts
- Friction Stir Welding (FSW), which is a solid-state joining process that uses a non-consumable tool to join two facing workpieces without melting the workpiece material
- Laser Welding
- Laser Wire Welding, involves the use of a focused laser beam to heat and melt a wire filler material, which is then combined with the base metal to form a weld joint

- Multi-material welding, such as welding composite to steel
- Cobotics – collaborative robotics, robotics used to collaborate with welding operators and address difficult operations

The Institute offers tailored services and solutions including studies, technology transfer services, and technical assistance to meet the specific needs of their partners.
The research center owns facilities and equipment to conduct full-scale studies and address research and innovation topics ranging from TRL 3 to TRL 9, from proof of concept to prototype design (or small series), up to the demonstration of industrial feasibility.
They work closely with industrial and academic research laboratories as part of regional, national, European and international research programs.

As part of their wish to develop international activities, the Research Institute is looking to establish B2B partnerships with industrials who need advanced expertise in the field of welding or other research centers with complementary activities. Industrials or research centers may be active in aerospace, aeronautics, rail, naval, automotive, wind, nuclear, oil & gas, energy and renewable energy, chemical, building and infrastructures sectors.
They offer outsourcing agreements to provide their expertise, facilities and studies services.

Advantages and innovations

Welding issues are numerous and complex. It can be extremely time-consuming and costly to make the right diagnosis during production. That’s why the team of experts and researchers of the French institute intervenes quickly at industrials’ facilities. It can design, develop and support its partners throughout their R&D process: from understanding the need for welding, characterization, non-destructive testing, or metallic or composite multi-material assemblies, to qualifying the proposed solutions and their integration into the manufacturing or assembly monitoring process.
Besides, the French institute can develop or analyze welding procedures with a view to creating a demonstrator or identifying avenues for optimization. To this end, the laboratory is equipped with both conventional and innovative processes but can also acquire equipment (for rental or thanks to their reliable partnership network).
Finally, the institute has a proven track record of successful R&D collaborations in Europe.

Technical specification or expertise sought

Stage of development

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**

IPR Status

IPR Notes

IPR Notes

Partner Sought

Expected role of the partner

The partner should face an issue with its welding process. It can be in the following sectors: aerospace, aeronautics, rail, naval, automotive, wind, nuclear, oil & gas, energy and renewable energy, chemical, building and infrastructures etc. Their role will include, for instance co-developing innovative solutions, providing application-specific feedback, and participating in validation testing.
The French institute is open to collaborating with industrials, research centers or consortia in any field related to welding, preferably those where they could contribute and further develop their expertise in Structural Health Monitoring or Additive Manufacturing.

Type of partnership

Outsourcing agreement

Type and size of the partner

- **SME 11-49**
- **SME <=10**
- **SME 50 - 249**
- **University**
- **Other**
- **Big company**
- **R&D Institution**

Dissemination

Technology keywords

- **02007015 - Properties of Materials, Corrosion/Degradation**
- **02002007 - Joining techniques (riveting, screw driving, gluing)**
- **09001002 - Analyses / Test Facilities and Methods**
- **02002008 - Jointing (soldering, welding, sticking)**
- **02007010 - Metals and Alloys**

Market keywords

- **08001012 - Speciality metals (including processes for working with metals)**
- **06002002 - Nuclear**
- **06003003 - Wind energy**
- **06003004 - Marine energy**
- **06002001 - Oil, gas and coal**

Targeted countries

- **World**

Sector groups involved