A French University is looking for partners to implement or license new polymeric materials for all kinds of applications requiring conductive materials (sensors, robotics, smart textiles, healthcare, flexible electronics...)

Summary

Profile type	Company's country	POD reference
Technology offer	**France**	**TOFR20250313017**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Research and development cooperation agreement** **Commercial agreement with technical assistance** **Investment agreement**	**• World**
Contact Person	**Term of validity**	**Last update**
Noriko MITA	**31 Mar 2025** **31 Mar 2026**	**31 Mar 2025**

General Information

Short summary

A French University has developed new polymeric conducting materials using different technologies that allow to tune their forms (thin films, hydrogels, particles). They are actively seeking partners or investors to implement this technology on devices or products that need improvement in areas such as: electromechanical sensors and actuators, biomedicine, energy storage, smart textiles, flexible electronics or soft robotics.

Full description

A French University is currently developing new polymeric conducting materials with modulable conductivity properties. These materials can be prepared in different forms such as thin films, self-supporting materials, hydrogels and particles, opening a wide variety of possible uses. They can be combined with other materials to obtain composites (for examples polymer films + metallic nanoparticles or polymer nanoparticles incorporated into a matrix).

The use of different conductive polymers enables to tune the conductivity, making materials adaptable to different applications.
The ability to create thin films, self-supporting materials, hydrogels, and particles provides flexibility in how these

materials can be used across industries.
Applying conductive coating to non-conductive materials (fibers, plastic, glass) expands the range of materials that can be used in electronics, in sensors, and actuators applications.
Combining conductive polymers with hydrogels introduces new possibilities in the design of flexible, stretchable, and self-healing electronic materials, which is a breakthrough in soft electronics and wearable technology.

Advantages and innovations

This offer is highly innovative due to the versatility of its materials, the tunability of their conductivity, and their integration on different substrates. It has great potential to advance electronics, sensors, devices and smart coatings, making it a significant development in the field of conductive polymer materials.
- The conductive coating can be used as a sensitive layer in sensors, improving detection accuracy in applications such as medical diagnostics, and environmental monitoring.
- The ability to adjust conductivity and material's form means that the developed technology can be tailored for different industrial needs, from energy storage (e.g. flexible batteries, supercapacitors) to bioelectronics (e.g. nerve interfaces, biosensors).
- Hydrogels with conductive properties enable bendable and stretchable electronics, which are essential for next-generation wearable sensors, soft robotics, and biomedical implants.
The materials could be integrated into smart textiles, electronic skin, biomedical devices, and advanced coatings, addressing needs in fields like healthcare, and soft robotics.

Technical specification or expertise sought

Stage of development

Lab tested

Sustainable Development goals

- **Goal 12: Responsible Consumption and Production**
- **Goal 9: Industry, Innovation and Infrastructure**

IPR Status

Secret know-how

IPR Notes

Partner Sought

Expected role of the partner

The French University, recognised for its expertise in innovative materials, presents this opportunity for collaborative partnerships in the field of innovation. Potential collaborators play a crucial role in improving their performance by implementing this new technology.

They are looking for the following partner role and type of collaboration:
- collaboration agreement, cooperation in the application, development, adaptation of these new polymeric conductive materials to solve an unmet need or problem presented in a product or a service that can be solved with the properties of this developed material.
- grant exploitation licenses for manufacturing and commercialisation.
- commercial agreement with technical assistance.
- investment agreement, financing of the R&D and innovation line.

They are looking for following types of partners:
- Electromechanical sensor companies,
- Soft robotics companies,
- Innovative textile companies, smart textiles,
- Companies with unmet needs in sensors,
- Physiotherapy, rehabilitation device companies,
- Biomedical companies that need conductive coatings,
- Health research centers, hospitals,
- Technology centers.

Type of partnership

Research and development cooperation agreement

Commercial agreement with technical assistance

Investment agreement

Type and size of the partner

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

Dissemination

Technology keywords

- **02007014 - Plastics, Polymers**
- **02007018 - Advanced Textile Materials**
- **01003023 - Environmental and Biometrics Sensors, Actuators**
- **02007022 - Conductive materials**

Market keywords

- **05001007 - Other diagnostic**
- **03004003 - Other electronics related equipment**
- **03007002 - Other measuring devices**
- **03004002 - Components testing equipment**
- **05003001 - Therapeutic services**

Targeted countries

- **World**

Sector groups involved

- **Electronics**
- **Health**