Seeking roll-to-roll slot-die manufacturing capacity for electrochemical membrane electrode components

Summary

Profile type	Company's country	POD reference
Technology request	**Austria**	**TRAT20260630016**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance**	**• All countries**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**3 Jul 2026** **3 Jul 2027**	**5 Jul 2026**

General Information

Short summary

A deep-tech startup in electrochemical energy components is looking for European partners with available roll-to-roll slot-die coating and converting capacity. The aim is to identify manufacturing capacity for membrane electrode components for water electrolysers and fuel cells from 2028 onwards. Target capacity is up to 5,000 m² per year. Cooperation is envisaged under outsourcing, supplier or commercial agreements with technical assistance.

Full description

The Austrian deep-tech startup (a university spin-off) builds on more than 25 years of expertise in electrolysers and fuel cells. The company specialises in developing and manufacturing cutting-edge Membrane Electrode Assembly (MEA) technology that powers the hydrogen economy.

In line with its activities in the development and production of electrochemical energy components, the startup is looking for European partners with roll-to-roll manufacturing capacity. The company develops membrane electrode components used in anion exchange membrane water electrolysis and proton exchange membrane fuel cells. These components include catalyst-coated membranes, catalyst-coated substrates and membrane electrode assemblies.

The company currently builds its processes at laboratory and pilot scale and has access to a roll-to-roll pilot line for process validation and medium-volume production. After this validation step, external manufacturing capacity will be needed for larger and more regular production volumes. The purpose of this partner search is therefore to assess the availability of suitable European manufacturing capacity, including which capabilities are available, what technical limitations apply, and how cooperation could be structured. The external manufacturing need is expected from 2028 onwards.

The required technology is roll-to-roll slot-die coating and related downstream processing for thin functional catalyst layers on flexible and, where possible, porous substrates. The preferred partner should be able to support not only coating but also drying, web handling, lamination, cutting or stamping, integration of gasket or subgasket materials, quality control, documentation and packaging. The expected production capacity is up to around 5,000 m² per year, depending on product mix and successful process transfer.

The company is seeking cooperation with European industrial partners that already operate suitable roll-to-roll coating or converting lines, ideally with experience in functional coatings, electrochemical components, membranes, catalyst inks, fuel cells, electrolysers, batteries, sensors, printed electronics or comparable thin-film products. The minimum useful coating width is 300 mm; a width up to 800 mm would be ideal.

Detailed coating formulations, layer structures, product drawings, process windows and customer-related specifications are confidential and would only be shared under a non-disclosure agreement and after an initial technical fit assessment. Cooperation could start with capability discussions and non-confidential process mapping, continue with feasibility trials and pilot campaigns, and later move into recurring manufacturing. The preferred cooperation types are an outsourcing agreement, a supplier agreement and, where process transfer or adaptation is needed, a commercial agreement with technical assistance.

Advantages and innovations

The partner sought should ideally offer the following capabilities:
- Roll-to-roll slot-die coating line in Europe.
- Minimum coating width of 300 mm; preferred coating width up to 800 mm.
- Experience with thin functional coatings and particle-containing inks or slurries.
- Ability to coat flexible substrates such as membranes, decal films and gas diffusion layers.
- Ability or willingness to evaluate porous or metallic substrates such as nickel felt, nickel mesh, porous transport layers or similar substrates.
- Controlled drying after coating, preferably with adjustable temperature, residence time and web speed.
- Suitable web handling for sensitive membranes and thin films, including controlled web tension and alignment.
- Lamination capability for multilayer components.
- Cutting, slitting, stamping or die-cutting of coated materials into defined component formats.
- Integration or handling of gasket and subgasket materials.
- Quality control capabilities such as coating weight, thickness, optical inspection, defect inspection, dimensional checks and batch documentation.
- Capability to work with confidential customer-owned formulations, process parameters and product drawings under a non-disclosure agreement.
- Ability to support feasibility trials, process transfer, pilot campaigns and recurring manufacturing.
- Target manufacturing need: up to approximately 5,000 m² coated area per year, starting from 2028.
- Interest in discussing available capacity, expected cost drivers, lead times, minimum order quantities, changeover constraints and technical limitations.

Technical specification or expertise sought

The partner should be a European company, contract manufacturer or coating specialist operating roll-to-roll slot-die coating and converting equipment. The partner should first provide a non-confidential overview of its available line widths, coating technologies, compatible substrates, drying and lamination options, quality control methods, typical campaign sizes, available capacity and experience with functional coatings.

Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 12: Responsible Consumption and Production**
- **Goal 7: Affordable and Clean Energy**
- **Goal 17: Partnerships to achieve the Goal**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 13: Climate Action**

IPR Status

IPR Notes

Partner Sought

Expected role of the partner

In a first step, the partner is expected to assess whether its existing equipment could be suitable for the requested electrochemical membrane electrode components. The company is especially interested in understanding whether industrial capacity for this type of product exists in Europe and whether it could become available from 2028 onwards.

In a second step, suitable partners may carry out feasibility trials with non-confidential or simplified formulations and substrates. After a non-disclosure agreement, more detailed product requirements, coating formulations, layer structures and quality criteria may be exchanged. If the trials are successful, the cooperation could move toward process transfer, pilot manufacturing and later recurring production under an outsourcing or supplier agreement. A commercial agreement with technical assistance may be appropriate if the partner actively supports process adaptation, scale-up and qualification.

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **SME 50 - 249**
- **Big company**

Dissemination

Technology keywords

- **04002002 - Hydrogen production**
- **02005004 - Packaging for materials**
- **02002002 - Coatings**
- **04002001 - Fuel cells**
- **02002003 - Drying**

Market keywords

- **08001007 - Coatings and adhesives manufactures**
- **08001008 - Membranes and membrane-based products**
- **06003008 - Other alternative energy**

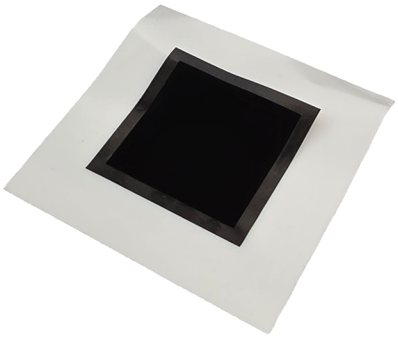
Targeted countries

- **All countries**

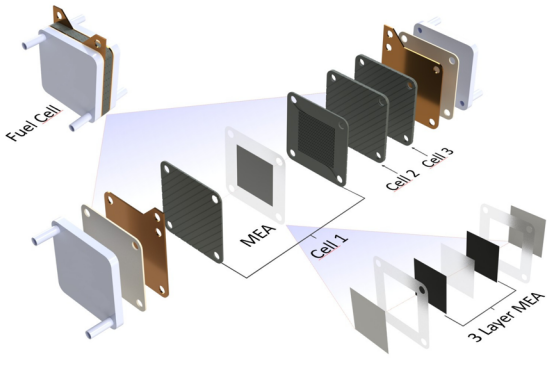
Sector groups involved

Media

Images



fuelcell_5-layer_mea.png



PEM explosion.jpg