International Cooperation Agreement
for the project

No. TQ16000070 / NSTC 114-2923-E-110-003-MY3

Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance

(hereinafter „Project") – Sigma Programme

Article 1
Parties of the agreement

Czech Republic

1. Coordinator: **LEANCAT s.r.o.**
   Address: U Pergamenky 1145/12, 170 00 Praha 7, Czech Republic
   Represented by: Petr Seghman, Company Executive
   ID number: 05199956
   VAT ID number: CZ05199956

   Hereinafter referred to as **"Coordinator – CZ"**

2. Participant 1: **VSB – Technical University of Ostrava**
   Address: 17. listopadu 2172/15, 708 00 Ostrava – Poruba, Czech Republic
   Represented by: prof. RNDr. Václav Snášel, Rector
   ID number: 619 89 100
   VAT ID number: CZ61989100

   Hereinafter referred to as **"Participant 1 – CZ"**

Taiwan

1. Coordinator: **National Sun Yan-Sen University**
   Division: Department of Mechanical and Electro-Mechanical engineering
   Address: Lianhai Rd, 70, Kaohsiung City 804, Taiwan
   Represented by: Prof. Jenn-Kun Kuo, Vice dean
   ID number: 76211194
   VAT ID number: 76211194

   Hereinafter referred to as **"Coordinator – TW"**

2. Participant 1: **Industrial Technology Research Institute**
   Division: Green Energy and Environment Research Laboratories
   Address: No. 360, Gaofa 2nd Rd., Guiren Dist., Tainan City, Taiwan
   Represented by: Dr. Shing-Cheng Chang, Head of the department
   ID number: 02750963
   VAT ID number: 02750963

   Hereinafter referred to as **"Participant 1 – TW"**

(Individually a "Party" and collectively the "Parties")

Article 2
Subject of the cooperation agreement

1. This Agreement shall govern relations between the Parties, and their respective rights and obligations with regard to their participation in the project no. TQ16000070 / NSTC 114-2923-E-110-003-MY3 under the title "*Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance*" (hereinafter as the "Project") which was approved for co-financing by the Technology Agency of the Czech Republic (hereinafter TACR) in the frame of the Sigma Programme - for the Parties from the Czech Republic, and by the National Science and Technology Council (hereinafter NSTC) - for the Parties from Taiwan.

2. The proposed project aims to address the challenges associated with anion exchange membranes (AEM) in hydrogen production through electrolysis, while also enhancing the evaluation of membrane performance. To achieve this, a dedicated AEM testing device or simulation software will be constructed, and a computational predictive model will be developed. This model intends to optimize effectiveness and minimize operational costs related to the parametric assessment of AEMs. The production phase will emphasize cost-efficiency, particularly focusing on the catalytic layer. The primary objective of this project is to introduce a novel, cost-effective anion exchange membrane to the international market. Simultaneously, it will present advanced predictive software designed for efficient and high-tech determination of AEM parameters.

3. The Project has duration of 36 months - from 01/2025 to 12/2027.

4. The Parties shall carry out the Project and their respective tasks under the Project in accordance with the conditions set by the providers of the financial support (TACR and NSTC) with whom the Parties are obliged to sign a contract.

Article 3
Plan of activities

1. The Parties are hereby committing to perform activities in compliance with the Project & Schedule description set in the Common Proposal which was an integral part of the approved project proposal.

2. Detailed division of works and activities among the Parties, including project outputs, is specified in Annex 1 – Project schedule.

3. Parties undertake to make all necessary efforts to fulfil the purpose, goal and result of the project stated in Article II of this Agreement. Failure to achieve the purpose, goal and result of the project

referred to in Article II of this Agreement can only be justified by the fulfilment of circumstances generally recognized and defined as force majeure.

Article 4
Intellectual property rights

1. Any patents, copyrights, trade secret, trademark and other intellectual properties existing prior to the Project (hereinafter "Background IP") shall belong to the party that owned such rights prior to the project. All Parties agree that nothing in this Agreement shall be construed to grant either party any license with respect to the other's Background IP.

2. Excluding each Parties' Background IP, Contract parties agreed that future intellectual property created by fulfilling tasks within the project (hereinafter "intellectual property") is always property of a side the employees of which created this intellectual property.

3. If the intellectual property is created by fulfilling tasks within the project provably in cooperation of employees of more sides, relevant details of intellectual property shall be determined by all Parties separately and set forth in a separate written formal agreement.

Article 5
Confidentiality

1. All information related to the solution of the project and the results of the project are considered confidential, except for information provided to the Information System of research, experimental development and innovation or information that the providers of the financial support (TACR, NSTC) are obliged to provide to other state administration bodies, judicial authorities, or authorities active in criminal proceedings.

2. The Parties shall ensure the confidentiality of all confidential information and, if it has been transferred to a third party under the Agreement, shall ensure that such third parties maintain the confidentiality of such information provided to them as confidential and use it only for the purposes for which they were handed over.

3. The Parties agree that scientific publications, registered as Project outputs, will be released from the obligation to maintain confidentiality, if the included information does not endanger other outputs´ intellectual property rights registration. Mutual agreement on the included content within the publication must be met.

4. The parties are released from the obligation to maintain confidentiality,
   a) if the content of the information provided to them as confidential becomes publicly accessible, based on other activities, even carried out outside the scope of the Agreement or based on measures not related to the solution of the project, or
   b) if the requirement to maintain confidentiality has been revoked by those for whose benefit this obligation was established.

Article 6
Other clauses

1. If dissemination of knowledge does not adversely affect its protection or use and subject to legitimate interests, the Parties shall ensure further dissemination of their own knowledge as provided under this Agreement.

Article 7
Final clauses

1. The Parties are aware that they are not eligible to hand over rights and duties according to this contract to any third person without previous written consent of all other contract parties.

2. The Parties from the Czech Republic are not responsible in any case for handling or on the contrary inactivity of the Parties from Taiwan and for results of the project phases solved by them. The parties from Taiwan are not responsible in any case for handling or on the contrary inactivity of the Parties from the Czech Republic and for results of the project phases solved by them. In case of dispute between the Parties from the Czech Republic and Taiwan, the relevant Parties will effort to its solution by negotiations with target to reach consensus. If the consensus will not be reached by 3 months from dispute appearance at the latest, eventually if the negotiations for solution of the dispute will not be commenced within this time, the dispute will be solved by three appointed arbitrators with English language under the jurisdiction of International Court of Arbitration in a third country, the final decision of which the Parties are binding themselves to respect.

3. It is possible to change the Agreement only by written amendments signed by all Parties.

4. The Agreement is concluded for terminated period – for the period approved by providers of the financial support (TACR and NSTC) for solution of the Project.

5. The Agreement shall be executed in five (5) originals, always one for each of the Parties. The electronic version will be forwarded to TACR via the data box of the Coordinator – CZ.

6. The contracting parties agree to the publication of the full text of this Agreement in the register of contracts in accordance with Act No. 340/2015 Coll., on special conditions for the effectiveness of certain contracts, publication of these contracts and on the register of contracts (Act on the Register of Contracts) in the Czech Republic. Publication of the Agreement through the register of contracts will be ensured by the Participant 1 - CZ.

7. The Parties are declaring that this Agreement is expression of their right and free will and is not concluded in strait and disadvantageous conditions. For testimony of that they are adding their signatures.

Annexes

Annex 1 – Project schedule

Signature sheets

In Prague on 31. 1. 2025

Coordinator - CZ
LEANCAT, s.r.o.

[redacted]

Petr Seghman, Company Executive

Project title: Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance

Project number: TQ16000070/ NSTC 114-2923-E-110-003-MY3

In Ostrava on 07. 02. 2025

Participant 1 – CZ
VSB – Technical University of Ostrava

[redacted]

.....
prof. RNDr. Václav Snášel, CSc., Rector

[redacted]

Project title: Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance

Project number: TQ16000070/ NSTC 114-2923-E-110-003-MY3

In Kaohsiung on

Coordinator - TW
National Sun Yat-Sen University

[redacted]..
Prof. Jenn-Kun Kuo, Vice-dean

Project title: Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance

Project number: TQ16000070/ NSTC 114-2923-E-110-003-MY3

In Shalun, Tainan city on

Participant 1 – TW
Industrial Technology Research Institute

[redacted]
Dr. Shing-Cheng Chang, Head of the department

Project title: Advanced AEM Technologies: Development, Real-Time Data Integration, Testing, and Predictive Modelling for Enhanced Performance

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