

COOPERATION AGREEMENT

PROJECT CO-OPERATION AGREEMENT (P.C.A.)

This cooperation agreement was made between:

1. Prof. Athanasios Mitropoulos, of Eastern Macedonia & Thrace Institute of Technology, St. Loukas, 65403, Kavala, Greece
 - Hereinafter called EMATTECH -
2. Dr. Konstantinos Laoudis, ECOTECH Ltd. 245 Syngros Avenue, 17122, Athens, Greece
 - Hereinafter called ECOTECH -
3. Helmholtz-Zentrum Geesthacht, Zentrum für Material- und Küstenforschung GmbH, Max-Planck-Str. 1, 21502 Geesthacht, Germany
 - Hereinafter called HZG -
4. Future Carbon GmbH, Dr. Walter Schuetz, Ritter-von-Eitzenberger-Straße 24, 95448 Bayreuth, Germany
 - Hereinafter called FutureCarbon

(EMATTECH, ECOTECH, HZG and FutureCarbon hereinafter together referred to as "the Parties" or the "partners")

RECITALS

Partners desire to enter into this Project Cooperation Agreement as the most advantageous form for the implementation of the Project "Development of **N**anotechnology-enabled 'next-generation' **M**embranes and their applications in Low-Energy, zero liquid discharge **D**esalination membrane systems" (NAMED) provided funding is successfully granted to each partner by its respective national funding body.

In consideration of the mutual promises contained in this agreement, partners agree as follows:

Article 1
PURPOSE AND SCOPE OF THE COOPERATION, DRAFT AGREEMENT

The present cooperation shall be conducted for the purposes of implementing the project “Development of **N**anotechnology-enabled ‘next-generation’ **M**embranes and their applications in Low-Energy, zero liquid discharge **D**esalination membrane systems”.

The scope of the Project is defined in the Project Description , Annex 1, which forms an integral part of this Agreement. However, in case of contradictions between the Project Description and this contract, the provisions of this contract shall prevail.

Article 2
DURATION – TERMINATION OF THE AGREEMENT

The term of this Agreement shall be for 39 months, commencing retroactively to 1.3.2018 and terminating on 24.05.2021 unless the Parties have agreed in writing on an extension of the term. This contract can only be terminated early for good cause. This PCA shall enter into force after having been signed by all the Parties and after all Parties have received from their national respective funding bodies funding commitment in accordance with their funding applications.

Article 3
CLASSIFICATION AND PERFORMANCE BY PARTNERS, WARRANTY, LIABILITY

- (1) Each partner shall apply all of the partner’s experience, training, and ability in discharging the partner’s assigned functions in the cooperation and in the performance of all work that may be necessary or advantageous to further the project’s interests.
- (2) The Parties shall use the time and care necessary for the implementation of the Cooperation Project as required and in consideration of the generally accepted rules of science and technology, in order to achieve an optimum result. The Parties shall conduct work-related discussions and agree on the progress of the work at reasonable intervals, involving the employees entrusted with the project-related work.
- (3) The Parties shall waive the enforcement of any warranty claims within the scope of the Cooperation Project with regard to the protectable and non-protectable work provided and the achieved work results.
- (4) Otherwise, each Party, to the extent permitted by law, shall only be held liable for any property damage or financial losses caused by wilful intent or gross negligence. In case of gross negligence liability consequential damages shall be excluded.

Article 4
CONTRIBUTION, COORDINATION, DECISIONS

- (1) Each partner shall contribute according to the needs of the Project and according to the Project Description , Annex 1. Each Party undertakes to use all reasonable endeavours to perform on time the tasks and work packages assigned to it in the Project Proposal and to make available rights and information on time to other Parties under the terms and conditions of Article 7.
- (2) Each Party shall name a contact person to be contacted with regard to all matters that will need to be agreed within the scope of the cooperation. Each Party undertakes to notify promptly any significant information, fact problem or delay likely to affect the Project.
- (3) HZG is the coordinator for the German Parties; EMATTECH is the coordinator for the Greek Parties. HZG for the German side and EMATTECH for the Greek side are responsible for and will ensure that all necessary information for reporting to the respective national funding bodies and all other things reasonably required by the national funding bodies are exchanged promptly within the cooperation in order to ensure that the funding obligations of the Parties are met.
- (4) Decisions shall be taken by simple majority. Each Partner has one vote. The partners will set up a Steering committee which will consist of one nominated person from each partner.
- (5) Employees of either Party who work on defined tasks at the premises of the respective other Party for a limited time, within the scope of the project-related work, shall be subject to the instructions given by the employees responsible at the Party concerned, to the extent required for carrying out the work. The relationships under the relevant service regulations and employment contracts shall not be affected.

Article 5
FINANCING

Each Party shall bear its own costs in connection with the carrying out of the Project and will be solely responsible for its applications to obtain any subsidies/grants/ funding therefore.

Article 6
CONFIDENTIALITY / RESTRICTION IN USE

- (1) Each Party agrees to receive and hold all information related to the submission and negotiation of the Project proposal “Development of **NA**notechnology-enabled ‘next-generation’ **ME**embranes and their applications in Low-Energy, zero liquid discharge

Desalination membrane systems” Project in confidence and all information and objects marked as “confidential” for a period of (5) years after receipt thereof and shall exercise the same degree of care in preventing the disclosure of information as it does in protecting its own information. Furthermore, the receiving Party promises not to use such confidential information or knowledge for a different purpose than those stipulated in the Project proposal (Annex 1) and not to file for intellectual property right protection for these. However, these obligations shall not apply to information that

- is common knowledge through publications or the like,
 - becomes common knowledge through no fault of the receiving Party,
 - was demonstrably known to the receiving Party before the date on which it was provided,
 - was generated by the receiving Party independently of such provision,
 - was provided to the receiving Party by a third party without any obligation to confidentiality.
- (2) Third Parties are all parties not being Contracting Parties to this PCA. However Affiliated Companies of the Contracting Parties and the Public Authorities (“the PAs”) are not deemed as third Parties, provided that these Affiliated Companies undertake to keep the same obligation as stipulated under this Article, and provided that such information provided to the PAs are marked as confidential.
- (3) Each Party is liable for its staff’s and its Affiliated Companies’ compliance with the terms of this Article 6.
- (4) The information or objects provided by another Party must be handled with care and, taking into account the obligation of confidentiality, to be retained until return and used only in accordance with the provisions of this PCA. A return or complete destruction takes place after completion of the project or after the departure of a Party at the request of the Party providing the information or object.

Article 7

OWNERSHIP OF RESULTS AND INTELLECTUAL PROPERTY RIGHTS

- (1) All protectable and non-protectable work results generated under the Cooperation Project exclusively by the employees of one Party are the property of this Party.
- (2) The Parties grant each other, for the duration and purposes of the Cooperation Project, the non-exclusive, non-transferable, non-sublicensable, irrevocable and royalty-free right of use to the protectable and non-protectable work results generated under the Cooperation Project.
- (3) In addition, the Parties grant each other, for the duration and purposes of the Cooperation Project, the non-exclusive, non-transferable, non-sublicensable and

royalty-free right of use to previously generated protectable and non-protectable work results to the extent necessary for the realisation of the Cooperation Project.

- (4) The Parties shall agree on a case-by-case basis on the granting of further rights of use, particularly for purposes outside of the Cooperation Project and after the expiration of the Cooperation Project. Such rights shall be granted on fair and reasonable market terms.
- (5) Joint work results are work results in which employees from both Parties are involved and whose parts cannot be attributed to one Party alone. Rights of use shall be granted in accordance with Article 7, paragraph 7.
- (6) Each Party may, according to its discretion, apply for a domestic and/or foreign patent or utility model for any invention made under the Cooperation Project based on work results generated by that Party, and claim the resulting industrial property rights. The Parties will inform each other about patent applications four weeks in advance of the filing of the application.
- (7) Joint inventions are inventions in which employees of more than one Party are involved and whose parts cannot be the subject of industrial property rights applications filed separately by each Party. The Parties shall come to agreements on the treatment of joint inventions, especially the application for and maintenance of industrial property rights and on the responsibility for the associated costs upon the occurrence of a jointly patentable invention and before the application process has been started. The Parties grant each other a non-exclusive, non-transferable, sublicensable, irrevocable and royalty-free right of use for the purposes and duration of the Cooperation Project. For purposes outside of the Cooperation Project or after the expiration of the Cooperation Project, the right of use shall be granted on fair and reasonable market terms. In the case of the rights to use joint inventions, the partners concerned will carefully evaluate unequal contributions, in particular with regard the requirements of the European Commission's State aid framework, and will compensate for imbalances through additional remuneration.
- (8) If a Party is not interested in filing an application for industrial property rights, the other Parties are free to pursue, at their own expense, the registration and exploitation of the relevant work results. The Party filing such an application shall release the other Party from having to pay inventor compensation. As far as joint inventions are concerned, the other joining Parties shall have the right of first refusal with regard to such pursuance.
- (9) The Parties are not responsible for ensuring that the rights of use granted under this Agreement are free of third-party rights. If they become aware of any third-party rights, they shall inform the other contracting Party accordingly and without delay.
- (10) The research institutions EMATTECH and HZG are entitled to freely use the Foreground Knowledge within any scientific area in connection with their research and educational activities including contract research. This implies that they may

continue to develop Foreground Knowledge to any extent, within any scientific area and without restrictions.

Article 8

- (1) The Parties will exchange amongst each other Material as described in Annex 1. The Parties will exchange amongst each other Material as described in Annex 1. The Material is provided cost-free.
- (2) The exchanged Material shall be used exclusively for the purposes described in the ANNEX. It must not be released to any person other than the employees of the Parties. It shall be handled confidentially and forwarded to third parties only with prior written approval of all other Parties.
- (3) Any Material provided is understood to be experimental in nature. It may have hazardous properties. The respective Provider makes no representations and extends no warranties of any kind express or implied. In particular the respective Provider makes no representations and extends no warranties as to the fitness of the Material for a particular purpose, or that the use of the Material will not infringe any patent, copyright, trademark or other proprietary rights of a third party.
- (4) The respective Recipient assumes all and any liability for damages, which may arise from its use, storage or disposal of the Material. The respective Recipient shall hold harmless the respective Provider including its employees for any loss, claim or demand which could be raised by the respective Recipient, or made against the respective Recipient by any other party, due to, or arising from, the use of the Material by the respective Recipient, except to the extent caused by gross negligence or wilful misconduct of the respective Provider.
- (5) The Parties acknowledge that the Material (including modifications of the original Material) is and shall remain the property of the Party that brings the respective Material into the Cooperation Project. At the request of the Party that brings the respective Material into the Cooperation Project, used (including modifications of the original Material) and unused Material will be returned or destroyed.

Article 9 Publications

- (1) Each Party shall have the right to publish the work results it has achieved within the scope of the Cooperation Project. However, the mutual protectable interests of either Party must also be taken into account. The Parties will ensure that publication does not jeopardize the registration of industrial property rights.
- (2) The Parties shall notify each other in due time about planned publications. Unless the other Party objects within a period of four weeks after it has received the proposed publication, its consent to the publication shall be considered granted. The publication date may be suspended for a limited time at the request of either Party, but no longer than for a period of five months, for example, in order to enable the respective Party to file an application for

industrial property rights. In the event that the Parties are unable to reach an agreement on the content and/or the form of the planned publication within the said time limit, the publication in question may also be filed for publication without the consent of the other Party provided that the publication does not disclose the other Party's work results or confidential information.

- (3) All publications shall refer explicitly to the Cooperation Project as the origin of the published results and to the sponsors providing the funds.
- (4) The employment rights and obligations of any staff members of the Partners with regard to publications shall not be affected. The Partners shall take the legal obligations and justified interests of doctoral and postdoctoral researchers into account to a reasonable extent, i.e. also by granting its consent to a shortening of the compulsory waiting period defined in Article 9, paragraph 2, if attainment of a doctorate or habilitation is affected by the work in the Cooperation Project.
- (5) The Parties plan to publish the work results in open access journals. The Parties will collaborate and do all things reasonably necessary towards an open access publication.

Article 10

ADDITIONS, ALTERATIONS, OR MODIFICATIONS, FINAL PROVISIONS

- (1) If any individual provision of this Agreement is held to be or becomes ineffective, the validity of the remaining provisions shall not be affected. In such a case, the Parties shall endeavour to agree on a supplementary clause to this Agreement in the spirit of the initially intended purpose by mutual consent.
- (2) Any amendments or supplements to this Agreement must be made in writing. This shall also apply to an amendment of the written form clause itself.
- (3) Neither Party may assign this Agreement wholly or in part without prior written consent of the other Parties.
- (4) Neither Party is entitled to represent another Party or all Parties together.
- (5) The provisions relating to intellectual property rights, publication, confidentiality, liability, applicable law and settlement of disputes shall survive the expiration or termination of this Agreement.
- (6) This Agreement shall be governed by the laws of GERMANY. If any dispute arises between the Parties in connection with this Agreement or the interpretation hereof, the Parties shall discuss such dispute in an attempt to resolve such dispute amicably. If within 45 days of the commencement of such discussion, such dispute cannot be resolved, any disputes regarding the terms of this Agreement and or performance

hereunder shall be subject to the jurisdiction of the district court of Munich, Germany.

Authorized to sign on behalf of:
[Signatures]
Cooperation Agreement NAMED

Place, date: Kavala, 25 May 2018

EMATTECH

1. Signature:
Name: Athanasios Mitropoulos
Title: Prof.

Cooperation Agreement NAMED

Place, date: Kavala, 25 May 2018

ECOTECH

2. Signature:

Name: Konstantinos Laoudis

Title: Dr.

Cooperation Agreement NAMED

Place, date: Geesthacht,

Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH

3. Signature:

Name:

Name:

Title:

Title:

Cooperation Agreement NAMED

Place, date:

Future Carbon GmbH

4. Signature:

Name: Walter Schuetz

Title: Dr.

ANNEX 1: Project Description