Horizon2020 Framework Programme

Project number 951974

Kick-off meeting report

Workpackage	WP1	Project Managing
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Document information

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Revision and history chart

Version	***Date***	***Comment***
0.1	30.09.2020	Complete report from the Kick-Off Meeting

Executive Summary

This report summarizes the kick-off meeting of CleanHME project (Clean Energy from Hydrogen-Metal Systems) that has received funding from the European Union's Horizon 2020 research and is directly related to the *FET Proactive action, call FETPROACT-EIC-05-2019*.

The meeting was held at the University of Szczecin, Poland and lasted three days – 23-25.09.2020. Due to the COVID-19 pandemic, the meeting was partly held in a hybrid manner, only some of the project participants came to the meeting, the rest took part in the conference via MS Teams platform.

The meeting allowed the participants to get to know each other and establish lines of communication. The main aim of the meeting – apart from ceremonial opening available to the media, industry, politics and the public – was to discuss wide range of collaboration aspects like:

- project schedule, managing and reporting,
- exchange of ideas on the level of individual WPs and between them,
- changes to the consortium agreement and election of the Steering Board representatives,
- organization of future meetings.

The first day of the conference was open for the general public and dedicated to the history, present status and perspectives of low energy nuclear reactions in Hydrogen-metal systems. There was also a press briefing for journalists in order to provide a wide publicity of this project.

1 Introduction

This report summarizes the kick-off meeting of the Horizon 2020 project CleanHME, which officially started on August 1st, 2020. The kick-off meeting was held at the University of Szczecin (Poland) and organized in the hybrid manner. The report is a deliverable related to the work package number 1 (WP1, Project Managing), the main task of which is coordination of the research project, project administration, research planning and management, as well as resolving potential problems and conflicts within the consortium.

2 Organization and structure of the meeting

CleanHME kick-off meeting was organized by the University of Szczecin (USZ), which is the coordinator of the project. The conference program is attached as Annex 7.1. The organizing committee consisted of five persons, members the Project Managing Team: Prof. Konrad Czerski, Dr. Natalia Targosz-Ślęczka, Dr. Agata Kowalska, MSc Mateusz Kaczmarski and MSc Edyta Kowalczyk-Łuc. The meeting was held in the hybrid manner due to the COVID-19 pandemic. The opening ceremony on the 23rd of September 2020 was held at the Rectorate of the University of Szczecin. Participation in the meeting on the first day was open to all interested persons coming from research, industry and schools. A remote connection to the meeting was possible via MS Teams platform. The conference link was published on the project website for broad public: http://www.cleanhme.eu.

In the first session of the kick-off meeting, twenty-five persons took part directly. Among them were not only members of the consortium, but also representatives of energy industry, i.e. Polish large companies PGE Group and Grupa Azoty S.A. Additionally, around 40 people attended remotely via MS Teams application. During this day, excellent lectures about low energy nuclear reactions were given to present history and state of the art of the research in this field. The leader of the HERMES consortium, which obtained a financial support in the same Horizon 2020 call and is dedicated to same research subject, presented objectives of that project in detail. Afternoon session was devoted to the review of experiments related to our project. In the evening, public had an opportunity to listen to two very interesting lectures. The first one was focused on another new energy technology – but based on thermonuclear fusion, and the second lecture, pointed out how energy policy may affect the climate change.

The second day of the meeting was organized in the Faculty of Physical, Mathematical and Natural Sciences at the University of Szczecin and was dedicated only to the members of CleanHME consortium. Twenty participants were present in person and twenty-five online. Work package leaders had a chance to present their previous achievements in the field. There was a special session devoted to presentation of commercial companies like SART, FutureOn, LAKOCO, BroadBIT and VEGATEC. In the afternoon, there was time for discussions within individual WPs that were concluded by a final panel discussion.

During the third day, participants visited eLBRUS laboratories at the University of Szczecin, contributing to the CleanHME project. Then, there was a session devoted to research and financial managing of the project and preparing corresponding reports. In the afternoon, the first General Assembly Meeting and Steering Board Meeting took place. Around twenty-five participants were online, and twenty in person.

The list of participants that were present in person and those who participated online is specified in Annex 7.2.

3 Conclusions from the discussions within WPs

Discussions within work packages (WP) were held on 24th of September in a hybrid manner. Each discussion took place in a different room. There were four groups: the first one focused on work packages number 1 and 7; the second grouped discussed on work packages number 2 and 5; the third group discussed on work package number 3 and the last, fourth group discussed about work packages number 4 and 6. Below notes from these discussions are placed.

3.1. WP1 and WP7 (Project Managing and Dissemination of Results)

Participants:

Natalia Targosz-Ślęczka	University of Szczecin
Konrad Czerski	University of Szczecin (partly)
Andras Kovacs	BroadBIT Energy Technologies
Mathieu Valat	BroadBIT Energy Technologies (partly)
Guido Parchi	FutureOn (partly)
Józef Złomańczuk	Uppsala University (partly)
Robert Michel	VEGATEC (partly)
Christophe Le Roux	CNRS (partly)
Jacques Ruer	SART von Rohr (partly)
Cyril Calatrava	SART von Rohr (partly)

Most of the WP1 activities started from the very beginning of the project. These include:

- Planning and management of the research project (some of the participants already started their work on experiment preparation, others started the procedures of purchasing or manufacturing the needed equipment);
- No specific problems or conflicts were recognized so far;
- The schedule for deliverables and milestones has been prepared and verified;
- The first milestone 1.1 “Kick-off meeting” has been reached;
- Deliverable 1.1 “Kick-off meeting report” with due time of 2. month will be delivered by the University of Szczecin using prepared deliverable template;
- Possible risks or delays were discussed, including COVID-19 pandemic restrictions for travels and meetings;
- Future internal meetings (concerning the whole consortium as well as the Steering Board) were roughly planed;
- Internal reports and documents will be distributed to the partners before the final submission to the European Commission;
- The General Assembly meeting was conducted to discuss changes in consortium agreement, election of the Steering Board, inquiries for including new participants interested in specific tasks of the project;
- The Steering Board has been selected to synchronize the work progress of individual WP’s;
- The deliverables should be reviewed by an internal reviewer two weeks before submission.

Some of the WP7 activities started from the very beginning of the project. These include:

- Deliverable 7.1 “Brand identity (BI)” with due time of 2. month will be soon reported, including logo and templates;

- Deliverable 7.2 “Project website (PW)” with due time of 3. month will be soon reported, including website cleanhme.eu, social media accounts (twitter account to be established as soon as possible);
- Deliverable 7.4 “Project-internal communication tools (IC)” with due time of 3. month will be soon reported, including mailing list, conferencing tools;
- Milestone no 7.1 “Project-internal communication tools” will be verified by the Communication report with due time of 3. month;
- New ideas for dissemination were discussed: videos – dynamic clips for youngest public; infographics – to be used on website, talks, roll-ups; brochure – to be distributed online, at schools, universities or conferences; newsletter to be distributed internally and externally using online tools;
- Data Management Plan was introduced to the consortium participants as a new deliverable no 7.5 added to the proposal before the final acceptance;
- Advantages of the data repository access was presented together with specific solutions to be considered; It was agreed to set up a project-internal data repository as soon as possible.

3.2. WP2 and WP5 (Accelerator Experiments and Theoretical Analysis

Participants:

Konrad Czerski	University of Szczecin (partly)
Matej Lipoglavsek	Josef Stefan Institute
Florian Meltzner	Massachusetts Institute of Technology
Sergio Bartalucci	University of Szczecin
Agata Kowalska	Maritime University of Szczecin (partly)
Mateusz Kaczmarski	University of Szczecin (partly)

An overview of low energy nuclear reactions (LENR) and corresponding theoretical approaches was given by Dr. F. Metzler (MIT). Plans of common accelerator experiments that should be performed during the first year of the project were discussed in detail. Constantan (CuNi alloy) with admixture of natural Lithium as a first target material that should be used in direct and inverse kinematics experiments for determination of the screening energies was proposed. The same material should be utilized in the first gas-loading experiments in order to demonstrate reproducibility of experiments.

3.3. WP3 (Gas-Loading Experiments)

Participants:

Bo Hoistad	Uppsala University
Guido Parchi	FutureOn (partly)
Józef Złomańczuk	Uppsala University (partly)
Dimiter Alexandrov	Lakehead University
Jean Paul Biberian	VEGATEC
Jacques Ruer	SART von Rohr (partly)
Arnoaud Kodeck	LAKOCO (partly)
Francesco Celani	INFN–LNF
Emilio Mariotti	Universita di Siena

Main goal for WP3 is to find LENR active materials, suitable for applications and the most effective ways to activate LENRs inside them.

The groups involved in WP3 are:

ARGAL: Testing of active materials. Test of a Mizuno type replica.

FutureOn: Testing of active materials inside a small "Rossi-Parkomov like" reactors made of stainless steel or alumina, which can operate up to about 1200°C. Testing of active materials along with methods for activating the LENRs reactions with a new innovative and larger reactor, integrating multiple LENR solicitation methods.

Uppsala University: Continuous test of the Constantan plus lithium bulk material in a hot reactor. Continuous test of a Mizuno type reactor. Test of any new interesting and potent reactor fuel. UU has built several small reactors dedicated for each experiment and can continue along that path.

BroadBIT: Production of fuel cells for high temperature test of reaction in Li-Ni-Cu alloy. Tests at Uppsala Univ. Preparation of nanostructured material, synthesized in a surface of carbon matrix. Tests at Lakehead Univ.

INFN: Anomalous heat effects in wires of copper-nickel alloys (Constantan) prepared in different ways and exposed to different run conditions.

Politecnico di Torino: Energy production from hydrogen embrittlement in metals during electrolytic experiments.

Universita di Siena: Plan to build an improved version of Piantelli's reactor - in order to reproduce earlier results from heat production in a hydrogen loaded nickel rod.

VEGATEC: Advanced and versatile reactor construction. Calorimeter construction.

LAKOCO: Heat excess in powder as well as bulk material followed by Helium emission.

Lakehead University: Testing of different materials in their interactions with deuterium, hydrogen and deuterium/hydrogen gas mixtures in terms of heat release and of helium (^{4}He and ^{3}He) synthesis. The experiments will be carried out at different temperatures and at different pressures in both plasma (DC and RF) mode and non-plasma mode.

Issues discussed:

Collaboration between different groups should be promoted. In particular if one group finds a promising fuel candidate and ignition method, that should be tested by other groups.

Positive results could be checked independently by other groups. Recent example is Uppsala-BroadBIT.

Another example could be the Mizuno type reactor Argal-Uppsala.

Laboratories preparing fuel wants to have those tested in different reactors at different laboratories. Also it was found that if the experimental results are obtained by using relatively expensive equipment then the corresponding experiments will be repeated at the same experimental facilities in presence of all interested project participants. For example, Uppsala can relatively easily accommodate several different tests in their quite versatile experimental arrangement.

Fuel consisting of palladium, nickel and deuterium in some configuration might be one of the tracks to follow.

How important is it to have the fuel material loaded with hydrogen/deuteron or any other gas?

What are the best experimental conditions to pursue, high pressure, low pressure, high temperature, low temperature, some dynamic stimulation, varying magnetic field, high frequency electric field ? No clear general answer can be given presently.

Specific WP3 meetings via Teams should be organized.

3.4. WP4 and WP6 (Preparation of Active Materials and Design of HME Sources)

Participants:

Cyril Calatrava	SART
Jacques Ruer	SART
Guido Parchi	FutureOn (partly)
Fabrice Michel	VEGATEC (partly)

The debate concerning WP4 allowed for the presentation of various fields of this WP devoted to preparation of the materials (powders, bulk and high-density hydrogen, as well as deuterium metal targets).

Several specific materials are of exceptional interest to the consortium participants: mineral precursors of nanostructured alloys, Ni bulk with additional surface alloying used by Mariotti, AlNi used by Biberian, LiN used by Alexandrov, Ni+Li+Cs_2SO_4 used previously in Prometeon, Constantan used by Celani, Kovacs and Valat. LIFCO proposed their expertise in fluidisied bed manufacturing of structured materials.

Within the WP4, the active materials will be prepared in collaboration with WP2 and WP3 (see the description for those packages).

Main WP6 activities are planned to start in year 2, once the necessary information regarding the potential sources of energy is gathered from the other WPs.

These sets of information will typically include for each type of source proposed:

- Form of energy: heat – electricity
- Energy characteristics: temperature of delivery – power density (W/m3) – expected lifetime of a single load of active material
- Activation and control modes
- Recycling of exhausted active materials

While waiting for these data during the first year, WP6 will elaborate a map of the different uses of heat for industrial and domestic purposes in order to evaluate the size of the potential market accessible for the different devices that will be studied later.

SART von Rohr will describe the various uses of heat thanks to its knowledge of fluid control in many industrial sectors. Depending on the temperature level heat is used in the form of hot water, pressurized water, steam, heated oil. Conversion into electricity can be made via various thermodynamic systems like ORC (Organic Rankine Cycles), Stirling engines, Steam turbines.

FutureOn will study the direct production of electricity. For some concepts it may be the collection of charged particles emitted by the system. Another solution is conversion by thermoelectricity. Prometeon is presently testing new thermoelectric converters that may prove of interest for the project if successful.

4 Conclusions from the General Assembly meeting

During the last day of the conference (25th of September 2020) the General Assembly Meeting took place. During this meeting several decisions have been made. First of all, consortium participants decided not to perform any modifications for the Consortium Agreement. During this meeting also election of representatives to the Steering Board took place. The outcome of this election is the group of eleven persons forming the steering board committee:

1. Bo Hoistad UU
2. Ugo Abundo FUT
3. Andras Kovacs BET
4. Christophe Le Roux CNRS
5. Matej Lipoglavsek JSI
6. Fabrice Michel VEGA
7. Jean-Paul Biberian VEGA
8. Francesco Celani INFN
9. Jacques Ruer SART
10. Alberto Carpinteri POLITO
11. Natalia Targosz-Ślęczka USZ

During the meeting, the project participants also decided that all the following steering board meetings will be organized once per quarter by the leader of the WP1 and will be mainly held online. The two nearest meetings will be organized on December 2020 and March 2021. Next Consortium Meeting is planned in September 2021 and will be organized by the Uppsala University in Sweden.

5 Dissemination of the kick-off meeting

The kick-off meeting was organized not only for the participants of the project, but also it was open for other scientists and commercial companies interested in energy production. Especially the first day was used to present the CleanHME project to general public, regulating authorities and possible industrial partners needed for future development.

To ensure the broad public access, the conference link was published on the project website: http://www.cleanhme.eu

as well as the University of Szczecin website:

https://usz.edu.pl/cleanhme-uroczyste-rozpoczecie-projektu/

FaceBook of the University of Szczecin:

https://pl-pl.facebook.com/UniwersytetSzczecinski/

and Institute of Physics University of Szczecin website:

https://fiz.usz.edu.pl/cleanhme-konferencja-23-09-25-09-2020/.

The information about the project and conference was also disseminated using specially prepared conference posters (see Annex 7.3) which were distributed in high schools and Szczecin Universities.

On the first day of the kick-off meeting, a short press conference was organized, during which industry and science representatives briefly presented the project. Among the representatives were: Prof. Andrzej Skrendo, the Vice-Rector for Science of the University of Szczecin, Prof. Konrad Czerski (University of Szczecin, the CleanHME project leader), Dr. Bohdan Bieg from the Maritime University of Szczecin (project partner), Dr. Jacques Ruer from SART von Rohr (project participant) and Prof. Jean-Paul Biberian from VEGATEC (project partner). The same persons solemnly opened the conference (see Fig. 1 and 2) in the Senate of the University of Szczecin.

Figure 1 Press conference before the opening celebration of the CleanHME kick-off meeting.

The project leader, Prof. Konrad Czerski and other participants gave also interviews about the project in local radio and television stations:

https://radioszczecin.pl/276,9173,radio-szczecin-na-wieczor

https://szczecin.tvp.pl/50001917/badania-nad-nowym-zrodlem-energii-25-mln-euro-dla-naukowcow-z-us.

During the CleanHME kick-off meeting another important meeting took place, so called Future Tech Week 2020, an initiative of the European Innovation Council Pathfinder, featuring creative contributions from across Europe and beyond with a focus on Future and Emerging Technologies (FET). Natalia Targosz-Sleczka (University of Szczecin) posted 3 short pieces of information about CleanHME project and the kick-off meeting taking place. The text messages were:

- The CleanHME project is implemented under the European program Horizon 2020 within the competition FET–Proactive.
- On September 23-25, 2020, the kick-off meeting of CleanHME project is taking place at the University of Szczecin, Poland, the coordinator of the project.
- The main goal of the CleanHME project is to develop a new, clean, safe, compact and highly efficient energy source based on hydrogen-metal systems that could be a breakthrough in both private and industrial applications.

Figure 2 Opening celebration of the CleanHME kick-off meeting.

6 Social Events

During the kick-off meeting of the CleanHME project the consortium's participants and guests could meet each other and discuss the scientific potential of the low energy nuclear reactions. The conference gave opportunity to exchange ideas, consider different approaches and propose solutions to some of the most intriguing tasks. Social events were planned to enable the exchange of ideas in a relaxed manner. Those included:

- Welcome Banquet on September 22, 2020;
- Boat trip around the port of Szczecin on September 23, 2020;
- Conference Dinner on September 24, 2020 ;
- Exhibition: How to disseminate new energy sources on September 24-25, 2020.

Some photos are presented in Annex 7.4 to illustrate atmosphere of these events.

7 Annexes

Annex 7.1 – CleanHME Kick-Off Meeting Agenda

Clean Energy from Hydrogen-Metal Systems
- CleanHME -

Kick-Off Meeting of the Project Consortium supported by the EU grant 951974:
FETPROACT-EIC-05-2019 Boosting emerging technologies
Breakthrough zero-emissions energy generation for full decarbonization

23.09.-25.09.2020, University of Szczecin, Poland

The main aim of the project is to develop a new, clean, safe, compact and very efficient energy source based on Hydrogen-Metal systems, which could be a breakthrough for both private use as well as for industrial applications.

Organizers:
Institute of Physics
Faculty of Physical, Mathematical and Natural Sciences
University of Szczecin, Poland
ul. Wielkopolska 15, 70-451 Szczecin

Organizing Committee:
K. Czerski, N. Targosz-Ślęczka, M. Kaczmarski, A. Kowalska, Edyta Kowalczyk-Łuc

Combination of the face-to-face conference and on-line participation (MS Teams platform)

Conference Program:

Tuesday, September 22 – Willa West-Ende, al. Wojska Polskiego 65, 70-478 Szczecin
18:00- 19:00 Registration of the conference participants
19:00 Welcome Banquet

Wednesday, September 23 – "Rektorat" of the University of Szczecin, al. Papieża Jana Pawła II 22a, 70-453 Szczecin, room 111
8:00-10:00 Registration of the conference participants
9:00 Press Conference
10:00 Opening of the Conference
Rector of University of Szczecin
Rector of Maritime University of Szczecin
Representatives of the local Government and City

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10:30 Opening Lecture: History of Low Energy Nuclear Reactions (P. Hagelstein, MIT, USA, 30' talk, recorded)
11:00 Plenary Lecture: Present Status and Perspectives of Low Energy Nuclear Reactions (J. Kasagi Tohoku University, Japan, 25' talk + 5' discussion)
11:30 Clean Energy from Hydrogen-Metal Systems: Problems to Solve (K. Czerski, University of Szczecin, Poland)
12:00 HERMES Project, (Pekka Peljo, University of Turku, Finnland)

12:30 – 13:30 Lunch (catering)

Chair: Natalia Targosz-Ślęczka
13:30 Electrolysis experiments, (J.P. Biberian, VEGATEC, France)
14:00 Gas loading experiments (F. Celani, INFN, Italy)
14:30 Accelerator experiments (M. Lipoglavsek, Josef Stefan Institute, Slovenia)
15:00 He-4 detection and correlation to the heat excess (D. Alexandrov, Lakehead University, Canada)

15:30 – 17:30 A short boat trip around the port of Szczecin

17:30 Catering

Chair: Konrad Czerski
18:00 Evening Public Lecture: Hot Nuclear Fusion, (M. Jakubowski, Max Planck Institute for Plasma Physics, Greifswald, Germany)
18:40 Evening Public Lecture: Climate Change and Energy Production Policy (Jacques Ruer, SART von Rohr, France)

Thursday, September 24 – Institute of Physics, Faculty of Physical, Mathematical and Natural Sciences, University of Szczecin, ul. Wielkopolska 15, 70-451 Szczecin, room 305

Chair: Jacques Ruer
9:00 Structure and research program of the CleanHME, K.Czerski (USZ)
9:20 WP1 and WP7: Project Managing and Dissemination, N. Targosz-Sleczka (USZ), A. Kovacs (BET)
9:40 WP2: Accelerator experiments, K. Czerski (USZ) + S. Bartalucci (INFN) + M. Lipoglavsek (JSI)
10:00 WP3: Gas Loading Experiments (Bulk Materials) and Detection Systems, Bo Hoistad (UU) + E. Mariotti (UniSi)
10:20 WP3: Gas Loading Experiments (Powder Materials), VEGA + FUT
10:40 WP3: Liquid/solid systems, A. Carpinteri (PoliTo)

11:00 -11:20 Coffee Break

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Chair: Sergio Bartalucci

11:10 WP4: Preparation of active materials, Mathieu Valat on behalf of Ch. Le Roux (CNRS)

11:30 WP5: Theoretical Analysis, K. Czerski, V. Vysotskii

11:50 WP6: Application and Design of HME sources, SART

12:10 -13:10 Presentation of Commercial Companies and Research Associations (10' for each, not presented before):

Cyril Calatrava, SART
Jozef Zlomanczuk, UU
Guido Parchi, FUT
Arnaud Kodeck, LAKOCO
Andras Kovacs, BET
Robert Michel, VEGATEC

13:10 – 15:00 Lunch in chosen restaurants

15:00 -16:10 Discussion within WPs (separate conference rooms at the MS Teams platform)

WP1&WP7: N. Targosz-Ślęczka, A. Kovacs, room 305
WP2&WP5: F. Metzler, S. Bartalucci, M. Lipoglavsek, room 319
WP3: Bo Höistad, J.P. Biberian, G. Parchi, F. Michel, room 315
WP4&WP6: Ch. Le Roux (CNRS), Jacques Ruer (SART), room 321

16:10 – 16:30 Coffee Break

16:30 - 17:30 Panel discussion and conclusions, *Chair: Jean-Paul Biberian*

19:00 23:00 Conference Dinner, Wyszak Browar Rodzinny, ul. Msciwoja II 8, 70-535 Szczecin

Friday, 25 September – Institute of Physics, Faculty of Physical, Mathematical and Natural Sciences, University of Szczecin, ul. Wielkopolska 15, 70-451 Szczecin, room 305

9:00- 10:00 Visiting of the eLBRUS Labs

Chair: Guido Parchi

10:00 Research Managing (Reporting) of the Project, A. Kovacs (BET)

10:30 Financial Managing (Reporting) of the Project, A. Bartoszewska (Regional Contact Point, H'2020), E. Kowalczyk-Łuc (USZ)

11:00 Time Schedule of the Project, A. Kowalska (AM)

11:30 11:50 Coffee Break

11:50 -13:30 General Assembly Meeting:

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Changes to the Consortium Agreements
Election of representatives to the Steering Board
Organization of the Steering Board Meetings
Organization of the next Consortium Meeting

13:30 – 14:30 Lunch (catering)

14:30 Meeting of the Steering Board
15:00 Meeting of individual WP participants
15:30 Final remarks and closing the conference, Bo Höistad

Annex 7.2 – CleanHME Kick-Off Meeting List of Participants

The list of participants that came to the meeting in person:

CLEAN HME

EUROPEAN UNION

Clean Energy from Hydrogen-Metal Systems

– CleanHME –

Kick-Off Meeting of the Project Consortium supported by the EU grant 951974:

FETPROACT-EIC-05-2019 Boosting emerging technologies

Breakthrough zero-emissions energy generation for full decarbonization

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ul. Wielkopolska 15, 70-451 Szczecin

Organizing Committee:

K. Czerski, N. Targosz-Ślęczka, M. Kaczmarski, A. Kowalska, Edyta Kowalczyk-Łuc

Combination of the face-to-face conference and on-line participation (MS Teams platform)

List of participants:

	Name	Institution	Signature
1	Sergio Bartalucci	Instituto Nazionale di Fisica Nucleare, Italy	
2	Jean-Paul Biberian	Vegatec, France	
3	Cyril Calatrava	SART von Rohr, France	
4	Elisa Czerski	Rethink Etics, Germany	
5	Konrad Czerski	University of Szczecin, Poland	
6	Marcin Jakubowski	Max Planck Institute, Germany	
7	Mateusz Kaczmarski	University of Szczecin, Poland	
8	Arnaud Kodeck	Lakoko, Belgium	
9	Andras Kovacs	BroadBIT Energy Technologies, Slovakia	

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CLEAN HME

EUROPEAN UNION

	Name	Institution	Signature
10	Edyta Kowalczyk-Łuc	University of Szczecin, Poland	
11	Agata Kowalska	Maritime University of Szczecin, Poland	
12	Matej Lipoglavsek	Jožef Stefan Institute, Slovenia	
13	Robert Michel	Vegatec, France	
14	Guido Parchi	FutureOn, Italy	
15	Jacques Ruer	SART von Rohr, France	
16	Götz Ruprecht	Institut für Festkörper-Kernphysik, Germany	
17	Marcin Ślęczka	University of Szczecin, Poland	
18	Natalia Targosz-Ślęczka	University of Szczecin, Poland	Natalia Targosz-Ślęczka
19	Mathieu Valat	BroadBIT Energy Technologies, Slovakia	MATHIEU VALAT
20	Józef Złomańczuk	Uppsala University, Sweden	Józef Złomańczuk
21	Magdalena Białomazur	Grupa Azoty Zakłady Chemiczne "Police" S.A.	Białomazur
22	Przemysław Sołekowski	Grupa Azoty Zakłady Chemiczne Police	Sołekowski
23	Joanna GOLCZYK-PASIK	PGE GIEKSA O/ZEDO	
24	Bohdan Bizy	Maritime University of Szczecin	Bizy
25	Mariusz Oniszski	ZUT	M. Oniszski
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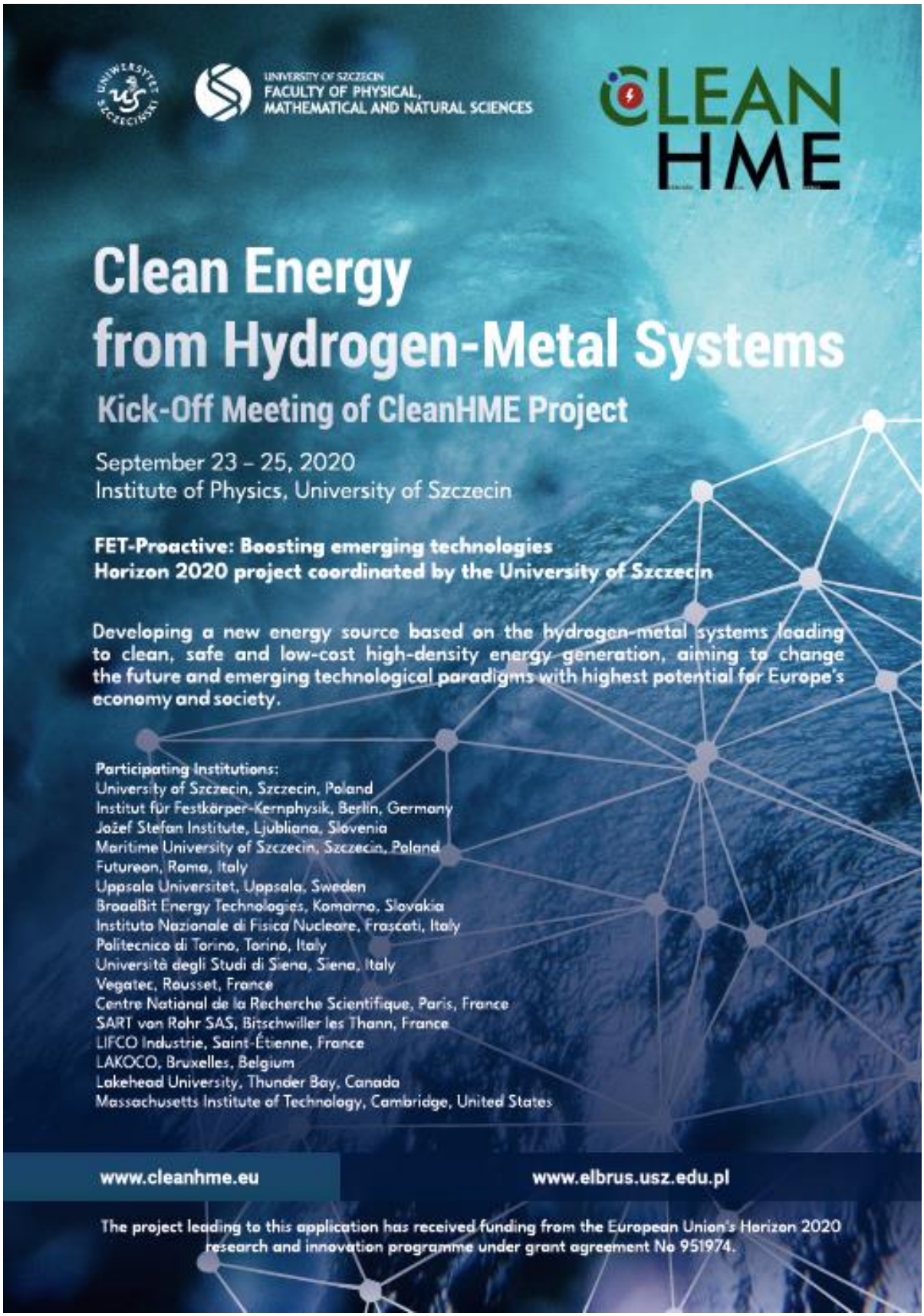
The list of participants taking part in the conference via MS Teams

Name	**Institution**
Vladimir Vysotskii	University of Kiev, Ukraine
Ugo Abundo	FutureOn, Italy
Ubaldo Mastromatteo	FutureOn, Italy
Bo Hoistad	Uppsala University, Canada
Dimiter Alexandrov	Lakehead University, Canada
Francesco Celani	Istituto Nazionale di Fisica Nucleare, Italy
Cesare Lorenzetti	Istituto Nazionale di Fisica Nucleare, Italy
Catia Conti	Istituto Nazionale di Fisica Nucleare, Italy
Alberto Carpinteri	Politecnico di Torino, Italy
Oscar Borla	Politecnico di Torino, Italy
Francesco Montagnoli	Politecnico di Torino, Italy
Domenico Scaramozzino	Politecnico di Torino, Italy
Emilio Mariotti	Universita Degli Studi di Siena, Italy
Fabrice Michel	VEGATEC, France
Christophe Le Roux	Centre National de la Recherche Scientifique, France
Constantin Iacob	LIFCO Industrie
Peter Hagelstein	Massachusettes Institute of Technology, USA
Florian Metzler	Massachusettes Institute of Technology, USA
Jirohta Kasagi	Tohuku University, Japan
Pekka Peljo	Turku University, Finland
Agata Bartoszewska	Regional Contact Point H'2020
Jelena Vesic	Josef Stefan Institute, Slovenia
Aleksandra Cventinovic	Josef Stefan Institute, Slovenia

Table 1 List of online participants

Annex 7.3 - CleanHME Kick-Off Meeting Poster



Annex 7.4 - CleanHME Kick-Off Meeting Photo Gallery

Figure 3 Welcome Banquet (22/09/2020)

Figure 4 Lecture hall at Rektorat of the University of Szczecin

Figure 5 Exhibition: How to disseminate new energy sources

Figure 6 Boat trip around the port of Szczecin

Figure 7 Lecture room at the Faculty of Physical, Mathematical and Natural Scinces

Figure 8 Conference dinner

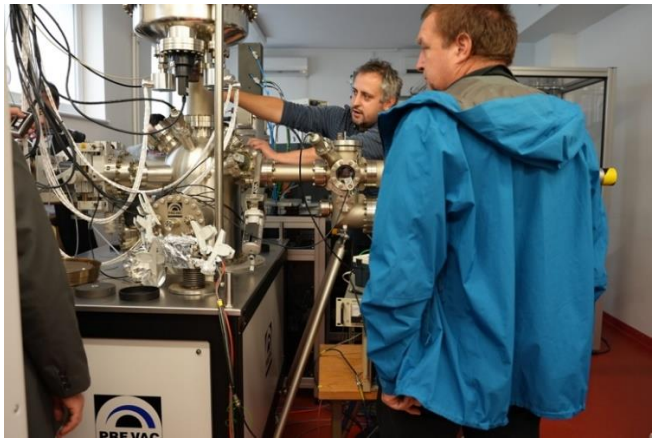


Figure 9 Visit at the eLBRUS laboratories

Figure 10 Meeting participants in the lecture room

Figure 11 Meeting participants in front of the Faculty

Figure 12 Coffee break