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CDTI-NEDO online Joint Workshop on the Hydrogen Technology

Date: November 17th-18th 2021 (4 p.m. Japan Standard time; 8 a.m. Spain Peninsular time)

Speakers Profiles

Mr. Javier PONCE, Director General, CDTI

Mr. Javier Ponce is an Industrial Engineer graduated from the Polytechnic University of Madrid, Master in Business Administration (MBA) from the Instituto de Empresa (IE) and Degree in European Communities from the Spain's Diplomatic School.

He began his professional career in 1986 as a fellow and, later, as a researcher of the CSIC (Higher Council for Scientific Research). Later, he worked as a design engineer and later as Head of the Microelectronics Laboratory of the AMPER telecommunications group.



In 1992, he joined the CDTI as a Manager of International Programmes and Spanish Delegate to the European Union for R & D Programs during the Framework Programs III and IV. Later positions are Head of the Office for the Spanish Chairmanship of the international Eureka Programme for Technological Cooperation (40 countries), Head of Studies & Promotion Department of the CDTI, Director of Operational Management and Secretary of the Board of Directors. Since 2012, he managed the global economic and financial management of the CDTI as well as the investment policy in capital of technological companies. In addition, he also was a Member of the Board of the public investment company INNVIERTE.

In July 2018, he was appointed Director General of the CDTI.

Mr. Hiroaki ISHIZUKA, Chairman, New Energy and Industrial Technology Development Organization (NEDO)

Mr. Ishizuka was appointed Chairman of the New Energy and Industrial Technology Development Organization (NEDO) by the Minister of Economy, Trade and Industry in 2018. NEDO is a national research and development agency that creates innovation by promoting technological development necessary for the realization of a sustainable society.

Prior to his current position, he served as Member of the Board, President and Chief Executive Officer at Mitsubishi Chemical Corporation from 2012. He also served to lead various public organizations such as The Society of Polymer Science, the Japan Institute of Invention and Innovation, The Dia Foundation for Research on Ageing Societies, the Japan BioPlastics Association, the Japan Association for Chemical Innovation, The Japan Plastics Industry Federation, the Keidanren (Japan Business Federation) Committee on Europe, the Plastic Waste Management Institute, and the Japan Hygienic Olefin and Styrene Plastics Association during his business carrier.



Mr. Ishizuka joined Mitsubishi Chemical Industries Limited (currently known as Mitsubishi Chemical Corporation) after graduating from the Department of Chemistry in the School of Science at the University of Tokyo.



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Dr. Javier BREY, Chairman, Spanish Hydrogen Association

Dr. Javier Brey is a Telecommunications Engineer from the University of Seville, and holds a PhD from Pablo de Olavide University, Seville; his doctoral thesis addressed the Hydrogen Economy. He has taken a Management Development Course at the IESE business school, Spain.

He joined the Abengoa team in 1998 and started to work on R&D projects related with hydrogen and fuel cells. In 2001, he was appointed General Manager of Greencell, the Abengoa company dedicated to ethanol reforming for hydrogen production; and, in 2003, he was appointed General Manager of Hynergreen, the company focused on hydrogen and fuel cells. In 2013, he was appointed CEO of Abengoa Hidrógeno, the Abengoa Business Unit focused on hydrogen and fuel cells. From there he committed to the international expansion of the business. He was a Director of the Dutch company HyGear for 6 years. Said company focuses on small scale hydrogen production.



In 2016, he founded H2B2 Electrolysis Technologies (H2B2) and currently he is the CEO of the company.

He is currently President of the Spanish Hydrogen Association (AeH2), Vice-President of the European Hydrogen Association (EHA), Vice-President of the Spanish Fuel Cell Association (Appice) and Secretary of the Spanish Hydrogen and Fuel Cell Technology Platform (PTE-HPC). He is also an Associate Professor at Loyola University (Spain). In addition, he has actively participated on AENOR's Standardization Committees for hydrogen as fuel and for fuel cells and has represented Spain on the corresponding international Committees.

Mr. Eiji OHIRA, Director General Fuel Cell and Hydrogen Technology Office, New Energy and Industrial Technology Development Organization (NEDO)

Mr. Eiji Ohira is the Director General of the New Energy and Industrial Technology Development Organization (NEDO)'s Fuel Cell and Hydrogen Technology Office. In this capacity, he is responsible the overall strategy, execution and coordination of NEDO's research, development and demonstration project on fuel cell and hydrogen.



He has also coordinated fuel cell and hydrogen activities with international stakeholders, through International Energy Agency's Technology Collaboration Program (IEA TCP: Advanced Fuel Cell & Hydrogen), and International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE).

He joined NEDO in 1992, just after graduation from the Tokyo University of Science. He served as a visiting scholar at the Massachusetts Institute of Technology in 1997-1998.

Before taking up the current position in April 2013, he served in several positions, including Representative at NEDO Asian Representative Office, Director of the Energy Storage Technology Division.



Mr. Hiroshi FUKUSHIMA, Chairman of Planning and Operation Committee, Japan Hydrogen Association

Mr. Hiroshi Fukushima had worked for 32 years at the Ministry of Economy, Trade and Industry (METI), where he was deeply involved in enactment of domestic regulations related to the Japanese energy policy, and in planning and formulation of crisis management, including industrial safety.

Since November 2019, he has been in charge of gas safety and promotion of hydrogen energy at Iwatani Corporation.

Since December 2020, he also has been the chairman of planning and operation committee of Japan Hydrogen Association (JH2A) to accelerate “hydrogen society” to come.



Mr. José F. GALLEGOS, Innovation Manager, ACCIONA

Mr. José Fernando Gallego is an Industrial Engineer specialized in Energy from the University of Seville with two postgraduate degrees in electricity generation technologies (UPM) and in Industrial Research (UNED). He has been responsible for Innovation at Acciona since October 2018 where he coordinates and manage technical innovation projects in the field of renewable energies, hybridization and associated technologies such as concentrated solar power and energy storage.

Currently Mr. Gallego is the coordinator of the OCEANH2 project seeking to optimize the generation, storage and distribution of offshore green hydrogen from offshore floating wind and photovoltaic technologies.

Before joining Acciona, he developed his work at Tecnatom where for seven years he held various positions as responsible of thermal process and control systems modeling or project manager for engineering and training simulators, gaining extensive experience in the design and the operation of a multitude of technologies.





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Mr. Yasuhiro FUJITA, Deputy General Manager Clean Energy Project, Technology Policy Center, Corporate Research & Development, ASAHI KASEI Corp.

Mr. Yasuhiro FUJITA is an energy system engineer graduated a master's degree from Department of Nuclear Engineering, Osaka University.

In 2000, he joined the Japan Steel Works, Ltd. and started his career as a researcher of metal hydrides and their applications. In 2010, he was assigned to technical development and structural analysis of large wind turbines. From 2016, he focused on the feasibility study of "Power to Gas" system, which aims to synthesize carbon-neutral methane from green hydrogen and exhaust CO₂, commissioned by NEDO.

In 2018, he moved to Asahi Kasei Corporation, and joined the project of the world-largest alkaline water electrolyzer system at Fukushima Hydrogen Research Field, commissioned by NEDO.

Presently, he leads the development of the operation and management system of alkaline water electrolyzer.



Mr. Mónica SÁNCHEZ, Hydrogen Coordinator, Renewable Gases Division, ENAGÁS

Mr. Mónica SÁNCHEZ is a PhD in Chemical Engineer and Master in Environmental and Chemical Process Engineering.

More than 14 years of experience in the field of hydrogen technologies, developing R&D projects related to the entire hydrogen value chain. These R&D activities have been carried out in different entities such us Foundation CIDAUT (2006-2008), SILIKEN S.A. (2008-2010) and since 2010 at the National Hydrogen Center (CNH2), where she has worked as Head of the Applied Engineering Department during more than 10 years, focus on the deployment of hydrogen infrastructures.

Recently, in February 2020, she joined ENAGÁS as Hydrogen Coordinator in the Renewable Gases Division, identifying new opportunities and promoting projects in the field of hydrogen technologies.



Besides this, she has been associate professor in several Master's degrees and has more than 30 publications and works submitted at national and international level.



Mr. Tetsuya YOSHIDA, Power to Gas Business Promotion Office, R&D Headquarters, HITACHI ZOSEN Corp.

Mr. Tetsuya YOSHIDA is an Industrial Engineer graduated from Hokkaido University of Japan and Master in Industrial Engineering from the university. He began his professional career in Ataka-Daiki Corporation (then one of subsidiaries of Hitachi Zosen Corporation) as an engineer in the field of research and development of PEM (Proton Exchange Membrane) type electrolyzer.

From 2007 to 2010, he engaged in NEDO (New Energy and Industrial Technology Development Organization of Japan) project for the development of packaged cell of electrolyzer and fuels cells. From 2009 to 2012, he was a team member for the upscaling the PEM type electrolyzer and further he worked for the team for NEDO project for the development of Alkaline-Water type electrolyzer.



On 01st April 2014, Ataka-Daiki Corporation was merged by Hitachi Zosen Corporation and all the business and technical R&Ds of electrolyzer were taken care by Hitachi Zosen.

From 2016 to 2019, he worked for the development of MW capacity electrolyzer, which was the first case in Japan. Recently, he was assigned as the leader of research and development of longer durability and less cost PEM type electrolyzer.

Ms. Covadonga GARCIA, Bid and Proposal Manager, H2B2 ELECTROLYSIS TECHNOLOGIES

Ms. Covadonga García is an Industrial Engineer from the University of Seville. She also has a Diploma in Advanced Studies in Control Systems from the University of Huelva and has completed a PMD (Program for Management Development) at the Loyola Andalucía University.

She accumulates 19 years of experience in the hydrogen and fuel cells sector, having held different positions. He began his professional career at Abengoa Hydrogen as a project engineer, participating in projects in various sectors, some as demanding as aerospace and defense both nationally and internationally. Subsequently, she took over Project Control, pursuing the technical-economic fit of the projects.



Ms. García is the co-author of several patents, all of them related to the production of hydrogen and has participated in numerous conferences, having made various publications, all linked to the hydrogen sector.

Currently, and since joining H2B2 in 2016, she is responsible for bids, proposals, as well as subsequent negotiation of contracts. From the bidding department, technical solutions are proposed according to the needs of the different clients, always looking for the best technical-economic solution.



Dr. Norikazu OSADA, Expert Carbon Capture and Recycle Technology Group Chemical Engineering R&D Department Energy System Research & Development Center, TOSHIBA ENERGY SYSTEMS & SOLUTIONS Corp.

Dr. Norikazu OSADA graduated from the Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, and completed the PhD degree in 2007. His doctoral dissertation is on "Solid Oxide Electrolysis cells for efficient hydrogen production". He specializes in electrochemistry and inorganic materials chemistry.

He began his professional career as a researcher of the R&D center in TOSHIBA. During this time, he was involved in research and development on solid oxide fuel cells, solid oxide electrolysis cells, high-capacity electrodes for LIBs, and highly sensitive sensor devices.

In 2016, he moved to the Power and Industrial Systems Research & Development Center in TOSHIBA, where he has been engaged in SOEC R&D. Due to organizational changes, his affiliation changed to Energy Systems R&D Center in Toshiba Energy Systems & Solutions Corporation in 2018. He is leading their SOEC technology development in TOSHIBA including the NEDO projects, and very appropriate person for telling their resent activities.



Dr. Marta MAROÑO, Coordinator of Hydrogen Technologies Strategic Research Area, CIEMAT

Ms. Marta MAROÑO is a Doctor in Chemical Engineering, Master in nuclear energy, senior researcher at CIEMAT, with more than 25 years of experience.

She worked in the area of operational safety for more than 10 years. In 2005 she joined the Combustion and Gasification Division of CIEMAT.

Her main expertise in the field of hydrogen technologies includes biomass and wastes valorisation, syngas cleaning, upgrading technologies for hydrogen production by thermochemical routes and hydrogen separation and purification with membranes including CO₂ capture using solid sorbents.



Coordinator of H₂ Strategic Research Area of CIEMAT and main contact point in H₂ issues for different international associations: EERA (European Energy Research alliance), FCH JU (Hydrogen Europe Research). Member of EHSP (European Hydrogen Safety Panel).



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Mr. Seiji SANO, Project General Manager Commercial ZEV Fundamental Development Div. Toyota ZEV Factory, TOYOTA MOTOR Corp

Mr. Seiji Sano graduated from Osaka University school of engineering science and joined Toyota Motor Corporation in 1991. He had been in charge of development of automobile components from 1991 to 1999. Then, he joined FC system development division in Toyota and succeeded in commercialization of FC technology.

He has over 20 years' experience in FC development. Now, he is a general project manager of future H2 & FC system development.



Mr. Emilio GARCIA, Director, Innovation Department, TALGO

Mr. Emilio García is an Industrial Engineer from the Universidad Politécnica de Valencia, PhD in Industrial Engineering from the Universidad Politécnica de Madrid and executive MBA from the Instituto de Empresa. Currently he works in the company Talgo as Director of Innovation, leading the development projects of the company.

In addition, he teaches the courses "Resistance of Materials" in a Degree and "Railway Dynamics and Talgo Technology" in the Master in Railway Systems and Railway Dynamics at ICAI. He has directed numerous final projects and doctoral projects. He teaches railway training at EADIC technical school.

Since 2017, he is a member of the Scientific Advisory Committee of CSIC.

He is as well representative of the company Talgo at the European Commission for the development of European innovation lines in the railway field.





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Mr. Ikuo INOUE, Group Leader, FC Mobility Promoting Group, Next Mobility Development Department, TOYOTA TSUSHO Corp.

Mr. Ikuo Inoue joined Toyota Tsusho in 2010 and has been involved in the development of new businesses in the energy field, such as the biodiesel production business in Southeast Asia and the smart grid business in Japan and overseas.

Since 2015, he has been mainly engaged in hydrogen supply related business development for fuel cell (FC) mobility, and now as a group leader of the FC Mobility Promoting Group, he is in charge of hydrogen production and supply business management and development for various mobility equipped with fuel cells globally.

In addition, he also serves as the representative executive officer of Japan Mobile Hydrogen Station Service, a limited liability company that operates eight hydrogen stations in Japan.



Ms. Cristina BALLESTER, Process Engineer at Open Innovation Unit, National Hydrogen Centre (CNH2)

Ms. Cristina BALLESTER was graduated as Chemical Engineer (2008) at the University of Castilla-La Mancha. She holds a master's degree in Renewable Energies (2011).

She has been working more than 10 years in the engineer department as project engineer, control and instrumentation engineer and process engineer in various fields of industry such as oil and gas, energy and environment and waste management. She has been located all of her professional career between United Kingdom and Spain.

She started working in Spain in ELCOGAS as junior process engineer. Later she became part of the engineer department of IDOM. She moved to the U.K. to work in different entities such as DPS Solutions, Penspen and Pyrocore. She lived there for 6 years and she eventually moved back to Spain to join the National Hydrogen Centre where she is currently working in the Open Innovation Unit working alongside the H2Ports project team.





Mr. Ryuichi HIROTANI, General Manager, Hydrogen Refueling Station Construction Dept. IWATANI INTERNATIONAL Corp.

Mr. Ryuichi Hirotani joined Iwatani Corporation in 1998, starting his working career in engineering and R&D.

He joined the R&D project WE-NET by NEDO, of Japanese first hydrogen refueling station. Also he has the chance to join national R&D projects regarding hydrogen, safety, liquid hydrogen supply and hydrogen refueling station standard.



Mr. Miguel Ángel VEGA, Business Development Manager, Product Development Department, Heat Transfer Division, TÉCNICAS REUNIDAS

Mr. Miguel Angel Vega is Business Development Manager at the Product Development Department of the Heat Transfer Division, in Técnicas Reunidas (Spain).

With over 20 years of professional experience, most of his career is focused on Hydrogen Technologies. He started working as a technician, afterwards he worked as project/team manager and currently he is involved in Business and Product Development in technologies related to hydrogen and decarbonization.

He has worked as Heat Transfer Lead Engineer in many Oil & Gas projects, several of them related to Hydrogen Treatment Units. He leaded the development of a bioethanol reformer, producing green hydrogen suitable for a fuel cell, and in several projects related to H2 mobility, with strong R&D component.



Being Aerospace Engineer & MBA, Mr. Vega is used to approach to a technology or a project considering both technical and economical points of view, which is essential, considering that hydrogen technology and market are both under construction yet.



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Mr. Tetsufumi IKEDA, Director General, Association of Hydrogen Supply and Utilization Technology (HySUT).

Mr. Tetsufumi IKEDA is Director General of the Association of Hydrogen Supply and Utilization Technology (HySUT) in Japan.

He has been responsible for the national programs for the deployment of fuel cell electric vehicles (FCEV) and hydrogen infrastructure in Japan since 2011. Since then, he has contributed to the development of hydrogen refueling stations (HRS) technologies, industrial guidelines, H2 roadmap and strategy in Japan. He has also been actively involved in international collaboration on hydrogen safety via International Conferences on Hydrogen Safety (ICHS) and the Centre for Hydrogen Safety (CHS), and standardization activities at SAE (Society of Automotive Engineers) and ISO/TC197 Hydrogen Technologies.



In 1980, Mr. Ikeda joined ENEOS Corporation (formerly Nippon Oil Co.). In 2000, after twenty years of being involved in several R&D projects related to carbon fiber composite materials, he became responsible for the development of stationary fuel cell systems. In 2005, Mr. Ikeda was promoted to General Manager of the Hydrogen & New Energy Research Laboratory of ENEOS Corporation. He joined HySUT in 2011.

Mr. Ikeda holds a master's degree in Engineering in Industrial Chemistry from the University of Tokyo, School of Engineering.

Mr. Daniel BALLORCA, H2 Project Manager, HIPERBARIC

Mr. Daniel Ballorca-Juez studied the Technical International Baccalaureate in Burgos, finishing those studies in 2009, when he started Aeronautical Engineering in the Technical University of Madrid, finishing that grade in 2014, being specialized in Thermo-fluid dynamics and engines. Then he started working in a high technological company in Burgos, HIPERBARIC, where he joined the R&D Team, focusing on improving the reliability and durability of critical components of high pressure compressors for HPP technology.



In 2015 he achieved a Master Degree in Reliability and Durability of Materials, Components and Structures, at the University of Burgos. Since 2016 he has been working in his PhD thesis based on the study of enhancing the reliability of Ultra-High Pressure Dynamic Seals, finishing it on mid-2021.

Since 2018 he has worked in many projects in HIPERBARIC involving the high pressure compression of gases like argon for the HIP technology. From late 2019, as HIPERBARIC started its hydrogen compression projects, he has been involved in all of them, becoming the H2 Project Manager of the company since 2020.



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Ms. Merced PÉREZ, National Manager of JSIP, Foreign Action Department, CDTI

Ms. Merced Pérez is an Agricultural Engineer with a degree from the Polytechnic University of Madrid. She began her professional career in 1997 as an engineer in a little engineering firm specialized in agrifood industry projects.

Later, she worked for 7 years as a technical auditor qualified for AENOR (Spanish normalization and certifying body).

In 2007, she joined CDTI as an engineer for the Follow Up Department, that controls the real carrying out of the R&D projects supported by CDTI. She also has experience as an assessment engineer in CDTI's Evaluation Department.



Since 2018, she has been in charge of technological cooperation with Asia-Pacific Region, including Japan, South Korea and Australia. Currently she is designated as JSIP National Manager in CDTI.

Mr. Yasuhiko KATO, National Manager of JSIP, International Affairs Department, New Energy and Industrial Technology Development Organization (NEDO)

Mr. Yasuhiko KATO graduated from Nagoya University with a bachelor's degree of Economics.

He started his professional career in 1984 as a staff of Mitsubishi Corporation. With over 37 years of professional experience, most of his career is focused on trading, finance and investment in the field of automobile, industrial and heavy machinery, mining equipment and telecommunications.

He joined NEDO as a Technical Researcher of International Affairs Department in charge of international collaboration project in Spain, France and other regions. Currently he is assigned as JSIP National Manager in NEDO.

