

#11 NEDO – CDTI Joint Workshop on “Technologies for Hydrogen Valleys in Spain and Japan - Regional H2 Value Chain”

Date: January 24, 2023

Speakers Profiles

Mr. Hiroaki ISHIZUKA, Chairman, 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.



His excellency, Mr. Fidel SENDAGORTA, Ambassador of Spain to Japan

Date of birth: 02/11/1956 in Madrid, SPAIN

Date of admittance to the Diplomatic Corp: 03/14/1984

Current category: Minister Plenipotentiary

Academic qualification: Bachelor of Law

WORK RESUMEE:

04/10/1984 Head of the Andean Countries Section, in the General Directorate of Foreign Policy for Latin America

04/18/1984 Secretary at the Spanish Embassy in Tokyo

04/14/1988 Secretary at the Embassy of Spain in Havana

08/01/1991 Advisor at the Cabinet of the Secretary of State for International Cooperation and for Ibero-America

09/01/1993 Advisor at the Minister's Private Office

04/20/1996 Cultural and Cooperation Counselor at the Spanish Embassy in Rabat

04/16/1999 Counselor at the Permanent Representation of Spain to the EU, Brussels

07/31/2002 Deputy Director General for Policy Planning

10/05/2007 Ambassador at large for Mediterranean Affairs



07/11/2008 Director General for the Mediterranean, Maghreb and the Middle East
10/15/2010 Ambassador of Spain to the Arab Republic of Egypt
05/30/2014 Secretary General of the Spain-USA Council Foundation,
06/26/2015 Director General for North America, Asia and the Pacific
08/01/2018 Harvard University Fellows Program
09/01/2019 Advisor of the General Directorate of Foreign and Security Policy
02/27/2020 Director General of Foreign and Security Policy

Mr. Javier PONCE, Director General of 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. Eiji OHIRA, Strategy Architect, Fuel Cell and Hydrogen Technology Office of NEDO

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 for 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 the 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.



[Dr. Javier BREY, Chairman of the Spanish Hydrogen Association](#)

Dr. Javier Brey is an Engineer from the University of Seville and holds a European PhD; His doctoral thesis addressed the Hydrogen Economy. He has taken a Management Development Course at the IESE business school. He started to work on hydrogen and fuel cells in 1998. In 2016, Javier founded H2B2 Electrolysis Technologies, a company promoting and developing electrolysis as a sustainable hydrogen production method. Javier is currently the CTO of H2B2. He is currently President of the Spanish Hydrogen Association and Vice-President of the Spanish Fuel Cell Association. He is also an Associate Professor at Loyola University (Spain).



[Mr. Masaki SAKAMOTO, Sub Chief, New Energy System Promotion Division, Yamanashi Pref. Public Government Enterprise Bureau & Director, Social implementation Division, Yamanashi Hydrogen Company, Inc.](#)

1997-2007: As a Yamanashi prefecture staff, Fire and Disaster prevention division. As a prefectural Enterprise Bureau staff, Power Generation General Control center

2008-2021: Yamanashi prefectural Enterprise Bureau Electricity section Research and Development charge. Worked for energy storage system demonstration.



[Mr. Miguel MUÑOZ, Technical Responsible, Renewable Hydrogen Projects, CAPITAL ENERGY S.L.](#)

Chemical Engineer, member of the Institution of Chemical Engineers (IChemE) and member of the Official College of Chemical Engineers (COIQC), Mr. Miguel Muñoz has obtained a Master in R&D management and Technology Watch and currently finishing a Master in Electrical and Power Control.

He has more than 15 years of experience in R&D, working in the most cutting-edge Spanish's hydrogen technologies research centers, participated in both national and international in R&D projects. Also, He is author of publications at scientific journals, and He has participated in the creation of new fuel cells' tests standards for the Spanish Technical Committee for Standardization (UNE). Within Capital Energy, I currently manage the projects where hydrogen technologies are involved. As Technical Responsible of the hydrogen Projects. He manages the development of the Basic Engineering Design (BED) and the Front-End Engineering Design (FEED), as well as the erection, commissioning, and management of orders. Nevertheless, He has also extensive experience in detailed engineering execution as well as in testing from commissioning to start-up.



[Dr. Daisuke IZUHARA, General Manager, HS Business Division, TORAY Industries, Inc. & Director, Technology Development Division, Yamanashi Hydrogen Company, Inc.](#)

Dr. Daisuke Izuhara is currently working as General Manager in HS (Hydrogen Society) Business Division at Toray Industries, Inc. in Japan, leading both business strategy and R&D of PEM, CCM and MEA in the all Hydrogen-related business fields, including PEM electrolyzers, PEM fuel cells, electrochemical compressors, and redox flow batteries etc., after working as a visiting scientist at MIT, in USA.



He is also working as Director (Board Member) in Technology Development Division at YHC, Inc. in Japan, which was newly established in 2021 between Yamanashi prefecture, Toray, and TEPCO.

He has been leading various kinds of joint R&D and demonstration programs with their partners. He is leading the P2G System Technology demonstration projects at Yamanashi prefecture since 2016. Recently, Toray was adopted together with the other seven companies by the Green Hydrogen Project under the Green Innovation Funding Program organized by METI and NEDO. In this program, he will lead large industrial scale PEM electrolyzer development and demonstration teams. He also leads NEDO international demonstration projects in India, Scotland, etc., and international business partnership programs to contribute to the realization of a carbon-neutral society in countries and regions around the world.

[Mr. Bernardino COUÑAGO, Managing Director, BLUENEWABLES S.L.](#)

He graduated as a MSc in Naval Architecture and Marine Engineering at Universidad Politécnica de Madrid in 2008. Started professional career in 2007 in the ship design and shipbuilding and shortly joined the Marine Renewables Energies sector, becoming a pioneer in the design of floating wind turbines. He worked for leading companies and researching institutions such as Iberdrola, Esteyco and Tecnalia.



Author of several patents on floating wind turbines and participating on state-of-the-art projects in floating wind, like the Iberdrola's TLPWIND, or more recently S-bos, Ct-bos and WIND-bos concepts. Founder of BlueNewables, acting as Managing Director, proactively generating new ideas for profiting the Blue Economy on sectors like floating wind, floating solar and green hydrogen production.

[Mr. Takashi YATABE, Producer, Engineering Management Office, Engineering Strategy Unit, Tokyo Electric Power Company Holdings, Inc.](#)

He has been engaged in the development and promotion of electric power load leveling equipment and systems and the promotion of heat pumps, an energy-saving technology, at the Tokyo Electric Power Company, Incorporated and the Heat Pump & Thermal Storage Technology Center of Japan.



He is also a member of the Tokyo Promotion Council for a Hydrogen Society and a member of the Ministry of Economy, Trade and Industry,

Ministry of the Environment, NEDO, and other committees.

He has been in his current position since July 2015.

Currently engaged mainly in formulating measures for energy use technology and electrification in the TEPCO Group.

He also serves as a director of Yamanashi-Hydrogen Company, a hydrogen business company.

He is the author of "Illustrated Heat Pumps (Ohmsha)" and "Implementation of Carbon Neutral Strategy: Electrification, Hydrogen, and Ammonia (Energy Forum Co., Ltd., winner of the 42nd Energy Forum Award).

Ms. Cristina YUSTE, Project Development Manager, Upstream Department, TRINITY CAPITAL SLU

Experienced reservoir engineer with a bachelor's degree in chemical science from the Autónoma University of Madrid, completed with a Master of Science degree from the Colorado School of Mines, backed by over 20 years of experience in the O&G industry.

Deep knowledge of the Upstream Sector, from the reservoir and wellhead to the economic valuation of domestic and international projects.

Started her career in Cepsa Oil & Gas, working in the Ourhoud oil field project, in Algeria, for six years. This is one of the most important oil discoveries in North Africa.

She joined Naturgy Energy Group (former gas Natural) in 2005 where she has been involved in all Exploration and Production activities of the company. In this sense, she has been involved in active projects and valuation of projects in several countries worldwide including Spain developing and operating the existing underground gas storage fields in Marismas, property of Naturgy.

Recent years focused on projects related with energy transition, this is, production and storage on porous media of green hydrogen and potential synthetic methane generation. Leader of the design and development of UNDERGY Project, financed by the European union through the NEXT GENERATION EU Funds.



Dr. Koichi IZUMIYA, Group Leader, PtG Technology Development Section, Project Department, Electrolysis & PtG Business Unit, Carbon Neutral Solution Business Headquarters, Hitachi Zosen Corporation

Dr. Koichi IZUMIYA graduated from the Graduate School of Engineering, Tohoku University, and completed the PhD degree in 1998. His doctoral dissertation is on "Oxygen Evolution Anode for Seawater Electrolysis". He specializes in electrochemistry and material science.

He began his professional career as a researcher of the R&D center in Mitsui Engineering and Shipbuilding. In 2008 he moved to Ataka-Daiki Corporation. During this time, he was involved in research and development on electro-chlorinator, durable anodes for industrial electroplating, ballast water treatment system, and "Power to Gas" technologies such as PEM type water



electrolyzer and CO2 methanation reactor.

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

From FY 2016 he worked for the development of MW scale PEM type electrolyzer, which was the first case in Japan. From FY 2020 he was assigned as the group manager of R&D of "Power to Gas" technologies.

[Mr. Víctor MONNSALVO, Head of Eco-efficiency Area, Innovation and Technology Department, FCC AQUALIA S.A.](#)

Dr. Victor Monsalvo (Male) is Head of the Eco-efficiency Area at the Innovation and Technology Department of Aqualia. He leads an active innovation team working on wastewater treatment and reuse, biowastes and biogas management, processes involved in drinking water and desalination plants. He is the co-Chair of R&D Committee at the International Desalination Association. He got his PhD on Chemical Engineering from University Autonoma de Madrid and got a position as Assistant Professor in Chemical Eng. Department from 2005 to 2014 and visiting researcher in different Universities: Leeds (2007), Cranfield (2009), Sydney (2011) and Aachen (2013). Then, he was appointed as Head of Technological Area – Water in Abengoa Research until 2016. Involved in more than 30 public and private innovation projects (acting as Coordinator of national and European H2020 projects). He has directed R&D contracts with private companies, (co) authored 8 patents (national and international), around 110 journal and referred conference papers, 1 book chapter and edited 4 books. Awards and recognitions received include the Comunidad #PorElClima (2020), AEDyR (2021), Salon del Gas Renovable (2021), Distinction Technology Idol (2022) and Best Technical Paper World Congress IDA (2022). He has participated in evaluation committees in the PARTNERSHIPS Programme Joint Applied Research Projects (2011- 2014) Ministry of Education, Research, Youth and Sport (Romania) and in the National Committee for Evaluation of "Proyectos de investigación fundamental no orientada" 2012 for the Ministry of Economy and Competiveness (Spain)



[Mr. Masanori TAKEMOTO, Deputy General Manager, Hydrogen & FC system Promotion Section, MIURA CO., LTD.](#)

TAKEMOTO Masanori is a Deputy General Manager of Hydrogen & FC system Promotion Section, MIURA CO., LTD. MIURA is one of the most famous boiler makers in Japan. He joined MIURA in 1997 and started his carrier in development of New Boiler and Energy System. He also has Work Experiences in Business Promoting Heat-Pump System, Heat Recovery System and Hydrogen System.



Mr. Adrián JAIME, Manager, Business Development & Product, RINGO VALVULAS S.L.

He is a Mechanical Engineer by the University of Zaragoza.

Linked to Ringo Válvulas since 2010, developed early years of his professional career as a project manager, specializing in projects whose destination is power plants.

This position allowed him to acquire knowledge of the different sources of energy generation and to participate in projects for the development of new technologies.

Currently handles the searching of new business opportunities and leads the development of the necessary products for these new applications and services required in the market.



Mr. Yasutaka NAKATANI, GENERAL MANAGER, ENGINEERING DEPARTMENT, KAJI TECHNOLOGY CORPORATION

In 1995, joined Kaji Technology Co., assigned to the Design Dept. in 1997, and has been designed compressors for CNG vehicles, and later has been involved in the development of 82MPa oil-free hydrogen gas compressor unit for FCV (Fuel Cell Vehicles) hydrogen gas stations. In 2020, appointed as General Manager of the Engineering Department. Involved in the development and demonstration of electrochemical hydrogen pump system under the NEDO project "Development of technologies for hydrogen refueling stations" toward the realization for a carbon neutral society as a principal researcher under NEDO project since December 2018.



Mr. Carlos MARTÍN, CEO, ARIZAGA BASTARRICA Y CIA, S.A.

Carlos Martín studied Industrial Engineering at University of Navarra (Spain) and Engineering with Business Studies at Sheffield City Polytechnic (UK). He completed his education with a Master's Degree in Business Administration.

He began his professional activity in 1993 as a researcher at a Technological Research Centre focusing on Production and Organizational issues. After four years he moved to an Electronic Manufacturing Services company focused in the automotive and security industry, he held different positions during thirteen years which led to open and run as Managing Director factories in Mexico and China. In 2008 joined ABC as CEO, since then, ABC has grown rapidly expanding to new markets and sectors. Sales during these fourteen years have tripled being exports over 90% of them and the number of operating countries gone up to 120, some of them attended from their new factories and subsidiaries based in China, India, USA and Brazil.

ABC is an 80-year-old family-owned company dedicated to manufacturing reciprocating compressors for various gases and generally high power. Lately, ABC has positioned Hydrogen in the center of their strategy for the mid and long term.



Mr. Yuichi KIMURA, Manager, Production of Division, UCC UESHIMA COFFEE CO., LTD.

Mr. Yuichi Kimura joined UCC Ueshima Coffee in 2010 after completing graduate studies at Hiroshima University.

Since joining the company, he has mainly worked as a staff member in the coffee manufacturing technology department, where he has been involved in the development of new technologies and the maintenance of facilities.

In 2022, he will be the team manager of the current hydrogen roasting machine development team. He is leading the development of UCC's hydrogen roasting technology, including the NEDO project, and is a very appropriate person to provide updates on the recent developments.



Mr. Marco BORONAT, Innovative products & Commercial Manager, Combustion & Fibre Solutions, ORKLI SOCIEDAD COOPERATIVA

Development and marketing of new products in the field of hydrogen use. Development of solutions for electromobility and fuel cells.

Tecnun - Navarra Unv.

Dr.Eng., Engineering 2018 - oct. 2021 Doctoral thesis -

Development of burners based in SiC materials. Combustion based in H₂ and special ceramics.

Mondragon Unv

Master of Business Administration (MBA) 2010 - 2011

Tecnun - Navarra Unv.

Doctoral course studies based in Materials, Engineering 1994 - 1998

The University of Sheffield

Organization engineering MBA 1993 - 1994

Tecnun - Navarra Unv.

Bachelor of Engineering - BE, Mechanical Engineering 1987 - 1992



Mr. Toshifumi KON, GROUP LEADER, HYDROGEN & ENVIRONMENT BUSINESS PROMOTION SECTION TECHNICAL DIV. HYDROGEN ENERGY ADVANCE DEPARTMENT, TOMOE SHOKAI CO., LTD.

Mr. TOSHIFUMI KON graduated master's course in industrial chemical in 2001, joined TOMOE SHOKAI of gas company, and worked at Yokohama laboratory of the company, started career as an engineer in the research and development field.

Mainly engaged in gas detoxification and purification technology research, catalyst evaluation, gas analysis, as well as collaborative research with university on palladium membrane reactor for hydrogen purification.

In 2022, transferred to Hydrogen Energy Advance Department of the company. Currently working as group leader of business development group. With the support of NEDO, developing new trailer of high-pressure containers and multi-pressure manufacturing equipment for local production and local consumption of hydrogen. In addition to hydrogen utilization toward the decarbonization society, investigating of ammonia and CCUS.



[Mr. Carlos MERINO, Technical Director, NATIONAL HYDROGEN AND FUEL CELL TECHNOLOGY TESTING CENTRE \(CNH2\)](#)

Carlos Merino, Technical Director of the National Hydrogen and Fuel Cell Technology Testing Centre (CNH2), has a background of Electrical and Control Engineer. He previously worked in R&D departments in the fields of fuel cells, photovoltaics, and energy efficiency, and he has over 15 years of experience in the hydrogen field. He has expanded his research into several projects in end-use areas like stationary applications, power systems, and mobility. He is a member of technical and standardization committees focusing on hydrogen and fuel cells, and his current research interests include hydrogen coupled with electrical networks, renewable energy, and hydrogen vehicle integration.



[Dr. Akihiro IIYAMA, Project Professor, Director, Hydrogen and Fuel Cell Nanomaterials Center, University of Yamanashi](#)

Dr Akihiro IIYAMA was born in 1957 and is currently 65 years old. In 1982, he completed a master's degree in mechanical engineering at the Graduate School of Engineering, the University of Tokyo, and joined Central Research Laboratory of Nissan Motor Co., Ltd. After working on engine research and development, he has been involved in the development of fuel cell stacks and vehicles since 2000. After serving as Director of the Fuel Cell Research Laboratory at Nissan Research Center in 2008, Director of the EV System Research Laboratory in 2010, and Expert Leader at the same research laboratory in 2011, he moved to the Fuel Cell Nanomaterials Center at the University of Yamanashi in 2015. In the same year, he became the director of the center. He received his doctorate in engineering from the University of Tokyo in 1991. He is a fellow of the Japan Society of Mechanical Engineers and the Society of Automotive Engineers of Japan. He is currently the director of the Hydrogen and Fuel Cell Nanomaterials Center and the director of the Hydrogen and Fuel Cell Technology Support Center of the University of Yamanashi.



[Mr. Takashi WADA, Executive Director, NEDO](#)

October 2021 – present: Executive Director, New Energy and Industrial Technology Development Organization (NEDO)

August 2021 – September 2021: Special Advisor, New Energy and Industrial Technology Development Organization (NEDO)

July 2018 – July 2021: Director-General, Japan External Trade Organization (JETRO) Geneva Office

July 2017 – July 2018: Director, Product Safety Division, Industrial Safety Group, Ministry of Economy, Trade and Industry (METI)

May 2015 – July 2017: Vice President, Software Reliability Enhancement Center (SEC), Information Technology Promotion Agency (IPA)

July 2013 – May 2015: Director, IT Project Office, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry (METI)



June 2010 – June 2013: Director, IT Department, Japan External Trade Organization (JETRO) New York Office

June 2008 – June 2010: Deputy Director, IT Strategic Headquarters, Cabinet Office

April 1993: Joined in Ministry of International Trade and Industry (MITI)

March 1993: Graduated from the Graduate School of the University of Tokyo, Engineering Department