



This technical session will present a set of case studies about initiatives and projects the Government of the Canary Islands in Spain has implemented and promoted over the past 20 years to overcome island challenges and take advantage of opportunities that are mostly unique to island territories. In the context of the Sustainable Islands Platform the session will also provide insights on how to incorporate principles of the Circular and Blue Economies into such interventions to inform potential replication of similar efforts in participating island territories/countries.

AGENDA

08:30 - 09:00	Registration and breakfast
09:00 - 09:10	Welcoming Remarks
09:10 - 09:25	Overview of the Sustainable Islands Platform Jose Jorge Saavedra , Operations Lead Specialist (CCB/CCB), Inter-American Development Bank
09:25 - 09:40	Overview of the Canary Islands (Spain) Mr. Pablo Martin Carbajal , CEO Economic development and Internationalization Agency of the Government of the Canary Islands (PROEXCA)
09:40 - 10:00	A model of Sustainable Islands Mr. Gonzalo Piernavieja , Deputy Minister of Industry, Energy and Trade, Government of the Canary
10:00 - 10:50	Water Experiences Mr. Baltasar Peñate , Head of the Water Department, Technological Institute of the Canary Islands <ul style="list-style-type: none"> • Case Study 1: Sustainable natural wastewater treatment solutions for isolated and rural areas of the Canary Islands
10:50-11:00	Coffee Break
11:00 - 12:00	<ul style="list-style-type: none"> • Case Study 2: Off-grid solar photovoltaic desalination for islands and coastal areas – knowledge and technology transfer from the Canary Islands

12:00 – 13:20	<p>Energy Experiences</p> <p>Mr. Salvador Suárez, Head of the Renewable Energy Department, Technological Institute of the Canary Islands</p> <ul style="list-style-type: none"> • Case Study 3: Electrification of remote and off-grid rural areas, examples in Cape Vert and Canary Islands • Case Study 4: Strategy modelling to integrate Renewable Energies in small and weak islands electric grids, overcoming the technical challenges- knowledge and technology transfer from European Islands
13:20 – 14:00	<p>Lunch**</p> <ul style="list-style-type: none"> • Case Study 5: El Hierro, 100% sustainable renewable energy island
14:00 – 14:10	<p>Wrap up and closing remarks</p> <p>Alicia Montalvo Santamaria, Executive Director for Austria, Denmark, Spain, Finland, France, Norway, and Switzerland.</p>

**** Lunch will be served in lunch boxes during the Case Study presentations in order to not interrupt the session**



Gonzalo Piernavieja, Deputy Minister of Industry, Energy and Trade, Government of the Canary Islands (Spain)

Gonzalo Piernavieja has a degree in Physical Sciences from the Ludwig-Maximilian University of Munich (1993) (Specialty in solar energy and physics-chemistry) and has a postgraduate course in Energy and Environmental Management by the Technical University of Berlin (1994).

His dissertation in Munich focused on an experimental photovoltaic installation of 1 kWp with solar tracking, one of the first systems connected to the German network, more than 25 years ago. During his stay in Germany, Gonzalo Piernavieja worked at SIEMENS and, later, at the energy supply company in Munich "Stadtwerke München".

Back in the Canary Islands, he coordinated, at the University of Las Palmas de Gran Canaria, various projects related to renewable energies and water technologies, within the framework of European programs (1993-1996). Since 1996 he works at the Technological Institute of the Canary Islands (ITC) occupying different positions.

He is currently ITC's Director of R + D + i, coordinating 9 technological departments with more than 110 people, with activity in renewable energies, water technologies, metrology, alga biotechnology, environmental analysis, mechanical and biomedical engineering, scientific computing , innovation and information systems.

Its main area of specialization is energy and water self-sufficiency, through renewable energies, in islands and isolated environments in general.



The Research and Technological Development Division of the Canary Islands Institute of Technology (ITC) constitutes one of the two working group of the ITC, which is a public company owned by the Canary Islands Government (Spain). The main objective of the R&D Division, which has a staff of more of 60 people (industrial, aeronautical and telecommunication engineers, physicists), is to foster the industrial and sustainable development of the Canaries and the countries around it (Africa and Macaronesia area) in the field of renewable energies, water technologies, bioengineering, software and medical engineering. Besides technical services, the Division currently carries out R+D activities in the fields of (i) water management and energy efficiency, (ii) innovation and sustainable development, (iii) instrumentation, (iv) software, control and metrology, (v) calibration solar radiation and solar thermal systems, (vi) wind energy exploitation, (vii) development and integration of systems, (viii) water treatment technologies, (ix) stand-alone systems (incl. technology transfer to developing countries).

Energy and Water Departments have implemented significant work on the renewable energy sources (RES) and small desalination units coupling, to prove their technical matching, improve and optimize their operation and reliability, and to promote the technology in remote and off-grid areas. They have accumulated more than 18 years of experience in the development of solutions for the ENERGY and WATER supply to urban, peri-urban/rural/remote areas and for industrial purposes. ITC has participated in several EU projects such as PRODES, SODAMEE, DESSOL, SDAWES, ADIRA, CLIMATIQUE, STORIES, etc related to these topics.

Besides that, ITC manages the 'Atlante' Supercomputer with which the Scientific & Technological Computing Department can develop projects that require handling big datasets, like meteorological data (Numerical Weather Prediction models (MM5 and WRF)).

Web Site:

<http://www.itccanarias.org>



Baltasar Peñate Suárez

Ph.D. in Chemical Engineering; Head of Water Department - Manager and Coordinator of regional European and Cooperation projects on desalination driven by renewable energies, non-conventional wastewater treatment, water quality water management and sustainability. Co-author of DESSOL patent and CONTEDES utility model related to modular isolated desalination technology. With more than 25 publications and several contributions in books, he has other skills in the field of technical analysis, simulation, design and commissioning of water treatment plants. He is active in the European Desalination Society (EDS) and the European Action Group of Renewable Energy Desalination.



Salvador Suárez

Aerospace Engineering, MBA, Master Industrial Organization. Head of the Renewable Energy Department, of the Canary Islands Institute of Technology (ITC), with a staff of 20 engineers working on solutions for maximizing RES penetration in small island electrical systems, and transferring of clean energy technologies to less developed Western African countries. Development of stand-alone off-grid RES solutions for hydrogen production, and cooling/heat. 20 years of working experience participating and coordinating EC financed projects related to renewable energies and complementary technology. Participation on

different tasks groups advising the Canary Island Government on its regional energy planning, and policies for the promotion of renewable energies.



Pablo Martín Carbajal, Deputy head for African affairs for the Canary Islands Government and CEO of Proexca (trade and promotion agency)

He graduated in Economics by La Laguna University, Canary Islands. He started his career in Paris, working by TOTAL, and continued in Brussels in the General Direction of Development of the European Union Commission. After the European experience, he worked within the international cooperation sector in the Caucasus. He has developed his career for the last 20 years, focusing on the international trade and the bilateral relations between Canary Islands and Africa. First as director of the international promotion department of the Chamber of Commerce of Santa Cruz de Tenerife, Canary Islands, for five years, to step then into the foundation and management of www.africainfomarket.org, a strategic tool of the Canary Islands Government to foster the business activity and commercial exchanges with Africa. Since 2007 he is the Deputy Head for African Affairs by the Canary Islands Government, position which is shared with his appointment, since 2011, as CEO of PROEXCA, public company devoted to the international promotion and foreign direct investment attraction.

As deputy head/general director for African affairs his role is to promote political, economic and cooperation relations between the Canary Islands and the West African countries. He develops relations with embassies, foreign affairs ministries and sectorial ministries in order to launch initiatives at general and sectorial levels. He deals with the Canarian economic and social agents in order to coordinate a common policy towards internationalization (and Africa): chambers of commerce, public institutions, local councils, research institutes, universities, etc. He manages European programs to strengthen relations between the Canary Islands and the African countries.

As CEO of Proexca his role is, in one hand, to foster Canarian exports and investment abroad, creating new programs and initiatives at local level, and working with programs and initiatives at national and European level. On another hand, to attract foreign investments to the Canary Islands in different sectors: FDI related with: 1. The Canary Islands fiscal regime, 2. the audiovisual sector, 3. the oil and gas industry, 4. ICT, 5. promoting the Canaries as an European business hub for West Africa in areas such as communication, logistics, transports, services, health, education, repair, maintenance and offshore services, operation center and humanitarian aid.



Queila Delgado, US and Canada Economic Delegate, The Canary Islands Government

Currently based at the Embassy of Spain in Washington DC as the Economic Delegate of the Canary Islands Government for the USA and Canada, she has been living and working mainly in Europe (France, Germany, Norway & Spain), and in North America (US & Canada).

She has a broad experience assisting international companies, from high end sectors, assessing business opportunities and investments in Spain. She holds a degree in Ba (Hons) International Business & German, with major in International Finance, by the University of Liverpool John Moores in the UK, a Master's in Communications by IED School of Design in Madrid, Spain, and a certificate in Telecommunications Engineering. She has participated as speaker in economic development forums and seminars in Canada, US, UK, Spain and Norway.

Her current role focused on representing the interests of the Canary Islands on trade and investment attraction in North America and relations with multilateral agencies in DC.