

## 2007 C3P & NASA TECHNICAL WORKSHOP

"PARTNERING FOR ENERGY AND ENVIRONMENTAL STEWARDSHIP"

Supported by Secretaria de Estado do Ambiente

Under the High Patronage of His Excellency the President of Portugal

Co-organized by Escola Superior de Tecnologia do Mar and Câmara Municipal de Peniche

Time	Day 1	
	Wednesday, November 7	
8:00 am – 6:00 pm	<b>Registration/ Information Desk</b>	
9:00 am - 9:50 am	<b>Welcome and Opening Remarks</b>	<ul style="list-style-type: none"> <li>- Dr. Luciano de Almeida – Dean of Instituto Politécnico de Leiria</li> <li>- Dr. António José Correia – Mayor of Peniche</li> <li>- U.S. Embassy (<a href="#">Ambassador Hoffman</a>)</li> <li>- Secretary of State of Environment *</li> <li>- Celebration of 5-year anniversary signing of the <i>Joint Statement (JS) Between NASA and the Portuguese Ministry of the Environment Regarding Cooperation in the Field of Environmental Pollution Prevention</i> in September 2002.</li> </ul>
9:50 am – 10:00 am	Break	
10:00 am - 10:45 am	<b>Welcome and Opening Remarks (continued)</b>	<ul style="list-style-type: none"> <li>- Centro Para Prevenção da Poluição Welcome - <a href="#">General P.C. Branco</a>, C3P President</li> <li>- NASA Headquarters Welcome - <a href="#">Olga Dominguez</a>, Assistant Administrator for the Office of Infrastructure and Administration</li> </ul>
10:45 am – 11:00 am	Coffee - Break	
11:00 am - 12:30 pm	<b>Keynote Addresses</b>	<ul style="list-style-type: none"> <li>- NASA's New Initiatives - <a href="#">Dr. Patrick Simpkins</a>, NASA Kennedy Space Center, Director of Engineering</li> <li>- EU REACH Directive Impacts – <a href="#">June Bolstridge</a>, GAIA Corporation</li> </ul>
12:30 pm – 2:00 pm	Lunch	
	<b>Technical Sessions</b>	
2:00 pm – 2:20 pm	<b>Overview of Technical Sessions</b>	- NASA Headquarters - <a href="#">James Leatherwood</a> , Director Environmental Management Division
2:20 pm - 3:20 pm	<b>A1/B1. Environmentally Sustainable Islands</b> <i>Session focus: Berlenga Island Project</i> (Moderator: James Leatherwood)	<ul style="list-style-type: none"> <li>- The Role of the Municipality in the Berlengas Reserve – <a href="#">Dr. António José Correia</a>, Mayor of Peniche</li> <li>- Berlenga Island Project: Background and Overview – <a href="#">General P.C. Branco</a>, C3P President</li> <li>- Renewable Energy as a progress factor for the Community – <a href="#">Eng. Vitor Silva</a>, Municipality of Moura</li> </ul>
3:20 pm – 3:40 pm	Break	
3:40 pm - 4:40 pm	<b>A2/B2. Environmentally Sustainable Islands (continued)</b> <i>Session focus: Berlenga Island Project</i> (Moderator: Prof. Paulo Maranhão)	<ul style="list-style-type: none"> <li>- Berlenga Island: Natural Reserve – <a href="#">Dr. António Teixeira</a>, ICNB</li> <li>- Berlenga Island: Plans – <a href="#">Eng. Sandra Estanislau</a>, ISQ</li> <li>- Wind Resource Evaluation at Berlenga Island – <a href="#">Dr. Teresa Esteves</a>, INETI</li> <li>- Berlenga, Laboratory of Sustainability – A free-Carbon Energetic Solution – <a href="#">Eng. João Maciel</a>, EDP</li> </ul>
4:40 pm – 5:00 pm	Coffee - Break	
5:00 pm - 6:00 pm	<b>A3/B3. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals)</b> <i>Session focus: Update on EU and U.S. restricted chemicals and advances in materials and conventional processes</i>	<ul style="list-style-type: none"> <li>- Background and Impact of EU REACH Directive – <a href="#">Eng. Carmo Palma</a>, Agência Portuguesa do Ambiente</li> <li>- Reducing Mission Risk at NASA – <a href="#">Sharon Scroggins</a>, NASA Regulatory Risk Analysis and Communication (RRAC)</li> <li>- The way to sustainability – <a href="#">Eng. Ana Paula Rodrigues</a>, SECIL</li> <li>- Gas and Coal for 21st Century / Green Solutions – <a href="#">Eng. E.D. Lopes</a>, ISQ</li> </ul>
<b>7:30 pm</b>	<b>Exhibit "Berlenga – Desenho, ilustração e fotografia" at Edifício Cultural da Câmara Municipal de Peniche</b>	

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Time		Day 2	
		Thursday, November 8	
8:30 am – 6:00 pm		Registration/ Information Desk	
		<b>Track A</b>	<b>Track B</b>
		<b>Technical Sessions</b>	<b>Technical Sessions</b>
9:00 am – 10:30 am	<b>A4. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals)</b> <i>Session focus: Advances in green chemistry</i> (Moderator: Prof. Raul Bernardino)	<ul style="list-style-type: none"> <li>- Green Chemistry – Strategic Research Lines – Prof. João Carlos Bordado, IST</li> <li>- REQUIMTE – Rede de Química e Tecnologia – Prof. Isabel Moura</li> <li>- Green chemistry – Carles Estévez, Institut Univ. de Ciència i Tecnologia (IUCT), Spain</li> </ul>	<b>B4. Environmentally Sustainable Islands</b> <i>Session focus: Island Sustainability Successes</i> (Moderator: Prof. Teresa Mouga) <ul style="list-style-type: none"> <li>- Solid Waste Management – Eng. Nuno Carvalho, C.M. Peniche</li> <li>- Water Supply and Wastewater Treatment and Disposal in Berlenga – Eng. Carlos Póvoa, AdP</li> <li>- U.S. successes in making islands or other remote locations environmentally sustainable from water, wastewater and solid waste treatment/recycle to reducing pollution at the source – US National Park Service (NPS) representative *</li> </ul>
10:30 am – 11:00 am		Coffee - Break	
11:00 am – 12:30 pm	<b>A5. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals) (continued)</b> <i>Session focus: Advances in materials and processes for lead-free electronics</i> (Moderator: Eng. Margarida Pinto)	<ul style="list-style-type: none"> <li>- Lead-Free Soldering Implementation at European SMEs – LEADOUT Soldering Results overview &amp; Recommendations – Eng. Rolim Carmo, ISQ</li> <li>- Training Courses in Lead Free Soldering applied to SMEs – Eng. Marta Freitas, ISQ</li> <li>- Environmental Impact of LFS Industrial Implementation – LEADOUT Results Overview – Dr. Patricio Aguirre, INASMET</li> </ul>	<b>B5. Renewable Energies</b> <i>Session focus: Projects and advances in wind, solar, hydrogen, fuel cells, microgrids</i> (Moderator: Eng. Sandra Estanislau *) <ul style="list-style-type: none"> <li>- Technical Issues of Micro-Generation Islanding Operation – André Madureira, INESC Porto</li> <li>- Wave Energy – Eng. Rui Barros, ENERSIS</li> <li>- Bottom Wave Energy – Wave Roller Concept in Peniche – Erkki Kasanen, AW Energy</li> </ul>
12:30 pm – 2:00 pm		Lunch	
2:00 pm – 4:00 pm	<b>A6. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals) (continued)</b> <i>Session focus: Projects and advances in coatings, coating removal and surface cleaning processes</i> (Moderator: Matt Rothgeb)	<ul style="list-style-type: none"> <li>- Air Force Space Systems Pollution Prevention – Dean Dunn, US Air Force Space Command</li> <li>- Coatings/Corrosion Protection – Lt. Ben Wilkerson, US Air Force Coatings Technology Integration Office (CTIO)</li> <li>- An overview of projects related to advanced functional and solar energy coatings produced by clean technologies – Prof. Vasco Teixeira, Universidade do Minho</li> </ul>	<b>B6. Renewable Energies</b> <i>Session focus: Projects and advances in wind, solar, hydrogen, fuel cells, microgrids</i> (Moderator: Eng. E. Dias Lopes) <ul style="list-style-type: none"> <li>- PERCH Project – A way to Microgeneration – Eng. Norberto Duarte, ISQ</li> <li>- EDP and Renewable Energies – Strategy for the Future – Eng. Luís Carrilho, EDP</li> <li>- The ENEOP Industrial Cluster: Working for the future of wind energy – Eng. Anibal Fernandes, ENEOP</li> <li>- NASA White Sands energy for integrated renewable energy-groundwater treatment project – David Amidei, NASA Head Quarters Environmental Management Division</li> </ul>
4:00 pm – 4:30 pm		Coffee - Break	
4:30 pm – 6:00 pm	<b>A7. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals) (continued)</b> <i>Session focus: Projects and advances in coatings, coating removal and surface cleaning processes</i> (Moderator: Matt Rothgeb)	<ul style="list-style-type: none"> <li>- Coatings and coating removal at space launch sites – Luz M. Calle, NASA Kennedy Space Center</li> <li>- Coatings and coating removal at space launch sites Protection – Jerry Curran, NASA/ASRC</li> <li>- Protective coatings with self-healing ability based on nanocontainers of corrosion inhibitor – Prof. Mário Ferreira, Universidade de Aveiro</li> </ul>	<b>B7. Renewable Energies (continued)</b> <i>Session focus: Projects and advances in wind, solar, hydrogen, fuel cells, microgrids</i> (Moderator: Eng. E. Dias Lopes) <ul style="list-style-type: none"> <li>- Advanced Electric Power Systems with High Renewable Content - Projects and Perspectives – Dr. Christof Sihler, GE Global Research</li> <li>- Overview of the US National Renewable Energy Laboratory (NREL) R&amp;D Programs – Al Sorkin, NASA TEERM, ITB</li> </ul>

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Time	Day 3			
	Friday, November 9			
8:30 am – 4:00 pm	Registration/ Information Desk			
	Track A		Track B	
	Technical Sessions		Technical Sessions	
9:00 am – 10:30 am	<b>A8. Areas for Future Collaboration (Pollution Prevention/ Regulated Chemicals)</b> <i>Session focus: VOC reduction</i>	<ul style="list-style-type: none"> <li>- Reducing emissions of organic species (VOCs and SVOCs), NOX, SO<sub>2</sub> and particulates from iron and steelmaking processes through analysis, modeling and control – <a href="#">Eng. Marta Almeida, ISQ / Sustainable Development</a></li> <li>- Hexavalent Chrome Removal in Aircraft Painting schemes – <a href="#">Eng. Joana Vide, C3P</a></li> <li>- VOC removal: NASA membrane project - <a href="#">Stephen Conover, Applied Membrane Technologies</a></li> </ul>	<b>B8. Renewable Energies</b> <i>Session focus: Projects and advances in wind, solar, hydrogen, fuel cells, microgrids</i> (Moderator: Prof. Roberto Gamboa)	<ul style="list-style-type: none"> <li>- Serpa Solar Plant – <a href="#">Eng. Piero Dal Maso, CATAVENTO</a></li> <li>- NASA hydrogen initiatives – <a href="#">Al Sorkin, NASA TEERM, ITB</a></li> <li>- The Energy Internet – how hydrogen fuel cells and micro-generation can support it - trends and new technologies in the energy sector – <a href="#">Eng. Miguel Matias, Self Energy</a></li> </ul>
10:30 am – 11:00 am	Coffee - Break			
11:00 am – 1:00 pm	<b>A9. Groundwater Vulnerable Zones and Remediation</b> <i>Session focus: Characterization, hydrogeology, treatment methods</i>	<ul style="list-style-type: none"> <li>- Implementation of Nitrate Directive in Portugal – <a href="#">Eng. Vitória Mira da Silva, INAG</a></li> <li>- New trends for purification of industrial contaminated water – <a href="#">Svetlana Lyubchik, UNL</a></li> <li>- Developing Hydrogen Based Advanced Nitrate Removal from Ground Water - <a href="#">Dr. Sherwin Gormly - Applied Process Technology, Inc.</a></li> </ul>	<b>B9. Stewardship &amp; Best Practices</b> <i>Session focus: Stewardship and best practices</i>	<ul style="list-style-type: none"> <li>- Gaseous emissions from soil fertilized with manure of pigs fed with manipulated diets – <a href="#">Eng. Sónia Sousa; ISQ / Sustainable Development</a></li> <li>- Role of Accredited Institutions in Environmental Control – <a href="#">Eng. E. Dias Lopes, ISQ / ISEL (DEM)</a></li> </ul>
1:00 pm – 2:30 pm	Lunch			
	Workshop Closing Remarks			

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