

DRAFT
NASA/C3P- 2009 INTERNATIONAL WORKSHOP ON ENVIRONMENT AND ALTERNATIVE ENERGY
“Global Collaboration in Environmental and Alternative Energy Strategies”

GE Global Research- Garching/Munich, Germany

AGENDA – Revised (10.29.09)

Time	Day 1	
Tuesday, November 10		
7:45 am – 5:00 pm	Registration/ Information Desk	
9:00 am – 10:30 am	<p>Welcome and Opening Remarks</p> <p>Session Lead: General P.C. Branco C3P – Portugal</p>	<ul style="list-style-type: none"> – Centro Para Prevenção da Poluição Welcome – General P.C. Branco, General Director, C3P – Portugal – NASA Headquarters Welcome – Olga Dominguez, Assistant Administrator for the Office of Infrastructure, NASA – HQ – Public Private Partnerships – Conrad Tribble, Consul General, Consulate General of the United States - Munich, Germany – GE Global Research – Europe – Welcome – Dr. Carlos Haertel, Director of GE Global Research – Europe, GE – Post 2012 Global Climate Policy: A European Perspective – Nuno Lacasta, Portugal's Climate Change Commission Executive Director, Ministry of Environment
10:30 am – 10:45 am	Break / Beverages	
10:45 am – 1:00 pm	<p>Keynote Speakers</p> <p>Session Lead: General P.C. Branco C3P – Portugal</p>	<ol style="list-style-type: none"> 1. NASA Cooperation with Europe – Bill Barry, NASA European Representative, NASA – US Embassy Paris 2. European Space Agency View of Sustainable Development – Nathalie Meusy, Head of Coordination Office on Sustainable Development Directorate of Resources Management , ESA – HQ 3. Material Issues in Manufacturing Electronics – Klaus Hieronymi, Chairman of the Environmental Board Hewlett-Packard Europe, Middle East and Africa, HP
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)	
2:00 pm – 3:05 pm	<p>General Technical Sessions</p> <p>Session Lead: James Leatherwood NASA – HQ</p>	<ol style="list-style-type: none"> 4. NASA's Vision of Sustainability – James Leatherwood, Director, Environmental Management Division, NASA – HQ 5. Role of Innovation in Sustainable Development – Eduardo Dias Lopes, Director of Research and Development Division, ISQ – HQ Portugal 6. Munich Airport's Journey to a Sustainable Future – Michael Wuehle, Vice President, Environmental Strategy and Management, Munich Airport International
3:05 pm – 3:20 pm	Break / Beverages	
3:20 pm – 4:00 pm	<p>General Technical Sessions</p> <p>Session Lead: James Leatherwood NASA – HQ</p>	<ol style="list-style-type: none"> 7. UCSD Campus: A Test Bed for Sustainability – Frieder Seible, Dean of Engineering, University California San Diego 8. Shaping Students for a Sustainable Future – Prof. Dr.-Ing. Gerd Becker, Munich University of Applied Sciences
4:00 pm – 5:30 pm	University of California, San Diego Student Presentations	

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Time	Day 2			
	Wednesday, November 11			
7:45 am – 6:00 pm	Registration/ Information Desk			
	Track A		Track B	
	Technical Sessions		Technical Sessions	
9:00 am – 10:10 am	A.1. Materials Management and Substitution Session Lead: Lt. W. Casey Matthews USAFSPC	1. Opening Remarks & Speaker Intro – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC 2. Key Players of corrosion Control in the USAF – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC 3. Tech Overview: Metallization – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC	B.1. Renewable and Alternative Energy Systems Session Lead: Professor Oliver Mayer GE Global Research- Europe, GE	1. Opening Remarks & Speaker Intro – Professor Oliver Mayer, Senior Scientist , GE Global Research Europe 2. Energy Portfolio Evolution...from Generation to Distribution at GE – Michael Idelchik, Vice President - Advanced Technology Programs, GE Global Research Europe 3. Battery and Fuel Cell Driven Electric Vehicles – Prof. Dr.-Ing. Ulrich Wagner, Technical University of Munich 4. Transforming Biogas from Methane to Methanol for use in Fuel Cell – Prof. Dr. Loroch, Beuth Institute Berlin and Dipl. Ing. Ortloff, TU Cottbus
10:10 am – 10:25 am	Break			
10:25 am – 11:25 am	A.1. Materials Management and Substitution Session Lead: Lt. W. Casey Matthews USAFSPC	4. Chrome Free Coatings for Aerospace – Matt Rothgeb, Senior Engineer, ITB 5. Lead-Free Electronics Issues & Concerns – Kurt Kessel, Senior Engineer, ITB 6. Alternative to Nitric Acid Passivation – David Yasensky, Materials Engineer, USA	B.1. Renewable and Alternative Energy Systems Session Lead: Professor Oliver Mayer GE Global Research- Europe, GE	5. Status and Technical Challenges of Compressed Air Energy Storage Technology – Matthias Finkenrath, Dr. GE Global Research Europe 6. European Award Building-Integrated Solar Technology 2008 – Prof. Dr.-Ing. Gerd Becker, Munich University of Applied Sciences 7. Towards a Cost Effective Green Energy Production – Eduardo Dias Lopes, Director of Research and Development Division, ISQ - HQ Portugal 8. Organic Rankine Cycles / Waste Heat Recovery – Dr. Thomas Frey, Research Scientist, GE Global Research Europe
11:25 am – 12:45 pm	Breakout Session		Breakout Session	
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)			
2:00 pm – 3:10 pm	A.2. WEEE and E-Waste Recovery Session Lead: Margarida Pinto ISQ – HQ Portugal	1. Opening Remarks & Speaker Intro – Margarida Pinto, Director Assistant/Project Manager, ISQ – HQ Portugal 2. ELECTROVALUE Project: Towards E-Waste Recovery – Margarida Pinto, Director Assistant/Project Manager, ISQ – HQ Portugal 3. Assessment of WEEE Reuse in Electrovalue: An LCA Approach – Eduardo Silva, ISQ - HQ Portugal 4. E-Waste Management: Market Impact from a Manager Perspective – António Carvalho, Consultant, ERP - Europe 5. Domestic E-Waste in Africa: Recycling for a Profit? – Klaus Hieronimi, Chairman of the Environmental Board Hewlett-Packard Europe, Mid. East & Africa, HP	B.2. Sustainable Marine Ecosystems Session Lead: Sergio Leandro Institute ESTM and Municipality of Peniche	1. Opening Remarks & Speaker Intro – Sergio Leandro, Professor, Institute ESTM and Municipality of Peniche 2. Portugal Renewable Energy Efforts: Berlenga Island & Wave Energy – Sergio Leandro, Professor, Institute ESTM and Municipality of Peniche 3. Phytoplankton as Primary Producers and Source of Energy– Maria Vernet, Biology Researcher, Scripps Institution of Oceanography, and Sergio Leandro, Institute ESTM and Municipality of Peniche 4. Wave Roller Technology – Erkki Kasanen, Engineer, AW Energy Oy
3:10 pm – 3:45 pm	Breakout Session		Breakout Session	
3:45 pm – 4:00 pm	Wrap - Up			
4:00 pm – 7:00 pm	Meet & Greet + Student Poster Session Initiation and Discussion			

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Time		Day 3			
Thursday, November 12					
7:45 am – 3:30 pm		Registration/ Information Desk			
		Track A		Track B	
		Technical Sessions		Technical Sessions	
9:00 am – 10:10 am	<p>A.3. Remediation and Cleanup</p> <p>Session Lead: Jackie Quinn NASA</p>	<ol style="list-style-type: none"> Opening Remarks & Speaker Intro – Jackie Quinn, Environmental Engineer, NASA In-situ Nano Technology Remediation Methods – George Hoag, Ph.D., Senior Vice President, Director of Research and Development, VeruTEK Cooperation on Contaminated Site Characterization along the Tejo River near Lisbon – Cristina Ascenso, Head of Environmental Studies, ISQ – HQ Portugal EZVI - Jackie Quinn, Environmental Engineer, NASA 	<p>B.3. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p> <p>Session Lead: Christina Hudson, SAIC / Sam Higuchi, NASA HQ</p>	<ol style="list-style-type: none"> Introductions, Session Overview, NASA Encroachment Process – Christina Hudson, Deputy Division Manager, SAIC and Sam Higuchi, Staff Engineer, NASA – HQ Encroachment Case Study – Mick Bilney, Consultant, TEC How to Start Addressing Climate Change Impacts & Adaptation: Pilot Workshop – Sam Higuchi, Staff Engineer, NASA HQ 	
10:10 am – 10:25 am	Break				
10:25 am – 11:25 am	<p>A.3. Remediation and Cleanup</p> <p>Session Lead: Jackie Quinn NASA</p>	<ol style="list-style-type: none"> NASA Remediation Challenges – David Amidei, Environmental Engineer, NASA - HQ Efficiently Controllable Permeable Reactive Barriers (EC-PRBs) For Effective Passive In Situ Ground Water Remediation: A European Perspective – Dr. Volker Birke, Dipl.-Chem, Ostfalia University - University of Applied Sciences Braunschweig-Wolfenbüttel - Campus Suderburg 	<p>B.3. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p> <p>Session Lead: Christina Hudson, SAIC / Sam Higuchi, NASA HQ</p>	<ol style="list-style-type: none"> Overview of Climate Change – Alex Ruane, NASA GISS Climate Change Impacts and Strategic Mitigation Measures in Coastal Zones - Mário Baptista Coelho, Prof. Dr., Lisbon Sciences University Adaptation Measures in New York City – Alex Ruane, NASA GISS Addressing Encroachment Risks through Alignment of EMS (ISO 14001) and Risk Management – Ted Biess, Environmental Engineer, NASA – HQ Sustainability as Overarching Solution – Christina Hudson, Deputy Division Manager, SAIC 	
11:25 am – 12:45 pm	Breakout Session		Breakout Session		
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)				
2:00 pm – 3:45 pm	<p>A.4. Recycling and Pollution Control</p> <p>Session Lead: Janet Bethay Innovative Health Applications, LLC</p>	<ol style="list-style-type: none"> Opening Remarks & Speaker Intro – Janet Bethay, NASA Lead Center for Recycling and Affirmative Procurement, Lead, Innovative Health Applications, LLC Hazardous Waste Associated With Space Launch Operations: Hypergolic Vapors and Liquids – Kurt Kessel, Senior Engineer, ITB Reduction of VOCs & Other GHG Emissions from Gas Streams Using Membrane Technology – Stephen P. Conover, President & C.E.O., Applied Membrane Technology, Inc. Sustaining Mission Success Through Recycling and Green Purchasing – Janet Bethay, NASA Lead Center for Recycling and Affirmative Procurement, Lead, Innovative Health Applications, LLC 	<p>B.4. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p>	<ol style="list-style-type: none"> Follow-on Discussion and Brainstorming – Christina Hudson, Deputy Division Manager, SAIC and Sam Higuchi, Staff Engineer, NASA – HQ 	
3:10 pm – 3:45 pm	Breakout Session		Breakout Session		

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3:45 pm – 4:00 pm	Wrap-up	
Time	Day 4- GE Energy- Jenbacher Headquarters Biogas Technical Tour - Jenbach/Austria	
	Friday, November 13	
7:15 am – 7:35 am	Meet in Munich Marriott Hotel Lobby	
7:45 am	Depart Munich Marriott Hotel	
9:30 am	Arrive at GE Energy- Jenbacher Headquarters	
9:30 am – 12:00 pm	<p>Biogas Plant Tour:</p> <p>GE's Jenbacher Gas Engine Division is one of the world's leading manufactures of gas-fueled reciprocating engines, packaged generator sets and cogeneration units for power generation. It is one of the only companies in the world focusing exclusively on gas technology.</p>	<p>Hall 7: Tool Management Hall 6: Heat Treatment and Material Testing Hall 5: Engine Assembly Hall 4: Crankshafts Hall 3: Cylinder Liner and Small Parts Hall 2: Horizontal Machining Center Hall 1: Crankcase and Large Parts</p>
12:00 pm – 1:00 pm	Lunch (GE Energy- Jenbacher canteen/cafeteria)	
1:00 pm – 2:00 pm	Wrap-up, Q & A, Final Discussion	
2:00 pm	Depart GE Energy- Jenbacher Headquarters	
3:45 pm	Arrive at Munich Marriott Hotel	

*Space is limited. A sign-up sheet will be available at the workshop registration desk.