

World Congress 2009

turning waste into ideas

**ISWA
APESB**

12-15 October

Lisbon

Centro Cultural de Belém

iswa2009.org

Final Programme



ISWA/APESB 2009 ::

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1. Welcome ::

by the Minister for Environment, Spatial Planning and Regional Development

I would like to welcome you to the Lisbon 2009 World Waste Congress. The theme is “Turning waste into ideas” and I do sincerely hope that you feel both challenged and motivated by its programme to think creatively about sustainable waste management.

Sustainable waste management is a central element of any environmental policy at a global scale. It has significant impacts on greenhouse gas emissions and other global climate effects, but is also key to achieving increasingly higher life quality standards as demanded by modern societies. Fulfilling these objectives implies adopting a multidisciplinary and complex approach that takes into account technical, political, social, cultural, economic and environmental factors.



In the last 15 years Portugal has experienced remarkable progress in waste management policy. The vision behind strategic national plans for industrial and municipal waste has been its driving force. Initial emblematic measures, such as the closure of all open dumps, gave place to more ambitious sustainable waste management systems with best available technologies in land filling, recycling and thermal treatment.

I am certain that this 2009 World Waste Congress will contribute greatly to update scientific and technical knowledge in waste management and research. It is also a great opportunity to exchange experiences at a global scale leading to the development of new and innovative waste solutions and increased international cooperation.

The organizers, ISWA and APESB, are certainly provocative when asking us all to “turn waste into ideas”. But they are right. The current global environmental crisis can only be efficiently addressed if we use our creativity to keep a sustainable development track.

I wish you all a very fruitful and inspired World Waste Congress.

Francisco Nunes Correia
Minister for Environment, Spatial Planning and Regional Development

by ISWA

Welcome to Lisbon, Portugal!
Welcome to Turning Waste Into Ideas!

You are participating in an annual event that stretches across country and global region boundaries so as to explore common and different waste management practices. I trust you share my enthusiasm that this event encompasses both personal and business opportunities, as well as being a time to pursue the interesting highlights of a unique historical city.



I would encourage you to study the programme activities for this event. The International Solid Waste Association (ISWA), together with the Association of Portuguese Sanitary and Environmental Engineering (APESB) have organized this year's ISWA/APESB World Congress 2009 in Lisbon from 12 to 15 October 2009. Technical presentations, polished debates, facility tours, and social events at nearly every turn will keep you satisfied, knowing your time has been well spent. Take in what you can, listen and observe, renew your acquaintances, and enjoy with your friends and colleagues what I guarantee will be four unforgettable days.

This year's theme: "Turning Waste Into Ideas" says much about what you are about to experience. Portugal is famous for its warm sun and its open friendships to its visitors. From its role in historic times as a trade center and a base for explorers, Lisbon provides an intriguing venue for all of us to discuss and examine the ideas that will drive the future of waste management in a world with competing needs and challenges. Importantly, APESB has succeeded by linking the links, and connecting us in a manner where we can leverage this meeting opportunity for the benefit of our respective missions and goals.

It is with these thoughts in mind that I am proud to endorse this milestone event, the 2009 ISWA/APESB World Congress in Lisbon.

Kind Regards,

Dr. Atilio Savino
President
International Solid Waste Association (ISWA)

by APESB

Lisbon is pleased to welcome you to the ISWA/APESB World Congress 2009 that will take place at the Cultural Centre of Belém, from 12th to 15th October 2009.

This historical city from where the first navigators sailed, in the fifteenth century, for an incredible and formidable adventure searching for unknown worlds will serve as cradle for new concepts and innovative solutions in waste management leading to a more sustainable planet.

The event is organised by the International Solid Waste Association (ISWA) and the Portuguese Association of Sanitary and Environmental Engineering (APESB) and will constitute a premier scientific and technical international event in the field of solid waste management.

The theme of the Congress “Turning Waste into Ideas” will be a starting point for exchange knowledge and experiences in order to reach the best waste management solutions for all the sectors of our society, from industry to arts. Besides the classic scientific sessions, the Congress activities will also include an Ibero-american symposium. The Programme Committee has also invited recognized world leaders to anchor each Congress theme, and additional platform speakers and poster presenters will implement discussion and reflection on the conference topics.

We hope that this global meeting, in Lisbon, will be remembered as a starting point on how the waste can be transformed into good ideas.



Prof. José M. P. Vieira
Chairman
Portuguese Association of Sanitary and Environmental Engineering (APESB)

2. About Congress ::

a. Congress Summary - Turning waste into ideas

The ISWA/APESB 2009 World Congress invites you to discover the importance of creativity and the collective will in transforming waste into ideas for a better world. To participate in this debate, “Turning waste into ideas”, around 800 guests are expected, from all over the world, and it is expected the presence of specialists from the most distinct sectors in our society, from governmental and political leaders to scientific researchers and technicians, who will lead the sessions and debates. The Congress activities will include scientific and technical sessions where suitable time throughout the programme will be available for networking, dialogue and discussion, including a series of plenary sessions with progressive thinkers on sustainable development issues such as innovative waste solutions, political economy arguments, climate change, and public versus private debates. Moreover an Ibero-american symposium will be held as a parallel session, focusing on global waste sector approaches in Latin-American countries, from challenges to service organisation, through innovative and practical solutions.

There will be also an exhibition, technical tours, and social events that will allow the participants to enjoy the best of their stay in Lisbon.

A set of pre-congress Master Classes have been programmed in: Sustainable Landfills, Thermal Treatment Residues, Biological Treatment of Waste.

The Congress and the Exhibition will take place in the Cultural Centre of Belém (CCB), highly prestigious Cultural Foundation that, as a complementary activity, offers a space for professional conferences. Located at a privileged area in the city, the CCB introduces itself as a modern architectural piece of work with almost 100 thousand square meters, gardens, lakes, streets and squares that makes it an exceptional place. CCB stays by the Tagus river, in Belém, a Lisbon quarter that hosts the biggest wonders of Portuguese discovers: the “Mosteiro de Jerónimos”, the “Padrão dos Descobrimentos” and the “Torre de Belém”.

1 – Who is attending?

Technical specialists working in solid waste projects, programmes, and research.
Representatives from scientific, engineering, social and economic disciplines.
National waste policy makers.
Practitioners in the solid waste sector.
Technology manufacturers and suppliers.

2 – Objectives

Peer to peer learning and network development.
Fostering innovation solutions in the solid waste sector.
Covering gaps in international legal and development targets.
Developing a research and technology agenda.
Establishment of linkages between technical practitioners and policy makers.

3 – Delegates

As congress delegates, individuals can improve their store of knowledge on the latest global waste industry science, technology and strategic issues. Organisations can also greatly benefit from the know-how uptake of their employees.

4 – Presenters

By presenting a communication, delegates will show their involvement on the conference topics and enhance a rich debate and exchange of ideas. The papers were peer reviewed to ensure high quality and thematic consistency and will be published in the conference proceedings (CD version). Some of the reviewed papers will be recommended for submission to Waste Management & Research Journal.

5 - Exhibitors

Exhibitors will have a chance to market their products and services over three days to 800 delegates from a wide range of scientific and technical backgrounds. Exhibitors include solid waste companies, technology and product manufacturers, consultants, research institutes, and non-government organisations.

6 - Sponsors

Sponsorship is a unique opportunity to spotlight a company or organisation as a major solid waste industry player. The organization of this event wishes to thank all sponsors, who believed and supported the ISWA/APESB 2009 World Congress.

b. Congress Programme

A series of plenary sessions on leading edge topics will highlight the key scientific, technological, and legal issues of sustainable development. Presented by progressive thinkers and practitioners in the waste sector, these plenary sessions will focus on “turning waste into ideas”, waste management in developing countries, public and private financing in waste management, waste management in the European Union, and international market of waste.

An Ibero-american symposium will be held as a parallel session, focusing on global waste sector approaches in Latin-American countries, from challenges to service organisation, through innovative and practical solutions.

c. Organisers

Portuguese Association for Sanitary and Environmental Engineering (APESB)

The Portuguese Association for Sanitary and Environmental Engineering (APESB) is a Portuguese non-profit, scientific and technical association, founded in 1980, recognised as a corporate body of public interest since March 1990.

APESB, the Portuguese National Member of The International Solid Waste Association (ISWA) is a body especially oriented to the study, analysis and discussion of matters in the field of health and environmental related subjects, and public systems on drinking water supply, wastewater (drainage, treatment and disposal), solid waste (collection, treatment and disposal), in order to contribute to the implementation of better, feasible and environmental sustainable solutions.

The main objectives of APESB are related to foster the technical and scientific exchange, including technology transfer at national level and in the Portuguese-speaking countries.

www.apesb.pt

International Solid Waste Association (ISWA)

ISWA, the International Solid Waste Association, is an independent non-profit organisation whose purpose is to promote sustainable waste management worldwide by means of scientific, economic and social instruments. It attempts to achieve this by providing an international network for sharing knowledge and experience, developing training courses and organising meeting, seminars and conferences like annual international ISWA Congress.

ISWA has 1,100 members in 64 countries.

www.iswa.org

d. Committees

Programme Committee

José M. P. Vieira, University of Minho, APESB, Portugal
Jeff Cooper, ISWA Vice-President, United Kingdom
Antonis Mavropoulos, ISWA STC Chair, Greece
Fernando Santana, New University of Lisbon, Portugal
Antunes Pereira, University of Aveiro, Portugal
Fernando Castro, University of Minho, Portugal
Felipe Macias Vazquez, University of Santiago de Compostela, Spain
Ana Loureiro, ISWA WGC Chair, Portugal
Derek Greedy, ISWA WGS� Chair, United Kingdom
Enzo Favoino, ISWA WGBTW Chair, Italy
Jorgen Haukholl, ISWA WGTT Vice-chair, Denmark

Organising Committee

José M. P. Vieira, APESB, Portugal
Emídio Xavier, EGF, Portugal
Fernando Leite, LIPOR, Portugal
João Figueiredo, VALORSUL, Portugal
Luísa Pinheiro, APA, Portugal
Dulce Pássaro, IRAR, Portugal
António Costa, Câmara Municipal de Lisboa
Greg Vogt, ISWA, USA
Alberto Bianchini, ISWA, Brazil
Julian Uriarte, ISWA, Spain
Marcelo Rosso, ISWA, Argentina

Local Organising Committee

Maria Graça Lopes, APESB, Portugal
João Feijó Delgado, APESB, Portugal
Mário Russo, APESB, Portugal
Paulo Ramísio, University of Minho, APESB, Portugal
Ana Loureiro, VALORSUL, Portugal
Paula Mendes, LIPOR, Portugal
Ana I.E. Silveira, FCT/UNL, Portugal
Elsa Luz, AdP, Portugal
Luis Marinheiro, HIDURBE, Portugal
Alexandre Seiça, SUMA, Portugal
Sandra Sousa, GEBALIS, Portugal
Ângelo Mesquita, Câmara Municipal de Lisboa

3. Technical Programme ::

The ISWAS/APESB 2009 World Congress constitutes a premier scientific and technical international event in the field of solid waste management, enhancing the debate in relevant topics in order to discover the importance of creativity and the collective will in transforming waste into ideas for a better world.

The theme of the Congress “Turning Waste into Ideas” was the starting point for the exchange of knowledge and experiences in order to reach the best waste management solutions for all the sectors of our society, from industry to arts.

To participate in the debate on these topics, more than 800 delegates are expected, from all over the world, from specialists of the most distinct sectors in our society, governmental and political leaders, academicians, scientific researchers and technicians.

A series of plenary sessions on leading edge topics will highlight the scientific, technological, and legal issues debate of sustainable development.

These sessions will be presented by progressive thinkers, recognized practitioners in the waste sector and representatives of international organizations such as the World Bank, United Nations environmental Programme and the European Investment Bank, and will focus on “turning waste into ideas”, waste management in developing countries, public and private financing in waste management, waste management in the European Union, and international market of waste.

More than 250 papers were submitted to the congress themes: Innovative waste solutions, Sustainable waste management, Waste & climate change and Waste-to-energy, and selected according to the evaluation of an International Panel of Referees, based on scientific quality and the relevance, specificity and novelty of the topic.

The scientific committee developed the conference programme including 156 platform presentations and 30 Poster presentations, organized in a three-day period, with plenary sessions and 5 parallel sessions, according to the different conference topics.

Moreover, an Ibero-american symposium was planned, as a parallel session, focusing on specific waste sector approaches in Latin-American countries, from challenges to service organisation, through innovative and practical solutions.”

Platform Presentations

Monday 12 October 2009

09.00-17.00		REGISTRATION	
10.00-12.30		OPENING SESSION	
		José Vieira, Chairman of the Organising Committee	
10.00-11.15	Welcome Address	António Costa, Mayor of Lisbon José Matos, President of the Portuguese Association for Sanitary and Environmental Engineering, APESB Attilio Savino, President of the International Solid Waste Association, ISWA Francisco Nunes Correia, Portuguese Minister for Environment, Spatial Planning and Regional Development, MAOTDR ISWA Publication Award - ISWA Communication Award - ISWA International Waste Manager	
11.15-11.30		Entertainment	
Moderator		Luisa Schmidt, Professor of the Institute of Social Sciences, University of Lisbon	
Keynote Address: Turning Waste Into Ideas		Antonis Mavropoulos, Chair of the ISWA Scientific and Technical Committee Humberto Rosa, Portuguese Secretary of State for Environment	
12.30-12.45		Technical Exhibition Opening	
12.45-14.00		Lunch	
14.00-17.30	Theme	SUSTAINABLE WASTE MANAGEMENT 1 Auditorium	SUSTAINABLE WASTE MANAGEMENT 2 Room A - Sofia de Mello Breyner
Moderator		Suzanne Arup Veltzé, Director of Dakofa [Denmark]	Derek Greedy, Chair of the ISWA Working Group Landfill [United Kingdom]
		Policy & Regulation	Landfilling
14.00-14.20	Ruta Bendere [Latvia]	Cooperation in Collaborated Creation of Waste Management System in Pskov Region Russia by Latvian and Russian Specialists	Cristina Cunha Gomes [Portugal]
14.20-14.40	Domenico Scamardella [Italy]	The waste and fees regulation: the case of Quadrifoglio S.p.A.	Manfred Fehr [Brazil]
14.40-15.00	Kosuke Kawai [Japan]	Proposal on the methods for analyzing the generation and the compositions of municipal solid waste applicable to the situation in Southeast Asia	Minako Kawai [Japan]
15.00-15.20	Valerie Daoud Henderson [U. Kingdom]	Financing growth in waste business: growth equity and infrastructure	Alessandra Bonoli [Italy]
15.20-15.40	Carlos Teixeira [Portugal]	Selecting indicators when considering new waste management models	W. J. van Vossen [The Netherlands]
15.40-16.10		Coffee Break	
		Policy & Regulation	Landfilling
16.10-16.30	Ljiljana Curcic [Serbia]	Waste Management Practice as the Local Environment Security Issue	Luiz Pereira de Brito [Brazil]
16.30-16.50	Fauziah Shahul Hamid [Malaysia]	Public Perspective on Solid Waste and Public Cleansing Management Bill 2007 Towards Sustainable Waste Management in Malaysia	Beate Kummer [Germany]
16.50-17.10	Simeon Oluwatoba Afun [Nigeria]	Government Regulations and Legislation will ensure sustainable Waste Management in Nigeria	W.J. van Vossen [The Netherlands]
17.10-17.30	João Barata [Portugal]	Integrated Waste Management: Valorsul Case Study	Chukwunonye Ezeah [United Kingdom]
17.30-18.30	POSTER SESSION AND TECHNICAL EXHIBITION		
18.30-19.30	WELCOME RECEPTION		

Conference
Secretariat

Auditorium

INNOVATIVE WASTE SOLUTIONS 1

Room D - Fernando Pessoa

SUSTAINABLE WASTE MANAGEMENT 3

Room B - Almada Negreiros

WASTE TO ENERGY 1

Room C - Luis Freitas Branco

Fernando Castro, *Professor of University of Minho [Portugal]*

Ian Coles, *Board Member for the Asia Pacific Regional Development Network [Australia]*

Håkan Rylander, *Chair of the ISWA Working Group Thermal Treatment [Sweden]*

Eco-materials; Development & Design

Hazardous Waste

From Waste to Energy

Sumaya F. Guedes [Portugal] Fungal Diversity and Environmental Herbicides Remediation

Rui Barbosa [Portugal] Toxicity of ashes produced during the combustion and co-combustion of coal and meat and bone meal in a fluidized-bed reactor

Anna Bernstad [Sweden] Evaluation of Property Close Source-separation of Hazardous Waste and Waste Electronic and Electric Equipment - a Swedish Case Study

Young Ju, Kim [South Korea] Comparative study of leaching characteristics of industrial sludge and fly ash using KSLP and TCLP techniques

Maria Bernardo [Portugal] Evaluation of the toxicity of char residues produced in the co-pyrolysis of different wastes

Ramanathan Somasundaram [India] Potential for Waste to Energy Facilities in Abu Dhabi

Mohammad Pour Bafrani [Sweden] Production of bioethanol from Citrus Wastes by Encapsulated Yeast

Salim Abboud [Canada] The Potential of Producing Renewable Natural Gas from Canadian Wastes

Nidia S. Caetano [Portugal] Bio-ethanol from Lignocellulosic Material via Enzymatic Hydrolysis

Johan De Greef [Belgium] WE as Flexible Source of Renewable Energy for Sustainable Production in Scandinavian Paper Industry

Andrew Street [United Kingdom] "Integrating sustainable waste management and urban regeneration; a case study from North West London"

A. Sebnem Haner [Austria] How to turn textile waste into valuable fibers

Bart Krutwagen [The Netherlands] Towards a CO2 footprint tool for Municipality Solid Waste Management

Silvia Sbaiffoni [Italy] Organic and inorganic waste for site restoration actions

Mario Grosso [Italy] Material and Energy Recovery in Integrated Waste Management System: An Evaluation Based on Life Cycle Assessment

Eco-materials; Development & Design

Hazardous Waste

From Waste to Energy

Rob Bleijerveld [The Netherlands] Revisiting Acceptance Criteria Calculations for Monolithic Waste Landfill with Reactive Transport Modeling: Application to Total Dissolved Salts (TDS)

Vera Ferreira [Portugal] Assessing the medical waste management practices and associated risk perceptions in Algarve hospitals, Portugal

Wim Kulman [The Netherlands] Bulk density behaviour of solid waste streams

Maria Raquel Borda d'Água [Portugal] The Importance of Rehabilitation Planning for the Waste Management in Water Supply Systems

Rianne Visser [The Netherlands] Waste-to-Energy by RDF-Gasification: Lab and Pilot-scale RDF tests in a circulating fluidized bed reactor with extensive gas characterization and a solution for the tar problem.

Gunilla Carlsson [Sweden] To raise awareness of Energy from Waste

Birgit Balkenhoff [United Kingdom] Upgrading & Utilising Biogas as a Fuel

Rita B. Silva [Portugal] Influence of Final Sample Particle Size in Waste Fuel Heavy Metal Characterization

Fernando Antunes Pereira [Portugal] Life Cycle Analysis Of Resources Use And Consumption In The Portuguese Economy And Its Dematerialization

Stefano Consonni [Italy] The Potential for Energy Recovery From Municipal Solid Waste (MSW) in The Framework of Integrated Waste Management Systems

Liesbet Noé [Belgium] How to Allocate Producer's Costs for Waste Collection at Civic Amenity Sites

Ronald Tize [Belgium] Impact of effective use of "low energy" streams from EW plants on Climate Change Mitigation.

Platform Presentations

Tuesday 13 October 2009

09.00-17.00 REGISTRATION			
09.00-10.20 PLENARY SESSION			
	<i>Moderator</i>	Dulce Pássaro, Board of Directors Member of the Institute for the Regulation of Water and Solid Waste	
09.00-9.20	<i>Waste Management Perspectives in Developing Countries</i>	Guido Sonnemann, United Nations Environment Programme.	
9.20-09.40		Chuck Peterson, World Bank.	
	<i>Moderator</i>	Jeff Cooper, Vice-President of ISWA [United Kingdom]	
09.40-10.00	<i>Public / Private Finance in Waste Management</i>	Patrick Dorvil, European Investment Bank.	
10.00-10.20		Fernando Leite, Managing Director of LIPOR [Portugal]	
10.20-10.50 Coffee Break			
10.50-17.50 Theme		IBERO-AMERICAN SYMPOSIUM Auditorium	SUSTAINABLE WASTE MANAGEMENT 4 Room A - Sofia de Mello Breyner
	<i>Moderator</i>	Carlos Silva Filho, ABRELE PE [Brazil] Julian Uriarte, ATEGRUS [Spain] Mário Russo, APESB [Portugal]	Enzo Favoino, Chair of the ISWA Working Group Biological Treatment of Waste [Italy]
		Waste Management in Ibero-America	Biomass Management
10.50-11.10	Luisa Pinheiro, Deputy Director of the Portuguese Environmental Agency, APA [Portugal]	Overview of the Waste Management in Portugal	Kyeong-ho Lee [South Korea] The effects of leachate cross injection and temperature on waste degradation
11.10-11.30	Ana Rodríguez Cruz, Ministerio de Medio Ambiente y Medio Rural y Marino [Spain]	La Situación de los Residuos en España	Junghun Lee [South Korea] Denitrification of nitrite and nitrate by residual organic matters in a landfill
11.30-11.50	Fernando Jacó, Federal University of Pernambuco [Brazil]	Overview of the Waste Management in Brazil	G. J. De Jong [The Netherlands] A New Future for Composting, A Practical Biowaste-To-Energy Case From The Netherlands
11.50-12.10	Sergio Federovskiy, Environmental Agency of the City of La Plata [Argentina]	La Plata City Urban Solid Waste Management Policy: Introducing an environmental dimension	Liliana Krzystek [Poland] Kinetics of Carbon Changes in Aerobic Landfill - Simulations in Lysimeters
12.10-12.30	Arturo Dávila Villareal [Mexico]	Retos Para la Gestión Integral de Residuos en Economías Emergentes	Santino di Bernardino, [Portugal] Promoting Small Scale Anaerobic digestion systems
12.30-14.00 Lunch			
		Appropriate Technologies	Biomass Management
14.00-14.20	Fernando Jacó, Federal University of Pernambuco [Brazil]	Emissions Reductions and Energy Recovery from MSW Landfills in Brazil	Bernard Morvan [France] Residual municipal solid wastes within a rotary drum reactor: impact of retention time
14.20-14.40	Felipe Macias Vazquez, University of Santiago of Compostela [Spain]	Tecnosoles a Imegen de los Suelos Naturales de Mayor Capacidad de Sumidero de carbono.. Una Alternativa de Valorización Biogeoquímica de Residuos, Secuestro de Carbono y Recuperación de Suelos Degradados.	Jean-Luc Martel [France] Suez Environment's last return of experience and developments on MBT technology
14.40-15.00	Fernando Castro, University of Minho, CVR [Portugal]	Giving Value to Wastes. Development of New Technological Routes to Waste Management	Ana Paula Gomes [Portugal] Co-Composting of biowaste and poultry waste
15.00-15.20	Juan Pablo Weihs, Grupo CLIBA - Ecoayres [Argentina]	Methane Recovery and Effective Use of Power Generation Project NORTE IIIB Landfill, Buenos Aires, Argentina.	Silvia Sbaiffoni [Italy] Influence of environmental conditions on hydrogen and methane production from organic waste BATCH TESTS
15.20-15.40	Alfonso Mallio Sanchez - Urbaser, S A [Spain]	Tecnología de Tratamiento de Residuos Sólidos urbanos en España "Con Valorización Energética"	Filipa Vaz [Portugal] Essential Approaches in Odour Management: A Case Study
15.40-16.10 Coffee Break			
		Case Studies	Biomass Management
16.10-16.30	Pilar Tello Espinoza, Universidad Nacional Autónoma de México [México]	Situación del Manejo de los Residuos Sólidos en América Latina y El Caribe	Roland Kirchmayr [Austria] Biogas from waste material as key technology towards an energy self-sufficient slaughterhouse.
16.30-16.50	Luis Fernando Schettino, Department of Oceanography and Ecology of Espírito Santo Federal University - DOCE/UFES [Brazil]	The use of Residues of Ornamental Rocks, Sanitation and the end of the landfills ("Lixões"); more life quality in Espírito Santo State, Brazil.	Séverine Dumas [France] Co-Digestion of Solid Liquid Organic Wastes
16.50-17.10	Luis Filipe Camargo Kastrup, Faculdade de Saúde Pública da Universidade de São Paulo [Brazil]	Clean Energy Generation by Fuel Cells in Landfills	Matthieu Carrere [France] Dry Anaerobic Digestion of Residual MSW: Organic Matter Degradation
17.10-17.30	Alejandro von Bertrab, German Technical Cooperation, Program for Environment Management and Sustainable Use of Natural resources [Mexico]	Public-private Partnerships as a Means to Consolidate Integrated Solid Waste Management Initiatives in Tourism Destinations: the Case of the Mexican Caribbean.	R. De Hyaric [France] Anaerobic digestion of screenings from municipal wastewater treatment plants: pilot-scale experimentation.
17.30-17.50	Ether Vecino, ATEGRUS [Spain]	Nuevas Tecnologías de Vertederos Para Mejorar la Producción de Energía y el tratamiento de lixiviados. Infiltración Fija de Lixiviados de Vertederos Técnicamente Controlable.	POSTER SESSION AND TECHNICAL EXHIBITION

Conference Secretariat

Auditorium

SUSTAINABLE WASTE MANAGEMENT 5
Room B - Almada Negreiros

WASTE TO ENERGY 2
Room C - Luis Freitas Branco

INNOVATIVE WASTE SOLUTIONS 2
Room D - Fernando Pessoa

João Correia, Regional Director for Environment, Madeira [Portugal]

Antunes Pereira, Professor of the University of Aveiro [Portugal]

Fernando Fernandes, Solkon, SA [Portugal]

Waste Management

Advanced Thermal Treatment & Energy Recovery

Challenges of the New Millennium & Waste as Subproducts

Carlos Afonso Teixeira [Portugal] Municipal Solid Waste Performance Indicators

Josef Mitterwallner [Austria] Evaluation of the MSW-Treatment Methods "Biological-thermal" And "Thermal-Only" for the Styria Region in Austria

Barry B. Edwards [USA] The Catawba County EcoComplex; A Study in Waste Management, Renewable Energy, and Synergetic Relationships

Ana Goulart [Portugal] Waste Prevention and Management in Azores Islands

R. Boudewijn [The Netherlands] Process Optimization and De-bottlenecking of Waste and Sludge Incineration Plants Presentation of results from a study for DRSB Sludge Incineration Plant.

Veronica Di Bella [Italy] Research, Design and Implementation of Sustainable Technologies for Municipal Solid Waste Management in an East African City: The Case f Hargeisa, Somaliland

Gleide B. M. Lacerda [Brazil] Clean Development Mechanism Projects in Brazil based on Sanitary Landfills for Solid Urban Waste

Stefano Cernuschi [Italy] Emissions of Ultrafine and Nanoparticles from Waste to Energy Plants

Mentore Vaccari [Italy] Synergy Between Research Activities and operational Procedures to Develop Sustainable Solutions for Contaminated Soils Treatment : The case of a Plant Placed in Northern Italy

Alexandra Lalet [France] The Ecological Footprint, a Concrete Approach of Sustainable Development in Waste Management

Hubert Straetmans [Belgium] The Fluidised bed experience of Suez Environment

You-jung Kim [South Korea] A study on the construction of environmental energy town in SUDOKWON Landfill Site for iLaw carbon, Green Growth

Jong-In Dong [South Korea] Policies and Technical Development for Clean Energy Utilization from Organic and Combustible Waste Resources in Korea

Maria R. V. Gomes, [Portugal] Waste-to-Energy Assessment of Solid Waste in the Center Region of Portugal

Arne M. Ragossnig [Austria] Destination-process-specific Optimization of Waste Processing Using Innovative Treatment Technology

Waste Prevention

Advanced Thermal Treatment & Energy Recovery

Challenges of the New Millennium & Waste as Subproducts

Taweep Chaisomphob [Thailand] Research and development on novel organic waste composting technology using "Serial Self-Turning Reactor (STR)": Case study at Thammasat University, Rangsit Campus, Thailand

Mario Grosso [Italy] Experimental Evaluation of Dioxins Release and Mass Balance of a WTE Plant

Garcla Albacete,M. [Spain] Biowaste as Phosphorus Source: Sequential Extraction as Risk Assessment for Phosphorus loss

Miguel Aranda da Silva [Portugal] Domestic Composting Program Implementation

Liliana Krzyszek [Poland] Autothermal Drying of Sewage Sludge and Organic Fraction of Municipal Solid Waste in Batch Bioreactor

Fernando Castro [Portugal] Incorporation of wastes in lightweight aggregate of expanded clay for construction applications

Gerryshom Munala [Austria] The Challenge of Solid Waste Management in Kisumu, Kenya: Need for a Paradigm Shift

Mario Grosso [Italy] Experimental assessment of N2O emissions from waste incineration: the role of NOx control technology and some considerations on the overall nitrogen mass balance

Robert Leeflink [the Netherlands] Operations management for solid waste treatment. Development of a system for modelling complex facilities

Miguel Baptista Nunes [Portugal] Integrated Management System for Quality and Environment - Complement or Support: Experience of ALGAR, S.A.

Filipe Paradela [Portugal] Study of the Slow Batch Pyrolysis of Mixtures of Plastics, Tyres and Forestry Biomass Wastes. Effect of the Experimental Conditions in the Liquid Compounds

Jurgis K. Staniškis [Lithuania] Municipal Waste Management System Based on Life - Cycle Assessment

Filomena Castelo Branco Soares Vitor [Portugal] Factors Influencing Households Participation in Organic Waste Separation

Volker Wiesendorf [Switzerland] Technical And Economical Aspects of Thermal Efficiency of Grate-Fired Waste-to-Energy Plants

Andreas Bartl [Austria] Fiber Recycling: Potential for Saving Energy and Resources

Waste Management

Advanced Thermal Treatment & Energy Recovery

Challenges of the New Millennium & Waste as Subproducts

Hamidreza Soleimangour [Sweden] Stakeholders' analysis, a key tool in feasibility study of waste management projects

Matthew Chester [United Kingdom] Improving Recycling Effort - Its Effect on the Calorific Value of Residuals

C.A.A Freek [The Netherlands] Waste Management Is A Key Element Of A Green (R)evolution

Gunay Kocasooy [Turkey] Environmental Pollution Caused by natural Disasters

Sookoo Lee [South Korea] Drying of Sewage Sludge Using Vacuum Evaporation and Immersion Frying Technology

Bruno Pavao [Portugal] Use of Electric Arc Furnace Dust (EAFD) in Alkali-Activated Fly Ash Binder

Alexei Aludorei [Romania] Sustainable Waste Management in Romania. Case Study - Integrated Waste Management in Slobozia, Lalomita County.

Per Lindgren [Sweden] State of the Art Flue Gas Cleaning in a Multifunctional Scrubber with Integrated Energy Recovery by Condensation

A. Nithya [Malaysia] Waste to Enzymes through Solid State Fermentation

Pedro Simões [Portugal] Performance benchmarking of Portuguese urban waste treatment services

Ludwin A. Daal [The Netherlands] Strategies to optimize process and cooling water operation in a WTE plant

Maria Inês Neves [Portugal] Ecovia-Ecological Road

Platform Presentations

Wednesday 14 October 2009

09.00-10.20		PLENARY SESSION	
	<i>Moderator</i>	Luisa Pinheiro, Deputy Director of the Portuguese Environmental Agency [Portugal]	
09.00-9.20	<i>Waste Management Perspectives in the European Union</i>	Emidio Xavier, President of EGF [Portugal]	
09.20-10.00		Erik de Baedts, NVRD [The Netherlands] C. N. Plug, Ministry of Housing, Spatial Planning and the Environment [The Netherlands]	
10.00-10.20		Andrew Street, President of SLR Consulting Limited [United Kingdom]	
10.20-10.50		Coffee Break	
10.50-15.20	<i>Theme</i>	SUSTAINABLE WASTE MANAGEMENT 6 Auditorium	SUSTAINABLE WASTE MANAGEMENT 7 Room A - Sofia de Mello Breyner
	<i>Moderator</i>	Ana Loureiro, Chair of the ISWA Communication Working Group [Portugal]	Maarten Goorhuis, Chair of the ISWA Working Group Recycling Waste Management [Netherlands]
		Communication and Social Issues	Recycling
10.50-11.10	Rachel Slater [United Kingdom]	Enhancing Blow Waste Management in the UK: The Role of Commercial and Community Composting	Theofani Tzevelekou [Greece] Proposal for recycling and energy usage of municipal wastes in Greece.
11.10-11.30	Delia Gorgos [Romania]	Social Impact and Input in Waste Management	Malcolm Gent [Spain] Enhanced plastics recycling by cyclone media separation
11.30-11.50	Francisco Bento dos Santos [Portugal]	Waste Management Roadshow - A Virtual Journey	Santha Chenayah [Malaysia] Managing the Solid Waste: Recycling in Subang Jaya
11.50-12.10	Paulo Rocha Rodrigues [Portugal]	Waste Prevention - Project "Less 100 Kg/Citizen/Year"	Seyed Ali Sanaee [The Netherlands] Ultrasound For Monitoring And Quality Inspection In MDS Plastics Recycling
12.10-12.30	Isabel de Buyscher [Belgium]	The Approach to Litter in Belgium: A Never Ending story?	Charles Peterson [USA] Clean Development Mechanism (CDM) and Development of a Methodology for the Recycling of Municipal Solid Waste.
12.30-14.00		Lunch	
		Communication and Social Issues	Recycling
14.00-14.20	Luisa Schmidt [Portugal]	Ecofreguesias experience: Some Contributions for Local Sustainable Waste Management"	Antonis Mavropoulos [Greece] Recycling Behaviour: the Present Focus Brain and a Framework to Understand Personal Differences in Recycling
14.20-14.40	Paula Mendes [Portugal]	Waste Prevention - We Need to Communicate	Dinis de Sousa [Portugal] Modification of a Packaging Sorting Line - Concernings and Difficulties
14.40-15.00	Jos Artois [Belgium]	Sustainability reporting for the waste management sector based on Global Reporting Initiative principles and guidelines	Christine Thomas [United Kingdom] Recycling Organic Waste Resources to Land - Communicating the issues
15.00-15.20	Filipa Newton [Portugal]	The Media and the Environment	Valentina Elena Tartiu [Romania] The Zero Waste System - An Enduring Solution for the Waste Management in Romania?
15.20-16.00		Coffee Break	
16.00-17.00		PLENARY CLOSING SESSION	
16.00-16.30		Promotion of the ISWA World Congress 2010	
16.30-17.00		Closing Session Greg Vogt, Managing Director of the International Solid Waste Management, ISWA José Vieira, Chairman of the Organizing Committee	
17.00-19.30			
19.30		GALA DINNER	

SUSTAINABLE WASTE MANAGEMENT 8
 Room B - Almada Negreiros

 Manuel Pássaro, Director of Sociedade Porto Verde
 [Portugal]

Packaging Waste

Walter de Vries [The Netherlands]	ADR: a new method for dry classification
Regina C. C. Monteiro [Portugal]	Vitreous materials from the boiler ash of a pulp mill-preparation and properties
Sylvie Meekers [Belgium]	Prevention & Recyclability of Packaging. Case Study: Biopackaging
Patrícia O. Leitão [Portugal]	Reliability of a line-of-view sensor for recycling point waste containers
Kieun Kim [South Korea]	Effect of Waste Recycling on Sustainable Development

WASTE TO ENERGY 3
 Room C - Luis Freitas Branco

 Fernando Santana, Professor of the New University of Lisbon
 [Portugal]

Anaerobic Digestion & Gasification

George Deardorff [USA]	Practical Experience in the Development of Waste-To-Energy Projects Utilizing Landfill Gas
Isabel Saraiva [Portugal]	Sludge Energetic Recovery in a Wastewater Treatment Plant With Anaerobic Digestion - The H2S Problematic in Biogas
Marco Ragazzi [Italy]	A Proposal for An Innovative Exploitation of OFMSW from Selective Collection
Changsik Choi [South Korea]	Characteristics on Cell Disintegration of Sewage Sludge by Advanced Thermal Treatment
Manuela Gori [Italy]	Assessment of Utilization Options for MSW Gasification Bottom Ash

WASTE & CLIMATE CHANGE
 Room D - Fernando Pessoa

Jens Aage Hansen, Chair of ISWA Task on Greenhouse Gases and Sustainable Waste Management [Denmark]

Waste & Climate Change

Jungkeuk Park [Republic of Korea]	Feasibility study on LFG-MGT system with CO2 fixation in greenhouses.
Elena Cristina Rada [Italy]	A Contribution to the Assessment of Greenhouse Gas Emissions From Residual MSW Bio-Drying
Hakan Rylander [Sweden]	The SYSAV-Case - A Concept for the reduction of Green House Gases with Maximum Recovery and Minimum Landfilling.
Benson H. K. Karanja [Kenya]	Addressing Climate Change by Reducing amount of Methane Gas Being Released from Landfills Due to Dumping of Polythene Materials
S. Abreu [Portugal]	Waste and Carbon. Evaluation of Carbon Footprint at Lipor.

Packaging Waste

Bin Hu [The Netherlands]	Fine Heavy Non-Ferrous and Precious Metal Recovery in Bottom Ash Treatment
Bruce G. Wilson [Canada]	A Statistical Analysis of the Stewardship Ontario Residential Waste Audit Program
Idalécia Guerreiro Rodrigues [Portugal]	Evolution of Packaging material sent to Recyclin in Algarve's Area
Celestina Barros [Portugal]	Sorting Plant Automation In Portugal. Guidelines

Anaerobic Digestion & Gasification

Davide Pico [Austria]	Thermal Treatment of end-of-Life Fiber Composite
Cella Mazzariol [Italy]	Landfill's Methane Degradation to Reduce Greenhouse Gases Emission
Susana Lopes [Portugal]	Lipor: Biowaste Strategy. The Importance of Selective Collection
Rita B. Silva [Portugal]	Mixing Sewage Sludge and Calorific Waste for Thermal Recovery. Effects on Biogenic Share

Waste & Climate Change

P.P. Cella Mazzariol [Italy]	An experiment with innovative technology to Reduce GHG Emissions from Landfills
John H. Skinner [USA]	New Directions for Greenhouse Gas Controls, Renewable Energy and Solid Waste Management in North America
Seong-min Park [South Korea]	Greenhouse Gases in Landfill Site and its Reduction Measures esp. the Effectiveness of CDM
Barbara Hutton [Australia]	Waste management options to control greenhouse gas emissions

Keynote Speakers

Theme	Keynote Speaker	
Turning Waste Into Ideas	Antonis Mavropoulos	Chair of the ISWA Scientific and Technical Committee
	Humberto Rosa	Portuguese Secretary of State for Environment
Waste Management Perspectives in Developing Countries	Guido Sonnemann	United Nations Environment Programme
	Chuck Peterson	World Bank
Public / Private Finance in Waste Management	Patrick Dorvil	European Investment Bank
	Fernando Leite	Managing Director of LIPOR [Portugal]
Waste Management Perspectives in the European Union	Emídio Xavier	President of EGF [Portugal]
	Erik de Baedts	NVRD [The Netherlands]
	C. N. Plug	Ministry of Housing, Spatial Planning and the Environment [The Netherlands]
	Andrew Street	Director of SLR Consulting Limited [United Kingdom]

Poster Presentations

253	A high cell density anaerobic digestion for food waste treatment at high organic loading rate
244	Agrochemical Characterisation Of The Digestate Produced By Anaerobic Digestion For Biogas Production In The Farm And Agro-industrial Sectors
247	Balanced scorecard as a management model in the waste sector
344	Case Study - Operation and monitoring of a Sanitary Landfill for Solid Urban
262	Continuous ethanol production by the synchronous saccharification and fermentation using food wastes
236	Effects of sludge pre-treatment by hydrodynamic cavitation with venturi tubes on anaerobic digestibility
251	Effects of temperature in aerobic reactor on stabilization of biodegradable waste in MBT system
299	Ensuring radiation safety of old uranium mining waste dumps in Portugal
359	Environmental Education Through Art
347	Estimation of the final household waste amounts disposed in Mexico
336	Evaluation and Improvement of Draining Performance for Disposer Plumbing System
210	Evaluation of Emission Factor of Harmful Elements from Open Burning
254	Evaluation of sanitation efficiency in aerobic bioreactor EWA
211	Extraction of hi-purity metallic manganese from electric arc furnace dust.
341	Forecasting of household Waste Generation
409	Full-scale experiment of ammonium removal by leachate recirculation after partial nitrification
250	Identifying Optimal Regional Solid Waste Management Strategies using Multicriteria Analysis Tools
391	Industrial Polymeric Wastes Used for Corrosion Protection Coatings
203	Large scale fed-batch composting using artificial bulking agents for high-rate degradative treatment of food waste in urban area,Japan
259	Management of hazardous waste on sustainable landfills: Influence of the compaction of stabilised/solidified metallic waste on the leaching characteristics
324	Organic Valorisation Plants - Technical Solutions in Portugal
176	Organic Wastes amendment as Strategy for Fixing Carbon and Combating Soil Degradation in Semiarid Areas
195	Phosphogypsum: waste or raw material?
257	Preparation and Characterization of porous composite filter medium from PTFE foam coating
350	Safe Management of Healthcare Waste in the Czech Republic
258	Solid Waste Master Plan: Case Study- City of Suzano- São Paulo, Brazil
256	Sorption characteristics of C60 and MWNTs to media under various aqueous conditions
252	Tar reduction using cheap catalysts in sewage sludge gasification
330	Use of Different Types of Solid Wastes as Raw Materials for Ceramic Tiles
226	Valorsul's experience in the operation of the anaerobic digestion plant for selective collection of biodegradable waste

4. Technical Tours ::

Post-conference technical tours will be available on Thursday 15' October 2009. The Organizing Committee selected five different tours to sorting facilities, composting plants, waste-to-energy plants, a landfill sites and hazardous waste treatment plants.

Due to restriction of accepted maximum participants at the facilities tours will be limited to 50 delegates. All tour participants must be pre-registered and all names will be checked at the boarding of the bus.

The meeting point for the departure to these Technical Tours will be Parque Eduardo VII, 30 minutes before the departure time of each visit.

Technical Tour 1

VALORSUL ::

15th October 2009

Waste-to-energy plant and landfill



Valorsul, SA is the company responsible for the treatment of the approximately 750 thousand tons of Municipal Solid Waste produced, per year, in the municipalities of Amadora, Lisbon, Loures, Odivelas and Vila Franca de Xira. Its intervention area corresponds to less than 1% of the total area of the country, but it treats almost one sixth of all domestic residues produced in Portugal. Valorsul's mission is to develop, implement and manage an integrated system for the treatment and valorisation of the urban solid waste from the Lisbon Metropolitan Area (North), which is efficient and effective, technically advanced, environmentally and financially sustainable, and generating minimum costs for their users.

09h15 – Departure from Lisbon

Group A

10h00 – Arriving to Valorsul's Waste to Energy Plant Short presentation about Valorsul System

10h45 – Visit to Valorsul's Waste to Energy Plant

The WTE Processing Plant has the capacity to burn out the waste received from mixed collection and simultaneously produce electrical power. The Plant receives daily approximately 2000 tons of waste and produces enough energy to supply a city of 150 thousand inhabitants. It occupies an area of 4 ha and has a nominal processing capacity of 662 thousand tons/year (90% availability). A very complete environmental monitoring programme is implemented in order to evaluate the impact of the plant in the involving area.

12h00 - Lunch

13h15 – Departure from the Waste to Energy Plant to the Sanitary Landfill

13h45 – Visit to Valorsul’s Sanitary Landfill

Sanitary Landfill is a facility for the waste that cannot be incinerated and also receives the mixed waste collection when the WTE Processing Plant is under maintenance. It is constituted by depots lined with impervious materials to retain the leached materials. In the Landfill, there is also a biogas extraction and burning network. In a football field all the waste the sanitary landfill can receive piled 251 storeys high. In the sanitary landfill there is also a Bottom-Ash Recovery Plant that receives the waste after being burned in the WTE Plant, and separates the ferrous and non-ferrous metal and the inert material. The metal is led to the recycling and the inert material may be used in civil construction. We get enough ferrous metal from the bottom-ashes to manufacture 16 500 vehicles a year.

15h00 – End of visit and departure to Lisbon

Group B

10h00 – Arriving to Valorsul’s

10h45 – Visit to Valorsul’s Sanitary Landfill

Sanitary Landfill is a facility for the waste that cannot be incinerated and also receives the mixed waste collection when the WTE Processing Plant is under maintenance. It is constituted by depots lined with impervious materials to retain the leached materials. In the Landfill, there is also a biogas extraction and burning network. In a football field all the waste the sanitary landfill can receive piled 251 storeys high. In the sanitary landfill there is also a Bottom-Ash Recovery Plant that receives the waste after being burned in the WTE Plant, and separates the ferrous and non-ferrous metal and the inert material. The metal is led to the recycling and the inert material may be used in civil construction. We get enough ferrous metal from the bottom-ashes to manufacture 16 500 vehicles a year.

12h00 – Lunch

13h15 – Departure from the Sanitary Landfill to the Waste to Energy Plant

13h45 – Visit to Valorsul’s Waste to Energy Plant

The WTE Processing Plant has the capacity to burn out the waste received from mixed collection and simultaneously produce electrical power. The Plant receives daily approximately 2000 tons of waste and produces enough energy to supply a city of 150 thousand inhabitants. It occupies an area of 4 ha and has a nominal processing capacity of 662 thousand tons/year (90% availability). A very complete environmental monitoring programme is implemented in order to evaluate the impact of the plant in the involving area.

15h00 – End of visit and departure to Lisbon (Hotel Tivoli)

Technical Tour 2

CIRVER-ECODEAL / SISAV ::

15th October 2009

Integrated center for recovery, valorization and disposal of industrial waste



CIRVER-ECODEAL - Integrated Center of Industrial Hazard Waste built in Portugal to solve the external dependence of the country in matter of Industrial Waste. This Facility was inaugurated on 4th of June 2008 to treat most types of industrial hazard waste. Portugal has a total surface area of 92 391 km², a population of 10 600 000 habitants and produces a total of 250 000 ton of hazardous industrial waste/year. This unit has a capacity of 200 000 t/year.

ECODEAL is owned mostly by the FCC, leader in the management of hazardous industrial waste in Spain (55%), by QuimitecnicaAmbiente (25%), company of reference in Portugal in the same area and by the Nelson Quintas Group (20%).

THE UNIT is available to the whole country, consists of 7 treatment units and can process, among others: oily waste emulsion, chemical industry waste, sludge, waste from thermal processes, paint waste, varnishes, surface treatment waste, used solvent mixtures, contaminated soils and contaminated packaging.

TRANSFER AND CLASSIFICATION UNIT

- Temporary storage to send to a specif unit in the plant.
- Packing and send to a appropriate destination – waste which cannot be disposed or processed by ecodeal - send back to the owner/producer in case of non conformity .

STABILIZATION UNIT

- Inertinghazourd components - immobilization of the hazourd compounds by the use of reagents like cement, sepiolite and calcium hidroxides.

ORGANIC WASTE UNIT

- Treatment of organic liquid waste by the use of physical processes as gravity separation, stripping, centrifugation, evaporation and biological processes (sequential batch reactor).
- Recovery of the organic fraction (co-incineration), water used in the process and for irrigation, and the organic fraction (sludge) stabilized and sent to landfill.

LANDFILL

- Deposition in accordance with the procedures and criteria for admission indicated by the decision 2003/33 ec.

PHYSICAL AND CHEMICAL TREATMENT UNIT

- Treatment of liquid waste through chemical: reduction, oxidation, neutralization, precipitation, followed by physical operations of decantation and filtration for separation of the phases: aqueous and solid.

SOIL DECONTAMINATION UNIT

- Biodegradation of the organic contaminants.

PACKAGING RECOVERY UNIT

- Washing of cubic containers and drums.
- Recovery of plastic packages.

GENERAL FACTS

- Treatment capacity: 200 000 tonnes/year
- Investment volume: 20 000 000 €
- Occupied area: 32 ha
- Reception and treatment area: 7 ha/ landfill area: 21,4 ha
- Landfill capacity: 300 000 m³/each fill

PROJECT INDICATORS

- Process water discharges are not planned – all the water is used in the different units and for irrigation
- Fully covered facilities – avoid direct contact between rain water and waste
- Use of biofuels – CO₂ emissions reduced
- Sealed treatment areas – leakage are collected separately

SISAV

Hazardous Waste Treatment and Disposal Integrated System



SISAV-CIRVER is an industrial unit for the processing and disposal of industrial waste, forming an integral part of the established national waste management strategy. A grouping of companies are shareholders – Auto-Vila (58,4%), a company of the EGEO group, Sapec Portugal (34,1%), Sarp Industries (Veolia Environnement) (5%) and Chamusca Municipal Council (2,5%).

SISAV-CIRVER is located in Relvão Eco Industrial Park in Chamusca municipality, and it was inaugurated on 4 June 2008. The overall investment in the project is EUR 30 million. The site covers a total area of 34 ha. It has a mean processing capacity of 150 000 tonnes of industrial waste per year (although its activity had only started on the second semester of 2008).

SISAV-CIRVER enterprise have received at its facilities 40 thousand tons of Hazardous waste for treatment and disposal and it is the driver of local development, directly creating near on 75 jobs, including highly skilled technicians and unskilled staff.

The innovating nature of this project is that it combines a wide range of waste processing solutions in the same plant, besides pioneering processing technology in Portugal.

SISAV-CIRVER possesses all the necessary resources to process industrial waste from every national producer, with the exception of hospital and radioactive waste. All the waste processing processes are implemented in a manner that optimises the logistics chain and permits efficient waste management.

Therefore, this comprises the following specific operations (operational units), with the following licensed capacities according to Environmental Licence no. 42/2006:

Classification, sorting and transfer unit:

- Waste transfer unit - 1 000 tonnes;
- Packaging disassembly unit - 32 500 tonnes/year.
- Contaminated packaging recycling unit - 15 000 tonnes/year

Organic waste processing unit:

- Used oils processing unit - 80 000 tonnes/year;
- Physico-chemical processing unit for organic and hydrocarbon waste - 76 000 tonnes/year;
- Biological processing unit - 100 000 tonnes/year;
- Evapo-oxidation unit - 40 000 tonnes/year.
- Physico-chemical processing unit for inorganic waste - 30 000 tonnes/year
- Soil decontamination unit - 180 000 tonnes/year
- Stabilisation unit - 84 000 tonnes/year
- Hazardous waste landfill - 150 000 tonnes/year

Structure of the Visit

- Guests Reception
- Presentation Opening
- SISAV Project Presentation
- SISAV site visit including Treatment Units
- Enlightenment Session
- Closing

Technical Tour 3

VALNOR – Municipal Solid Waste treatment and Recovery in Northern Alentejo ::

15th October 2009

Integrated Management System



VALNOR, S.A. is the company responsible for the treatment and valorization of approximately 75 thousand tons/year of municipal waste, produced in the municipalities of Abrantes, Alter do Chão, Arronches, Avis, Castelo de Vide, Campo Maior, Crato, Elvas, Fronteira, Gavião, Marvão, Mação, Monforte, Portalegre, Ponte de Sôr, Sardoal, Sousel and Vila de Rei. The intervention area represents 7.500 km², with a resident population of 174.719 habitants.

This waste is treated by VALNOR by means of a modern Municipal Solid Waste (MSW) Integrated Management System adapted to the increase and to the composition of our waste regarding sustainable development based on environmental, economic and social issues.

The Integrated Management System of VALNOR, S. A.

VALNOR, SA has established an Integrated Management System to take care of the MSW produced in this intervention area. This system consists of several operational facilities: Sanitary Landfill, Sorting Plant and Collection Center, Biodiesel Production, Construction and Demolition Waste Landfills, Construction and Demolition Waste – Recycling, End-Life Vehicle Waste Plant, Waste Electrical and Electronic Equipment Plant and Organic Waste Valorization Plant (Composting Plant).

Taking into account the complexity, diversity and composition of domestic waste, as well as its treatment, VALNOR promotes:

- The use of waste collection points with free distribution of domestic containers for recyclable SUW;
- It also promotes the separation of paper, plastic and metal in public institutions and services (banks, health centers, etc.) and cooking oils from restaurants, schools, canteens, hotels and other producers, through the distribution of specific containers;
- VALNOR has implemented an efficient system of separated collection of recyclable materials.

VALNOR's municipal solid waste integrated management system besides the waste recovery also promotes environmental correct behaviors of the population through the implementation of awareness and environmental education actions.

Full certification was awarded for the Quality management, Environmental management and Health and Safety Work System (March 2004). In fact, VALNOR was the first European Company in the SUW sector to be awarded the relevant Certification areas (ISO 9001, ISO 14001 and OHSAS 18001).

Always with the aim to offer a quality service, with respect for the essential social and environmental aspects, VALNOR was awarded in the Community System of Auditory and Eco-Management – EMAS. This process integrates in this system principles of sustainable development as well as economy principles for sustainable development as well as economy principles for the optimization of resources.

It's equally awarded in SA 8000, Social Responsibility.

Technical Tour

This technical tour is for about 50 participants

08h00 – Departure from Lisbon (Hotel Tivoli)

10h15 – Arriving to VALNOR, S.A.

10h45 – Visit to the Management Integrated System of VALNOR, S.A.

- Sorting Plant and Collection Center
- Sanitary Landfill
- Biodiesel Production Unit
- Construction and Demolition Waste Plant - Recycling
- End-Life Vehicle Waste Plant
- Waste Electrical and Electronic Equipment Plant
- Organic Waste Valorization Plant (Composting Plant)

13h45 – Lunch

15h00 – End of the visit and departure to Lisbon

Technical Tour 4

LIPOR ::

15th October 2009

Energy recovery plant, recycling circuit and organic recovery circuit



Lipor – Intermunicipal Waste Management Service of Greater Porto

Lipor is the entity responsible for the management, valorisation and treatment of municipal solid waste produced by its eight associated municipalities: Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Valongo and Vila do Conde.

Having been created as an Association of Municipalities in 1982, Lipor has come to implement an integrated management of waste, extending and building infrastructures complemented by awareness campaigns for the general public.

Integrated Treatment and Valorisation Strategy of MSW

Lipor treats around 500 thousand tons of municipal solid waste — MSW — produced by 972.000 inhabitants, every year.

Sustaining modern MSW management concepts such as the adoption of integrated systems and minimizing disposal in landfills, Lipor has developed an integrated treatment, valorisation and confinement strategy for MSW based on three main components: Multimaterial Valorisation, Organic Valorisation and Energy Recovery, complemented by a Sanitary Landfill for the disposal of rejected waste and prepared residues.

Active Ecology in Portugal and the World

Lipor collaborates with several national and international entities, taking an active role in the development of sustainable policies for a greener future with a higher quality of life. It has also established partnerships with several universities and other public and private institutions. At an international level, it is an active participant in environmental awareness campaigns organised by the European Union.

Lipor is also a member of the Business Council for Sustainable Development — BCSD Portugal, the Portuguese Association of Sanitary and Environmental Engineering — APESB, the Institute of Energy, the Resource Recovery Forum, the International Solid Waste Association — ISWA, the Institute for the Sustainability of Resources – ISRser and the Association of Cities and Regions for Recycling — ACR+.

For more information, please go to www.lipor.pt .

This technical tour is for more than 50 participants. The group will be divided in order to maximize the tour.

Group A

08h00 – Departure from Lisbon

11h00 – Arriving to Lipor’s Energy Recovery Circuit – Maia
Short presentation about Lipor System

11h00 – Visit to Lipor’s Energy Recovery Circuit– Maia

The “Energy Recovery Circuit and Technical Confinement” includes a visit to the Energy Recovery Plant and to Lipor’s Sanitary Landfill. The Plant, with two lines of treatment with continuous and almost automatic production, treats nearly 1.000 tons of waste a day, producing 25 MWh of electrical power, enough to supply a population group of around 150 thousands inhabitants. Lipor’s Sanitary Landfill located next to the Energy Recovery Plant was designed under strict environmental control and protection standards.

12h30 – Departure from the Energy Recovery Plant – Maia to Lipor – Ermesinde

13h00 – Lunch

14h00 – Visit to Lipor’s Recycling Circuit

In the Multimaterial Recycling Circuit we explain the waste circuit, from their deposition in the Eco-Containers and Drop-of-sites to their passage by the Sorting Plant, where they are sorted and baled for recycling. Lipor’s Sorting Plant is prepared to treat 35.000 tons of waste per year.

15h00 – Visit to Lipor’s Organic Recovery Circuit

The Organic Recovery Circuit includes a visit to the Home Composting Plant – Horta da Formiga – and a visit to the Composting Plant, where the organic waste is processed to be transformed in compost for agricultural use. The Composting Plant has the capacity to value about 60.000 tons/year of organic waste that will allow the production of about 20.000 tons/year of high quality compost.

16h00 – End of the Visit

Group B

08h00 – Departure from Lisbon

11h00 – Arriving to Lipor’s Recycling Circuit
Short presentation about Lipor System

11h00 – Arriving and Visit to Lipor’s Recycling Circuit

In the Multimaterial Recycling Circuit we explain the waste circuit, from their deposition in the Eco-Containers and Drop-of-sites to their passage by the Sorting Plant, where they are sorted and baled for recycling. Lipor’s Sorting Plant is prepared to treat 35.000 tons of waste per year.

12h00 – Visit to Lipor’s Organic Recovery Circuit

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13h00 – Lunch

14h00 - Departure from Lipor – Ermesinde to the Energy Recovery Plant – Maia

14h30 – Visit to Lipor’s Energy Recovery Circuit– Maia

The “Energy Recovery Circuit and Technical Confinement” includes a visit to the Energy Recovery Plant and to Lipor’s Sanitary Landfill. The Plant, with two lines of treatment with continuous and almost automatic production, treats nearly 1.000 tons of waste a day, producing 25 MWh of electrical power, enough to supply a population group of around 150 thousands inhabitants. Lipor’s Sanitary Landfill located next to the Energy Recovery Plant was designed under strict environmental control and protection standards.

16h00 – End of the Visit

Technical Tour 5

VALORSUL ::

15th October 2009

Sorting plant and anaerobic digestion plant



This technical tour is for about 100 participants.

Group A

10h00 – Arriving to Valorsul's Sorting Plant
Short presentation about Valorsul System

10h45 – Visit to Valorsul's Sorting Plant

The Sorting Plant receives the materials (glass, paper/cardboard and packages) from selective collection, sorts and treats them so that the recycling industries can receive them. The technological process combines manual and mechanic sorting processes. This plant innovates by using ballistic and optical separation and has the capacity to treat 105 000 tons/year. There is also a Collection Centre where the population can deliver, for example, large quantities of recyclable materials and large dimension residues, such as household electric machines or furniture and it has packing e storing zones for materials awaiting its shipment to the recycling industry.

12h00 – Lunch

13h15 – Departure from the Sorting Plant to the Anaerobic Digestion Plant

13h45 – Visit to Valorsul's Anaerobic Digestion Plant

The Anaerobic Digestion Plant (ETVO) processes through an anaerobic digestion process, the source separated organic fraction of residues collected in restaurants, hotels, supplying and retailer markets, among others. The end products are compost for agriculture as well as for domestic uses and energy, through the recovery of the biogas produced in the process. During the first period, 40 000 tons of organic matter per year will be processed in the ETVO. There is the possibility to have an increase in capacity up to 60 000 tons/year in the future. This is the first plant with this technological process built in Portugal and it is very innovative because also produces electrical power, including for self-consumption.

15h00 - End of the visit and departure to Lisbon

Group B

10h00 – Arriving to Valorsul’s Anaerobic Digestion Plant Short presentation about Valorsul System

10h45 – Visit to Valorsul’s Anaerobic Digestion Plant

The Anaerobic Digestion Plant (ETVO) processes through an anaerobic digestion process, the source separated organic fraction of residues collected in restaurants, hotels, supplying and retailer markets, among others. The end products are compost for agriculture as well as for domestic uses and energy, through the recovery of the biogas produced in the process. During the first period, 40 000 tons of organic matter per year will be processed in the ETVO. There is the possibility to have an increase in capacity up to 60 000 tons/year in the future. This is the first plant with this technological process built in Portugal and it is very innovative because also produces electrical power, including for self-consumption.

12h00 – Lunch

13h15 – Departure from the Anaerobic Digestion Plant to the Sorting Plant

13h45 – Visit to Valorsul’s Sorting Plant

The Sorting Plant receives the materials (glass, paper/cardboard and packages) from selective collection, sorts and treats them so that the recycling industries can receive them. The technological process combines manual and mechanic sorting processes. This plant innovates by using ballistic and optical separation and has the capacity to treat 105 000 tons/year. There is also a Collection Centre where the population can deliver, for example, large quantities of recyclable materials and large dimension residues, such as household electric machines or furniture and it has packing and storing zones for materials awaiting its shipment to the recycling industry.

15h00 - End of the visit and departure to Lisbon

5. Scheduled meetings ::

STC Meeting	09th October 2009 - Friday	14:00 à 17:30 min
ISWA Board Meeting	10th October 2009 - Saturday	09:30 à 12:30 min
Biological Treatment WG Meeting	10th October 2009 - Saturday	14:00 à 17:00 min
WGRWM Meeting	10th October 2009 - Saturday	14:00 à 17:00 min
General Assembly	11th October 2009 - Sunday	10:00 à 16:30 min
WMR Editorial Group	12th October 2009 - Monday	14:00 à 17:00 min
RDN Meeting	12th October 2009 - Monday	14:00 à 15:40 min
WGHW Meeting	12th October 2009 - Monday	16:10 à 17:30 min
Editorial Board + Group Meeting	13th October 2009 - Tuesday	09:00 à 10:30 min
Past and Future Congresses	13th October 2009 - Tuesday	14:00 à 15:00 min
WGC Meeting	13th October 2009 - Tuesday	15:00 à 17:30 min
Joint Working Group Meeting	13th October 2009 - Tuesday	18:00 à 20:00 min
WGL Meeting	14th October 2009 - Wednesday	09:00 à 12:30 min

6. Master Classes ::

Three pre-conference Master Classes have been programmed on the following subjects: Sustainable Landfills, Thermal Treatment Residues and Biological Treatment of Waste. These events are dependent on minimum interested participants.

MASTER CLASS 1

SUSTAINABLE LANDFILLS ::

Saturday, 10th October 2009 (13:45 – 18:00) Hotel Tivoli Lisboa

Scope:

Although landfills are generally considered as the least favoured options under the waste hierarchy scheme, globally, the vast majority of waste is still driven to them. Even in areas where high achievements in waste diversion procedures do exist, landfills are a necessary component of any integrated waste management system. A component which cannot be substituted since every waste treatment option creates residues that need final disposal.

More recently, there have been a lot of new concepts and techniques that gradually create a new approach to landfills.

The “sustainable landfills” are those that have been designed, constructed, operated and closed in such a way that their environmental impacts are limited or minimized within the life span of the main equipment and construction components. Those concepts include aerobic landfills, MBT landfills, bioreactor landfills, active rehabilitation techniques and other approaches that do formulate the state of the art in landfilling.

During this Master Class the concepts of sustainable landfilling will be delivered and their consequences to design, construction, environmental impacts and operation will be discussed.

Learning Objectives:

- The sustainable landfill concept
- MBT landfills
- Aerobic landfills
- Bioreactor landfills
- Ash landfills
- Sustainability and post closure emissions

All of the material delivered at the master class (presentations and selected papers) will be included on a CD to all participants

Who should attend:

This Master Class is a perfect opportunity for those who would like to know the latest evolution in landfill approaches, for decision makers and designers of SWM systems, for consultants and engineers that are involved in landfills as well as for contractors that would like to broaden their activities with new landfill concepts

Who will deliver:

Derek Greedy, Chair of ISWA Landfill Working Group (UK)

Antonis Mavropoulos, ISWA STC Chair (Greece)

James Law, SCS Engineers (USA)

Günay Kocasoy, Institute of Environmental Sciences – Bogazici University (Turkey)

Willem van Vossen, Royal Haskoning Group (Netherlands)

Marianne Mohr, Odense Waste Management Company (Denmark)

What are the expected results for the participants:

Participants will benefit in several ways:

- They will have a direct link and discussion with selected landfill experts with global experiences
- They will have an important package of resources for further reading with the Master Class CD
- They will have the possibility to network internationally and open new channels for know-how exchange
- This Master Class would also count towards the participants requirements when applying for the International Waste Management certification

Programme:

1. Sustainable landfills under the EU concept, Derek Greedy
2. The concept of sustainable landfills, Antonis Mavropoulos
3. Bioreactor landfills, James Law
4. Aerobic vs Anaerobic Landfill, Günay Kocasoy
5. Sustainable emission reduction and aftercare of existing landfills, Willem van Vossen
6. Sustainable landfilling in practice, Marianne Mohr

MASTER CLASS 2

THERMAL TREATMENT RESIDUES ::

Saturday, 10th October 2009 (08:45 – 13:00) Hotel Tivoli Lisboa

Scope:

Waste-to-Energy is today a more and more accepted and used method for the treatment of municipal waste. With an energy efficiency above 65% waste-to-energy is even considered as a recovery method in the EU Waste Directive from 2008. The incineration technology is all the time improving with an even better energy efficiency all the time, due to equipment development, optimum operation conditions and a well trained and competent staff. The flue gas cleaning equipment has had the same development, where directives and limits on emissions nowadays in a modern waste-to-energy plant can be met without any difficulties.

However, there is still a residue after the thermal treatment process of about 20% of bottom ash in an ordinary grate fired plant. With an all the time more and more efficient flue gas cleaning there will be residues with a more or less hazardous content to take care of. The later amount is a rather small but more hazardous and complicated residue to take care of than the bottom ash.

The residues should as far as possible be reused or if that is not possible be taken care of in a safe way.

During this Master Class different ways of minimizing, recycling and handling these residues will be delivered with the goal to recycle as much as possible and if that is not possible to present options and ways of how to handle the residues in a safe way.

Learning Objectives:

The technology of Waste-to-Energy and Energy plant

How to operate a Waste-to-Energy plant

How to deal with bottom-ash, demands, restrictions, technologies, recycling possibilities

How to deal with the flue gas cleaning residues, options, demands, technologies, safe handling

All of the material delivered at the master class (presentations and selected papers) will be included on a CD to all participants

Who should attend:

Decision Makers

Designers of W-t-E plants

Consultants

Engineers and Operators at W-t-E plants

Suppliers and Contractors

Those who would like to broaden their knowledge on W-t-E

Members of the ISWA Working Group on Thermal Treatment of Waste

What are the expected results for the participants:

Increased knowledge and competence in how to deal with the residues from thermal treatment with different options and how to deal with the residues in a safe way

Who will deliver

Håkan Rylander, Chairman ISWA WGTT (Sweden)

Jörgen Haukohl, Vice Chairman ISWA WGTT (Denmark)

Henrik Örnebjerg, Vestforbraending (Denmark)

Paul de Bruycker, INDAVER (Belgium) - Frans Lamers, KEMA Consulting (The Netherlands)

Henrik Ørnebjerg, I/S Vestforbrænding,(Denmark) - - Ruedi frei, Von Roll (Switzerland) - Bettina Kamuk, Ramboll (Denmark)

Programme:

1. Welcome Address - Håkan Rylander, Chairman ISWA WGTT (Sweden)
2. Introduction to Waste-to-Energy State-of-the Art, Technical Development, How to operate a W-t-E plant, - Jörgen Haukohl, Vice Chairman ISWA WGTT (Denmark)
3. Residues from Waste-to-Energy, a General Overview, Amounts, Composition, How to minimise the residues - Henrik Örnebjerg, I/S Vestforbraending (Denmark)
4. Bottom Ash Handling and Recovery, Options, Technologies - Paul de Bruycker, INDAVER (Belgium) - Frans Lamers, KEMA Consulting (The Netherlands)
5. Treatment and Final Handling of Flue Gas Cleaning Residues - Henrik Ørnebjerg, I/S Vestforbrænding, (Denmark) - Ruedi frei, Von Roll (Switzerland) - Bettina Kamuk, Ramboll (Denmark) - Martin Brunner, Von Roll (Switzerland) - Jürgen Höpfner, Martin (Germany) - Jean François Bua, LABSA (France)
6. Summary

MASTER CLASS 3

BIOLOGICAL TREATMENT OF WASTE ::

Saturday, 10th October 2009 (08:45 – 13:00) Hotel Tivoli Lisboa

Scope:

Biological Treatment of Waste had an astonishing spread in the last few years and plays an important role under the waste hierarchy scheme.

More recently, there have been a lot of new concepts and techniques that gradually create a new vision about biological treatment of waste.

During this Master Class the most recent concepts of Biological Treatment of Waste will be delivered and their consequences to design, construction, environmental impacts and operation will be discussed

Learning Objectives:

Concepts of Biological Treatment of Waste
Anaerobic Digestion
Mechanical-Biological Treatment
Bioaerosols
Separate Collection
Compost Strategy

All of the material delivered at the master class (presentations and selected papers) will be included on a CD to all participants

Who should attend:

Decision makers
Designers of plants with Biological Treatment of Waste
Consultants
Engineers and operators at plants with Biological Treatment of Waste
Suppliers and contractors, and
Those who would like to broaden their knowledge on Biological Treatment of Waste

What are the expected results for the participants:

Participants will benefit in several ways:

1. They will have a direct link and discussion with selected Biological Treatment of Waste experts with global experiences
2. They will have an important package of resources in the Master Class CD
3. They will have the possibility to network internationally and open new channels for know-how exchange

Programme:

1. Welcome Address
The EU context: Strategies and trends for the management of biowaste
Enzo Favoino, Chair, WGBTW ISWA, IT
2. An assessment of different technologies to process biowaste: key principles for decision making, optimised process management and minimisation of impacts
Enzo Favoino, Chair, WGBTW ISWA, IT
3. The potential of anaerobic digestion: drivers and key factors for decision-making
Morten Brogger, SOLUM, DK
4. Role of MBT (Mechanical-biological treatment) - EU approaches and trends
Wolfgang Mueller, IGW, D
5. Good practice in management of wastewaters and bioaerosols
Jane Gilbert, ECN Chair, UK
6. Separate collection: good practice to optimise performances and minimise costs
Enzo Favoino, Chair, WGBTW ISWA, IT
7. Working at a consistent product and marketing strategy for composts
Josef Barth, Managing Director ECN, D

7. Exhibition ::

Cost to exhibit

Prices are in Euros and include taxes	ISWA/APESB Member	ISWA/APESB Non-Member
9 square meters standard shell	3.000,00	4.000,00

Exhibitor benefits

Excellent marketing opportunities

- Personal contact with potential clients and business partners at the exhibition

Networking

- Join the delegates at the welcome reception
- Opportunity to purchase congress dinner tickets

Promotion

- Direct emails to more than 10,000 industry people
- Exhibitor profile and logo on the website

Exhibitor packages

- Three flush walls 2.4 metres high in velcro-compatible material (corner two walls)
- Fascia board with company name of up to 30 letters (corner booth two fascias)
- One light connected to power
- One single power outlet
- One table and two chairs
- Carpeted floor

Exhibitor List

IRAR - Instituto Regulador de Águas e Resíduos

APA - Agência Portuguesa do Ambiente

Valorsul - Valorização e Tratamento de Resíduos Sólidos da Área Metropolitana de Lisboa (Lisboa), SA

EGF - Empresa Geral de Fomento, SA

Lipor - Serviço Intermunicipalizado de Gestão de Resíduos do Grande Porto

SOTKON Waste Systems

Água & Ambiente

APESB - Associação Portuguesa de Engenharia Sanitária e Ambiental

Câmara Municipal de Lisboa

Sociedade Ponto Verde, SA

ISWA

ISWA - Hamburg, Germany 2010

ISWA - TBD, Republic of Korea 2011

FAPIL - Indústria de Escovaria, SA

Bidinâmica

B2R / HP

Eurofins Portugal, Lda

Exhibition open hours

Monday 12 October 2009

12:30 – 18.30

Tuesday 13 October 2009

9.00 – 18.30

Wednesday 14 October 2009

9.00 – 16.30

8. Social Programme ::

Opening ceremony

Monday 12 October 2009 (10:00 – 11:30h)

Delegates, accompanying persons and exhibitors are all invited to attend

In the opening ceremony, do not miss out on a special show, created exclusively for this year's Congress, be very surprised as your feet start bouncing to the sound of "Tocá Rufar" Orchestra, listen to the traditional Portuguese musical instrument "bombo" in a modern, lively, energetic way as you never before imagined! After having played throughout the globe, it is time for "Tocá Rufar" to delight us in their hometown.



Visit this link to know the sound of: <http://www.youtube.com/watch?v=Tbhc-EXluWU>

Welcome reception

Monday 12 October 2009 (18:30 – 19:30h)

Delegates and accompanying persons are invited to attend

Feel the Tagus breeze as this mighty Portuguese river that many mistake by the sea, waves you in a fantastic sunset. The perfect atmosphere to get to know fellow participants in the Congress in a more casual tone. This reception will be held in a very special, emblematic Portuguese Museum, the "Museu da Marinha", a Portuguese monument to beauty, dive in an historical context and goggle out your eyes as a very special recycling agent passes through you with an intriguing proposition...!

It was King Don Luís, the only Portuguese monarch that sailed ships, who started by writing the history of the "Museu da Marinha". On the 22nd July 1863, he created the constitution of a collection of testimonies related to the Portuguese maritime activities.

This museum was born from the will manifested by this monarch, of an enormous artistic and cultural sensibility, in conserving an historical past, so updated, still, in the national collective memory.

But the Museum also reflects the honourable effort of preservation that was observed during the XVI and XVII centuries. It was the case of Queen D. Maria II, who very much contributed to the constitution of the gathering of pieces initial to this museum, by offering to the Royal Academy of Marine Guards, the models existing in the Palácio da Ajuda.

The "Museum of Navy", resting by the Tagus, was finally home in 1962, opening officially its doors to the general public, and since then it has been one of the most recognized and visited Portuguese Museums.

To know more, visit the Museum's official web site: <http://museu.marinha.pt/museu/site/pt>

Plenary closing session

Wednesday 14 October 2009 (16:10 – 17:00h)

Delegates, accompanying persons and exhibitors are all invited to attend

Gala Dinner

Wednesday 14 October 2009 (19:30 h)

Delegates and accompanying persons are invited to attend

Finish off in glory, as the final night of Congress is commemorated in a tremendous architect wonder, that was home to so many stages of the Portuguese Culture, the Coliseum.

And to our honourable participants only the best, close your eyes, sit back and relax as “Donna Maria” takes you on a journey trough the wonderful sound of the wavy Portuguese language with the rhythm of modern sounds. Enjoy moments of dancing, as also a very special lottery. Who will be the lucky winner?

Visit the link bellow to hear the sounds of “Donna Maria”,
<http://www.youtube.com/watch?v=7V0Da6HYdA8>



On the 14th August 1890 this grand show room is opened, with the participation of foreigner artists, the Coliseum was innovative in its iron structure, and spectacular design.

The Coliseum has always represented itself has a popular show room, establishing low prices and presenting shows of different types.

Recently recovered, the Coliseum is now at the peek of its splendour.



9. Tours ::

Travel & Tours

Free Shuttle to CCB

During the Congress a Shuttle Free Of Charge will run from Hotel Tivoli (the ISWA organization hotel) to the Congress Center – CCB. This shuttle can only be guaranteed for reservations made through Mundiclasse.

TOURS

Lisboa Monumental (Half Day)

Discover the monuments and typical quarters of one of the most elegant European cities.

- Drive across the 25th April Bridge and on return you can get a fantastic view of Lisbon and its hills.
- Torre de Belém - world heritage by UNESCO.
- Padrão dos Descobrimentos, modern monument dedicated to the Portuguese maritime discoveries.
- Mosteiro dos Jerónimos, greatest example of Manuelino Art. Visit of the church.
- Coach Museum, one of the best coach collections in Europe (on Monday by Ajuda Palace).
- Alfama, walk through the oldest and most picturesque section of Lisbon.
- Praça do Comércio and Rossio, the most important and beautiful squares of the city.
- Drive along the Avenida da Liberdade, Marquês de Pombal and return to Hotel.



Lisboa Monumental + Queluz + Sintra (Full Day)



Discover the monuments and typical quarters of one of the most elegant European cities and take an unforgettable journey through the luxuriant green of Serra de Sintra to the immense of the sea.

- Drive across the 25th April Bridge and on return you can get a fantastic view of Lisbon and its hills.
- Torre de Belém - world heritage by UNESCO.
- Padrão dos Descobrimentos, modern monument dedicated to the Portuguese maritime discoveries.
- Mosteiro dos Jerónimos, greatest example of Manuelino Art. Visit of the church.
- Coach Museum, one of the best coach collections in Europe (closed on Monday replaced by Ajuda Palace).
- Alfama, walk through the oldest and most picturesque section of Lisbon.
- Praça do Comércio and Rossio, the most important and beautiful squares of the city.

- Drive along the Avenida da Liberdade and Marquês de Pombal.
- Free time for lunch.
- Queluz - visit the 18th century Palace and gardens (on Tuesdays, replaced by National Palace of Sintra).
- Sintra - World Heritage since 1995 - free time in historical centre.
- Cabo da Roca, the most western point in Europe.
- Cascais, the fishing harbour and the cosmopolitan Estoril, famous for the Casino and sportive events.

Fátima + Batalha + Nazaré + Óbidos (Full Day)

A wonderful day visiting Portugal's landmarks and the worldwide famous religious centre and pilgrimage place where Maria appeared in 1917.

- Aljustrel where Lúcia, Francisco and Jacinta lived.
- Fátima Sanctuary, time to visit basilica, chapel of the Apparitions and to attend mass.
- Free time for lunch.
- Batalha Monastery, a masterpiece of Gothic considered a heritage of humanity by UNESCO. Church Visit.
- Nazaré, one of the most picturesque Portuguese fishing villages. Free time.
- Óbidos, a fortified village with white houses and narrow streets in a medieval atmosphere. Return to Lisbon.

Évora + Vila Viçosa + Estremoz (Full Day)

A journey through the wildest cork region, to find the lovely charming town of Évora.

- Évora - World Heritage of Unesco – visit the old ruins of the Roman Temple, the Romanesque Gothic Cathedral with its massive towers from the 16th Century, the Bones Chapel and the University that occupies the former building of the Jesuit University.
- Free time for lunch.
- Vila Viçosa, visit The Ducal Palace that was greatly remodelled between the 16th and 17th centuries in a sober late Renaissance style, and was decorated through the centuries by several artists.
- Estremoz, a town crowned by a 13th Century Castle. Return to Lisbon.

Porto + Guimarães + Braga (2 Days)

One unique journey in one of the most ancient cities of Europe granted UNESCO World Heritage and the unforgettable greenest region of the country to discover the towns where born the history and religion of Portugal.

- Departure from Lisbon to the north of Portugal. Arriving to Porto and have free time for lunch.
- After lunch, panoramic view into Boavista and the sea side Foz towards the historic centre.
- Visit to S. Francisco Church, Stock Exchange Palace, S. Bento Railway Station and Cathedral.
- Vila Nova de Gaia, visit to one of the Port Wine Cellars which includes wine tasting.
- Crossing the lower floor of D. Luis I Bridge. Accommodation in Hotel 3***.
- In the second day, after breakfast departure to Guimarães. Visit the historic centre and Duques of Bragança Palace.
- Braga, visit Sameiro Sanctuary and Bom Jesus Church, the Cathedral and the historic centre.

Porto + Douro Cruise (2 Days)

One of the most ancient cities of Europe granted UNESCO World Heritage and the beauty of a unique wine region, World Heritage, to unveil the traditions, legends, and feel the strengths of Portugal.

- Departure from Lisbon to the north of Portugal. Arriving to Porto and have free time for lunch.
- After lunch, panoramic view into Boavista and the sea side Foz towards the historic centre.
- Visit to S. Francisco Church, Stock Exchange Palace, S. Bento Railway Station and Cathedral.
- Vila Nova de Gaia, visit to one of the Port Wine Cellars which includes wine tasting.
- Crossing the lower floor of D. Luis I Bridge. Accommodation in Hotel 3***.
- In the second day, after breakfast , transport to São Bento Railway station. Train departures to Régua.
- Embark at cruise at Régua Quay. Lunch on board.
- Cruise the Crestuma/Lever Dam – a 14 meter elevator raise.
- Cruise the Carrapatelo Dam – a 35 meter elevator raise.
- Arrival at Vila Nova de Gaia Quay and return to Lisbon.

Fado's Night (Dinner Included)



Get involved in the environment of culture and traditions, watching a show of Folk Dancing Fado, the popular song of the city, while enjoying a delicious dinner. The Fado nostalgic and melancholic song accompanied by the Portuguese and Spanish guitars and the folk dances with colourful costumes and live movements are deep expression of the Portuguese soul.



Helena Cunha
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mobile: +351 919 683 360
e-mail: booking-iswa2009@mundiclasse.pt

The official Congress Travel Agency in CCB, during the ISWA APESB 2009

10. Registration ::

Register as a conference delegate

Type		For payment received	Individual	Group
Normal fee	ISWA/APESB Member	Until 2 October	785.00€	710.00€
	ISWA/APESB Non-Member		870.00€	785.00€
	Low-Income Country Participant		400.00€	360.00€
	Accompanying Person		200.00€	-
	Full-time Student		150.00€	-
On-site	All Participants	After 3 October	965.00€	870.00€

- Prices are in Euro, 20% VAT excluded.
- Group discount to any organization who register 4 or more participants.
- Countries eligible for Low-Income refers to countries classified in the Low-Middle and Low Income Countries as indicated by the World Bank in www.worldbank.com.
- All delegates will need to register on-site after 3 October 2009.
- Registration fees (excluding students and accompanying persons) include name badge, certificate of attendance, congress pack (bag, abstracts book and CD-Rom with technical papers, programme, and sponsors literature), access to Congress sessions and exhibition, welcome reception, gala dinner, luncheons, coffees and teas.
- Accompanying person fee include all the social function of the Congress (access to the Congress opening and closing sessions, welcome reception, and gala dinner).
- Student fee include the access to Congress sessions and exhibition. Students (Undergraduate or official PhD students) must submit a proof of full-time status and current valid student card whenever requested by the congress secretariat.
- Social events in addition to the conference programme can be booked and respective fees calculated separately.
- There will no refunds for cancellations but replacements will be allowed.

Register as a Master Class attendee

Type		1 Master Class	2 Master Classes
Normal fee (Until 2 October)	ISWA/APESB Member with registration in the Congress	170.00€	310.00€
	ISWA/APESB Member without registration in the Congress	250.00€	450.00€
	ISWA/APESB Non-Member with registration in the Congress	200.00€	350.00€
	ISWA/APESB Non-Member without registration in the Congress	290.00€	500.00€
On-site (After 3 October)	All Participants with registration in the Congress	250.00€	400.00€
	All Participants without registration in the Congress	320.00€	600.00€

- Prices are in Euro, 20% VAT included.
- For each Master Class a numerus clausus of 10 attendees is required.
- All delegates will need to register on-site after 3 October 2009.
- Master Classes registration fees include name badge, certificate of attendance, master class pack (bag, CD-Rom with technical literature, and programme), coffees and teas.
- There will no refunds for cancellations but replacements will be allowed.

Hotel

Hotel location: Historical City Center / Downtown

Hotel Tivoli Lisboa / 5*****	Single	168 €
100 metre Avenida Station / Blue Line	Double	185 €
Hotel Altis / 5*****	Single	145 €
300 metre Marquês Pombal Station / Blue Line	Double	165 €
Hotel NH Liberdade / 4****	Single	135 €
50 metre Avenida Station / Blue Line	Double	149 €
Hotel Tivoli Jardim / 4****	Single	122 €
100 metre Avenida Station / Blue Line	Double	132 €
Hotel Vip Diplomático / 4****	Single	90 €
300 metre Marquês Pombal Station / Blue Line	Double	95 €
Hotel Vip Madrid / 4****	Single	90 €
300 metre Marquês Pombal Station / Blue Line	Double	95 €
Hotel Sana Lisboa / 4****	Single	109 €
100 metre Marquês Pombal Station / Blue Line	Double	119 €
Hotel SanaCapitol / 3***	Single	100 €
100 metre Marquês Pombal Station / Blue Line	Double	105 €
Hotel Vip Executive Suites Marquês 4****	Single	108 €
100 metre Marquês Pombal Station / Blue Line	Double	100 €
Hotel NH Parque Lisboa 4****	Single	115 €
200 metre Marquês Pombal Station / Blue Line	Double	126 €
Hotel Dom Carlos Park / 3***	Single	84 €
200 metre Marquês Pombal Station / Blue Line	Double	94 €
Hotel Dom Carlos Liberty / 3****	Single	84 €
200 metre Marquês Pombal Station / Blue Line	Double	94 €
Hotel Vip Inn Veneza / 3***	Single	78 €
100 metre Avenida Station / Blue Line	Double	86 €

Hotel location: Business Center & Others

Hotel Tivoli Lisboa / 5*****	Single	168 €
100 metre Avenida Station / Blue Line	Double	185 €
Hotel Altis / 5*****	Single	145 €
300 metre Marquês Pombal Station / Blue Line	Double	165 €
Hotel NH Liberdade / 4****	Single	135 €
50 metre Avenida Station / Blue Line	Double	149 €
Hotel Tivoli Jardim / 4****	Single	122 €
100 metre Avenida Station / Blue Line	Double	132 €
Hotel Vip Diplomático / 4****	Single	90 €
300 metre Marquês Pombal Station / Blue Line	Double	95 €
Hotel Vip Madrid / 4****	Single	90 €
300 metre Marquês Pombal Station / Blue Line	Double	95 €
Hotel Sana Lisboa / 4****	Single	109 €
100 metre Marquês Pombal Station / Blue Line	Double	119 €
Hotel Sana Capitol / 3***	Single	100 €
100 metre Marquês Pombal Station / Blue Line	Double	105 €
Hotel VIP Executives Suites Marquês / 4****	Single	108 €
100 metre Marquês Pombal Station / Blue Line	Double	100 €
Hotel NH Parque Lisboa / 4****	Single	115 €
200 metre Marquês Pombal Station / Blue Line	Double	126 €
Hotel Dom Carlos Park / 3***	Single	84 €
200 metre Marquês Pombal Station / Blue Line	Double	94 €
Hotel Dom Carlos Liberty / 3***	Single	84 €
200 metre Marquês Pombal Station / Blue Line	Double	94 €
Hotel Vip Inn Veneza / 3***	Single	78 €
100 metre Avenida Station / Blue Line	Double	86 €

Hotel location: Parque das Nações / Olaias

Hotel Olissipo Oriente / 4****	Single	122 €
100 metre Oriente Station / Red Line	Double	133 €
Hotel Tivoli Oriente / 4****	Single	102 €
50 metre Oriente Station / Red Line	Double	112 €
Hotéis Vip Art's / 4****	Single	90 €
150 metre Oriente Station / Red Line	Double	95 €
Hotel Altis Park / 4 ***	Single	74 €
At Olaias Station / Red Line	Double	88 €

Hotel location: Belém

Pestana Palace Hotel 5 *****	Single	170 €
A Member of The Leading Hotels of the World	Double	197 €
Heritage Hotel Janelas Verdes	Single	140 €
Public Bus direct to CCB Congress Center	Double	155 €
Hotel Vila Galé Opera / 4 ****	Single	130 €
1000 metre CCB Congress Center	Double	150 €
Hotéis Jerónimos 8 / 4****	Single	120 €
300 metre CCB Congress Center	Double	140 €

Form of Payment:

1. Credit Card

Payment can be made by Visa or Mastercard. In order to make it safe, a Credit Card Authorization Form will be sent with the confirmation of your request. It can be sent back to us, by Fax or E-mail.

2. Bank Transfer

Account Name: Mundiclasse Viagens

Bank Name: Caixa Geral de Depósitos

Address: Universidade do Minho, Campus de Gualtar - Braga, Portugal

Account Number (IBAN): PT50 0035 0823 0000 7852330 45

SWIFT/BIC Code: CGDIPTPL

Important: All transfer charges and bank fees are the responsibility of the participant. A copy of the bank receipt must be sent by fax or e-mail.

Terms and Conditions:

- Administration Fee of 10€ not included in prices.
- Prices in Euros per Room per Night, including Breakfast and Taxes.
- Advance reservation is required. Prices and rooms availability are guaranteed 10 August 2009.
- Reservations received from 11 August are subject to room availability and rates.
- Rates are available from 10 to 18 October 2009.
- Reservation is guaranteed upon full payment made to Mundiclasse Viagens.

Note: The Administration Fee of 10€ is non-refundable

Cancellation / No Show Policy:

- Cancellations without charge can be made until 45 days of arrival;
- Within 44-31 days, a penalty between 25% to 50% can be charged (depending policy hotel required);
- Within 29-16 days, a penalty between 25% to 75% can be charged (depending policy hotel required);
- Within 15-4 days, a penalty between 50% to 95% can be charged (depending policy hotel required);
- Cancellations within 72 hours and no-show are non refundable.

Reservations:

Reservations must be made directly with Mundiclasse Viagens, the official Travel Agency:



Helena Cunha

tel.: +351 253 200 900

fax: +351 253 200 950

mobile: +351 919 683 360

e-mail: booking-iswa2009@mundiclasse.pt

11. About Portugal ::

Find out more about Portugal: www.visitportugal.com

a. Portugal

History

Portugal's history is one of sailors and tides. With a seacoast extending along nearly half of its borders, it's only natural that this Western strip of Iberia has been visited by so many peoples – Phoenicians, Greeks, Carthaginians, Romans, Franks, Nordic, Arabs and Mauritians – who, throughout the centuries settled here, contributing with their heritage to the identity, the culture and the people which the Portuguese are nowadays.

Portugal is one of Europe's oldest countries, independent since the 12th century when King Afonso Henriques declared his county and independent kingdom. One century later, after the conquest of Algarve in the southern region of the territory, Portugal's continental border was defined, remaining nearly unchanged since then.

By the end of the 13th century the country suffers a demographic, economic and scientific boom, well reflected by the creation of one of Europe's oldest Universities, by king Dinis. This evolution would later lead to Portugal's great sea adventure of the Discoveries. This time the tide reverted and Portuguese seamen were the first Europeans to reach the African shores, Far East and South America, during the 14th, 15th and 16th centuries. Azores and Madeira islands in the Atlantic were discovered during this period and remain Portuguese territories to this day.

After a dynastic crisis by the end of the 16th century, which left Portugal under Spanish rule for about 60 years, the country recovered its independence in 1640. The following two centuries were afflicted times for the country, featuring internal unsettling, a civil war in the beginning of the 19th century and the decay of monarchy which lead to a regicide and the implantation of the Republic in 1910.

Republic's initial years did not bring stability and progress as desired by the people and in 1926 a totalitarian regime was implanted which would last until 1974 when a revolution by the military and the subsequent creation of a democratic regime would bring Portugal into the of circle of western democratic countries. This process would lead to Portugal joining the European Union in 1986.

Nowadays, Portugal is a democratic state governed by the rule of law, member of the European Union and NATO, with economic, scientific and technological growth levels in the recent decades, which brought the country closer to its European partners.

Geography

Portugal's continental territory occupies the Western strip of Iberia, in the Southwest of Europe, with a total area of 88,889 km², 218 km wide and 961 km long.

Portugal's border with Spain extends along 1,215 km while its 832 km of Atlantic coast define the country's sea border.

The country's capital is Lisbon, besides the river Tagus' estuary, in the central region of the territory.

The Azores islands lay in the Atlantic, between Europe and North America. With a total area of 2,355 km², this archipelago consists of nine islands: São Miguel, Santa Maria, Terceira, Graciosa, São Jorge, Pico, Faial, Flores and Corvo.

The other Atlantic territory is Madeira, with an area of 741 km² about 500 kms off the African coast and 1000 kms off the European continent. This archipelago includes the islands of Madeira and Porto Santo, as well as the Desertas and Selvagens islands (both uninhabited and Natural Reserves).

Weather

Portugal has a mild climate without extremes of temperature. Winters are never too cold and summers are always moderately hot. The North has an Atlantic climate influenced by the Gulf Stream. The Centre has gentle dry summers and short mild winters. The South has a warm, dry Mediterranean climate without extremes of heat. Madeira offers a pleasant climate all year round. The Azores also offers mild weather tempered by the Atlantic. In Lisbon, annual average temperature is around 17°C. Last year the highest recorded temperature reached 32.2°C while minimum was -2.6°C.

Population

Portugal has around 10 million inhabitants.

The largest demographic density concentrates in the coastal regions. Heaviest density is Greater Lisbon with around 3 million people 600,000 of which living in the city.

Second largest city is Oporto, also by the Atlantic coast in the North of the country.

Language

Portuguese is a Latin language being the mother language of 200 million people, which makes it the third most spoken in the world.

Besides Portugal in Europe, Portuguese is spoken in three other continents, being the official language of Brazil in South America, Angola, Cape Verde, Guinea-Bissau, Mozambique and São Tomé and Príncipe in Africa and East Timor in Asia.

Religion

The vast majority of the population, around 97%, is catholic.

The Portuguese Constitution grants full religious freedom and several other churches and cults are present in Portugal, such as the Christian protestant and orthodox churches and the Jewish, Islamic, Hindu and Buddhist communities, among several others.

b. Lisbon

French filmmaker Alain Tanner called it the White City, and Lisbon is indeed a city of light, bathed by the sun lying by the River Tagus.

City of contrasts, where 1,000-year-old monuments rival with avant-garde architecture. Where historic neighborhoods are crowded with new urban tribes. Where everything is possible in a single day, from the serenity of Lisbon's belvederes to the pulsing nightlife in countless clubs and bars.

A cosmopolitan and unexpected city, open to the world and to all worlds.

History

According to the legend the founder of Lisbon was Greek mythical hero Ulysses. Most likely the Phoenicians were, around the 12th century BC. They founded a colony, which grew in size, population and importance. The present name 'Lisboa' comes from the Phoenician 'Allis Ubbo', meaning 'charming port'.

Successively Roman ('Olissipona' and later 'Felicitas Julia'), Visigothic (again 'Olissipona'), Arab ('Lixbunah') and Portuguese ('Lisboa'), the city's superb location has always attracted peoples from distinct origins. It is still possible to find nowadays vestiges from all these civilizations.

Conquered from Islamic rule, which lasted for 450 years, by Portuguese troops with the help of European crusaders on their way to the Holy Land, on October 1147, Lisbon would become the capital of Portugal in the middle of the 13th Century.

By the time of the Discoveries, between the 14th and 16th centuries, Lisbon became the richest and most

powerful European city, developing into a key trade center for spices and luxury products brought from Africa, Asia and South America and sold to the whole of Europe.

As other European powers emerge, Lisbon loses part of its leading role in sea trade and influence. In 1755, a major earthquake devastates the Portuguese capital. Prime Minister, Marquis of Pombal supervised the massive rebuilding works, developing an innovative architectural style, which emphasizes rigor and functionality. Lisbon's Downtown, still today called 'Pombalina' is the standing example of this huge urban intervention.

Today, Lisbon is a city where tradition and modernity live side by side in a unique way of life, reinventing its cosmopolitan vocation everyday.

Historic center

Lisbon's historic neighborhoods are centered on the hill where the city was founded, and where the medieval Saint George Castle stands, and extend along the Tagus banks towards the East and the West.

These neighborhoods house Lisbon's truest identity roots and are every visitor's mandatory destination.

Alfama is the living testimony of Arabic Lisbon, with its alleys and labyrinthic narrow streets and its blinding white houses covering the hill from the Castle down to the riverbank.

Lying between the Castle hill and Bairro Alto, Baixa, Lisbon's Downtown, with its post-earthquake architecture has been the city's shopping district for centuries.

Continuing from Downtown uphill, Avenida district, along Avenida da Liberdade gathers the capital's most sophisticated stores, where all major international prestige brands can be found.

As one walks uphill from Baixa to Bairro Alto, the visitor reaches Chiado, once Bourgeois Lisbon's heart in the late 19th and early 20th century, it's still today a meeting point for students, intellectuals and artists. It's also the district of historic cafes and theaters.

Bairro Alto keeps its historic atmosphere untouched while hosting, since the '80s, Lisbon's most vibrant cultural life, with its countless clubs, bars, restaurants, designer stores, art galleries and bookstores.

Belém

On the riverside to the West, Belém is the place most associated with the Discoveries period. It's where Vasco da Gama's ships sailed from and also the place where the most impressive heritage from that period can be found.

This district has several National museums and the Cultural Center, which is one of the major keys to the City's cultural life.

Other attractions include its proximity to the river Tagus and its pleasant gardens and parks.

Parque das nações

Once a decaying industrial area on the eastern section of Lisbon, Parque das Nações was the stage to 1998's World Exhibition, after an unprecedented urban reconversion plan.

Several cultural and leisure facilities, namely Lisbon's Oceanarium, attract visitors from everywhere and represents a new Lisbon, facing the future.

Around Lisbon

Lisbon's region offers a diversity, which will meet a wide range, tastes and interests. Less than one hour from the centre of the city visitors may choose to enjoy inviting beaches, magnificent mountain landscapes of Sintra and Arrabida or the fertile agricultural plains of Ribatejo.

The village of Sintra which was classified World Heritage by UNESCO is a small romantic wonder which inspired poets, writers and artists from around the world. The mountain where it stands is luxurious with breathtaking views over the sea.

Former beach resort of the Portuguese monarchy, Estoril/Cascais keeps a most of its sophistication and charm from that era, with irresistible appeal to those who love golf and the sea.

The mountain of Arrabida and the Sado estuary region, to the South of Lisboa, is known mostly for its wild natural landscapes, a unique example of Mediterranean ecosystem on the Atlantic Coast. On the Sado estuary it is often possible to watch the dolphins that live there.

12. Travel and Accommodation

Travel Information ::

a. Getting to Portugal

Entry Formalities Identity card for citizens from the European Union, Andorra, Iceland, Liechtenstein, Malta, Norway and Switzerland. Minors are required to present authorization from their parents.

Passport valid for at least three months after the end of their stay (up to 90 days) for citizens from Argentina, Australia, Bolivia, Brazil, Brunei, Bulgaria, Canada, Chile, Costa Rica, Croatia, El Salvador, Guatemala, Honduras, Israel, Japan, Malaysia, Mexico, Monaco, New Zealand, Nicaragua, Panama, Paraguay, Romania, San Marino, Singapore, South Korea, United States, Uruguay, Vatican, Venezuela and Special Administrative Regions of the People's Republic of China in Hong Kong and Macao.

Visa to enter Portugal, which may be requested at the Portuguese Embassy or Consulate of their country for stays of up to 90 days, is required for citizens from all other countries not listed above.

Under the terms of the Convention Implementing the Schengen Agreement, flights between Schengen states are considered to be internal flights and passengers do not need to obtain another visa.

More Information: Portuguese Embassies Abroad

www.mne.gov.pt/mne/pt/ministerio/missoes/ Portuguese Consulates abroad - www.secomunidades.pt/web/guest/PostosConsulares Portuguese Immigration Authority - www.sef.pt

By Plane: There are international airports at Lisbon, Oporto, Faro, Funchal (Madeira), Ponta Delgada (São Miguel Island-Azores) and Lages (Terceira Island-Azores). The national airlines are TAP Air Portugal and Portugalia. **More Information:** www.ana.pt/portal/page/portal/ANA/

By Train: Daily international trains run between Paris-Lisbon (Sud Express), crossing the frontier at Vilar Formoso; between Lisbon-Madrid, crossing the frontier at Marvão; and between Oporto-Vigo, crossing the frontier at Valença. **More Information:** www.cp.pt

By Coach: There are three companies running services between many European cities and Oporto (Inter-Norte), Lisbon (Inter-Centro) and Faro (Inter-Sul). **More Information:** www.rede-expressos.pt/

b. Money

Currency The unit of currency is the Euro (€). Reception in most hotels will change money and they are entitled to charge a small extra amount to cover fluctuation exchange rates. Traveller cheques and Eurocheques are accepted by all Portuguese banks and exchange bureaux. Visa, Amex, Eurocard, Diner Club and Master Card are the most useful credit cards.

Banking Banks are open from 8.30am to 3pm Monday to Friday, closing on public holidays. ATMs are everywhere and besides banks, they can be easily found on stations, hospitals, and even shopping centres.

If your credit card gets lost or stolen, please contact: - Visa: Tel. 800 811 107 (free call) - MasterCard: Tel. 800 811 272 (free call)

c. Transportation

Bus / Trams: In cities, you pay the driver a flat fare. In Lisbon and Oporto there are special tourist tickets at Carris (Lisbon) and the Lisbon Underground or STCP (Oporto) information kiosks, open from 8 am to 8 pm.
More Information: www.carris.pt/ www.metrolisboa.pt/ www.stcp.pt/

Lisboa Card: It's the easiest and most affordable option to use Lisbon's public transportation system. There are 1, 2 and 3-day cards available which also offer discounts at Monuments and Museums.

More Information: www.askmelisboa.com

Taxi: Plentiful and cheap, they are usually beige, although the classic black with green hood can still be found. They have an illuminated taxi sign at the top. In the city they charge a standard meter fare; outside the city's limits they charge per kilometre and are entitled to charge for the return fare. In cities, luggage travelling in the booth adds a surcharge. From 10 pm to 6 am there is a surcharge of about 20%. The usual amount to tip is 10% of the fare.

Train: There are Express trains from Lisbon through Coimbra to Oporto (Alfa trains) and regional trains (Inter-cidades and Inter-regionais) connecting the different areas of Portugal.

First and second class are available except for local and suburban trains. Special tickets include tourist tickets (valid for 7, 14 or 21 days). There are special rates on "Blue Days" offering return tickets with discount for trips over 100 km. People over 65 are entitled to have special discounts. For international, long and medium distance express services, it's advisable to make reservations. Train timetables are available from information desks at stations and tourism offices. **More Information:** www.cp.pt

Coach: Services are run in express or ordinary coaches, linking the country's main cities and towns all over.

More Information: www.rede-expressos.pt/

Car hire: Car hire companies can be found in all major towns, and at the international airports. You must show proof of identity (Identity Card for EC citizens and passport for other nationals) and a valid driving license. A green card is essential and it's wise to take out insurance coverage and collision insurance. Cars cannot be hired out to anyone under 21.

Driving: All motor vehicles drive on the right. Unless otherwise indicated, vehicles approaching from the right have priority at junctions. Seatbelts are obligatory. The law is strict regarding drinking and driving. The maximum speed in towns is 50 km p/h and on main roads and highways is 90 and 120 km p/h respectively. Petrol stations are open from 7am to 8pm. On highways services stations are open 24 hours a day.

Communications: Phones All over Portugal, there are crediphones where phone cards can be used. These can be bought in post offices and newsagents. At post offices, calls can be paid for at the end of the conversation. To phone abroad, dial 00 then the country code and city/local code.

Postal services Post offices are open Monday to Friday from 8.30am to 6pm. In main cities there is always one post office station open on Saturdays. Stamps are sold here and also on shops bearing the sign of the red horse. The Portuguese word for post office is "Correios" and for stamp is "selo".

More Information: www.ctt.pt

d. Health

Medical facilities: Medical assistance is available in hospitals providing 24 hours a day emergency service. There are also many clinics open from 8am to 8pm. In case of emergency dial the number 112. In case of road accident use the nearest SOS phone (orange). For further information see Phone Directory.

Chemists: Are open 9am - 1pm / 3pm - 7pm Monday to Friday and Saturday mornings. In every area, you can always find one that is open all night or on Sunday. See the sign on the door (white cross on green background) to find your nearest chemist. The Portuguese word for chemist is "Farmácia".

e. Opening times

Street shops are open 9am - 1pm / 3pm - 7pm Monday to Friday and Saturday mornings until 1pm. In shopping areas most shops are open during lunchtime and until 8pm. In nightlife areas like Bairro Alto it's common to have shops open until quite late, after midnight.

Shopping Centers are open 7 days a week from 10am to 11pm or midnight.

Most restaurants serve lunch usually from 12am to 3pm and dinner usually from 7pm to 10pm and close one day of the week, usually on weekends.

National Museums are open 9am to 5pm Tuesday to Sunday. Entrance is free on Sunday mornings.

13. Useful information ::

a. Telephone numbers

National Emergency Number	112 (free call)
National Information Number	118
National Health Information	808 24 24 24 (free call)
Tourist Information	808 781 212 / 800 296 296
Tourism Police	
Palácio Foz (Restauradores)	213 421 634 / 213 421 623 lsbetur@psp.pt
Credit Cards	800 205 59 MasterCard - 800 811 272 Visa - 800 811 107
American Express	
Lisbon Airport	218 413 500 / 218 413 700
Taxis	217 996 460 / 218 413 700
Lisbon Hospitals	Santa Maria- 217 805 000 / 217 805 111 / 217 805 222 São José - 218 841 000 / 218 854 150 Saint Louis - 213 216 500 British Hospital - 213 943 100 / 217 213 400 CUF - 213 926 100 / 210 025 200 / 210 025 200 SAMS - 218 422 000 Cascais - 214 827 700 Amadora Sintra - 214 348 200 / 214 348 444
Portuguese Red Cross	21 391 39 33 / 21 940 49 90 (Emergency) / 21 771 40 00 (Hospital)
Mobile Phone Operators	Optimus : 16103 TMN: 1696 Vodafone: 16912
Post Office (CTT)	707 26 26 26

b. Words and sentences

Thank you	Obrigado (if you're male) Obrigada (if you're female)	one	um
Please	Por favor	two	dois
Good morning	Bom dia	three	três
Good afternoon	Boa tarde	four	quatro
Good evening	Boa noite	five	cinco
Yes	Sim	six	seis
No	Não	seven	sete
Bank	Banco	eight	oito
Change	Câmbio	nine	nove
How much is it?	Quanto é?	ten	dez
Do you speak English?	Fala inglês?	hundred	cem
I don't understand	Não compreendo	thousand	mil

14. Sponsors ::

Institutional Support



Diamond



EGF is responsible for guaranteeing the treatment and recovery of waste in Portugal within a framework of environmental and economical sustainability and contributing towards raising the quality of life and the environment. The management of waste treatment and recovery systems is carried out by 14 subsidiaries that process around 3 million tons of urban solid waste a year, serving about 53% of the Portuguese population living in 155 Municipalities.

Playing a structural role in supporting the creation and definition of environmental policies for a sustainable management of waste, EGF has as its priority to contribute to the compliance with national and community strategies and goals for the sector, especially the reduction in the disposal of biodegradable waste in landfills and an increase in the selective collection of packaging and biodegradable urban waste.

www.egf.pt



LIPOR – Intermunicipal Waste Management of Greater Porto – is the entity in charge for the management, recovery and treatment of the Municipal Solid Waste (MSW) produced by the eight partner municipalities: Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Valongo and Vila do Conde. It was built as a Municipalities' Association in 1982, and since then been implementing an integrated waste management, system through the recovery, extension and construction of infrastructures, and development of awareness campaigns towards the population.

www.lipor.pt



Valorsul, SA is the company responsible for the treatment of the approximately 750 thousand tons of Municipal Solid Waste produced, per year, in the municipalities of Amadora, Lisbon, Loures, Odivelas and Vila Franca de Xira. Its intervention area corresponds to less than 1% of the total area of the country, but it treats almost one sixth of all domestic residues produced in Portugal. Valorsul's mission is to develop, implement and manage an integrated system for the treatment and valorisation of the urban solid waste from the Lisbon Metropolitan Area (North), wish is efficient and effective, technically advanced, environmentally and financially sustainable, and generating minimum costs for their users.

www.valorsul.pt

Platinum



Gold



Silver



Media partner



15. Contacts ::

International Solid Waste Association (ISWA)

Transition address in Austria:
ISWA General Secretariat
123 Mariahilfer Strasse, 3rd floor
1060 Vienna Austria
Tel: +43 (159) 999 8038
Fax: +43 (159) 999 700
E-mail: iswa@iswa.org

Associação Portuguesa de Engenharia Sanitária e Ambiental (APESB)

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Reservations on-line link:
www.mundiclasse.pt/congressos/iswa2009

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