



LIFE10 ENV/GR/000605:
Integrated management of
bio-waste in Greece:
The case study of Athens



Athens 2014

2ND INTERNATIONAL CONFERENCE
on Sustainable Solid Waste Management

AGENDA

12TH-14TH JUNE 2014

www.athens2014.biowaste.gr - www.biowaste.gr

www.facebook.com/athensbiowaste



NTUA.



E.D.S.N.A.



ENVIRONMENTAL ENGINEERS - CONSULTANTS



CITY OF ATHENS



MUNICIPALITY OF KIFISSIA

In Collaboration
with the:





Welcome

On behalf of the Scientific Committee, I am pleased to welcome you to Athens, Greece and to the ATHENS2014 2nd International Conference on Sustainable Solid Waste Management.

Like the ATHENS 2012 Conference held in June 2012, the ATHENS2014 2nd International Conference aims to address the significant issue of sustainable solid waste management through the promotion of effective technologies and safe practices. The ATHENS2014 Conference focuses mainly on biowaste and other organic waste streams. It aims to stimulate the interest of scientists and citizens and inform them about the latest developments in the field of municipal solid waste management with emphasis on biowaste. Biological Treatment (composting & anaerobic digestion), the treatment at central facilities, waste prevention & separation at source with emphasis on biowaste also constitute priority subjects of the conference agenda. Special attention will be drawn on compost and its quality, as well as recycling. The Conference will provide an opportunity to bring together scientists & professionals from government departments, Municipalities, private institutions, research & education institutions, being a forum for the exchange of the most recent ideas, techniques & experiences in all areas of municipal solid waste management. A special workshop will focus on biowaste management from Local Authorities & Municipalities.

Last but not least, the Conference is intended to further promote the European Commission efforts for effective waste management and is financed by the LIFE+ ATHENS-BIOWASTE project (LIFE10 ENV/GR/000605) (www.biowaste.gr; www.facebook.com/athensbiowaste) dealing with the separate collection and composting of biowaste in Athens and Kifissia.

The Conference agenda is dense and rich, offering a considerable variety of topics presented through twelve thematic sessions on the 12th & 13th June 2014 at Royal Olympic Athens Hotel.

We hope you will find the ATHENS2014 Conference interesting and stimulating and that you enjoy making new contacts and meeting up with old colleagues from all around the world.



Maria Loizidou
Professor, NTUA
Chair of the Scientific Committee

Organising Committee

- **Konstantinos Moustakas**, National Technical University of Athens
- **Olga Skiadi**, EDSNA
- **Athena Bourka**, EPTA SA
- **Efi Mihalopoulou**, Municipality of Athens
- **Nancy Sakaveli**, Municipality of Kifissia

- **Christos Venetis**, EPTA SA
- **Theodoros Zampoutis**, EDSNA
- **Aggelos Sotiropoulos**, National Technical University of Athens
- **Dimitris Xevgenos**, National Technical University of Athens
- **Katerina Valta**, National Technical University of Athens

Scientific Committee

- **Maria Loizidou**, National Technical University of Athens
- **Anastasia Zabaniotou**, Aristotle University of Thessaloniki
- **Andreas Andreopoulos**, Hellenic Solid Waste Management Association
- **Apostolos Vlyssides**, National Technical University of Athens
- **Athanasiос Kungolos**, University of Thessaly
- **Christopher Koroneos**, National Technical University of Athens
- **Costas Costa**, Cyprus University of Technology
- **Costas Velis**, University of Leeds
- **Dimitrios Dermatas**, National Technical University of Athens
- **Dimitrios Malamis**, National Technical University of Athens
- **Enzo Favoino**, Scuola Agraria del Parco di Monza
- **Evangelos Kapetanios**, EDSNA
- **Francisco Omil**, Universidad de Santiago de Compostela
- **Franco Cecchi**, University of Verona
- **Florian Amlinger**, European Compost Network

- **Gerasimos Lyberatos**, National Technical University of Athens
- **Ioannis Skiadas**, Aalborg University
- **Katia Lasaridi**, Harokopio University
- **Konstantinos Aravosis**, National Technical University of Athens
- **Luben Tzankov**, Technical University of Sofia
- **Michalis Kornaros**, University of Patras
- **Omar Assobhei**, University of Fez
- **Philippos Kirkitsos**, Ecological Recycling Society
- **Ruben Irusta Mata**, University of Valladolid
- **Spyros Pavlostathis**, Georgia Tech
- **Stephen Smith**, Imperial College
- **Thrassyvoulos Manios**, Technological Education Institute of Crete
- **Vassilis Inglezakis**, Nazarbayev University
- **Zorana Naunovic**, University of Belgrade

Athens Biowaste

Thursday, 12 June 2014

08:00 - 9:15	Registration
	Welcome Speeches, Room 1 Chair: M. Loizidou, G. Iliopoulos
09:15 - 09:45	I. Maniatis , Ministry of Environment, Energy and Climate Change A. Andreopoulos , Hellenic Solid Waste Management Association G. Valaoras , Astrale GEIE – Prospect C & S A. Moropoulou , National Technical University of Athens
	Keynote Speakers, Room 1 Chair: M. Loizidou, G. Iliopoulos
09:45 - 11:00	Bartosz Zambrzycki , Unit Waste Management & Recycling, DG Environment, European Commission, "Waste Management: Challenges and Opportunities" Florian Amlinger , European Compost Network, "Decentralised biowaste collection & composting: a simple, quality and cost efficient solution for closing the local bio-cycle" Christian Ehrengruber , LAVU, "The Austrian way of sustainable waste management in Upper Austria" Maria Loizidou , National Technical University of Athens, "The ATHENS-BIOWASTE Initiative"
11:00 - 11:30	Coffee Break

SESSION I: Biowaste management, Room 1 (session targeting at representatives of local authorities) Chair: M. Loizidou, G. Kremlis, G. Iliopoulos

11:30 - 11:45	V. Liogkas , Ministry of Environment, Energy and Climate Change Policies and Legislation for Biowaste Management
11:45 - 12:00	N. Mamalougas Challenges of the new framework period and available funds in the field of solid waste management by the Operational Programme "Environment and Sustainable Development"
12:00 - 12:15	D. Malamis, K. Moustakas, G. Konstantzos, M. Loizidou Biowaste management at municipal level
12:15 - 12:30	M. Kottara Experience from source-separated biowaste collection in the City of Athens
12:30 - 12:45	A. Nikolelis, Vice Mayor, Municipality of Kifissia Experience from source-separated biowaste collection in the Municipality of Kifissia
12:45 - 13:00	O. Skiadi, Th. Zarmpoutis Composting of source separated biowaste in the MBT plant of EDSNA
13:00 - 13:15	A. Bourka, C. Venetis, G. Iliopoulos, D. Bourkas, D. Malamis, K. Moustakas, M. Loizidou Biowaste Management in Greece and recommendations for future developments

13:15 - 13:30	D. Kanakopoulos The obstacles on the one way road of composting
13:30 - 13:45	A. Lübke, B. Gamerith, R. Lugmayr, K. Tsitouridis, C. I. Franco Case studies and lessons learnt from small, middle and large biological treatment facilities by real life projects
13:34 - 14:00	Gr. Stoyanov How to develop and implement a modern EU biowaste policy at national level within 2 years
14:00 - 14:15	Discussion - Conclusions
14:15 - 15:00	Lunch Break

SESSION II: General Aspects, Room 2
Chair: C. Marouli, C. Cavinato

11:30 - 11:45	C. De La Paz The LIFE Programme-Over 20 YEARS improving waste management in the EU
11:45 - 12:00	M. Vitoraki, C. Marouli Strengthening public participation in waste management in Greece
12:00 - 12:15	F. Tsagas, K. Papazoglou, A. Petalas, M. Maladaki Pilot monitoring of three (3) waste streams of municipal solid waste (MSW) produced at household level in Northern Greece
12:15 - 12:30	A. A. Awan Managing Change Through Integrated Waste Systems
12:30 - 12:45	C. Zhou, W. Xu, Y. Lan, R. Wang Community Based Waste-to-Market Model for Sustainable Municipal Solid Waste Management: Closing the Ecological Loop
12:45 - 13:00	C. Dias-Ferreira, P. Lopes, J. Rodrigues, A. C. Pinto Implementation of a separate collection of biowaste from commerce and services - possible solutions and problems
13:00 - 13:15	F. Di Maria, C. Micale Life cycle analysis of possible management options for organic waste in urban area
13:15 - 13:30	G. Konstantzos, D. Malamis, A. Sotiropoulos, M. Loizidou LCA analysis of drying segregated biowaste at source - The case study of Papagos-Cholargos Municipality, Greece
13:30 - 13:45	D. Malamis, K. Moustakas, A. Bourka, K. Valta, O. Skiadi, E. Stamatopoulou, A. Sotiropoulos, V. Panaretou, M. Margaritis, C. Papadaskalopoulou, M. Loizidou Compositional analysis of food waste from study sites in Greek municipalities
13:45 - 14:00	C. Koroneos, K. Moustakas, D. Malamis The use of Life Cycle Assessment in the integrated solid waste management

SESSION III: Management of Specific Waste Streams I, Room 3

Chair: F. Dilek, F. Kirkitsos

11:30 - 11:45	Quanyin Tan, Jinhui Li, Guijuan Shan, Lixia Zheng Waste fluorescent lamps in China: generation, risk, and collection
11:45 - 12:00	F. Kirkitsos, S. Papatheochari, C. Mihalopoulos, D. Homatidis, P. Gkioka, A. Dalamaga The Need for Separate Collection of Waste Oils and Petroleum Residues
12:00 - 12:15	M. Al Musharekh, F. Obied, C. Ghenai, I. Janajreh Sensitivity analysis of transesterification process
12:15 - 12:30	F. B. Dilek, U. Yetis Exploring Stabilization Alternatives for a Lime-Softening Sludge with a High Organic Content
12:30 - 12:45	M. Zoccola, A. Montarsolo, R. Mossotti, A. Patrucco, C. Tonin Life+ 12 ENV/IT000439 GreenWoolF: Green hydrolysis conversion of Wool wastes into organic nitrogen Fertilisers
12:45 - 13:00	S. Malamis, E. Katsou, F. Omil, M Loizidou, F. Fatone Integrated solution for the treatment of livestock effluents aiming at materials and energy recovery
13:00 - 13:15	L. Mézes, J. Tamás, Cs. Juhász, B. Mátyás Feather waste recycle for Biogas production
13:15 - 13:30	A. A. Tsoumani, T. E. Matikas, N.-M. Barkoula Influence of recycled aggregates on compressive strength of concrete
13:30 - 13:45	M. I. Triantou, P. A. Tarantili, A. G. Andreopoulos Recycling and Reuse of Plastics Contained in Waste from Electrical and Electronic Equipment
13:45 - 14:00	Discussion - Conslusions

SESSION IV: Composting, Room1

Chair: S. Smith, F. Amlinger

15:00 - 15:15	D. Malamis, A. Bourka, E. Stamatopoulou, K. Moustakas, P. Gkouvousis, O. Skiadi, M. Loizidou Study and assessment of segregated biowaste composting in Athens and Kifissia municipalities, Greece
15:15 - 15:30	D. Bourkas, A. Bourka, C. Venetis, G. Iliopoulos Guide for the operation of small-scale composting plants
15:30 - 15:45	C. Karkalias, G. Perkoulidis, N. Moussiopoulos Evaluation of home composting programmes in the frame of urban sustainable development policies
15:45 - 16:00	N. D. Charisiou, M. A. Goula, V. G. Papadakis Composting process of olive tree prunings: Assessment of nitrogen and carbon losses
16:00 - 16:15	B. N. Fitriatin, T. Simarmata, H. dan Tienturmuktini Straw Composting with Biological Agent Inoculation and Application Biofertilizer to Increase Rice Production with Water Management System
16:15 - 16:30	A. Lübke, B. Gamerith, R. Lugmayr, K. Tsitouridis, C. I. Franco Introduction of various different aerobic treatment technologies for MSW and source separated waste streams and the relevance for scaling technologies for small, middle and large operations

16:30 - 16:45	M. C. Di Lonardo, F. Lombardi, I. Verginelli, R. Gavasci Quality evaluation of mechanically-biologically treated MSW subjected to longer duration of biological treatment
16:45 - 17:00	GAO Hui, ZHOU Chuan-bin, WANG Ru-song, HAN Bao-long Fertilizer Quality of Co-Composting of Typical Agricultural Wastes in China
17:00 - 17:15	V. S. Varma, A. S. Kalamdhad Effects of fungal inoculation and lime addition on organic matter degradation during rotary drum composting
17:15 - 17:30	R. Kulcu New Kinetic Modeling Parameters for Composting Process Applied to Composting of Chicken Manure
17:30 - 17:45	A. S. Kalamdhad, R. Prasad, J. Singh Composting of water hyacinth collected from different water sources
17:45 - 18:00	A. Lübbe, B. Gamerith, R. Lugmayr, K. Tsitouridis, C. I. Franco Scientific case study for improvement of a 15.000t/a Biowaste composting plant to reduce odor and GHG emissions
18:00 - 18:15	D. Malamis, K.-J. Haralambous Decentralized composting for the treatment of sewage sludge and other biodegradable organic waste
18:15 - 18:30	Discussion - Conclusions

SESSION V: Thermal waste treatment, Room 2

Chair: E. Voutsas, P. Gikas

15:00 - 15:15	P. Manara, M. Francavilla, A. Zabaniotou, M. Monteleone Thermogravimetric characteristics and pyrolysis of red seaweed <i>Gracilaria gracilis</i> residues
15:15 - 15:30	E. Voutsas Plasma Arc Gasification of Solid Waste
15:30 - 15:45	I. Janajreh, S. Shabbar Raza Gasification of waste tires
15:45 - 16:00	D. Rovas, A. Libutti, M. Monteleone, A. Zabaniotou Olive grove residues and olive extraction process solid biowaste streams management via thermo chemical valorization
16:00 - 16:15	S. Vakalis, M. Baratieri Technological advancements in small scale biomass gasification: case study of South Tyrol
16:15 - 16:30	D. A. Tsalkidis, C. J. Athanasiou, E. Kalogirou, E. A. Voudrias Feasibility analysis of MSW mass burning in the Region of Eastern Macedonia and Thrace
16:30 - 16:45	K. Komnitsas, D. Zaharaki, I. Pyliotis, D. Vamvuka, G. Bartzas Assessment of pistachio shell biochar quality and its potential for adsorption of heavy metals
16:45 - 17:00	C. Iordan, L.-V. Balanescu From waste to energy up to sustainable development
17:00 - 17:15	P. Gikas Gasification of Municipal Wastewater Primary Sieved Solids in a Rotary Drum Reactor
17:15 - 17:30	V. Inglezakis, L. Rojas-Solórzano, J. Kim, A. Aitbekova, A. Ismailova, G. Shorakzy, A. Kystauova Comparison between Landfill Gas and Waste Incineration for Power Generation in Astana, Kazakhstan

17:30 - 17:45	Anubhav Ojha Solid waste management in emerging economies through plasma arc gasification: feasibility analysis
17:45 - 18:00	Discussion - Conslusions
SESSION VI: Management of Specific Waste Streams II, Room 3	
Chair: C. Gokcay, G. Itskos	
15:00 - 15:15	J. Leben Experiences during capacity building for Recycling of Industrial Waste and Building Rubble for the Construction Industry in Slovenia
15:15 - 15:30	A. Jiménez Rivero, H. Lund-Nielsen, A. de Guzmán Báez, J. García Navarro Factors impacting the market share of contructions and demolition (C&D) waste recycling solutions
15:30 - 15:45	Th. Valkouma The imlementation of waste management system in "Egnatia Odos" motorway
15:45 - 16:00	F. Kourmuossis, K. Moustakas, M. Loizidou Developing management units for demolition, excavation and construction waste which contribute to the sustainable development of Greece
16:00 - 16:15	A. Akyurek, O. N. Agdag Summarized View on Landfills and Leachate Management in Turkey
16:15 - 16:30	G. Banias, Ch. Achillas, N. Moussiopoulos, P. Roidi, Ch. Karkanas Assessment of alternative strategies for the management of waste from the construction industry
16:30 - 16:45	D. Ivetić, N. Jaćimović Impact of leachate filtration on slope failure potential of landfill side walls
16:45 - 17:00	E. Fages, S. Gironés, O. Gutiérrez, K. Mollá, M. Martínez Wet-laid technology implementation in revalorization of solid wastes generated in urban or industrial environments
17:00 - 17:15	F. Yılmaz, C. U. Erdem, B. Içgen Metagenomic analysis of cadA gene as a powerful management tool for the remediation of cadmium-polluted sites
17:15 - 17:30	G. Itskos, A. Koutsianos, N. Koukouzas, C. Vasilatos, D. Alexopoulos Zeolite development from lignite fly ash and utilization in mine-water treatment
17:30 - 17:45	P. A. Patsurkovskiy, L. I. Leibovich Absorptively-electrochemical method of air purification from hydrogen sulfide at the municipal solid wastes processing plants
17:45 - 18:00	O. T. Komesli, M. Muz, M. S. Ak, C. F. Gökcay Micropollutants Removal in MBR Reactors: A comperative study
18:00 - 18:15	S. Mahgoub, P. Samaras Nanoparticles from biowastes and microbes: Focus on role in water purification and food preservation
18:15 - 18:30	Discussion - Conslusions

20:30 - 22:30 Conference Gala Dinner

Friday, 13 June 2014

08:00 - 9:30	Registration
9:15 - 10:30	<p>Keynote Speakers, Room 1 Chair: F. Amlinger, Gr. Stoyanov</p> <p>Franco Cecchi, Cristina Cavinato, University of Verona, "Anaerobic digestion of biowaste: a territorial and environmental friendly process. A review"</p> <p>Stephen Smith, Imperial College, "The ABC of Separate Food Waste Collection - A Simple, Economic and Effective Approach"</p> <p>Keith Riley, University of Southampton, An industrial perspective of Valorgas - an international collaboration on Food Waste Collection, Anaerobic Digestion, Biogas Production and Upgrading</p> <p>Francisco Omil, University of Santiago de Compostela, "Biological technologies for the removal of VOCs, odours and greenhouse gases"</p>
10:30 - 11:00	Coffee Break
<p>SESSION VII: Anaerobic Digestion, Room1</p> <p>Chair: G. Lyberatos, D. Bolzonella</p>	
11:00 - 11:15	<p>X. Liu, R. Bayard, H. Benbelkacem, P. Buffière, R. Gourdon Complementary methods for the evaluation of anaerobic biodegradability of lignocellulosic biomass</p>
11:15 - 11:30	<p>R. Bayard, L. Gonzalez-Ramirez, S. Nasseri, H. Benbelkacem, P. Buffière, R. Gourdon Statistical analysis to correlate bio-physical and chemical characteristics of organic wastes and digestates to their anaerobic biodegradability</p>
11:30 - 11:45	<p>F. Micolucci, M. Gottardo, D. Bolzonella, P. Pavan, F. Cecchi Analysis of meso/thermo AD process applied to pressed biowaste during transient/stressed conditions and co-digestion with waste active sludge</p>
11:45 - 12:00	<p>M. A. Dareioti, T. T. Vgenis, A. I. Vavouraki, M. Kornaros Anaerobic biodegradability of typical organic agro-wastes in Western Greece</p>
12:00 - 12:15	<p>E. Angelonidi, S. R. Smith A critical assessment of wet and dry anaerobic digestion processes for the treatment of biodegradable municipal solid waste and food waste</p>
12:15 - 12:30	<p>A. Vlyssides, S. Mai, E. M. Barampouti Energy generation potential in Greece from agricultural residues and livestock manure</p>
12:30 - 12:45	<p>X. Jin, D. L. Xia, J. H. Ko, Q. Y. Xu Enhanced Methane Production from Food Waste in Aerobic-Anaerobic Bioreactor</p>
12:45 - 13:00	<p>B. N. Zhu, L. Song, Y. P. Liu, H. R. Yuan, D. X. Zou, X. J. Li Optimization of the Operational Parameters of a Mesophilic Two-Phase Anaerobic Digester for Vegetable Waste Degradation</p>
13:00 - 13:15	<p>F. Di Maria, C. Micale, A. Sordi, G. Cirulli A pilot scale investigation for co digestion of sludge with fruit and vegetable waste in a full scale digester</p>

13:15 - 13:30	A. E. Maragkaki, M. Fountoulakis, K. Lasaridi, T. Manios Improved biogas production from sewage sludge by co-digestion with the organic fraction of municipal solid waste
13:30 - 13:45	D. V. Lopes, L. G. Cruz, R. C. Martins, L. M. Gando-Ferreira, C.M. Dias-Ferreira, M. J. Quina, R. M. Quinta-Ferreira Characterization and chemical stabilization of digestate from municipal solid wastes
13:45 - 14:30	Lunch Break

SESSION VIII: Case Studies, Room 2

Chair: U. Yetis, L. Streff

11:00 - 11:15	M. Neznakomova, L. Tsankov, S. Boteva, L. Jivkova Sustainable waste management - experience of Bulgaria
11:15 - 11:30	D. M. El-Sherif Integrated low-cost approaches for solid waste management in small cities- A Review of an Egyptian Project -
11:30 - 11:45	V. Herbst, L. Streff, A. Humeniuk New ways to make MBT sustainable: Case Study - Biodrying for RDF production in Sulaimaniyah, Iraq, 2013
11:45 - 12:00	V. Panaretou, D. Malamis, K. Moustakas, K. Valta, M. Margaritis, M. Loizidou Implementation and evaluation of MSW management scheme in Pyrgos & Panormos communities in Tinos Island, Greece
12:00 - 12:15	J. Orlando Avilés Sayas, C. Gutiérrez Palacios Methodology for generation programs for recovery of municipal solid waste in urban municipalities
12:15 - 12:30	C. Venetis, A. Bourka, D. Malamis, K. Moustakas, O. Skiadi, S. Giannaki, E. Michalopoulou, N. Sakaveli, M. Loizidou Set up, monitoring and evaluation of biowaste source separation scheme in Athens and Kifissia municipalities, Greece
12:30 - 12:45	U. Yetis, J. Bjørn Jakobsen, F. B. Dilek, E. Kiyık, S. Mugoša, J. Novović, M. Kerestecioğlu Solid Waste Management Scenarios for Cetinje in Montenegro
12:45 - 13:00	R. Bendere, D. Arina, I. Teibe Finding sound bio-waste treatment solutions in the Baltic states
13:00 - 13:15	J. M. Vaz, J. Silva Ferreira, W. Trovoada, D. Stock Biowaste separate collection in São Tomé and Príncipe, West Africa
13:15 - 13:30	Atiq Uz Zaman Application of zero waste index as an alternative performance assessment tool: the context of Adelaide
13:30 - 13:45	Discussion - Conclusions

SESSION IX: Compost products, Room 3

Chair: Ž. Vukobratović, O. Skiadi

11:00 - 11:15	A. Nemcsics Twenty years experiences of a self-developed domestic compost toilette
11:15 - 11:30	M. A. R. Soares, M. M. J. Quina, L. Gando-Ferreira, R. M. Quinta-Ferreira Removal of Pb (II) from aqueous solutions using eggshell composting products

11:30 - 11:45	Ž. Vukobratović, M. Vukobratović, Z. Lončarić, R. Erthatić Potential of composted biodegradable municipal waste in seedlings production
11:45 - 12:00	M. Margaritis, K. Psarras, D. Malamis, K.J. Haralambous Research on the improvement of food waste home composting using different additives
12:00 - 12:15	M. Ros, J. Blaya, J. A. Pascual Study of agro-industrial compost to predict suppression of Fusarium oxysporum and Phytophthora capsici diseases in muskmelon and pepper seedlings respectively
12:15 - 12:30	D. Malamis, M. Loizidou Compost evaluation against end of waste criteria for biowaste subjected to composting treatment
12:30 - 12:45	M. Vukobratović, Z. Lončarić, Ž. Vukobratović, M. Mužić Use of composted manure as substrate for lettuce and cucumber seedlings
12:45 - 13:00	M. Margaritis, K. Psarras, D. Malamis, K.-J. Haralambous, M. Loizidou The effect of perlite on food waste composting
13:00 - 13:15	A. Sotiropoulos, N. Bava, D. Malamis, K. Valta, V. Panaretou, D. Alamanou, D. Kekos, M. Loizidou Examination of the domestic food waste drying method and investigation of the final product properties for lignocellulosic ethanol production
13:15 - 13:30	Discussion - Conclusions

SESSION X: Waste Treatment Technologies, Room 1

Chair: A. Vlyssides, I. Skiadas

14:30 - 14:45	P. Choi The Optimum way of organic (mainly food & slaughterhouse) waste's recycling
14:45 - 15:00	G. Antonopoulou, G. Dimitrellos, D. Vayenas, G. Lyberatos The effect of acid pretreatment on bio-ethanol and bio-hydrogen production from sunflower straws
15:00 - 15:15	H. Giani, A. Feil, K. Hornsby, A. Clausen, T. Pretz Processing concept for the production of biomass fuel from mixed municipal solid waste
15:15 - 15:30	F. Corona, D. Hidalgo, D. Díez-Rodríguez, A. Urueña Multi-waste treatment and valorisation by thermochemical processes
15:30 - 15:45	Gh. Salehi Jouzani, H. Pourmazaheri, Karimi Ebrahim, R. Maali Amiri, M. Tabatabaei Development of an effective bioprocess for fast production of enriched biocompost from municipal solid wastes
15:45 - 16:00	J. Tyler Food waste and Energy
16:00 - 16:15	Xinyuan Liu, Ruying Li, Min Ji Hydrogen and methane production from waste activated sludge and food waste by two-stage fermentation process
16:15 - 16:30	I. V. Skiadas, H. N. Gavala AMMONOX research project: Use of ammonia for enhancing biogas production from waste lignocellulosic biomass & reducing NOx emissions from biogas engines
16:30 - 16:45	F. Riedel, X. Kakatsios A Combined two-Stage Process to "Zero-Residue" Solution

16:45 - 17:00	D. Xevgenos, N. Athanasopoulos, M. Kasidoni, K. Moustakas, D. Malamis, M. Loizidou An innovative, ecological system for in-house recycling of municipal solid waste (paper, plastic and metal packaging waste)
17:00 - 17:15	M. C. Samolada, A. A. Zabaniotou Sustainable Municipal Waste Management towards the goal of zero waste
17:15 - 17:30	C. Micale Energy recovery from heat produced during aerobic treatment of organic waste through exploitation by micro organic Rankine cycle (ORC)
17:30 - 17:45	Z. Gaitanarou, G. Tentes, Y. Katselis Landfill Mining: An empirical review on past and state-of-the-art applications
17:45 - 18:00	Xiujin Li The development of biogas industries in China--Key Technologies, Demonstrations and perspectives

SESSION XI: Tools in the field of waste management, Room 2

Chair: K. Riley, A. Mavropoulos

14.30 - 14.45	A. Bourka, G. Konstantzos, D. Malamis, C. Venetis, K. Moustakas, O. Skiadi, O. Bourka, M. Loizidou Carbon footprint calculation of the collection at source and treatment of biowaste
14:45 - 15:00	A. Mavropoulos, Al. Mavropoulos, M. Tsakona, I. Koukosia, N. Mavropoulou Waste Atlas: A global waste management tool
15:00 - 15:15	L. Streff, V. Herbst, R. Rotaru Decision support tool in the waste management field: Cost comparison tool for different integrated waste management systems
15:15 - 15:30	C.P. Mihalopoulos, An. Dalamanga, Ath. Dimou, K. Makrinika, D. Chomatidis, Ph. Kirkitsos Multi-Criteria Evaluation of Waste Oil & Petroleum Residues Processing Technologies
15:30 - 15:45	N. Stanisavljevic, S. Jokanovic, B. Batinic, B. Tot, M. Živančev, D. Ubavin Application of MFA as a decision support tool for waste management in small municipalities – case study of Serbia
15:45 - 16:00	A. Mavropoulos, M. Tsakona, A. Anthouli Urban waste management and the mobile challenge
16:00 - 16:15	L. Karagiannidis, T. Kasampalis, J. Hoffman, A. Zuffi, V. Arbaciuskas, A. Bojanowicz-Bablok, M. Stoeva, Z. Bartfai, J. Peer A Qualifications Framework for Solid Waste Facilities Managers
16:15 - 16:30	C. M. Ghosh, Maruf A. Khan GIS Application in Urban Solid Waste Management: A Case Study of Dar es Salaam, Tanzania
16:30 - 16:45	M. Aljaradin, K. M. Persson Design parameters and operational modes for sustainable landfill operation in arid areas
16:45 - 17:00	F. Kirkitsos, S. Papatheochari, K. Makryniaka, D. Homatidis, A. Dalamaga EU project "Promoting Zero Waste" (ZeroWaste Pro 1CAP-MED12-35). The "CO2ZW - Carbon Footprint Tool for Waste management in Europe"
17:00 - 17:15	Discussion - Conclusions

SESSION XII: Waste Prevention & Recycling , Room 3
Chair: K. Lasaridi, N. Voulvouli

14:30 - 14:45	A. Andreopoulos Bioplastics: A Smart Approach to Waste Reduction
14:45 - 15:00	C. Tsompanidis, G. Lolos, P. Fragkakis Greek waste prevention programme: A challenge on the way to zero waste economy
15:00 - 15:15	K. Lasaridi, O. Hatzi, G. Batisatos, K. Abeliotis, C. Chroni, N. Kalogeropoulos, C. Chatzileftheriou, N. Gargoulas, A. Mavropoulos, A. A. Zorpas, M. Nikolaidou, D. Anagnostopoulos Waste prevention scenarios using a web-based tool for local authorities
15:15 - 15:30	K.-E. Lasaridi, K. Abeliotis, C. Chroni Food waste within households: a review on the generated quantities and potential for prevention
15:30 - 15:45	S. I. Pirani, H. A. Arafat Reduction of Food Waste Generation in the Hospitality Industry
15:45 - 16:00	D. Spiliopoulou, B. Hudson Designing out Waste: Implementing Waste Prevention in the Civil Engineering Sector
16:00 - 16:15	R. Centonze, A. De Lauretis, M. Fulminis, A. Valentini CREWSOD Waste Collection Rewarding System On Demand
16:15 - 16:30	N. Voulvouli A new methodology for evaluating the contribution of Cohesion Fund (including former ISPA) Interventions to achieving the environmental acquis - Solid waste collection, treatment and disposal (2000-2006)
16:30 - 16:45	D. Xevgenos, K. Moustakas, D. Malamis Success stories for recycling of MSW at municipal level: A review
16:45 - 17:00	A. Alsebaei, Z. Wadud, J. Barton, C. Velis Muslim's mega-event pilgrimage in Mina, city of Makkah, Saudi Arabia: Hajj's pilgrims recycling intention and behaviour
17:00 - 17:15	A. Stogia, E. Sardianou, K. Lasaridi, K. Abeliotis Determinants of packaging recycling behaviour by households of Athens, Greece
17:15 - 17:30	M. Kasidoni, K. Moustakas, D. Malamis The use of plastic carrier bags in Europe: Existing situation and challenges
17:30 - 17:45	Discussion - Conclusions
CLOSING SESSION, Room 1	
Chair: M. Loizidou, G. Kremlis, F. Amlinger, S. Smith, G. Lyberatos	
18:30 - 19:00	Synopsis of the ATHENS 2014 conclusions with the active participation of all Chair Persons

Saturday, 14 June 2014

Plant and Site Tour at the Integrated Waste Management Area at Ano Liosia

8:30	Departure from the Royal Olympic Hotel
9:30	Arrival at the Integrated Waste Management Area in Ano Liosia.
9:30	MBT (Mechanical Biological Treatment) Plant Visit
10.00	Medical Waste Incineration Plant Visit
10.30	BEAL S.A.(Power Cogeneration Station fueled by biogas) - Site Visit
10.45	Leachate Treatment Plant Visit
11:00	Landfill Area Visit
11.30	Departure time
12:15	Arrival Time at the center of Athens
12:15 - 14:45	The tour starts with a visit to the Acropolis, where you will see the Propylea, the temple of Nike, the Parthenon and the wonders of the Golden Age of Pericles. From the Acropolis hill you will have a breathtaking view of the surroundings, including the Agora, the Observatory, the Democracy hill (Pnyx), the Philopappos Hill and Mars Hill. You will also admire the theater of Dionysos and the Odeion of Herodus Atticus where ancient Greek drama was first staged. The guided tour ends on the hill of the Acropolis.



The best papers of the ATHENS2014 Conference will be published after review in Waste Management & Research and Waste & Biomass Valorization



WM&R
www.springer.com/wmr



ISWA
Springer



N.T.U.A.

National Technical University of Athens
School of Chemical Engineering
Unit of Environmental Science & Technology
9, Heroon Polytechniou Street
157 73 Zographou Campus, Athens, Greece
Tel: +30 2107723106/3108/2334
Fax: +30 2107723285
Website: www.uest.gr
Prof. M. Loizidou, Dr. K. Moustakas
Email: mloiz@chemeng.ntua.gr
konomoust@central.ntua.gr



E.D.S.N.A.

Association of Municipalities in the Attica Region
Solid Waste Management (EDSNA)
6 Andersen & 90 Moraiti str, Athens - 11524, Greece
Tel: +30 213 2148300
Fax: +30 210 6749178
Website: www.edsna.gr



EPTA Environmental Consultants – Engineers
16 Iniochou str., 15238, Athens, Greece
Tel: +30 210 6086300
Fax: +30 210 6086302
Website: www.epta.gr
Email: info@epta.gr



CITY OF ATHENS

City of Athens
Cleaning - Recycling & Mechanical Equipment Agency
151 Iera Odos, 12241 Athens, Greece
Tel: +30 210 3402500
Website: www.cityofathens.gr
Email: biowaste@cityofathens.gr



MUNICIPALITY OF KIFISSIA

Municipality of Kifissia
2 Mirsinis & Dionisou st.
Tel: +30 213 2007100
Fax: +30 210 8087090
Website: www.kifissia.gr
Email: info@kifissia.gr

In Collaboration
with the:



LIFE10 ENV/GR/000605:
Integrated management of
bio-waste in Greece:
The case study of Athens

