



26-28.  
June  
Gödöllő

## 9<sup>th</sup> International Conference ORBIT 2014

### New Challenges, New Responses in the 21<sup>st</sup> Century

Gödöllő, 26-28 June, 2014.

## CONFERENCE PROGRAM

ORBIT 2014 Committees

Synthesis

Detailed Preliminary Programme

ORBIT 2014 Sessions

Posters Presentations

### Organised by

Szent István University, Faculty of Agricultural and Environmental Sciences, Hungary

Hungarian Quality Compost Association, Hungary

European Compost Network, ECN, Germany

## ORBIT 2014 COMMITTEES

### ORGANIZERS

Szent István University, Faculty of Agricultural and Environmental Sciences

Hungarian Quality Compost Association

ECN - European Compost Network

### SCIENTIFIC COMMITTEE

Dr. László Aleksza (Hungarian Compost Association, Szent István University)

Prof dr. György Füleky (Hungarian Compost Association, Szent István University)

Dr. Csaba Gyuricza (Dean of Faculty of Agricultural and Environmental Sciences, Szent István University)

Prof. Dr. Marco de Bertoldi, Dr. Mamadou Amadou Seck, Mariana Cerca, Catherine Milhau,

Ricardo Arribas, Dr. Katia Lasaridi, Dr. Antonis Zorpas,, Dr. Ljudmilla Bokányi,,Dr. Arjen Brinkmann,

Dr.-Ing. Wolfgang Müller, Dr. Katia Lasaridi, Christian Garaffa,Dr. Péter Simándi ,

Dr. Louise Fletcher, Prof. Dr. Ed Stentiford, Imre Czinkota, Dr. Konrad Soyez,

Dr. Johannes Paul,Dr. Marianna Makádi, Florian Amlinger

Dr. Antoni Sánchez, Teresa Gea, Thomas Terpetschnig, Yael Laor

Prof. Dr. János Tamás, Dr. Mézes Lili, Dr. Daryl McCartney

### ORGANIZING COMMITTEE

Dr. László Aleksza (Hungarian Compost Association, Szent István University)

Prof dr. György Füleky (Hungarian Compost Association, Szent István University)

Dr. Csaba Gyuricza (Dean of Faculty of Agricultural and Environmental Sciences, Szent István University)

Dr. Mait Kriipsalu (Estonian Life Science University)

Mr. Grigor Stoyanov (Ministry of Environment of Bulgaria)

Dr. Stefanie Siebert (Executive Director of the European Compost Network)

## Synthesis

Day 0 - Afternoon		25 <sup>th</sup> of June 2014
16.00	Guided tour in Royal Palace, Gödöllő	10 EURO/person

Day 1 - Morning		26 <sup>th</sup> of June 2014	
	ROOM I.	ROOM II.	ROOM III.
9.00 - 11.00 h	<b>2.4. Energy from biomass</b> (Convenor: Prof. Dr. Marco de Bertoldi)	ECN WG5 meeting	<b>1.1 Agronomical-pastoral composting system in developing countries</b> (Convenors: Dr. Mamadou Amadou Seck, Mariana Cerca)
11.00 - 13.00 h	<b>PLENARY SESSION</b>		
<b>13.00 - 14.00 h LUNCH</b>			

Day 1 - Afternoon		26 <sup>th</sup> of June 2014	
	ROOM I.	ROOM II.	ROOM III.
14.00 - 16.00 h	<b>2.1. Biological Industrial Treatment of Organic Waste</b> (Convenors: Catherine Milhau, Ricardo Arribas)	<b>1.3./A. Waste prevention - Waste reduction - Separate collection</b> (Convenors: Dr. Katia Lasaridi, Dr. Antonis Zorpas)	<b>2.2./A. Bioprocessing: aerobic and anaerobic degradation</b> (Convenor: Dr. Ljudmilla Bokányi)
<b>15.30 - 16.00 h Discussion / Coffee</b>			

**Day 1 - Afternoon      26<sup>th</sup> of June 2014**

	ROOM I.	ROOM II.	ROOM III.
16.00 - 18.00 h	<b>1.4. The competition for biowaste: energy production versus high quality soil improvers</b> (Convenors: Dr. Arjen Brinkmann, Dr.-Ing. Wolfgang Müller)	<b>1.3./B. Waste prevention - Waste reduction - Separate collection</b> (Convenors: Dr. Katia Lasaridi, Christian Garaffa)	<b>2.2./B. Bioprocessing: aerobic and anaerobic degradation</b> (Convenor: Dr. Ljudmilla Bokányi)

**19.00 h GALA DINNER (Royal Palace), Welcome speech of Dr. György Gémesi, Mayor of City Gödöllő, Talamba Music Show**

**Day 2 - Morning      27<sup>th</sup> of June 2014**

	ROOM I.	ROOM II.	ROOM III.
9.00 - 11.00 h	<b>3.1./A. Compost and digestate in agricultural practice</b> (Convenor: Dr. Péter Simándi)	ECN WG3 meeting	<b>3.3./A. The use of alternative organic nutrients in agriculture and horticulture</b> (Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)

**10.30 - 11.00 h Discussion / Coffee**

**Day 2 - Morning      27<sup>th</sup> of June 2014**

	ROOM I.	ROOM II.	ROOM III.
11.00 - 13.00 h	<b>3/1/B. session: Biochar in agricultural practice</b> (Convenor: Imre Czinkota)	<b>1.2. Organic waste management as part of Nationally Appropriate (Climate) Mitigation Actions (NAMAs)</b> (Convenors: Dr. Konrad Soyez, Dr. Johannes Paul)	<b>3.3./B. The use of alternative organic nutrients in agriculture and horticulture</b> (Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)

**13.00 - 14.00 h LUNCH**

**Day 2 - Afternoon      27<sup>th</sup> of June 2014**

	ROOM 10
14.00 - 15.00 h	<b>POSTER SESSION I. AND II.</b>

**Day 2 - Afternoon      27<sup>th</sup> of June 2014**

	ROOM I.	ROOM II.	ROOM III.
15.00 - 17.00 h	<b>3.2. Fate of organic matter (OM) in the composts and digestates and in the treated soils</b> (Convenors: Dr. Marianna Makádi, Florian Amlinger)	<b>3.4./A. Waste-to-Product</b> (Convenors: Dr. Antoni Sánchez, Teresa Gea,)	<b>2.5. Emissions and immissions of biological waste treatment</b> (Convenor: Thomas Terpetschnig, Yael Laor)
<b>16.30 - 17.00 h Discussion / Coffee</b>			

**Day 2 - Afternoon      27<sup>th</sup> of June 2014**

	ROOM I.	ROOM II.	ROOM III.
17.00 - 19.00 h	<b>2.3. Advanced Waste Process Controlling</b> (Convenors: Prof. Dr. János Tamás, Dr. Mézes Lili)	<b>3.4./B. Waste-to-Product</b> (Convenors: Dr. Antoni Sánchez, Teresa Gea,)	<b>3.5. Pathogen (plant and animal) Survival/Sanitary Assurance of Final Compost</b> (Convenor: Dr. Daryl McCartney)
16.00 -	<b>ECN Annual meeting</b>	Separate room	

**Day 3 - Morning      28<sup>th</sup> of June 2014**

07.00 - 21.00 h	Complex Recycling Plant with AD and Biofuel Production Agrar-Béta Kft. Dombovár <a href="http://www.agrar-beta.hu/index.html">http://www.agrar-beta.hu/index.html</a>
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## Detailed Preliminary Programme

Day 1 - Morning      26 <sup>th</sup> of June 2014			
	ROOM I.	ROOM II.	ROOM III.
	<b>2.4. Energy from biomass</b> (Convenor: Prof. Dr. Marco de Bertoldi)	<b>ECN WG5 meeting</b>	<b>1.1. Agronomical-pastoral composting system in developing countries</b> (Convenors: Dr. Mamadou Amadou Seck, Mariana Cerca)
09.00 h	4- bio system (bioethanol-methane-compost-algae) Marco de Bertoldi, Urlike Schnappinger		Enzymatic activity and humic acids correlation during maturity of grape pomace composting process Maria M Martinez, Rodrigo Ortega, Marc Janssens
09.15 h	Biogas from blackwater, lawn cuttings and grease trap residues in a district of Hamburg Saskia Hertel, Deegener, Stefan; Körner, Ina		Evaluation of composting as pig manure management strategy at farm level in the region of Murcia (Spain) José Antonio Sáez Tovar, M. P. Bernal Calderón, R. Clemente
09.30 h	Catch crops rotation as a strategy to minimize nitrogen leaching and optimize manure anaerobic digestion performance August Bonmatí, L. Burgos, V. Riau, F. Camps, A. Anton, A. Bonmatí		Development of composting industry in China Li Ji
09.45 h	Methane potential from paper industry wastes and investigation of the methanogens involved Ingrid Franke-Whittle, Silberberger, Sandra; Walter, Andreas; Insam, Heribert		Agronomical valorisation of bovine slaughterhouse waste by aerobic composting: effects of the compost obtained on tomato ( <i>Solanum Lycopersicum</i> ) germination and growth, variety of mongol-hybrid F1, in vegetation pots Mamadou Amadou Seck
10.00 h	Pilot-Scale anaerobic co-digestion of sewage sludge and olive mill wastewater for increased biogas production Aggeliki Maragkaki ,M. Fountoulakis, K. Lasaridi, T. Manios		Urban Forest Waste Management in Small Municipalities of São Paulo State, Brazil Mariana Cerca, Adriana Maria Nolasco

10.15 h	<p>Conceptual design and implementation of an integrated system for organic solid waste treatment and by-products recovery – pMethan  Catarina Azevedo Borges, Augusto de Assis Temponi Cabral Dias, Bernardo Ornelas Ferreira, Luis Felipe de Dornfeld Braga Colturato, Carlos Augusto de Lemos Chernicharo</p>	<p>Solar Energy - as a Renewable Energy Source – for Improving the Protection Cultivation Systems on Sweet Pepper Production under plastic tunnels  Farouk El Aidy</p>
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**10.30 - 11.00 h Discussion / Coffee**

11.00 - 13.00 h	<p style="text-align: center;"><b>PLENARY SESSION</b></p> <p>Chair: Prof. György Füleky (Faculty of Agricultural and Environmental Sciences, Szent István University)</p>
11.00-11.30 h	<p style="text-align: center;"><b>Welcoming Ceremony</b></p>
	Dr. Csaba Gyuricza (Dean, Faculty of Agricultural and Environmental Sciences, Szent István University)
	Representative of Ministry
	Mait Kripsalu (Vice Chair, European Compost Network)
11.30-12.00 h	Prof. Dr. Nicola Senesi: Compost quality for use as organic amendment in agriculture (University of Bari "Aldo Moro")
12.00-12.30 h	Dr. Enzo Favoino: Biowaste management in the context of Zero Waste strategies (Chair, Scientific Committee, Zero Waste Europe)
12.30-13.00 h	Dr. Laszlo Aleksza: New challenges new responses in the 21st century (Associate professor, Szent István University)
<p><b>13.00 - 14.00 h LUNCH at University Restaurant</b></p>	

**Day 1 - Afternoon      26<sup>th</sup> of June 2014**

	<b>ROOM I.</b>	<b>ROOM II.</b>	<b>ROOM III.</b>
	<b>2.1. Biological Industrial Treatment of Organic Waste</b> (Convenors: Catherine Milhau, Ricardo Arribas)	<b>1.3. /A. Waste prevention - Waste reduction - Seperate collection</b> (Convenors: Dr. Katia Lasaridi, Dr. Antonis Zorpas)	<b>2.2./A. Bioprocessing: aerobic and anaerobic degradation</b> (Convenor: Dr. Ljudmilla Bokányi)
14.00 h	Handling of Excessive Process Water (EPW) from Mechanical Biological Treatment (MBT) of Municipal Waste Stopp Paul, Dr.-Ing. Dirk, Weichgrebe; Erwin, Voss	Development of Governmental Prevention Strategy. The case study of Cyprus Antonis Zorpas , I. Voukkali,	Effect of biochar amendment during composting and compost storage on compost quality, N losses and P availability Bart Vandecasteele ,Mondini Claudio, D'Hose Tommy, Russo Stefano, Sinicco Tania, Quero Alba Antonio,
14.15 h	Characterization of three industrial digestates and composts of digestates: Impacts of the composting step on the innocuousness of digestates Marie Orvain, S. Houot, M. Colin, A. Covez R. Lecarpentier, M. Chevallier, J. Ochoa, H. Bacheley	Experience of waste management of the local governments in Szabolcs-Szatmár-Bereg Megye (in consideration of the regulation) Dr Edit Zsuzsanna Tárczy	Temporal and spatial distribution of organic waste physical properties along composting process Celine Druilhe ,Huet(1), Tremier(1), Debenest(2)
14.30 h	Improved method for recovery of organic solids from diluted swine manure in 3rd generation treatment system Matias Vanotti, Hunt Patrick, Kunz Airton, Rice Mark	Development of a web-based support tool for waste prevention at local authority level K. Lasaridi , K. Abeliotis, O. Hatzi, G. Batistatos, C. Chroni, N. Kalogeropoulos, C. Chatzieleftheriou, N. Gargoulas, A. Mavropoulos, A.A. Zorpas, M. Nikolaidou And D. Anagnostopoulos	Optimizing the composting parameters as a post-treatment of digestates of organic fraction of municipal solid waste Zeng Yang ,Patrick Dabert, Amaury De Guardia, Anne Tremier
14.45 h	An alternative way of bio waste treatment in high performance fixed-bed reactors Maren Stommel, Brinkmann, Brunstermann	Environmental assessment of waste prevention activities K. Abeliotis, Chroni C., A. A. Zorpas,, K. Lasaridi.	Effects of the proportion of cotton gin as a bulking agent in the co-composting of the solid fraction of pig slurry André Santos ,M.A. Bustamante, R. Moral and M.P. Bernal,

15.00 h	The investigation of respiration after mechanical biological treatment of municipal solid waste Miklós Gulyás, András Béres, László Aleksza, Sándor Dér	Estimating household food waste in Denmark: case study of single family households Edjabou Maklawe Essonanawe ,Claus Petersen, Charlotte Scheutz, and Thomas Astrup,	Composting of manure using olive mill wastewater for moisture control Galliou Fenia ,M. Fountoulakis, A. Niarhos, L. Fletcher, E. Stentiford, N. Nikolaidis and T. Manios.
15.15 h	Organic fraction of municipal waste behaviour, mixed with other substrates in anaerobic digestion Catherine Milhau, Ricardo Arribas		In-situ co-composting in a bedded-pack dairy barn Gábor Szántó ,Aarnink, AJA, Dooren, HJ van, Boer, HC de, Galama, PJ
<b>15.30 - 16.00 h Discussion / Coffee</b>			

<b>Day 1 - Afternoon      26<sup>th</sup> of June 2014</b>			
	<b>ROOM I</b>	<b>ROOM II</b>	<b>ROOM III</b>
	<b>1.4. The competition for biowaste: energy production versus high quality soil improvers</b> (Convenors: Dr. Arjen Brinkmann, Dr.-Ing. Wolfgang Müller)	<b>1.3. /B. Waste prevention - Waste reduction - Separate collection</b> (Convenors: Dr. Katia Lasaridi, Christian Garaffa)	<b>2.2./B. Bioprocessing: aerobic and anaerobic degradation</b> (Convenor: Dr. Ljudmilla Bokányi)
16.00 h	Ecological and economic benefits of compost and digestate products Elka Vandaele, Kristel Vandenbroek , Wim Vanden Auweele, Ingrid Vandenbroucke, Christophe Boogaerts	Monitoring and Evaluation of waste prevention activities in Selected Groups Antonis Zorpas K. Lasaridi, I. Voukkali, P. Loizia, C. Chroni, A. Georgiou, K. Phanou, P. Goumenou, D. Pirilly	Valorisation Alternatives for Cheese Whey and Permeate in the Basque Country (Spain) <b>Marta Cebrián</b> ,Orive, Mikel; Gutierrez, Monica; Rentería Marta,
16.15 h	Bioresource utilization chains – Efficiency of substantial and energetic utilization options on the example of food residues and grass cuttings in a district of Hamburg Ina Körner, Hertel, Saskia	Household food waste in Greece - estimation through a self-reported food waste diary Konstadinos Abeliotis C. Chroni1, A. Kyriacou1, K. Boikou1, A.A. Zorpas2, K. Lasaridi1,	Investigation into the microbial potential of digestion towers, using no co-substrates in their input material, to prospectively increase biogas yields at sewage treatment plants <b>Andreas Walter</b> ,Maraike Probst1, Peter Aichinger2, Christian Ebner2, Heribert Insam1

16.30 h	Development of indicators to evaluate manure processing technologies. Anaerobic digestion and composting of cow manure plant as case study August Bonmatí L. Burgos, L. Tey, J. Noguerol, X. Flotats, J. Palatsi	The separate collection of residential organic waste in the city of Milan (Italy) Paola Petrone ,Danilo Vismara	Study on biodegradability of wood residues <b>Anne Menert</b> ,Mait Kriipsalu*, Anne Menert**, Kairi Anderson*, Evelin Pihlap**, Kaja Orupöld*, Sirli Sipp Kulli***
16.45 h	SYNECO - synergy of high quality green compost and green energy Boogaerts Christophe	The characteristics of the compostable plastics Francesco Degli Innocenti	Mechano-chemical treatment of amaranth waste to enhance anaerobic digestion <b>Terézia Varga</b> , Dr. Ljudmilla Bokányi,
17.00 h	Greenhouse gas balances in biowaste treatment concepts with focus on compost and energy production Müller Wolfgang, Maria Ortner, Anke Bockreis	The Role of Source Separated Food Waste in the New Waste Management Plan in Lombardy, Italy Michele Giavini ,Paola Zerbinati, Elisabetta Confalonieri	Effect of paper fraction on the mesophilic anaerobic digestion of ofmsw. biogas and digestate evaluation <b>Joan Mata-Alvarez</b> ,Xavier Fonoll, Joan Dosta, Sergi Astals
17.15 h	CO2 calculation tool for sustainable green waste management Arjen Brinkmann	Towards a circular bio-economy : challenges for the biowaste management Braekevelt Ann	Energy-based optimization of dry-state, sequential anaerobic digestion – aerobic composting of sewage sludge <b>Beatrix Rózsáné Szűcs</b> ,Simon Miklós, Szántó Gábor László, Füley György,

**17.30 - 18.00 h Discussion**

**19.00 h GALA DINNER (Royal Palace), Welcome speech of Dr. György Gémesi, Mayor of City Gödöllő, Talamba Music Show**

Day 2 - Morning      27 <sup>th</sup> of June 2014			
	ROOM I	ROOM II	ROOM III
	<b>3.1./A. Compost and digestate in agricultural practice</b> (Convenor: Dr. Péter Simándi)	<b>ECN WG3 meeting</b>	<b>3.3./A. The use of alternative organic nutrients in agriculture and horticulture</b> (Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)

9.00 h	Replacement of chemical fertilizer by biofertilizers as mitigation option of greenhouse gas emissions from wetland soils in Indonesia Abdul Hadi, Katai Janos		Effect of Intensity and Time of Aeration on Agrochemical Properties of Extracts from Vermicompost Ales Hanc, Boucek, J., Svehla, P., Tlustos, P.
9.15 h	Bioremediation of soils contaminated with Bonny light crude oil using Horse manure Chindo Nwankwo, E.I.STENTIFORD		Effects of different biochars and combined biochar and anaerobic digestate utilization on rye-grass and soil properties in laboratory model experiment Miklós Gulyás, Márta Fuchs, Annamária Holes, Tamás Szegi, István Kocsis, György Füley
9.30 h	Effect of sewage sludge compost application on the potential toxic elements of soil and plant in 2009-2012 Attila Tomócsik, Marianna Makádi, Viktória Orosz, József Mészáros, György Füley		Effect of compost source and soil type on canola yield and nutrient uptake from calcareous and acid soils under greenhouse conditions Xiying Hao
9.45 h	Digestates origin and post-treatment influence their biological stability, potential nitrogen availability for plants and reactive nitrogen gas emissions Amira Askri, Patricia LAVILLE, Fabrice GUIZIOU, Fabrice BELINE, Sabine HOUOT		Vegetable crop residues as feedstock for composting and silage: collection efficiency and product quality Bart Vandecasteele, Viaene Jarinda, Agneessens Laura, Van De Sande Tomas, Dekeyser Donald, De Neve Stefaan
10.00 h	Improving barley utilization of n and p nutrients from soil amended with bio-digested cattle manure Xiying Hao, Brett Hill, Pam Caffyn, AAFC, Virginia Nelson, ARD, Xiaomei Li		Estimation of biologically available heavy metal content of composts by various extraction methods and ICP-OES multielemental detection György Heltai, László Aleksza, Márk Horváth, Katalin Kovács, Anita Takács
10.15 h	Quality of liquid digestate as fertilizer – challenges for analytical procedures and regulations Roald Sørheim, Trond Knapp Harladsen and Espen Govasmark		Pelletized compost can be a superior alternative to phosphate fertilizer compared to bulk compost Yusuke Arakawa
<b>10.30 - 11.00 h Discussion / Coffee</b>			

**Day 2 - Morning      27<sup>th</sup> of June 2014**

	<b>ROOM I</b>	<b>ROOM II</b>	<b>ROOM III</b>
	<b>3/1/B. session: Biochar in agricultural practice</b> (Convenor: Imre Czinkota)	<b>1.2. Organic waste management as part of Nationally Appropriate (Climate) Mitigation Actions (NAMAs)</b> (Convenors: Dr. Konrad Soyez, Dr. Johannes Paul)	<b>3.3./B. The use of alternative organic nutrients in agriculture and horticulture</b> (Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)
11.00 h	Biochar and Compost usage in Farmland for Carbon Sequestration with Mitigating GHG Emission  Shuji Yoshizawa, Satoko TANAKA	Delineation of greenhouse gas emission reduction targets from Philippine waste sector legislation to support Nationally Appropriate Mitigation Actions (NAMA)  Konrad Soyez, Johannes Paul	Effect of compost treatments on the growth of the strain field area of apple trees, and on the number of fruits per tree  Anita Szabo ,Andrea Balla-Kovács, János Kátai, Imre Vágó
11.15 h	Examination of zinc adsorption capacity of soils treated with differentet pyrolysis products  Gabriella Rétháti, Vejzer A.; Gál, A.; Simon, B.; Füleky, Gy.	The NAMA Facility – Providing support for the implementation of NAMAs  <b>Reich Hendrikje</b>	Effects of storage methods on magnitude and routes of carbon and nitrogen losses during storage and maize nitrogen recovery after field application of solid cattle manure  G.A. Shah, J.C.J. Groota, P.W.G. Groot Koerkampc and E.A. Lantingaa
11.30 h	Influence of biochar and digestate on pesticide decontamination  Santanu Mukherjee ,Wolfgang Tappe, Lutz Weihermüller, Harry Vereecken, Peter Burauel	Potentialities of Nationally Appropriate Mitigation Actions (NAMAs) project for Brazilian National Policy on Solid Waste and National Policy on Climate Change implementation  Karina Souza, Tiago Ramalho	Use of compost from grape pomace as organic amendment for recovering a decayed pear ( <i>Pyrus communis</i> cv Packam's Triumph) ORCHARD  Hugo Poblete, Martinez, M.M; Ortega, R.
12.00 h	Elution experiment on biochar-soil and biochar-compost systems to investigate the leaching dynamics of nutrients and possible toxic components  Zsuzsanna Üveges	Monitoring, Reporting & Verification (MRV) – How environmental sciences can contribute to improving waste management practices in terms of climate protection and sustainability  Gerstmayr Bernhard, Krist	Crop response to alternative organic treatments  Natasha Mortimer, Fletcher, L & Velis, K
12.15 h	Analysis of organic matter and heavy metal extraction kinetics of different pyrolyzed waste fractions  Imre Czinkota Czinkota,Keresztes,Simándi. Rácz	NAMAs – Introduction of a new instrument for climate protection and its relevance for the waste sector  <b>Judith Wolf</b>	Sensitivity analysis of a dynamic soil-plant model for simulations of fate of pollutants after repeated applications of amendment on agricultural soils  Agathe Revallier, Jeanne Serre, Philippe Cambier, Stefan

	(Rétháti – Gulyás), Tolner		Trapp
12.30 h		Climate change mitigation through solid waste management <b>Wolfgang Pfaff-Simonate</b> A. Nassour, M.Nelles	
12.45 h		Decentralized Composting in Low Income Countries - Urban Land Price and Compost Value as Key Factor <b>Michele Giavini</b>	
<b>13.00 - 14.00 h LUNCH at University Restaurant</b>			
<b>Day 2 - Afternoon      27<sup>th</sup> of June 2014</b>			
14.00 - 15.00 h	<b>POSTER SESSION I. AND II.</b>		
<b>Day 2 - Afternoon      27<sup>th</sup> of June 2014</b>			
	ROOM I	ROOM II	ROOM III
	<b>3.2. Fate of organic matter (OM) in the composts and digestates and in the treated soils</b> (Convenors: Dr. Marianna Makádi, Florian Amlinger)	<b>3.4./A. Waste-to-Product</b> (Convenors: Dr. Antoni Sánchez, Teresa Gea,)	<b>2.5. Emissions and immissions of biological waste treatment</b> (Convenor: Thomas Terpetschnig, Yael Laor)
15.00 h	A new organic matter fractionation methodology applied on a large panel of organic wastes: accessibility characterization for bioaccessibility prediction and process modelling improvement Jimenez Julie, Q. Aemig, I. Feurgard, S. Houot, J-P. Steyer, D. Patureau	When product status is not enough – the development of a UK Renewable Fertilizer Matrix David Tompkins and Will McManus , Brian Chambers and Matt Taylor	The challenge of sampling and assessing odor emission from open-air composting windrows <b>Yael Laor</b>
15.15 h	Organic matter transformation drives the fate of organic micropollutants during anaerobic digestion and composting of sludge Quentin Aemig, CHERON Claire, DELGENES Nadine, BERGHEAUD Valérie, DUMENY Valérie, HOUOT Sabine, PATUREAU Dominique	Define waste criteria for the production of high quality compost Antonis Zorpas, Katia Lasaridi, Irene Voukkali	Comparison of the odour immissions from GORE® Cover systems and tunnel composting systems <b>Thorsten Wittemeier</b>

15.30 h	Digestates origin and post-treatment influence their biological stability and potential nitrogen availability for plants Houot Sabine, Colin, Orvain, Ochoa, Bacheley	Development of sustainable potting soil based on green compost and other organic recycled materials <b>Barbara Hoekstra</b>	Comparison of the odour emissions and immissions from GORE® Cover systems and tunnel composting systems subject to the Federal Republic of Germany regulation <b>Sabine Barth</b>
15.45 h	Digestate and Compost qualities focus on nitrogen and organic matter respective brings to crops and to cultivated soils Martel Jean Luc, Monique ALLAIN	Wood ash improves composting processes and end products Marina Fernández-Delgado Juárez, Prähauser, Barbara; Franke-Whittle, Ingrid; Insam, Heribert	Defects and efforts approach in the use of biofilter for waste gas purification <b>Renate Huebner</b>
16.00 h	Increasing the organic matter content of sandy soils using sewage sludge compost Marianna Makádi, Tomócsik Attila, Aranyos Tibor, Demeter Ibolya, Szegi Tamás, Boros Norbert, Fehér Bernadett	Digestates main characteristics and residual biodegradability: influence of waste origin and management of the digestion plant Anne Trémier, Buffet J., Daumoin M., Picard S., Saint-Cast P.	Greenhouse gases from composting and anaerobic digestion of biowaste in Germany <b>Carsten Cuhls</b>
16.15 h			Simulation of long term carbon and nitrogen dynamics in grassland-based dairy farming systems to evaluate NH3 mitigation strategies G.A. Shah, J.C.J. Groota, P.W.G. Groot Koerkampc and E.A. Lantingaa
<b>16.30 - 17.00 h Discussion / Coffee</b>			

Day 2 - Afternoon      27 <sup>th</sup> of June 2014			
	ROOM I	ROOM II	ROOM III
17.00-19.00	<b>2.3. Advanced Waste Process Controlling</b> (Convenors: Prof. Dr. János Tamás, Dr. Mézes Lili)	<b>3.4./B. Waste-to-Product</b> (Convenors: Dr. Antoni Sánchez, Teresa Gea,)	<b>3.5. Pathogen (plant and animal) Survival/Sanitary Assurance of Final Compost</b> (Convenor: Dr. Daryl McCartney)

17.00 h	The artefacts map for waste treatment plants - working optimization for laboratories with fermentation units <b>Laura Weitze</b>	GLOCAL – An ecosystem-based business model Teresa Gea, Rodrigo Bautista, Tom Domen, Hugh Knowles, Antoni Sánchez, Elke Theeuwes, Daniel Wahl, Anna Warrington	Quality Assurance of compost and digestate products in Flanders, a safeguard for product quality <b>Wim Vanden Auweele</b>
17.15 h	Surface temperature analyses of sewage sludge based open air composting Gergely Hunyadi, Juhász Csaba, János Tamás	Protease production from organic residues by SSF and their potential uses Juliana Abraham, Teresa Gea, Antoni Sanchez	Examining the VBNC induction and regrowth in E.coli and Salmonella exposed to a simulated thermophilic condition of a composting pile Pulat Isobaev, Daryl McCartney and Norman Neumann
17.30 h	Optimisation of the starting up of swine manure methanisation at low temperature Dabert Patrick, J. MORIZUR, K. JAZIRI, T. LENDORMI, J. BUFFET, S. LE ROUX, S. BARRINGTON, F. BELINE	Recovery of nutrients from Organic Fraction of Municipal Sólid Waste (OFMSW) in the Ecoparc 2 of Montcada i Reixac, Barcelona: alternatives to the current process August Bonmatí, Manuel Mena, August Bonmatí, Montserrat Pujolà, Josep Tarraga, Jordi Comas	Mapping composting bioaerosol dispersal using pine needles Godon Jean Jacques, Amandine Galès, Nathalie Wéry, Eric Latrille, Jean Philippe Steyer
17.45 h	Biogas controlling system testing with poultry feather recycling Lili Mézes, János Tamás	Design and validation of an Action Plan to produce animal feed vegetable flour from food waste David San Martin, Jaime Zufia	Assessment of home composting through stability indices and pathogen inactivation <b>Katia Lasaridi, K.-E. Lasaridi</b> , A. Kyriacou, I. Chatzipavlidis, K. Abeliotis, A.A. Zorpas, C. Chroni, M. Koufopoulos, M. Miniadis and A. Sgoubopoulou
18.00 h	Preliminary evaluation of nutrient indices to estimate compost maturity Rodrigo Ortega, Maria Mercedes Martinez	Remediation of Organic and Inorganic Contaminants with BioChar, a Low Cost Green Adsorbent Developed from Biomass Fast Pyrolysis Dinesh Mohan, Philip H. Steele, and Charles U. Pittman Jr.	
<b>18.15 - 18.45 h Discussion</b>			
16.00-	<b>ECN Annual meeting</b>	Separate room	

# ORBIT 2014 Sessions

## 1. BIOWASTE POLICIES AND STRATEGIES

### **1.1 Agronomical-pastoral composting system in developing countries**

(Convenors: Dr. Mamadou Amadou Seck, Dr. Mariana Cerca)

### **1.2. Organic waste management as part of Nationally Appropriate (Climate) Mitigation Actions (NAMAs)**

(Convenors: Dr. Konrad Soyez, Dr. Johannes Paul)

#### **1.3. /A. Waste prevention - Waste reduction - Separate collection**

(Convenors: Dr. Katia Lasaridi, Dr. Antonis Zorpas)

#### **/B. Waste prevention - Waste reduction - Separate collection**

(Convenors: Dr. Katia Lasaridi, Christian Garaffa)

### **1.4. The competition for biowaste: energy production versus high quality soil improvers**

(Convenors: Dr. Arjen Brinkmann, Dr.-Ing. Wolfgang Müller)

## 2. TREATMENT PROCESS MANAGEMENT

### **2.1. Biological Industrial Treatment of Organic Waste**

(Convenors: Catherine Milhau, Ricardo Arribas)

#### **2.2./A. Bioprocessing: aerobic and anaerobic degradation**

(Convenor: Dr. Ljudmilla Bokányi)

#### **/B. Bioprocessing: aerobic and anaerobic degradation**

(Convenor: Dr. Ljudmilla Bokányi)

### **2.3. Advanced Waste Process Controlling**

(Convenors: Prof. Dr. János Tamás, Dr. Mézes Lili)

### **2.4. Energy from biomass**

(Convenor: Prof. Dr. Marco de Bertoldi)

### **2.5. Emissions and immissions of biological waste treatment**

(Convenor: Thomas Terpetschnig, Yael Laor)

## ORBIT 2014 Sessions

### 3. PRODUCTS FROM BIOWASTE, COMPOST, DIGESTATE AND BIOCHAR

**3.1./A. Compost and digestate in agricultural practice** (Convenor: Dr. Péter Simándi)  
**/B. session: Biochar in agricultural practice** (Convenor: Edward Someus)

**3.2. Fate of organic matter (OM) in the composts and digestates and in the treated soils**  
(Convenors: Dr. Marianna Makádi, Florian Amlinger)

**3.3./A. The use of alternative organic nutrients in agriculture and horticulture**  
(Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)  
**/B. The use of alternative organic nutrients in agriculture and horticulture**  
(Convenors: Dr. Louise Fletcher, Prof. Dr. Ed Stentiford)

**3.4./A. Waste-to-Product**  
(Convenors: Dr. Antoni Sánchez, Teresa Gea)  
**/B. Waste-to-Product**  
(Convenors: Dr. Antoni Sánchez, Teresa Gea)

**3.5. Pathogen (plant and animal) Survival/Sanitary Assurance of Final Compost**  
(Convenor: Dr. Daryl McCartney)

## Poster presentations



Identifying the factors influencing environmental attitudes and behaviors of rural population in Crete, Greece	Fenia Galliou
Evolution of carbon and total nitrogen during vermicomposting of putrescible waste using various types of vermibedding (chestnut leaves, vermiculite, soil and vermicompost).	Hasina Ghiti
CATAOLEO Project: prevention of environmental impacts from the recycling of waste oils and fats and social inclusion of waste pickers in Brazil	Karina Souza
Selective collection of biodegradable municipal waste in tourist destinations for climate mitigation: issues of inefficiency in the case of Verdecoop cooperative, Bahia - Brazil	Karina Souza
Operational viability of including selective biowaste collection in the city of Campo Grande, MS, Brazil	Tiago Ramalho
Degradation of similar Iprodione pesticides and their dichloroanilines (DCAs) metabolites by pesticide-degrading rhizobacteria.	Marco Campos
Aerobic Composting of Livestock Manure by Thermophile and Enzymes	Toshiaki Kimura
Pulsed Electric Fields (PEF) as pretreatment to enhance anaerobic digestion	Thomas LENDORMI
Characterization of street fairs's organic waste from GuarulhosBrazil and alternative possibles of valuation	Ednilson Viana
Biogas from fruit and vegetable waste in a decentral process	Brigitte Kempter-Regel
Quality of liquid digestate as fertilizer – challenges for analytical procedures and regulations	Roald Sørheim
Effect of organic material input on the crush strength of seven granulated organo-mineral fertilisers	Antoine Karam
Diethyl phthalate bioaccumulation and physiological response in plants	Liisa Maunuksela
The effect of calcium carbonate, compost and biochars treatments on the chemical properties and solubility of organic materials of sandy soils	Annamaria Holes
Horse manure co-composted with biochar affects degradation process and compost quality	Helis Rossner

The effect of municipal organic waste compost on the spring barley	Helis Rossner
Investigation of spectral properties of high organic matter content wastes and soil-waste complexes	Adam Csorba
Soil physical measurements in a long-term sewage sludge compost experiment	Tibor Aranyos
Evolution of the microbial activity in wheat straw-compost amended soils under polluted conditions (Cu-As).	Jorge Medina
Recovery of holocellulose from soil-incorporated organic residues using the van Soest method	Antoine Karam
Occurrence of tetracycline in sewage sludge and effect of the soil type on tetracycline adsorption	Carolina Ivon Inostroza Huaracán
Sources of nitrogen in organic farming	Maja Manojlovic
Nutrients from anaerobic digestates in a range of ornamental and edible horticultural applications	David Tompkins
Vermicompost and vermi-leachate impact on strawberry yield and fruit quality	Ranko Čabilovski
GIS based decision making tool for helping to implement the valorization alternatives of biogas and animal feed from organic waste	David San Martin
The use of elemental sulphur to control pH in potting soil mixtures with green waste compost	Bart Vandecasteele
Chemical and biological changes during composting of disposable diapers with organic wastes.	Alejandra Cartes
Volunteers to translate waste prevention policy to citizens	Kristof Van Stichelen
Evolution of vineyard soil organic matter contents after repeated inputs of various composts in different pedoclimatic contexts: statistical analysis of a field experiment network	Alix Bell