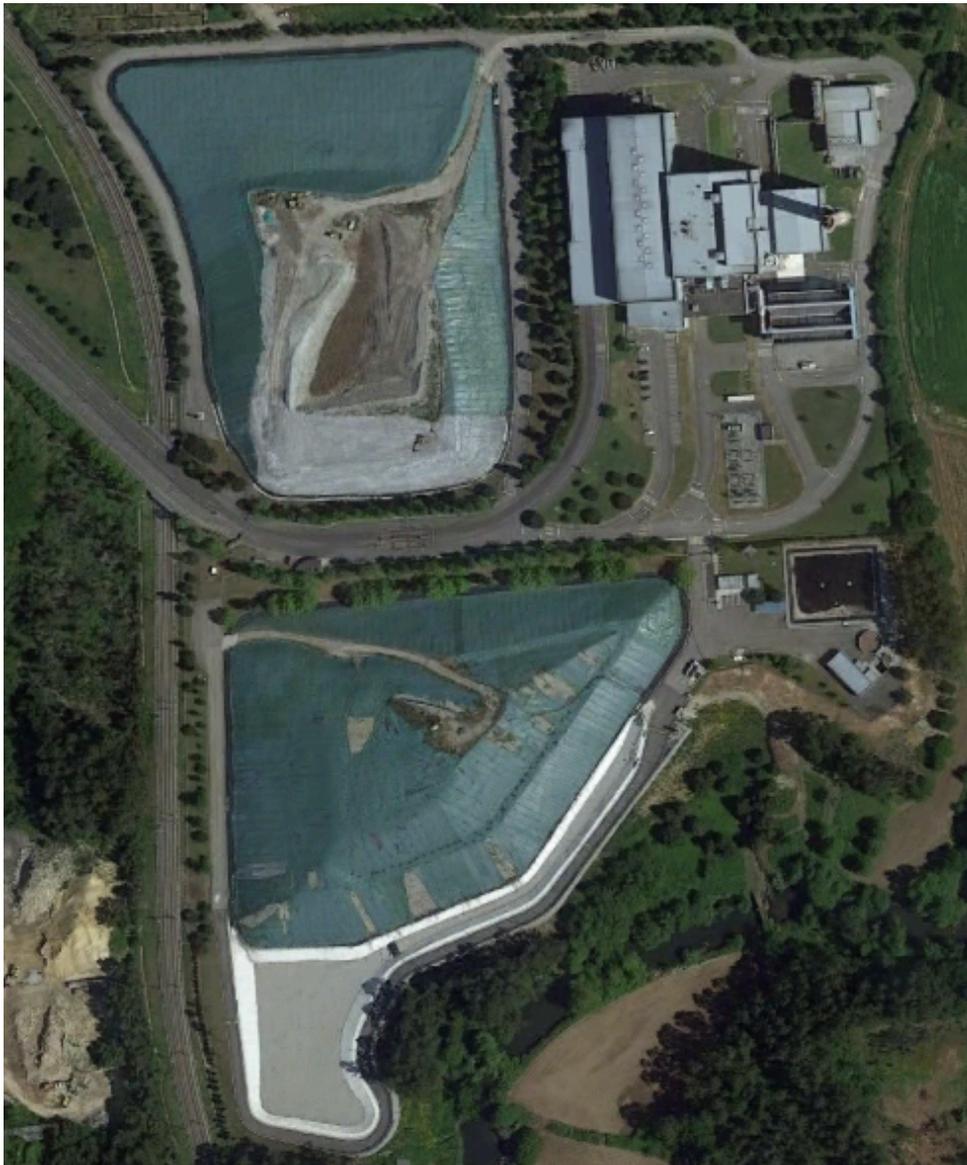


# LANDFILL MINING WORKSHOP



*Picture: LIPOR's landfill site birds eye view ©*

*28<sup>th</sup> of June 2016 – Baguim do Monte – PORTUGAL*

*14:30 - 17:30*

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## 1. OVERVIEW

This interactive workshop, organized by ISWA's Working Group on Landfill and APESB (ISWA's Portuguese National Member), offers an expert overview of the current issues and developing trends on LANDFILL MINING.

Landfill remains the predominant disposal technology for waste management worldwide and is likely to do so for the foreseeable future particularly where open dumping remains as current practice.

Europe estimates suggest that there are somewhere between 150,000 and 500,000 landfill sites, either closed or still operational, in the EU-28.

For several reasons, like secondary resource (base metals, precious metals, construction materials and waste-derived fuels) harvesting for new materials manufacturing and for energy production, implementation of remediation measures due to environmental and health concerns and land-availability needs, landfill mining is becoming an important topic on waste management.

This workshop will take participants through the process of landfill mining, highlighting technical and economical aspects. It will also address some case studies from US and Denmark.

As a delegate, you will learn about the key areas and critical issues to consider in planning and implementation of landfill mining.

## 2. WHO SHOULD ATTEND

This workshop is designed for:

- + Senior executives from companies with landfill facilities
- + Landfill operators
- + Landfill project experts
- + Waste management specialists
- + National and local government professionals
- + Research and academic experts
- + Technology suppliers

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+ Consultants and business development professionals  
seeking to address landfill management challenges in the context of landfill mining.

### **3. PROGRAMME**

Overview and new trends on landfill mining – Luís Marinheiro

Delegates will learn some basic and detailed concepts on landfill mining and its relevance. An overview of some projects and studies will also be presented.

Economic aspects of landfill mining – René Møller Rosendal

Attendees will learn key components of economic assessment of landfill mining projects.

Case studies of landfill mining in U.S. – James Law

This presentation is specifically designed for presentation of some landfill mining projects in the United States.

Case studies of landfill mining in Denmark – René Møller Rosendal

This presentation is specifically designed for presentation of some landfill mining projects in Denmark.

## 4. TIMETABLE

Time	Description	Lecturer
14:00 – 14:30	<i>Registration</i>	
14:30 – 14:45	Opening Ceremony	<p>Aires Pereira [LIPOR - Chairman of the Board of Directors] [PT] *</p> <p>Paulo Ramísio [APESB - Chairman of the Board] [PT] *</p> <p>Luís Marinheiro [ISWA - Chair of Working Group on Landfill] [PT]</p>
14:45 – 15:00	Introduction to ISWA	Luís Marinheiro [ISWA - Chair of Working Group on Landfill] [PT]
15:00 – 15:30	Overview and new trends on landfill mining	Luís Marinheiro [ISWA - Chair of Working Group on Landfill] [PT]
15:30 – 16:00	Economic aspects of landfill mining	René Møller Rosendal [Danish Waste Solutions ApS] [DK]
16:00 – 16:20	<i>Coffee-break</i>	
16:20 – 16:40	Landfill mining: case studies in the U.S.	James Law [SCS Engineers] [USA]
16:40 – 17:00	Landfill mining: case studies in Denmark	René Møller Rosendal [Danish Waste Solutions ApS] [DK]
17:00 – 17:20	Q&A	
17:20 – 17:30	Final conclusions	<p>Fernando Leite [LIPOR - General Manager] [PT]</p> <p>Luís Marinheiro [ISWA - Chair of Working Group on Landfill] [PT]</p>

\* - to be confirmed.

## 5. LECTURERS



Luís Marinheiro

Luís Marinheiro is the Chair of the ISWA's Working Group on Landfills and also serves ISWA as a member of the Board of the Scientific and Technical Committee and member of the European Group.

Luís Marinheiro is an environmental engineer and has worked in both the public and private sectors of the waste management for well over 20 years. At the beginning he benefited from working in a small company marketing international equipment for landfill leachate treatment and landfill gas treatment. This gave him the opportunity to be involved with the day to day activities of landfill operation. This practical experience together with his academic background and his wastewater industry knowledge gave him the skills and knowledge that were necessary to become technical director of one of Portugal's leading company on waste management. In that role he was responsible for general coordination, design, execution and operation of urban services (collection, transportation and transfer of solid waste) and of waste treatment and landfill projects, as well as for providing technical input to applications for master planning, environmental assessment and site permits. Working as a consultant, advisor, coordinator and technical director, Luís was also manager and coordinator of several projects and contracts to provide services in various environmental areas such as waste management, drainage and wastewater treatment, sustainable construction, environmental impact assessment and environmental management. Nowadays, Luís works as senior independent consultant on environmental engineering.

Luís Marinheiro holds an Environmental Engineering Degree (University of Aveiro, Portugal, 1996) and a Biological Engineering Master Science (University of Minho, Portugal, 1999).



James Law

James Law has worked in the solid waste industry and is a Project Director with SCS Engineers for 25 years. He has a total of 30 years of experience in civil/ geotechnical/landfill engineering and solid waste management on both national and international projects. James serves as the Vice-Chair of the ISWA's Working Group on Landfill and is a member of the ISWA's Board of the Scientific and Technical Committee. He is certified by ISWA as an International Waste Manager. James is also an active member in the Landfill Management Technical Division of the Solid Waste Association of North America where he is certified as Manager in Landfill Operations as well as Leachate Management & Bioreactor Landfills.

James graduated with a Bachelor of Applied Science and Master of Engineering in Geotechnical Engineering at the University of Toronto. He is licensed as Professional Engineer in multiple states in the USA and certified as BCEE by the American Academy of Environmental Engineers with specialty in Environmental Sustainability.



René Rosendal

René Rosendal is a partner in the consultancy company Danish Waste Solutions ApS, which is an independent consulting company offering expert services within the management of waste and resources with particular emphasis on environmental aspects. He has been working as a waste professional for fourteen years both in the public and the private waste sector.

He has from years of experience within the public waste sector in Denmark and consultancy and management and performance of R&D projects for industry, waste management companies and public authorities, mainly working with landfilling of waste, Landfill Mining contaminated soil and reuse of aggregates and C&D waste. He participates in a number of networks and organizations and is a member of EURELCO, IWWG, DAKOFA and ISWA as the national representative in the Working Group on Landfill.

René Rosendal holds an MSc Degree in Geography and Technology and Science (TEK-SAM) (University of Roskilde, Denmark, 2003)

## 6. SPONSORS

Their support was of utmost importance to bring you this programme.



## 7. DATE AND LOCATION

The Workshop will take place from 14:30 pm until 17:30 pm, on the 28th of June (Tuesday) at LIPOR – Serviço Intermunicipalizado de Gestão de Resíduos do Grande Porto.

More information:

[LIPOR - Serviço Intermunicipalizado de Gestão de Resíduos do Grande Porto](#)

Rua da Morena, N.º 805  
4435-996 Baguim do Monte, Portugal  
Tel. +351 229 770 100  
Fax + 351 229 756 038

Map:



GPS Coordinates:

41.199460, -8.545834

+41° 11' 58.06", -8° 32' 45.00"

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## 8. FEES AND REGISTRATION

The registration fee is 50,00 Euro (excluding taxes) and includes participation in the workshop, coffee-break, documentation and certificate.

The registration is free for ISWA members and APESB members.

Deadline for registration is 22<sup>th</sup> of June.

The registration shall be made by sending to the Secretariat the [registration form](#), duly completed and accompanied by the respective proof of payment. Only in this way the registration will be taken as valid.

Payments can be made by money order from APESB or by bank transfer to the NIB 0035.2167.00020647330.095 (Swift code: CGDIPTPL / IBAN: PT50 0035 2167 0002 0647 3309 5), sending proof of payment that identifies participant(s) to [apesb@apesb.org](mailto:apesb@apesb.org).

## 9. DOCUMENTATION

The presentations and other documentation, written in English, will be available electronically to the delegates after the workshop.

## 10. ACCOMMODATION

All participants make their own transport and hotel reservations. The costs regarding transportation and accommodation are not included in the registration fee and have to be paid by the participant.

The following hotels are placed not far from workshop location but availability is not guaranteed.

- Hotel Portas de Santa Rita (★★★★)

<http://hotelportasdesantarita.pt>

- Hotel Holiday Inn Express Porto Exponor | Leça da Palmeira (★★★)

<http://www.ihg.com/hotels/pt/pt/porto/prtpe/hoteldetail>

- Hotel Axis Porto Business & Spa Hotel | Porto (★★★★)

<http://www.axishoteis.com/pt/Axis-Hoteis/Hoteis/Axis-Porto/O-Hotel.aspx>

- Hotel AC Porto | Porto (★★★★)

<http://www.marriott.pt/hotels/travel/opopo-ac-hotel-porto/>

The following website might help you in locating a suitable transport or in choosing where to stay: <http://www.visitporto.travel/Visitar/Paginas/default.aspx>.

## 11. FURTHER INFORMATION

This workshop will be spoken in english and no translation will be available.

For registration and other information about the workshop, including available sponsorship and commercial opportunities, please contact the workshop secretariat

Dra. Carla Galier

APESB

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Phone: +351 218 443 849

Fax: +351 21 844 30 48

[www.apesb.org](http://www.apesb.org)

For further information about the workshop please contact:

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Fax: +43 1 253600199

[www.iswa.org](http://www.iswa.org)

## 12. REGISTRATION FORM

### Workshop on Landfill Mining

#### - REGISTRATION FORM -

<i>Name:</i>	
<i>Organization:</i>	
<i>Address:</i>	
<i>Postal code:</i>	
<i>City:</i>	
<i>Country:</i>	
<i>Tel.:</i>	
<i>E-mail:</i>	
<i>Date:</i>	
<i>Signature:</i>	