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## FEATURES 2020



# 18-20 MARCH 2020

 SEASIDE PAVILION, BEIRUT-LEBANON

**AN INTERNATIONAL PLATFORM FOR  
CATALYSING LEBANON'S SUSTAINABLE  
DEVELOPMENT**

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Organized By





## Working Towards A Sustainable Future:

Waste management is one of the biggest environmental challenges in Lebanon. The waste stream is steadily increasing in volume, especially with respect to municipal solid waste, industrial waste, hazardous waste and agricultural waste. The composition of waste is also becoming more complex and varied, containing increasing amounts of plastics, chemicals, and electronics, placing increasing demands for sustainable waste management strategy in Lebanon in order to safeguard human health, natural ecosystems and sustainable development.

As per conservative estimates, Lebanon generates around 7,000 tons of municipal solid waste per day, out of which 48 percent is landfilled, 29 percent openly dumped, 15 percent composted and only 8 percent recycled.

Waste Distribution by Governates (Tons/day)

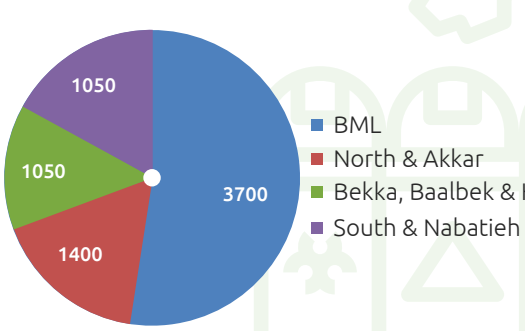


Fig:1

Urban/Rural

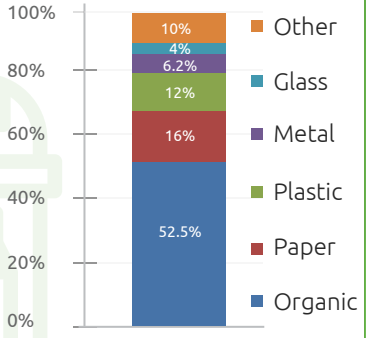


Fig:2

### The Government's New Waste Management Law:

The Lebanese government has recently unveiled the new waste management law which lays strong emphasis on implementation of the 4Rs of waste management – Reduce, Reuse, Recycling and Recovery (of energy). Serious efforts are underway to close hundreds of dumpsites across the country and replace them with engineered landfills and waste-to-energy facilities.



## LEBANON INDUSTRIAL WASTE 2020



### Working Towards A Sustainable Future:

Industrial waste management is a major problem in Lebanon which has exacerbated in recent years. Unlike other MENA countries, Lebanon is blessed with an abundant supply of freshwater resources but most of the water bodies in the country are highly polluted, primarily due to reckless discharge of untreated industries wastes. Due to the lack of wastewater treatment facilities, large amounts of industrial wastes, both solid industrial effluents and industrial wastewater are discarded directly into lakes, rivers, sea as well as on land.

The major polluting industries in Lebanon are food processing, cement, textiles, minerals, chemical products, metal fabrication and agriculture. According to conservative estimates, 70% of freshwater sources in Lebanon are exposed to untreated sewage from domestic and industrial sectors which has led to dangerously high levels of microbial contamination of water bodies.

The northern city of Tripoli has the highest reported cases of freshwater contamination while Nahr Ibrahim River and Litani River are regarded as the two most polluted rivers in Lebanon. In addition, there is restriction on the use of Qaraoun Lake for fishing because of the presence of heavy metal from industrial effluents.

There is an urgent need to implement industrial waste treatment strategies and adopt modern practices to treat and recycle industrial wastes as well as industrial wastewater, in order to ensure a sustainable future for Lebanon.





## The Need for Alternative Energy:

Lebanon’s energy sector is characterised by a significant supply-demand imbalance, high generation costs and a lack of financial sustainability. Most importantly, the current installed capacity is almost entirely dependent on fuel oil. In this context, Alternative energy can make huge contribution to Lebanon’s power sector, increasing the reliability of the power supply and decreasing the heavy reliance on fuel imports.

Lebanon’s National Renewable Energy Action Plan 2016-2020 is targeting 12 percent alternative energy in the national energy mix by the year 2020 and waste-to-energy is expected to play a key role in achieving this target. The waste-to-energy potential in Lebanon is conservatively estimated to be more 150MW.

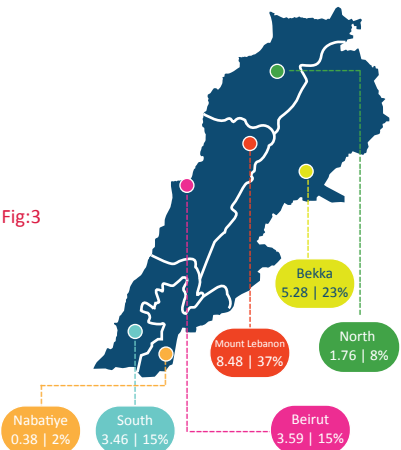


Fig:3 The top 3 Governorates leading the solar PV Market in Lebanon are Mount Lebanon with 8.48 MWp (up from 3 MWp), Bekka with 5.28 MWp (up from 1.8) and Beirut with 3.59 MWp ( up from 2.39 MWp).

Lebanon has attractive solar potential with a yearly Direct Normal Irradiation (DNI) exceeding 2100 kWh/m<sup>2</sup>. Many areas have DNA of more than 2,100 kWh/m<sup>2</sup> /y, which is ideal for CSP. For example, Hermel has a DNI of 2,445 kWh/m<sup>2</sup> /y, more than Seville in Spain. However, solar energy currently contributes less than 1 percent to the national energy mix.

Likewise, Lebanon has very wind energy potential, especially onshore wind. Lebanon’s potential onshore wind power capacity has been estimated at 6.1 GW. Hydropower is the most established renewable energy resource in Lebanon and contributes to around 4.5% of the energy mix with a nominal capacity of 280 MW.

Lebanon is steadily realising its renewable energy potential and aims to build on its current small-scale decentralised renewable energy projects to meet specific targets by 2020. These targets amount to a total installed capacity of 150 MW for solar PV farms, 200 MW for onshore wind and 50 MW for CSP. Notably, Lebanon has adopted the net metering scheme for wind and solar, which is held and regulated by Electricité du Liban (EDL), the electric utility.

## About Lebanon:

Lebanon has realized the importance of environment protection, resource conservation and sustainable development, and is making concerted efforts to make sustainability a by line for development. In recent years, Lebanon has been witnessing rapid growth in waste management, renewable energy, energy efficiency, water conservation, cleaner industrial production and sustainable urban development sectors.

Lebanon is undergoing a transition from a business-as-usual scenario to a sustainability-oriented development across all sectors.



## About the Event:

RAWMEC is Lebanon's largest recycling and waste management exhibition and conference.

It is part of a bigger platform called Lebanon Sustainability Week, which will focus on solid waste, industrial waste and alternative energy.

With participation from various stakeholders including decision-makers, industry experts, innovators, private sector, investors and academia, RAWMEC will provide impetus to sustainability initiatives in Lebanon and other regional countries.

Lebanon Sustainability Week will be a venue for knowledge-sharing, brainstorming, solutions delivery, technology transfer, peer networking and capacity building in the solid waste management, industrial waste management, industrial wastewater treatment and renewable energy sectors.



It will provide a deep understanding of social, economic, environmental and technology trends driving the sustainability sector and will help in implementing technology-driven solutions to key environmental problems in Lebanon.

## Event Objectives

The event will be a strong and unique platform to foster sustainability in Lebanon and facilitate a dialogue among different stakeholders to achieve the SDGs mentioned in United Nation's 2030 Agenda for Sustainable Development. LSW will be Lebanon's largest gathering of policy-makers, investors, public sector, private sector, academia and entrepreneurs and other stakeholders with the key objective of catalysing sustainable development and accelerating natural resource conservation.



**Conference:**

- 
**Day 1:** Focus on Solid Waste Management - 5 sessions – 12 presentations and 1 panel discussion.
- 
**Day 2:** Focus on Industrial Waste Management - 5 sessions – 12 presentations and 1 panel discussion.
- 
**Day 3:** Focus on Alternative Energy - 5 sessions – 12 presentations and 1 panel discussion.



**Exhibition:** The exhibition will run throughout the 3-day period.

**Lebanon Innovation contest:** A poster session for students to showcase their sustainability-related projects in the form of poster presentations.

**Lebanon Sustainability Award:** An award will be given for each category – Solid Waste Management, Industrial Waste Management, Alternative Energy and Wastewater Treatment.

**Pillars of Lebanon Sustainability Week**
**Sustainability**


- Government Ministries
- Environmental solutions companies
- Solid waste management companies
- Industrial waste management companies
- Hazardous waste management companies
- Landfill management companies
- Solar energy companies
- Wind energy companies
- Biomass energy companies
- Biogas technology companies
- Waste to Energy companies
- Energy management companies
- Energy storage companies
- Power distribution companies
- Power transmission companies
- Independent power producers
- Smart metering companies
- Wastewater treatment companies
- Environmental laboratories
- Mobility companies
- Real estate developers
- Facility management companies
- Water management companies
- Agro-industries
- Food/beverage manufacturing companies
- Smart technology companies
- Lighting solutions companies
- Automation companies
- Non-governmental organizations
- Market research companies
- Industrial equipment manufacturers





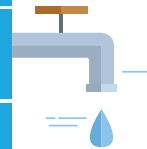
## Conference – Day 1 – Solid Waste Management

- |            |   |
|------------|---|
| Session 1: | Inaugural Session   |
| Session 2: | Waste Management in Lebanon – Current Situation, New Laws/Policies/Regulations and Key Projects |
| Session 3: | Recycling of Plastics   |
| Session 4: | Recycling of Scrap Metals   |
| Session 5: | Recycling of E-Waste  |
| Session 6: | Biomedical Waste Management   |



## Conference – Day 2 – Industrial Waste Management

- |            |  |
|------------|--|
| Session 1: | Inaugural Session  |
| Session 2: | Industrial Waste Management in Lebanon – Current Situation, New Laws/Policies/Regulations and Major Projects |
| Session 3: | Management of Industrial Wastes  |
| Session 4: | Management of Industrial Wastewater  |
| Session 5: | Renewable Energy from Industrial Wastewater  |
| Session 6: | Smart Water Management Solutions   |



## Conference – Day 3 – Alternative Energy

- |            |   |
|------------|---|
| Session 1: | Inaugural Session   |
| Session 2: | Alternative Energy in Lebanon – Estimated Potential, Current Situation, New Laws and Regulations and Key Projects |
| Session 3: | Waste-to-Energy   |
| Session 4: | Solar Energy  |
| Session 5: | Wind Energy   |
| Session 6: | Energy Management Systems   |



## WHO SHOULD VISIT?

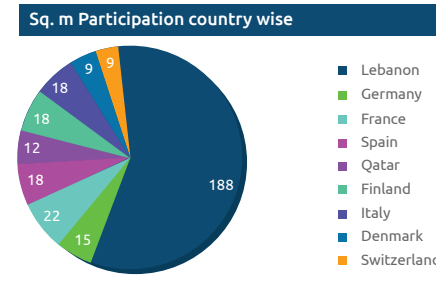
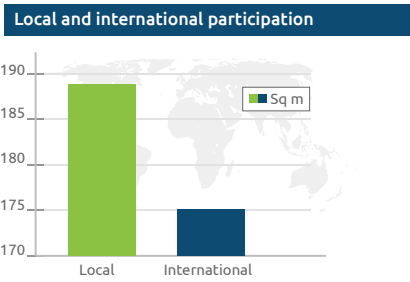
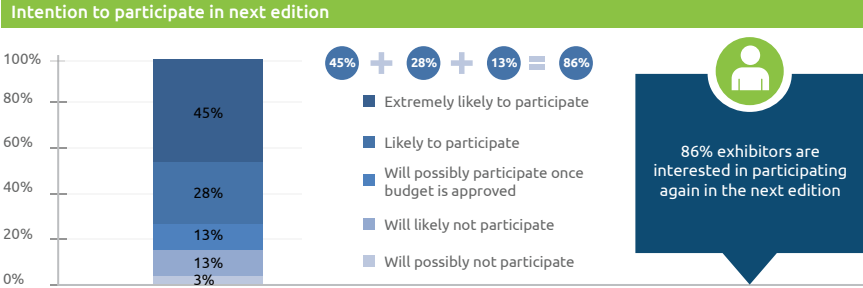
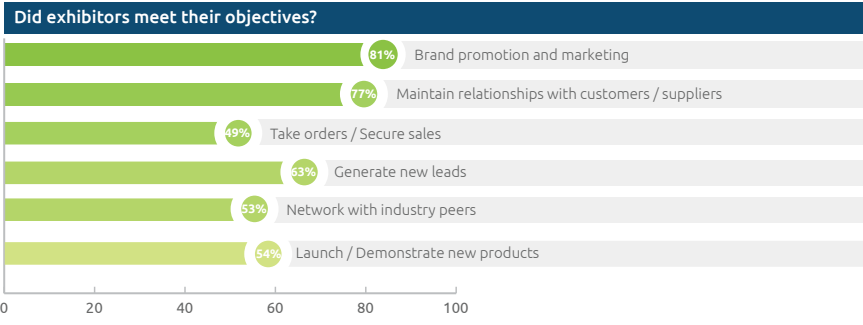
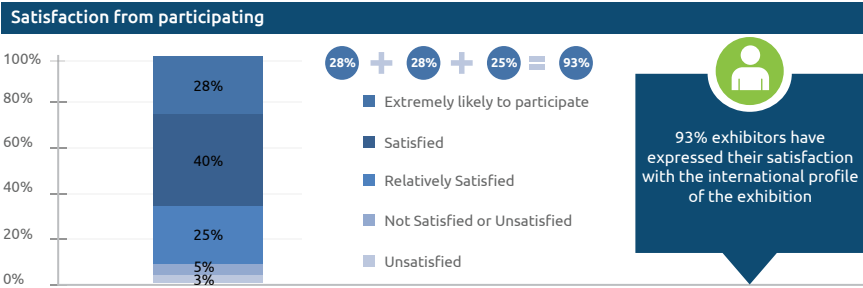
- 
- Government Officials & Authorities
  - Municipalities
  - Waste Management Agencies
  - Waste Management Industry
  - Wastewater Management Agencies
  - Wastewater treatment industry
  - Environmental Agencies
  - Air Quality Industry
  - Water Quality Industry
  - Pollution Control Companies
  - Facility Management Companies
  - Oil and Gas Industry
  - Construction Industry
  - Entrepreneurs and Innovators
  - Training Institutes and Research Agencies
  - Private as well as Institutional Investors
  - Commercial and Industrial Contractors
  - Students and researchers

**Representing Countries:**

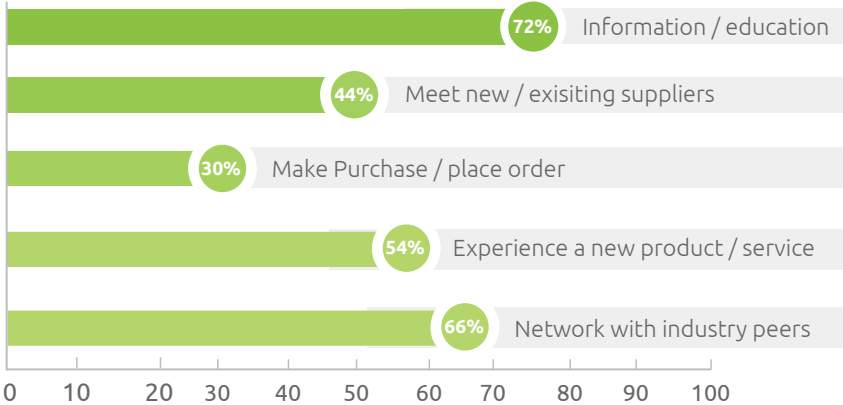


**Exhibition Statistics**

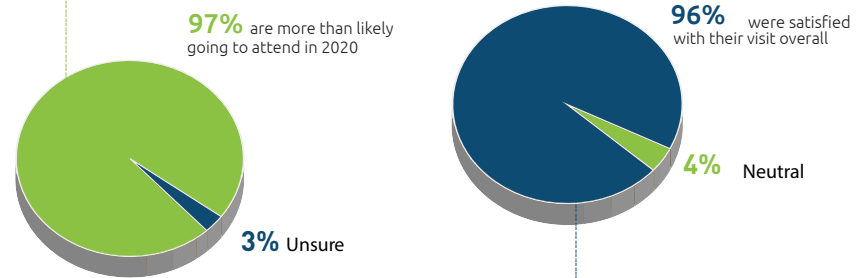
**Exhibitor Feedback**



## Did visitors meet their objectives?

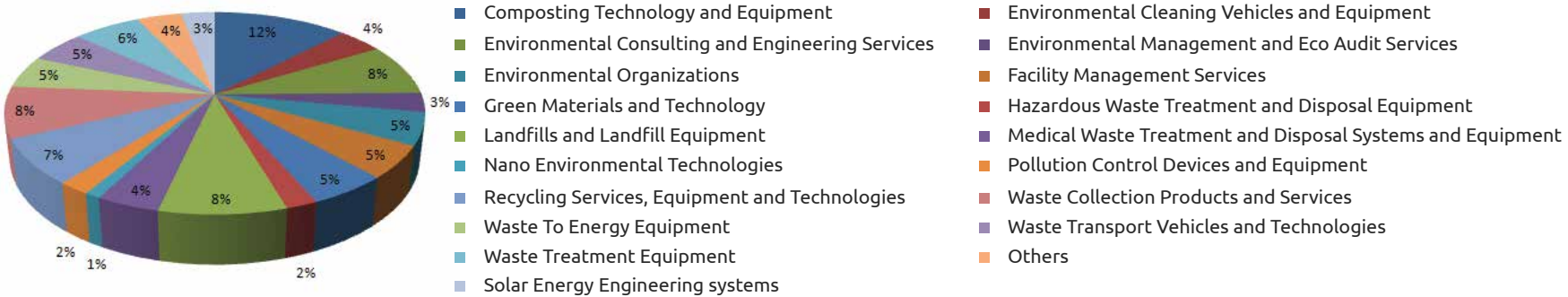


## Do visitors intend to participate in the next edition?



## Were visitors satisfied with their visit overall?

## Visitor Interest:



## The key speakers at the Conference

Tuesday – 9 April 2019 | Hilton Beirut Metropolitan Palace  
 08:00 - 09:20 | Inaugural session



**His Excellency Fady Jreissati**  
 Minister of Environment



**Antonis Mavropoulos**  
 President of ISWA

10:00 - 11:40 | Planning and Implementation



**Rozy Charitopoulou**  
 Director of Alternative Waste Management  
 Hellenic Recycling Agency (Greece)



**Rami Nassif**  
 Ministry of Environment

14:00 - 15:15 | Waste Hierarchy



**Saher Safi**  
 Head of Performance Improvement and Optimization  
 Viridor (UK)



**Edi Blatter**  
 Ex-CEO, SATOM SA and Chairman of Committee of Experts  
 CleantechAlps (Switzerland)

Wednesday – 10 Apr 2019 | Hilton Beirut Metropolitan Palace  
 08:55 - 10:00 | Waste-to-Energy Facilities



**Mohamed Belkacemi**  
 Area Manager, CNIM (France)



**Roni Araiji**  
 Regional Sales Director  
 Hitachi-Zosen Inova (UAE)

12:05 - 13:20 | Landfill Management Systems



**Andy Whiteman**  
 Director, RWA Group  
 (United Kingdom)



**Hubert de Chefdebien**  
 Deputy President, Confederation of European  
 Waste to Energy Plants (France)

15:40 - 16:55 | Financing of Waste Management Projects



**Badreddine Lasmar**  
 Director, ANGED (Tunisia)



**Bassam Sabagh**  
 Ministry of Environment

# 27

Number of Speakers

# 10

Number of Sessions

# 17

Countries Represented by Speakers

# 270

Number of Registered Delegates

# 25

Countries Represented by Delegates

## What Exhibitors Say:

The only exhibition organized in Lebanon where you meet real industry professionals and high-quality visitors. Lebanon Expo made in three days a special and professional platform for waste management.

**Panda Plast, Lebanon**

The Waste Management Expo 2019 exceeded my expectations. There is an ideal ambience to generate business with local companies.

**Hofstetter, Switzerland**

The expo and conference gave the opportunity to different local and international actors of the waste management in Lebanon to discuss on many topics, to meet and to follow the evolution of the environmental policies. Well-organized!

**SUEZ, France**

It was a very good experience for us with Lebanon Expo and we are very sure that the next edition will be better especially in the presence of an organizer like Lebanon Expo.

**Bou Chalhoub Est. , Lebanon**

It is exciting to hear and be part of Waste Management Exhibition/Conference held for the first time in Lebanon. The expo is very good and unique, and we will be coming back for the next edition of Waste Management Exhibition.

**REFMACS, Lebanon**

It was a pleasure to do business with Lebanon Expo. The organizers demonstrated high professionalism in the organization of the exhibition, and not to forget the continuous support. We are interested in next year's expo. Please share the floor plan once its ready..

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Lebanon



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Phoenix Energy s.a.l

Lebanon



BOU CHALHOUB EST

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Boom Waste Treatment Company

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Fimuskraft Ltd.Finland

Finland



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Turkey



MBS MAKINA-MUSTAFA BUYUKSALTIK...

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SUEZ International

France



CNIM Environment &amp; Energy

France



WBG

Germany



RMV Tech Ltd. Finland EU

Finland



SANSOX Oy

Finland



Worlds Best Water Ltd

Finland



HIDROMATIC

Italy



Green Orient

Lebanon



Refmacs Offshore SAL

Lebanon



Topcat

Lebanon



PANDA PLAST

Lebanon

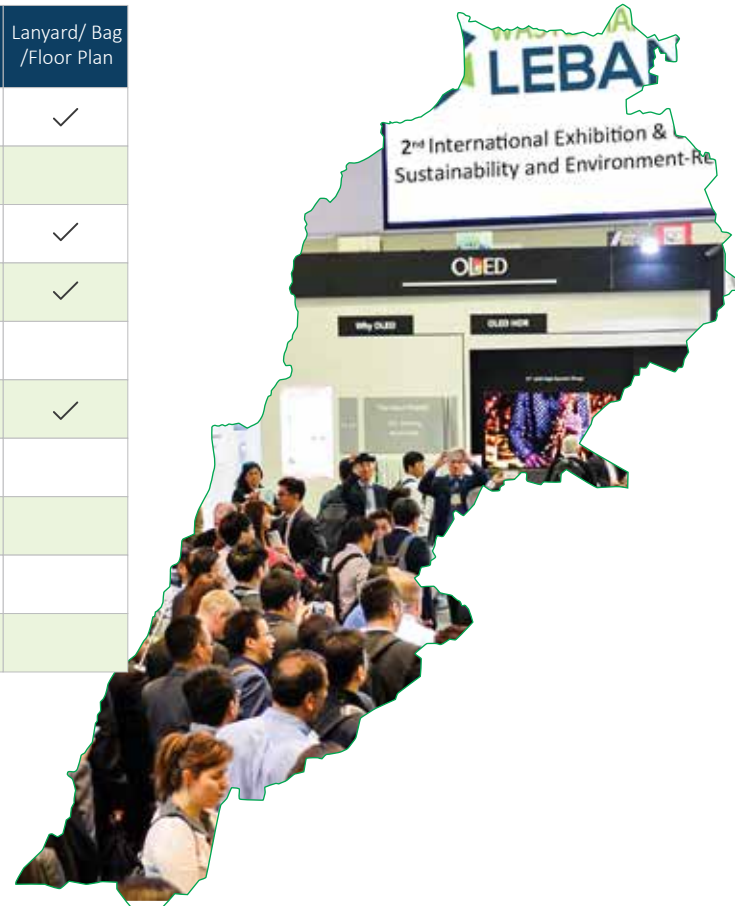


AMB Contracting SAL

Lebanon

Being a sponsor is an effective way to enhance your organization's visibility at the event, strengthen your existing client relationships and generate new business.

| Sponsorship Benefits<br>{rate per sqm}   | Lead             | Platinum        | Gold            | Silver | Cocktail<br>Reception | Registration<br>Desk | Lanyard/ Bag<br>/Floor Plan |
|--|------------------|-----------------|-----------------|--------|-----------------------|----------------------|-----------------------------|
| Pre-event promotional collaterals  | ✓                | ✓               | ✓               | ✓      | ✓                     | ✓                    | ✓                           |
| Conference Staging   | ✓                | ✓               | ✓               | ✓      | ✓                     |                      |                             |
| Exhibition Banners   | ✓                | ✓               | ✓               | ✓      | ✓                     | ✓                    | ✓                           |
| Website  | ✓                | ✓               | ✓               | ✓      | ✓                     | ✓                    | ✓                           |
| Showguide- Advert  | ✓                | ✓               | ✓               | ✓      |                       |                      |                             |
| Distribution of promotional materials<br>to conference attendees (bag or seat<br>drop) | ✓                | ✓               | ✓               |        | ✓                     | ✓                    | ✓                           |
| Additional roll up banners   | ✓                |                 |                 |        | ✓                     | ✓                    |                             |
| Acknowledgement cards  | ✓                |                 |                 |        | ✓                     | ✓                    |                             |
| Conference passes  | 12               | 8               | 5               | 3      |                       |                      |                             |
| Complimentary Exhibition Space<br>(space only)   | 12m <sup>2</sup> | 9m <sup>2</sup> | 6m <sup>2</sup> |        |                       |                      |                             |
| Speaking Slot- Keynote Day 1   | 1                |                 |                 |        |                       |                      |                             |
| Speaking Slot  |                  | 1               |                 |        |                       |                      |                             |
| Chairing   | ✓                |                 |                 |        |                       |                      |                             |
| VIP Table x2   | ✓                | ✓               |                 |        |                       |                      |                             |



## ORGANIZER'S PROFILE




**Lebanon Expo** is a Lebanon-based professional specialized B2B trade exhibitions, conferences and events organizer founded and managed by a group of experts who are well-versed and have long experience in the Meetings, Incentives, Conferences and Exhibitions (MICE) industry. It is composed of a team of highly capable and experienced members with a collective 30-year experience in developing and organizing successful events across industry verticals.

## BOOK YOUR STAND/GET IN TOUCH

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 **Riad I Soloh, P.O Box: 11-5977, Beirut, Lebanon**

### Shell Scheme

**USD 350** (per square meter)

This includes white panel walls, fascia and name board, carpeting, two spotlights, a 13-amp power socket, one table and two chairs



### Space only

**USD 300** (per square meter)

This consists only of bare floor space for those exhibitors who want to design and build their own stand. (Power supply will be charged separately)



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