

Slovenia Roadshow on Smart Cities, Energy and Water

Monday, April 13th, 2015 and Tuesday, April 14th, 2015

Ljubljana, Slovenia

Technology Park Ljubljana, Tehnološki park 19



Remarks: This is an additional roadshow program to basic invitation in Slovene language.

For more information and registration details, please contact:

Mr. Tomaž Vidonja

ICT Technology Network Institute

M: +386 40 272 118

E: tomaz.vidonja@ict-slovenia.net

Mr. Matej Gajzer

TECES

M: +386 41 904 653

E: matej.gajzer@teces.si

Mrs. Kristina Ober

Tehnološki park Ljubljana

M: +386 51 372 811

E: kristina.ober@tp-lj.si

Introduction

Owing to India's growing urban population and the increasing scarcity of resources, the new government is emphasizing on sustainable development. 120 million people are likely to migrate to cities over the next 6 years. The demand-supply gap of energy is one of the biggest issues that threatens growth. The energy deficit stands at about 4% today and is likely to widen with this rate of urbanization. The consequence of industrialization is heavily polluted water bodies that run through the heart of the country. The inevitable growth of industries will only pollute rivers further. Having anticipated these issues, the Indian government plans to mitigate these problems by developing 100 Smart sustainable cities, ushering huge investments in renewable energy generation, enforce regulatory restrictions to prevent industries from polluting and undertaking massive river cleanup activities.

ETI Dynamics in collaboration with the Hi.Tech Slovenia initiative is delighted to host a roadshow in Ljubljana, Slovenia. The intent of this event is to **provide insights into the Indian market and showcase business and project opportunities in the multitude of projects of ETI Dynamics**. Through this roadshow, we wish to encourage Slovenian entities to participate in our projects.

What are Smart Cities and why are they necessary?

Smart City refers to a structure that is environmentally responsible and resource efficient. They are designed to reduce the overall impact of the built environment on human health by efficiently using energy and water and protecting the occupant's health, improving productivity, reducing pollution, etc. Sophisticated communication infrastructure, reduction in energy & water consumption, reduced carbon dioxide emissions and limited solid waste are all characteristics that are typical to a smart sustainable city.

The urban landscape in India is characterized by the following:

- Urban Migration in India is increasing at a phenomenal rate of 30%. The urban population of India is estimated to touch 590 Million by 2050.
- The Urban electricity requirement stands at 77500 MW, of which nearly 56000 MW comes from thermal sources.
- The demand for water is estimated to increase by 40% by 2025. As of today close to 130 Million people do not have access to safe drinking water.
- About 43 Million tonnes of solid waste are generated by Urban India annually that ends up in landfills.

An energy and water crisis is imminent and the consequences can be disastrous. Sustainable practices are therefore paramount. By employing smart construction & design practices and incorporating innovative technologies, the energy consumption can be reduced by up to 50%, water consumption by 40% and waste generation by up to 70%. The Indian smart city landscape must – among other things – include practical urban strategies, avoid technological misfits & lapsed development permissions and ensure funding efficiency. Many ambitious smart city projects across the world have fallen victim to these problems. Building smaller, realizable smart cities with technologies adapted to the Indian ecosystem and a strong support infrastructure can help alleviate these roadblocks. The Indian smart city sector is still at its nascent stage and will require a carefully chalked out direction to develop expertise and a scalable model to eventually graduate to larger urban settings.

Inflating Energy Crises in India

Electricity from coal caters to more than 60% of energy requirements in India. Current consumption patterns are estimated to exhaust the current coal reserves in less than 50 years. The northern grid of the country alone faces a power deficit of 5.5%. Coal imports surged by 22% in 2013 and is among the biggest contributor to the Current Account Deficit. To keep operations running, industries resort to diesel run generators. The telecom sector for instance, consumes 2.5 Billion liters of diesel annually and emits 6.6 Million tons of carbon. Huge investments are therefore being injected into renewable energy generation. Regulations are becoming stringent to displace diesel used in generators. India has a potential to generate 94125 MW of electricity from renewable sources, only 30% of which is currently installed. It is, therefore, very essential that India develops a larger infrastructure to generate green energy. This will alleviate the import pressure on the economy and assist in conforming to strict regulations. Energy tariffs from wind have reached parity with energy from coal. Solar energy is also approaching parity. The government policies are moving in the right direction and will boost the renewable sector.

Indian Water Market Situation

In India, the water supply is still largely dominated by the state level bodies, public utilities and municipalities, most of which are suffering from financial problems. Millions of Indians not only have no access to potable water but also have no water source available within kilometres of their dwellings, due to the water supply still being largely dominated by the state level bodies, public utilities and municipalities and little involvement of private sector. Additionally, the infrastructure in terms of water and waste water treatment is inadequate, with only 26% of domestic

and 60% of industrial waste water being treated. Lack of institutional reforms and ineffective implementation of regulations by government has significantly affected the performance of the overall sector.

- In the next decade, the demand is expected to grow by 20%, primarily fueled by industrial requirements that are expected to double from 23.2 trillion liters at present to 47 trillion liters.
- The wastewater recycling and reuse concept is currently gaining recognition in India, due to development of strict laws, stringent wastewater discharge limits, and increasing scarcity of freshwater.
- The overall Indian water and wastewater treatment market size has a size of about to be about USD 420 million, growing at about 18% annually with certain segments like the industrial and drinking water segments seeing even higher growths. The Indian Water and Wastewater treatment market is at growth phase and is expected to reflect high growth rate for the next five years.
- Frost & Sullivan Analysis of Indian Water and Wastewater Treatment Equipment Market, finds that the market earned revenues of over USD 1.1 billion in 2011 and estimates this to reach USD 1.7 billion in 2016. The government sector is primarily involved in the raw water treatment and the sewage treatment operations.
- Indian water sector can create investment potential to the tune of USD 130 billion by 2030. Business opportunities revolve around four key themes viz. water demand management, water supply management, water infrastructure up gradation, and water utilities management

About the Roadshow

ETI Dynamics has a portfolio that consists of >20 projects worth 850 Million USD across 8 sectors of sustainability namely Smart Cities, Water, Energy, Waste, Urban Transport etc. All projects are financed by Zeus Environergy – the Asset Management arm of ETI Dynamics. Given the diversity of technologies and solutions that Slovenia has to offer, ETI Dynamics has the following proposition for Slovenian entities:

- **2 Industrial Effluent Treatment Projects Opportunities** involving Zero Liquid Discharge (ZLD) exclusively for Slovenian Companies.
- **2 Renewable Energy Generation Projects Opportunities** exclusively for Slovenian entities.
- **1 tower in the Neemrana Smart City project** that will incorporate only Slovenian Solutions (This section will entail the whole value chain of the project)

After the event and presentation on the various sectors on both April 13rd and 14th, 2015, companies interested in these project opportunities can meet the ETI Dynamics' team individually for a dedicated time slot available on the same day. This meeting will help individual companies to understand more about projects in different sectors, prospects of partnership and a roadmap for further engagement. Additionally, Slovenian companies are also invited to submit Expressions of Interest (Eoi) for all other projects in the portfolio of ETI Dynamics.

Roadshow Preliminary Program

Monday, April 13th, 2015

10:00 AM to 10:30 AM	Registrations and Refreshments
10:30 AM to 10:45 AM	Welcoming Remarks by Hi.Tech Slovenia
10:45 AM to 11:15 AM	Presentation delivered by ETI Dynamics on Energy & Water <ul style="list-style-type: none"> ➤ Current Market Scenario in India ➤ Tightening regulatory aspects ➤ Challenges in the Industry ➤ ETI Solutions and Technology Focus ➤ Innovation in technology, economic & financial models ➤ Project Portfolio of ETI Dynamics
11:15 AM to 11:45 AM	Tea Break
11:45 AM to 12:45 PM	Exclusive Project opportunities for Slovenian Entities <ul style="list-style-type: none"> ➤ Presentation of Projects ➤ Method of Engagement & Project Financing ➤ Active Discussions and Q&A
12.45 PM to 01:45 PM	Networking Lunch
01:45 PM to 04:00 PM	Individual Business Meetings

Tuesday, April 14th, 2015

10:00 AM to 10:30 AM	Registrations and Refreshments
10:30 AM to 10:45 AM	Welcoming Remarks by HiTech Slovenia
10:45 AM to 11.15 AM	Presentation delivered by ETI Dynamics on Smart Cities <ul style="list-style-type: none"> ➤ Current Market Scenario in India ➤ Tightening regulatory aspects ➤ Challenges in the Industry ➤ ETI Solutions and Technology Focus ➤ Innovation in technology, economic & financial models ➤ Project Portfolio of ETI Dynamics
11:15 AM to 11:45 AM	Tea Break
11:45 AM to 12:45 PM	Exclusive Project opportunities for Slovenian Entities <ul style="list-style-type: none"> ➤ Presentation of the Flagship India's First Private Smart City Project ➤ Method of Engagement & Project Financing ➤ Active Discussions and Q&A
12.45 PM to 01:45 PM	Networking Lunch
01:45 PM to 04:00 PM	Individual Business Meetings

Partners

 <p>etiDynamics Environment : Technology : Infrastructure</p>	<p>ETI Dynamics is a 360-degree economic impact firm that is focused on harnessing technologies and developing projects to inject sustainability in baseline sectors: Water, Energy, Smart Cities, Waste, Urban Transport, Sustainable Food & Agriculture, Green ICT and Green Manufacturing. Through a global network of experts, investors and collaborators, ETI Dynamics develops channels for accelerating innovative technologies to market. ETI Dynamics' core philosophy of breakthrough innovation and sustainability are embedded in their work. Through this approach, ETI aims at delivering sustainability through high economic impact and enhanced connectivity.</p> <p>Headquartered in UK and India, It has two core divisions: (1) Project Development and (2) Technology & Innovation. Through its Asset Management arm, the organisation also finances the identified projects using PPP/BOOT models. It is also able to bring in long term concessionary finance to the projects thereby significantly lowering the cost of capital and the economic value created.</p> <p>For more details visit: http://www.etidynamics.com/</p>
 <p>HI.TECH  SLOVENIA I FEEL SLOVENIA</p>	<p>Hi.Tech Slovenia connects high-tech companies in designing comprehensive solutions addressing most painful social, environmental and business challenges in order to effectively deliver value in international markets.</p> <p>Hi.Tech Slovenia is a national Slovenian initiative started in 2014 and lead by two national clusters ICT Technology Network Institute (http://www.ict-slovenia.net) and TECES (http://www.teces.si) and Technology Park Ljubljana (http://www.tp-lji.si). They all together connect few hundred technology based start-ups, SMEs and enterprises and actively engage them with the most proactive applied research institutes and laboratories in a creative and open innovation ecosystem.</p>