

Singapore to host the ITA Tunnelling & Underground Space Awards 2016:

A genuine laboratory of underground innovations in Asia

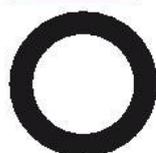
The International Tunnelling and Underground Space Association is organising the second edition of the ITA Tunnelling Awards, in order to recognise and reward the most ground-breaking achievements and innovations in underground infrastructures worldwide under 9 distinguished categories. This event will take place in Singapore at the Marina Bay Sands Hotel, on the 10th and 11th of November 2016. It will consist in a one-day technical conference with 8 high-profile keynote lectures (10 November 2016) dealing on innovation and productivity in tunnelling and in a one-day Award conference and Banquet Diner (11 November 2016), during which the Awards will be presented. Why Singapore? Being less than a half of land area of London, the city-state is an inspiration in its unique approach to the use of subterranean space. Furthermore it is a part of a continent where the tunnelling and underground space market is becoming more and more important (Asia represents 60 % of the global infrastructure spending by 2025).

An underground urban expansion for the world's third most densely populated nation:

Unlimited possibilities for development under the earth's surface: Singapore is the world's third most densely populated nation, with nearly 8,000 people per km², and with only 719.11 km² of surface area. Therefore, the land scarcity of Singapore has made its government to think three-dimensionally, integrating underground space both in the vertical and horizontal construction. The city-state has initiated a review of its urban development, in anticipation of its future needs and sustainability of its infrastructure. The ultimate objective aims at seeking both scientific and economic attractiveness. Following the amendments of the "State Lands Act" and the "Land Acquisition Act" by the Parliament, the City-State of Singapore is now the owner of the underground space located more than 30 meters below surface. Such amendments enable the government to

What are the current top underground projects in Singapore?

- The **Thomson – Eastcoast Line**, a 43 km fully underground mass rapid transit system with 31 stations requiring the use of over 40 TBMs.
- The **Jurong Rock Cavern**, a storage hub for hydrocarbons that could store up to 8 million barrels of oil.
- The **Singapore Cable Tunnel project**, 34.5 km long and 6 m diameter tunnels and deep shafts.
- The **Deep Tunnel Sewerage System Stage 2**, a cross-island superhighway of tunnels to convey used water by gravity to the city's three water reclamation plants.



acquire parcels of accessible underground space. Nowadays, beyond the parking, offices, shopping malls, restaurants and mixed-use infrastructure, Singapore mostly exploits tunnels and underground spaces as storage of arms and ammunitions, gas and hydrocarbons, for sewerage, power supply and, of course, as a way of connecting all areas of the city-state, notably with its underground expressways and an ever expanding underground rail transport network.

Regarding its innovative urban management, Singapore is deemed **an example in a rapidly urbanizing Asia that shelters 4.5 billion inhabitants and faces strong challenges in terms of urban expansion.**

Asia between rapid urbanization and economic growth: the need for underground infrastructures:

According to McKinsey, 33 % of the ASEAN (Association of Southeast Asian Nations) population live in cities. However, more than 90 million people are expected to move to urban areas by 2030, for professional reasons notably. The existing megalopolis, who will be the first to welcome them, are already confronted to the necessity of managing such demographic flows in terms of urban housing and public transports. \$7 trillion would be necessary to address the development of infrastructure. Faced with such an environment, the tunnelling industry is particularly dynamic across the Asian continent.

Large-scale underground infrastructure projects have been launched by Asian states, in an effort to provide pragmatic answers to demographic and transport issues, among which:

- ***the China-Thailand high-speed rail***, a \$23 billion project approved by the Thailand government to connect two of its high-speed railways to China's rail network by 2021 ;
- ***the Mass Rail Transit Jakarta***, a \$1.78 billion rail system of 110.3 km whose first phase (15.7 km, 13 stations) will be completed in 2018 ;
- ***the \$2.2 billion Klang Valley Mass Rail Transit in Kuala Lumpur***, Malaysia, aims at increasing public transport usage from 18 % in 2009 to 40 % by 2020, thanks to a 51 km rail network. The entire line, expected to welcome 1.2 million commuters, will be fully operational in 2017 ;
- ***the Kuala Lumpur-Singapore high-speed rail***, that focuses on reducing the travel time between the 2 cities by 90 minutes, for an estimated \$10.5 billion cost, will be finalized in 2020 ;
- and ***the Hong Kong section of the Express Rail Link***, a 26 km Express Rail Line that will connect Hong Kong to major Chinese mainland cities and save 42 million hours of travel time annually. The project, that amounts \$71.52 billion, is expected to be completed at the end of 2017.

A context that offers interesting perspectives of reflections for the upcoming ITA Tunnelling and Underground Space Awards 2016.



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The ITA Tunnelling & Underground Space Awards 2016 to take place in Singapore

With its ambitious approach of “smart nation”, following the example of “smart-city”, Singapore is a perfect venue to host, on November 10th and 11th 2016, the ITA Tunnelling and Underground Space Awards that will celebrate and reward innovative underground infrastructure projects and achievements.

This 2016 Awards edition will be rhythmized by two important highlights:

- On November 10th, a **one-day regional conference that will focus on innovation and productivity in the tunnelling industry through 8 high-profile keynote lectures.**
- On November 11th, the **one-day Awards Conference**, during which **stakeholders of the pre-selected entries will present their last updates of their underground infrastructure projects.**

The ITA Tunnelling Awards 2016 will close with a banquet dinner, where the winners will be announced and the projects of the following nine categories will be rewarded:

- Major Tunnelling Project of the Year - over €500m
- Tunnelling Project of the Year - between €50m and €500m
- Outstanding Tunnelling Project of the Year - up to €50m
- Renovation/Upgrading project of the Year
- Technical Innovation of the Year
- Environmental Initiative of the Year
- Safety Initiative of the Year
- Innovative Use of Underground Space
- Young Tunneller of the Year

The deadline to submit new entries has been extended to mid-June 2016. The submission requirements and selection process are stated in the ITA Tunnelling Awards website (<https://awards.ita-aites.org/>). The finalists will be announced by mid-July 2016.

For further details regarding the ITA Awards, please click on the following link:

<https://awards.ita-aites.org/>

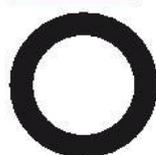
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About the International Tunnelling and Underground Space Association:

The International Tunnelling and Underground Space Association (ITA) is a non-profit and non-governmental international organization, which aims at promoting the use of underground space as a solution to sustainable development. Founded in 1974 and operating out of Lausanne, Switzerland, ITA currently associates 73 Member Nations, 300 affiliated members, 17 Prime Sponsors and 60 supporters.

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