

Development of Tunnelling Technology in China over the Past 40 Years

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Forum topics	<input type="checkbox"/> Energy in 21st Century	<input type="checkbox"/> Cultural Heritage in Digital World
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Abstract: (250 to 500 words: for each heading use the bullet points or narrative - the submission including graphics should not exceed one page)

Problems - Issues / Challenges-Needs	<p>Since the adoption of the reform and opening-up policy 40 years ago, China's achievements are remarkable and its tunnelling sector also witnesses significant development. Over the past four decades, the length of only traffic tunnels (railway, road and metro tunnels, not including hydropower tunnels, hydraulic tunnels and utility corridors, etc.) built in China has reached 33,000km, 15.8 times the total length of tunnels built before reform and opening-up. Meanwhile, the tunnelling technology in China has undergone a rapid development, characterized by the technological innovations in investigation, design, construction and equipment, and the breakthroughs in the construction of mega and complex tunnel projects. The presentation will cover the technical challenges and achievements in the construction of super long tunnels, great-depth tunnels, super-large tunnels and high-altitude tunnels. In addition, it will show the major technical challenges facing the Major Tunnel Projects to be built in the near future, and the development trends of tunnelling technology in China. It is generally acknowledged that the tunnel engineering achievements in China over the past 40 years would not have been possible without the benefits gained from the development of international tunnelling technology, while reciprocally, the development of tunnelling technology in China also contributes to the international tunnel engineering development.</p>
Solutions - Methods / Results - Findings	
Novelty - Value / Relevance to
Forum statement	...

Keywords: (up to 5 keywords)

Long tunnels; Great-depth tunnels; Large tunnels; High-altitude tunnel; China

Graphics: (please use the gray area below for *representative graphics* or *graphical summary*: select the gray area below and paste your graphics)