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Press

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Ho Chi Minh City can expect $1.4 billion in economic benefit by investing in resilience

- **Arup & Siemens present study on intelligent transportation systems (ITS)**
- **ITS an important lever to address the traffic congestion challenges**
- **Extreme weather exposing city infrastructure to more severe stresses**

Ho Chi Minh City (HCMC) could generate economic benefits of 1.4 billion US dollars by investing in making its transportation system more resilient in extreme weather conditions, a study released by Siemens and Arup today shows. Calculations based on a review of HCMC's transportation network illustrate that – without intelligent solutions – its traffic congestion is estimated to have a direct cost to the city's economy of approximately $97 billion between 2015 and 2045. Around 45 percent of the city is less than a meter above sea level, rendering the city and in particular, the transport system highly exposed to flooding, especially during the rainy season. An economic appraisal shows that an Integrated Management System (control center) would take only 8 years to become net positive in terms of costs and benefits. This could lead to a net benefit of $1.4 billion over the next 30 years.

"Infrastructure has a long lifespan. Investments made today will determinate the future development of any city tomorrow, especially when it has to cope with both population growth and an increase in severe weather events such as flooding," Michael Stevns, Siemens project leader of the study, said in HCMC.

"When a city relies heavily on individual traffic, the biggest lever is mass transport. Metro lines could be a solution, but they are very expensive and take very long to build. Intelligent traffic management systems can provide a head start for a more comprehensive mobility management approach", said Stephen Cook, Associate Director of Energy and Climate Change Consulting at Arup.

Siemens AG
Wittelsbacherplatz 2, 80333 Munich, Germany
Communications and Government Affairs
Head: Stephan Heimbach

In Ho Chi Minh City, where public transport only represents 5 percent of total traffic, the number of delay minutes is forecast to increase by 620 percent over the next 30 years assuming no investments are made in transportation infrastructure, according to Arup analysis. Recent evidence suggest that the frequency, extent and severity of extreme weather events is increasing around the world exposing cities' transport infrastructure to more severe stresses and sudden shock events. According to the World Bank, around 26 percent of the city's population is currently affected by extreme storm events, but this share could climb to more than 60 percent by 2050. The study shows that intelligent systems that forecast and respond to the impact of damaging weather events on the transportation system can ensure that periods of disruption are minimized and long-term economic sustainability is not undermined.

"Asia's tremendous economic growth is leading to an ever increasing rate of urbanization with infrastructure playing catch-up. One way out of this dilemma is to make cities' infrastructure more intelligent: ranging from decentralized power generation, smart energy grids to intelligent traffic management systems," said Roland Busch, member of the Siemens AG managing board, in HCMC. Also, these solutions all come with the added benefit of making cities more resilient to extreme weather events, Busch added.

Siemens and the consulting firm Arup prepared the study, to show how intelligent infrastructure can assist cities in addressing the increased demand and at the same time offer better protection of their transport networks against extreme weather events.

Siemens has a broad portfolio for urban infrastructure that helps cities become more resilient and sustainable. Solutions like smart grids and software solutions for rail automation, traffic management, evacuation management and building management systems contribute the most to minimizing the impact of natural hazards primarily because intelligent automation of infrastructures is a key success factor in making systems more flexible and easier to control and coordinate.

Contact for journalists:
Philipp Encz, Tel.: +49 89 636 32934
E-mail: philipp.encz@siemens.com

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