

**Smart, Sustainable Urban Transportation**  
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**Abstract**

This presentation discusses the prerequisites for the development of smart, sustainable urban transportation systems. It begins from the premise that we are entering a “fourth era” in urban transportation in which modern Information and Communications Technology (ICT) is creating unprecedented opportunities for improved real-time control and information services and new “smart mobility” services. The presentation discusses the “physics” of transportation networks which fundamentally determines network performance and which ultimately limits what can be accomplished, even with advanced technology. Given these inherent limits, addressing the transportation needs of the world’s mega-cities will also require improved, “smart” design of urban form, in combination with improved, multi-modal transportation services. The presentation concludes with some high-level policy implications for improving 21<sup>st</sup> Century urban transportation systems.