# Smart Cities: Concepts, Perceptions and Lessons for Planners

Tuan-Yee Ching and Joseph Ferreira, Jr.

## Abstract

What is a "smart" city? This paper examines concepts and perceptions of city officials from six "smart" cities, Boston, San Francisco, Amsterdam, Stockholm, Singapore and Rio de Janeiro. Their "smart" efforts, gathered through interviews and secondary sources, are analyzed against four theories of "smart" cities; (a) "smart machines" and informated organizations, (b) partnerships and collaboration, (c) learning and adaptation, and (d) investing for the future. The findings show that instead of converging toward a single definition of being "smart", the cities have taken different approaches in planning and implementation, and adopt different combinations of elements from the theories. The cities' experiences and elements of being "smart" are distilled and presented as learning points and pathways for other cities.

Tuan-Yee Ching (Corresponding author)
Urban Redevelopment Authority, Singapore 069118, Singapore.
Email: ching_tuan_yee@ura.gov.sg

Joseph Ferreira, Jr.
Massachusetts Institute of Technology, Cambridge, MA 02139, USA.
Email: jf@mit.edu