

THE NEW MOBILITY

As the world urbanizes, developing efficient transportation systems will be critical. To meet the challenge, policy makers will need to develop new skills and mind-sets.

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Imagine moving seamlessly from a wired, low-floor hydrogen bus, which you board from the sidewalk outside your home, to a sporty shared vehicle and then to an elegant, high-speed train or a plane or a green cab or a free bike or the parking lot where your own electric car is parked. Imagine you can use any combination of these modes, all door-to-door, all supported by mobile-phone applications or connection-point kiosks that give you information for each mode in real time, as well as integrated electronic fare-payment options, all hooked in to the cloud. Or perhaps you decide to skip the commute altogether and take advantage of telecommuting, tele-shopping, tele-banking, or tele-education instead, at home or at a shared neighborhood office. This will not only save you hours in the day but also 20 percent of your usual carbon dioxide emissions for the weekly commute for each day you work virtually.

This kind of connected transportation grid is starting to emerge in cities around the world, spurred by a rapidly urbanizing population that requires more diverse options that are connected and “smart.” It allows users to customize their multimodal trips for maximum efficiency. This is the “new mobility” revolution. And managed well, it can offer a powerful platform for regional development, sustainable community building, and economic transformation.

In practice, it’s not unlike your customized communications portfolio, in which your laptop or tablet connects to your desktop, camera, TV, printer, search engine, and more, all talking to each other seamlessly regardless of who made them. It doesn’t mean tossing out your desktop computer—it just means merging it with a more diverse and connected portfolio, allowing you to choose the best option for each task.

Beyond the obvious convenience and cost savings, a host of other benefits are beginning to reveal themselves in this world of new

mobility. Because the first step is to better utilize and connect what's already there, the initial level of implementation can happen right away, and may be as simple as mapping the existing grid, distributing the map to users, and making the connections easy to find on the street with signage and other "wayfinding" supports.

From there, engaging the right players in connecting existing options, identifying gaps, and collaborating on solutions can lay the groundwork for redesigning or even overhauling big region-wide systems such as IT infrastructure, land use and development, and urban design. But even when leadership, policy, and land use aren't optimal, it's possible to make significant improvements simply by using readily available information technology. This is key in a world where the need for sophisticated transportation solutions is growing quickly and public policy and land use are not keeping pace.

As the new-mobility grid evolves, some of the greatest benefits to cities and regions will be economic. Innovative small enterprises are already beginning to grow up around the new-mobility ecosystem. For example, companies that offer fractional-use services such as car share, bike share, and customized shuttles, as well as mobile-phone journey-planning apps and multimodal fare-payment technologies, are finding innovative ways to profit from the new-mobility grid. Meanwhile, established players are already mining the opportunities offered by the fast-growing next-generation transportation market: witness the urban-mobility initiative from Ford Motor Company, developed in partnership with SMART, the University of Michigan's sustainable transportation project, as well as smart-city businesses from Cisco Systems, IBM, and more. As industry clusters that cater to the emerging global transportation market form, they can also enhance regional competitiveness and spur job creation.



To reap the full benefits of the new-mobility revolution, city leaders and policy makers will need to embrace and nurture the transition. In such a complex and shifting space, there's no single best practice or strategy, but there are some general approaches that can inform policy and action.

First, leaders need to expand their view of transportation policy beyond Corporate Average Fuel Economy standards, highways, and even land use and urban planning to include the whole suite of areas related to the complex future of transportation in an urbanizing world. This includes information technology, finance and economic development, housing, energy, infrastructure, tourism, communications, education, social services, health, and more—all areas that are key to developing the new-mobility grid.

TIME TO RETHINK TRANSPORT?
Cars and trucks were stuck for ten days when road repairs brought traffic to a halt on a highway north of Beijing in 2010.

Policy should be developed with the user in mind. The goal should be to provide access, not movement for its own sake. We can attempt to improve transportation by adding infrastructure—for example, adding yet more lanes to the interstate—but increasingly such strategies are self-defeating (witness Beijing’s ten-day traffic jam last year). Often, it will make more sense to provide access through simple proximity—by bringing the things we need closer to where we need them. We can reduce the length of trips or eliminate trips altogether through better urban planning and design and through local production and distribution of goods, even food. Technology is another way to reduce travel; tele-services, for instance, allow people to work, shop, bank, learn, and get medical advice from almost anywhere. Shifting the overarching goal of transport policy to accessibility not only focuses on the needs of people rather than the mode or particular system, it also opens up a whole new set of innovation opportunities.

In transportation as in many other areas, technology and innovation are beginning to outpace the capacity to make policies that apply to them. As such, governments should

take a more nimble approach to policy making that supports frameworks for collaborative and regionally customized solutions and provides platforms for innovation, entrepreneurship, and economic conversion, rather than creating a rigid set of rules and regulations that become obsolete before they are even enacted.

Governments should support the development of capabilities related to new mobility, including systems thinking, multi-stakeholder project management, understanding new technologies and services, and entrepreneurship.

Policy makers need to rethink how to finance transportation to support a more realistic balance between operations and capital funding. Our current capital emphasis favors large and expensive infrastructure, even when it may not represent the optimal or most cost-effective solution for users or regional economies.

New mobility is already changing the way we move and live. And for governments that seize the opportunity, it can be a vehicle to vibrant, sustainable, and equitable communities and economies. *Carpe diem.* ■

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