

Leveraging Innovation and Technology

Lead the nation in supporting new mobility technology and innovations in shared transportation that reach all Bostonians

Vision

Imagine technologies that enable people in all neighborhoods to move more intelligently and efficiently. The creativity of Bostonians and local start-ups will drive improvements in mobility choice and user experience. New ways to travel will allow us to untether our reliance on fossil fuels. Boston will pursue unique demonstration projects to jump-start the adoption of new vehicles and strategies for moving people and goods.

Goals

Flexibility to accommodate disruptive mobility technologies

The arrival and adoption of new technology—such as autonomous cars, electric tricycles, and self-driving buses—is imminent. Boston will accommodate these and other emerging vehicle types by creating infrastructure networks that can be easily repurposed. Car and curbside lanes on major corridors like Columbia Road or in dense areas such as the Theater District will offer parking at some times and bus or bike lanes at others and serve as designated pick-up and drop-off locations for passengers and parcels. Traffic signals will adapt automatically, relying on sensors and algorithms to optimize the movement of people. New buses will be compatible with older fleet vehicles while leveraging emerging technology.

Innovation in on-demand services and real-time information for all

Travel apps and ride-hailing services have proliferated nation-wide. Boston will create the next generation of innovations that make travel easier, better coordinated, and more enjoyable while reducing cost, language, and other obstacles. Passengers at a hub like Dudley Station will accurately know their trip time and available travel options to places around the corner in Mission Hill or as far away as Washington, D.C. A single card or device will serve as a comprehensive platform to pay for all types of travel.

Smart energy grids connecting Boston's infrastructure

Plug-in and solar-powered infrastructure is installed every day citywide. Boston will interconnect these amenities into a smart, regenerating grid that efficiently allocates energy where and when it is needed. Solar panels on bus shelters along Key Bus Routes will feed charging stations for electric cars while clean fuel buses will recharge at major terminals such as Kenmore and Sullivan Squares with connections to wind and solar energy farms along the Mass Turnpike or at maintenance yards.

Crowdsourcing local talent and university expertise

The Boston area has one of the most educated workforces and strongest academic clusters in the world. Public agencies will continue to harness local talent and establish partnerships with universities, industry start-ups, and early-adopters to allow for experimentation in transportation. Collaborations will focus on creating an environment conducive to prototype testing and demonstration projects. Resources will be steered toward car and transit vehicle technology and the collection, sharing, and use of data.

Aspirational Targets

Every traffic signal will automatically adapt to bus, car, and bike demands.

— from 0% to 100%

The number of vehicles in the Boston region providing shared transportation such as carshare, bikeshare, ferries, and pop-up buses will double.

— from approximately 2,500 Hubway bikes, Zipcar vehicles, and Enterprise CarShare vehicles today to 5,000

The occupancy status of every metered on-street parking space in Boston will be available in real time.

— from none to 100%

The proportion of registered clean fuel vehicles will increase fivefold.

— from 0.1% of vehicles registered in Boston as electric and 2% as hybrid electric to a combined total of 10%

Pilot five demonstration projects every year that leverage new technology for mobility.

Questions Bostonians Asked

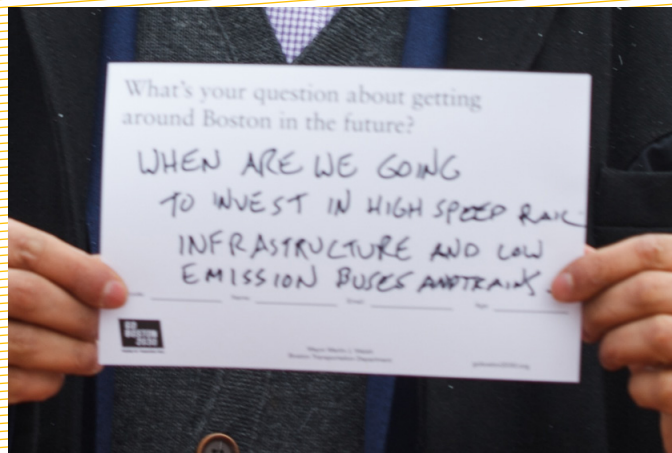
How can we use new technologies to move people faster, smarter, and more efficiently?

How can real time transit data help me?

How can commuting create energy, not just use it?

What if more parking spaces became park spaces?

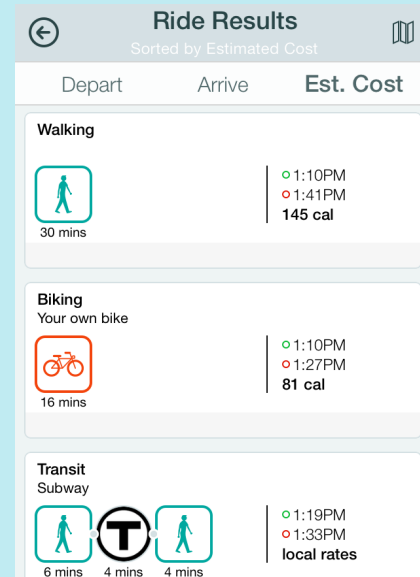
When are we going to invest in high speed rail infrastructure and low emission buses and trains?



“When are we going to invest in high speed rail infrastructure and low emission buses and trains?”
—Collected in January of 2015

New Apps for Trip Planning

Most people use their smart phones to find routes after they have selected their preferred mode. RideScout (now moovel) changes how people think about their trips by allowing users to decide whether time or cost matters more and compares trip options by looking at calories burned and dollars spent.



Preparing for Autonomous Vehicles with New Partnerships

Boston, along with Gothenburg, Sweden, and Singapore, was selected by the World Economic Forum (WEF) to work with the Boston Consulting Group on a study of the Future of Urban and Autonomous Mobility, which is considering the business models, use cases, and possible necessary regulation of autonomous vehicles. BTD has also been supporting the work of T4Mass's Innovative Mobility Roundtable that has brought to the discussion a wide range of practitioners, public leaders, consultants, and community advocates to consider the implications of change.

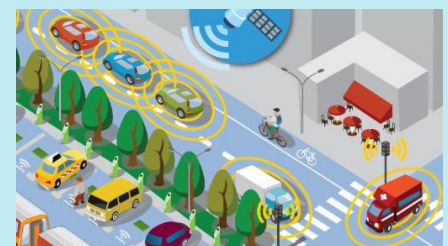


Illustration by Cindi Anderson, courtesy of Argonne National Laboratory's TransForum