

## Description

Smart transportation involves integrating electronic devices, sensors and all modes of transportation to address traffic & travel problems by enhancing safety, optimizing traffic flow, increasing available information on travel options and times, and increasing efficiency & mobility.

Elements can include:

- Real-time incident detection and reporting
- Adaptive traffic signals
- Real-time transit information
- Parking management systems
- Electric / autonomous transport
- Mobility-as-a-Service (ride sharing)

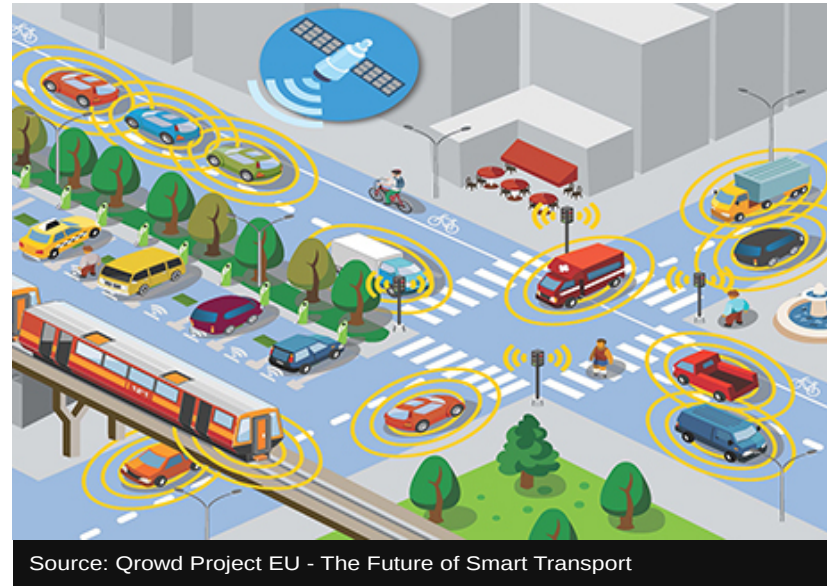
## Benefits

- Reduced traffic and congestion
- Reduced travel time
- Reduced emissions
- Improved public safety
- Increased transportation options and awareness of those options
- Better emergency and weather management

## Financing / Costs

Costs vary based on desired complexity and ownership of the system. Examples:

- Long-range Lidar sensor: \$20,000
- Cost per mile in a driverless car: < \$1 compared to \$2.50/mi in an Uber or Lyft
- 2 driverless shuttles for 1 year contract in Arlington, TX w/ 12 person capacity for \$272,159



## Use Cases

- Helsinki, Finland - Self-driving buses: <https://www.hel.fi/uutiset/en/helsinki/helsinki-self-driving-bus-regular-service>
- San Francisco, CA - piloting GM's self-driving car "Cruise": <https://www.bizjournals.com/sanfrancisco/news/2018/01/12/gm-cruise-self-driving-car-no-wheel-2019.html>
- Atlanta, GA - Complete streets designed with all modes of transportation in mind: [http://renewatlantabond.com/project\\_transportation\\_category/complete-streets/](http://renewatlantabond.com/project_transportation_category/complete-streets/)
  - Prince George's County, MD - Green streets with bio-swales to treat stormwater runoff: <http://www.thesentinel.com/pgs/news/local/item/4322-ager-road-project-set-for-2018>

## Vendors\*

- Waymo (Alphabet)
- EasyMile (French startup)
- NuTonomy
- Parkmobile
- Rhythm Engineering
- General Motors
- Surtrac
- Uber
- Lyft

\* List does not imply endorsement or ranking.

