SELF DRIVING CAR

BY RUNTIME MATRIX

...What is the need of our project ..?

Greater Road Safety

Automation can help reduce the number of crashes on our roads.

Government data identifies driver behavior or error as a factor in 94 percent of crashes, and self-driving vehicles can help reduce driver error.

Higher levels of autonomy have the potential to reduce risky and dangerous driver behaviors. The greatest promise may be reducing the devastation of impaired driving, drugged driving, unbelted vehicle occupants, speeding and distraction.

Greater Independece

People with disabilities, like the blind, are capable of self-sufficiency, and highly automated vehicles can help them live the life they want.

These vehicles can also enhance independence for seniors.

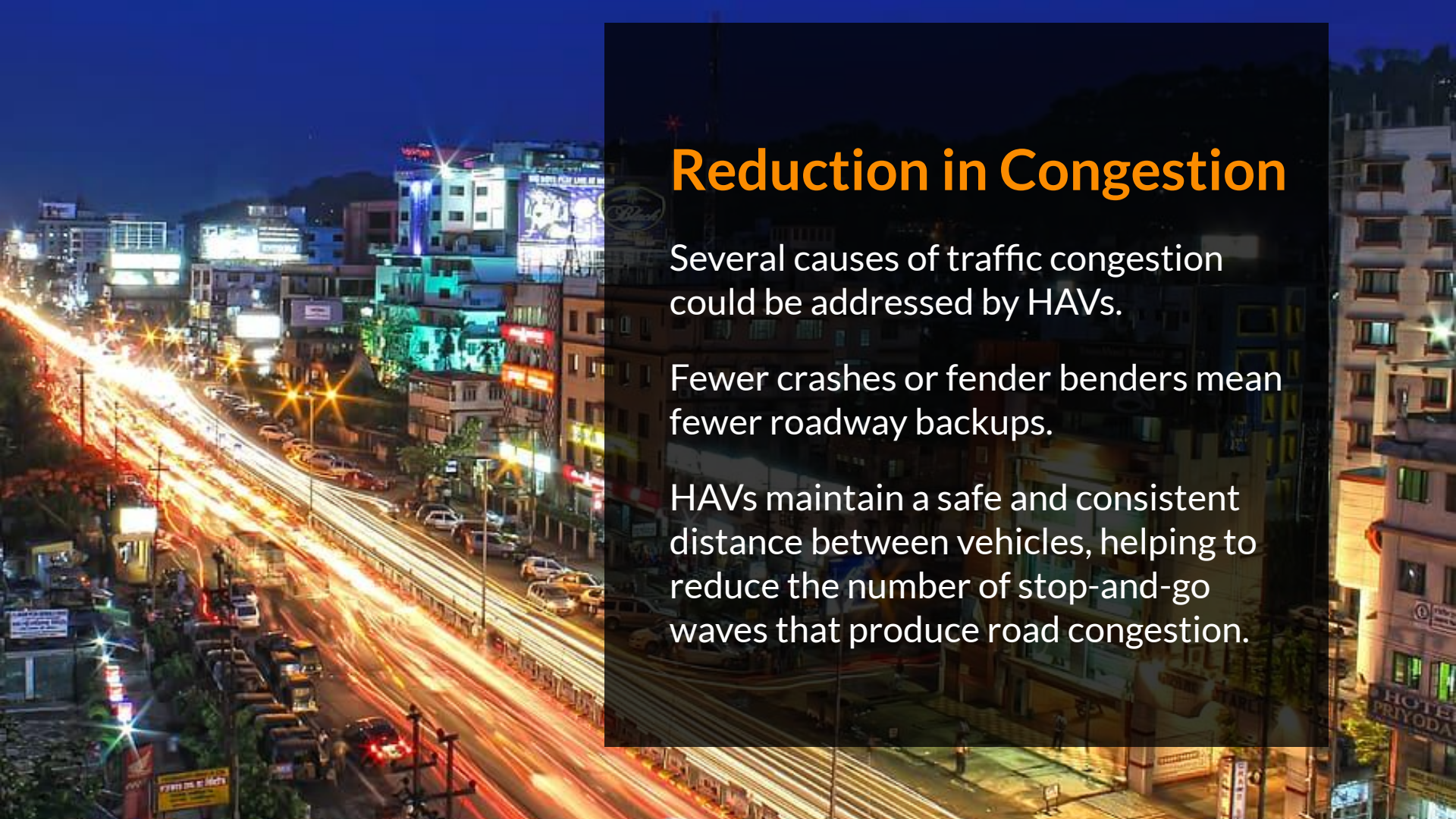
Ride-sharing of HAVs could reduce costs of personal transportation, providing more affordable mobility.

Environmental Gains

HAVs have the potential to reduce fuel use and carbon emissions.

Fewer traffic jams save fuel and reduce greenhouse gases from needless idling.

Automation – and car-sharing — may spur more demand for all types of electric vehicles. When the vehicle is used more hours a day through car-sharing, any up-front battery costs could be shared also, increasing the economic appeal of electric cars.
rom German and Japanese to Czech and Zulu

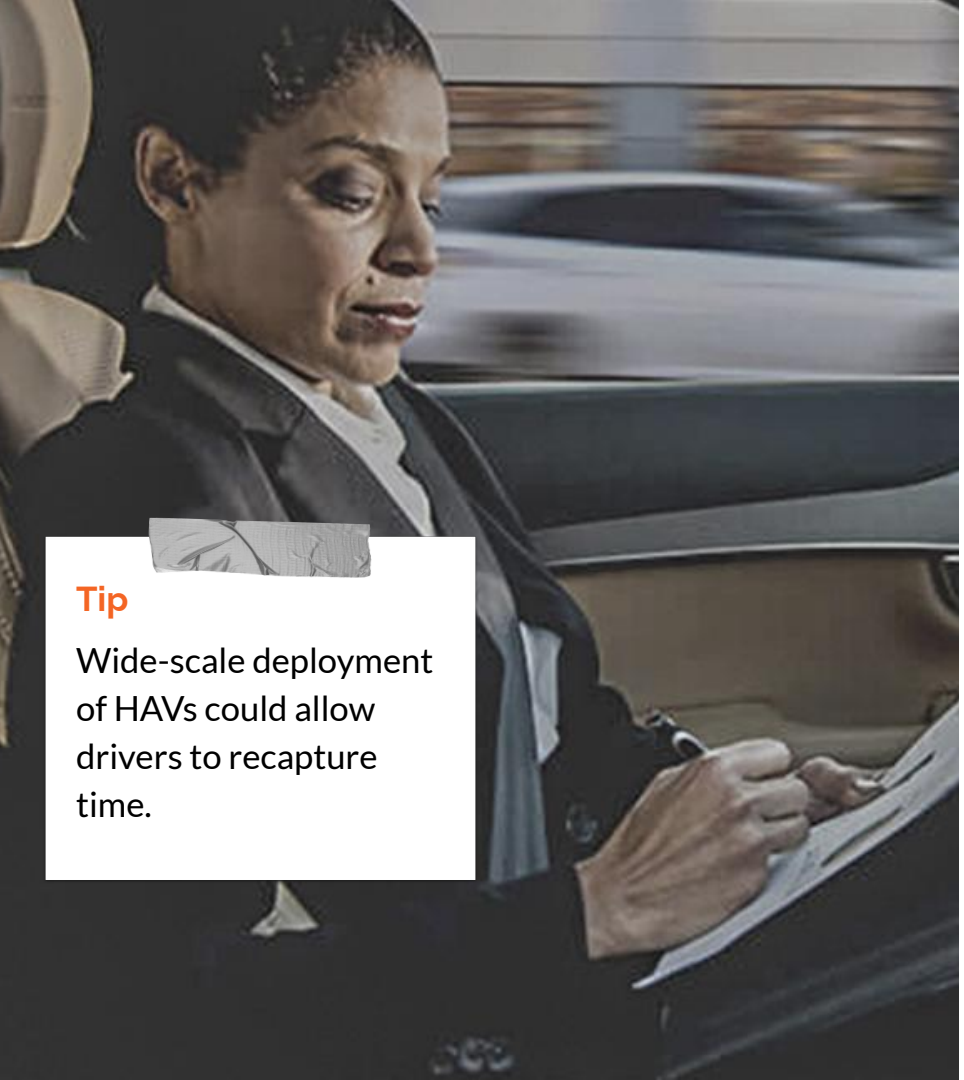


Reduction in Congestion

Several causes of traffic congestion could be addressed by HAVs.

Fewer crashes or fender benders mean fewer roadway backups.

HAVs maintain a safe and consistent distance between vehicles, helping to reduce the number of stop-and-go waves that produce road congestion.



Tip

Wide-scale deployment of HAVs could allow drivers to recapture time.

More Productivity !

Wide-scale deployment of HAVs could allow drivers to recapture time.

In the future, HAVs could offer the convenience of dropping vehicle occupants at their destination, whether an airport or shopping mall, while the vehicle parks itself.

In a fully automated vehicle, all occupants could safely pursue more productive or entertaining activities, like responding to email or watching a movie.

Saving Money

It can save money cause it runs by electricity rather then petrol.

HAVs can help avoid the costs of crashes, including medical bills, lost work time and vehicle repair.

Fewer crashes may reduce the costs of insurance.
More than 50 million Americans travelled abroad in 2015

Top 3 Self Driving Car Companies

Tesla

Founded: You know

Home Base : Mars 2022

Waymo

Founded : 2009

Home Base :San Francisco

Voyage

Founded :2017

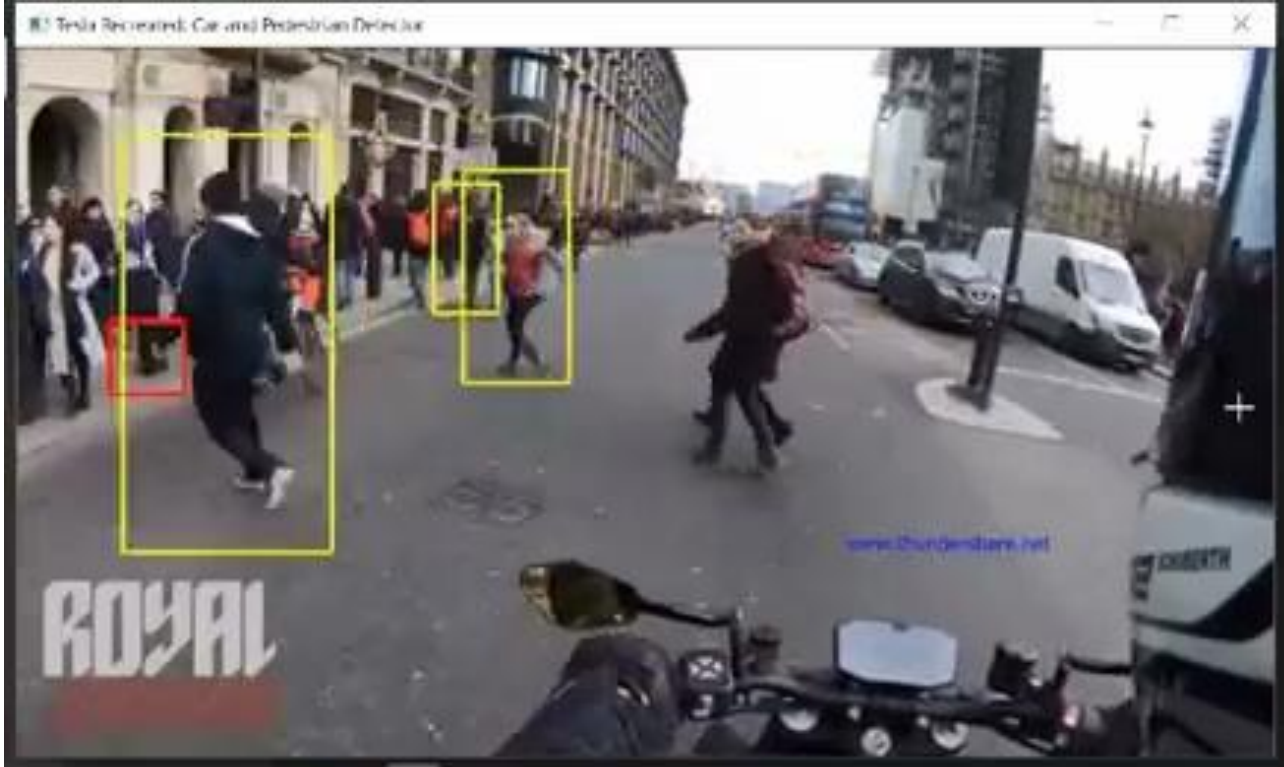
Home Base: San Francisco

Market Size(Globally) :
$818.8 Billion

Market Size(India): Almost NIL !!!

ALERT:

Huge market potencial in India!!!!



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Main Libraries used:

- **Opencv:** OpenCV-Python is a library of Python bindings designed to solve computer vision problems.
- **Tensorflow:** TensorFlow provides a collection of workflows to develop and train models using Python or JavaScript, and to easily deploy in the cloud, on-prem, in the browser, or on-device no matter what language you use.

Future Aspects (v1.1)

The following features are coming soon :

- Voice integration ; utilizing libraries like pyttsx3 & speechRecognition we can also iuntegrate voice into our model which will make a vehicle into a voice based autonomous vehical


Thank
You