

The World in 2050 - Alternative Fuel & Energy Sources

Fueling the Future:

- The number of vehicles will double by 2050 to 2-billion cars, and fuel consumption will triple
- Alternative fuels vs Electric
- Ethanol is an alternative fuel source
 - It is created by grinding sugar cane
 - Combine the sugar with yeast to create ethanol
- Growing fuel causes a lot of stress on agricultural land
- Ethanol from sugar cane produces 7 times more energy than it requires to grow it
- Ethanol from corn produces the same amount of energy as it takes to grow it
- Brazil is the most efficient ethanol producer in the world
- Biomass fuels are fuels created from plants
- Scientist are trying to mimic (copy) the process of Photosynthesis to create fuels using only sunlight.

Driven to design:

- The average American spends nearly 300 hours in a car, 38 of which are in traffic.
- Companies are using cameras, 3D mapping and GPS to make driving more efficient.
- One way Scientist believe we can be more efficient, is to eliminate human error, and to use autonomous self-driving vehicles.
- At 100km/h a vehicle requires about 50 percent of its energy is used to move through the air. Highly inefficient.

Searching for Utopia: Masdar City, UAE

- Carbon Neutral, Relies primarily on renewable sources to power the city.
- Car free street, all transportation is underground.
- Buildings designed to be as efficient as possible.
- Even Masdar cannot operate without the use of fossil fuels, because it cannot generate energy when the sun goes down.