



Next Generation Fuel Cell Vehicles



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Energy & Environmental Challenges

The need for increased efficiency and lower emissions



Market Growth (~2020)
100 million new vehicles



Alternative energies
Balance dependence
on petroleum



Fossil Fuel Reserves
Increased oil consumption



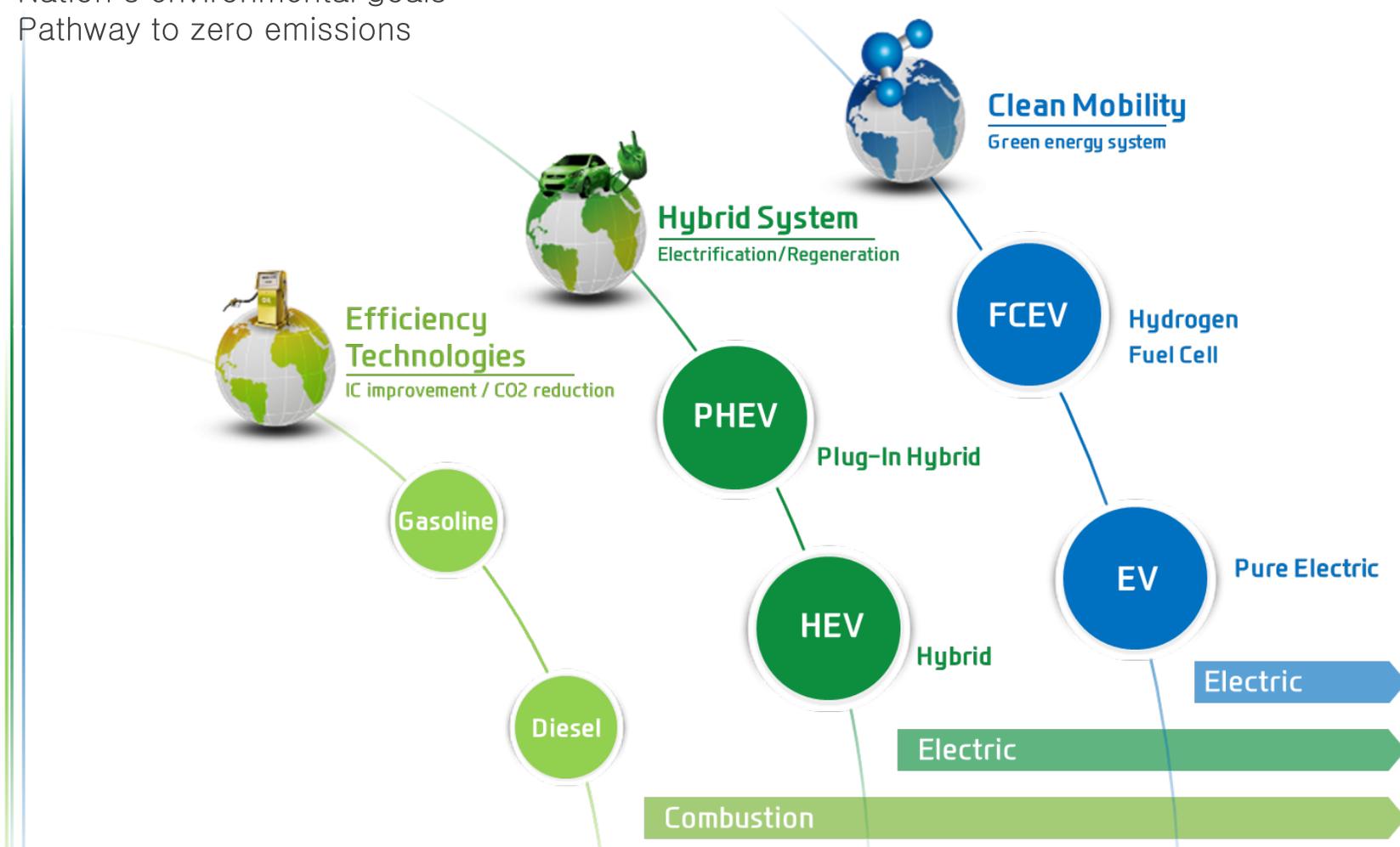
Regulations
Stringent fuel economy &
emissions regulations



Climate Change

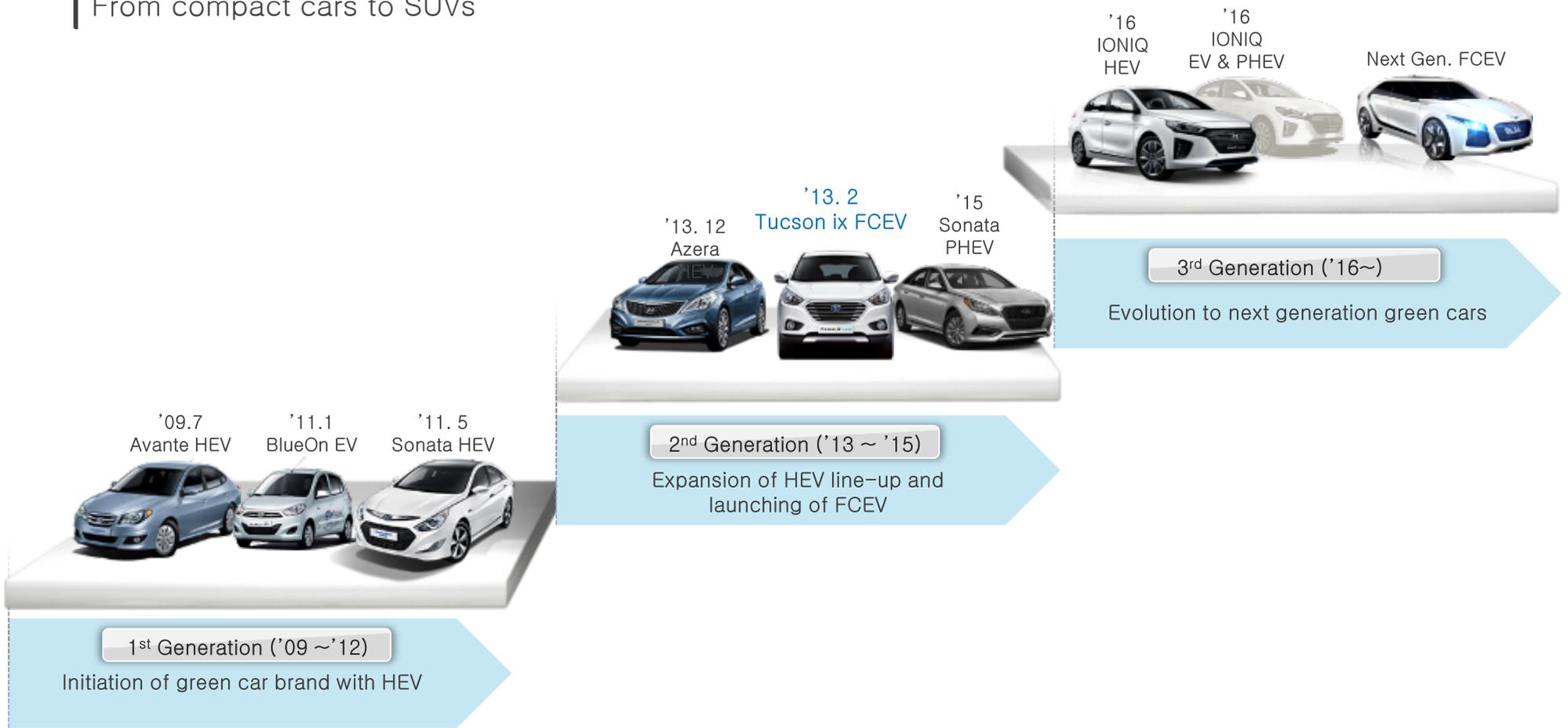
Variety of Powertrain Solutions

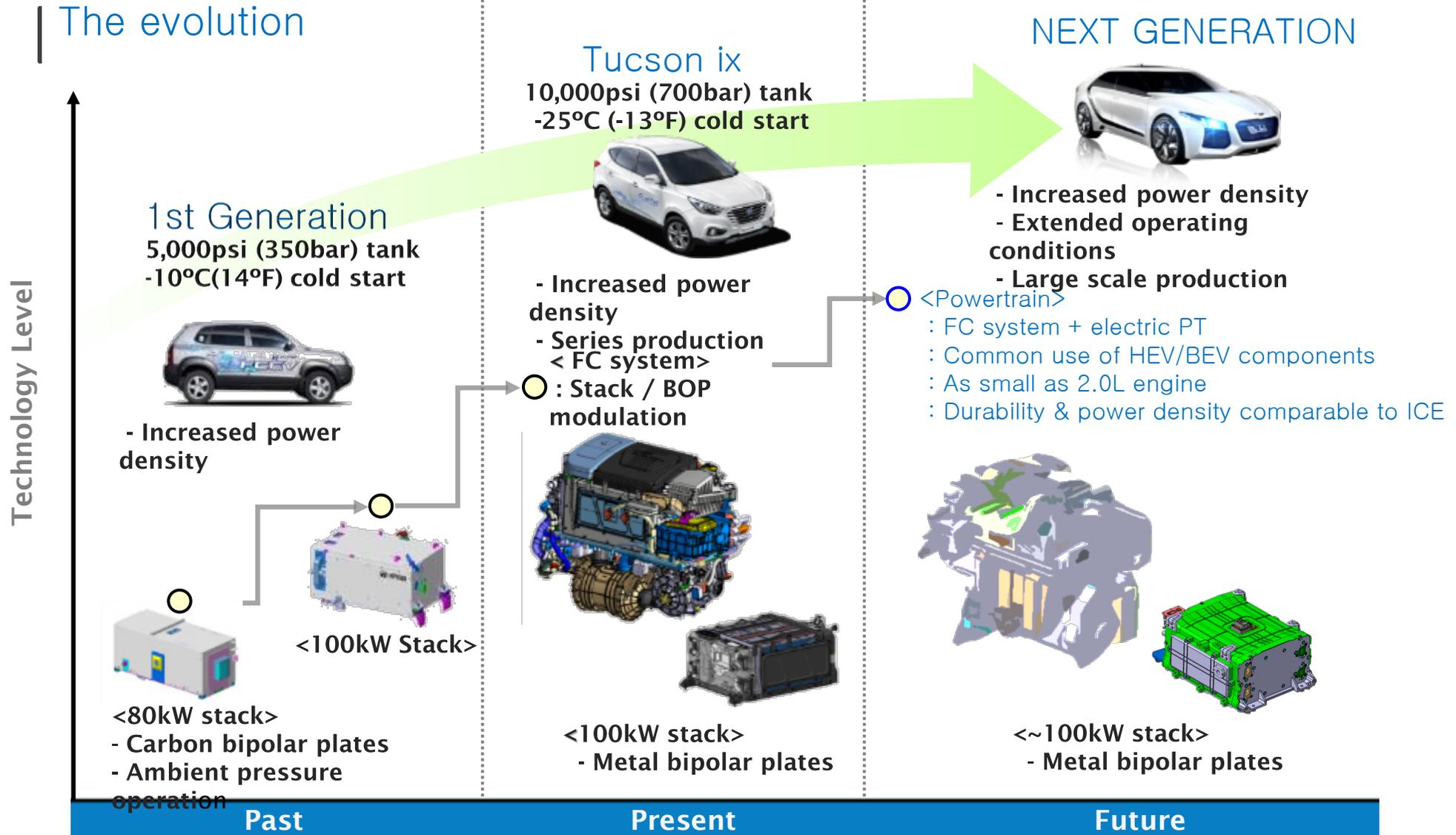
Meets diverse customer needs
Nation's environmental goals
Pathway to zero emissions



A broad portfolio of green cars

From compact cars to SUVs





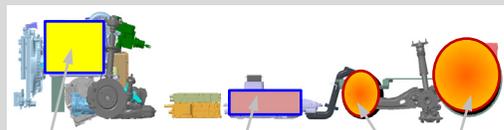
Development of Tucson ix FCEV

World 1st mass-produced FCEV

Fuel cell system modularization, similar production method to conventional vehicles



Architecture



Fuel Cell Stack Hybrid Battery H2 Tank

- 5-passenger CUV
- No cargo space compromise

Specification

FC Stack	100 kW
Traction	100 kW
Battery	24 kW
H ₂ Tank	700 bar

- Compact system size
- Design for efficient production and A/S

Performance

Acceleration 0-60 mph	12.5 sec
Max. Speed	100 mph
Fuel economy	50 mpge combined
Mileage	268 miles

- Long driving range
- Cold start at -20°C

Production



- Dedicated assembly line in Ulsan

- Performance confirmed at high/low temperatures, long distances and high altitude.
- Meets or exceeds EU and U.S. requirements for vehicle safety including crashworthiness, tank and electrical safety

Deployed in 17 countries since 1st delivery in 2013

Spurring global commercialization



Continued support for expansion of hydrogen infrastructure is critical

California provides funding for 100 hydrogen refueling stations

