Challenge 1
New Vehicle Zero CO₂ Emissions Challenge
2030 Milestone

To achieve 90% reduction of global average CO₂ emissions in 2050, vehicle electrification is essential.

Image of electrified vehicles expansion

- HV
- PHV
- FCV
- EV

Engine vehicle

Make annual global sales of more than 5.5 million electrified vehicles, including more than 1 million zero-emission vehicles (BEVs and FCEVs)
The estimate of global average CO₂ emissions reduction in g- CO₂/km from new vehicles will be 35% or more, which may vary depending on market conditions, compared to 2010 levels.
Achieved cumulative sales of 12 million vehicles and 94 million tons of CO₂ reduction compared to same class gasoline vehicles.
Latest vehicle electrification technology (2016 PRIUS PHV)

Expand EV range

- The capacity of Li-ion battery is twice as large as that of the previous model. (The power density is twice as large as that of the previous model.)

- Maintaining engine stopped state
  - Dual motor drive system
  - Heat pump air-conditioner
    - Using both the electric motors, to achieve powerful acceleration performance.
    - Prevent the engine from starting-up on during EV mode operation

More options of charging system

- A variety of charging methods (100V, 200V, quick charging)
- Solar charging system
  - While the vehicle is parked, supplying the amount of electricity sufficient for driving the vehicle a maximum of around 6.1 km/day

Accumulation of electrification technology for widespread use of electrified vehicles
Aiming at Sales of 5.5 million electrified vehicles in 2030

1. Electrified versions of all models by around 2025.
2. 10 BEV models or more to be available worldwide by the early 2020s.
3. Annual global sales of over 30,000 fuel cell vehicles around or after 2020.

Accelerating electrified vehicle development faster than before
Customers & Markets

More than just one choice when it comes to electrified vehicle products
1. Electrified versions of all models by around 2025

THS

- Pursuit of fuel efficiency, and Cost and driving performance

- Environment

- Prius

- Trucks

- Power

- High-End HEVs

- Luxury

- Emerging-market vehicles

- Affordable

- Sports cars

- Acceleration

Electrified vehicles widespread by expanding system variation
2. 10 BEV models or more to be available worldwide by the early 2020s

Acceleration of development by collaboration

- Developing automotive battery and ensuring stable supply
- Establishing a new company as joint development center

 Providing new mobility

- e-Palette Concept
- TOYOTA Concept-i Series

Joint technology development contract

EV C.A. Spirit Co., Ltd.

BEV rollout in earnest
3. Annual global sales of over 30,000 fuel cell vehicles around or after 2020

FCV development

- Fuel cell vehicle “MIRAI”
- Fuel cell bus “SORA”
- Fuel cell truck

Promoting hydrogen station establishment

- Participating in Japan H2 Mobility
- Cooperating with Shell in construction of hydrogen stations for commercial trucks in California

Line-up will be expanded with supporting preparation of hydrogen stations
Diversification of electrified vehicle products

We will continue to provide electrified vehicles best-suited to our customers in each market

Vehicle size

- BEV domain
- HEV/PHEV domain
- FCEV domain

Traveling distance

- Small home-delivery vehicles
- Personal mobility
- Short-distance use

- Route buses
- Full-size trucks
- Delivery trucks

- BEV
- Passenger cars
- FCEV(BUS)
- PHEV
- FCEV

TOYOTA ENVIRONMENTAL CHALLENGE 2050