

Japan car giants team up to build hydrogen stations

March 5 2018



Toyota produced the world's first fuel-cell car

Top Japanese carmakers said on Monday they were teaming up to nearly double the amount of hydrogen stations in Japan, as the car-mad country seeks to head off competition from China and Germany.

Toyota, Nissan and Honda formed a joint venture with major gas and energy companies, including French industrial gases company Air Liquide, to build 80 new [hydrogen](#) stations in the next four years, to add to the 101 stations currently in Japan.

"At this stage, we believe there is significant space for cooperation, rather than searching for areas of competition," Shigeki Terashi, Toyota executive vice president told reporters.

The new venture—"Japan H2 Mobility" or "JHyM"—comes as the world's top economies rush to issue tougher environmental regulations that are spurring development of new clean cars and trucks.

Japan has focused on promoting fuel-cells, which combine hydrogen and oxygen in an electrochemical reaction, producing clean electricity to power vehicles or home generators.

But [fuel-cell vehicles](#) cannot get off the ground without a network of hydrogen stations, and vice versa, and the chicken-and-egg dilemma has stalled the roll-out of the technology, say industry professionals.

Hydrogen stations and fuel cell vehicles must be promoted in tandem in order to lower their cost, executives said.

"Unless infrastructure makers team up, new hydrogen stations tend to be concentrated in urban areas," said Hideki Sugawara, president of the new firm.

"In order to maximise the demand for FCVs (fuel cell vehicles), we have to expand geographically," he said.

The 101 hydrogen stations serve around 2,400 fuel-cell cars in Japan, according to official data, but a lack of viable stations has been a major

hurdle for carmakers as they seek to boost production.

The Japanese government and the auto industry aim to introduce 160 stations and 40,000 fuel-cell vehicles by March 2020.

The government is also pushing to deregulate the sector to lower costs.

Toyota launched the Mirai, the world's first mass-market hydrogen fuel-cell [vehicle](#), in late 2014 as it looked to push further into the fast-growing market for environmentally friendly cars.

Nissan and Honda also have their version of fuel-cell projects.

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Citation: Japan car giants team up to build hydrogen stations (2018, March 5) retrieved 19 September 2024 from <https://phys.org/news/2018-03-japan-car-giants-team-hydrogen.html>

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