

# **Accelerating the Construction of Hydrogen Stations to Promote Widespread Use of Fuel Cell Vehicles**

Toward the Creation of a Hydrogen-based Society

Sep. 11, 2018

Tomonari Komiyama  
Japan H<sub>2</sub> Mobility, LLC

# Establishment of the New Company

## Founding Member Companies



Seven new companies joined.



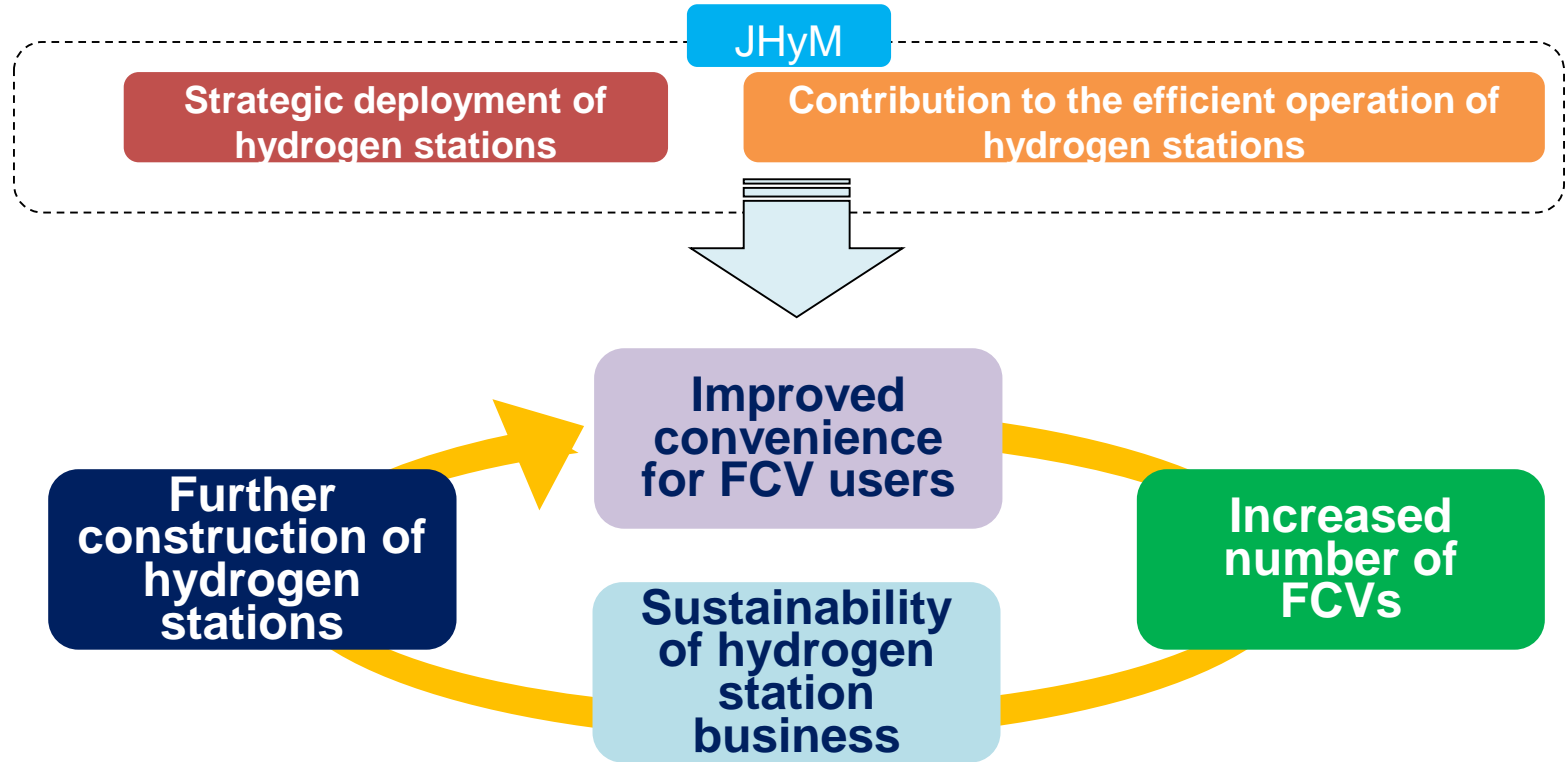
World's first initiative for construction of hydrogen stations jointly funded by infrastructure companies, automakers, investors, etc.

# Overview of New Company

---

<b>Company name</b>	<b>Japan H<sub>2</sub> Mobility, LLC (abbreviation: JHyM)</b>
Representative (President)	Hideki Sugawara
Location	Toyota Kudan Building, 2-3-18 Kudan Minami, Chiyoda-ku, Tokyo
Participating companies ★...Executive members (As of April 1, 2018)	Toyota Motor★, Nissan Motor, Honda Motor★, JXTG Nippon Oil & Energy★, Idemitsu Kosan, Iwatani Corporation★, Tokyo Gas, Toho Gas, Air Liquide Japan★, Nemoto Tsusho, Seiryu Power Energy, Toyota Tsusho, Development Bank of Japan★, JA Mitsui Leasing, Sompo Japan Nipponkoa Insurance, Sumitomo Mitsui Finance and Leasing Company, NEC Capital Solutions, Mirai Creation Fund
Businesses	<ul style="list-style-type: none"><li>• Strategic deployment of hydrogen stations</li><li>• Contribution to efficient operation of hydrogen stations</li></ul>
Business period	Expected to be 10 years (FY2018 to FY2027)

# JHyM's Vision



**Create virtuous cycle between FCVs and hydrogen stations**

# JHyM's Mission

---

## 1. Strategic deployment of hydrogen stations

- Start building 80 hydrogen stations nationwide by fiscal year 2021
- Deploy strategically hydrogen stations compatible with maximization of both FCV demand and user convenience

## 2. Contribution to efficient operation of hydrogen stations

### (1) Improvement of convenience for FCV users

- Better coordination of operating days and time between neighboring stations

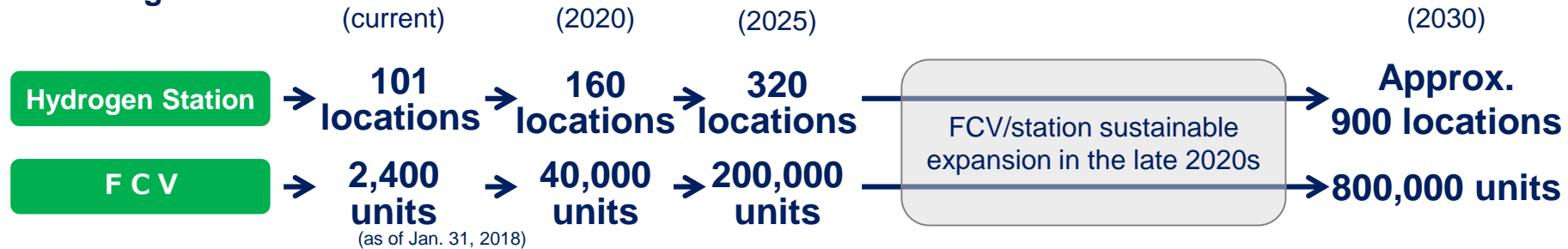
### (2) Promotion of sustainability of hydrogen stations business

- Cost reduction and regulation review through collaboration with other related organizations

## 3. Positive information provider to convince the public of hydrogen society realization

# JHyM's Position based on "Japan Basic Hydrogen Strategy"

## National goal



Source: Strategic Road Map for Hydrogen and Fuel Cells, Agency for Natural Resources and Energy

## Japan Basic Hydrogen Strategy (Published on Dec. 26, 2017)

“After the number of hydrogen stations reaches 100 at the end of FY2017, the government will cooperate with **hydrogen station development company(planned by 11 private sector companies)**, and other various players to reduce upfront investment costs and effectively promote the optimum location of hydrogen stations based on simulated demand.

## Initiatives of Japanese automakers

---

<b>Toyota</b>	<ul style="list-style-type: none"><li>• Launched fuel cell vehicle Mirai (2014)</li><li>• Launched fuel cell bus SORA(2018)</li><li>• Aim to sell well in excess of 10,000 FCVs per year around or after 2020</li></ul>
<b>Nissan</b>	<ul style="list-style-type: none"><li>• Started joint development of a fuel cell system with Daimler and Ford (2013)</li><li>• Continuing with technological development for commercialization</li></ul>
<b>Honda</b>	<ul style="list-style-type: none"><li>• Launched fuel cell vehicle Clarity Fuel Cell (2016)</li><li>• Established joint venture company Fuel Cell System Manufacturing, LLC with GM, with mass production of fuel cell systems expected to begin around 2020 (2017)</li></ul>

# JHyM's Operational Flow Diagram for hydrogen station deployment

JHyM

Announce nationwide deployment policy for station construction, such as areas where stations will be built

Infrastructure-related companies

New infrastructure-related companies

Propose concrete construction plans based on the deployment policy

JHyM

Determine JHyM's nationwide station construction plan based on proposals received from infrastructure companies

Infrastructure-related companies

Construct stations together with JHyM

JHyM owns the stations after construction until 2027FY.

JHyM

Entrust station operations from JHyM to infrastructure companies



# Deployment policy of hydrogen stations for the next 4 years(2018 – 2021FY)

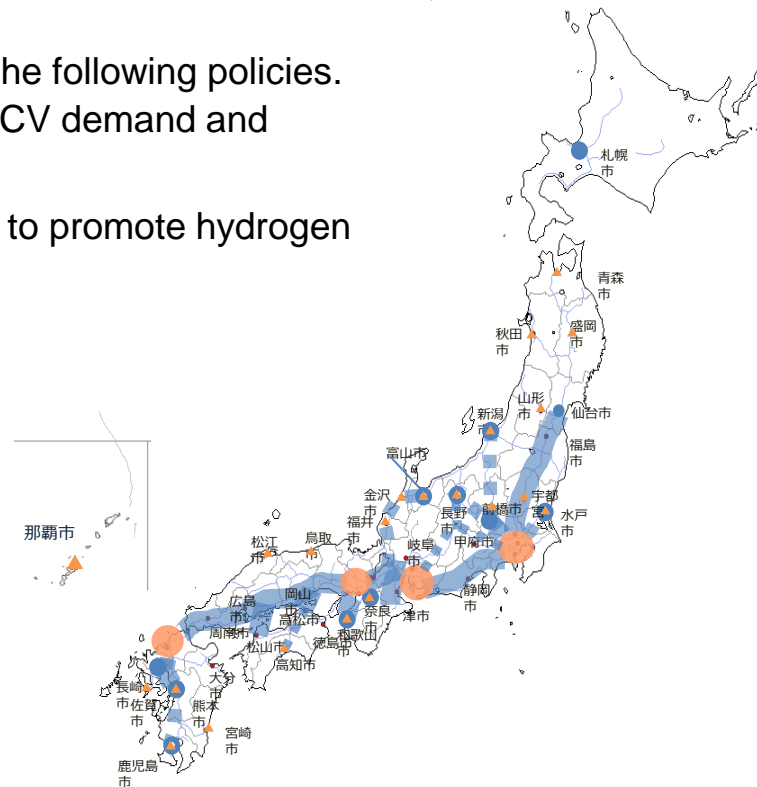
## Overall Deployment Policy

Build 80 hydrogen stations for the next 4 years considering the following policies.

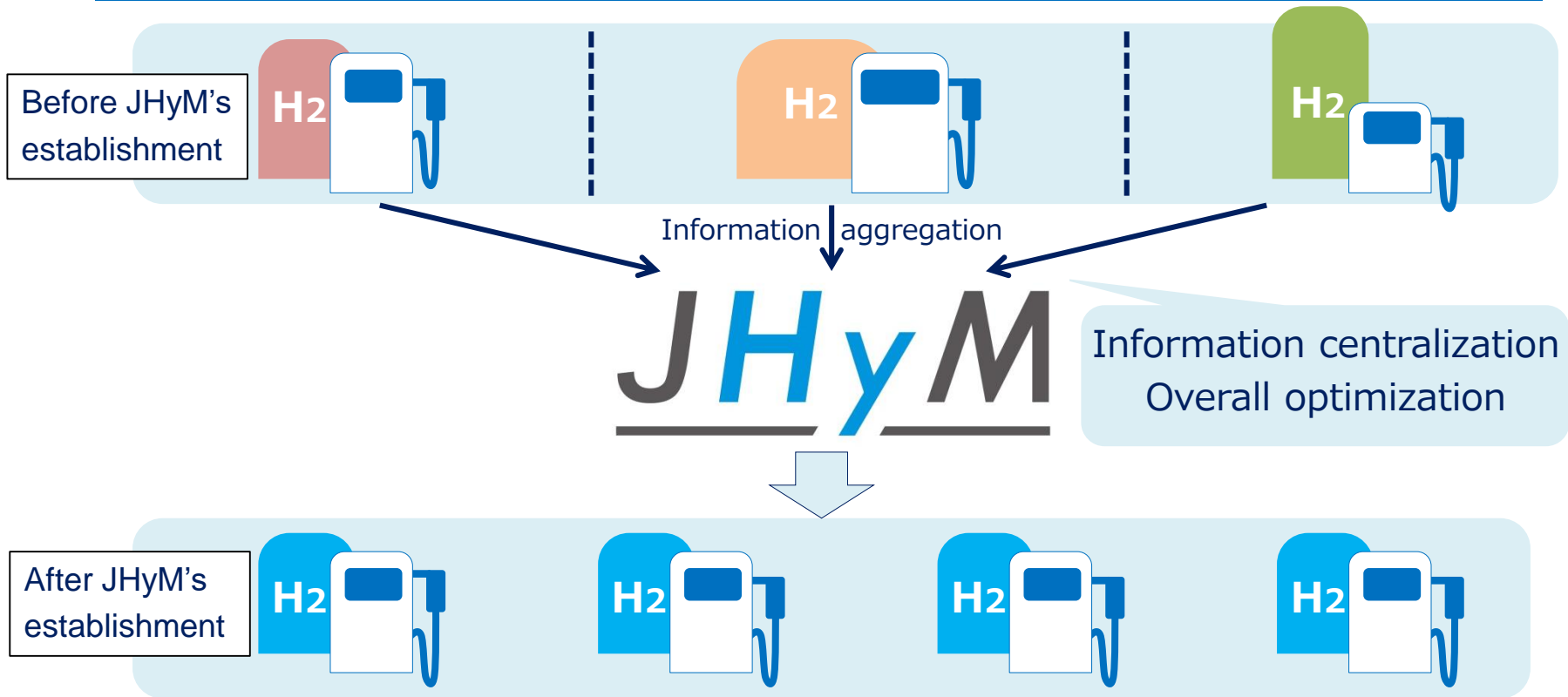
1. **Optimize the hydrogen station deployment** to maximize FCV demand and secure hydrogen supply capacity.
2. **Extend strategically hydrogen station network nationwide** to promote hydrogen mobility and improve user convenience.

## Tactics by area

1. **Four Metropolitan areas:** Deploy hydrogen stations in the places of no hydrogen station with high FCV demand.
2. **Surrounding areas of four Metropolitan's:** Deploy hydrogen stations in the important places with high traffic flow between metropolis.
3. **Local areas with no hydrogen stations:** Start dialogue with local governments and convince them of hydrogen-based society and hydrogen stations.

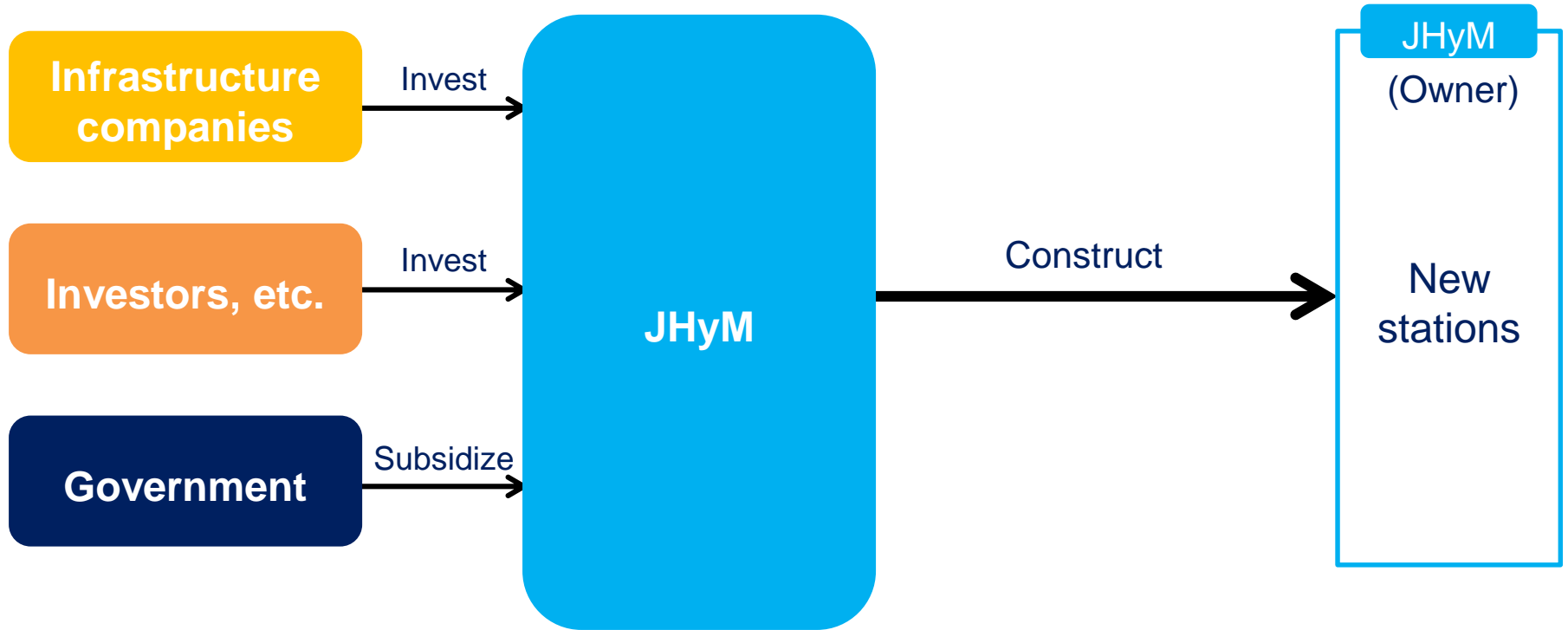


# Contribution to efficient operation of hydrogen stations



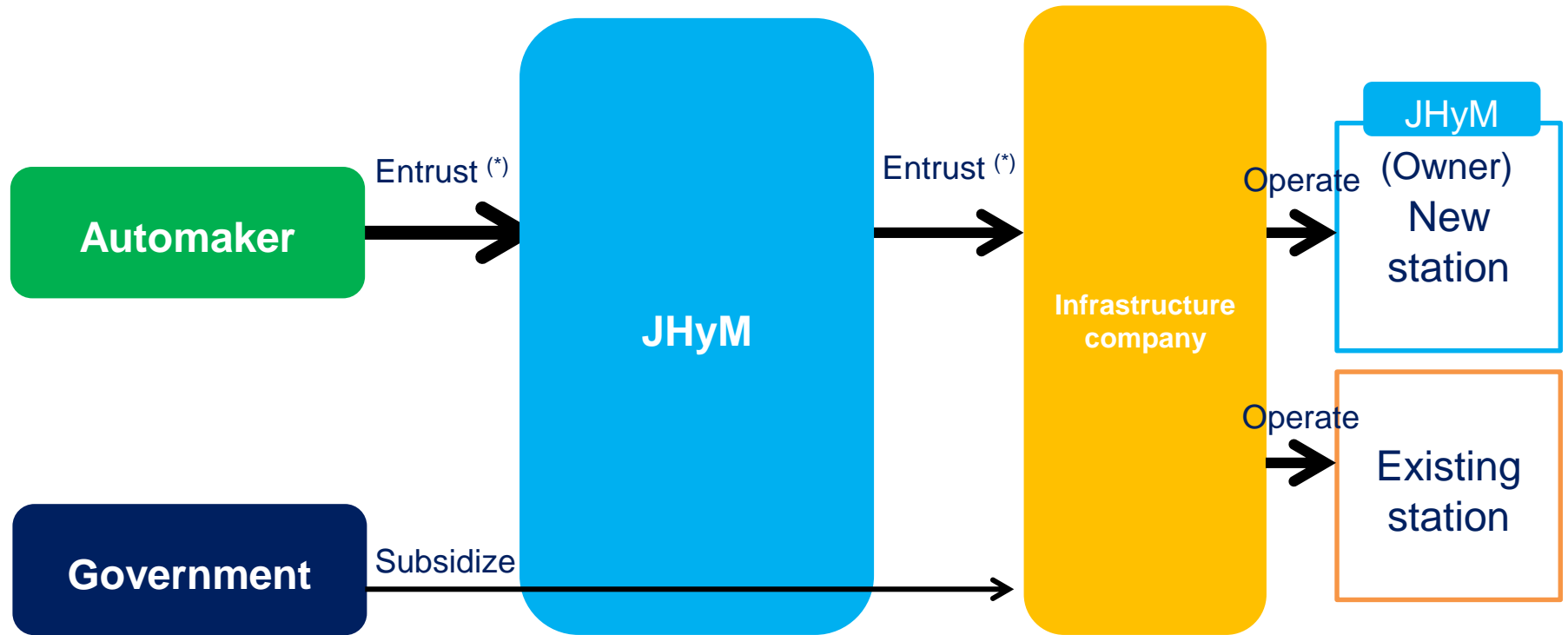
- Improve FCV users' convenience by reviewing operating days and hours between neighboring stations
- Promote cost reduction of stations by reviewing regulations and standardizing equipment

# Business scheme for Hydrogen Station Construction



Reduce initial investments from infrastructure companies by utilizing the investments from investors under JHyM's scheme

# Business scheme for Hydrogen Station Operation



\*...Entrusting related to maximizing FCV demand

Through entrustment agreement, JHyM provides infrastructure companies with a long-term stable business environment for operating hydrogen stations

# Summary

---

JAPAN H<sub>2</sub> MOBILITY



## ■ New company of JHyM

A Japan-wide initiative to **promote construction of hydrogen stations.**

## ■ JHyM's activities and features

- Aim to rapidly deploy stations across all of Japan to maximize FCV demand.  
Construct stations **at 80 locations in the next 4 years.**
- Through information collected by JHyM, conduct activities **to improve convenience for drivers and establish sustainability of the hydrogen station business** (such as through cost reduction and suggestions for deregulation).
- Reduce initial investments from infrastructure companies using funds from investors and other sources.

## ■ Future efforts

- In the future, look widely for **participation in JHyM from new players** to promote the sustainability of the hydrogen station business and the spread of FCV use, and eventually contribute to the realization of a hydrogen-based society.

**JAPAN H<sub>2</sub> MOBILITY**

**JH<sub>y</sub>M**