



EST model project centered on "hydrogen derived from livestock excreta"

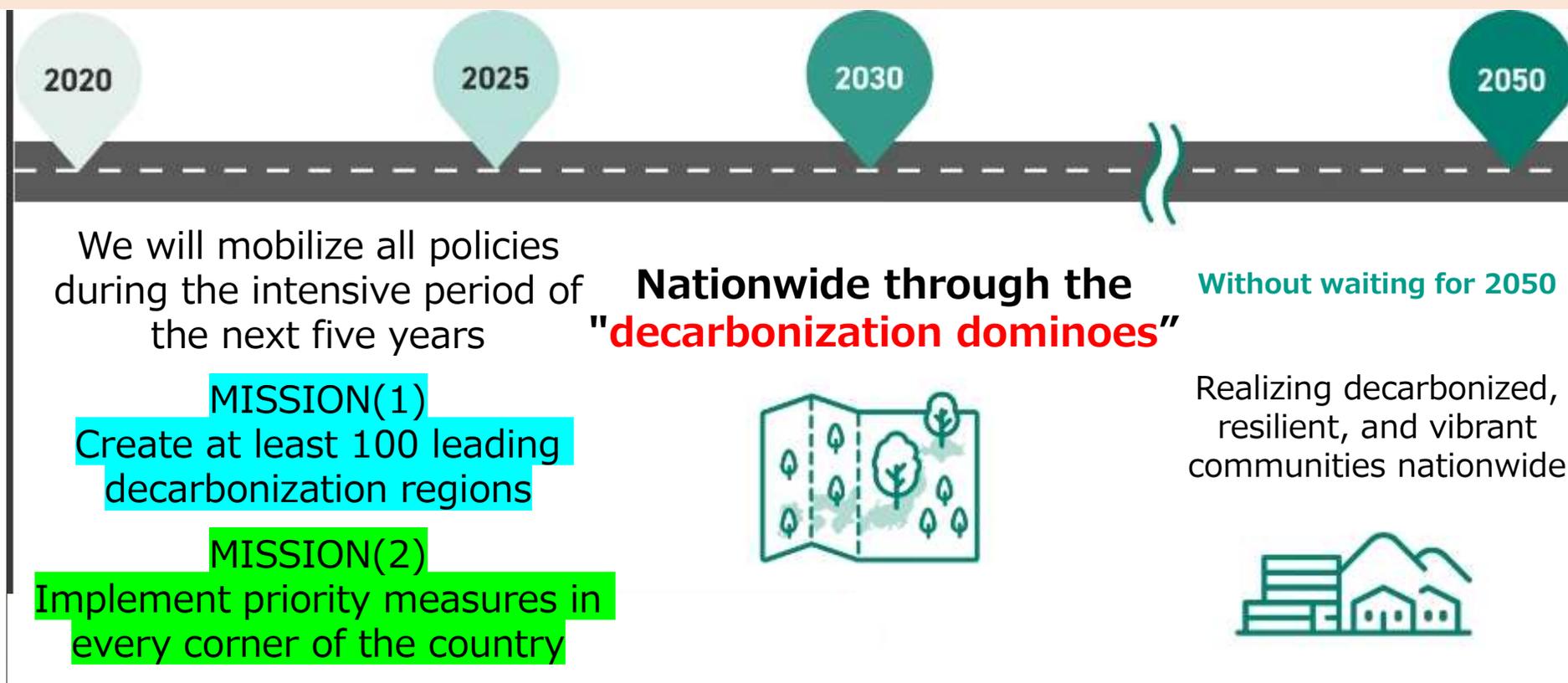
- Shikaoi Town, Hokkaido's Efforts to Achieve Carbon Neutrality -

TANABE Kazuyasu



"Decarbonization dominoes" will fall throughout Japan

1. Self-consumption solar power generation such as roof standing
2. Regional Coexistence and region Hieigata location of renewable energy
3. Thorough energy conservation in public facilities, business buildings, etc... procurement of renewable electricity, and induction of ZEB at the time of renewal and renovation
4. Improvement of energy-saving performance of houses and buildings
5. Zero-carbon drive (renewable energy x Evs/PHEVs/FCVs)
6. Transition to a circular economy through the sophistication of resource circulation
7. Decarbonized urban development through the Compact Plus Network, etc...
8. Improving the productivity of food, agriculture, forestry and fisheries industries in a sustainable way



Toward the realization of carbon neutrality



EST model project centered on "hydrogen derived from livestock excreta"



脱炭素先行地域
北海道 鹿追町 (第1回認定)



とがち鹿追ジオパーク



Shikaoi, Hokkaido: a leading area for decarbonization



Shikaribetsuko Kotan



A phantom ice village that appears on Shikaribetsuko in the middle of winter. Igloo is lined up in the frozen lake. Ice open-air baths and ice bars are popular.(late January late march)



The present of Shikaoi that Feel with five senses

Shikaoi town



Shikaoi, Hokkaido: a leading area for decarbonization



Environmental Conservation Center in Shikaoi

Shikaoi, Hokkaido: a leading area for decarbonization



Launch Japan's first hydrogen business utilizing livestock excreta

Hydrogen supply business—manufacturing process of hydrogen

Shikaoi Hydrogen Farm



Fuel Cell Vehicle (FCEV)



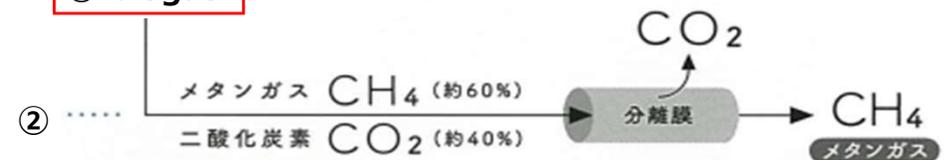
Fuel Cell forklift

Mechanism generating hydrogen from livestock excreta

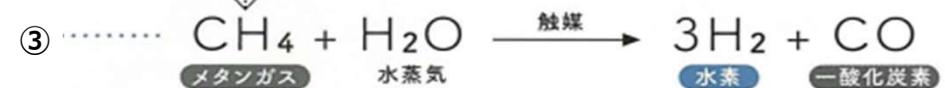
Hydrogen is generated from livestock excreta through 4 stages. CO₂ generated with hydrogen is carbon-neutral because it comes from the fact that grass, which is the food for livestock, is fixed from the atmosphere.

① Ferment livestock excreta to produce the biogas

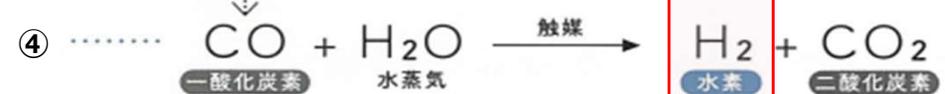
① biogas



② Extract methane gas from biogas



③ Produce hydrogen and carbon monoxide from methane gas



④ Produce hydrogen to be reacted with water, steam and carbon monoxide

Shikaoi, Hokkaido: a leading area for decarbonization

22 FCEVs were introduced in the town.
(shikaoi 10, private business operator 8, individual 4)



Town-specific subsidy for promoting hydrogen-fueled vehicles (used cars)



高速型ゼロカーボンシティ実現プロジェクト ZERO CARBON HOKKAIDO SHIKAOI

鹿追町脱炭素自動車導入普及促進補助金

補助金を利用して 環境にやさしい車に乗り換えよう!

FCV
水素燃料電池自動車
新車: 最大 100 万円
* CEV 補助金の 1/2 以内
中古車: 最大 50 万円
* 車齢 5 年以内 (2019 年 10 月 31 日現在)

EV
電気自動車
新車: 最大 100 万円
* CEV 補助金の 1/2 以内
中古車: 対象外

PHV
プラグインハイブリッド自動車
新車: 最大 100 万円
* CEV 補助金の 1/2 以内
中古車: 対象外

YATTA!

詳細は裏面をご覧ください

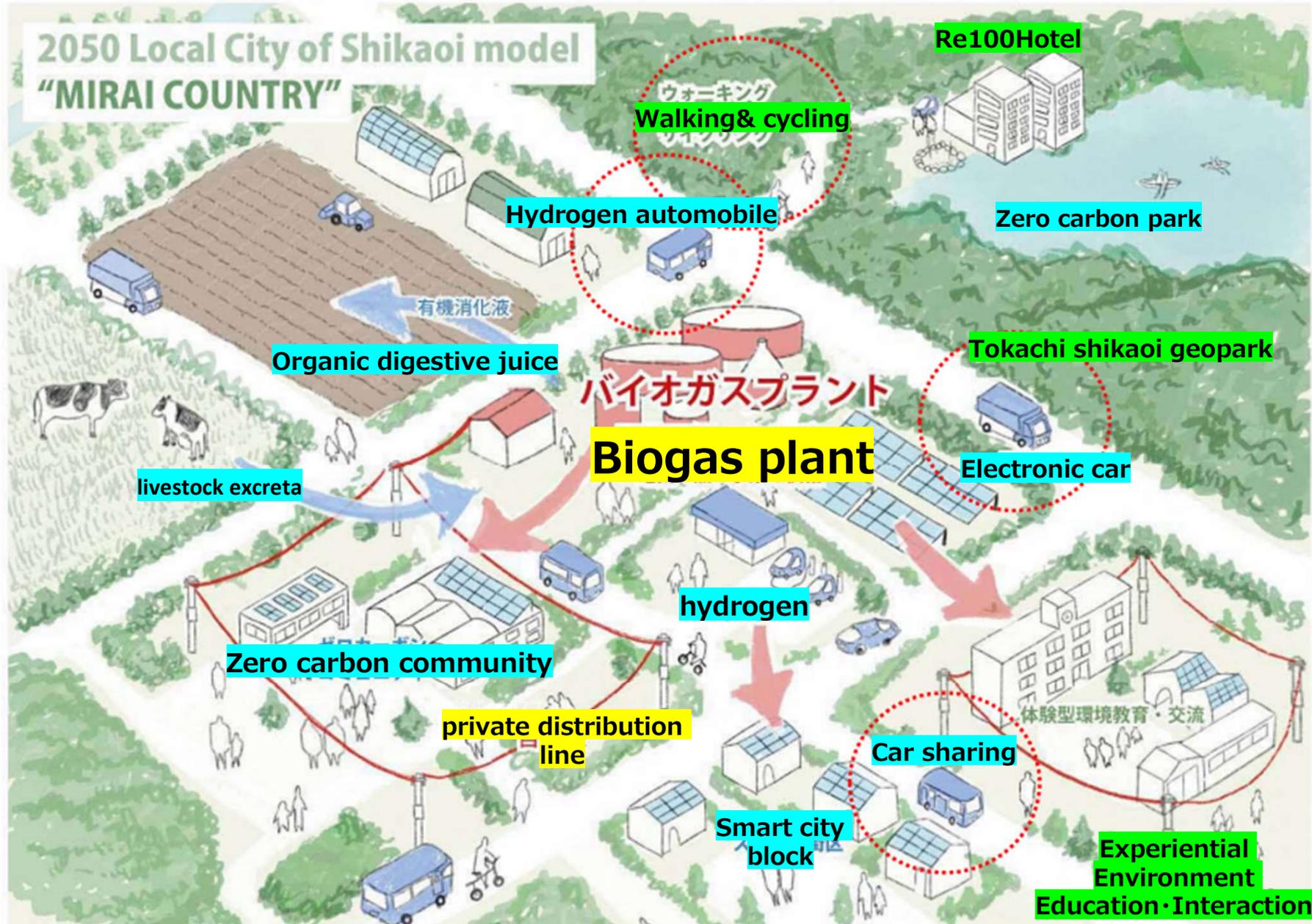
Initiatives for "Miniaturization and FCEV of Town-owned Buses"
(Introduction test of Toyota's fuel cell trucks and buses)



100万円(1,000,000JPY) ≒ 31,800(MYR)

Shikaoi, Hokkaido: a leading area for decarbonization

2050年までに目指す鹿追型ゼロカーボンシティの姿【MIRAI COUNTRY】



【JPRSI】

Japan Platform for Redesign : Sustainable Infrastructure



【JPRSI Members】 (as of Nov.30,2022)
462 Japanese corporations etc.



Poster exhibiting companies



Zenmov

HORIBA

datatec



Eco-Mo Foundation

Zenmov Inc.

HORIBA, Ltd.

Datatec Co.,Ltd.

**Foundation for Promoting
Personal Mobility and
Ecological Transportation**