

“Circulating and Ecological Economy”

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- Sept. 2015 Adoption of the **2030 Agenda for Sustainable Development**
 - * Including the **SDGs** that aim for an integrated approach to addressing multiple issues
- Dec. 2015 Adoption of the **Paris Agreement**
 - * Aims for substantially zero greenhouse gas emissions by the latter half of the 21st century to achieve the 2°C target.

17 Sustainable Development Goals (SDGs)



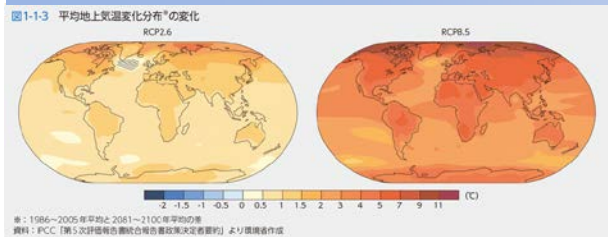
(Source: UN Information Centre)

Adoption of Paris Agreement

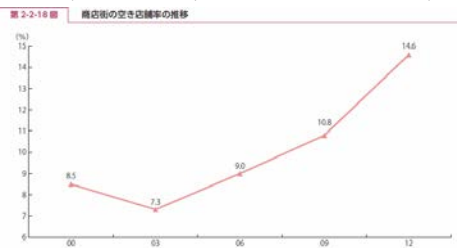


Prime Minister Abe giving a speech at COP21 where the Paris Agreement was adopted.
(Source: Office of the Prime Minister website)

A major paradigm shift is required to create a new form of civilized society.



Changes in average ground temperature change distribution
(from Annual Report on the Environment 2017)



Changes in rates of vacant stores in shopping districts
(from Small and Medium Enterprise Agency website)

Economic Challenges

- Battered regional economies
- Global competition with emerging countries
- Response to technological innovation including AI and IoT etc.



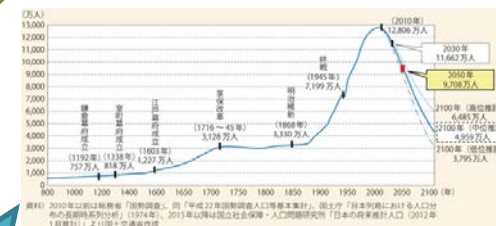
Image of AI (from National Institute of Advanced Industrial Science and Technology website)

Environmental Challenges

- Drastic reduction in GHG emissions
- Effective use of resources
- Destruction of forests and *Satochi-Satoyama* (socio-ecological production landscapes), damage by unmanaged wildlife
- Conservation of biodiversity etc.



Damage by Sika deer (from MOEJ website)



Long-term population trends in Japan
(from Ministry of Land, Infrastructure, Transport and Tourism website)

Social Challenges

- Decreasing birthrate and aging demographics / overall population decline
- Workstyle reform
- Preparations for large-scale disasters etc.



Heavy rain in northern Kyushu, July 2017 (from Ministry of Land, Infrastructure, Transport and Tourism website)

Inseparably linked,
ever-more complex

Integrated Improvements on Environment,
Economy and Society (II2ES) !

- Each region demonstrates its strengths by utilizing its unique characteristics to **form self-reliant and decentralized societies** where the differing resources of each region circulate, and regions complement and engage in exchanges with neighboring regions according to the unique characteristics of each region.
⇒ Building a sustainable, circulation and symbiosis based society (**“Environmental and Life Centered Civilized Society”**).

Circulating and Ecological Economy concept



- Each region demonstrates its strengths by utilizing its unique characteristics
 - Makes use of regional resources and builds **a self-reliant and decentralized society**
 - Complements and **supports one another** according to unique characteristics of each region

「Self-reliance & decentralization」×「Mutual cooperation」×「Circulation & symbiosis」 = **vitalization**

「Ownership」

「Networks」

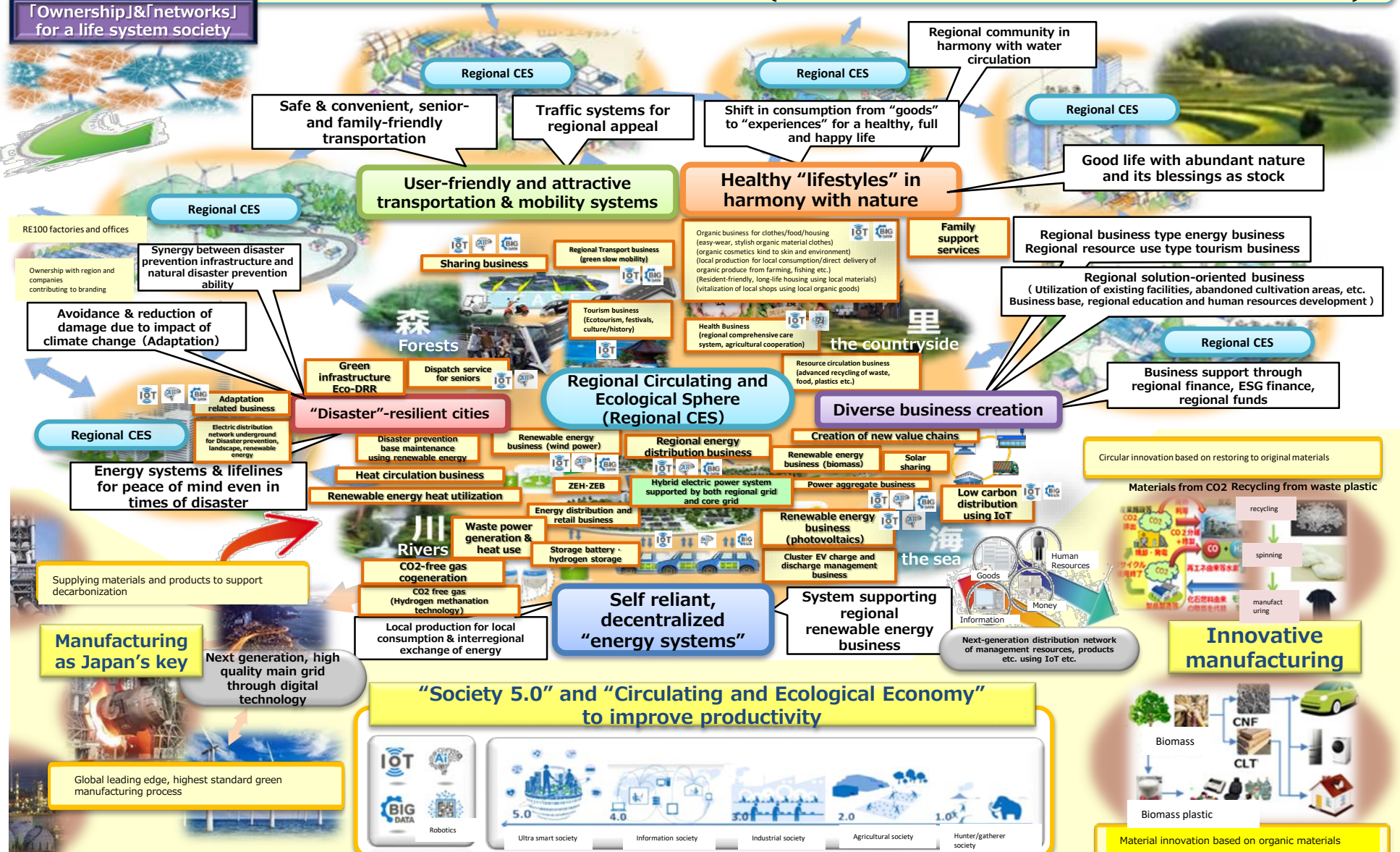
「Sustainability」

= 「**Circulating and Ecological Economy**」 ⇒ 「**decarbonization · SDGs implementation, to the world**」
[human security, youth · women's empowerment as a base]

➡ **Basis for region leading to growth with new values and business**

(People living a healthy, lively, happy life, with pride in a self-reliant region, and by organically linking with other regions, **abundance can extend nationwide**)

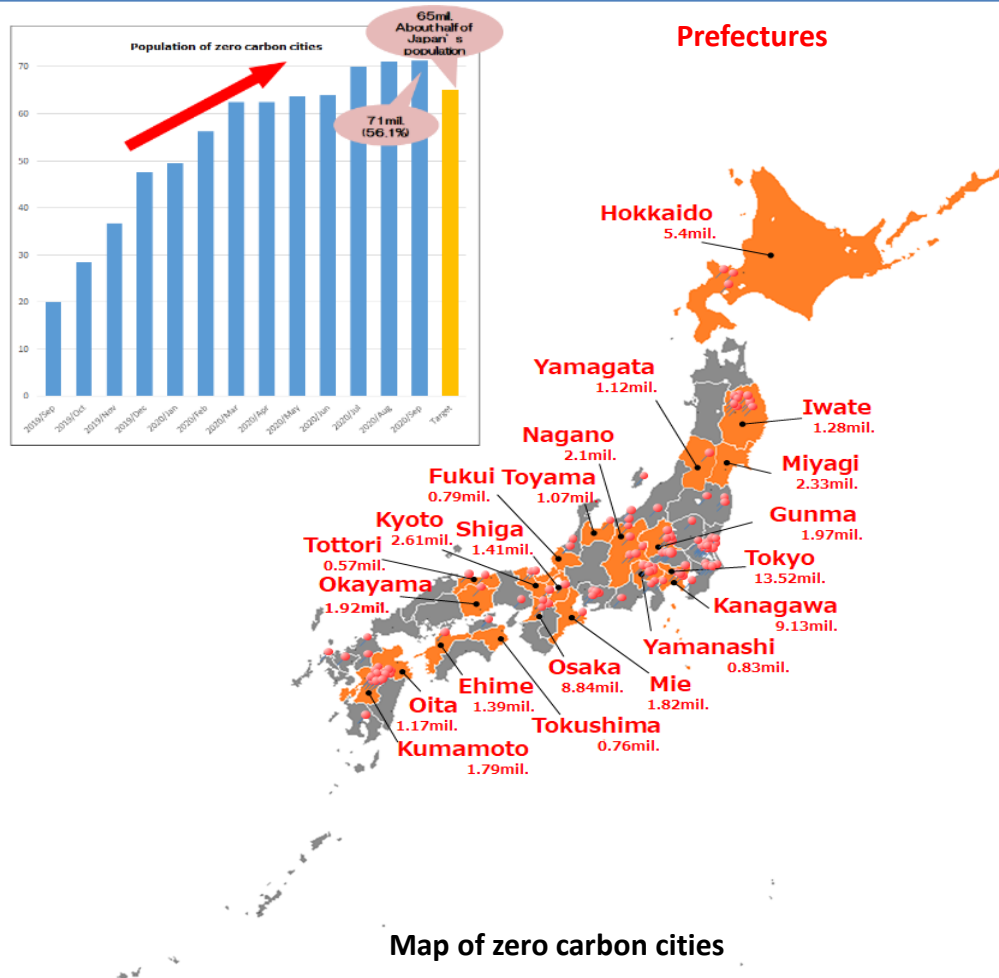
「Ownership」&「networks」
for a life system society



2050 Zero Carbon Cities in Japan

- 153 local governments including Tokyo, Kyoto, and Yokohama announced their commitment to net zero carbon emissions by 2050.
- These local governments represent **71 million people (56.1% of Japan's population)**, and **3.3 trillion USD in GDP**.

Exceeded the initial target of 65 million (more than half of Japan's population) and still expanding



Cities/wards/towns/villages			
Hokkaido	Tochigi	Yamanashi	Okayama
Sapporo	Ohtawara	Minami-alps	Maniwa
Niseko	Nasu-Shiobara	Kai	Kagawa
Furubira	Nasu-Karasuyama	Fuefuki	Zentsuji
Iwate	Nasu	Uenohara	Ehime
Kuji	Nakagawa	Chuo	Matsuyama
Ninohe	Gunma	Ichikawamisato	Fukuoka
Hachimantai	Ota	Fujikawa	Fukuoka
Kuzumaki	Fujoka	Showa	Ooki
Fudai	Kanna	Nagano	Saga
Karumai	Minakami	Karuzawa	Takeo
Noda	Oizumi	Tateshina	Nagasaki
Kunohe	Saitama	Minamiminowa	Hirado
Hirono	Chichibu	Ikeda	Kumamoto
Ichinohe	Yamagata	Hakuba	Kumamoto
	Higashine	Otari	Kikuchi
	Fukushima	Shizuoka	Uto
	Koriyama	Hamamatsu	Uki
	Okuma	Gotemba	Aso
	Namie	Aichi	Koshi
	Ibaraki	Okazaki	Misato
	Mito	Handa	Gyokuto
	Tsuchiura	Toyota	Ozu
	Koga	Miyoshi	Kikuyo
	Yuki	Shima	Takamori
	Joso	Shiga	Nishihara
	Takahagi	Konan	Minamiaso
	Kitaibaraki	Kyoto	Mifune
	Toride	Kyoto	Kashima
	Ushiku	Miyadu	Mashiki
	Kashima	Yosano	Kosa
	Itako	Niigata	Yamato
	Moriya	Tokamachi	Kagoshima
	Hitachinaka	Myoko	Kagoshima
	Naka	Sado	
	Chikusei	Awashimaura	
	Bando	Toyama	
	Sakuragawa	Uozu	
	Tsukubamirai	Nanto	
	Omitama	Ishikawa	
	Ibaraki	Kanazawa	
	Shirosato	Kaga	
	Toikai		
	Goka		
	Sakai		

As of Sep 16, 2020



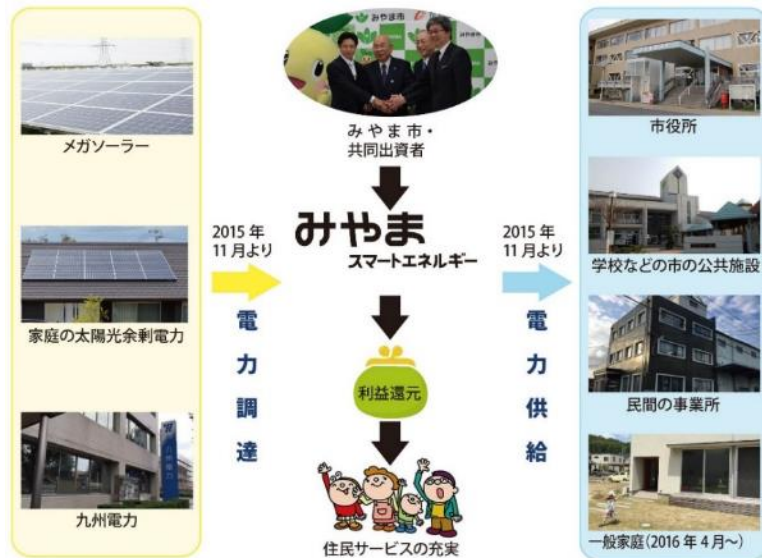
Promoting Vitality in Regions through Decarbonization

■ Utilization of renewable energy resources

- Local governments, private companies, citizens and financial institutions collaborate in the region to **utilize renewable energy resources and provide energy to the region**, thereby expanding a circulating economy in the region and creating employment.

Creating local employment for 40 people in renewable energy (Miyama City)

Miyama City in Fukuoka Prefecture set up Miyama Smart Energy, a **regional new power** company run by the local government to provide power retail service to households. In FY2017, there were about 3,000 contracts with **over 1.8 billion yen in sales**, creating **employment for about 40 people** in the area.



■ Utilization of woody biomass resources

- Sustainable use of woody biomass power generation and heat use is simultaneously **low-carbon, resource-conserving and harmonized with nature**, and also contributes to **creation of local employment**.

Community building around “Hundred Year Forest” (Nishiawakura Village, Okayama Prefecture)

The Nishiawakura Village in Okayama Prefecture formulated the **“Hundred Year Forest Concept”** and is advancing utilization of forest biomass, expecting to reduce annual fuel costs by 20% and retain approximately 13 million yen in the region. Through initiatives utilizing regional resources, 30 companies have been launched since 2008, and the village has achieved social increase of population.

Consolidated Forest Maintenance



Firewood boiler at hot springs facility



Source: Nishiawakura Village, Okayama Prefecture

Promoting Vitality in Regions through Local Natural Resources

■ Promoting vitality in regional industry through utilization of natural resources

- Utilizing the bounties of nature (ecosystem services) for **branding of local agriculture, forestry and fisheries industries as well as the region itself.**

Coexisting with cranes (Toyooka City)

In Toyooka City, Hyogo Prefecture, the income of farmers is increasing due to rice cultivation based on **“Farming Methods that Foster White Storks”** since 2003 that does not rely on pesticides and chemical fertilizers. Tourists have also tripled for **“White Crane Tourism”** that combines white cranes and local tourist spots.

White stork and boy



Source: Toyooka City, Hyogo Prefecture

“Foster White Storks” rice



■ Promoting environmental conservation-type agriculture

- Promoting environmental conservation-type agriculture to lessen environmental impacts due to use of chemical fertilizers and pesticides, such as **organic farming.**

Rural community development with organic farming (Ogawa Town)

Ogawa Town in Saitama Prefecture **branded itself as a region for organic farming**, compensating for its lack of flat and large pieces of land by establishing the town’s very own certification system. The ratio of commercial farmers engaged in organic farming has grown to 11%, the highest level in Japan.

Organic farming in Ogawa Town



Source: Ogawa Town, Saitama Prefecture



Thank you for your attention.