

**World Innovation Symposium on Human Behavior**  
**～ In pursuit of achieving the SDGs ～**

**Session 2: Behavioral Insights X SDGs**  
**SDGs X ESG**

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## ESG investment is an evolved form of socially responsible investment

- ◆ In Europe and the US **socially responsible investment (SRI)** commenced in the 1920s from a religious background (Christianity), in the 1960s **pollution problems (Environment) and human rights (Social)** movements led to exercise of voting rights (**activist shareholders**), and after the Enron scandal, etc., in the 1990s evolved into **management control (Governance)** based on **sustainable development** and **governance**.
- ◆ After learning lessons from globally short-termism **as a result of the Lehman shock**, companies are evaluated not only for their financial aspects, but by **other values = non-financial values**.

## ◆ Principle of Responsible Investment (PRI) by the United Nations in 2006

International guidelines for **reflecting environmental, social, and governance (ESG) issues** in the decision-making process of **institutional investors to the extent that they do not conflict with fiduciary responsibility.**

Principle 1: We will **incorporate ESG issues into investment analysis and decision-making processes.**

Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.

Principle 3: We will **seek appropriate disclosure on ESG issues by the entities in which we invest.**

Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.

Principle 5: We will work together to enhance our effectiveness in implementing the Principles.

Principle 6: We will each report on our activities and progress towards implementing the Principles.

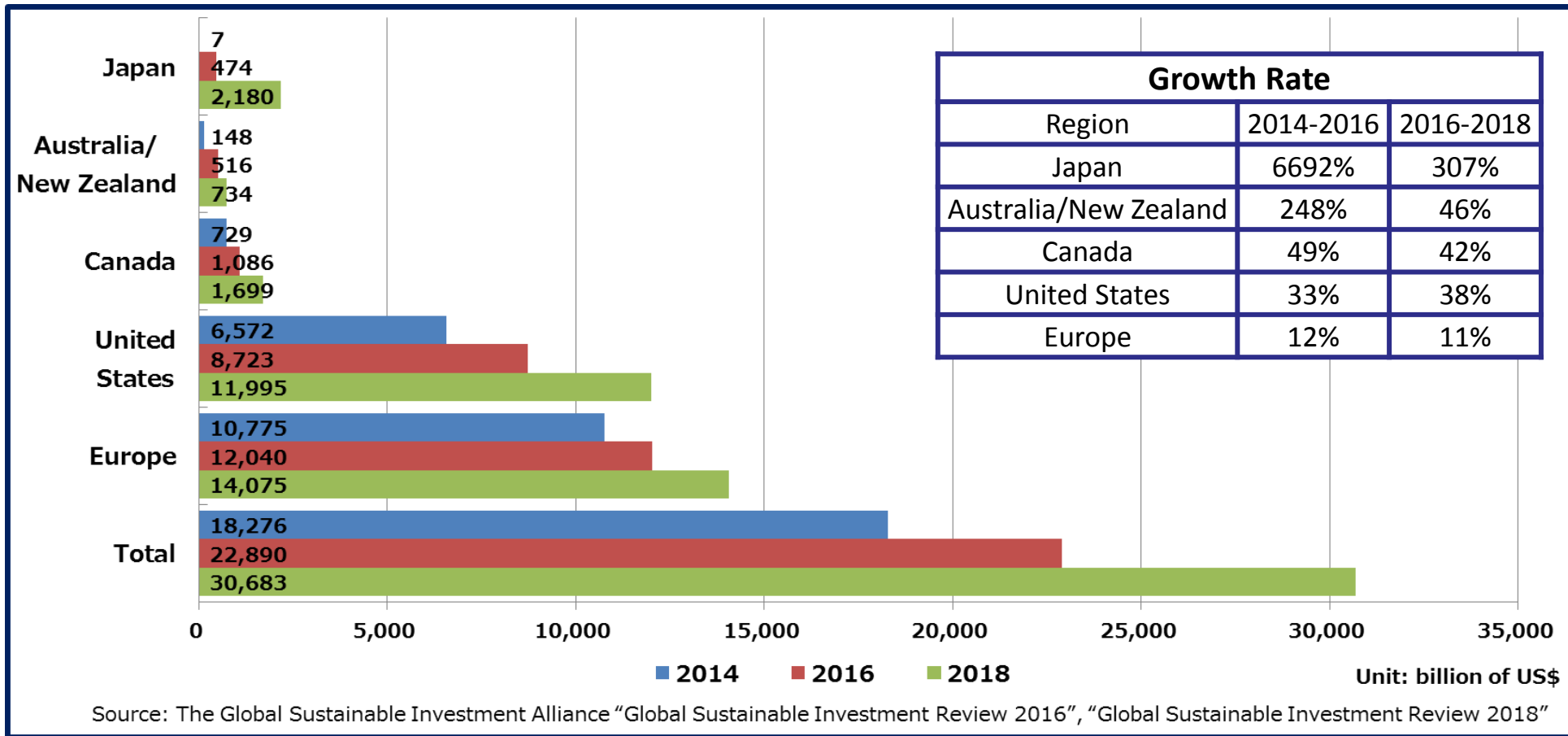


**Needs disclosure of Non-financial information  
= information other than financial information**

# Growth of ESG Investment Assets

**At the start of 2018, global sustainable investment reached \$30.7 trillion in the five major markets shown below.**

Growth of Sustainable Investing Assets by Region (2014, 2016, 2018)

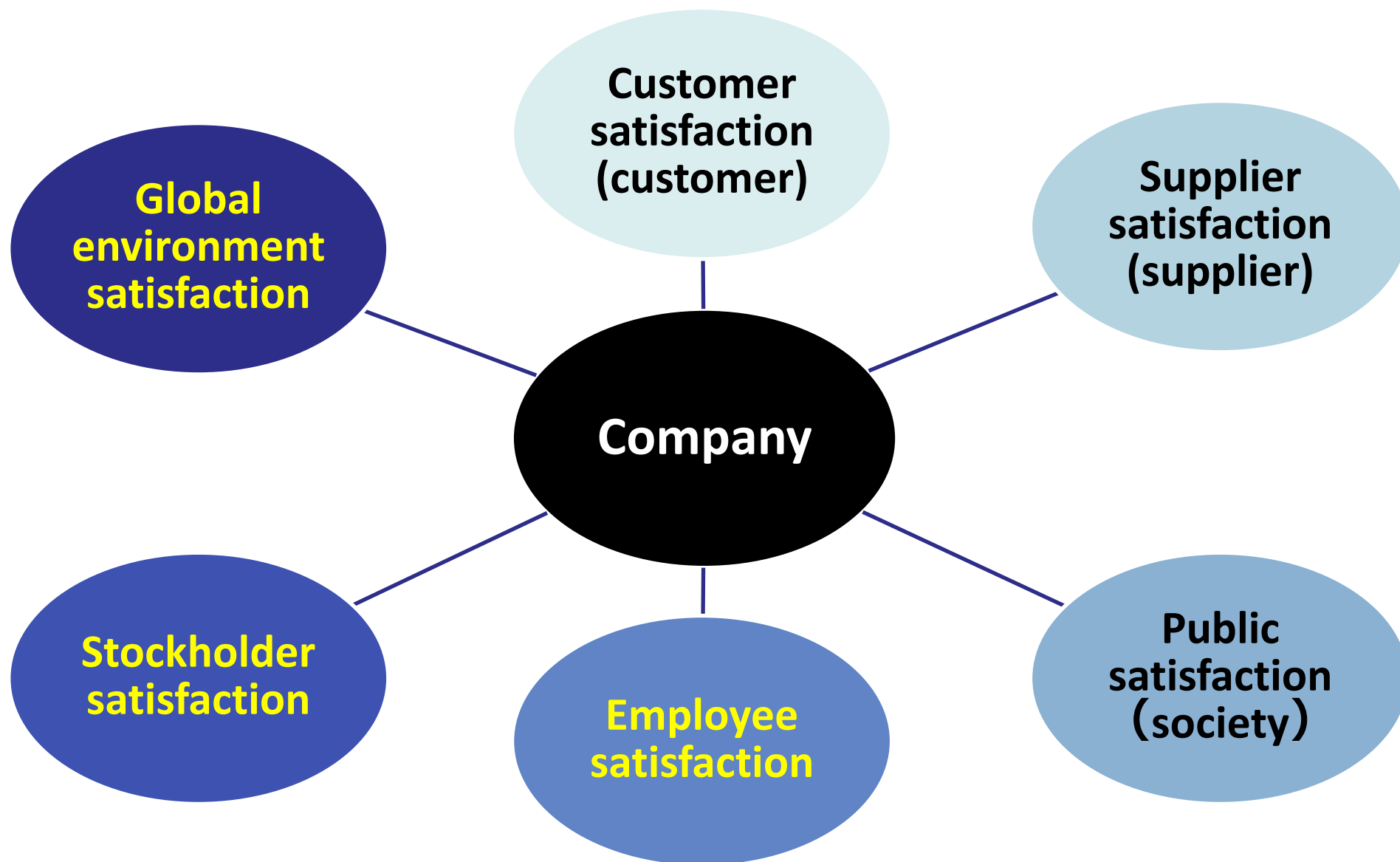


A part of Prime Minister Abe's medium and long-term investment promotion policy

- ◆ The Council on Economic and Fiscal Policy has stated that “responsible institutional investors should expand their activities to **promote Japanese corporate value and capital efficiency from the medium to long-term point of view**” (February 20, 2014)
- ◆ The **Government Pension Investment Fund (GPIF)\*** became signatory to the PRI on **September 2015**.

\* The institution that manages and operates the employees pension and the National Pension Plan pension funds. At the end of FY2017 its assets under management were ¥156.38 trillion, the largest in the world. **It is required to hold and stably manage assets (stocks, bonds, etc.) for the long term.**

# Relation between company and society



**SDGs are a communication tool provided for integrated evaluation by ESG investors**

**ESG投資とSDGsの関係**

社会的な課題解決が事業機会と投資機会を生む

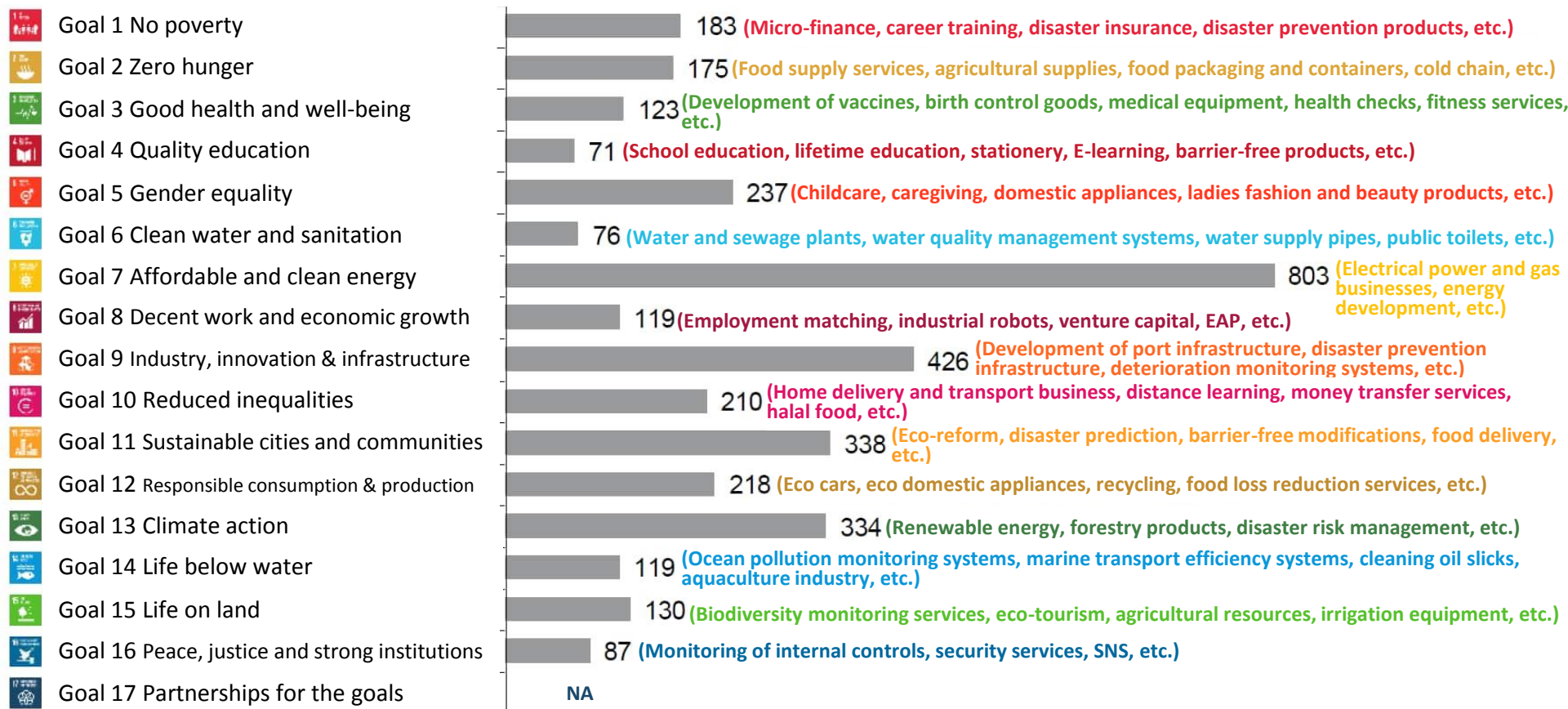


(出所) 国連等よりGPIF作成

## Solution of social problems by 2030 = Opportunity for innovation to create markets

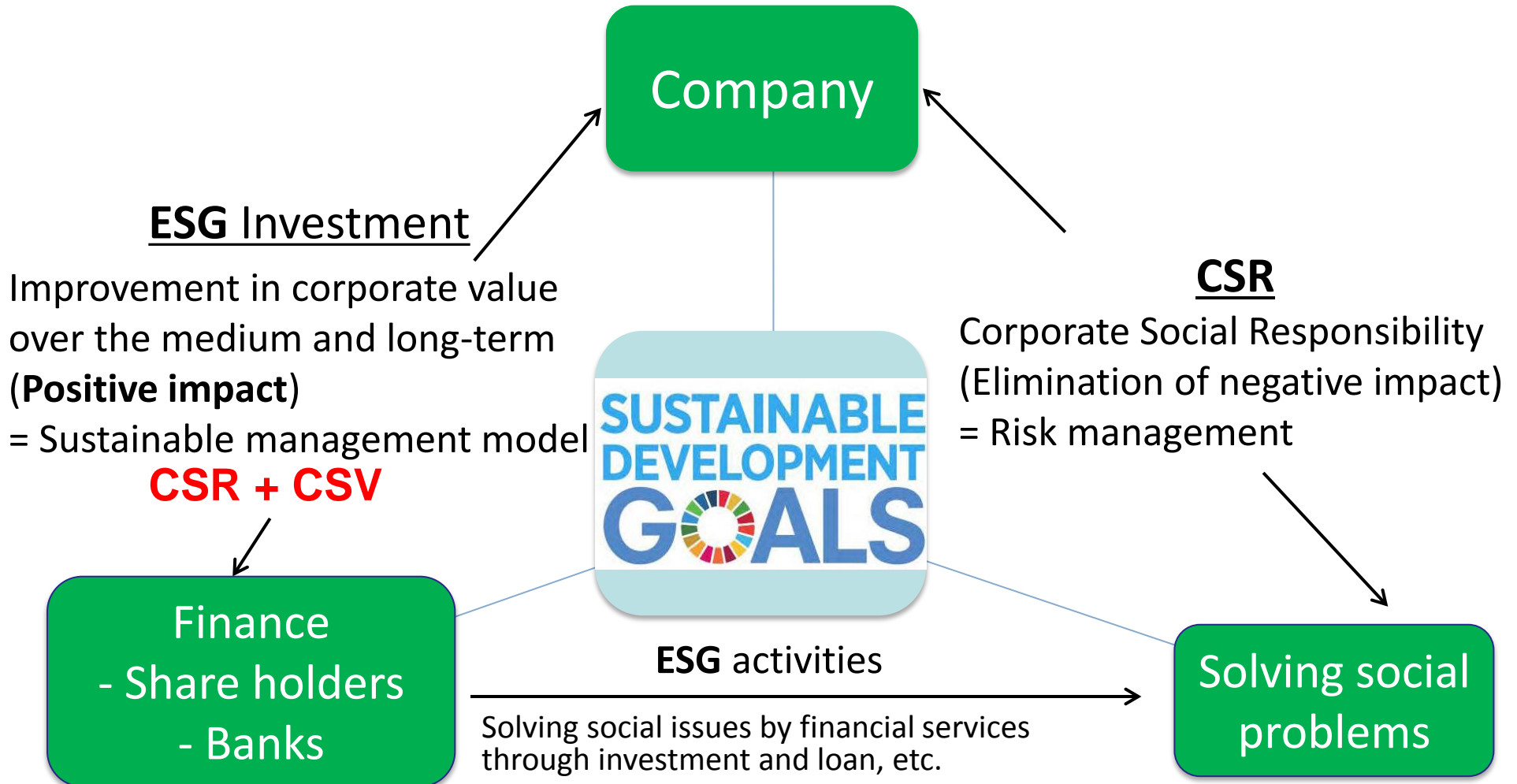
<Result of estimated market size of each (2017)>

(Unit: Trillion yen)





# Companies, SDGs, and Finance



- UN PRI
- Stewardship Code

- Japanese Bankers Association: Revision of code of conduct, establishment of Working Committee on SDGs/ESG.
- Japan Securities Dealers Association: Develop “Declaration in Support of SDGs” in March 2018

GPIF conducted a 4<sup>th</sup> survey regarding stewardship activities of institutional investors among the 2,192 companies listed on the first section of the Tokyo Stock Exchange and received 604 replies.

### Top 7 Main themes of ESG/CSR activities and companies' objectives

Rank	Item	Percentage
1	Corporate governance	71.2%
2	Climate change	45.5%
3	Diversity	41.6%
4	Human rights and local society	34.4%
5	Health and safety	33.3%
6	Safety of products and services	32.0%
7	Risk management	27.5%

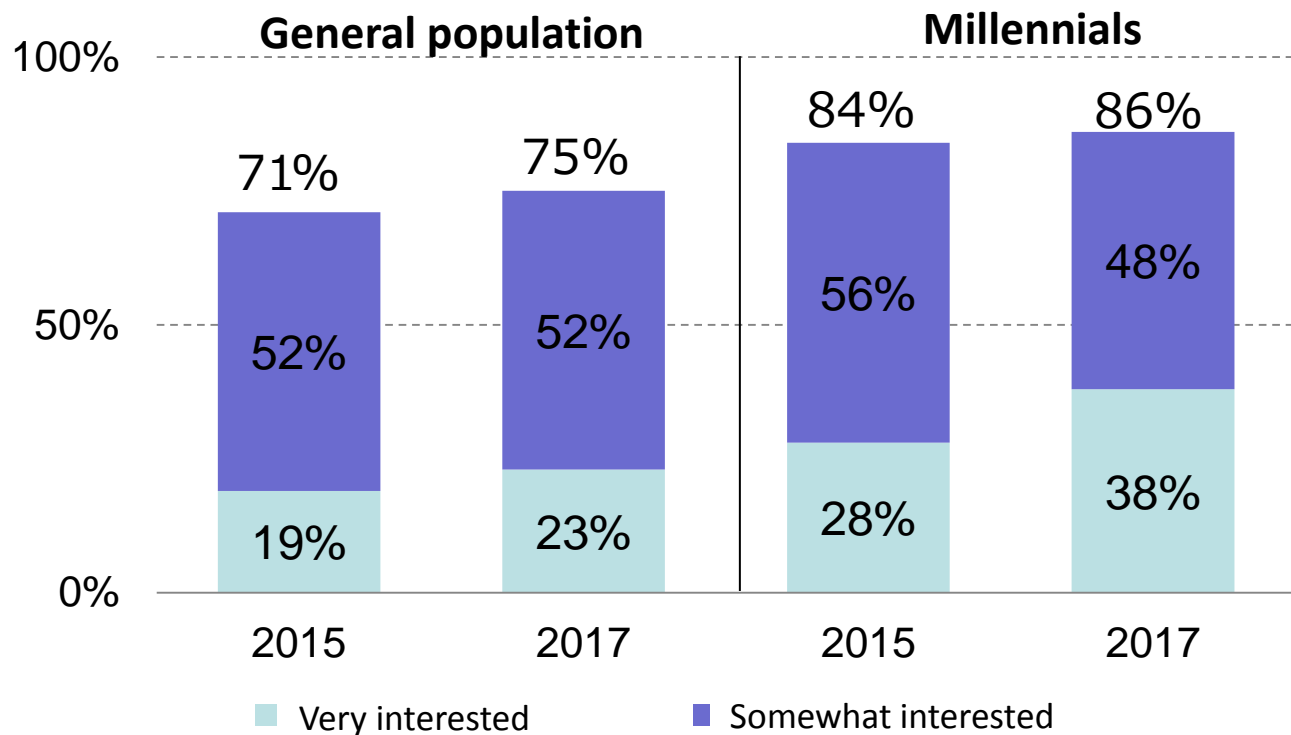
Many companies has situated the year 2018 as a start year of ESG promotion

- ◆ NHK TV program broadcasted on Dec 17, 2017

*Projection Only*

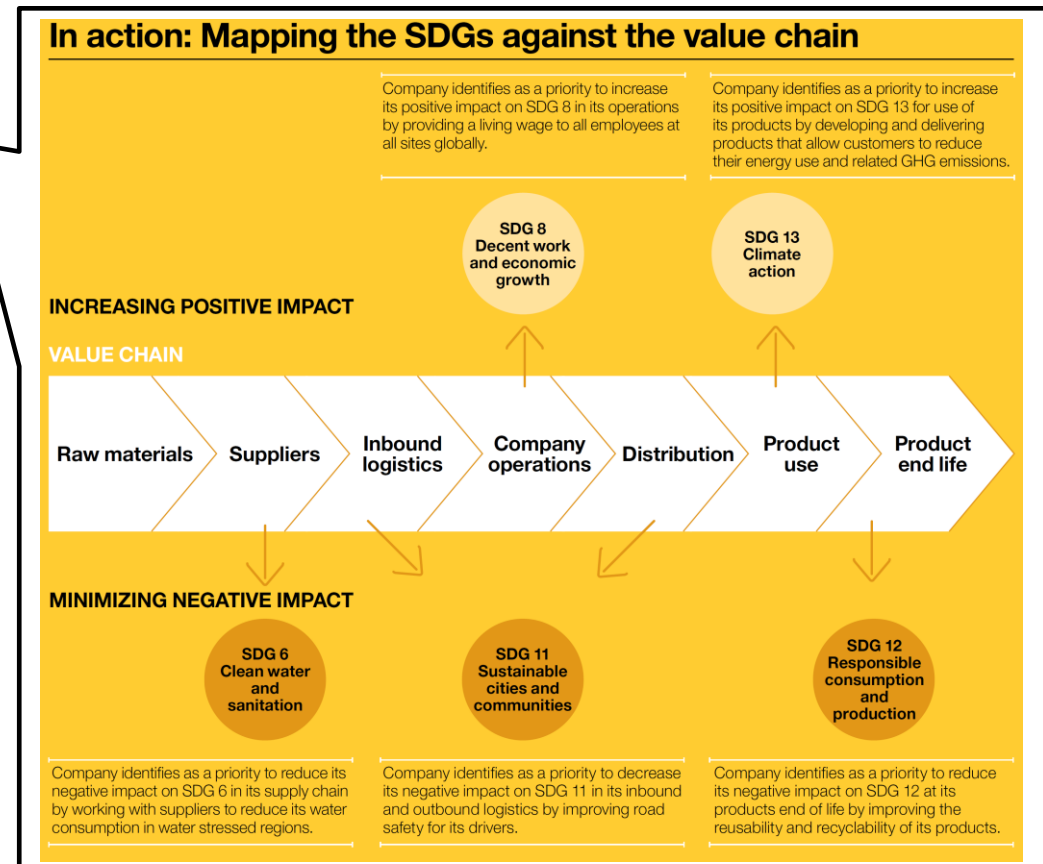
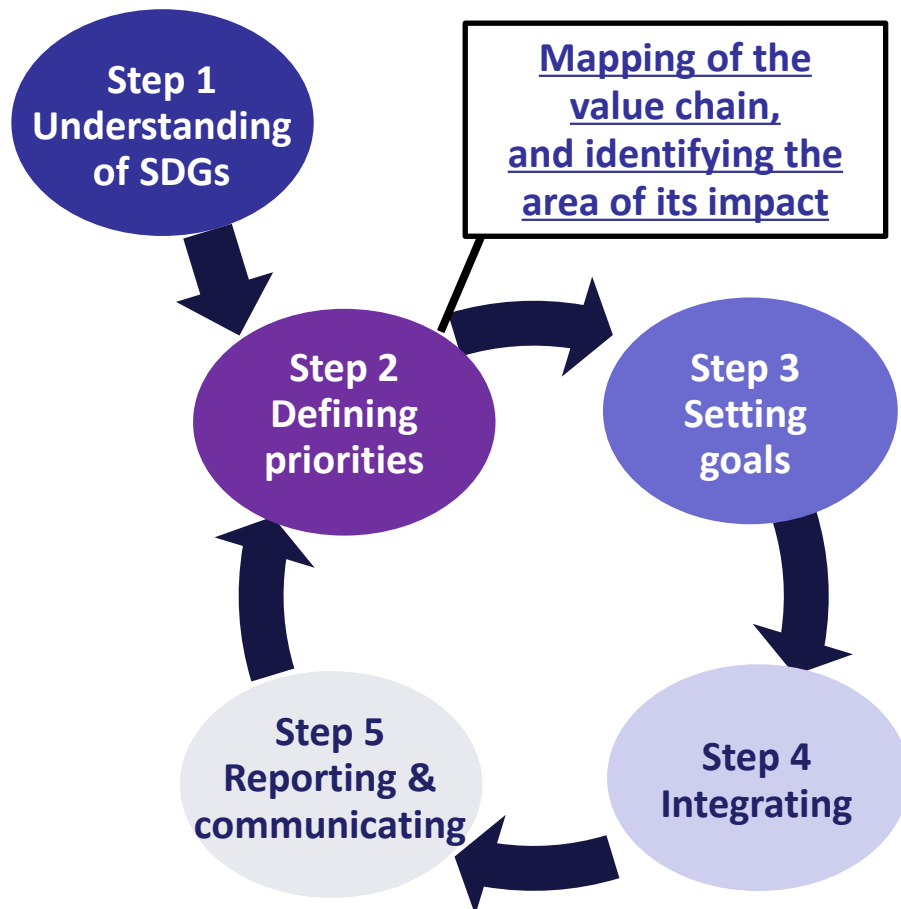
## Millennial investors has a strong interest in sustainable investment

*Q. How interested are you in sustainable investing, which is the practice of making investments in companies or funds which aim to achieve market-rate financial returns while pursuing positive social and/or environmental impact?*

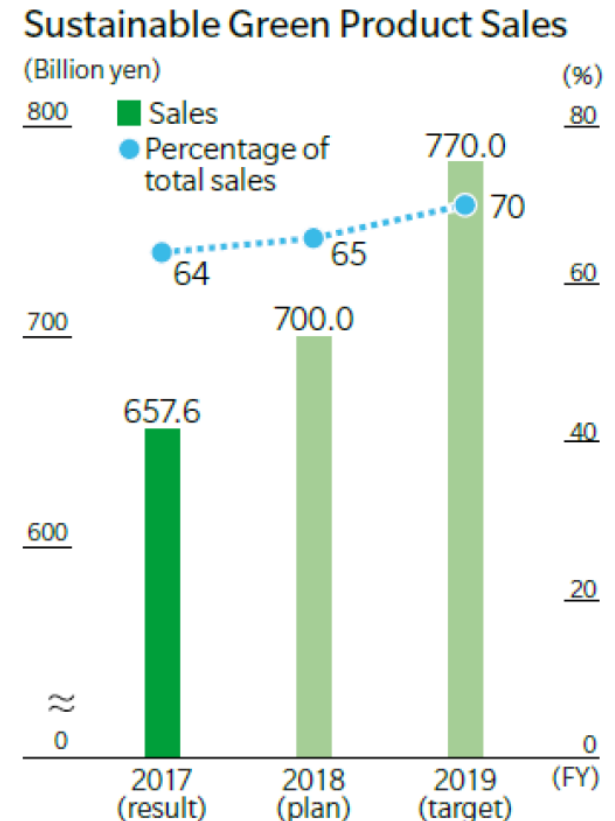
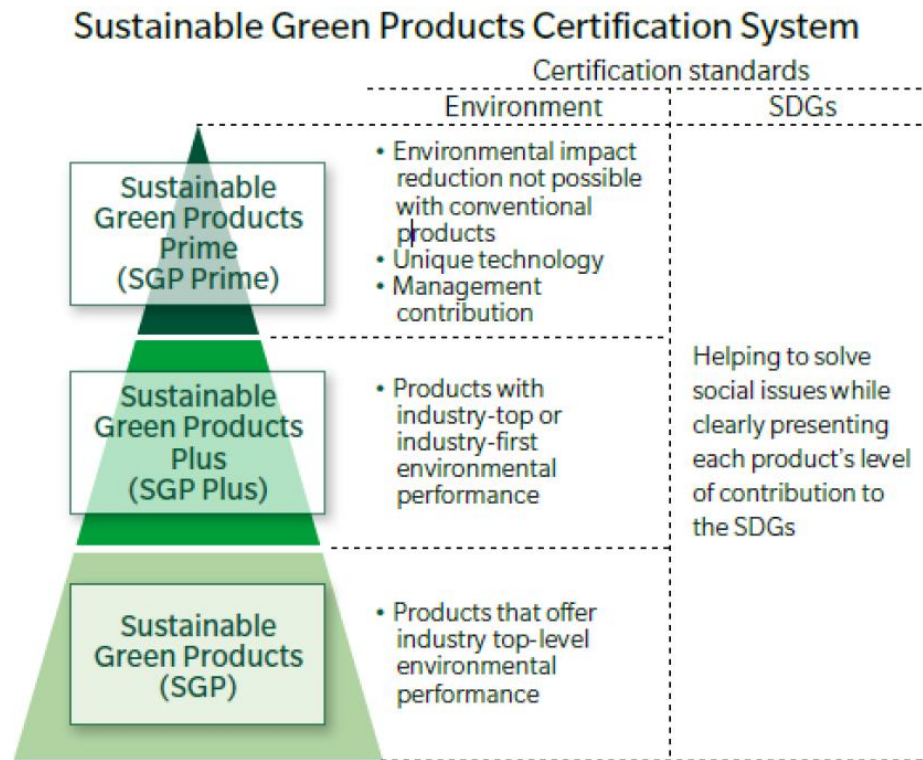


\*From a questionnaire survey of 1,000 individual investors in US

The SDG Compass provides **guidance for companies on how they can align their strategies as well as measure and manage their contribution to the realization of the SDGs**. Guidance is provided on the effect of the SDGs on the business of each company, and tools and knowledge is provided processing sustainability at the center of their business strategy. The guide presents five steps for companies to maximize their contribution to the SDGs.



**Green Products Certification System** aims to drive the creation of environmental value that matches business and product characteristics. The goal is to reduce the environmental impact of customers and society, while also raising profitability. They launched a “**Sustainable Green Products Certification System**” by expanding its original Green Products Certification System to **include standards for resolving social issues based on the SDGs**.



## ◆ Road map for achieving the SDGs

FY2017

### Phase 1

Understand sustainability and the SDGs

Increase understanding through CEO messages, symposiums, workshops, newsletters, and so on.

FY2017

### Phase 2

Classify the existing businesses based on the SDGs

Sustainability initiatives launched to **include a requirement to describe “factors of a contribution to SDGs” on the internal application form for a business startup.**

FY2018

### Phase 3

Explore new business possibilities based on the motives of solving social issues

## ◆ Innovation creation activities “Yume Pro”

\* OKI’s corporate slogan

“Open up your dreams”

\* Pro = Program, Project, and Professional



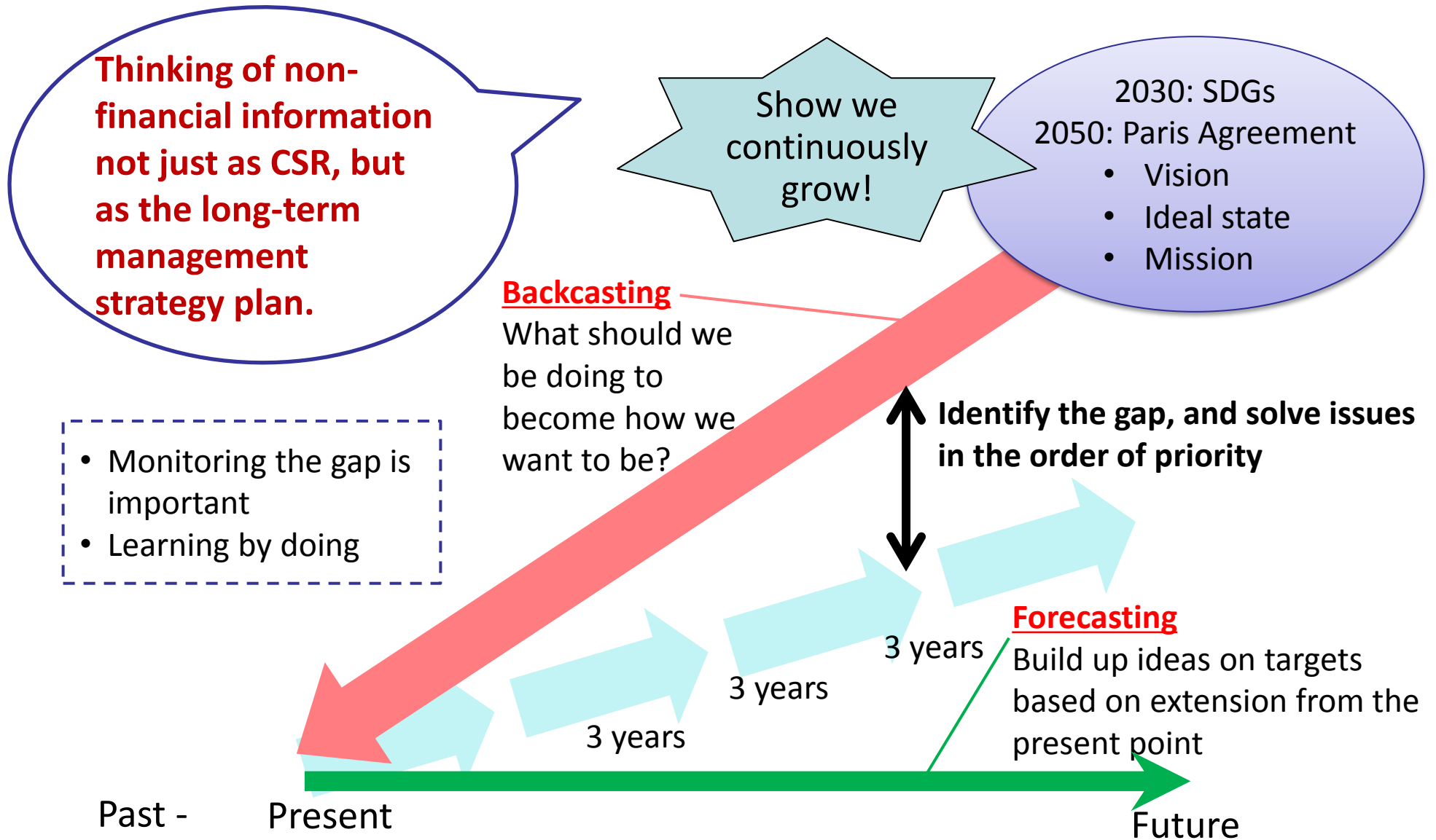
- The purpose is to jointly create new businesses together with external partners.
- **Project takes a different approach from OKI’s traditional innovation model and focuses on OKI’s corporate mission and the value of SDGs to find opportunities where OKI can contribute.**
- Find solutions and solve problems with their partners, OKI will organize customized seminars and workshops for them.



## ◆ Sustainable Tree Project (started from 2016)

- Posting project where SDGs are the theme, designed to help the entire Group more deeply embrace the Basic CSR Policy of "contributing to the sustainable development of society through business activities".
- **Every officer and employee all over the world is able to post about their contribution to the SDGs through dedicated website.**
- The dedicated website provides information about "the best practices," products and technologies followed at any of the Group companies in connection with the SDGs.

# SDGs and ESG scenarios synergy



# Global trend of disclosure of non-financial information (November 2018)

## CSR

## Impact to finance

Global Reporting Initiative (GRI)	EU Directive on disclosure of non-financial information and diversity information by certain large undertakings and groups (2014/95/EU)	EU Regulations Related to Sustainable Investment being established by High Level Expert Group on Sustainable Finance (HLEG)	Accounting Base of US Sustainability Accounting Standards Board (SASB)	Task Force on Climate-related Financial Disclosures (TCFD)
<ul style="list-style-type: none"> <li>• Founded in 1997</li> <li>• International standard of sustainability</li> <li>• Discloses information on impacts to be caused by "companies and organizations" on economy, environment and society.</li> </ul>	<ul style="list-style-type: none"> <li>• "EU Directive on disclosure of non-financial information and diversity information" made effective by the European Commission in December 2014</li> <li>• Although specific contents depend on each country, specified companies and groups with 500 or more employees are obliged to disclose non-financial information on environmental conservation, society, employees, respect for human rights, prohibition of corruption and bribery, diversity of board directors, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Institutional reform aimed at finance for sustainability</li> <li>• Increases transparency of risks specified in <b>Paris Agreement and SDGs</b></li> <li>• Based on the proposals given in the final report submitted by HLEG to the European Commission in January 2018. The European Commission established an "Action Plan" in March and drafted regulations related to the said content in June 2018.</li> </ul>	<ul style="list-style-type: none"> <li>• A US NGO founded in 2011</li> <li>• Accounting standards on disclosure of non-financial information for listed companies in US</li> <li>• After the Guidelines were published in 2015, standards (draft) for major industries were released in October 2017.</li> <li>• The standards for disclosure of non-financial information in annual reports for 77 industries in 11 sectors were formally disclosed in November 2018.</li> </ul>	<ul style="list-style-type: none"> <li>• Published a final report that summarizes recommendations on <b>Arbitrary Disclosure of Financial Information Related to Climate Change</b> in June 2017.</li> <li>• Discloses information on impacts to be caused by "climate change" on activities of companies and organizations.</li> <li>• Explains that short-, middle-, and long-term strategic plans and risk management system of companies and organizations are made in consideration of risks and opportunities posed by climate change.</li> </ul>

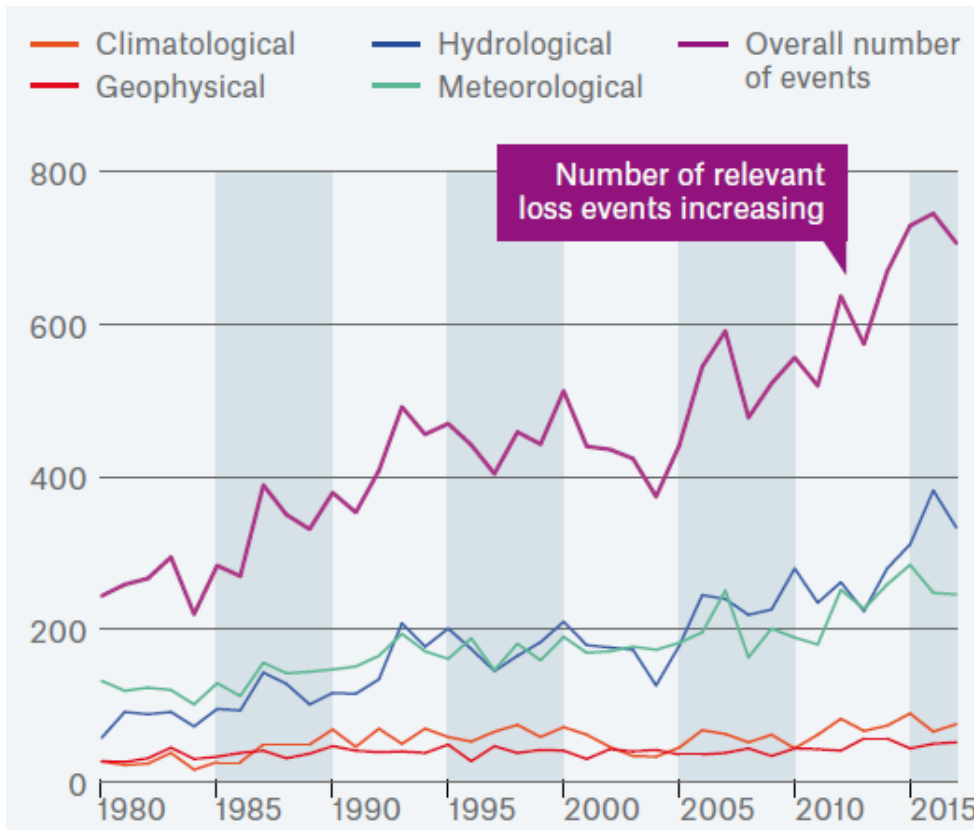
Financial Stability Board (FSB)<sup>\*1</sup> recognizes **climate change as a major risk that would give impact to financial system on the same level with the collapse of Lehman Brothers.**

- ◆ In 2015, G20 requested the FSB to examine climate risk.
- ◆ The **Task Force on Climate-related Financial Disclosures (TCFD)**<sup>\*2</sup> was founded in December 2015.
  - Proposed establishment of a **standard for disclosure** of corporate information on CO<sub>2</sub> emission and submitted a final report.
  - Identified and encouraged to disclose the **financial impacts** of "**transition risks**," "**physical risks**," and "**opportunities**" as the "impacts of climate change on the financial industry" among new risks that threaten financial stability.

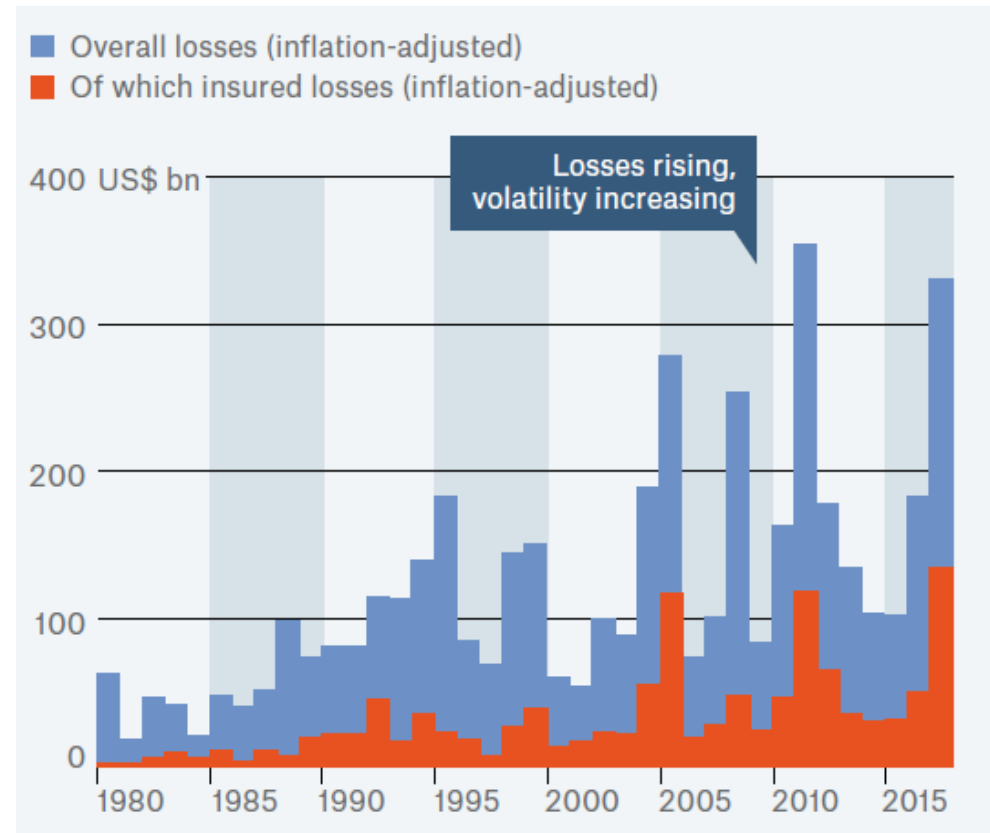
\*1 Promoted cooperation between the authorities in charge of stability of the financial system. The participants are central banks, financial supervisory authorities, finance ministries, and major standard formulators of 25 major countries and regions. The chairperson is Mark Carney, the Governor of the Bank of England.

\*2 The chairperson is Michael Bloomberg.

**Transition of number of natural disasters in the world (1980-2017)**



**Transition of economic losses due to natural disasters in the world (1980-2017)**



# Outline of TCFD Recommendations

Type	Climate-Related Risks	Climate-Related Opportunities
Transition Risks	<b>Policy and Legal</b> <ul style="list-style-type: none"> <li>– Increased pricing of GHG emissions</li> <li>– Enhanced emissions-reporting obligations</li> <li>– Mandates on and regulation of existing products and services</li> <li>– Exposure to litigation</li> </ul>	<b>Resource Efficiency</b> <ul style="list-style-type: none"> <li>– Use of more efficient modes of transport</li> <li>– Use of more efficient production and distribution processes</li> <li>– Use of recycling</li> <li>– Move to more efficient buildings</li> <li>– Reduced water usage and Consumption</li> </ul>
	<b>Technology</b> <ul style="list-style-type: none"> <li>– Substitution of existing products and services with lower emissions options</li> <li>– Unsuccessful investment in new technologies</li> <li>– Costs to transition to lower emissions technology</li> </ul>	<b>Energy Source</b> <ul style="list-style-type: none"> <li>– Use of lower-emission sources of energy</li> <li>– Use of supportive policy incentives</li> <li>– Use of new technologies</li> <li>– Participation in carbon market</li> <li>– Shift toward decentralized energy generation</li> </ul>
	<b>Market</b> <ul style="list-style-type: none"> <li>– Changing customer behavior</li> <li>– Uncertainty in market signals</li> <li>– Increased cost of raw materials</li> </ul>	<b>Products and Services</b> <ul style="list-style-type: none"> <li>– Development and/or expansion of low emission goods and services</li> <li>– Development of climate adaptation and insurance risk solutions</li> <li>– Development of new products or services through R&amp;D and innovation</li> <li>– Ability to diversify business activities</li> <li>– Shift in consumer preferences</li> </ul>
	<b>Reputation</b> <ul style="list-style-type: none"> <li>– Shifts in consumer preferences</li> <li>– Stigmatization of sector</li> <li>– Increased stakeholder concern or negative stakeholder feedback</li> </ul>	
Physical Risks	<b>Acute</b> <ul style="list-style-type: none"> <li>– Increased severity of extreme weather events such as cyclones and floods</li> </ul>	<b>Markets</b> <ul style="list-style-type: none"> <li>– Access to new markets</li> <li>– Use of public-sector incentives</li> <li>– Access to new assets and locations needing insurance coverage</li> </ul>
	<b>Chronic</b> <ul style="list-style-type: none"> <li>– Changes in precipitation patterns and extreme variability in weather patterns</li> <li>– Rising mean temperatures</li> <li>– Rising sea levels</li> </ul>	<b>Resilience</b> <ul style="list-style-type: none"> <li>– Participation in renewable energy programs and adoption of energy efficiency measures</li> <li>– Resource substitutes/diversification</li> </ul>

# Mitigation or Adaptation?

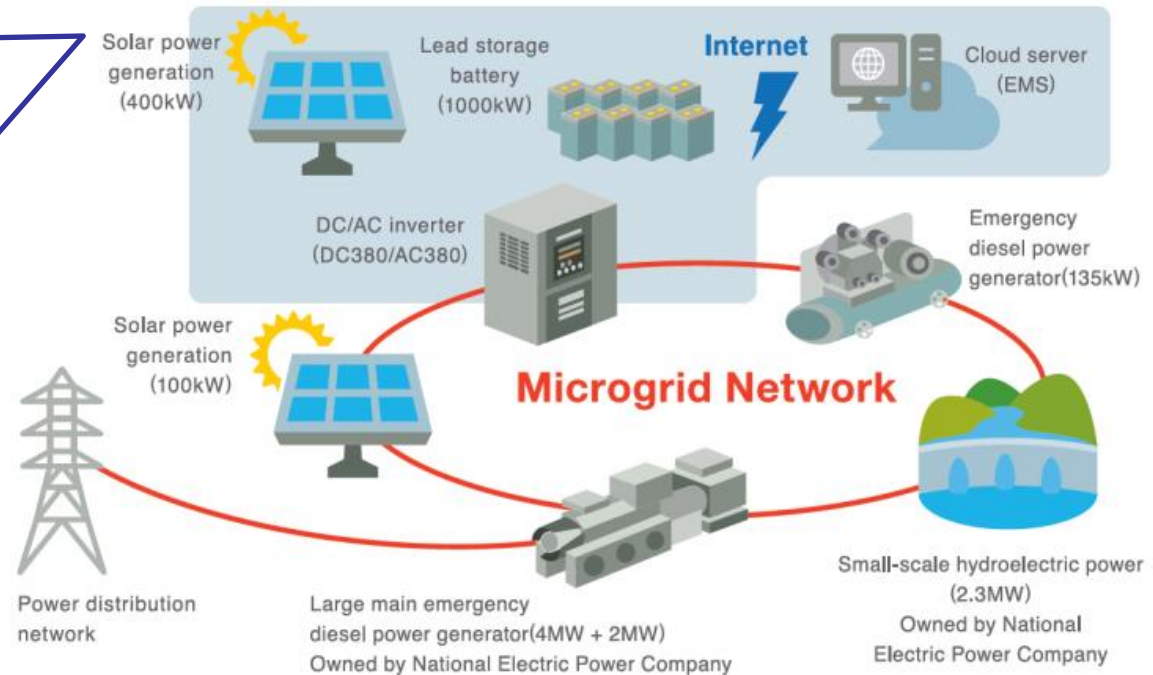
Kyudenko Corporation’s hybrid power generation plant comprises solar power generation facilities, redox flow cells and emergency diesel power generators with EMS (Energy Management System) which enables the optimal control of renewable energy supply while countering abrupt meteorological and environmental changes in remote islands.

Renewable Energy  
 = **CO2 reduction** (Mitigation measure)

↓

Off-grid power supply with Renewable  
 = **Adaptation measure**

- **Risk** measures for Climate change
- **Business opportunities** for sustainability





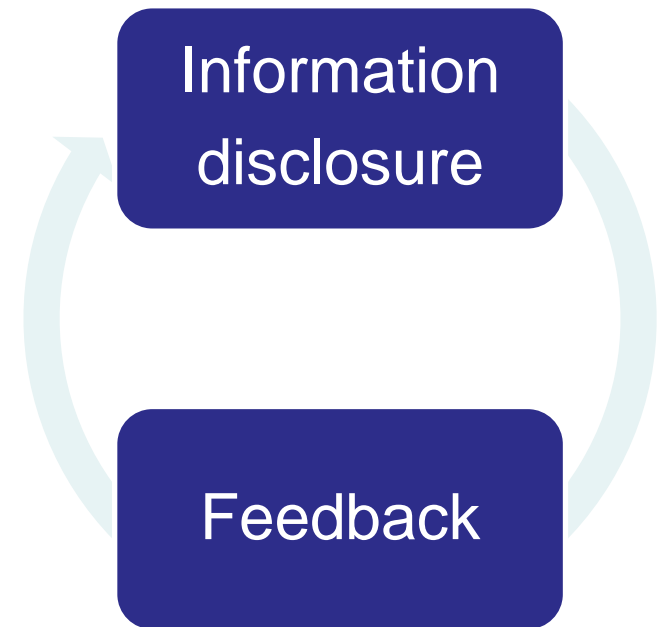
# Price adjustment is difficult for environmental and social problem solving

+

## Policies integrating nudge concept

### ➤ Increase the information quantity and disclosure and strengthen feedbacks to consumers

- ✓ Information disclosure is low cost but valid. Companies do not want to be listed on any blacklist so they will expand their counter-measures and it will result in creating competition among the companies.
- ✓ Labelling is valid also.

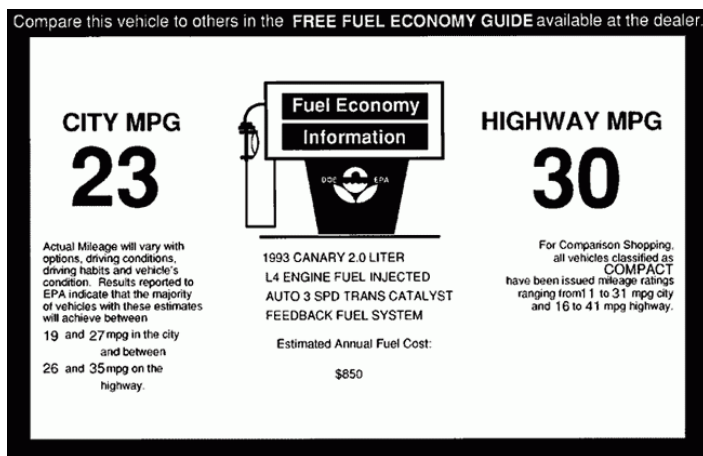




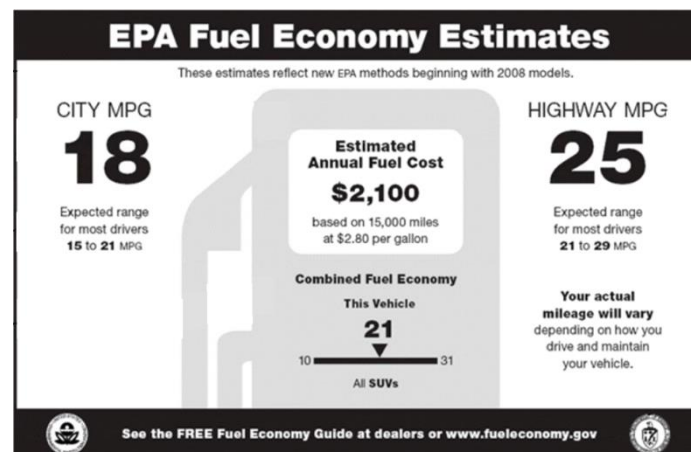
# Case 1: US EPA fuel economy label -1

- US Energy Policy and Conservation Act (EPA) required all new light duty cars and trucks to display Fuel economy labels on the window sticker since the mid-1970s.
- **Requiring the display of labels allows the consumers to make more informed choices regarding fuel efficiency when shopping for a new vehicle and to promote competition among the companies.**
- The label has been updated many times in order to provide enhanced visuals to better inform consumers .

1995 -  
2008



2008 -  
2012



It is hard to recognize what the numbers actually mentions.

The center of the label provides estimated annual fuel costs. This information will allow to estimate fuel costs for this vehicle, and to compare fuel costs across different models.

# Case 1: US EPA fuel economy label -2

2013 –  
(most recent)



- ② Combined City/Highway MPG value aims quick and easy comparison across vehicles.
- ④ Estimates on how much consumers will save or spend on fuel over the next five ears compared to the average new vehicle.
- ⑦⑨ Easy-to-read ratings of how a model compares to all others for smog and greenhouse gas emissions.
- ⑪ QR Code<sup>®</sup> that will allow users to get additional and customizable information about the vehicle on smartphones.

## Case 2: Shizuoka global warming countermeasures app

- “Cool-Po (Cool Point)” is a mobile phone application managed by Shizuoka prefectural office that **leads people to participate in green house gas reduction activities.**



- How to participate:

1. Download app.
2. Participate in targeted eco-actions and earn “cool points” through QR Code posted at activity locations.

E.g. - Use of recycle box at the store: 1 points (CO2 reduction of 0.166kg)  
- Use of environmental finance products at a bank, etc.: 25points  
- Purchase of energy efficiency product at a local store: 25points (CO2 reduction of 36.723kg)

3. Participants can apply to present lottery by earning 30 cool points each time.

# Case 3: Misono “Health & Welfare” Level Advance Project

- Misono “Health & Welfare” Level Advance Project implements activities that leads to increase of healthy life expectancy and QOL launched by Misono Town Management Association (29 organizations) . **The project provides programs that all generations could easily participate, not just only for the people having high interest in health.**



## Misono Health & Welfare Mileage

- ① Develop visualization



← Local government  
← Academia

- ② Give health points

Participating in walking(mall walking) and cycling measured by dedicated activity meter or mobile phone app, participating in related events such as healthy food work shop



- ③ Exchange to shopping points



- “FRaU” is a lifestyle information magazine for women published by Kodansha. **FRaU published on December 2018 provides a whole content related to “SDGs”.**
- It is said that recognition rate of SDGs is only 15% in Japan and especially it is low recognition among women. The magazine was made not just to have women understand about SDGs but also **to find their “own way to start to change the world” and leading to their actions.**
- **“FRaU×SDGs Project” has started:**
  - Raising recognition and concern to SDGs by introducing sustainable lifestyles, providing place for interactions, etc.
- Posting SDGs related contents on FRaU website.

*Projection Only*

⇒ Change consumption behavior



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