

Decarbonizing Global Supply Chain through Spurring Consumer-Driven Green Investment

June 2023

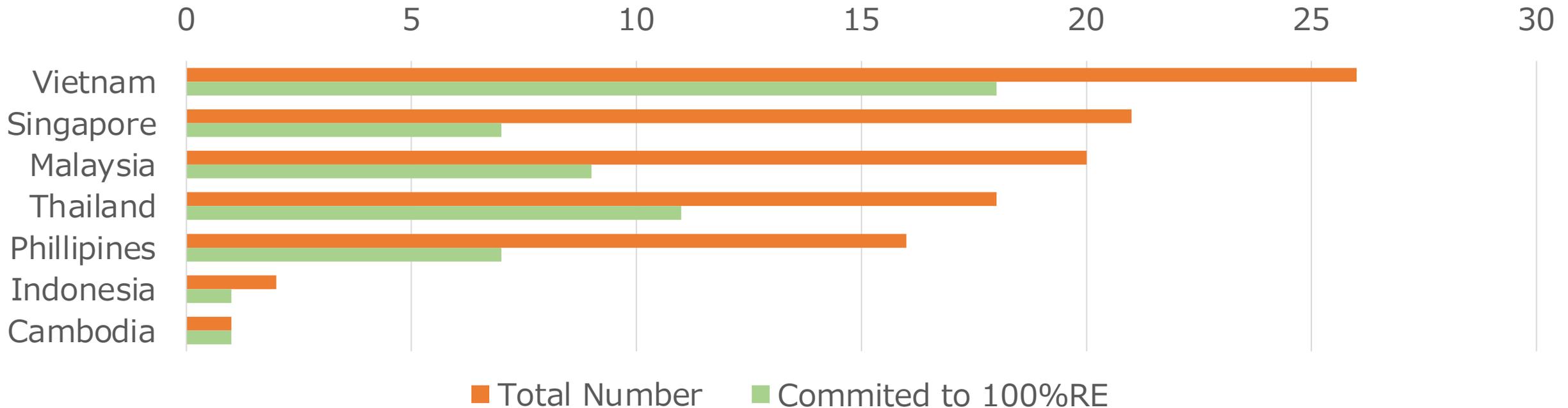
**Chief Representative of AEM-METI Economic and
Industrial Cooperation Committee (AMEICC) Secretariat**

Ryosuke Fujioka

Pressures for Quicker Decarbonization from Stakeholders

- As a cooperate strategy, many firms must get decarbonized due to strong pressures from their stakeholders (e.g. business partners, customers and banks)
- Apple, for example, globally requests its supplier to use 100% renewable electricity for its products by 2030 as their manufacturing process of their business partners accounts for about 70% of the entire CO2 emission of their products.
- As a result, more than 250 partners have committed to Apple's request and switched their electricity to renewables.

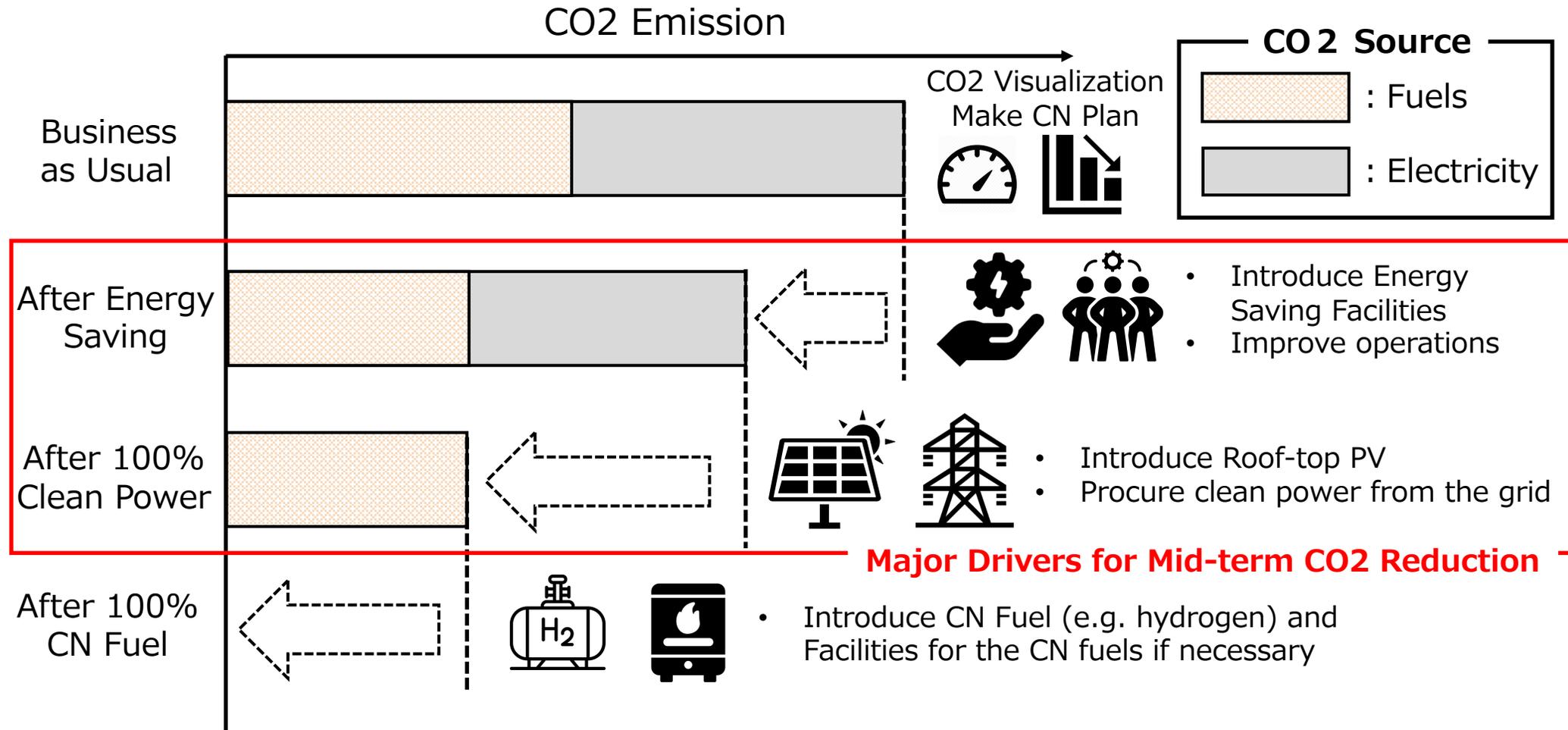
Number of Production Sites by Country which has business relationship with Apple



If firms cannot manage CO2 emission properly, they might lose businesses

Basic Cooperate Strategy toward Carbon Neutrality

- In order to reduce CO2 emission in a cost-effective way, firms visualize their CO2 emissions and establish a concrete plan toward Carbon Neutral as a first step.
- Based on their own plans, the firms save their energy as much as possible and switch to clean power. Then, they use decarbonized fuels such as hydrogen and biomass.



Ref. Four Main Methods to Procure Clean Electricity

- On-site Generation and Off-site PPA with investments in new renewables gets more favorable options as they **can more easily claim the contribution to direct CO2 reduction**, which will be required in some global standards such as RE100.

On-site or behind-the-meter (BTM) generation

Ex : Introduction of Rooftop Solar



Off-site Power Purchase Agreements (PPA)

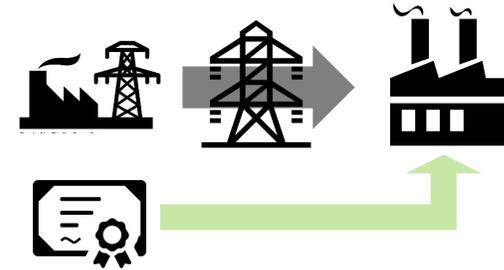
Ex : Procure New Renewables



Easily claim the contribution to direct CO2 reduction

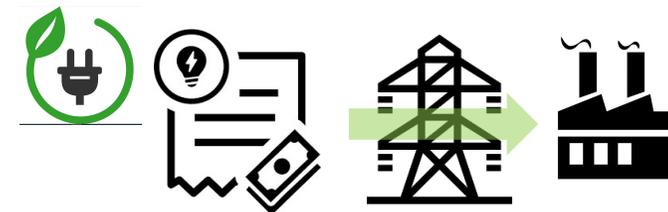
Energy Attribute Certificates (EACs)

Ex : Grid Power + Certificate



Green Power Products /Tariffs

Ex : Select Renewable Retail Tariff

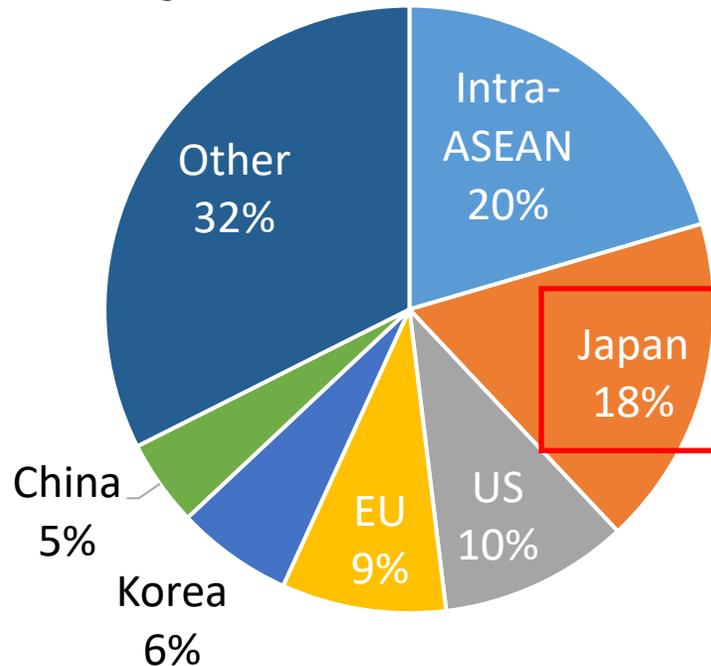


Leveraging Japanese Accumulated Assets in ASEAN

- Japanese firms made a huge investments to ASEAN particularly in manufacturing sector to develop supply chain to sell products to global market
- They now have a very high motivation to get greener in order to make their supply chain sustainable, which creates large rooms for collaborations (e.g. contribution to CO2 emission reduction at national level, spillover effect to local firms)

Accumulated FDI to ASEAN in Manufacturing Sector(2012-2020)

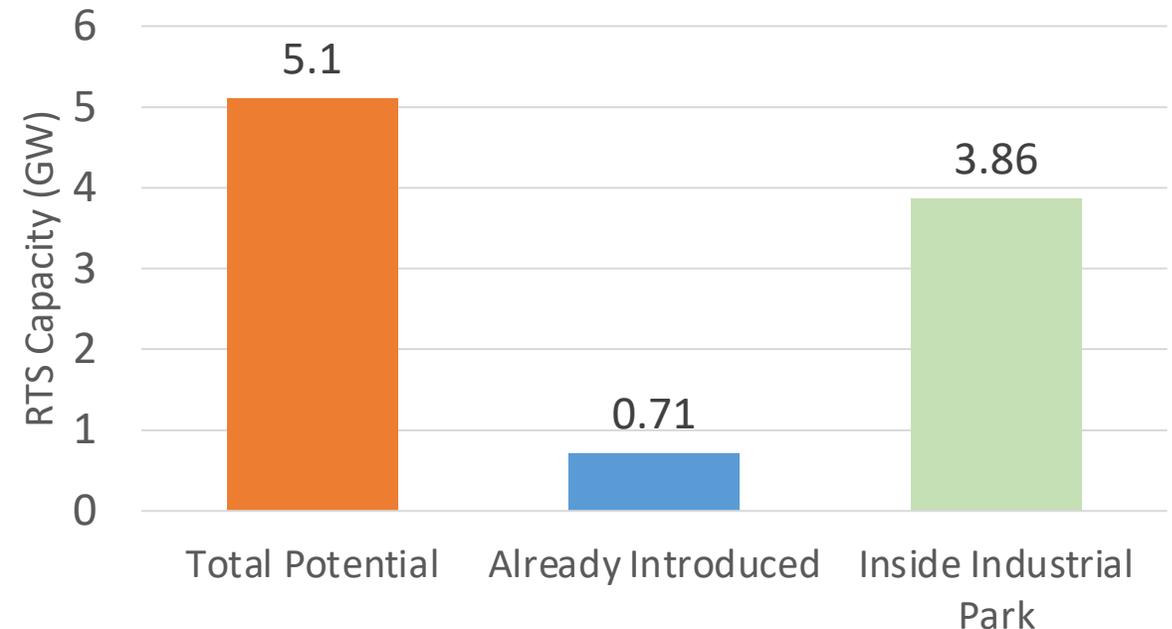
- Japan is No.1 outside investors in ASEAN in manufacturing sector



Reference: ASEAN Statistical Yearbook 2021, COMM Bangkok

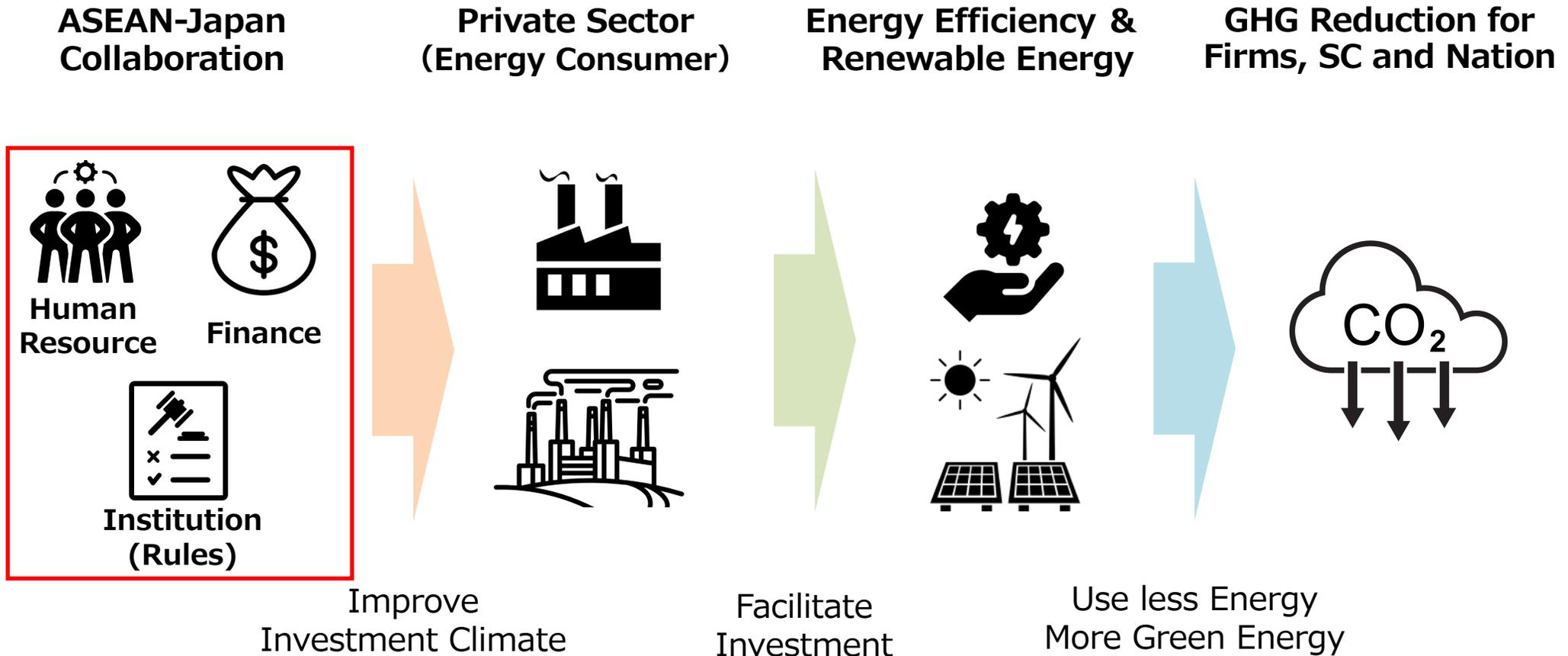
Japanese Factory's Potential of Roof-Top-Solar (RTS) in Thailand

- Most of the potential is untapped and clustered in the industrial park



Spurring Consumer-Driven Green Investment in ASEAN

- In collaboration with ASEAN, Japan is willing to **support to provide enablers such as human resources, finance and institution** to spur energy consumer driven green investments especially in energy efficiency (EE) and renewable energy (RE) sector.
- Those investments can lead to reducing GHG emissions **not only at company level but also at a supply chain (SC) and a national level.**



Introductions of Panelists



Dr. Theerawat Limpibuntern
President of Siam DENSO Manufacturing Co.,Ltd.



Mr. Octavianus Bramantya
General Manager at KADIN Net Zero Hub



Mr. Michitaka Tokeiji
Founder CEO, Zeroboard Inc.



Mr. Satoru Wachi, Team Leader of
Overseas Industrial Park Department,
Sumitomo Corporation



Mr. Akihisa Matsuda
Vice President Director, JETRO

Questions to the Panelists

Question1 Motivations for Your Actions

- Why did you decide to start what you are doing at the beginning? Has your motivation been changed now?

Question2 Challenges and Strategies

- What is the biggest challenges you are facing (or the biggest missing piece) and how do you try to overcome it?

Question3 Potential of Collaborations

- How can you accelerate your actions through collaborations with other stakeholders including today's other panelists?