15 February 2023
Japan Electronics and Information Technology Industries Association (JEITA)

To: Media representatives

Green x Digital Consortium
succeeds in technical POC experiment on carbon data exchange among different solutions
with 15 solution providers, progress made toward visualization of supply chain carbon emissions

The Green x Digital Consortium, for which the Japan Electronics and Information Technology Industries Association (JEITA; chaired by Takahito Tokita, President and Representative Director, Fujitsu Ltd.) serves as secretariat, has conducted a successful technical proof-of-concept experiment on carbon data exchange among different solutions as the first stage toward the visualization of supply chain carbon emissions. The first such experiment to be conducted in Japan, it represents major progress toward that visualization.

Fifteen solution providers participated in Phase 1 of our technical POC experiments toward data exchange, which was conducted from September 2022 to January 2023. Looking ahead to global exchange, we used the API data format specified for the Pathfinder Network by the WBCSD Partnership for Carbon Transparency[*1], a pioneering international framework, to confirm data exchange among multiple solutions on a theoretical product supply chain. As a result of our Phase 1 work, we achieved technical confirmation that even when the various companies in a supply chain use different solutions, data can be exchanged on the basis of common specifications. This will increase the number of options for user companies when introducing solutions as well as eliminating the need for solution providers to align their solutions to individual companies, thereby enhancing development efficiency. The success of the experiment brings us a step closer to the solution-based realization of supply chain carbon emissions visualization.

We aim to complete Phase 2 of our POC experiments by the end of June 2023, adding more user companies and also addressing carbon calculation practices. Through this string of experiments, we will refine the carbon visualization framework and technical specifications for data exchange[*2] developed by the Green x Digital Consortium's Visualization Working Group (headed by NEC Corporation) and, by creating use cases of intercorporate data exchange, deepen inter-industry partnership in Japan and overseas, as well as public-private sector cooperation. Further information will be released as work proceeds.

Background

There is a strong call for to achieve decarbonization throughout supply chains in all industries so as to realize carbon neutrality by 2050, which will require the accurate assessment and reduction of emissions not just by individual companies (Scope 1 and 2) but across the supply chain, including both upstream and downstream emissions (Scope 3).

Particularly for Scope 3 Category 1 (Purchased goods and services) carbon emissions, the most common calculation method is to multiply procurement value and volume by the particular industry's average carbon intensity, but the inability of this method to reflect efforts to reduce

carbon emissions by individual companies within supply chains had led to a growing call to acquire carbon emissions data from suppliers. This, however, presents major challenges. First, there is no common methodology for calculating carbon emissions that assumes the provision of data from suppliers, which results in disparities in data quality. Second, while multiple carbon visualization solutions are being developed, there is no common data format or interface, etc., for exchanging data among different solutions, so when different solutions are used within the supply chain, it becomes difficult to grasp emissions across the whole chain.

The Green x Digital Consortium's Visualization Working Group has consequently been investigating a mechanism for using digital technologies to exchange carbon emissions data among companies in the supply chain so as to visualize supply chain carbon emissions data, Scope 3 included, creating a carbon visualization framework along with technical specifications for data partnership. Based on these, we launched POC experiments in September 2022 with the aim of exchanging across different solutions emissions data calculated by companies from a wide range of industries using a common method so as to gauge supply chain carbon emissions accurately and efficiently.

[1] WBCSD Partnership for Carbon Transparency (PACT)
The World Business Council for Sustainable Development (WBCSD) is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net-zero, nature positive, and more equitable future. The Partnership for Carbon Transparency (PACT) seeks to accelerate decarbonization through the creation of transparency on emissions in the value chain. The PACT community defines and publishes the necessary methodological and technological basis for emissions data exchange, integrating existing standards and approaches and creating a trusted and holistic foundation. The PACT is hosted by the WBCSD. The Green x Digital Consortium participates in the PACT ecosystem.
The website: https://www.carbon-transparency.com/

[2] Carbon visualization framework and technical specifications for data exchange
The carbon visualization framework comprises a document outlining a methodology for using data technologies to calculate and share carbon data (disclose data quality) exchanged within the supply chain with the aim of realizing carbon data distribution based on primary data that reflects supplier companies' emissions reduction efforts. The technical specifications incorporate the approaches of the WBCSD PACT's Pathfinder Network and Pathfinder Framework along with unique elements based on Japan's domestic systems and the needs of companies participating in the Consortium. Preparations are currently underway to disclose the framework and the specifications to the general public.

Companies that participated in the POC experiment Phase 1

Project Manager : Nomura Research Institute,Ltd.

Solution Providers: ABeam Consulting Ltd.
Asuene Inc.
booost technologies,Inc.
chaintope Inc.
Claudio Inc.
Deloitte Tohmatsu Consulting LLC
FUJITSU Limited
Hitachi Solutions, Ltd.
Hitachi, Ltd.
Nomura Research Institute,Ltd.
Oracle Corporation Japan
PID Inc.
SBI R3 Japan Co., Ltd
Sustech Inc.
Zeroboard Inc.

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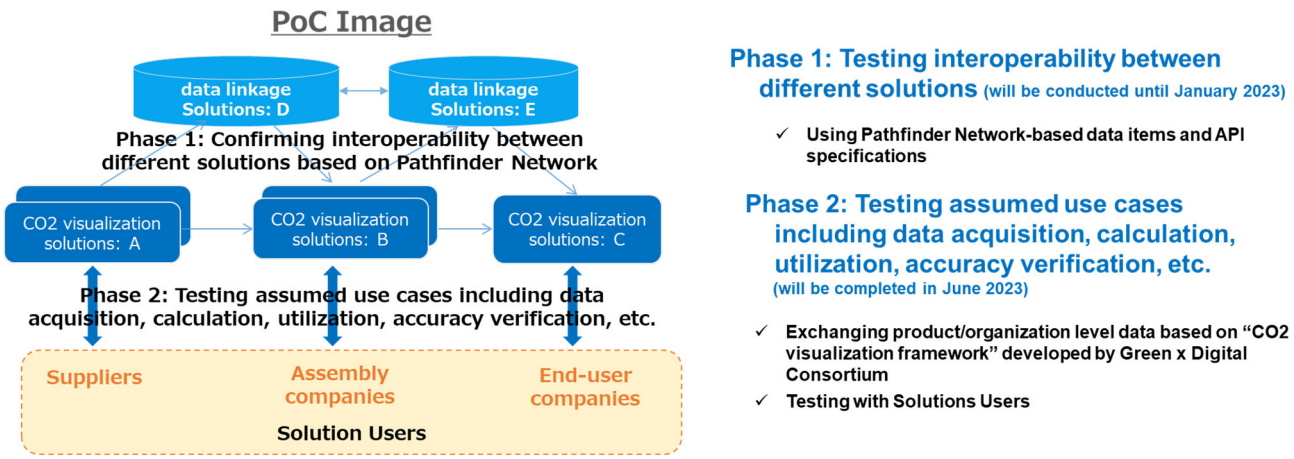

About Green x Digital Consortium:

The Green x Digital Consortium (Chair by Noboru Koshizuka, Professor, Interfaculty Initiative in Information Studies, The University of Tokyo) was launced in Ocober 2021 with the aim of realizing carbon neutrality across society by 2050. The number of members reached 143(as of January 2023). The consortium brings together companies from all business types and industries that use digital technologies to work on carbon data visualization and inoroduction of renewable energy.

The website: https://www.gxdc.jp/