

**Nagase, Fujitsu, and Zeroboard
Succeed at Data Linkage with PACT Implementation Program ;
Established a Scheme for More Accurate GHG Emissions Calculation**

Nagase & Co., Ltd. (Chiyoda-ku, Tokyo; Representative Director, President and CEO: Hiroyuki Ueshima) joined the PACT Implementation Program (*1) organized by the World Business Council for Sustainable Development together with Fujitsu Limited (Minato-ku, Tokyo; CEO: Takahito Tokita), a key company in the supply chain which also plays a central role in the program, and Zeroboard Inc. (Minato-ku, Tokyo; President: Michitaka Tokeiji). Targeting the supply chain for notebook computers sold by Fujitsu, primary data on greenhouse gas (GHG) emissions at different layers including materials, molding, and assembling was collected and linked, and the GHG emissions of the final product were successfully calculated. Since this calculation was based on data collected and linked not only from the direct suppliers of Fujitsu, the distributor, but from multiple companies including materials and parts suppliers, this is a pioneering case study in calculating GHG emissions for the actual supply chain.

This program targeted notebook computers sold by Fujitsu, with Nagase, a trading company specialized in chemicals with a network in the OA equipment industry, collecting data from materials and mold manufacturers and linking that data using the Zeroboard GHG emissions calculation and visualization cloud service provided by Zeroboard Inc., a partner company which Nagase has invested in. There have been initiatives for companies to collect primary data on GHG emissions from suppliers before now, but collecting primary data from other companies farther back in the supply chain was considered difficult due to issues such as the complexity of distribution channels and the workload involved.

Due to its strong network with materials and mold manufacturers, Nagase was able to contribute to gaining the cooperation of companies which play important parts in the target supply chain: KUNIMORI KAGAKU Co., Ltd. (Tier 1), SABIC's Specialties business (Tier 3), and LOTTE Chemical Corporation (Tier 3).

For calculations of parts made by mold manufacturer KUNIMORI KAGAKU Co., Ltd., Nagase took advantage of its knowhow from initiatives to support decarbonization management to establish an efficient calculation model for the resin molding process. This model, which made it possible to efficiently calculate GHG emissions during processing, contributed significantly to the progress of this program.

With the knowledge on collecting primary data gained through this initiative, and its knowhow on supporting calculations for molding and processing manufacturers, Nagase will further enhance the support it provides to clients dealing with supply chain linkage and contribute to the realization of a carbon-free society.



The results of this program will be reported at the NY Climate Week Scope 3 Summit: From Uncertainty to impact, which will be held in the US on September 19, 2023 (US time).

*1: Partnership for Carbon Transparency (PACT): A partnership of companies linking carbon footprint data of products through transparent exchange of primary data on CO₂ emissions throughout the entire value chain.

[Outline of Social Implementation]

As pioneers among Japanese companies, Nagase participated in the PACT Implementation Program together with Fujitsu and Zeroboard, collecting and linking primary data on the layers that make up the supply chain for their products, from Tier 0 to Tier 3. These three companies also participated in the domestic demonstration trial of the Visualization Working Group of the Green×Digital Consortium organized by JEITA, which launched in 2021.

Overview:

Target products: Fujitsu notebook computers

Supply chain: Materials, molding, assembly and manufacture, and trading companies for the manufacture of Fujitsu notebook computers

Data linkage items: PCF data based on the Pathfinder Framework

Solutions: Fujitsu Track and Trust and Zeroboard, PACT-conformant solutions based on the Pathfinder Network

Roles of Each Company in Implementation:

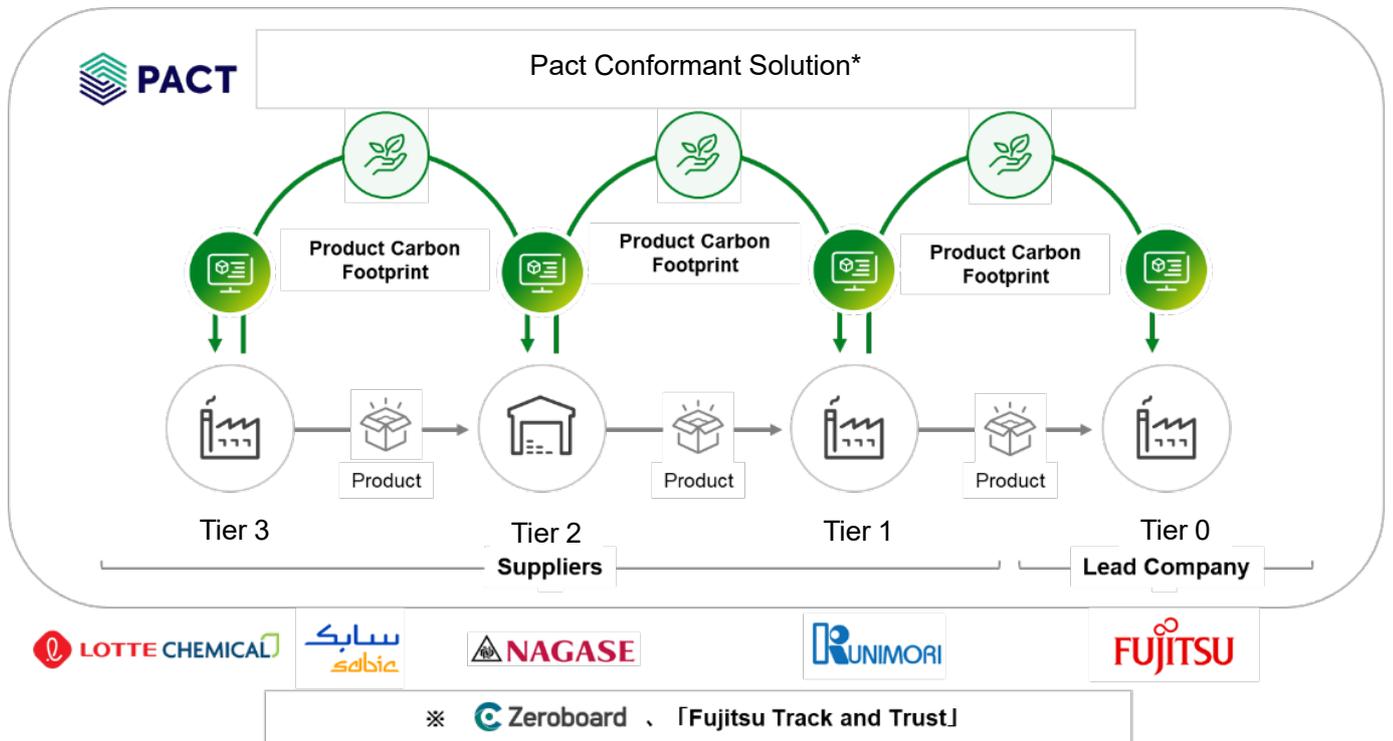
Nagase: Trading company specialized in chemicals in the OA equipment supply chain. Responsible for finding cooperating companies and collecting and linking data from the supply chain.

Fujitsu: Lead company (Tier 0), provider of PACT-conformant solution provider. Responsible for building stakeholder relationships and overall promotion.

Zeroboard Inc.: Provider of PACT-conformant solution Zeroboard. Zeroboard is utilized for data linkage with Nagase.

Cooperating companies: KUNIMORI KAGAKU Co., Ltd., notebook enclosure manufacturer (Tier 1); SABIC's Specialties business (Tier 3) and LOTTE Chemical Corporation (Tier 3), resin material provider.

◆Project Diagram



[Related Links]

Nagase Press Releases: [2023 News Releases: Nagase & Co., Ltd. \(nagase.co.jp\)](https://www.nagase.co.jp/en/2023-News-Releases)

Fujitsu Press Releases: [Press Releases: Fujitsu \(fujitsu.com\)](https://www.fujitsu.com/press-releases)

Zeroboard Press Releases: [News: Zeroboard \(zeroboard.jp\)](https://www.zeroboard.jp/en/news)

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