

December 21, 2023

Innovare Co., Ltd.

World's First! Creation of biofuel, bio-methane gas, and biochar from natural rubber seeds!

## Granted Basic Patent for Biorefinery derived from Natural Rubber Seeds

~ Creating a sustainable future with biorefineries derived from natural rubber seeds~



Natural Rubber Plantation



### Creating New Value with Innovare Co., Ltd.



Natural Rubber Seeds



Biodiesel Fuel



Biochar

Innovare Co., Ltd. (Head office:Osaka,Japan; CEO:KAWATANI Koryu; hereafter, “Innovare”), a biorefinery business that uses unused biomass resources generated in Thailand and other countries, announces that it has granted the world's first basic patented technology "biorefinery derived from natural rubber seeds" (hereafter, the "Invention").

The world's first invention is "a technology to produce biofuel, biochar, or bio-methane gas from natural rubber seeds."

From the perspective of preventing global warming and becoming carbon neutral, demands for biofuels and bio-methane gas are increasing, which contribute to fossil fuel-free energy, and biochar, which contributes to carbon fixation. However, conventional edible oils such as soybean oil and palm oil pose the challenge of competing with food, and waste cooking oil poses the challenge of competing with livestock feed. Therefore, the practical application of new biomass feedstocks is crucial.

# Press release

Innovare is the first company in the world to commercialize an upcycling process to produce biofuel, bio-methane gas, and biochar from natural rubber seed, which had previously been left as an unused resource.

Innovare aims to create new value in natural rubber plantations through its biorefinery business derived from natural rubber seeds, and to realize our vision, *Connecting the blue earth to the future with green technology*.

## ■ Patent Summary

Patent No.	Patent No. 7372615
Registration Date	October 24, 2023
International Application No.	JP2023020624
patentee	Innovare Co., Ltd.
Title of Invention	Natural rubber seed-based biorefinery system, natural rubber seed-based biorefinery method and program

## ■ Background/Issues

The demand for biofuels, biochar, or bio-methane gas is increasing due to global warming prevention and carbon neutrality.

However, conventional plant-derived biofuels, biochar, or bio-methane gas from soybeans, palm, or other plants alone may cause competition for food, and the supply of raw materials is insufficient to meet demand.

Innovare aims to create new value and solve market problems by using its basic patented technology "biorefinery derived from natural rubber seeds," which generates biofuel, biochar, or bio-methane gas from natural rubber seeds.

Innovare is committed to creating a sustainable future through its natural rubber seed-based biorefinery business.

## ■ Comments by Masahito Taniguchi, CIPO (Chief Intellectual Property Officer)

We were able to obtain a patent that is very important for the biorefinery industry. The scope of this patent is very broad and is truly a fundamental patent.



# Press release

By utilizing the world's first basic patented technology "biorefinery derived from natural rubber seeds", the company will be able to exclusively offer "the generation of biofuel, biochar, or bio-methane gas from natural rubber seeds", which is expected to increase sales and profits. We will also use this invention for alliances with promising companies.

Innovare has many other patent applications in progress. By promoting an IP strategy based on customer value, we will expand the exclusive areas that only Innovare can provide and maximize sustainable corporate value.

## ■About Innovare

Innovare is a biorefinery business with the mission of *Connecting the blue earth to the future with green technology*. We create a sustainable future by utilizing unused resources in Japan and abroad, including Southeast Asia.

## ■About IP Release

Considering the growing importance of intellectual property and intangible assets in enhancing sustainable corporate value, Innovare is building an IP management system and formulating an IP strategy in line with its mid-to long-term growth strategy and product roadmap.

Based on this IP strategy, we will communicate the value of our products and services by building exclusive areas that are highly difficult to imitate and by proactively disclosing information on acquired intellectual property rights.

## ■Company Profile

Company Name: Innovare Co., Ltd.

CEO: KAWATANI Koryu

Established: April 1, 2020

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## ■Contact for this release

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