

INCJ to invest in Microwave Chemical Co., Ltd. Company is commercializing innovative microwave chemical processes

Tokyo, June 2, 2014—Innovation Network Corporation of Japan (“INCJ”) announced today its decision to invest in Microwave Chemical Co., Ltd. (“MWCC”), a company pursuing commercialization of innovative chemical processes using microwaves. The investment will provide MWCC with a maximum of ¥800 million in capital required for future business development. MWCC will also receive investment from funds managed by existing shareholders; The University of Tokyo Edge Capital Co., Ltd. (UTEK), JAFCO Co., Ltd., and Nippon Venture Capital Co., Ltd.

Microwaves are used widely in cooking appliances, but due to challenges of scale and thermal runaway it has been difficult to apply them to high-volume chemical processes. MWCC, an Osaka University startup with unique platform technology, has overcome these difficulties using its proprietary technology to apply microwaves to chemical (fatty acid butyl ester¹) manufacturing and achieving an annual production volume of 1,000 tons, a world first. This proprietary technology makes it possible to simplify a wide range of processes that involve high-temperature, high-pressure, time-consuming chemical reactions and offers promise for energy cost reduction and the manufacture of products that traditionally have been difficult to produce.

Already the technology has been proven applicable in the efficient extraction of oil from algae, production of graphene, as well as in a wide range of chemical manufacturing processes, including the synthesis of polymers such as polyester, nanoparticle synthesis, and gas reaction processes.

MWCC is focusing on the application of microwave chemical manufacturing processes in the field of food chemistry and has reached an agreement with Taiyo Kagaku Co., Ltd. (“Taiyo”) to explore future joint-business operations. In addition to strong sales capabilities in the food industry, Taiyo has significant expertise in microwave technology and already applies microwave processes to cooking, drying, and sterilization. The combination of the two companies’ expertise offers great promise for development of innovative food chemicals.

In addition to licensing its technology, MWCC is also planning joint business operations through strategic partnerships in applicable products and fields. Using resources such as the technology and sales networks of major corporations, MWCC will give shape to groundbreaking venture ideas and achieve process innovation in the chemicals industry through a model that offers advantages for both startups and major corporations. Furthermore, going beyond the current project, MWCC plans to continue to partner with chemicals manufacturers and pursue joint development.

¹Fatty acid butyl ester is widely used in industry as an ink and cosmetics solvent. MWCC has already adopted its mass production as an ink solvent.

INCJ will provide MWCC with the funding required for future business development, while also providing managerial support such as dispatching external directors, strengthening MWCC's business-development framework, and supporting collaboration with strategic partners such as those mentioned above.

Through these initiatives, INCJ is providing support for MWCC to become a successful example of a materials and chemicals startup that is commercializing unique platform technology and collaborating on an equal footing with major corporations.

About Microwave Chemical Co., Ltd.

Established: August 2007

Overview: Research and development of microwave chemical processes
Chemical production and sales utilizing microwave chemical process
Licensing and engineering of microwave chemical processes

Headquarters: Suita-shi, Osaka

CEO: Iwao Yoshino

About Innovation Network Corporation of Japan (INCJ)

INCJ was established in July 2009 as a public-private partnership that provides financial, technological and management support for next-generation businesses. INCJ specifically supports those projects that combine technologies and varied expertise across industries and materialize open innovation. INCJ has the capacity to invest up to ¥2 trillion (approx US\$20 billion).

To date, INCJ has invested approximately ¥750 billion in a total of 66 projects and is currently focused on a broad range of areas from green energy, electronics, IT and biotechnology to infrastructure-related sectors such as water supply. INCJ maintains a hands-on approach to investment, engaging in the business development of cutting-edge core technologies through intellectual property funds, expansion of venture companies and aggressive overseas development through initiatives such as restructuring and mergers of tech businesses and acquisitions of foreign companies.

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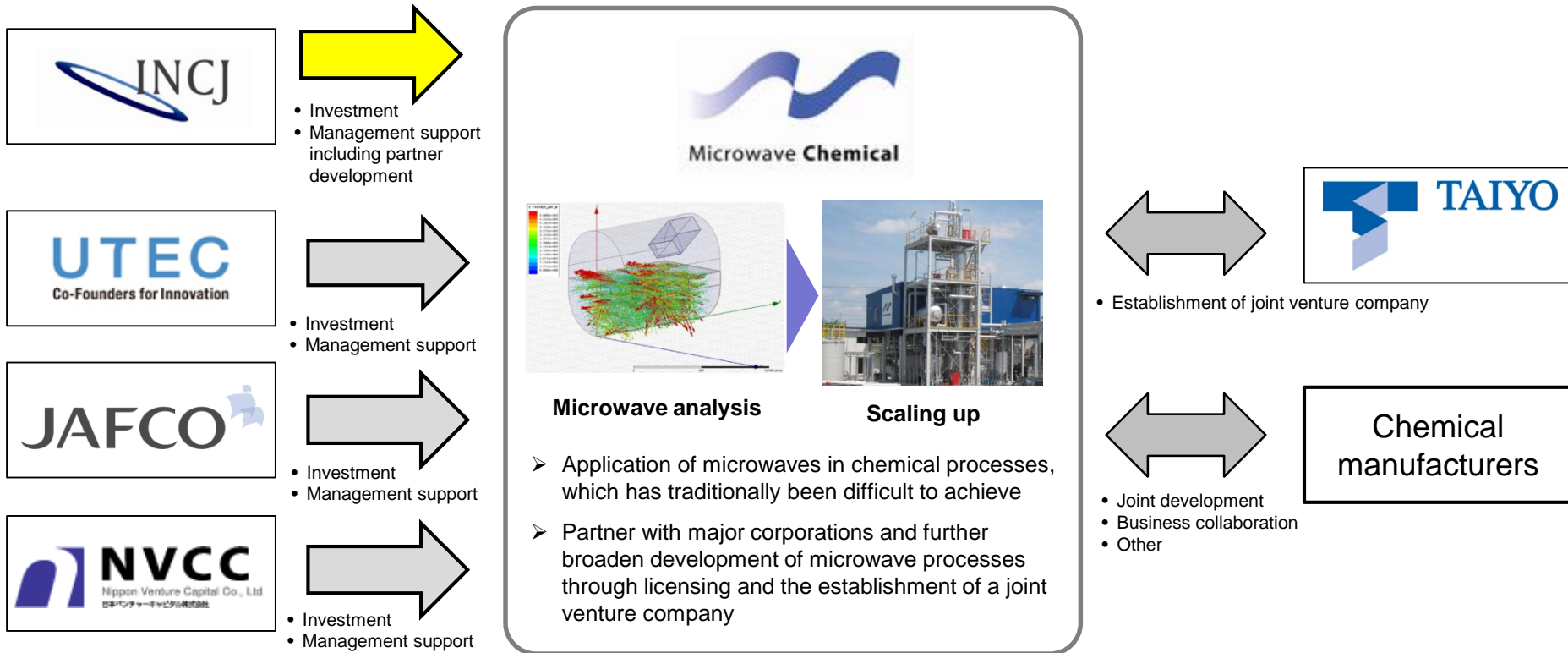
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Appendix

INCJ to invest in Microwave Chemical Co., Ltd.

Company is commercializing innovative microwave chemical processes

Target: Microwave Chemical Co., Ltd.
 Outline: Research and development of microwave chemical processes; chemical production utilizing microwave chemical process; sales and licensing of microwave chemical processes
 Investment: ¥800 million (maximum)



- Collaborate on a level footing with major corporations and aim for process innovation in the chemical industry
- Increase applications of microwaves across a range of products and create a materials and chemicals start-up that is commercializing unique platform technology