Nileworks Inc.
Innovation Network Corporation of Japan
Sumitomo Chemical Co., Ltd.
Kumiai Chemical Industry Co., Ltd.
Sumitomo Corporation
National Federation of Agricultural Co-operative Associations
The Norinchukin Bank

# Agriculture Drone Company Nileworks to Raise Capital by Private Placement

Nileworks Inc. (hereinafter, "Nileworks") will raise a total of 800 million yen by private placement of new shares to the Innovation Network Corporation of Japan, Sumitomo Chemical Co., Ltd., Kumiai Chemical Industry Co., Ltd., Sumitomo Corporation, the National Federation of Agricultural Co-operative Associations, and The Norinchukin Bank (hereinafter, "investor companies and associations")

Pursuing its vision, "Precision Agriculture from the Air," Nileworks is working to develop an agricultural business of providing rice growers with agricultural drones and cloud services for diagnosis of crop health and growth.

Nileworks has successfully developed the world's first fully automated drone flight technology with centimeter-level precision. Currently, the company is developing a new precision agriculture system that flies drones equipped with this technology at point-blank range of 30cm above crops to diagnose in real time the health and growth of individual rice stalks and, based on these diagnoses, spray the optimal amounts of fertilizers and agrochemicals with precision of stalk by stalk, not just largely limiting spray drift.

Demand for grain is expected to continue rising as the global population increases, and boosting food production by enhancing agricultural productivity has become a pressing global issue. "Precision Agriculture from the Air" is aimed at substantially

reducing the labor required in agriculture and dramatically improving the yield and quality of agricultural produce.

Using the capital raised by this private placement, Nileworks will accelerate technological development to achieve "Precision Agriculture from the Air," improving the safety of its automation technology and refining its crop health and growth diagnostic technology. By closely collaborating with its investor companies and associations, Nileworks will work to apply its technology to a greater number of crops and varieties, roll it out beyond Japan to the rest of the world, and thereby aim to become a leader in precision agriculture.

Innovation Network Corporation of Japan is investing in Nileworks to support the spread of innovative ICT-driven precision agriculture and thus improve the productivity and boost the international competitiveness of Japanese agriculture, as well as to contribute to the creation of a new industry by merging ICT and agriculture to pursue collaboration and open innovation across industry boundaries.

Sumitomo Chemical Co., Ltd. will seek to achieve significant labor saving and greater efficiency in agriculture and bring about higher yields and better quality of agricultural produce by integrating Nileworks's and its outstanding technologies and expertise. The company will further promote its "Total Solution Provider" business that helps to enhance the competitiveness of farm business as well as its precision agriculture initiatives.

Kumiai Chemical Industry Co., Ltd. has undertaken various initiatives for the development and worldwide promotion of safe and effective agrochemicals since it introduced the first domestically developed agrochemical to the Japanese market. As a part of its initiative for "Smart Agriculture", Kumiai also entered into a business partnership agreement with Nileworks, the purpose of which includes joint studies leveraged by the technologies owned by the both companies, and will continuously offer innovative agricultural practices to its customers.

<u>Sumitomo Corporation</u> is aiming to increase the number of new farmers by promoting labor-saving approaches and to invigorate agriculture, and as an integrated trading company will accelerate development, mass production and dissemination by backing Nileworks, a firm with innovative technology, and will

support the prompt commercialization of "Precision Agriculture from the Air" using dedicated high-precision agricultural drones.

National Federation of Agricultural Co-operative Associations will collaborate with Nileworks to popularize use of the latter's drones, which are capable of completely automated flight with extremely little drift while spraying agrochemicals, at agricultural production sites and to help lower labor needs and reduce production costs in hilly and mountainous areas that have heretofore required significant labor for weeding, pest control and cultivation management.

The Norinchukin Bank is aiming to reduce labor load in hilly and mountainous areas and cut production cost by using the drones Nileworks developed. This investment utilized the Food & Agri (F&A) Investment Facility, designed to provide risk money to the agriculture, fishery and forestry industries, to improve their productivity and international competitiveness.

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Nileworks will be exhibiting its drones at the 4th Next Generation Agriculture Expo Tokyo(Exhibition Hall 6, Rooms 40-41) being held at Makuhari Messe, Chiba, from Wednesday, October 11 – Friday, October 13, 2017.

<2017 demonstration tests> Fully-automated flight – shortly after takeoff (August 9, 2017)







Weed suppressing agent spray test on rice field ridge (Jul 19, 2017)

Pesticide/fungicide spray test (Aug 22, 2017)

\*These drones are all test drones.

## ■ Profiles of Nileworks and investor companies and associations

## Nileworks Inc.

Established: January 2015

Address: Nishihara 3-1-7, Shibuya-ku, Tokyo

Representative: Hiroshi Yanagishita, President & CEO

Description of business: Design, development, manufacture, and sale of

agricultural drones; R&D of growth diagnosis/cultivation technology; development and sale of agricultural cloud services

URL: https://www.nileworks.co.jp/



ナイルワークスでは、農業用ドローンを圃場上空30cmを自動飛行させるだけで、生育診断と 薬剤散布を自動実行する「空からの精密農業」に取り組んでいます。 広域に分散している圃場の生育状態を個別診断し、生育状態に合わせた一株単位の精密な

広域に分散している圃場の生育状態を個別診断し、生育状態に合わせた一株単位の精密な 施肥・除草・防除を提案していきます。農作物の収量と品質を安定化し、生産コストの削減に 貢献していきます。

# 収量と品質の安定化



#### Nileworks

- 1/ Precision Agriculture from the Air
  - Nileworks is pursuing "Precision Agriculture from the Air" that uses agricultural drones autonomously flying 30cm above fields to carry out growth diagnosis and agrochemical spraying automatically.
  - These drones make individual diagnoses of the growth status of fields dispersed over wide areas, after which precise per-stalk fertilizing, weeding, and controlling plans are proposed in line with the growth status. This will stabilize the yield and quality of agricultural produce and help reduce production cost.
- 2/ Stabilization of yield and quality
- 3/ Agricultural drones
- 4/ Equipped with agrochemical/fertilizer spraying and growth diagnosis functions
- 5/ Growth diagnosis cloud services
- 6/ Equipped with cultivation planning, farm management, and task history management functions

#### Innovation Network Corporation of Japan

Established: July 2009

Address: 21F, Marunouchi Eiraku Building, Marunouchi 1-4-1, Chiyoda-ku,

Tokyo

Representative: Mikihide Katsumata, President and COO

Description of business: Support for industrial innovation by investing

URL: http://www.incj.co.jp/

## Sumitomo Chemical Co., Ltd.

Established: June 1925

Address: Shinkawa 2-27-1, Chuo-ku, Tokyo Representative: Masakazu Tokura, President

Description of business: Petrochemicals & Plastics, Energy & Functional Materials,

IT-related Chemicals, Health & Crop Sciences, Pharmaceuticals,

Others

URL: http://www.sumitomo-chem.co.jp/

## Kumiai Chemical Industry Co., Ltd.

Established: June 1949

Address: 4-26, Ikenohata 1-chome, Taito-ku, Tokyo

Representative: Yoshitomo Koike, Representative Director & President Description of business: Manufacturing and sales of agrochemicals and fine

chemicals

URL: http://www.kumiai-chem.co.jp

#### Sumitomo Corporation

Established: December 1919

Address: Harumi 1-8-11, Chuo-ku, Tokyo

Representative: Kuniharu Nakamura, Representative Director, President

and CEO

Description of business:Integrated trading company utilizing a global network to

engage in business in various sectors

URL: http://www.sumitomocorp.co.jp/

## National Federation of Agricultural Co-operative Associations

Established: March 1972

Address: JA Bldg. 1-3-1, Otemachi, Chiyoda-ku, Tokyo

Representative: Genichi Jinde, President & CEO

Description of business: Supply of production materials and daily necessities,

processing/sale of agricultural/livestock produce

URL: http://www.zennoh.or.jp/

#### The Norinchukin Bank

Established: December 1923

Address: Yurakucho 1-13-2, Chiyoda-ku, Tokyo

Representative: Yoshio Kono, President & Chief Executive Officer

Description of business: National-level financial institution for agricultural, fishery

and forestry cooperatives.

URL: https://www.nochubank.or.jp/

## **■** Inquiries on this matter

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