

Epson and Startup Elephantech Forge Capital and Business Ties

- Sign partnership agreement involving the supply of inkjet printheads -

- TOKYO, Japan, July 30, 2019 -

Seiko Epson Corporation (TSE: 6724, "Epson") has agreed to invest in printed electronics startup Elephantech Inc., and the parties have entered into a partnership agreement that includes the supply of inkjet printheads.

Elephantech is a startup that manufactures and sells flexible printed circuits (FPC) manufactured using inkjet printing and electroless copper plating. The company uses a proprietary manufacturing method (Japan patent no. 6300213) in which metal materials are printed only on the required areas of a board surface and then grown using plating technology. This method, which is shorter than a conventional lithographic FPC production process, offers benefits in the form of lower environmental impacts, lower manufacturing costs, and shorter lead-times.

One of Epson's strategies under its Epson 25 Corporate Vision is to accelerate growth by taking maximum advantage of its existing assets and by engaging in collaboration and open innovation. In inkjet, Epson is seeking more open innovation opportunities and is expanding external sales of printheads based on its PrecisionCore technology. The partnership with Elephantech, which has a large potential customer base, is a specific example of this. Epson expects the collaborative partnership with Elephantech to accelerate the use of inkjet printheads in industrial applications such as printed electronics, a priority area for Epson. Moving forward, Epson will create new markets by aggressively pursuing opportunities to provide inkjet printheads and related information for a wider range of printing applications.

Elephantech, with funding from Epson, is on a mission to make the world sustainable with new manufacturing technologies. Toward this end, it is expanding its inkjet-printed FPC manufacturing operations and creating markets by developing a broader range of applications for its technology, such as technology for forming wiring patterns on 3D plastic objects and the printing of biomaterials.

Elephantech CEO Shinya Shimizu said, "The environmental impact of global manufacturing continues to grow and is set to exceed the level that the earth can absorb, making it harder and harder to claim sustainability. I believe that additive, inkjet-based manufacturing processes in which material is printed only where it is needed will become the global standard in manufacturing, replacing existing subtractive processes in which material that is not needed is removed and disposed of. We have and will continue to lead a technology revolution toward low-waste manufacturing processes."

Epson President Minoru Usui said, “We at Epson are committed to playing a central role as an indispensable company in making the world a better place, and toward that end, we are creating new value that can help solve societal challenges and achieve sustainability. Innovations in manufacturing processes using Epson’s inkjet printheads, which have competitive edge in terms of printing performance, environmental performance, and ink compatibility, are a core part of our strategy. The collaboration with Elephantech in printed electronics is an extremely important first step toward reaching our goal of driving innovation in global manufacturing by creating new, more compact, inkjet-based production processes that have a lower environmental impact.”

The investment of capital in Elephantech will have a negligible effect on Epson’s financial results.

Elephantech Profile

Company Name	Elephantech Inc.
Head office	4-3-8 Hacchobori, Chuo-ku, Tokyo 104-0032, Japan
Representative	Shinya Shimizu, CEO
Established	January 2014 (Sep. 4, 2017, changed corporate name from AgIC Inc.)
Capital	JPY 506,040,000
Main businesses	Development of printed electronics manufacturing technology and provision of related services
Number of employees	25 (as of July 30, 2019)

Epson Profile

Company Name	Seiko Epson Corporation
Head office	3-3-5 Owa, Suwa, Nagano 392-8502, Japan
Representative	Minoru Usui, President
Established	May 18, 1942
Capital	JPY 53,204 million
Main businesses	Printing Solutions Business, Visual communications Business, Wearable Products Business, Robotics Solutions Business, Microdevices, Other Business
Number of employees	Epson Group (Consolidated): 76,647, Parent Company: 12,713 (as of March 31, 2019)

About Epson

Epson is a global technology leader dedicated to becoming indispensable to society by connecting people, things and information with its original efficient, compact and precision technologies. The company is focused on driving innovations and exceeding customer expectations in inkjet, visual communications, wearables and robotics. Epson is proud of its contributions to realizing a sustainable society and its ongoing efforts to realizing the United Nations' Sustainable Development Goals.

Led by the Japan-based Seiko Epson Corporation, the worldwide Epson Group generates annual sales of more than US\$10 billion.

global.epson.com/

About Elephantech

Elephantech Inc. is a startup that manufacture and sells a flexible PCB manufactured using inkjet printing technology and copper plating.

When compared to conventional manufacturing processes of flexible substrates, the unique manufacturing method (*) of "printing metal only on the necessary parts by inkjet and using plating technology to grow the metal" has shortened the production process and succeeded in reducing both manufacturing cost and lead time as well as handling prototyping and mass production more flexibly.

(* Japan patent no. 6300213)

See the following link for details on Elephantech

<https://www.elephantech.co.jp/en/>