

## Thinfilm builds out ecosystem for printed electronic systems

Printed display and battery technology relationships offer components for Thinfilm's integrated systems for the "Internet of Things"

**OSLO, January 24, 2012-** [Thin Film Electronics ASA](#) ("Thinfilm") today announced technology relationships for its integrated addressable memory systems designed to help enable the "Internet of Things." Thinfilm has signed a non-exclusive licensing agreement with Acreo, which develops printed displays for a variety of applications. Thinfilm has also entered into a technology assessment agreement with Imprint Energy, which is developing an innovative printed battery technology.

Thinfilm is a leading provider of roll-to-roll printed, rewritable non-volatile memory products. The company recently demonstrated the first working prototype of a printed non-volatile memory device addressed with complementary organic circuits, the organic equivalent of CMOS circuitry. Thinfilm Addressable Memory can be integrated with other printed components – such as those from Acreo and Imprint Energy - to create fully printed systems.

"Relationships with complementary technology partners are a key part of our roadmap to support the "Internet of Things" where objects can collect and communicate data, with people and with each other. Building an ecosystem of complementary vendors will accelerate our delivery of integrated printed systems," said Davor Sutija, CEO, Thinfilm. "Acreo's printed electronic chromic displays are ideal for our display requirements in segmented displays, such as alphanumeric characters and battery meters. The display's low price - a few cents per display – and low power makes Acreo's display technology an excellent addition to our technology portfolio."

"In addition, we will be working with Imprint Energy to develop and test samples for low-power, ultra-high volume applications like temperature tags and small-scale displays. Imprint's technology requires very little packaging, making it cost effective to scale the battery to the requirements of a given application. We are pleased to work with both companies," added Sutija.

Acreo is one of Europe's top research institutes providing cutting edge results within the field of printed electronics, optics and communication technologies. Working with commercial partners, Acreo focuses on turning academic research into commercial products, with projects such as feasibility studies, long-term research projects, prototyping and small-scale production, to verification and testing. Acreo is part of Swedish ICT.

Imprint Energy, Inc. is commercializing a breakthrough low cost, flexible, rechargeable battery technology developed by the founders from the University of California, Berkeley. Imprint Energy's exclusive high conductivity polymer electrolyte technology enables scalable print-based manufacturing of energy dense and ultra-thin batteries based on non-Lithium earth-abundant materials. The company aims to improve portable power by offering the performance of lithium-based batteries at significantly lower costs and by removing form factor limitations and safety concerns. Imprint Energy will utilize its unique battery technology to address the energy needs of today's and tomorrow's electronic devices.

**About Thinfilm**

[Thin Film Electronics ASA](#) ("Thinfilm") is a publicly listed Norwegian technology company with its head office in Oslo, Norway, product development in Linköping, Sweden, and sales offices in San Francisco, USA, and Tokyo, Japan. Thinfilm is a pioneer in the field of Printed Electronics, and provides fully printed non-volatile, rewritable memory for applications in toys and games, logistics, sensor, and ID systems.

Memory Everywhere is a Thinfilm trademark.