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Merck KGaA, Darmstadt, Germany, Leads European Research Consortium on Printed Electronics

- **ATLASS project: Smart films through high-resolution printing of organic transistors**
- **International consortium of eleven companies and four institutes**
- **Funding from the EU Horizon 2020 Initiative**

Darmstadt, Germany, May 22, 2015 – Merck KGaA, Darmstadt, Germany, a global leader in the development of materials for printed electronics, today announced the start of the ATLASS project. ATLASS stands for **A**dvanced High-Resolution Printing of Organic Transistors for **L**arge **A**rea **S**mart **S**urfaces and is to help achieve the breakthrough of printed electronics in smart switching solutions. The consortium, coordinated by Merck KGaA, Darmstadt, Germany, consists of 15 international partners. These include 11 top European companies and four research institutes spanning across the whole printed electronics value chain – from material development to application. The total budget of the project, which will run for three and a half years, is € 7.9 million and is being funded by the EU Horizon 2020 Initiative. "Together with our partners in the printed electronics industry, we will demonstrate real products and applications that impact on our everyday lives and show that the printed electronics industry is real and exists today," says Brian Daniels, Head of the Advanced Technologies business unit at Merck KGaA, Darmstadt, Germany,.

The aim of ATLASS is to bring intelligence and communication to everyday objects. This concept is at the very heart of the megatrend of the Internet of Things, which will only be



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truly enabled by printed electronics technologies. During the course of the project, the consortium will:

- Develop multifunctional materials
- Develop and optimize high-resolution gravure printing and nano imprinting processes
- Develop and integrate in-line optical inspection and yield management
- Scale-up the materials and high-resolution printing technologies to demonstrate a high technology readiness level.

Tangible results are to demonstrate market-oriented high-impact applications, which have the potential for combining multifunctional materials and high-resolution printing technologies. These include temperature tags for smart food packaging, electronic labels for logistics, force sensing foils for automotive safety and proximity sensing for safer human-robot collaboration. As an international leading manufacturer of semiconducting polymers, Merck KGaA, Darmstadt, Germany, is responsible for performing the development and synthesis of the cutting-edge materials and with its expertise and infrastructure will process them into printable formulations.

The research consortium is coordinated by Merck Chemicals Ltd., an affiliate of Merck KGaA, Darmstadt, Germany, based in the United Kingdom. Other partners are Merck KGaA, Darmstadt, Germany; Arkema France SA, France; AMO GmbH, Germany; Commissariat à l'énergie atomique et aux énergies alternatives, France; Joanneum Research, Austria; VTT, Finland; GRT GmbH, Germany; In-Core Systems SARL, France; FlexEnable, UK; TU/e, Netherlands; Efficient Innovation SA, France; Thin Film Electronics AB, Sweden; Concept Tech GmbH, Austria; The Shadow Robot Company Ltd., UK.

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