Presseinformation
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oe-a Organic Electronics Association

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Initial Product Offerings

- OE-A Presented New Roadmap for Organic Electronics

Organic Electronics is entering the market with its initial product offerings. The second version of the Organic Electronics Association (OE-A) roadmap provides a forecast for the market entry of printed electronics through 2015 and beyond. Seven applications ranging from sensors over radio frequency tags to photovoltaics are covered in this publication. Additionally, manufacturing technologies and materials — along with their corresponding technical barriers (red brick walls) — are also identified and assessed.

Frankfurt/Main, Germany, September 25, 2007 — Organic electronics is a platform technology that enables multiple applications that vary widely in terms of product specifications. Since the technology is still in its early stage — and is in the transition from lab-scale and prototype activities to production and commercialization — it is important to develop a common opinion about what kind of products, processes and materials will be available and when. The OE-A roadmap attempts to do just that.

The OE-A roadmap is a key activity of the Organic Electronics Association – the international key industry association for organic and printed electronics - and represents the common perspectives of the OE-A members.

“This second edition of the roadmap the OE-A helps the industry, government agencies and scientists plan and align their R&D activities and product plans. We will frequently update and expand the roadmap with the international experts along the value chain,” says Wolfgang Mildner, chairman of the OE-A.

Organic Electronics Overview

Organic electronics is based on the combination of new materials – organic and inorganic —

and cost-effective, large area production processes that open up new fields of application. They are thin, light-weight, flexible and environmentally friendly. Organic electronics also enable a wide range of electrical components that can be produced and directly integrated in low cost reel-to-reel processes. Intelligent packaging, low cost RFID (radio-frequency identification) transponders, rollable displays, flexible solar cells, disposable diagnostic devices or games, and printed batteries are just a few examples of promising fields of application for organic and printed electronics.

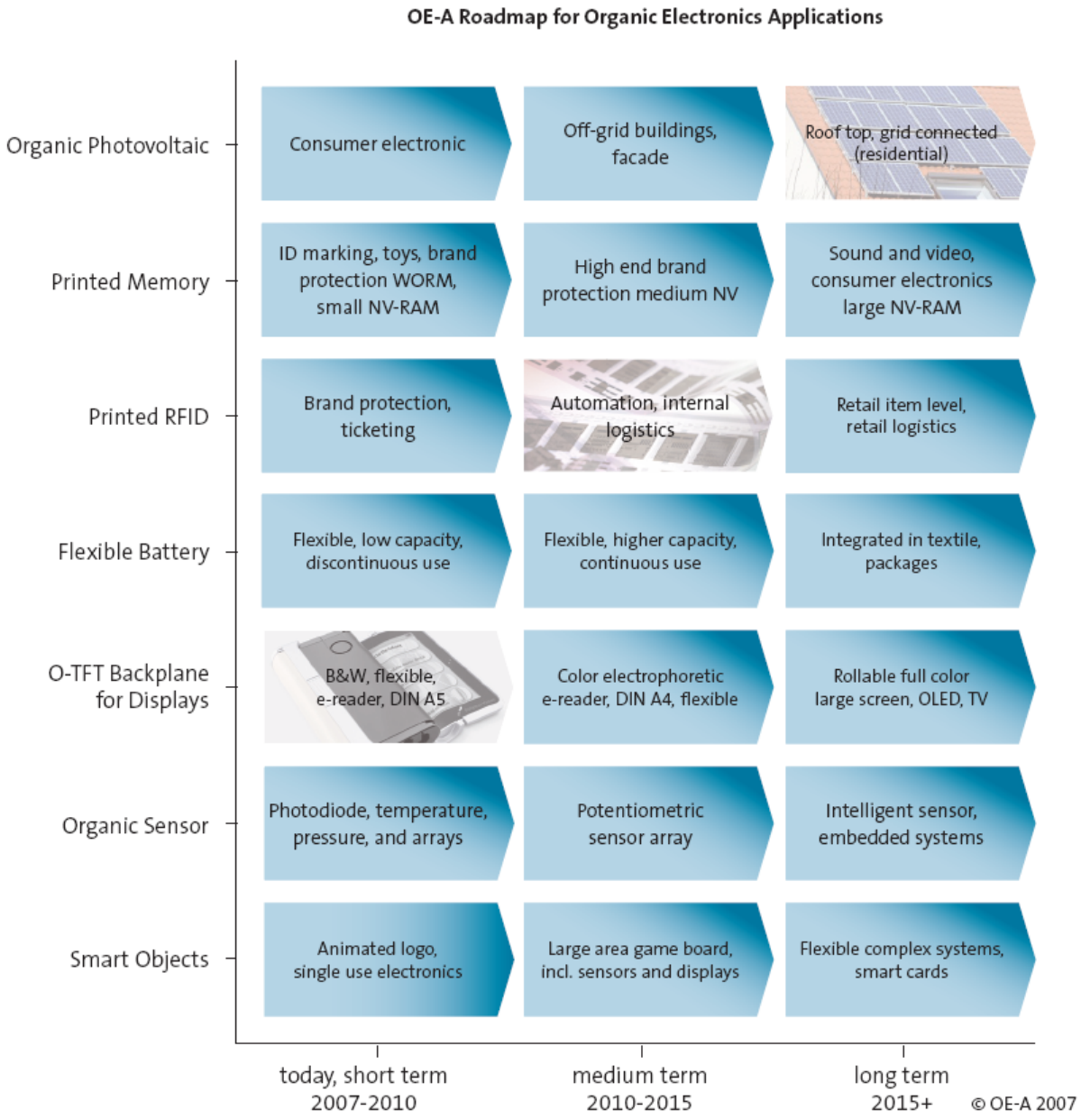

Figure 1: OE-A Roadmap for organic electronics applications. Forecast for the market entry in large volumes (general availability) for the different applications. The table expands and updates the first version of the OE-A roadmap presented in 2006

A number of key **applications** have been chosen to demonstrate the needs from the application side, identify major challenges, cross checked with the possibilities of the technology and to forecast a time frame for the market entry in large volumes. Key results are summarized in Figure 1 that illustrates the expected market entry in large volumes for seven application fields.

First organic electronics products have already reached the market, including passive ID cards, flexible lithium polymer batteries and sensor devices. Additional products, such as displays with organic TFT backplanes, printed radio frequency tags, organic photovoltaic cells and printed memories, are likely to reach the market later this year or early in 2008 . Within the next several years, it is expected that mass markets will be reached and that all the above mentioned applications will be available in large volumes.

There are many approaches on the **material and process** side. The resulting questions – organic or inorganic, printed or not – are still under discussion. But further improvement of material, patterning processes and device design are necessary in order to meet the demands of future product generations. In Figure 2, a forecast for the charge mobility of semiconductor materials for devices that are manufactured in high throughput processes is given. New material classes and optimized materials are necessary.

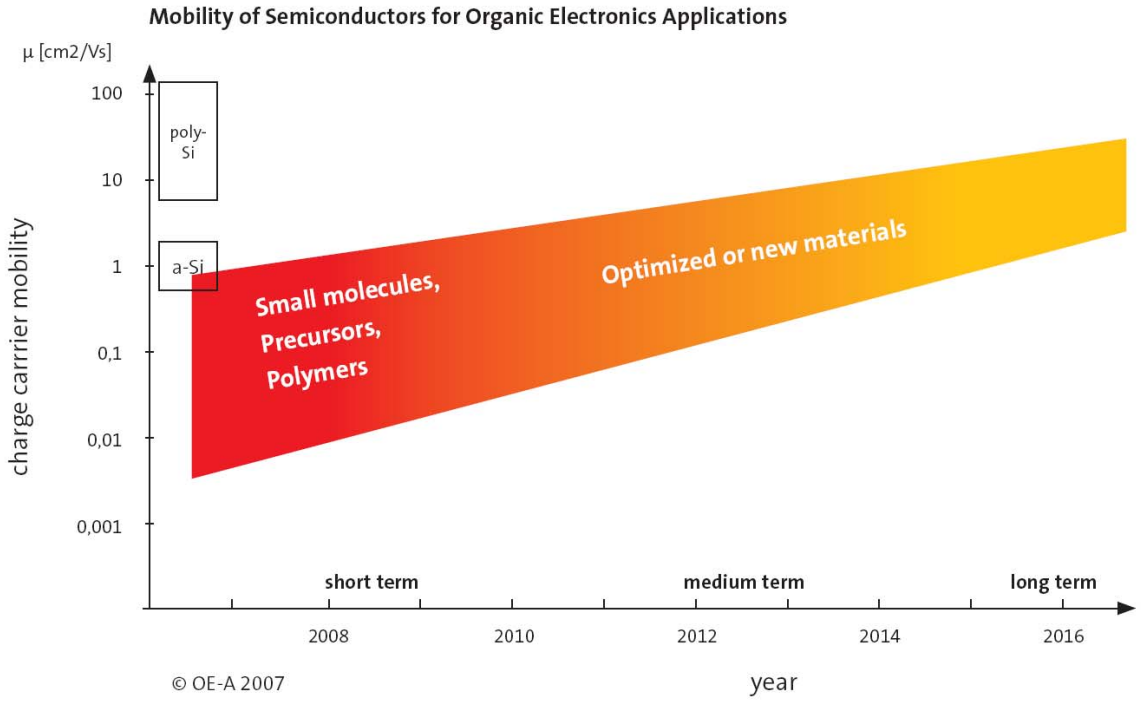

Figure 2: OE-A roadmap for the charge carrier mobility of semiconductors for organic electronics applications. The values refer to materials that are available in commercial quantities and to devices that are manufactured in high throughput processes. The values for amorphous silicon (a-Si) and polycrystalline silicon (poly-Si) are given for comparison.

For questions or further inquiries please see the new OE-A brochure and do not hesitate to contact Dr. Klaus Hecker (Tel.: +49-69-6603-1336, klaus.hecker@vdma.org).

About the **Organic Electronics Association (OE-A)**

The Organic Electronics Association (OE-A) is a working group within the German Engineering Federation (VDMA). It was founded in December 2004. OE-A is the international key industry association for organic electronics and represents the whole value chain of this emerging industry. Our members are international leading companies and institutions, ranging from R&D institutes, component and material suppliers, and equipment and tool suppliers to producers / system integrators and end-users. More than 80 companies from Europe, the US and Asia work together to promote the establishment of a competitive production infrastructure for organic electronics. The vision of the OE-A is to build a bridge between science, technology and application. Nearly 3000 member companies from the engineering industry make VDMA the largest industry association in Europe.

For more information see: www.oe-a.org