



## **POLYSCENE**

**IST-2001-37412**

Development of Key Application  
Scenarios and Market Drivers for  
Polytronics

# **Collection of state-of-the-art in the area of Polytronics**

Inventory of major players

## **Deliverable D1.1b**

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# Polyscene

## Development of Key Application Scenarios and Market Drivers for Polytronics

Contract No: IST-2001-37412

Work package 1: Collection of state-of-the-art in the area of Polytronics

IMEC, Polymer and Molecular Electronics

### Outline

Development of Key Application Scenarios and Market Drivers for Polytronics .....	2
Research/Development activities.....	3
1. Material suppliers.....	3
2. Manufacturing systems .....	4
3. Organic/Polymeric Light emitting devices .....	4
4. Organic/Polymeric Thin Film Transistor/Electronics.....	5
5. Active components for optical communications.....	5
6. Organic/Polymeric Solar Cells .....	6
7. European research institutes .....	6

**Research/Development activities**

List of groups, institutes and companies involved in the research, development and production of organic/polymeric materials, devices and systems. The list may not be complete and can be extended.

**1. Material suppliers**

List of groups, institutes and companies involved in the research and development of organic/polymeric materials. The list includes institutions covering different aspects of organic/polymeric electronics, including the active semiconductor, contact materials, dielectrics and encapsulation materials. The list consists of suppliers of commercial available materials. Research institutes involved in the syntheses and development of materials for research purposes are not listed here.

Dow Chemical (USA)  
Du Pont / Uniax (USA)  
Bayer / H.C. Starck (Germany)  
HW Sands (USA)  
Idemitsu Kosan (Japan)  
Mitsubishi Chemical (Japan)  
PPG (USA)  
Sumitomo Chemical (Japan)  
Syntec (Germany)  
Toyo Ink (USA)  
Sigma Aldrich (USA)  
TCI America (USA)  
Agfa Gaevert (Belgium)  
Covion Organic Semiconductors / Avecia (Germany, UK)  
Merck (USA)  
Acros Organics (Belgium)  
American Dye Source (USA)  
Dojindo Chemicals (Japan)  
Merck (UK)

## 2. Manufacturing systems

These companies provide commercial available systems, which are specifically suited for the production of organic electronics.

Aixtron (Germany),  
Litrex / CDT (USA, UK)  
CreaPhysics (Germany)

## 3. Organic/Polymeric Light emitting devices

List of companies involved in the research, development and the production of organic/polymeric light emitting devices. The list may not be complete and can be extended.

3M (USA)  
eMagin (USA)  
Agilent (USA)  
Luxell (USA)  
MicroEmissive Displays, (USA)  
Osram Opto Semiconductors (Germany)  
Philips (Netherlands)  
Ritek (Taiwan)  
Samsung SDI/SEC (South Korea)  
Sanyo Electric (Japan)  
Seiko Epson (Japan)  
TDK (Japan)  
Tohoku Pioneer Corporation (Japan)  
DuPont / Uniax (USA)  
Universal Display Corporation (USA)  
Schott (Germany)  
General Electric (USA)  
Siemens (Germany)  
Canon (Japan)  
Denso (Japan)  
Fujitsu (Japan)  
Hitachi, Japan  
IBM (USA)  
LG Electronics (South Korea)  
Matsushita (Japan)  
Motorola (USA)  
NEC (Japan)  
Sony (Japan)

Stanley Electric, Japan  
Toshiba Matsushita Display (Japan)  
Xerox (USA)  
Eastman-Kodak (USA)  
Opsys (UK)  
Sharp (Japan)  
TMM (France)

#### **4. Organic/Polymeric Thin Film Transistor/Electronics**

List of companies involved in the research, development and the production of organic/polymeric thin film transistors and integrated circuits based on organic/polymeric materials. The list may not be complete and can be extended.

Philips, (Netherlands)  
Plastic Logic (UK)  
Infineon, (Germany)  
Siemens (Germany)  
Dow Chemical (USA)  
Motorola (USA)  
Xerox Corporation and Palo Alto Research Center Inc. (USA)  
3M (USA)  
IBM (USA)  
Lucent Technologies (USA)  
STMicroelectronics (Netherlands)  
Dupont (USA)  
NEC (Japan)  
Sharp (Japan)  
Canon (Japan)  
Samsung (Korea)

#### **5. Active components for optical communications**

List of companies involved in the research, development and the production of active components for optical communications. The list may not be complete and can be extended.

Allied Signals (USA)  
Corning (USA)  
Lucent (USA)  
DIGILENS (USA)  
IPITEK (USA)  
LIGHTWAVE Microsystems (USA)  
TACAN (USA)

EPIGEM (UK)  
 NTT (Japan)  
 HITACHI (Japan)

## 6. Organic/Polymeric Solar Cells

List of companies involved in the research, development of organic/polymeric solar cells. The list does not include companies working on fuel cells and Graetzel cells.

Siemens (Germany)  
 NTT(Japan)  
 Pioneer (Japan)  
 Hitachi (Japan)  
 Toshiba (Japan)  
 Solaronix (Switzerland)  
 Kodak (USA)  
 Qsel (Austria)

## 7. European research institutes

List of research groups and institutes involved in the research on organic/polymeric electronic devices like Thin Film Transistors, solar cells and light emitting diodes. The list may not be complete and can be extended.

Cambridge University, pLEDs, oFETs, solar cells, electronic transport (UK)  
 Fraunhofer Institute, materials, manufacturing, passivation, packaging (Germany)  
 Linköping University, oLEDs, solar cells, oFETs (Sweden)  
 Oxford University, oLEDs, growth, interfaces (UK)  
 ETH Zurich, materials, growth, small molecules, electronic transport (Switzerland)  
 University of Linz, solar cells, materials, packaging (Austria)  
 University of Bayreuth, oLEDs, materials, electronic transport, oFET (Germany)  
 University of Durham, optoelectronics, oFETs (UK)  
 University of Groningen, solar cells, oLEDs, oFET (Netherlands)  
 University of Sheffield, materials, (UK)  
 Imperial College London, materials, oLEDs, solar cells, oFETs (UK)  
 University Stuttgart, materials, growth, electronic transport, oFETs, oLEDs (Germany)  
 Eindhoven University of Technology, materials (Netherlands)  
 Technical University Braunschweig, oLEDs, oFETs (Germany)  
 Max Planck Institute, growth, oLEDs (Germany)  
 Swiss Center of Electronic and Microtechnology (CSEM), oLEDs, (Switzerland)  
 Technical University Dresden, oLEDs, oFETs, growth (Germany)  
 IMEC, solar cells, oFETs, oLEDs (Belgium)

VTT Center of Microelectronics, oLEDs, materials, Patterning, printing (Finland)  
ISMN, growth, materials (Italy)  
CNRS, materials, oLEDs, solar cells (France)  
CEA LETI/ LIST, fuel cells, oLED, Solar cells, chemical sensors, materials (France)  
ISEN, oFET, (France)  
University Potsdam, materials, oLEDs (Germany),  
ENEA, oLEDs, Solar cells, (Italy)  
CNR, oFET (Italy)  
University Toulouse, materials, chemical sensors (France)  
University Delft, oLEDs, solar cells, oFETs (Netherlands)  
Acreo, oLEDs, materials (Sweden)  
University of Prague, electronic transport, growth (Czech Republic)  
University of Riga, theory, electronic transport (Latvia)  
HHI, optical communications (Germany)  
IMM, optical communications, MEMS, MOEMS (Germany)  
ENS Cachan, optical communication (France)