

# Lessons learned about SMEs in OLAE

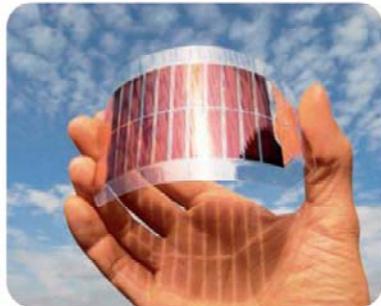
Dario della Sala  
ENEA Research Centre «Casaccia», Rome (Italy)

# Experience gained in Italy

Workshop LAMP, Rome April 12, 2013



# Phase 1 – Concept dissemination



La Piattaforma Tecnologica dell'Electronica Organica

Un' Opportunità di Sistema



About 10 slides (in italian) were arranged and disseminated to a very large set of SMEs to introduce the concepts of OLAE

SMEs were asked to fill a questionnaire

## Celle solari flessibili - Produrre energia per le applicazioni "portatili"

- Celle a coloranti (DSSC), celle organiche (OPV), altri materiali su plastica o altri nastri flessibili (FSC).
- DSSC sono sul mercato dal 2007, OPV sono in sviluppo, FSC in fase di valutazione.
- Per ora le efficienze max sono 10%, quindi fruibili per applicazioni a bassa efficienza e breve lifetime



## Illuminazione e lampade



Gamma delle applicazioni (a breve termine)



## "SMART OBJECTS"

- Grazie alla flessibilità e disponibilità di molti componenti, è possibile INTEGRARE dispositivi per il management dell'energia (generazione, accumulo, ecc.), la generazione di luce, la sensoristica e le radiofrequenze in svariati PRODOTTI di uso comune: giochi, carte da visita intelligenti, tickets, ecc..
- Particolarmente rilevante potrebbe essere l'impatto sul PACKAGING (per pubblicità, anticounterfeiting, integrità del prodotto, informazioni al consumatore, ecc..)

Highlight di Karl Knauer



Ident 3.0 NFC di Karl Knauer



Inchiesti sensibili per la freschezza del pesce

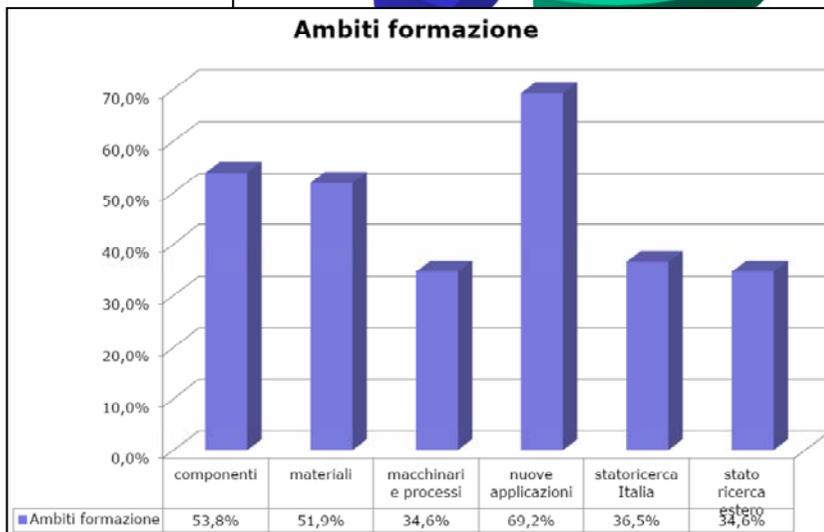
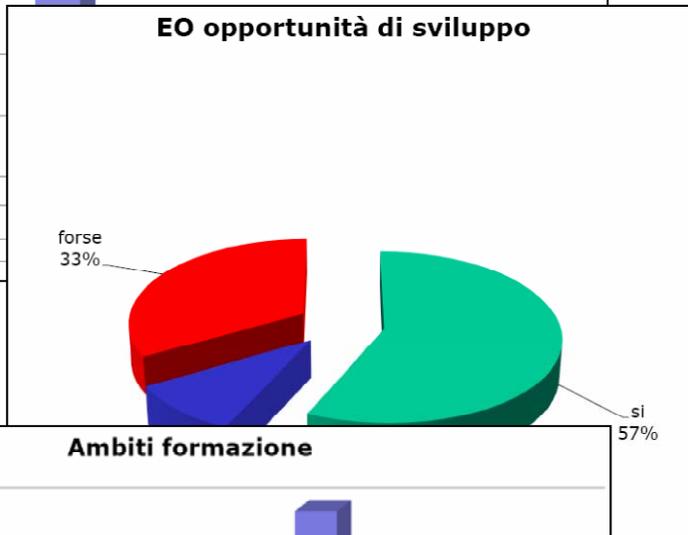
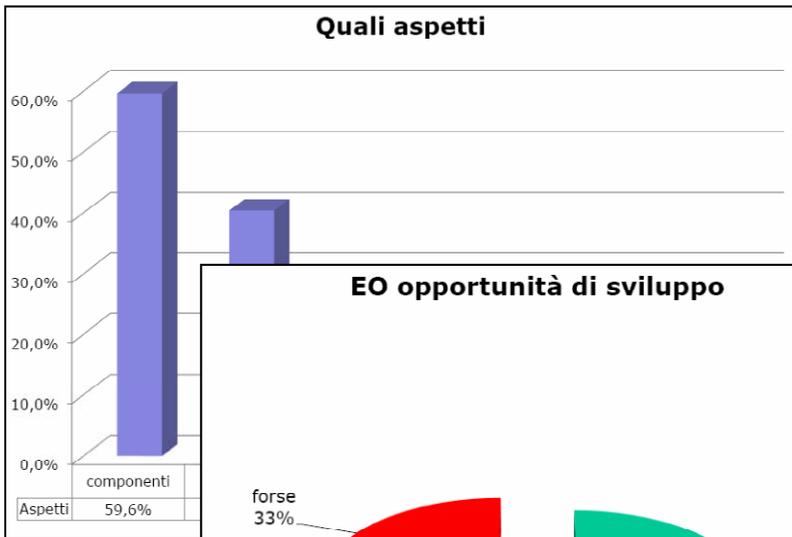
Gioco da Tavola Flessibile che integra: Electronica organica, Batterie Stampabili, sensori di pressione, Display EL e OLED



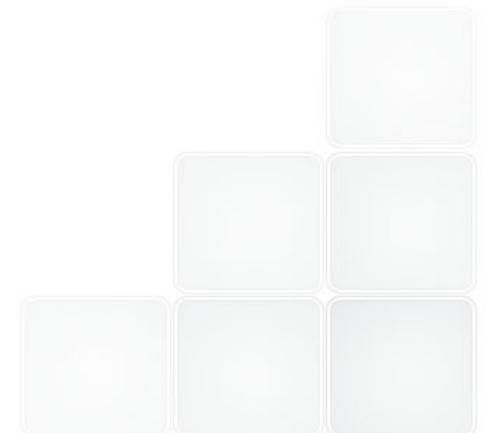
Conta Km (Optrex Europe mbH)



# Phase 2 – Survey of SME priorities



52 SMEs replied to the questionnaire.



## Phase 2 – Survey of SME priorities



### The main results of the survey:

- Do you know OLAE ? **Yes 83 %**
- ..which OLAE ? **solar cells 50%, OLED 48%, RFID 48%, etc..**
- ..which aspect ? **Components 60%, materials 40 %, etc..**
  
- Does OLAE leverage development ? **Yes 57%**
- ..which benefits ? **hightech in products 58%, new functionality 48%, added value 44%, etc...**
  
- Do you need more education ? **Yes 83%**
- ...which type ? **applications 69 %, components 54%, materials 52%, etc...**
  
- Which approach for SME research ? **network 75%, individual 24 %**
- ...which sector ? **end-user 44%, system integr. 42%, equipments 27%, etc..**
  
- Do you need support to enter EU projects ? **yes 73%**

# Phase 3 – Workshop on OLAE



Large info on few subjects  
Based of the main priorities  
(40' each) :

- Materials basics
- OLED
- Solar cells
- RFID

~ 50 SMEs attended the workshop

CONFINDUSTRIA  
Emilia-Romagna

ENEA

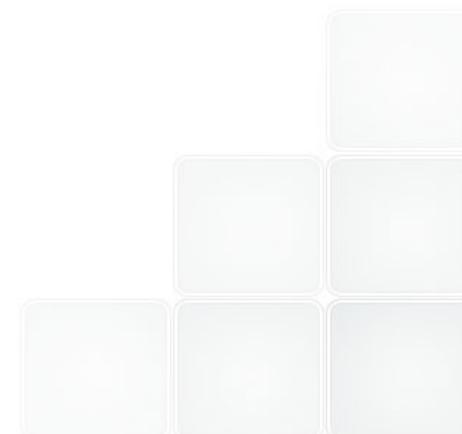
LA PIATTAFORMA  
DELL'ELETTRONICA ORGANICA  
UN'OPPORTUNITÀ DI SISTEMA

Bologna, 16 dicembre 2010  
Alma Graduate School  
Villa Guastavillani  
Via degli Scalini, 18

In collaborazione con  
ALMA  
GRADUATE  
SCHOOL

# Experience gained with EU partners

Workshop LAMP, Rome April 12, 2013

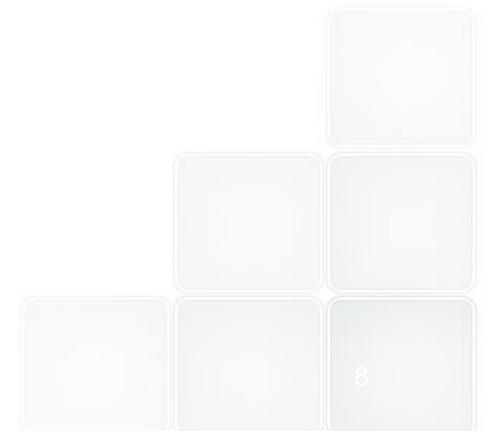


# FLEXNET incentive workshops



Network of Excellence FLEXNET (FP7 GA no. 247745):  
17 partners; 11 countries;

24 incentive workshops for SMEs  
across South-West-Central Europe



# Italy incentive workshops



## INCENTIVE WORKSHOP

### LA PIATTAFORMA DELL'ELETTRONICA ORGANICA OPPORTUNITÀ E SFIDE PER IL SISTEMA INDUSTRIALE

Bologna, mercoledì 16 maggio 2012 • 9.30 – 13.30  
Confindustria Emilia-Romagna – Via Barberia 13

## Features:

Local language (italian)

Outlook on EU research

Local industry speakers

Link with EU SME

Info about research  
funding tools

## PROGRAMMA

09.00 • Registrazione partecipanti

09.45 • Saluto introduttivo

Marco Baccanti, Presidente Commissione Ricerca Confindustria Emilia-Romagna & Director Business Development Health, Corporate and Public Technogym S.p.A

10.00 • B. Fillon, S. Cros, CEA (France)

Organic Electronics in Europe, FLEXNET Research Advisory Service

10.30 • FIAT SpA

10.45 • STMicroelectronics

11.00 • SAES Getters SpA

11.15 • COVEME SpA

11.30 • Pausa caffè

11.45 • Testimonianza di una PMI europea

CERADROP (France)

12.00 • Nicoletta Amodio, Confindustria

General approaches

12.15 • Sandro Angeletti, Mediocredito Italiano SpA

Strumenti finanziari a supporto dell'innovazione industriale nel settore OLAE

12.30 – 13.15 • Tavola rotonda

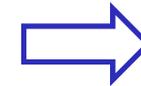
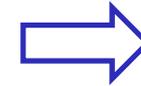
(to launch common OLAE activities across Italy)

13.15 • Pranzo

# Final recommendations to relevant EU stakeholder fora



FlexNet



*NOTES AND RECOMMENDATIONS  
TO IMPROVE THE SHARING OF KNOWLEDGE AND  
THE INVOLVMENT OF SMEs IN THE OLAE RESEARCH*

## Dissemination of 11 recommendations about OLAE, 4 are for SMEs:

### ***“SMEs need more incentives***

... there is not yet a “killer application” available....Therefore the SME that approach FOLAE concepts, find rather poor incentives to invest their limited money on long-term high-risk technology...

### ***SMEs and the value chain***

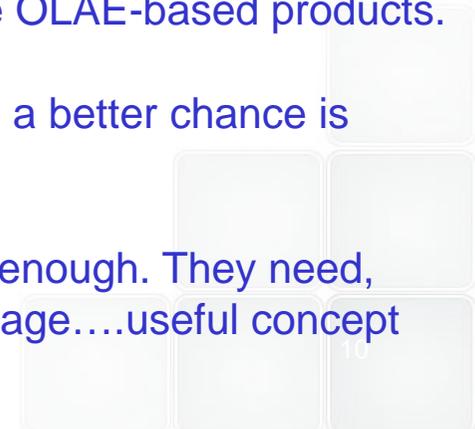
... the best mixture of expertise and reciprocal convenience for new OLAE products, should be the joint effort between large industries and research labs providing basic reference materials and control electronic circuits, SMEs that offer OLAE components (e.g. batteries, OLEDs, etc..) and end-user SME that work to integrate circuits and components in innovative OLAE-based products.

### ***Permanent showcase of OLAE demonstrators***

...attending workshops is not sufficient to SMEs to stimulate their interest; a better chance is “touching with their own hands” OLAE components and systems....

### ***Teaching and permanent roundtables of OLAE concepts to SMEs***

... for the mass of SMEs...the advertising of existing demonstrators is not enough. They need, often, a sort of teaching that let them to understand the whole OLAE message....useful concept is the creation of “permanent round tables”...”



# New tools to involve SMEs

Workshop LAMP, Rome April 12, 2013



# In Italy: AIRI tutorials on emerging technologies



ASSOCIAZIONE  
ITALIANA  
PER LA RICERCA  
INDUSTRIALE

= Italian Association for  
Industrial Research

Main features:

<b>NAME</b>	<b>AIRI TUTORIAL MEETING FOR PMI: MODERN AND EMERGING TECHNOLOGIES</b>
<b>TARGET</b>	<b>PMI</b>
<b>SCOPE</b>	<b>Bridging SMEs to the concepts of emerging and still unfamiliar technologies</b>
<b>TECHNOLOGY READINESS LEVEL (TRL)</b>	<b>From: "TRL 3 Analytical and experimental critical function and/or characteristic proof-of concept", to: "TRL 7 System prototype demonstration in an operational environment"</b>
<b>SPEAKERS</b>	<b>From PUBLIC bodies (ENEA, CNR, Univ., etc...)</b>
<b>OTHER</b>	<b>Audience: min 5-50 SMEs, with the assistance of CONFAPI (SME Ind. Association)</b>

# In Europe: FP7 project SME4RTDI (new SME-specific e-learning platform)



The "Innovation Union Scoreboard 2013" demonstrates that the most economically healthy countries (and enterprises) are those with a higher degree of Innovation.

**How to increase the innovation performance of EU enterprises?  
How to make them economically stable in the market?**

The European Commission is preparing an e-Learning platform which will provide SMEs with a guided tour through the whole Innovation cycle because it considers that a long-term strategy for increasing their competitiveness

## **E-learning platform** – targeting

- Structured **e-learning content** presented with video, sound, engaging content;
- **Serious game / immersive simulation** allowing “learning by doing” and providing incentives to learn more and understand what is required to build a successful Innovation strategy;
- A **collaborative platform** for informal and peer-to-peer learning ( user content creation capabilities, peer-to-peer exchanges, including forums, wiki, etc.).

The project is developed by the SME4RTDI consortium composed of : U&I Learning (BE), Caspian (UK), APRE (IT) and PRAXI (EL) with the supervision of the European Commission – DG RTDI – SMEs Unit.

References on "Innovation Union Scoreboard 2013" : [http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013_en.pdf)

