Final 2BFUNTEX Meeting: European Materials and Surface Initiatives in Europe

Milan, 14th November 2015

Dr. Amaya Igartua (IK4-TEKNIKER, amaya.igartua@tekniker.es)
IK4 TEKNIKER Presentation
Umbrella E-Surf
EC4P
EUMAT Materials Platform
A4M
MATCH
Dr. Amaya Igartua, IK4-TEKNIKER, www.tekniker.es
EUREKA umbrella action E!5800

Surface engineering for sustainable production and products

www.eurekasurf.eu

Core team: Eiffo, VITO, I4-TEKNIKER, DTI, Univ. Southampton,
What is E!-Surf?

E!-Surf is a EUREKA interdisciplinary umbrella that represents the Surface Technology
Fostering co-operation among industrial enterprises and research organizations

E!-SURF is focused on
- developing new products and improving existing products based on an interdisciplinary and cross-sectoral technology
- combining interfaces along the entire value chain due to its central position
<table>
<thead>
<tr>
<th>Action</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong>Partner</strong></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>60</td>
</tr>
<tr>
<td>Interested</td>
<td>~180</td>
</tr>
<tr>
<td><strong>Projects</strong></td>
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<tr>
<td>Submitted</td>
<td>67</td>
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<tr>
<td>Granted (in process: 11)</td>
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<tr>
<td>Matchmaking event</td>
<td>17</td>
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<tr>
<td>Funding guide action</td>
<td>24</td>
</tr>
<tr>
<td>Partnering actions</td>
<td>29</td>
</tr>
<tr>
<td>Training action</td>
<td>16</td>
</tr>
<tr>
<td>Regular SG meeting (report)</td>
<td>12</td>
</tr>
<tr>
<td>Ad-hoc WG meeting (report)</td>
<td>20</td>
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Functional Coatings for Industry II

The Materials KTN, IoP Tribology and the National Centre for Advanced Tribology invite you to join the workshop and to discuss new challenges and perspectives in the field of functional coatings.

Join panel discussion with experts from industry and academy on:
- New coating materials and technologies
- Challenges in manufacturing
- Collaboration & Funding opportunities

Hilton Southampton
8th May 2013
10-16 pm

To register please email: T.Polcar@soton.ac.uk

Masterclass - Physical Vapor Deposition: een antwoord op uw oppervlakteproblemen

Wit u kennis maken met de mogelijkheden van recente ontwikkelingen in oppervlaktebehandeling met 'physical vapor deposition'-technieken (PVD)? Heeft u een specifiek probleem waarvoor PVD een oplossing kan bieden? Het Sirris Smart Coating Application Lab organiseert een masterclass met PVD-expert Lars Pleth Nielsen, waarbij theoretische en praktische voorbeelden worden aangeboden. Uw specifieke case kan achteraf besproken worden tijdens 'one-to-one'-sessies met experts ter zake.

Met Lars Pleth Nielsen laat Sirris u kennis maken met een expert in PVD. Tijdens deze masterclass zal Nielsen de aanwezigen inleiden in de wereld van PVD en de verschillende toepassingen die mogelijk zijn met deze technologie. Hij zal inzicht geven in coatingmogelijkheden om op deze manier uw product een meerwaarde te geven.
Current situation

E!-Surf will be finished by the end of 2015
The topic is of overall interest
Discussion of continuation / renewal is going on

Chance to
Interest companies in EUREKA activities
Merge governmental and industrial interests
Bring together various technological topics
Opportunities in R&D projects for Building and Construction Products and Solutions

Estela Izquierdo
Annual Meeting, 28 May 2015, Bilbao - Spain
What is ECP4?

• **ECP4** is an industry-driven platform that unites the top-level European research institutions, regional plastic clusters, and EU-level industrial organizations of plastics and composites converters.

• **ECP4** brings innovation partners together to identify opportunities for collaborative R&D.

• **ECP4** provides networking and collaboration initiatives among research institutions and industrial stakeholders to address key knowledge gaps.
Objectives

The objectives of ECP4 are based on the innovation-oriented needs of the European composites producers and plastics converting industry:

1. To facilitate **access to research and funding in Europe** for the plastics converters and composites producers.
2. To **create a cross-border network** of excellence and expertise with critical mass.
3. Support to **find suitable partners** and to increase the innovative capacity.
Membership

Full members
• Research organizations active in the field of plastics, polymers and composites
• Cluster organizations of the plastics and composites industry on regional, national and on European level

Associated members
• Plastics converters, composite producers
• Resin suppliers
• Machinery manufacturers
Members

Centre of Polymer Systems (Research Unit of Tomas Bata University in Zlin)
Value Added Materials - Synergies and Networking for a value chain based R&D policy
Established 2004; official launch event 26 June 2006

Status 2014: ~ 900 registered members

23% from industry


EuMaT Steering Committee
EuMaT: Objectives and Activities

- to promote the **leading global position** and competitiveness of the EU technology in the area of **Advanced Engineering Materials**
- to promote the **consolidated and unified R&D&I European policy** in this area
- to ensure optimum **involvement of Industry and other important Stakeholders** in establishing **European R&D priorities**

**Development of entirely new materials** or materials groups (nanomaterials, active/intelligent materials, composites, hybrid and multimaterial structures etc.) and **qualifying them for the market**

**Modification of existing materials for new applications** (new grades of existing materials systems, new manufacturing processes)

**Innovative use of existing materials** based on good understanding of applications, material requirements and **materials degradation mechanisms**
Strategic Research Agenda in the area of advanced engineering materials and related materials technologies

R&D priorities for the EU Workprogrammes

Building the future – A4M
Networking of other ETPs / EMRS / FEMS dealing with Materials along the value chain to achieve the most effective use of the community resources

- Value chain driven action
- Cross-KETs
- Cross Platforms building
Advanced Materials: Market perspectives

Value Added Materials market share by sector
EuMaT Organizational Structure

Steering Committee

Secretariat

Working Groups

WG1 Modelling and Multiscale
WG2 Materials for Energy
WG3 Nanomaterials
WG4 Structural/Functional Materials
WG5 Lifecycle, Impacts and Risks
WG6 Material for ICT
WG7 Biomaterials

TFs

EuMaT - horizontal Platform linked to DG Research and Innovation, Directorate D – Key Enabling Technologies, Unit D.3 – Advanced Materials and Nanotechnologies
<table>
<thead>
<tr>
<th>Societal challenges</th>
<th>EuMaT Working Groups</th>
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<tr>
<td></td>
<td>Modelling and multiscale</td>
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<tr>
<td>Health, Demographic Change and Wellbeing</td>
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<td>Food Security, Sustainable Agriculture, Forestry, Marine</td>
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<tr>
<td>Secure, Clean and Efficient Energy</td>
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<tr>
<td>Smart, Green and Integrated Transport</td>
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<tr>
<td>Climate Action, Environment, Resource Efficiency, Raw Materials</td>
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<tr>
<td>Europe in a changing world - Inclusive, innovative and reflective societies</td>
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<td>Secure societies – Protecting freedom and security of Europe</td>
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What is Alliance for Materials

Through an alliance of a number of EPPO, and with a fundamental and significant materials component in their strategies, we will provide a clear focus for research solutions to help to address the carbon impact of the supply of materials, their processing, and the innovation needed to address the key objectives. The EPPOs will be working together to deliver the key enabling research that will feed into the exploration of the high growth areas in key enabling technologies.

Materials

including, new material discoveries, the process industries and manufacturing materials, and the demand driven production of specialty and consumer goods from finite materials.

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For more information:

http://www.match-mt.org

Marta Tio: matchsecretariat@europa.eu

On the 30th November 2012

Vienna, Austria

www.match-mt.org
What is Alliance for Materials

The original initiators of A4M initiative are six European Technology Platforms with a strong material agenda in their respective strategies. These are: EuMaT, Suschem, Manufuture, FTC (textile), ESTEP, SMR (sustainable resources), integrated by the two main European materials associations: E-MRS and FEMS

integrate the diversity of ideas in Materials developments across ETPs and other main stakeholders to create synergy and an integrated Materials R&D programme for Europe

ensure that the Industrial Value Chain acts as main driver for a credible integration of resources and players for speeding up exploitation and valorisation of materials research
Why Alliance for Materials

Even if the related industries belonging to A4M will have competitive activities the A4M group regards the complementary aspects of higher importance: the collaboration impact is stronger than the sum of the individual contributions.

...not any more an option but a technological evidence with a competitive advantage.

...on Materials R&D

Collaborative approach

Competing approach

Source: M.Goede, VW Group Research, SLC
Objectives

- **Objectives**
  - Match is The implementation tool for A4M
  - To **integrate** the diversity of **ideas in Materials developments to create synergy** and an integrated **Materials R&D programme for Europe**
  - To create the conditions for a genuine **collaborative and coordinating** environment among different **stakeholders for Horizon 2020 Materials related initiatives and policies**
  - To ensure that the **Value Chain** based concept acts as **main driver** for a credible integration of resources and players
  - To identify key **research and technology developments** where materials are required to meet the challenges of the 21st century on **novel advanced functional and structural materials**
  - **Identify** cross-cutting materials research and innovation support infrastructure needed
  - To speed up **time to market** by promoting industrial exploitation of materials research
  - To raise **public awareness of the socio-economic benefits** of emerging advanced materials technologies
  - To support the **infrastructure to advise the Commission** about the priorities for Horizon 2020.
Knowledge, Research to innovation

Production

Aplications

Knowledge & innovation

Production

Semi products

Products sectors
Who take advantages from Alliance for Materials

- Industry .....because they can be on the front of the **Materials R&D strategy definition** for the coming years (market PULL)

- Academia and Research .....because they can bring their visions and ideas to the attention of industry for possible **future commercial valorisation** (market PUSH)

- Industry and Research ....because together they can design a coherent picture of **the future Materials R&D need** and strategies (balanced innovation)

- Industry and Research ....because the **current complexity of the technological scenario**, ask to deal with:
  - Cross sectorial and cross disciplines approaches
  - Scale integration (nano, meso, macro)
  - Production integration (Materials and Manufacturing)
  - Time to market (certification and standards)
Preparation

The supporting CSA

The initiative


A4M
Alliance for Materials

MatVal

MATCH
Building the European Materials Common House

Horizon 2020

Seventh Framework Programme
MATCH Project

Horizon 2020
Call: H2020-NMP-CSA-2014
Topic: NMP-33-2014
Type of action: CSA

Proposal number: SEP-210134865
Proposal acronym: MATCH

Title of Proposal
The Alliance for Materials way to the creation of the MATerials Common House - MATCH
EU textile & clothing industry:
- €166 billion turnover
- 1.7 million direct jobs
- 173,000 companies
- Main areas: fashion, interior, technical markets
- Technical textiles growing in many markets: transport, construction, protection, medical, energy & environment...

www.euratex.eu

- Established in 2004
- 700+ registered members
- T/C industry, chemicals, machinery, research centres, universities, clusters...
- Broad range of research & innovation-related activities
- History of collaboration with other ETP’s

www.textile-platform.eu
Goals

- the enlargement and effective **improvement of the existing Materials network** at EU level;

- the **multidisciplinary connection** of Materials to a plethora of fields relevant for European growth and where concerted management actions are needed;

- the integration with existing and/or promotion of **new Materials networks at National and Inter/Regional levels**;

- the integration of **EU and national and regional networks** in a sustainable (long-lasting) effectively aligned network hubs.
Activities of MATCH

WP1: Project management
- WEB platform
- DB activity
- Data
- Inputs
- Analysis

WP2: Networking of European and national activities
- WEB platform
- Data

WP3: Communications and Events
- DB WEB integration

WP4: Constant monitoring

WP5: Benchmark in and Assessment
- Data

WP6: Foresight and roadmap
- Data

WP7: Identification of success stories
- Data
- Inputs
Sectors addressing to MATCH

The key sectors/areas

- Materials for Energy
- Materials for Enhanced Quality of Life: e.g. Transport
- Materials for Construction
- Materials for Health
- Materials for Creative Industry
Thanks for your attention

Acknowledgements to the European Commission for the financing of the MATCH and 2B Funtex Projects

Acknowledgements to Marco Falzetti, EUMAT and MATCH coordinator and for EIFFO and VITO for E-Surf and EUPC for EPC4 contributions.

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