The Factories of the Future PPP

Chris Decubber
Photonics21 Workshop
Political Developments

The Future

Over € 1 Billion total project budget

151 Projects launched

Over 1,000 organisations

SME participation

50% industry participation

Demonstration

Dissemination

Committed industry & strong research network

Over € 2 Billion total project budget
The FoF 2020 Roadmap

Research & Innovation Priorities

Challenges & Opportunities
- Manufacturing Future Products
- Economic
- Social
- Environmental

Sustainability

Technologies & Enablers
- Advanced Manufacturing Processes
- Mechatronics for Advanced Manufacturing Systems
- Information & Communication Technologies
- Manufacturing Strategies
- Knowledge Workers
- Modelling, Simulation & Forecasting

FACTORIES OF THE FUTURE
Multi-annual roadmap for the contractual PPP under Horizon 2020

Prepared by EFFRA
The FoF 2020 Roadmap

Research & Innovation Priorities

Domain 1: Advanced Manufacturing Processes
Innovative processing for both new & current materials or products

Domain 2: Adaptive and Smart Manufacturing Systems
Innovative manufacturing equipment at component & system level, including mechatronics, control & monitoring systems

Domain 3: Digital, Virtual & Resource Efficient Factories
Factory design, data collection & management, operation & planning, from real-time to long term optimisation approaches

Domain 4: Collaborative & Mobile Enterprises
Networked factories & dynamic supply chains

Domain 5: Human-Centred Manufacturing
Enhancing the role of people in factories

Domain 6: Customer-Focused Manufacturing
Involving customers in manufacturing value chain, from product process design to manufacturing associated innovative services

Challenges & Opportunities

- Manufacturing Future Products
- Economic
- Social
- Environmental

Sustainability

Technologies & Enablers

- Advanced Manufacturing Processes
- Mechatronics for Advanced Manufacturing Systems
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EFFRA
European Factories of the Future Research Association
MANUFACTURE initiative
Quality Control of Aluminium Laser-welded Assemblies

High power Adaptable Laser beams for materials processing

Additive Manufacturing for Wear and Corrosion Applications
Portfolio management and monitoring

- General project information
- Link to project website
- Exploitable results overview
- Project demonstrators overview
- Addressed challenges and technologies
- Project participants
<table>
<thead>
<tr>
<th>Project Acronym</th>
<th>Title</th>
<th>Call topic</th>
<th>Project end date</th>
<th>website</th>
<th>EC contribution</th>
<th>Duration</th>
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<tr>
<td>ADMACOM</td>
<td>Advanced manufacturing routes for metal/Composite components for Aerospace</td>
<td>FoF.NMP.2013-10</td>
<td>2016-09-30</td>
<td><a href="http://www.amcor-project.eu">www.amcor-project.eu</a></td>
<td>2,727,360 Euro</td>
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<td>AMCOR</td>
<td>Additive Manufacturing for Wear and Corrosion Applications</td>
<td>FoF.NMP.2012-7</td>
<td>2015-10-31</td>
<td><a href="http://www.amcor-project.eu">www.amcor-project.eu</a></td>
<td>3,000,000 Euro</td>
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<td>APPOLo</td>
<td>APPOLo - Laser technologies</td>
<td>Fof.ICT.2013.7.2</td>
<td>0000-00-00</td>
<td><a href="http://www.appolo-fp7.eu">www.appolo-fp7.eu</a></td>
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<td>HALO</td>
<td>High power Adaptable Laser beams for materials proCessing</td>
<td>Fof.ICT.2011.7.1</td>
<td>2015-08-31</td>
<td><a href="http://www.halo-project.eu">www.halo-project.eu</a></td>
<td>3,857,976 Euro</td>
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<td>I4MS-Gate</td>
<td>European Innovation Ecosystem as a Gate for Supporting FoF Research and Experimentation</td>
<td>Fof.ICT.2013.7.2</td>
<td>2015-06-30</td>
<td><a href="http://www.i4ms.eu">www.i4ms.eu</a></td>
<td>650,000 Euro</td>
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<td>MANSYS</td>
<td>MANufactoring decision and supply chain management SYstem for additive manufacturing</td>
<td>Fof.NMP.2013-9</td>
<td>2016-06-30</td>
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<td>MEGAROB</td>
<td>Development of flexible, sustainable and automated platform for high accuracy manufacturing operations in medium and large complex components using spherical robot and laser tracker on overhead crane</td>
<td>Fof.NMP.2012-4</td>
<td>2015-10-31</td>
<td><a href="http://www.megarob.eu">www.megarob.eu</a></td>
<td>2,761,000 Euro</td>
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<td>QCOALA</td>
<td>Quality Control of Aluminium Laser-welded Assemblies</td>
<td>Fof.IT.2010.10.1</td>
<td>2013-08-31</td>
<td><a href="http://www.qcoala.eu">www.qcoala.eu</a></td>
<td>2,627,239 Euro</td>
<td>36</td>
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<td>UV-MARKING</td>
<td>DEVELOPMENT OF NEW UV LASER FOR CUSTOMIZATION AT INDUSTRIAL LEVEL THROUGH HIGH QUALITY MARKING ON DIFFERENT MATERIALS</td>
<td>Fof.ICT.2011.7.1</td>
<td>2015-06-30</td>
<td><a href="http://www.uv-marking.eu">www.uv-marking.eu</a></td>
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<td>WHITER</td>
<td>White room based on Reconfigurable robotic Island for optoelectronics</td>
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<td>2016-08-31</td>
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<td>6,399,550 Euro</td>
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Ready for

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

Thank You

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