



Wroclaw 24-25 October 2011



“European Tooling”

workshop
ManuFuture sub-platforms

24-25 October 2011
Wroclaw, Poland

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AGENDA

- 1. Strategic Importance of the European Tooling Industry**
- 2. The European Tooling Platform**
- 3. The European Tooling Roadmaps – 2008-2013**
- 4. Tooling Survey 2011:**
 - The European Tooling Roadmap: 2013-2020**
 - Multisectorial Impact – European Platforms Cooperation**
 - Multisectorial Impact – Areas for Cooperation**



Strategic Importance of the European Tooling Industry

*... **Tooling** is within the critical path of the product development of almost all the products!*

*... **Tooling** Industry has become more and more **CAPITAL** and **KNOWLEDGE** intensive....*



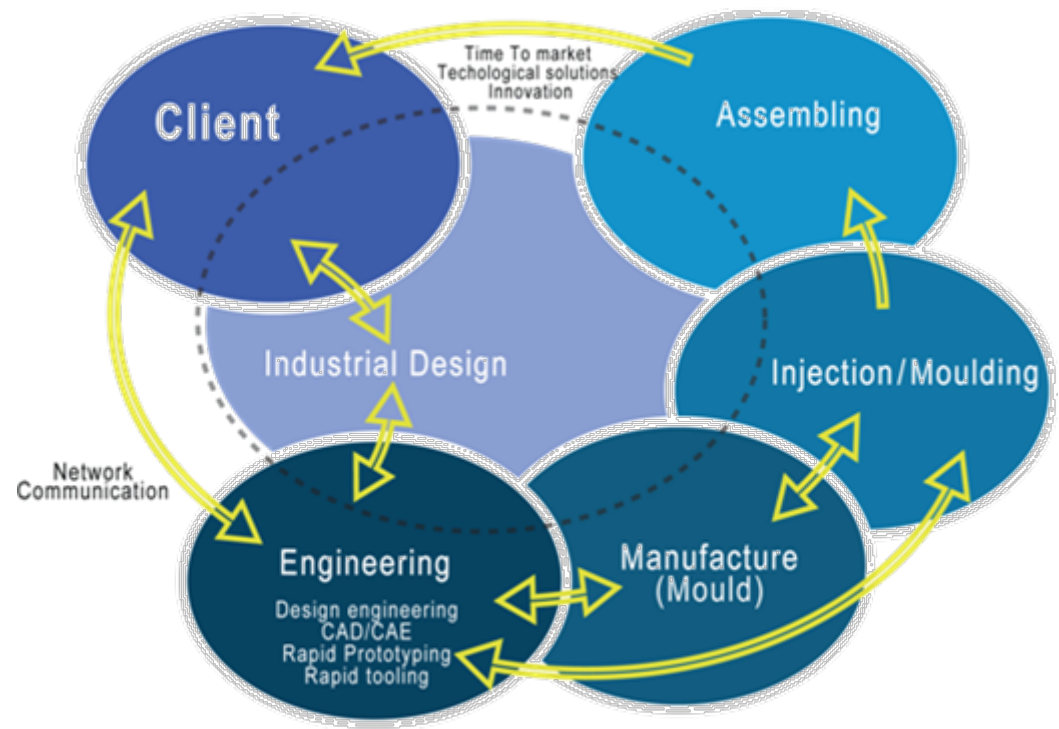
European Tooling Platform

The European Tooling Industry has been identified as a strategic sector for the growth of the European economy and qualified employment in Europe...

...due to the support **infrastructure** it provides for the economy, through:

> its high level of **multidisciplinary** competences and technological knowledge, and

> **multisectorial impact.**



European Tooling Platform



The Tooling focal point for the Research & Development at European Level

The European Tooling Platform is officially recognised as a MANUFUTURE's Sub-Platform and of being of key strategic relevance to support the implementation of a coordinated Action Plan at a European level.

VISION

Tooling, Mould and Die making companies are infrastructural strategic players towards the development and sustainability of the European Industry.



European Tooling Platform



<http://www.toolingplatform.manufacturen.net.eu>

The FP7 is the European Union's chief instrument for funding research over the period 2007 to 2013.

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European TOOLING Platform

The European Tooling Platform is the Tooling focal point for Research and Development at European Level, gathering the Industry's key players and stakeholders for the proposal, development and implementation of R&D activities leveraging competitive differentiation and an European high added value engineering and production base.

The privileged link to

EU's FP7
Horizon 2010

&

Public Private Partnership
"Factories of the Future"



European Tooling Platform

STRATEGIC ACTIONS

- ❑ **Promote an active participation of stakeholders** towards the definition and implementation of a **Tooling Industry Strategic Research Agenda**;
- ❑ **Propose, develop and implement Research and Innovation activities** to promote the competitiveness and differentiation of the Tooling companies;
- ❑ **Development of Strategic Roadmaps** for the Tooling Industry;
- ❑ **Creation of Specific Working Groups** in specific disciplines and domains towards the definition, implementation and continuous evaluation of the Strategic Research Agenda priorities and objectives.



European Tooling Platform

MEMBERSHIP

Gathering stakeholders, Industry's key players and nodes of networks

Official Members from:

- Portugal
- France
- Germany
- Spain
- Italy
- Slovenia
- Poland
- Belgium
- Sweden
- UK

Type of Members:

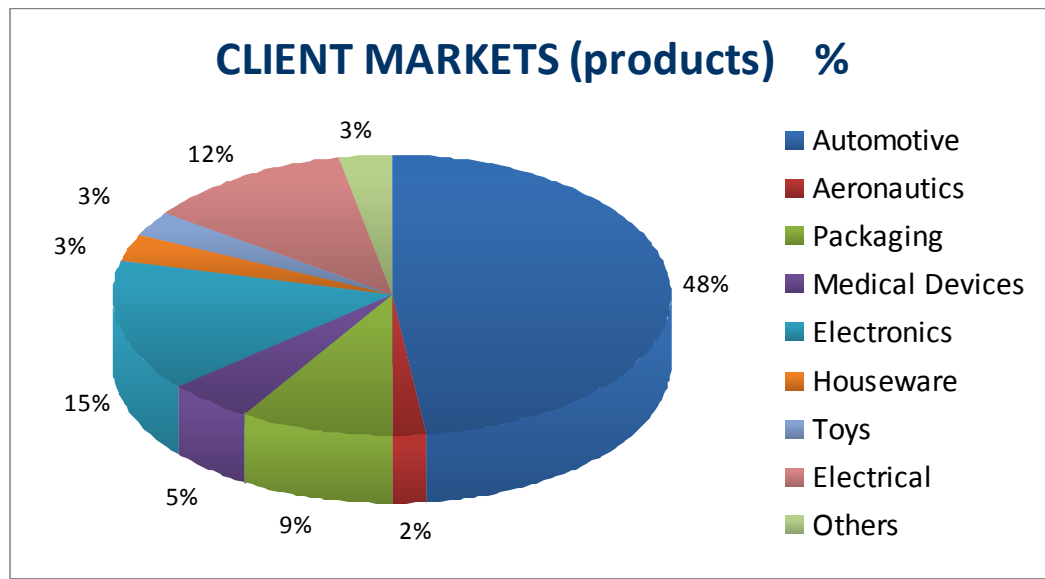
- Companies
- Universities
- Research Centers
- Industry Associations

Note: **European Tooling Platform** is organized in line with **ISTMA Europe** which represents 17 Countries.



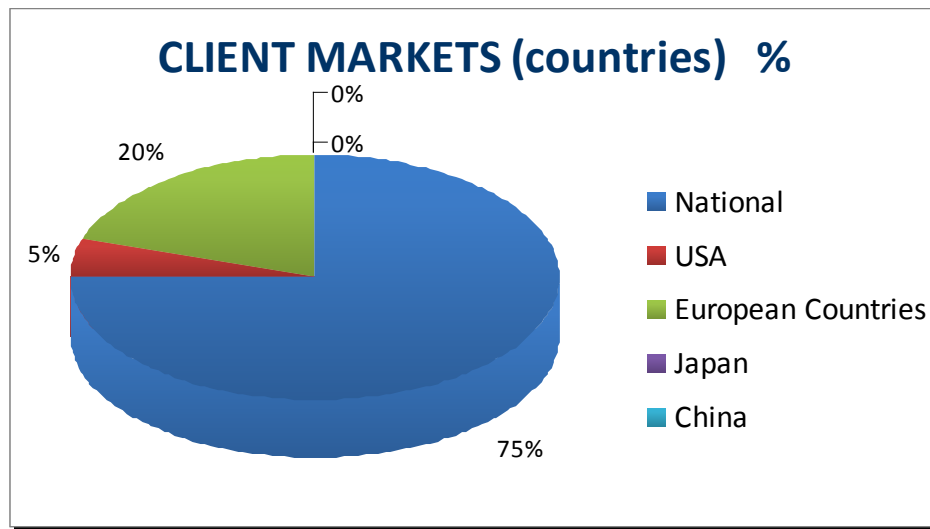
European Tooling Platform

MEMBERSHIP



European Tooling Platform

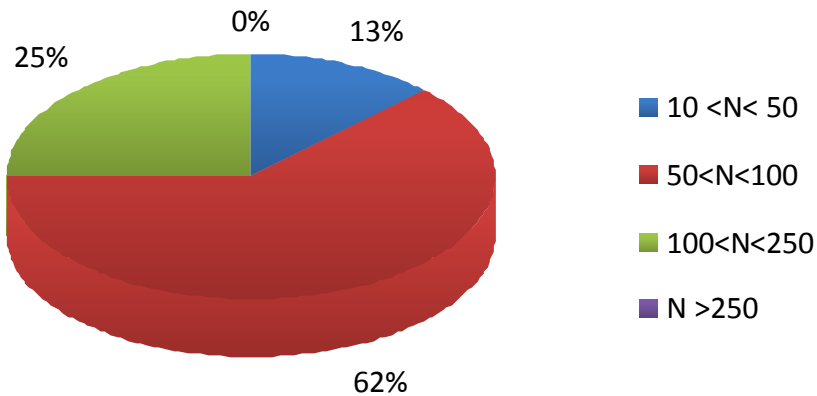
MEMBERSHIP



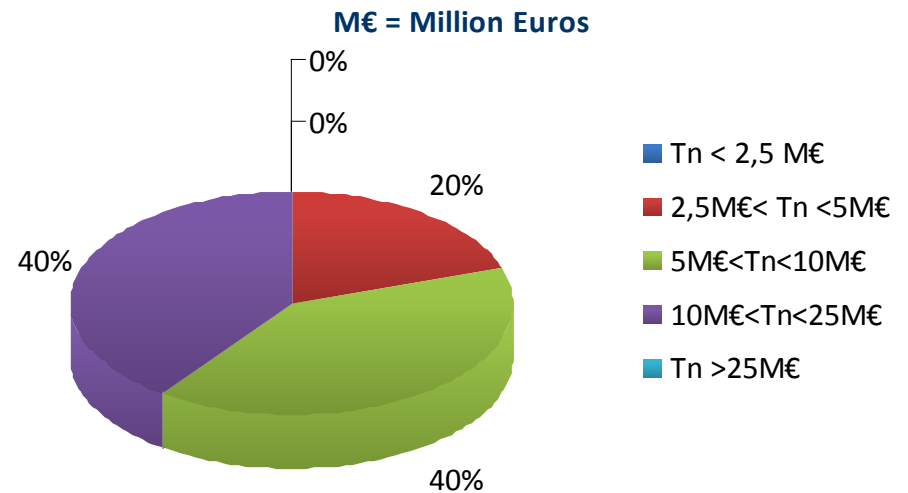
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MEMBERSHIP

Number of Employees %

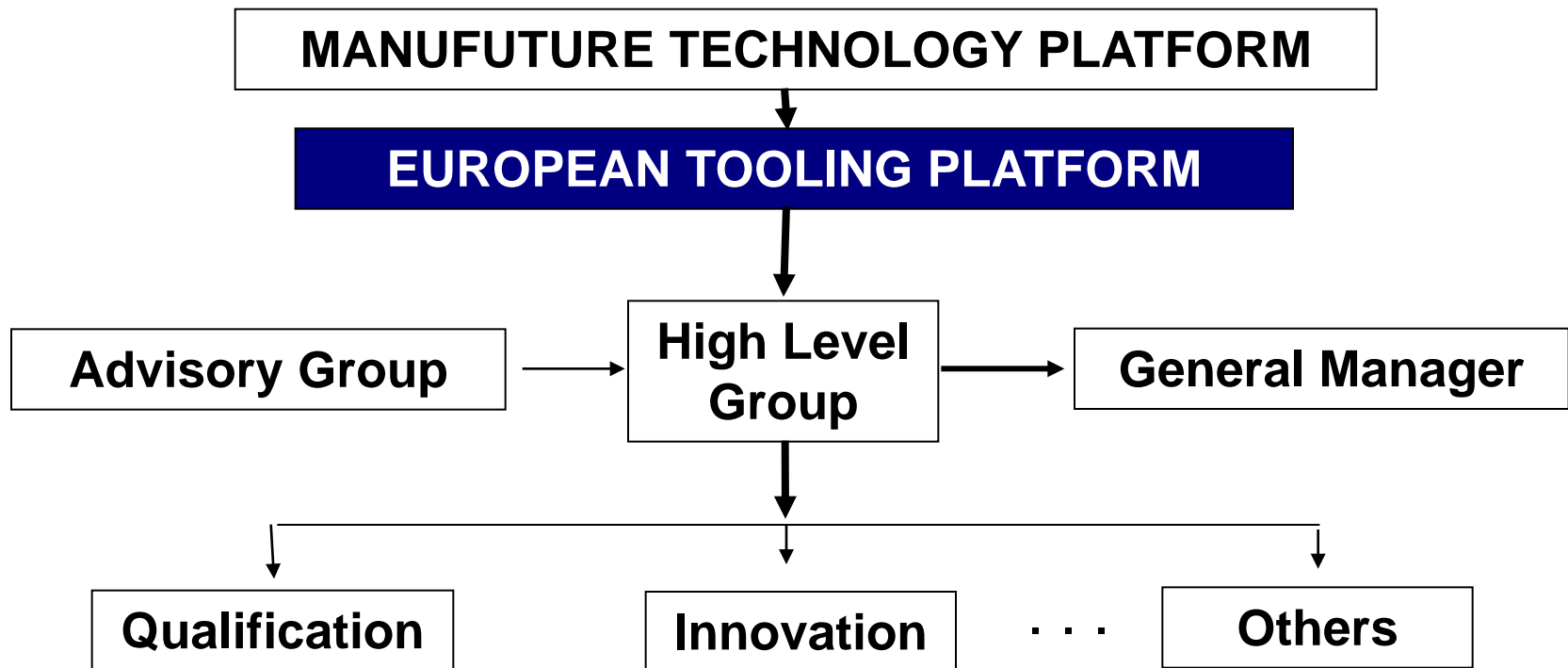


(Tn)Turnover %



European Tooling Platform

GOVERNANCE



Emerging Technologies

Innovative Technologies

<p>Micro Manufacturing Multi & Micro-Injection Micro-Macro Integration PIM / Micro PIM Distributed / Integrative Engineering Intelligent Tools</p>	<p>Digital Factory Simulation Solid Free Form Production Bio-Materials Eco-Materials Nano Technologies RM/HSM/EDM/Laser Integration</p>
<p>In-Mould Tech Coatings / Surface Treatment Rapid Manufacturing HSM – 5 Axis Milling Eco-Design Small Batches Production</p>	<p>Composites Digital Mock-up of Tools Virtual Production Precision Laser Advanced Automation/Production Cells New Functional Materials</p>

Short term

Long term



European Tooling RoadMap: 2008-2013

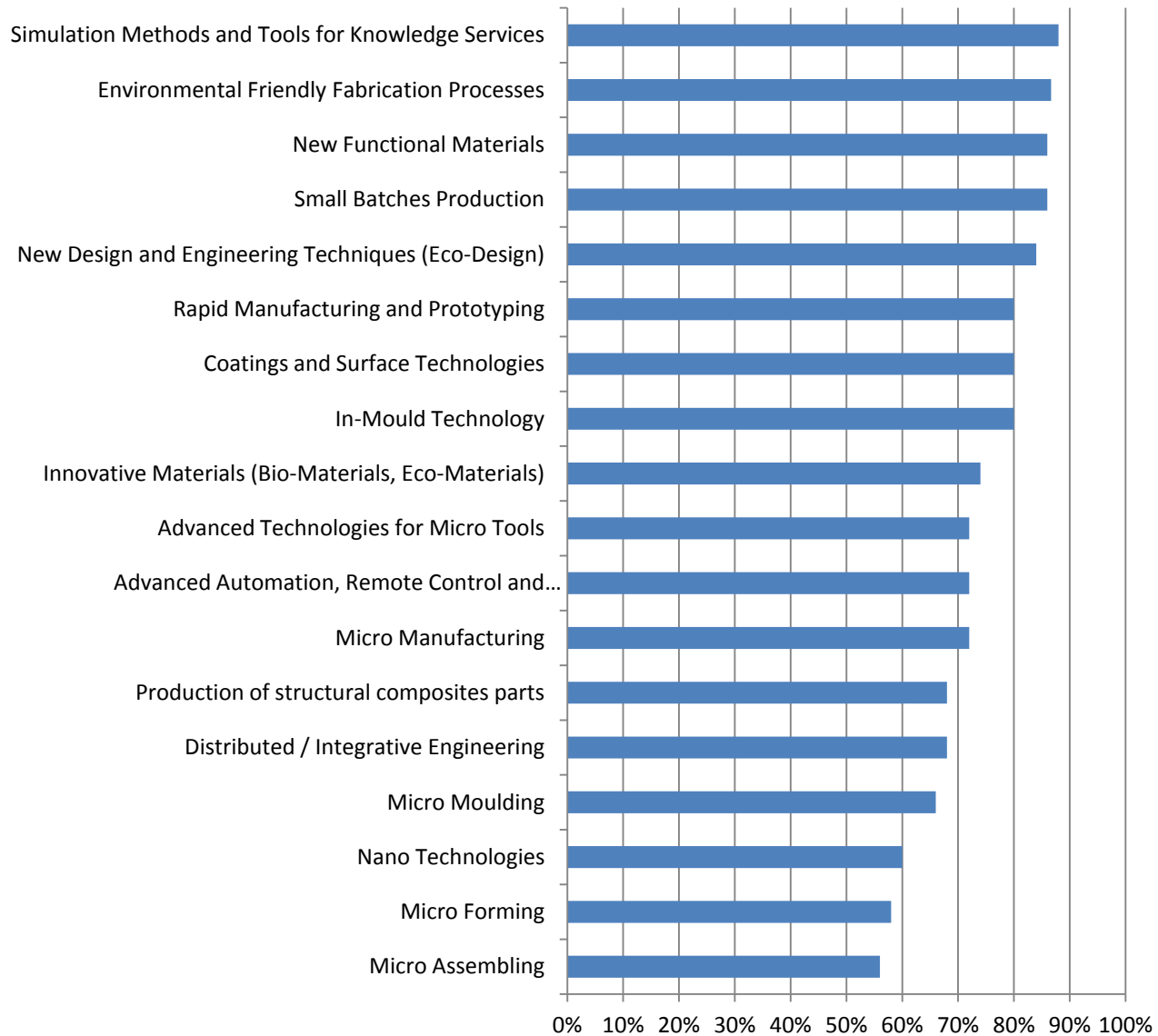
	1-2 years	2-4 Years	4+ years
Small	1. BUSINESS MODELS AND TOOLS FOR MAXIMIZE VALUE CREATION OVER THE LIFE CYCLE AND FOR DIVERSIFICATION		
	2. TOOLS FOR VERTICAL INTEGRATION		
	3. BUSINESS MODELS AND TOOLS FOR EFFICIENT NETWORKING, DIGITAL BUSINESS & EASY AND ECONOMIC COMMUNICATION		
Medium	4. SIMULATION METHODS AND TOOLS FOR KNOWLEDGE SERVICES <i>(accurate prediction of dimensions and mechanical properties of moulded products)</i>		
	5. RAPID MANUFACTURING, SMALL SERIES AND PROTOTYPING		
	6. NEW DESIGN AND ENGINEERING TECHNIQUES FOR INTELLIGENT MOLDS AND TOOLS		
	7. ADVANCED HVA COMPONENTS AND ICT FOR INTELLIGENT MOLDS AND SPECIAL TOOLS		
	8. MOLDS FOR HIGH OUTPUT PRODUCTION OF STRUCTURAL COMPOSITES		
	9. ADVANCED AUTOMATION AND REMOTE CONTROL		
	10. COATING AND SURFACE TECHNOLOGIES <i>(for special characteristics and sub-micron surface featuring)</i>		
	11. ADVANCED TECHNOLOGIES FOR MICRO TOOLS AND FOR SURFACE FINISHING		
Large	12. SPECIAL MOULDING TOOLS FOR FUNCTIONAL MATERIALS		
	13. INNOVATIVE RAW MATERIAL FOR SPECIAL APPLICATIONS (TOOLS AND PRODUCTS)		
	14. MOLDS FOR NON-CONVENTIONAL TECHNIQUES (multi-material, in-mould assembling, fluid assisted, vibration assisted)		
	15. MICRO MOULDING, MICRO ASSEMBLING AND CLEAN ROOM MANUFACTURING		
	16. WELDING TECHNOLOGIES IN TOOLS CONSTRUCTION		



Tooling Survey: 2011



2.1 - Classification by relevance degree



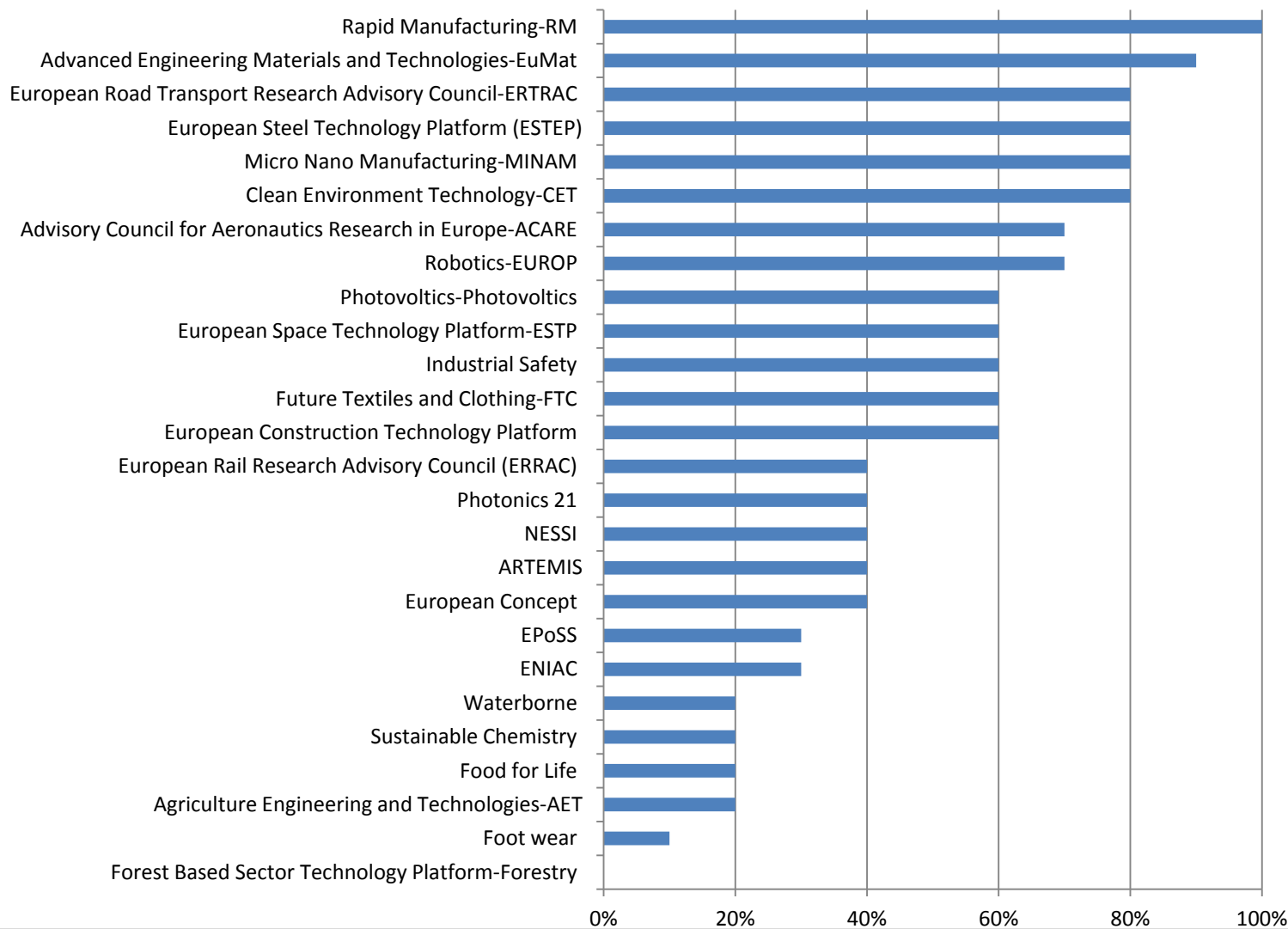
2.2 - Classification by temporal priority

	Short Term	Medium Term	Long Term
Micro Manufacturing	20%	70%	10%
Micro Moulding	10%	80%	10%
Micro Assembling	10%	50%	40%
Micro Forming	20%	60%	20%
Distributed / Integrative Engineering	40%	40%	20%
In-Mould Technology	20%	70%	10%
Coatings and Surface Technologies	70%	20%	10%
Rapid Manufacturing and Prototyping	60%	20%	20%
Small Batches Production	60%	30%	10%
New Design and Engineering Techniques (Eco-Design)	40%	60%	0%
Advanced Automation, Remote Control and Production Cells	40%	50%	10%
Advanced Technologies for Micro Tools	30%	60%	10%
New Functional Materials	20%	70%	10%
Innovative Materials (Bio-Materials, Eco-Materials)	30%	30%	40%
Nano Technologies	0%	60%	40%
Production of structural composites parts	40%	40%	20%
Simulation Methods and Tools for Knowledge Services	60%	40%	0%
Environmental Friendly Fabrication Processes	56%	33%	11%

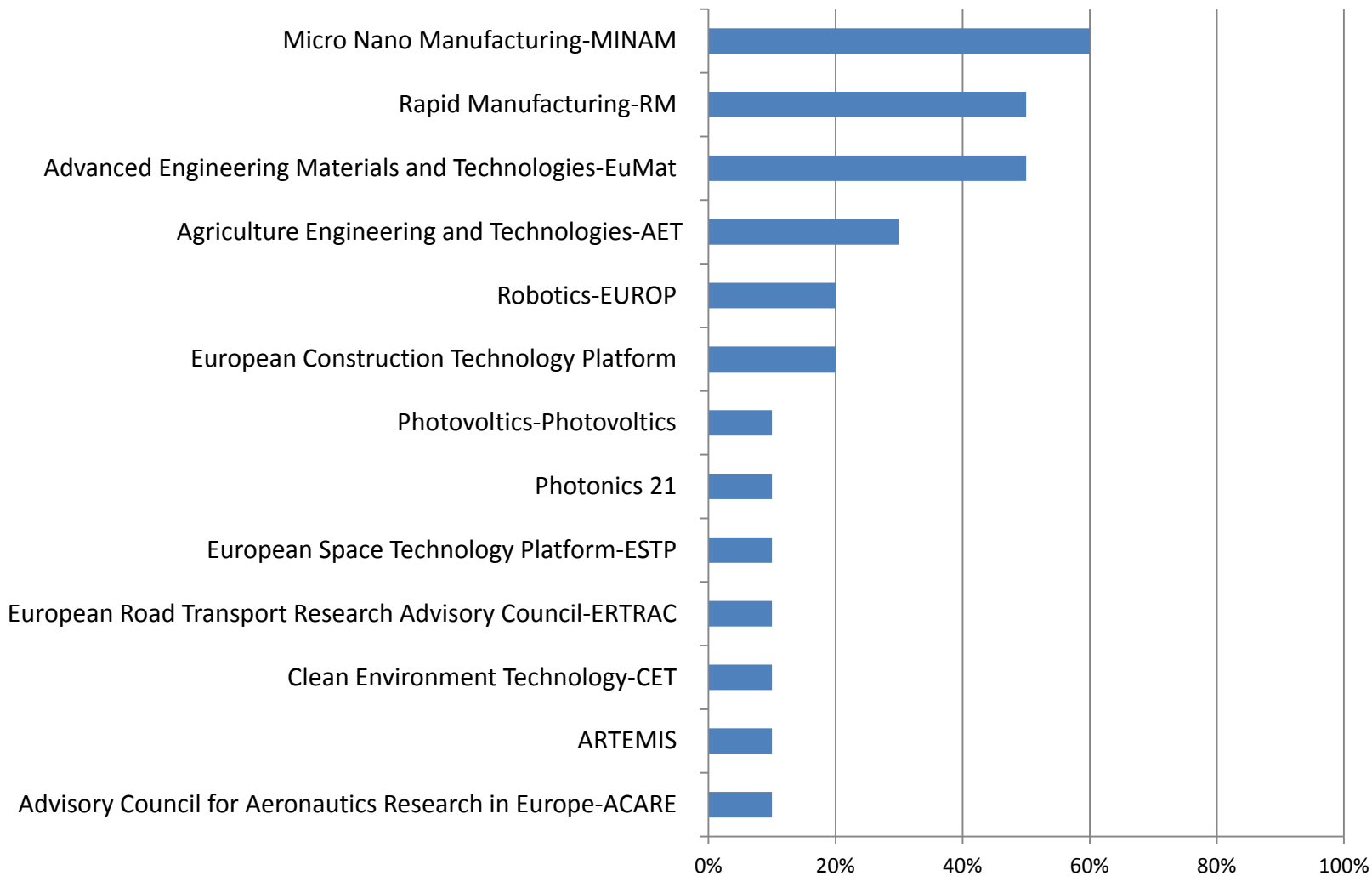


3.1 - As a member of European Technology Platform how important do you consider the collaboration with other platforms?

**Multisectorial Impact
European Platforms Cooperation**



3.2 - Identify the European Platforms, which you consider essential for an active interaction in the future development of European projects with the tooling industry



*Multisectorial Impact
Areas for Cooperation*



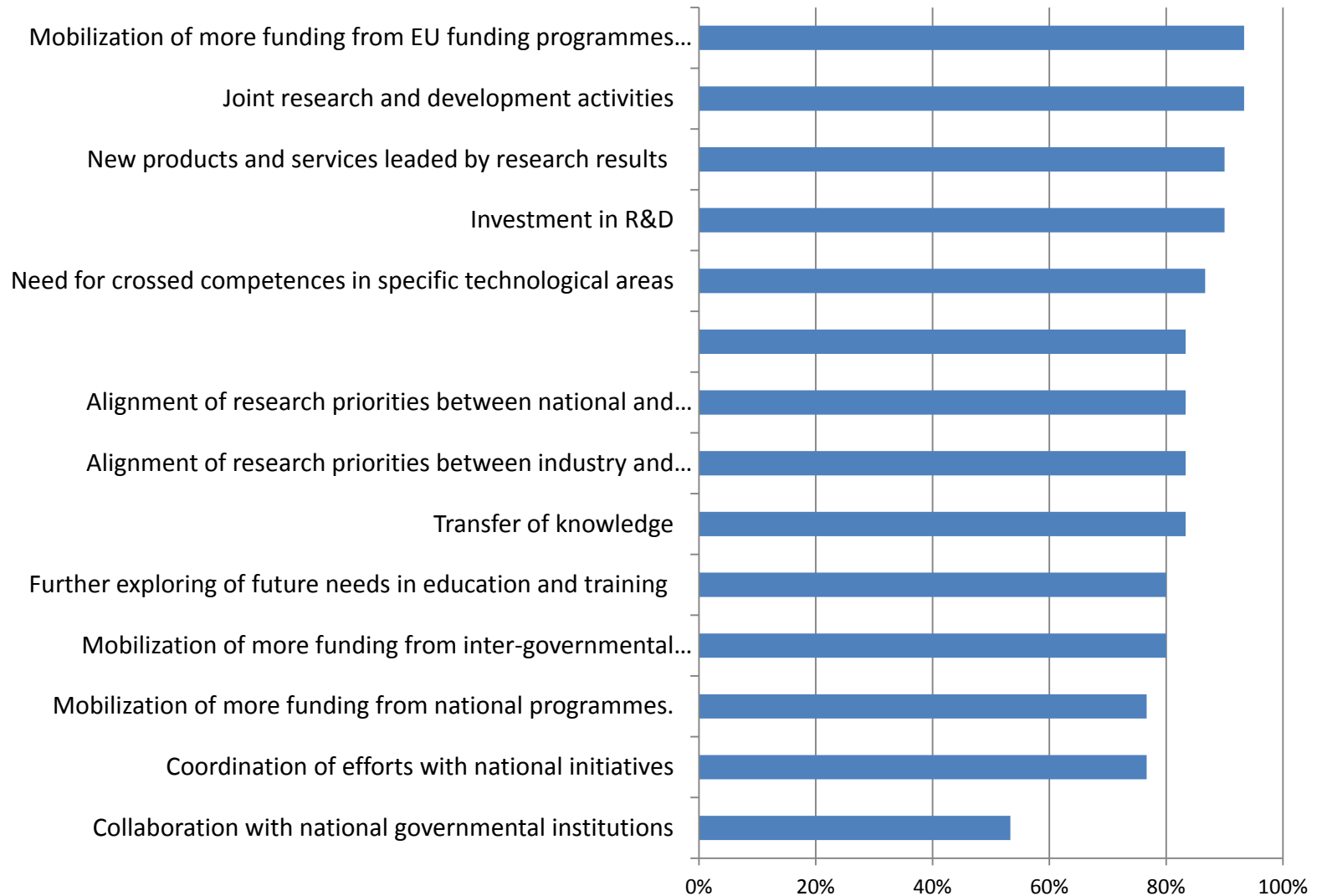
3.2 - Identify the European Platforms, which you consider essential for an active interaction in the future development of European projects with the tooling industry and define the respective areas of articulation.

**Multisectorial Impact
Areas for Cooperation**

European Platforms	Areas of Articulation
Advanced Engineering Materials and Technologies-EuMat	Bio polymers For innovative materials and joint work with non plastic experts (hybrid materials) Functional materials
Advisory Council for Aeronautics Research in Europe-ACARE	Efficient production for Small Series New materials for Aeronautics
European Road Transport Research Advisory Council-ERTRAC	For the development of light cars and the necessary tools that have to be jointly developed
Micro Nano Manufacturing-MINAM	Design for micro production For the development of spart plastic products Micro assembling Micro forming Micro handling Micro injection moulding Micro manufacturing Production of micro Tools
Rapid Manufacturing-RM	Better surface finish Materials for RM New materials for RM Prototypes on the micro scale Small series
Robotics-EUROP	Helping operators in the moulding industry doing physically hard manual work by collaborative robots (cobots).



3.3 - Which activities do you consider more important in relation to the collaboration with other European technology platforms?



**Multisectorial Impact
Areas for Cooperation**





The European Tooling sector plays a strategic role in the rejuvenation and development of the European industrial activity and economy.

Believing on Future we will continue to reinforce the sector competitiveness through investing on skilled workforce and high technology, supported by research, innovation and Networking!

Contacts:

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THANK YOU!

