



Manufuture International Conference

European Tooling Industry



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Implementing the Manufuture Strategy for the European Tooling Industry



MAIN TOPICS

1. The European Tooling Industry
2. Identified strategic areas for R&D in Tooling Industry: 7FP EU
3. Strategic Implementation Plan for the European Tooling Industry
4. Contacts

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1. The European Tooling Industry

The Tooling (moulds, dies and special tools) Industry in Europe represents an average annual turnover of 13 Billion Euro and comprises more than 7.000 companies, being 95% of them SMEs, representing a high added value workforce (more than 100 000 workers directly in the sector) with a remarkable know-how in design and manufacturing processes.

This industry grew in Europe based on industrial spin-offs, where high dynamic companies strengthen their business supported on learning-by-doing procedures and on the entrepreneurship practices of their leaders and workers.

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1. The European Tooling Industry

Tooling Industry is present in the design and manufacturing of almost all industrial products from aeronautics and automotive, to electronics, household, equipment goods and micro-devices.

Having interfaces to the final parts (products and components) and production equipment (such as, machine-tools), the Tooling sector is in the core of the production system of final products, determining its wealth, efficiency and robustness.

Product innovation, technological development and the optimisation of the whole manufacturing system strongly depend on innovations and developments on Moulds, Dies and Tools.

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1. The European Tooling Industry

***New competitive environment resulting from globalisation menace
European Tooling Industry due to:***

*Lower cost of the resources (especially labour)
Poor working conditions
Environmental disrespect*

***New value proposal is required based on technological innovation and
new business models:***

*Reduce costs and delivering time
Increase features and quality
Financial sustainability
Respect to environment aspects*

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2. Identified strategic areas for R&D in Tooling Industry

Intensive R&D promotes the migration from a resource based industry to a knowledge-intensive engineering service provider.

The active ongoing work that has been done by the MANUFUTURE Platform and ISTMA EUROPE, in close connexion with the European Tooling Industry has contributed to identify the main strategic areas for research and development decisive to anticipate the emerging market challenges and increase the competitiveness of this Industry in Europe.

14 topics were identified as strategic answer of the European Tooling Industry under the 7thFP to the new competitive challenges in the global economy

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2. Identified strategic areas for R&D in Tooling Industry

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| 1. Reliability models for moulds&dies and life assessment and management. |
| 2. New functional materials and new surface coatings/treatments for moulds&dies. |
| 3. Development of moulds&dies design rules and process parameters “optimisation” for the production of parts in new materials. |
| 4. Micro-production |
| 5. Intelligent moulds&dies involving mechatronics. |
| 6. Digital moulds & dies factory |
| 7. Distributed engineering and manufacturing systems. |

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2. Identified strategic areas for R&D in Tooling Industry

8. Intelligent and virtual machining

9. Development of materials and technologies for moulds&dies for small production volumes.

10. Development of next generation technologies and processes for moulds&dies industry

11. Environmentally friendly manufacturing processes.

12. Fully digital mock-up of moulds&dies

13. Moulds&dies life cycle management.

14. New business models in moulds&dies industry

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3. Strategic Implementation Plan for the European Tooling Industry

Fórum Manufuture Portugal have been identifying the main strategic areas for R&D in the Tooling Industry to promote the actions of the 7th FP.

ISTMA EUROPE is taking advantage of this opportunity to stimulate all its members (European Tooling Associations) to promote the actions of the 7th FP. The **European Tooling Forum**, organized at Lisbon, on the 14th September was a special event to involve all the Industry stakeholders on this strategy;

The **Strategic Implementation Plan** to promote a Tooling Platform in Europe, to explore the 7thFP opportunities will be developed under two levels:

- ***European level;***
- ***National Levels;***

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4. Strategic Implementation Plan for the European Tooling Industry

▪European level:

At the European level, ISTMA EUROPE and Manufuture will be the Forums to establish the common strategy to promote active actions with SMEs to integrate needs and capabilities, promoting R&D projects for the sector within the 7th FP;

▪National Levels:

At the National levels, each Tooling Association with the supply of the ISTMA EUROPE will develop several actions with SMEs, promoting actively the different Calls available to motivate SMEs, Research Centers and Universities, to promote European projects.

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4. Contacts

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Thank you.

