3DSE
Management Consultants

BENCHMARKING STUDY

MASTERING R&D COMPETITIVENESS IN 2030+

MANAGEMENT SUMMARY

R&D 2030+: Those who don’t rethink radically will lose competitiveness

The world of R&D is undergoing rapid change. Companies are under **massive innovation** and **cost pressures**, while product cycles are becoming increasingly shorter. However, the best R&D organizations demonstrate that there is another way: they **work more efficiently**, bring **new products** to market **faster**, and use their **resources more wisely**. The benchmarking study “Mastering R&D Competitiveness in 2030+” reveals clear **patterns** of how top performers set themselves apart from the competition—and what **actions** development leaders should **take now**.

1 R&D budgets are shrinking—and the best need less of them!

While many companies are still trying to counter rising costs with higher budgets, top performers prove the opposite: they achieve up to **three times higher R&D productivity** despite using **up to 50% less budget**. How do they succeed? They rely on **lean portfolio and pipeline management** and focus specifically on high-impact projects. Instead of getting lost in countless development initiatives, they manage their resources in a very efficient manner.

2 Speed beats perfection

In today’s competition landscape, speed is everything. Companies that reduce their development times **by up to 30%** gain a clear competitive advantage. The electronics and high-tech industries, in particular, is leading the way: instead of getting caught up in the pursuit of perfection, they employ **agile development methods, virtual development tools for rapid iteration cycles**. Companies that fail to drastically shorten their time-to-market risk being overtaken by the competition.

3 External R&D as a strategic advantage – not just a cost factor

While many companies view external development resources merely as a cost-cutting measure, top performers leverage them as a **strategic advantage**. In the high-tech and machinery sector, **up to 30% of R&D budgets are allocated to external partnerships**. This allows them to flexibly compensate for knowledge and resource gaps and accelerate innovation projects. Development leaders should no longer see external R&D as a last resort but as a **scalable innovation model**.

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4 Modularization and virtualization as game changers

Another key success factor for leading R&D organizations is **modular platform development**. Companies that implement modular architecture strategies early can reduce development times, manage product variants efficiently, and cut costs. At the same time, top performers rely on **virtual development methods** to minimize physical prototypes and identify errors at the digital stage. This not only saves time but also significantly reduces costs.

5 Entrepreneurial culture as the key to future success

Organizational excellence alone is not enough—top performers foster a culture of **fast, autonomous decision-making**. The best R&D organizations promote a decentralized decision-making structure that allows teams to act quickly and move forward. Companies that continue to rely on rigid hierarchies and centralized decision-making processes will ultimately fall behind.

Conclusion: It’s not just about survival; It’s about leading the transformation!

R&D competitiveness in 2030 means achieving more with fewer resources—by embracing strategic focus, agility, virtualization, modularization, and strategic collaboration. The companies that rethink their approach today, investing in efficiency, speed, and entrepreneurial cultures, will be the ones setting the benchmarks for the industry tomorrow. It’s not just about survival; it’s about leading the transformation.

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Industry insights

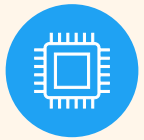
Automotive & commercial vehicles

Complexity under control

Fact: Top performers cut **time-to-market by 4 months** while maintaining execution excellence and despite **one third lower R&D quota**. Success is primarily driven by virtual development and empowered decision-making. System orientation remains an underutilized lever for managing rising complexity.

To-Do: Strengthen **virtual development tools**, improve **accountability**, foster **entrepreneurial mindset**, and challenge your **system orientation approach** to tackle growing software and electronics complexity.

Electronics & high-tech devices



Speed wins over perfection

Fact: High-tech leaders cut **development times by up to 7 months** but often trade off milestone reliability. **External R&D spending is 12% higher** among top performers to address resource gaps. Main drivers for their success are empowered and agile teams, portfolio and pipeline management in combination with a high function orientation. Key differentiator is global R&D footprint.

To-Do: Prioritize **portfolio & pipeline management**, leverage **global R&D networks**, and empower teams with **fast decision-making** to maintain competitiveness in fast-moving markets.

Machinery & plant engineering

Balancing customization & efficiency

Fact: Top performers in machinery and plant engineering successfully combine **high customization capabilities with efficient development** processes. By integrating digital tools and fostering frontloading and modular approaches, they reduce complexity while maintaining flexibility and cost control. Top performers allocate more R&D budget externally to boost flexibility.

To-Do: Strengthen **frontloading and modular platform strategies, optimize portfolio management**, and invest in **AI & data intelligence** to streamline operations and enhance cybersecurity.

Contact

Benchmark yourself against 106 leading industrial companies from Germany, Austria, and Switzerland.

For more information on participating in the R&D study free of charge, please contact me.

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