

# 3DSE / IPEK Short Survey

## ‘Management of core competences in R&D’

Success factors, practices, features, trends and spheres of activity.

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3DSE Management Consultants

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## Management summary.

- The mastery of core competences in R&D is of central importance to ensure the competitiveness of companies during times of intensifying competition and high volatility. Companies with the right core competences are able to clearly differentiate themselves from the competition.
- What did we want to know: What are **success patterns** for the management of core competences? What are the **deciding practices**? What are **the future needs for action**? What role do managers play? For this purpose, we interviewed decision-makers from companies in various high-tech fields.
- Core competences differ from “classical” competences by **6 characteristics** and can manifest in **2 dimensions: technological skills and procedural skills**.
- Core competences can be mastered when a **control cycle of 5 phases** is followed and if **9 success factors** and their associated **practices** are taken into account. Needs for action and potentials for a better management of core competences are primarily addressed in **the last 3 phases** of the control cycle.
- However, the control cycle and the success factors also need a functioning “**eco system** of core competences”, which consists of **4 elements**.
- In addition, core competences are only fully effective when they are **consistently applied in relevant decision-making situations**. Therefore, we identified **15 situations** with operational, tactical, and strategic horizons.
- In the future, **two dominant trends** are becoming apparent with regard to core competences: the technological change further shortens the “**half-life**” of competences and **meta-competences** gain importance.

## The 9 key success factors: Core competences in R&D:

- ... Establish proper understanding across sectors
- ... Identify current state of one's own core competences
- ... Derive crucial core competences of R&D for the future
- ... Communicate the necessary core competences within the organization
- ... Anchor core competences in the organizational structure
- ... Apply skill deployment according to core competences
- ... Foster and invest in the areas of core competences
- ... Consistently apply core competences in decision-making situations
- ... Regularly reflect on core competences and their future effect

## Contact.



**Dr. Armin Schulz**  
Executive director

Phone +49 (170) 214 32 18  
Email [A.Schulz@3DSE.de](mailto:A.Schulz@3DSE.de)



**Lukas Krämer**  
Academic assistant

Phone +49 (151) 4232 73 58  
Email [lukas.kraemer@partner.kit.edu](mailto:lukas.kraemer@partner.kit.edu)

### **3DSE Management Consultants GmbH**

Seidlstraße 18 a      Phone      +49 (89) 2060298-20  
80335 München      Fax      +49 (89) 2060298-21  
Germany      [www.3DSE.de](http://www.3DSE.de)

### **IPEK Institute of Product Engineering**

Kaiserstraße 10      Phone      +49 (721) 608-42371  
76131 Karlsruhe      Fax      +49 (721) 608-46051  
Germany      [www.ipek.kit.edu](http://www.ipek.kit.edu)