

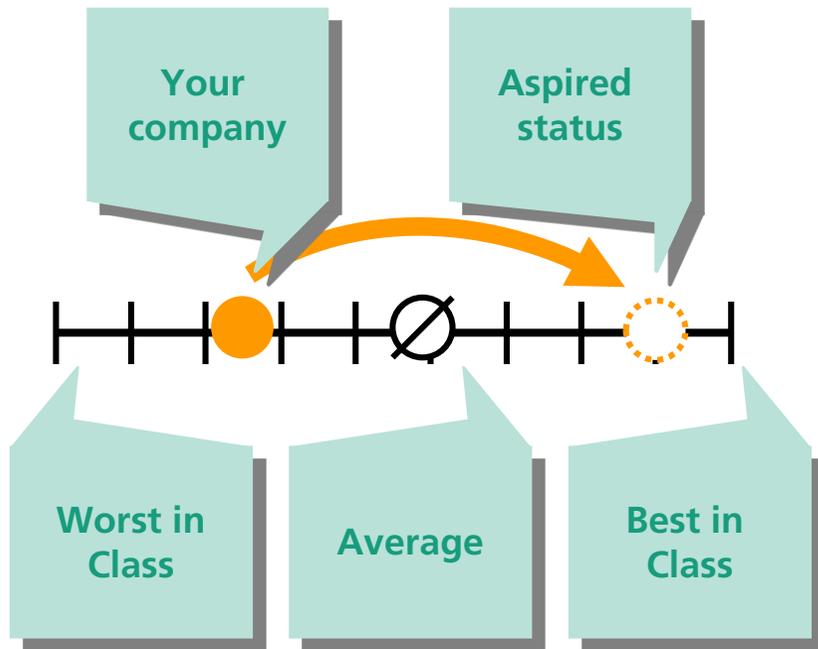


Benchmarking in tool manufacturing

Procedure and results

Benchmarking in tool manufacturing

Benchmarking



Procedure

- Drafting of a **brief overview** of toolmaking (suppliers, own production, products) to define the balance sheet limits
- Selection of **two comparison groups**
- Determination of technological, organizational and commercial **data** as well as running an ***in situ* audit**
- Calculation of relevant **key figures** in comparison to the competition

Results

- Matching of the **own status** with the average and with comparison groups such as **direct competitors**
- Sound basis for future strategic decisions by using knowledge of own **strengths and potentials**
- Evaluation and presentation of approx. **100 key figures**
- Development and discussion of **recommendations for action**

The determination of the **strengths and potential for improvement** of toolmaking through a **comparison with competitors** forms the **basis for continuous further development**.

Organization and technology evaluation of a tooling company

Organizational evaluation



Orientation



Results



Costs



Range of services



Employees

Our services

- Analysis of process flows and interfaces
- Evaluation of the organizational framework conditions
- Evaluation of customer and product-related results



Technological evaluation

Product requirements



Technology deployment



Technology performance

Our services

- Evaluation of technological resources and their performance
- Evaluation of the machinery and process performance data
- Checking the technology deployment and degree of automation

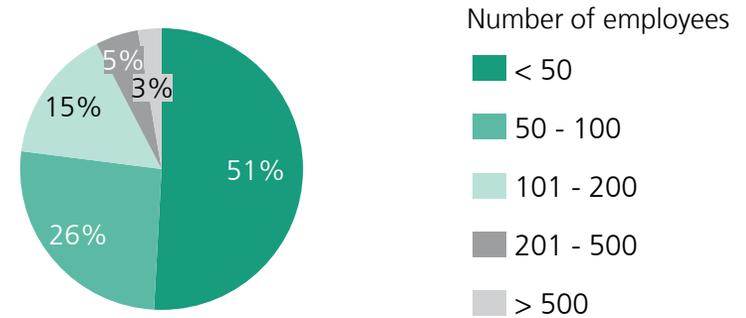
The parallel execution of an organizational and technological evaluation enables the **holistic evaluation** of toolmaking companies.

Holistic data mapping with benchmarking data base

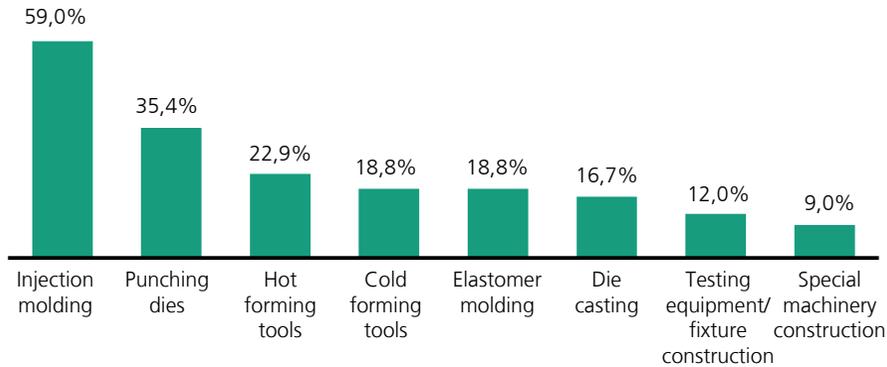
Global data sets



Various corporate structure



Holistic product range

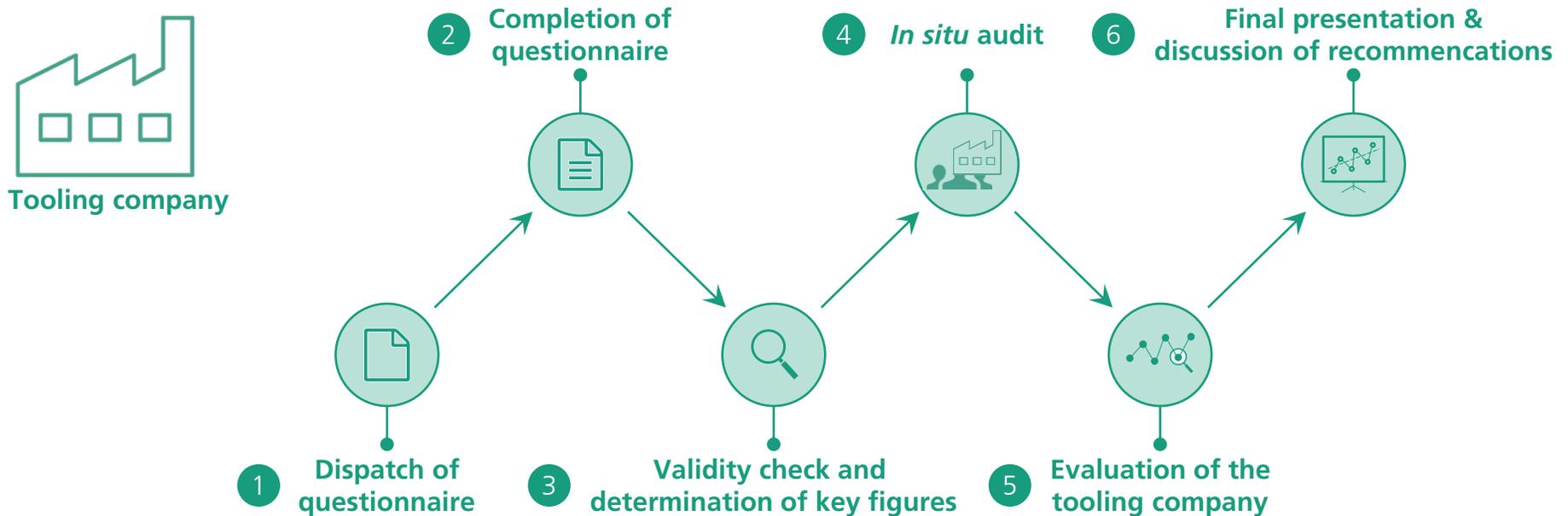


Selected data sets



The benchmarking database contains over **1000 data sets of national and international toolmaking companies**, not older than five years, which are demonstrating the heterogeneity of the industry.

Established six step procedure



- Collection of organizational and technological data
- Collection of additional data during the first on-site visit
- Calculation of Key Performance Indicators (KPI)
- Comparison of toolmaking with reference data from the benchmarking database

The Benchmarking is executed in **six steps** with **close cooperation** between the tooling company and the Fraunhofer Institute for Production Technology IPT.

Detailed appraisal of the benchmarking analysis

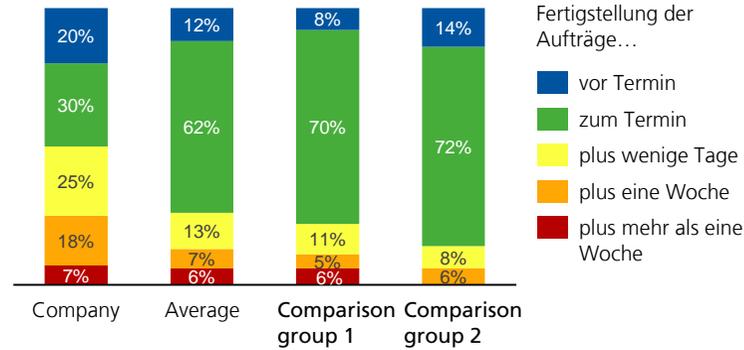
Organizational



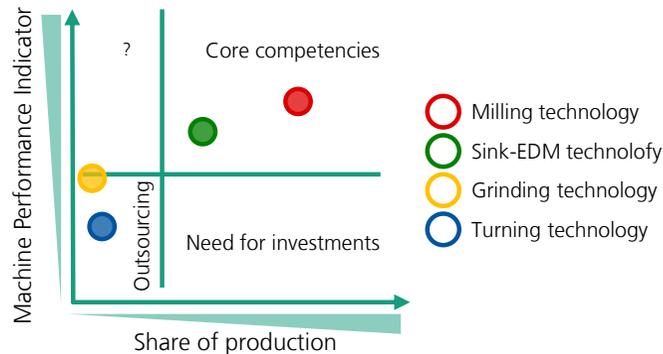

Technological

approx. 100 key figures
Individual and detailed appraisal

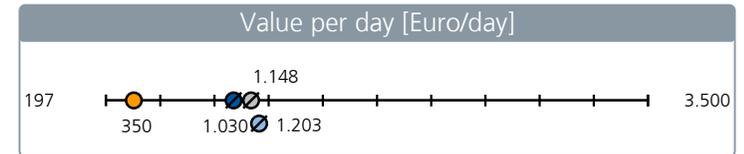
Example: Adherence to delivery dates



Example: Technology portfolio



Example: Evaluation turnaround time

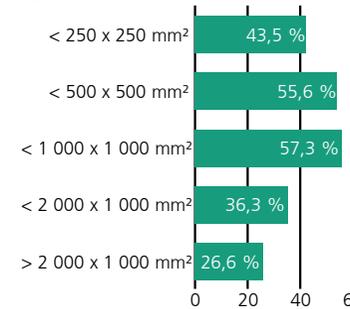


$$\text{Value per day} = \frac{\text{Order value}}{\text{Turnaround time}} \times \text{Value-added share}$$

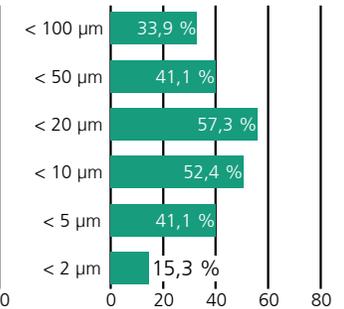
- Average
- Comparison group 1
- Comparison group 2
- Company

Example: Tool dimensions & tolerances

Typical tool dimensions:



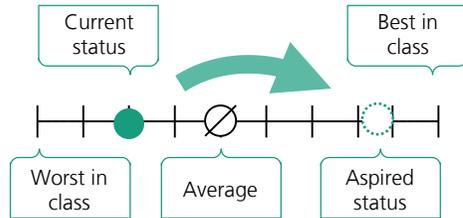
Required tolerances:



After completion of the benchmarking analysis, the toolmaking company receives a **detailed evaluation** of **strengths and potentials** with referring its organization, costs and technologies.

Basis for a targeted development of strategic improvements

Drafting of a detailed profile containing strengths and potentials



- Summary of **strengths and potential for improvement** in terms of technological, organizational and commercial data
- Derivation of technological and organizational competence profiles and identification of the own position in **comparison to other competitors**

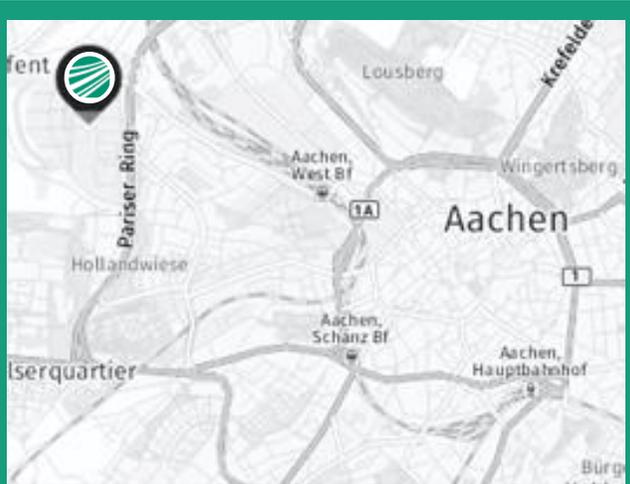
Derivation of prospective action fields

| |
|---|
| Target Optimization of planning and control |
| Procedure <ol style="list-style-type: none">1. Process modeling PPS for order processing2. Development of a planning system<ul style="list-style-type: none">- Definition of milestones- Conception for transfer processes- Determination of areas of responsibilities- Draft knowledge recirculation3. Caption of action plan in a roadmap |
| Person responsible: Mr. John Doe |

- Definition of **fields of action** on the basis of the strength and potential profile and detailed review of the **strategic orientation**
- Detailed **planning of measures** by using the derived fields of action to **address identified potentials**

The identification of **strengths and potentials** as well as the derivation of **recommendations for action** are the main result of the benchmarking analysis and the basis for further **strategic improvements**.

Your contact person for the benchmarking analysis for tooling companies



**Fraunhofer Institute for
Production Technology IPT**

Steinbachstrasse 17
52074 Aachen

www.ipt.fraunhofer.com



Marcel Prümmer, M.Sc.

Group Technology Organization
Group Manager
Fraunhofer Institute for Production Technology IPT
Steinbachstraße 17
D-52074 Aachen

☎ +49 241 8904 - 521

✉ marcel.pruemmer@ipt.fraunhofer.de