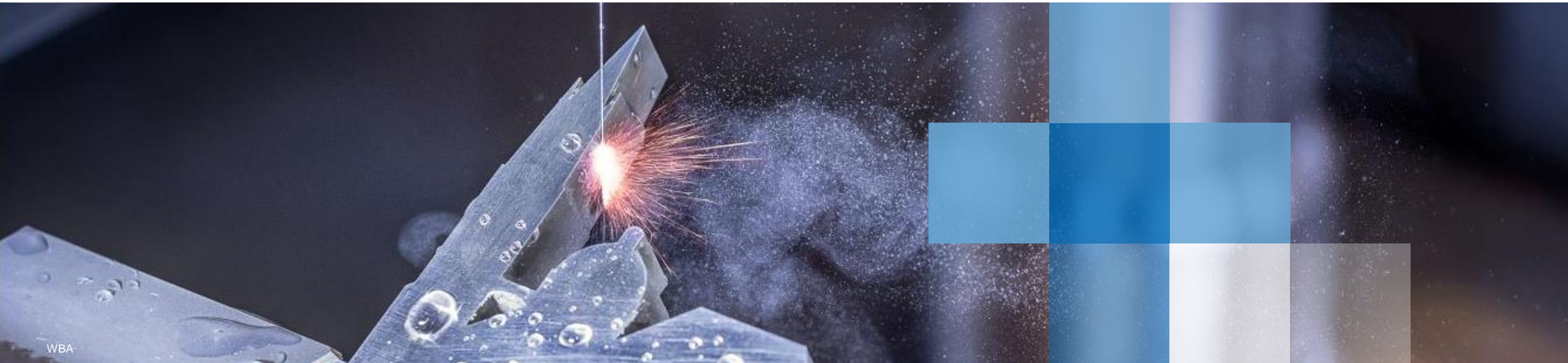




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AKADEMIE**



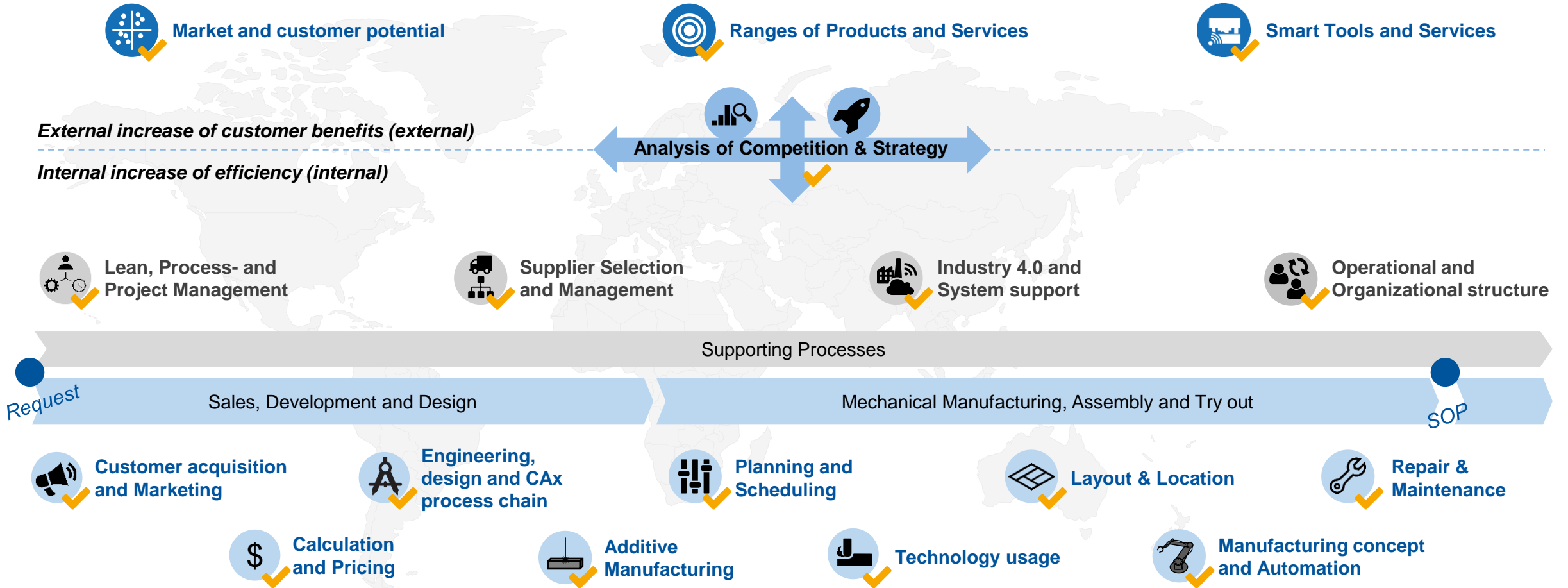
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References Consulting Services

Project focus Individual Combination

Consulting Services

Overview of Topics and Content of our Consulting Portfolio



■ Market and Customer (external)
 ■ Core Process (internal)
 ■ Supporting Processes (internal)

Consulting Services

Topics and Content in detail (I/II)



Market & Customer

Market and customer potential

- Analysis of technological trends
- Analysis of market sizes and developments
- Determination of potentials for distribution and procurement
- Identification of potential customers and buyers

Range of products and services

- Analysis of market and customer demands
- Analysis of the company specific range of services
- Analysis of core competencies
- Development of service and business models

Intelligent tools and services

- Analysis of internal and external requirements
- Selection of sensors and actuators
- Conception of company-wide service platforms
- Development of databased services and business models

Competition & Strategy

Analysis of competition and strategy

- Benchmarking for the determination of the organizational and technological performance
- Identification of action fields
- Identification of strategic success factors and strategy development
- Development of an implementation roadmap and deduction of specific measures

Supporting processes

Lean, Process- and Project Management

- Process analysis and process design
- Definition of key performance indicators and IT-based illustration
- Conception and implementation of a (digital) shop floor management
- Definition and implementation of agile methods of project management

Supplier selection and management

- Definition of scopes and relevant processes for procurement
- Identification, assessment and selection of suppliers
- Initiation and development of strategic partnerships
- Holistic assessment of options for national and international tool supply

Industry 4.0 and System support

- Analysis and maturity assessment of the Industry 4.0 status quo
- Development of objectives, concepts and roadmaps including investment budgeting for Industry 4.0
- Deduction of specific Industry 4.0 use cases including implementation support
- Recording and analysis of machine and production data

Operational and organizational structure

- Analysis of organizational structures and assessment of the degree of value creation
- Procedural and organizational reorganizational
- Conception and implementation of agile structures of organizational
- Deduction of measures for the organizational change

Consulting Services

Topics and Content in detail (III/II)



Core Processes

Customer acquisition and marketing

- Analysis of market and customer demands
- Development of strategies for distribution and marketing
- Identification and selection of relevant instruments for marketing
- Fine adjustments of selected analogue and digital instruments for marketing

Calculation and Pricing

- Analysis and optimization of the used methods of calculation
- Analysis of conducted calculations for cost optimization
- Development of solutions for data capturing and provision
- Definition of requirements and selection of calculation software

Planning and Scheduling

- Manufacturing process analysis and derivation of standard manufacturing processes
- Conception of a virtual/physical segmentation and clocking
- Conception of hard- and software for data capturing and provision
- Definition of requirements and selection of planning software systems

Layout and Location

- Analysis and optimization of the material flow
- Basic and fine layout design and optimization
- Conception and further specification of logistics concepts
- Planning and support for relocation and transfer to existing and newly built locations

Repair and Maintenance

- Data capturing and analysis as well as definition of KPIs during the process to increase transparency
- Optimization of spare part management by analysis of tool life as well as process definition
- Development of concepts for predictive maintenance and repair

Engineering, design and CAx process chain

- Conception and introduction of synchronised and agile product design processes
- Assessment and optimization of the standardization for tools and tool components
- Definition of requirements and selection of CAx systems
- Analysis and optimization of the CAx process chain

Additive Manufacturing

- Identification of technological fields of application
- Analysis of requirements and benefits with regard to the spectrum of work pieces
- Assessment of the technologies and machine selection
- Additive manufacturing integration in existing process chains with focus on subsequent processing

Technology usage

- Definition and improvement of the manufacturing performance
- Technology assessment and profitability assessment
- Analysis and optimization of manufacturing processes and methods
- Analysis and optimization of the operating times, idle times and set-up times

Manufacturing concept and Automation

- Analysis of the actual and future range of tools and components
- Development of a manufacturing concept and technology road-mapping
- Analysis of requirements, specification and selection of machines
- Conception and selection of automation solutions

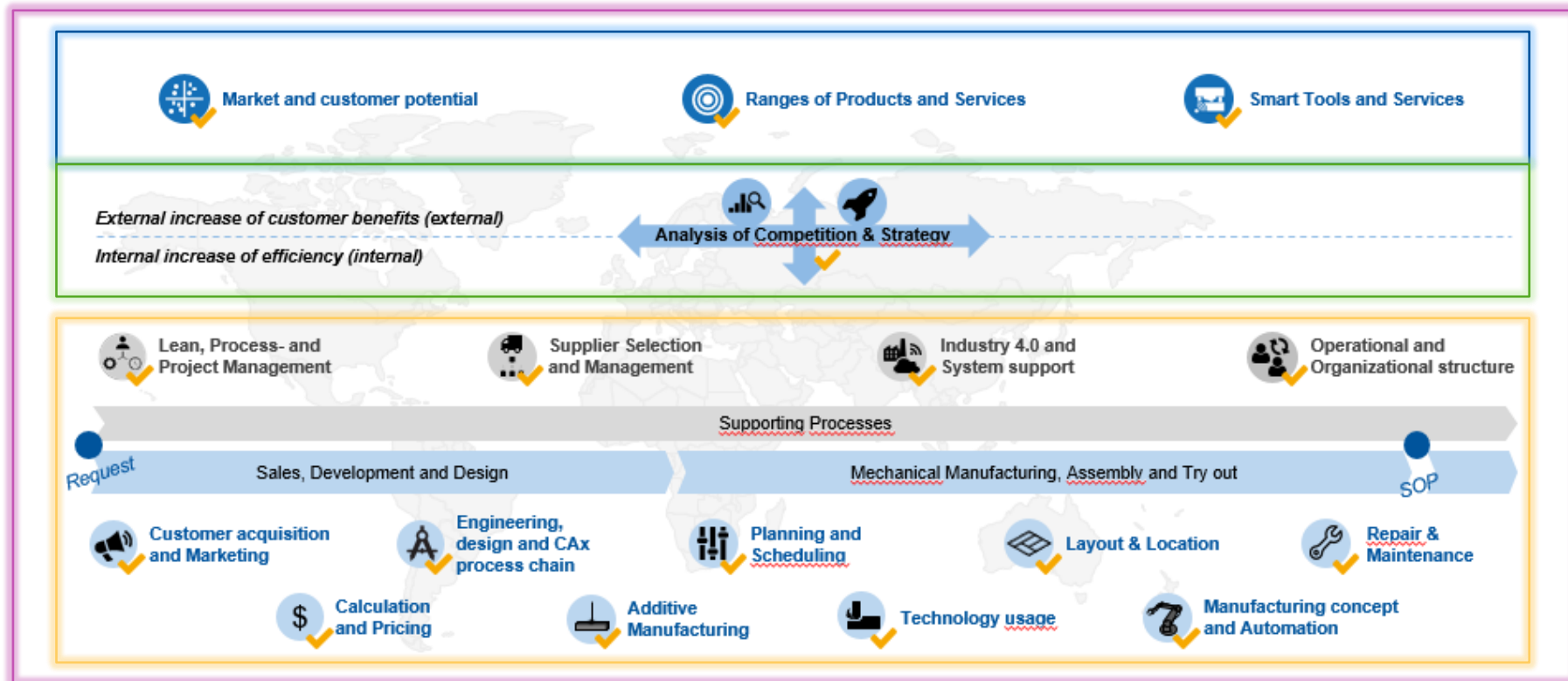
Consulting Portfolio

Within the consulting projects are four different project focuses



Market & Customer

Competition & Strategy

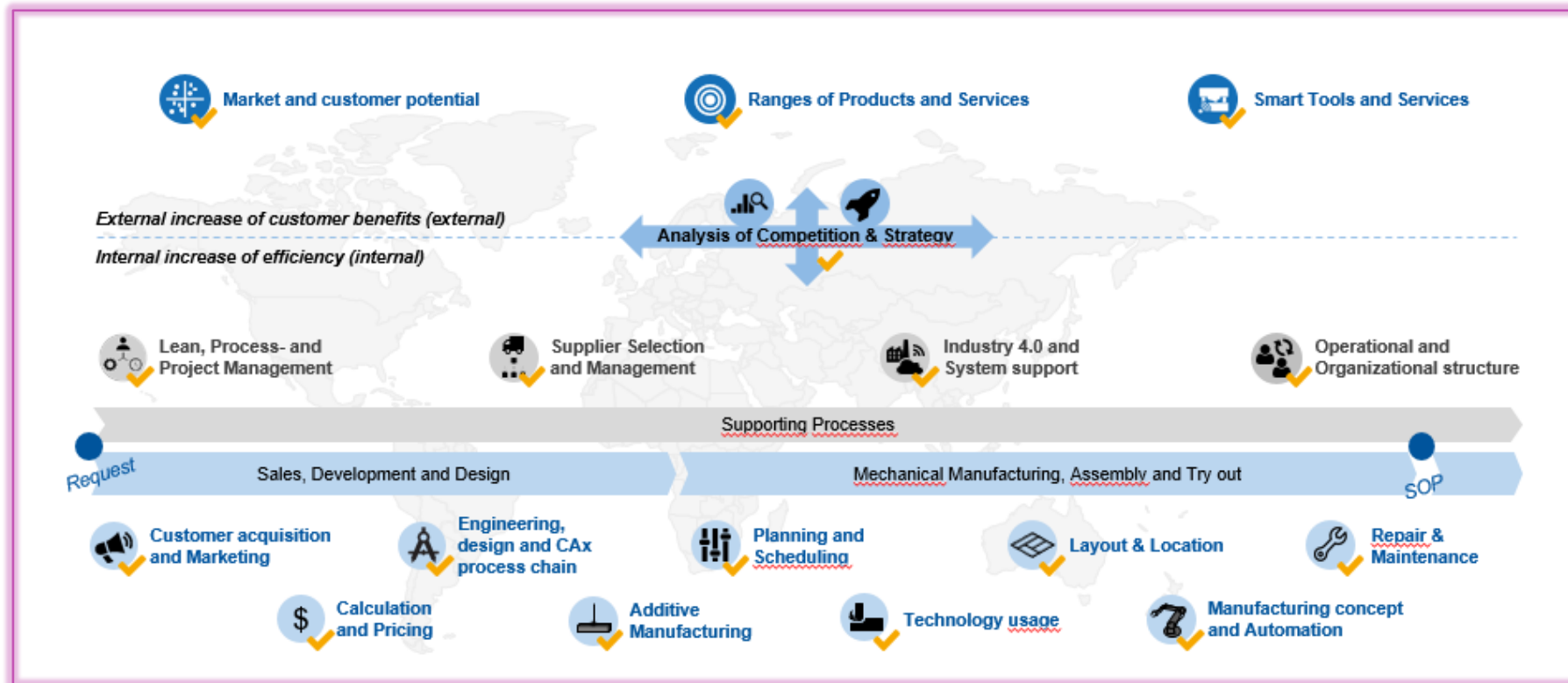


Supporting Processes

Individual Combination

Consulting Portfolio

Individual Combination



Individual Combination

Determination & optimization of the efficiency of the tool shop of KAISER Elektro GmbH & Co. KG

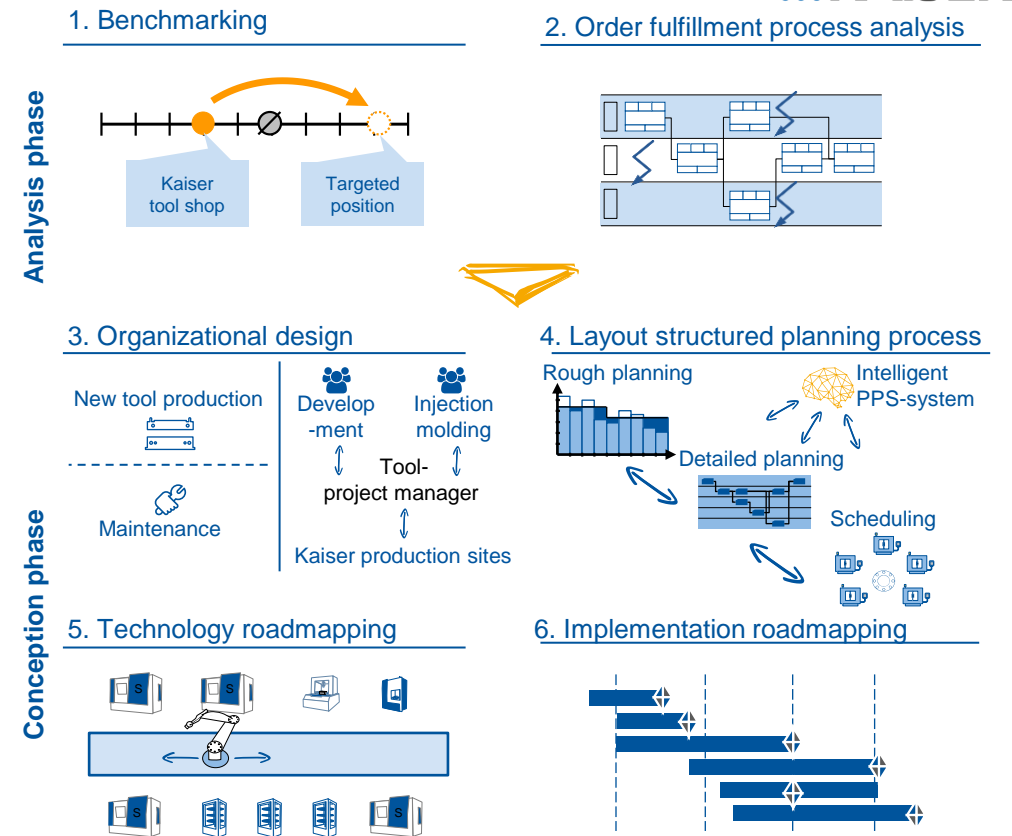


Approach

- Benchmarking to determine the performance capability of Kaiser Elektro's tool shop and to derive optimization potentials
- Analysis of the order fulfillment process and identification of action fields
- Evaluation of different options for the internal & external organizational design
- Optimization of the planning approach and systematic selection of suitable planning software
- Conception of automation options in combination with an investment roadmap
- Deduction of an implementation roadmap for the implementation of the measures defined in the project

Results

- ▶ **Future-oriented order fulfillment process for the tool shop of Kaiser Elektro**
- ▶ **Defined milestones for the implementation of the conceptual design**

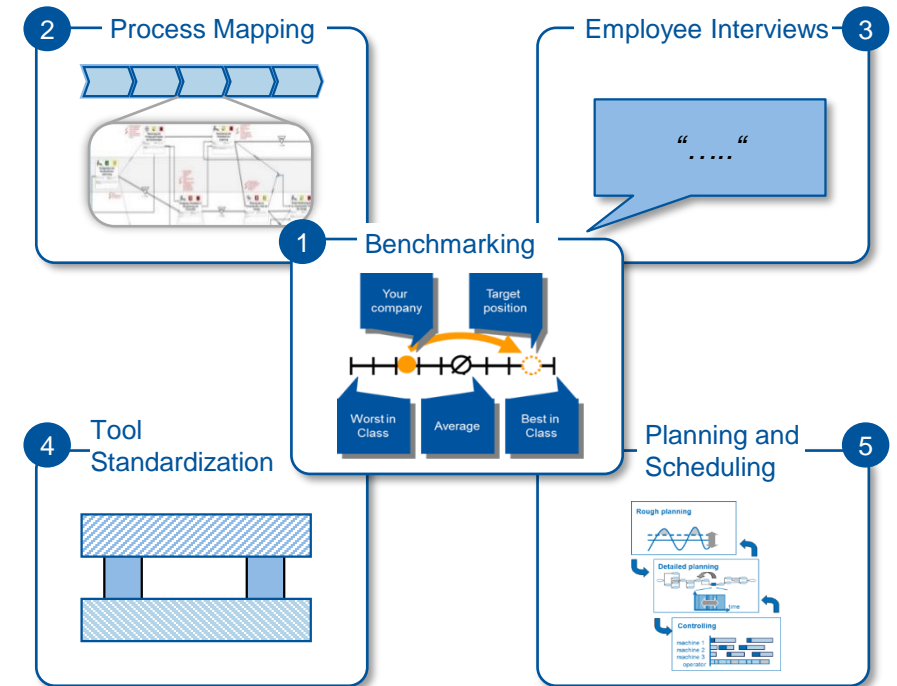


Benchmarking and analysis of the BEKOMOLD internal tool room in Hungary



Approach

- Analysis of the organizational and technological performance in comparison to the competition
- Recording of the order fulfilment process from the order request to the tool delivery
- Interviewing of employees in order to verify and evaluate the benchmarking results
- Unveiling of strengths and potentials and derivation of action fields
- Recording and analysis of the level of tool standardization at BEKOMOLD
- Recording, analysis and structuring of the software landscape at BEKOMOLD



Results

- ▶ Detailed organizational and technological benchmarking of internal processes
- ▶ Derivation of action fields and development of a implementation roadmap

Conception of the internal tool making of Böllhoff



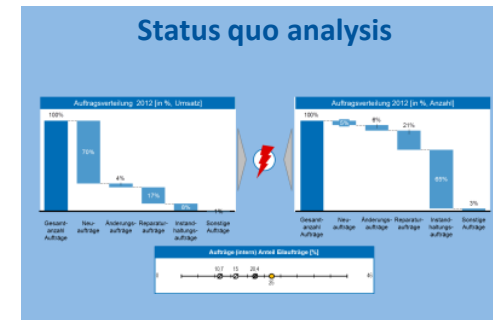
BÖLLHOFF
Joining together!

Approach

- Status-quo-analysis through a benchmarking
- Analysis of the process of internal orderprocessing and the range of offered services
- Definition of the new strategic orientation, including a new vision and mission
- Design of the future range of technology and depth of added value
- Determination of the future need for staff and machinery
- Designing a layout for a new production hall with special regard to the process flow

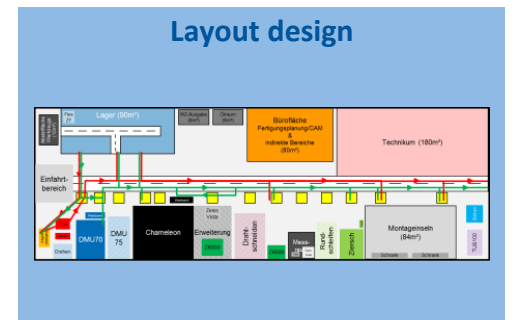
Results

- ▶ **Strategic realignment based on the future role of internal tool making**
- ▶ **Sustainable and competitive tool making and layout of production hall that ensures process flow**



Strategical realignment

A complex table with multiple columns and rows, detailing strategic alignment across various business units and processes. The table includes headers for 'Strategische Ausrichtung', 'Prozess', and 'Maßnahmen'. The content is dense and difficult to read in detail.

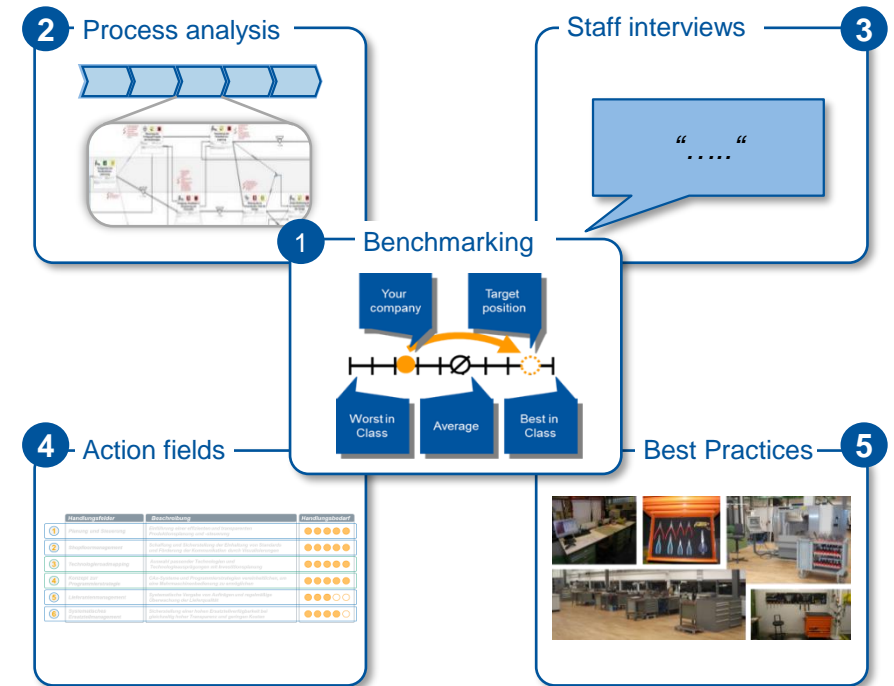


Benchmarking and process analysis for the tool shop of Dömer



Approach

- Analysis of the order fulfillment process for new tools as well as for repair and maintenance jobs
- Identification of weaknesses within the order fulfillment process through staff interviews
- Benchmarking of technological and organizational performance
- Derivation of action fields for a sustainable improvement of the tool shop performance
- Presentation of proposed solutions for the identified action fields and discussion of best practices



Results

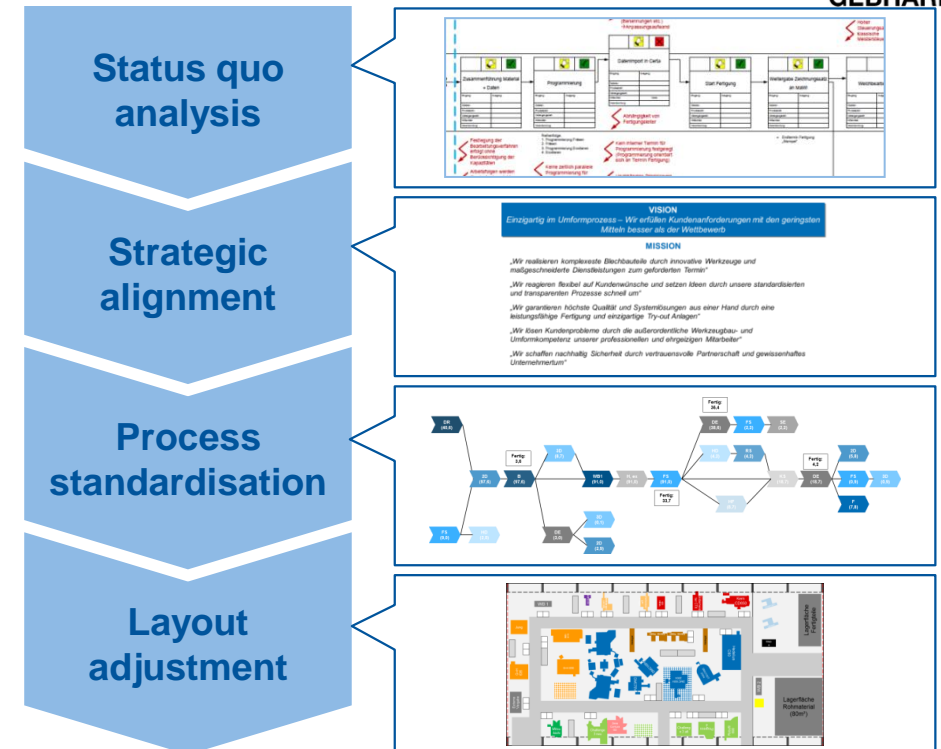
- ▶ Detailed technological and organizational benchmarking of the internal processes
- ▶ Derivation of potentials and specified action fields for performance improvements

Redesign of the external tool shop of the Gebhardt Werkzeug- und Maschinenbau



Approach

- Analysis of strategic alignment, performance and the order processing of the tool shop
- Redesign of the strategic alignment by developing strategic success positions as well as a vision and a mission
- Design of a standardized order processing and identification of standard processes in the mechanical production
- Design of a segmented and material flow oriented tool making and elaboration of an implementation roadmap



Results

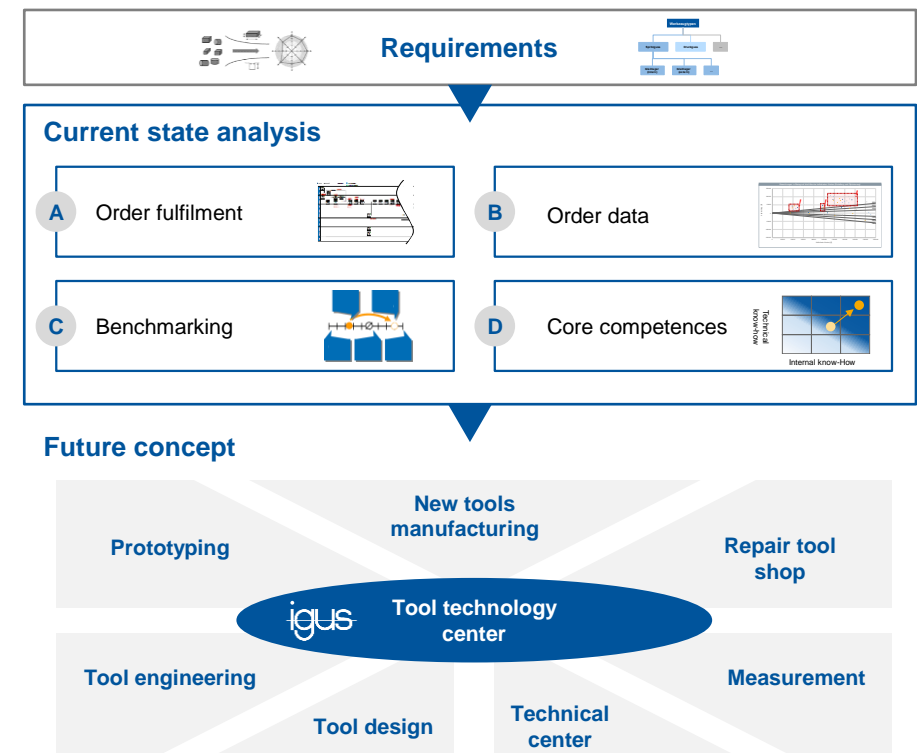
- ▶ **Transparency over actual organizational and technological performance**
- ▶ **Material flow oriented layout for standardized and transparent order processing**

Implementation of a current state analysis and development of a future concept for the igus tool shop



Approach

- Development of a company-specific requirement profile
 - Definition of requirements regarding the customers, suppliers, product range and production processes
 - Classification of the igus tool spectrum
- Implementation of a current state analysis of the igus tool shop and derivation of a concept for a strategic redesign
 - Execution of an order fulfilment, order data and core competence analysis as well as a benchmarking for the documentation and evaluation of the current state
 - Development and validation of growth hypotheses to derive future tool-specific capacity requirements and a competence-based depth of value creation
 - Derivation of the necessary fields of action to fulfill the requirements



Result

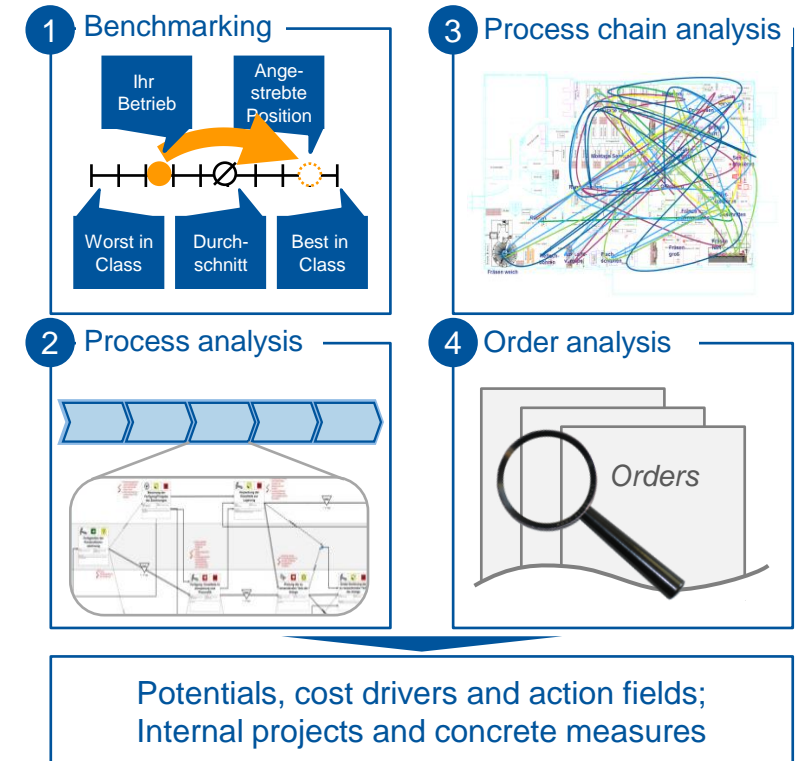
- ▶ **Identified strategic fields of action and concepts for redesign of igus tool shop based on detailed growth forecasts and necessary capacity requirements**

Benchmarking and process analysis for KEBO



Approach

- Benchmarking of technological and organizational performance
- Analysis of order fulfillment processes and interviews with employees
- Recording of process chains and analysis of distances on the shopfloor
- Analysis of executed orders concerning time reports, lead times, adherence to delivery dates and costs
- Identification of strengths and weaknesses, derivation of potentials and cost drivers, definition of action fields
- Definition of internal project teams and measures to address action fields



Results

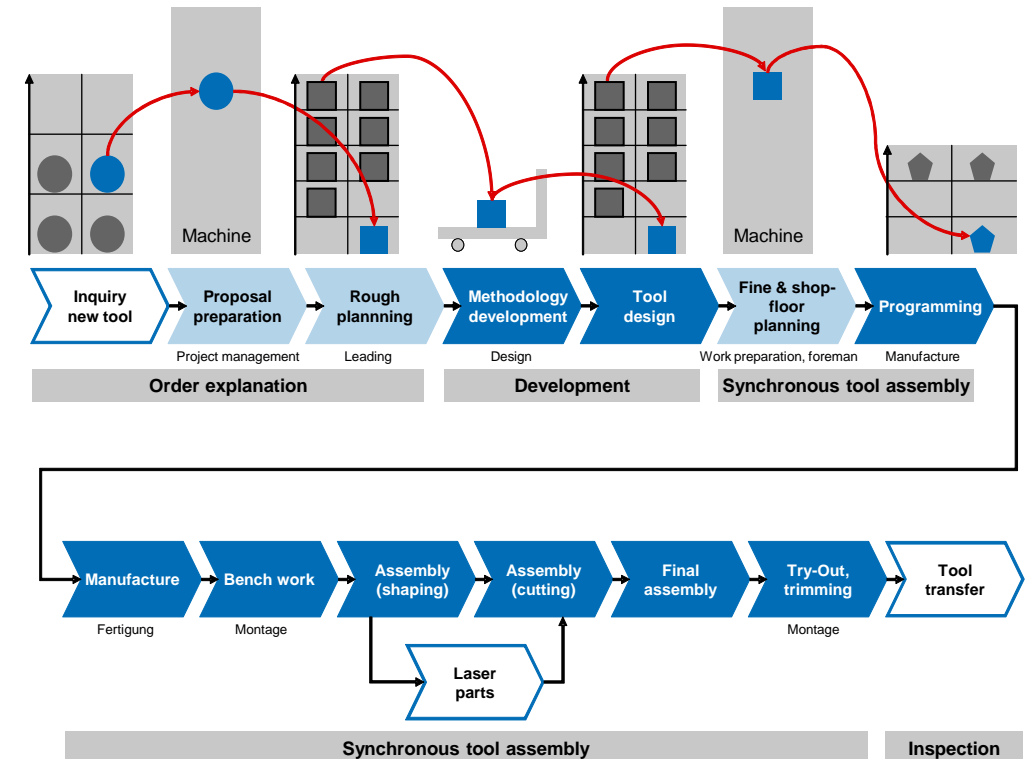
- ▶ Technological and organizational potentials, cost drivers and derived action fields
- ▶ Internal projects to address action fields including concrete measures

Initiation of continuous improvement efforts for synchronous tool making



Approach

- Benchmarking of technological and organizational performance
- Process analysis of order processing
- Optimization of floor layouts
- Establishment of a milestone process
- Synchronization of workflows
- Adjustment of floor control
- Implementation of tool making wikis
- Support of the implementation and change management



Result

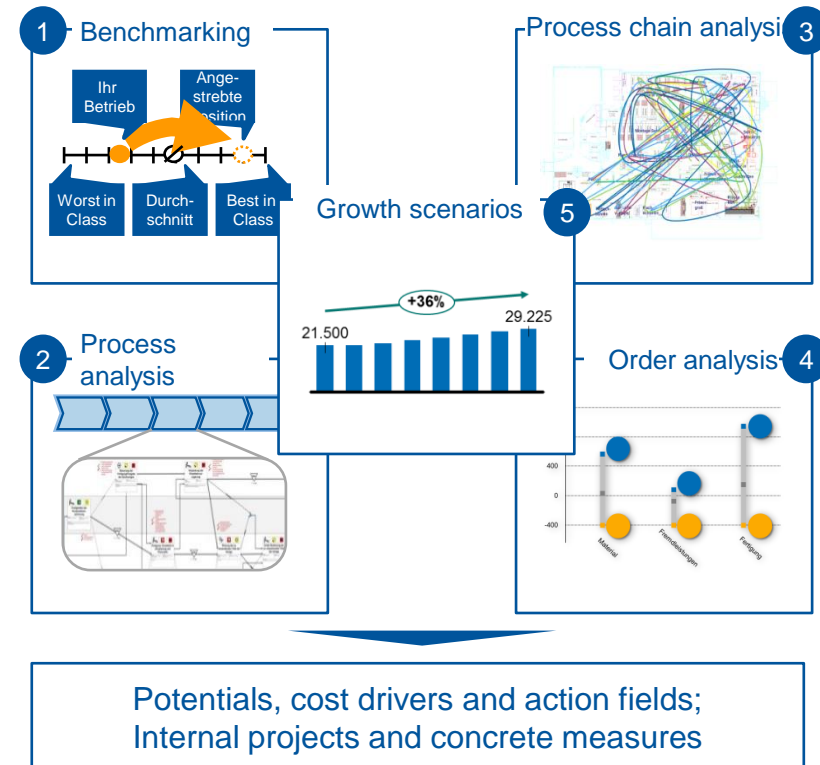
- ▶ **Competitive, synchronous processes for manufacturing of new tools**

Benchmarking and process analysis for the LINHARDT Tool Room



Approach

- Benchmarking of technological and organizational performance
- Analysis of order fulfillment processes and interviews with employees
- Analysis of material flow on the shop floor
- Analysis of executed orders concerning time reports, lead times and costs
- Development of growth scenarios for the tool shop
- Identification of strengths and weaknesses, derivation of potentials and cost drivers, definition of action fields
- Definition of measures to address action fields



Results

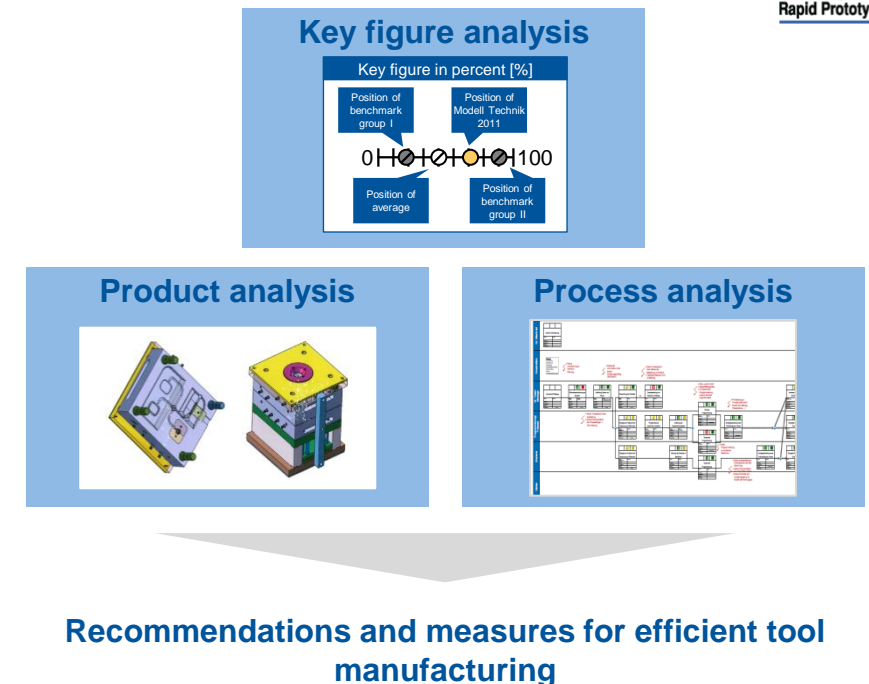
- ▶ Technological and organizational potentials, cost drivers and derived action fields
- ▶ Internal projects to address action fields including concrete measures

Determination of efficiency improvement potential in die making based on a status quo analysis



Approach

- Benchmarking of technological and organizational performance compared to competitors
- Examination of the range of services and analysis of product standardization potential
- Examination of the order processing and analysis of process standardization potential
- Definition of recommendations and measures to increase the efficiency of die manufacturing



Results

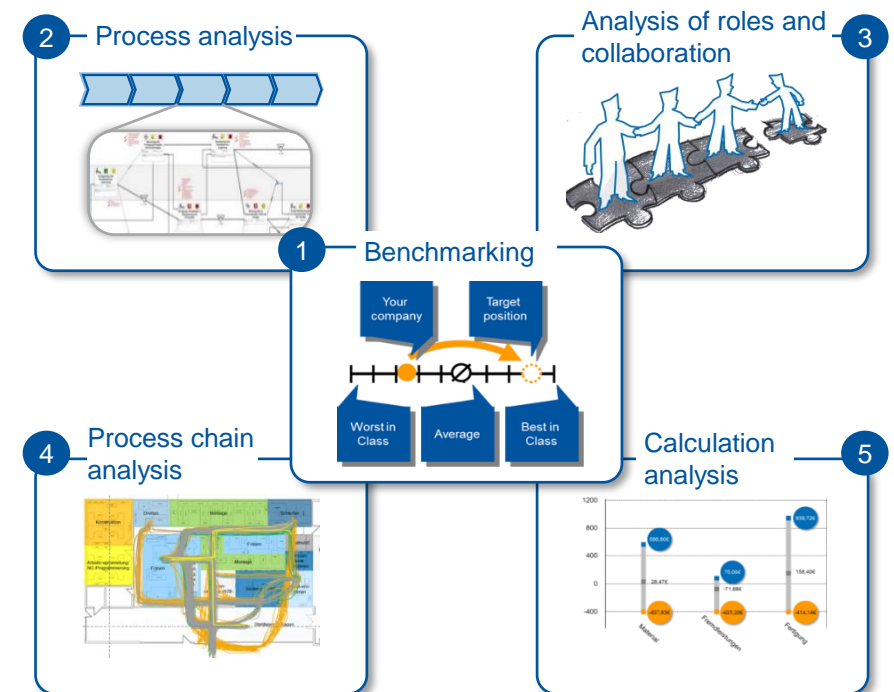
- ▶ Evaluated standardization potential in range of services
- ▶ Evaluated standardization potential in the order processing
- ▶ Derived fields of action and measures to increase the efficiency of die manufacturing

Benchmarking and process analysis for the tool shop of Murrplastik Medizintechnik GmbH



Approach

- Analysis of the organizational and technological performance in comparison to competition
- Analysis of the order fulfillment processes
- Analysis and restructuring of roles and collaboration in the order fulfillment processes
- Recording of the process chains and analysis of the material flow on the shop floor
- Cost analysis of finished orders
- Identification of strengths and weaknesses and definition of future fields of action
- Development of specific recommendations to execute the identified fields of action



Results

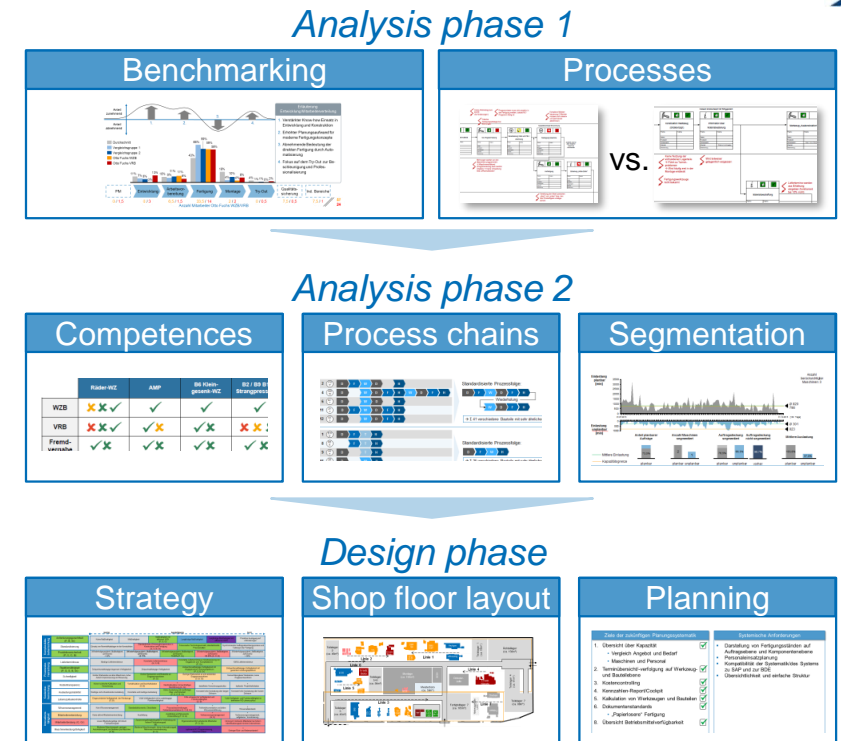
- ▶ Evaluated technological and organizational performance
- ▶ Derived fields of action and recommendations for their processing

Common conception of the internal tool making department and the jig manufacturing department of Otto Fuchs



Approach

- Comparison of the two departments in relation to a process analysis as well as an evaluation of synergy potentials
- Identification of product specific competence fields of the two departments
- Analysis of the manufacturing process chains and evaluation of the possibility for a segmentation
- Design of a common strategy for the new department with the internal customers
- Conception of shop floor layout scenarios for a efficient flow of material
- Development of a planning framework



Results

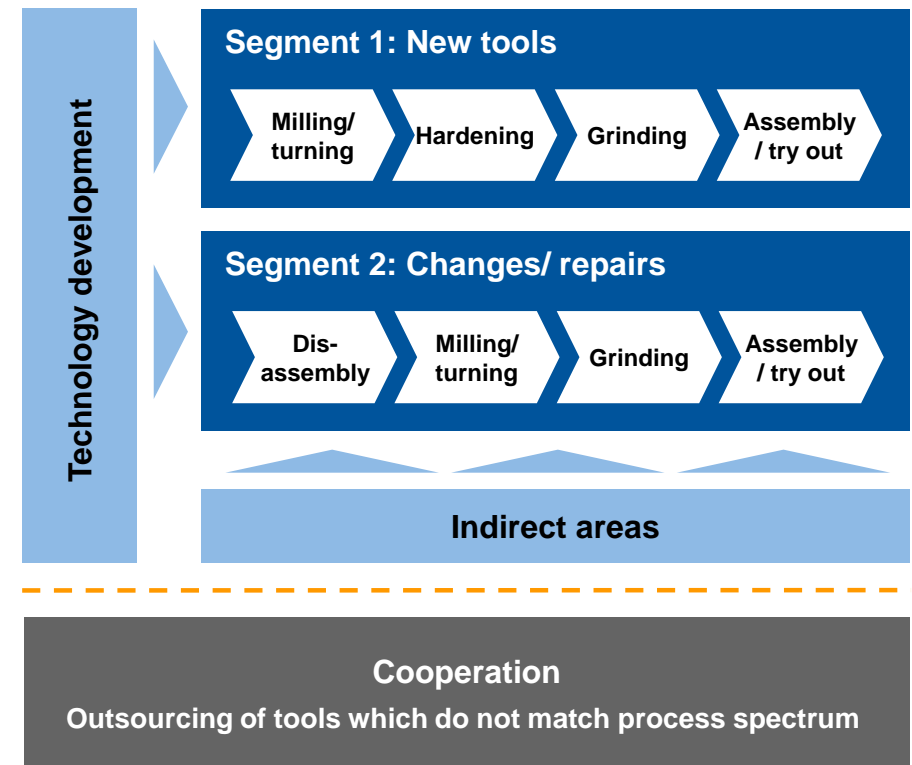
- ▶ Evaluated synergy potential for a centralization of the two departments
- ▶ Suitable constructed tool and jig making department with an efficient shop floor layout

Industrialization of an internal tool shop



Approach

- Benchmarking with competitors
- Detailed analysis of order processing
- Preparation of the strengths/ potential profiles for each organizational unit in tool making
- Development of a concept for industrialization focusing on segmentation of the tool shop in process-oriented manufacturing lines
- Support of implementation and change management



Result

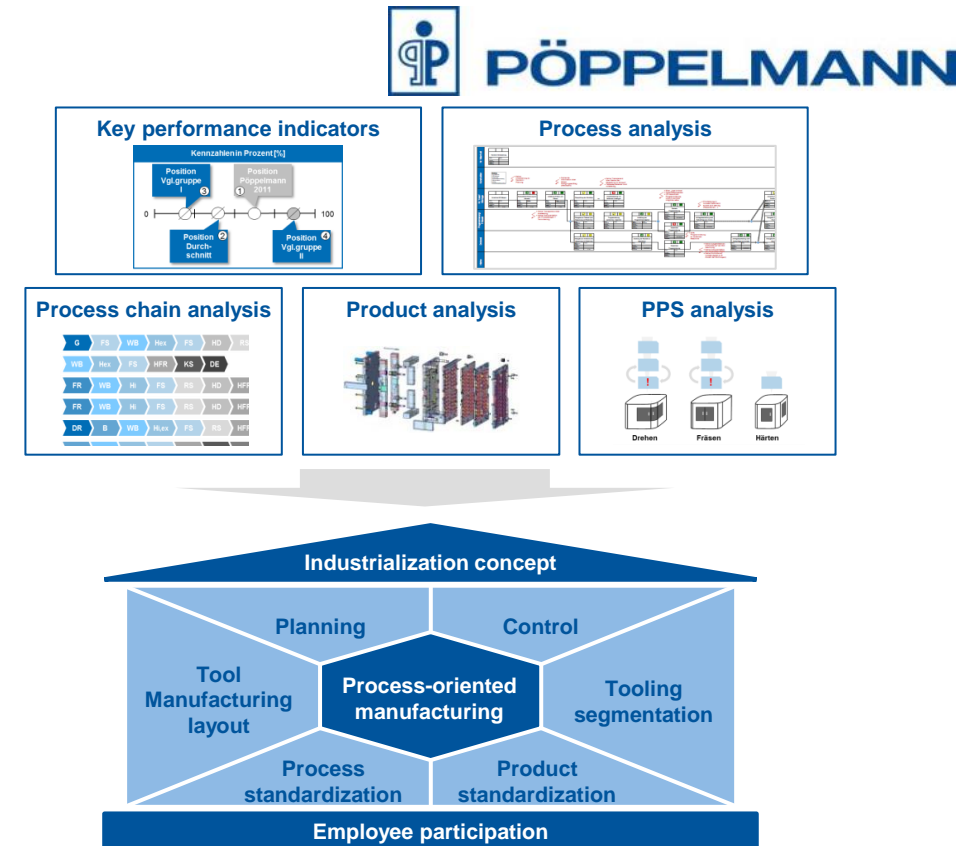
- ▶ **Implementation of an industrial tool shop which is oriented on customer benefits and segmented into process-oriented organizational units**

Concept for an industrial tool manufacturer Pöppelmann at the site Lohne



Approach

- Status quo analysis of the internal tool making
 - Performance benchmarking
 - Analysis of the order processing and process chains
 - Analysis of the product variety
 - Analysis of the planning and controlling divisions
- Conception of an industrialized tool making
 - Definition of main process sequences
 - Simulation of segmentation scenarios
 - Conception of a segmentation
 - Development of shaping options for the layout



Result

- **Concept to create an efficient, profitable and productive tool manufacturing by industrialization**

Implementation of the industrial tool making concept of Pöppelmann in Lohne

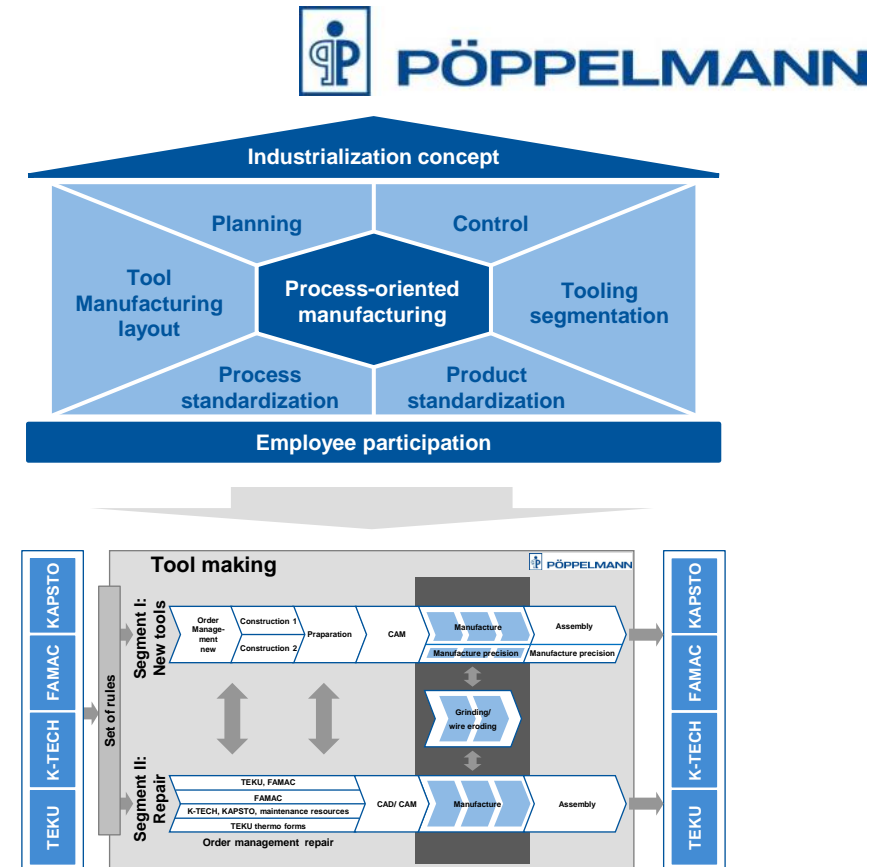


Approach

- Configuration of an industrial tool making company
 - Detailing of layout of the industrial tool making company
 - Definition of rough and detailed planning instruments
 - Creation of a rulebook for segmenting
 - Development of a concept for the integration of all employees
- Implementation of industrial tool making
 - Realization of employee workshops
 - Relocation of machine resources
 - Implementation of a rough and detailed planning
 - Introduction of a segmented tool manufacturing

Result

- ▶ Industrialized tool making based on standardized products and processes, segmented and material flow oriented manufacturing as well as effective planning and control



In-house seminar „Modern tool making“ for members of the precision tools division of the Swissmem tooling association

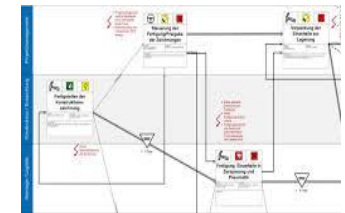


Training content

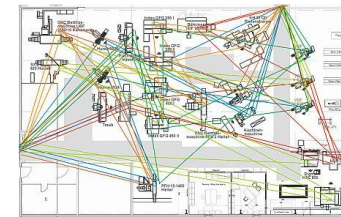
- Implementation of specialist lectures and workshops on the topics of industrial tool making, process management, layout design and industry 4.0
- Practical application of learned methods in the areas of layout design and process optimization in tool making
- Presentation and discussion of best practice applications of industry 4.0 in tool making
- Open and cross-company exchange between the participants



Industrialization



Process management



Layout design



Industry 4.0

Results

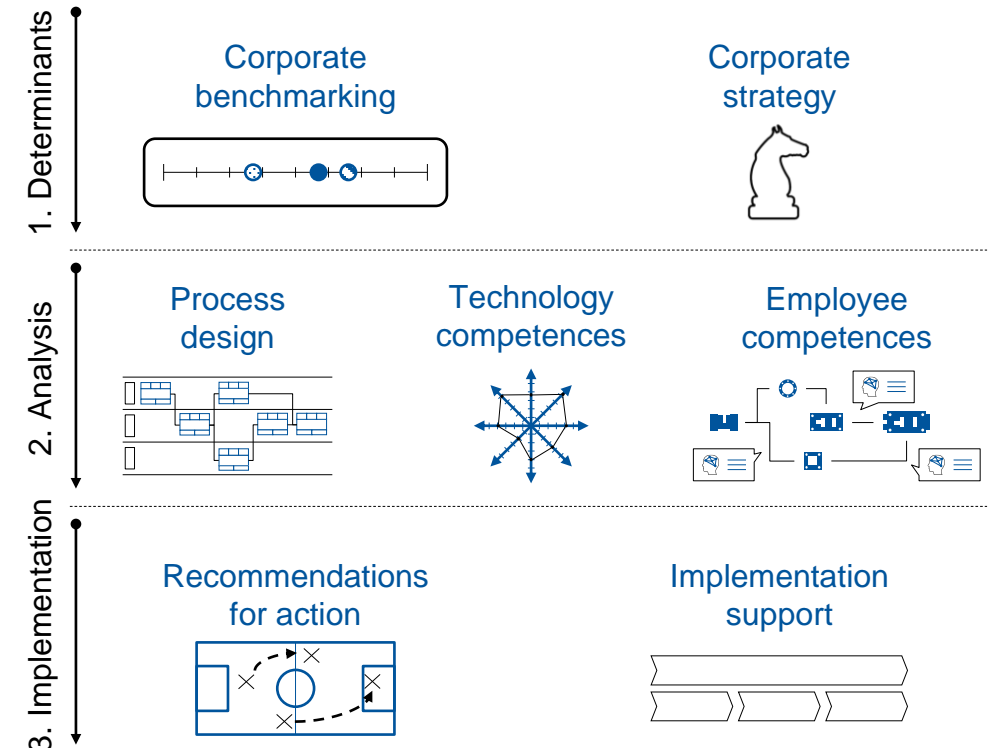
- ▶ Further trained managing directors & production managers in the areas of industrialization, process management, layout design and industry 4.0
- ▶ Professional exchange between the seminar participants on topics relevant to tool making

Development of measures adopted by Weener corporate strategy and support of implementation process



Approach

- Identification of current tool shop performance through corporate benchmarking
- Derivation of requirements of corporate strategy for the tool shop
- Linkage of current tool shop performance and future requirements to analyze effects in three major dimensions:
 - Order processing process
 - Technology competences
 - Employee competences
- Derivation of action fields and support of the implementation process



Results

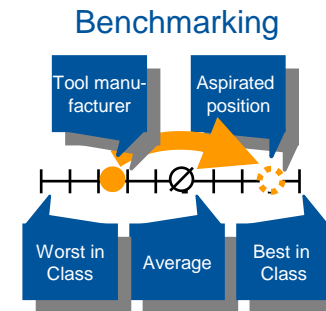
- ▶ **Determined effects of corporate strategy and current tool shop performance to the dimensions order processing process, technology competences and employee competences**
- ▶ **Derived action fields adopted by corporate strategy and support of implementation process**

Benchmarking and analysis of the planning and control processes of the Wöhrle Tool Shops

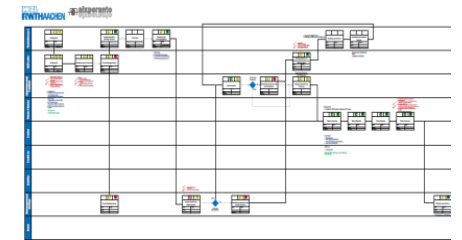


Approach

- Detailed technological and organizational benchmarking and derivation of a competence profile for two Wöhrle tool shops
- Detailed analysis of the manufacturing processes and the process chain, especially regarding the status quo of planning and control
- Examination of cross-location activities and their impact on planning and control processes
- Development of measures regarding the future technological and organizational focus as well as the future planning and control processes



Process analysis



Guidance and measures

Short-term	Middle-term	Long-term
<input checked="" type="checkbox"/> Analyse des Status Quo der Planung im Hinblick auf die Fertigung	<input type="checkbox"/> Analyse des Status Quo der Planung im Hinblick auf die Fertigung	<input type="checkbox"/> Analyse des Status Quo der Planung im Hinblick auf die Fertigung
<input checked="" type="checkbox"/> Festlegung der Fertigungsgangpläne der Lagerbestände	<input type="checkbox"/> Festlegung der Fertigungsgangpläne der Lagerbestände	<input type="checkbox"/> Festlegung der Fertigungsgangpläne der Lagerbestände
<input checked="" type="checkbox"/> Erstellung einer Basis-Daten zur Dokumentation der Planung	<input type="checkbox"/> Erstellung einer Basis-Daten zur Dokumentation der Planung	<input type="checkbox"/> Erstellung einer Basis-Daten zur Dokumentation der Planung
<input checked="" type="checkbox"/> Einführung der Lagerbestände auf dem Shopfloor	<input type="checkbox"/> Einführung der Lagerbestände auf dem Shopfloor	<input type="checkbox"/> Einführung der Lagerbestände auf dem Shopfloor

Results

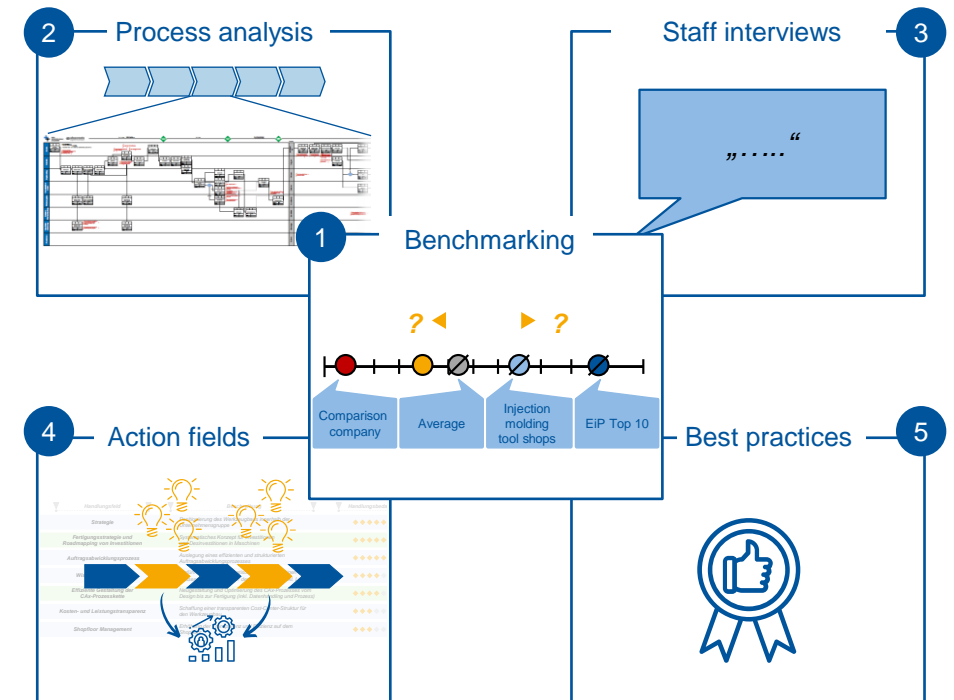
- ▶ Detailed technological and organizational benchmarking of two Wöhrle tool shops
- ▶ Measures regarding the technology, organization, planning and control

Potential analysis and derivation of action fields for the internal injection mold shop of an automotive supplier



Approach

- Benchmarking of organizational and technological performance in comparison to the competition
- Analysis and evaluation of the order fulfillment process for new tools
- Identification of weaknesses through staff interviews
- Derivation of action fields for a sustainable improvement of the tool shop performance
- Presentation of proposed solutions for the identified action fields and discussion of best practices



Results

- ▶ Detailed organizational and technological benchmarking as well as evaluated processes
- ▶ Derivation of potentials and specified action fields for performance improvements

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