KPMG
cutting through complexity

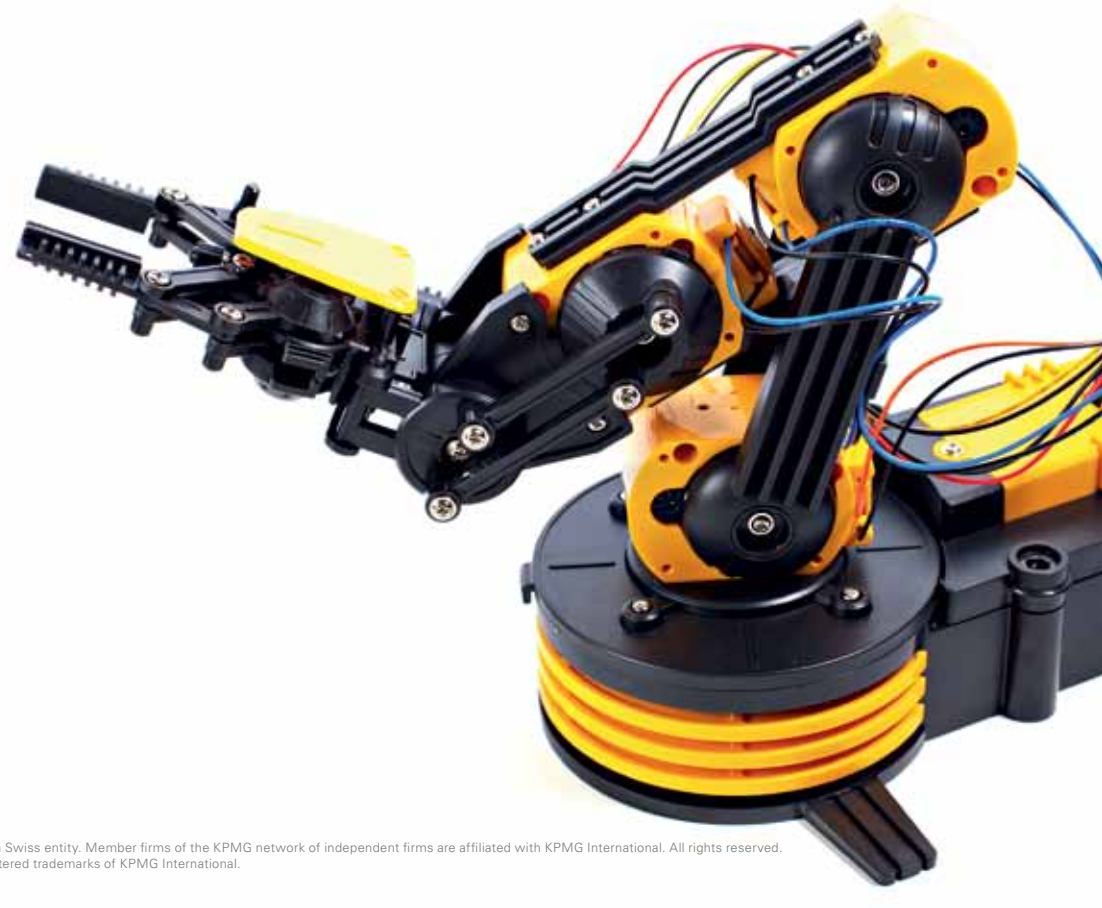
Industrial Master Plan

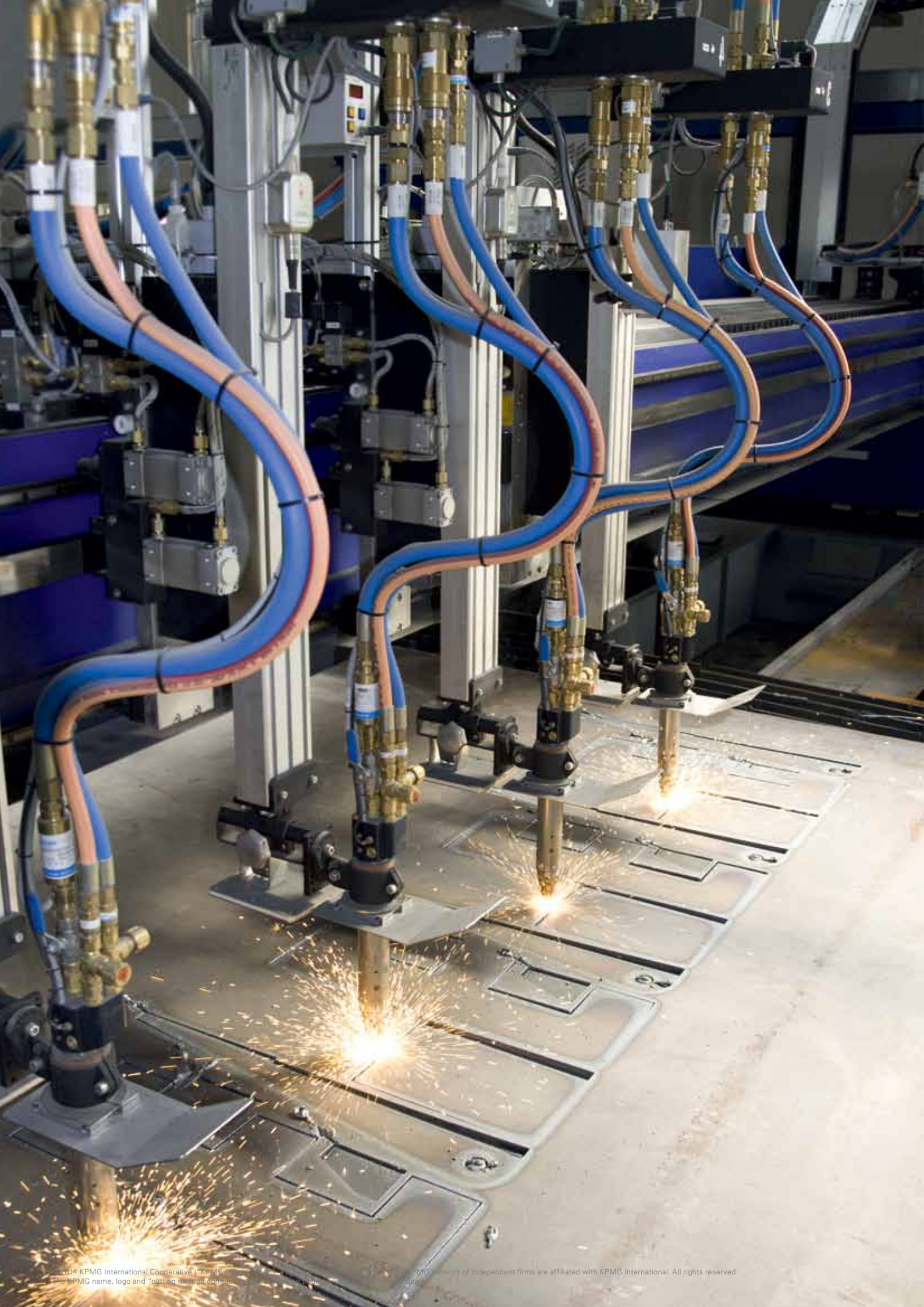
Optimization of global production networks

The market is growing
Opportunities and risks of global production networks

Global markets have been exposed to rapid change in recent years. Traditional production networks frequently no longer meet the current requirements with regard to flexibility, transparency or unit costs. The development of a global "Industrial Master Plan" is becoming increasingly necessary and mission-critical for companies. KPMG supports clients in this development with a structured, tested approach.

The advantages of global production are obvious: It is a matter of flexible reactions to short-term market fluctuations, the immediate perception of local customer needs, gaining market share, reduction of currency risks or the exploitation of differences in the so-called factor cost. But it also holds true that the more complex and extensive the production network of a company, the more difficult it is to react flexibly in the market and to manage the cross-border production. This calls for a corporate-wide, joint market and product strategy. Investments have to be made where they are necessary. Existing capacities have to be better utilized by means of a distribution of the production volumes. Extreme fluctuations in the capacity may result in a problem with the fixed costs. A critical mass is important for the efficient production at low unit costs.

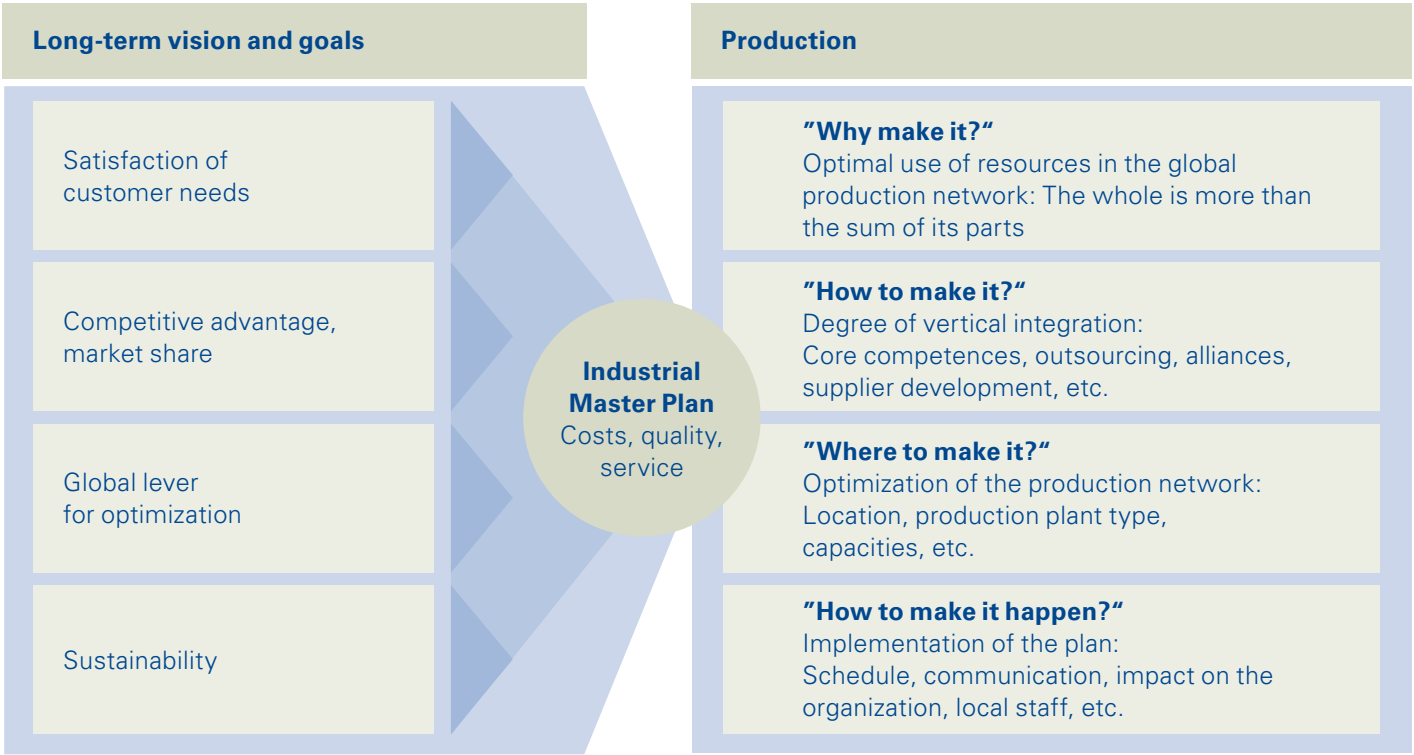




The challenge
Organizing and controlling production networks for success

There is no one-size-fits-all solution for the organization and control of global production networks. The most essential criterion for success is the complete transparency through all cost drivers so as to allow for a holistic view of the production network and the supply chain.

Frequently companies assume that they already have an appropriately transparent production network. In practice and in KPMG's experience, however, reality turns out to be quite different. Here, many companies find themselves confronting increasingly complex flows of goods and information between their production plants, their suppliers and their customers. In many cases, a corporate-wide site and production strategy is lacking. The unit costs are not competitive. Along with the commercial and technical information, a corporate and sales strategy is prerequisite for a successful Industrial Master Plan. By answering four core questions in production, such an Industrial Master Plan can support the company's long-term objectives.



Our solution
A proven method for the optimization of a global “Industrial Master Plan”

For the successful optimization of global production networks and the development and implementation of a suitable master plan, a three-phase approach has proven itself successful in practice.

Phase 1: Mapping

Analysis of markets, competitors and supplier networks

To start with, it is recommended to perform a comprehensive market and competitor analysis with the aim of comparing sales volumes and production capacities and determining a transparent production and technology structure including cost allocation for the various production sites. Frequently the data analysis reveals that while there is a lot of market, product and production data available at the individual sites, due to a lack of standardization for the controlling of the production networks, they cannot be compared or utilized across the sites.

Analysis of individual sites

Subsequently every site is considered as a unit and analyzed in greater detail. With the aid of site-specific profile cards, the relevant data about organization, performance, cost structure and infrastructure are compiled. This includes, for instance, area, utilization, inventories, quality data, information on equipment availability and utilization, material costs, wages or unit costs. IT solutions for the provision of transparent production should be available for every site on an actual data basis, allowing for the target/actual comparisons or fault and reject analyses.

Phase 2: Linking

Analysis of individual LMUs

Following this holistic site audit, individual sites should be more closely examined at the shop-floor level, the so-called logical manufacturing units (LMUs). In principle such an LMU is a production sub-process, the working steps of which are aggregated with respect to a product family or technology. It is recommended that LMUs be formed according to actions such as stamping, welding or assembly, so that, as a rule, they can all be allocated to product families. The individual LMUs can then be compared across sites with regard to performance and capacity at the production process level. For the comparison of numerous sites, it is recommendable that as many actions as possible be identified that are performed at all sites. In other words, it is a matter of finding the lowest common denominator at the production level. The goal of this detailed LMU analysis is the identification of the lowest unit cost in the production network. If, for instance, you take the action "laser cutting", it is a matter of how much a "cut" costs in the different production plants, and that independent of the individual input parameters. Initially only the final costs of the action are of interest, i.e. how much the cutting of, for instance, one meter or 50 centimeters costs in the various production plants.

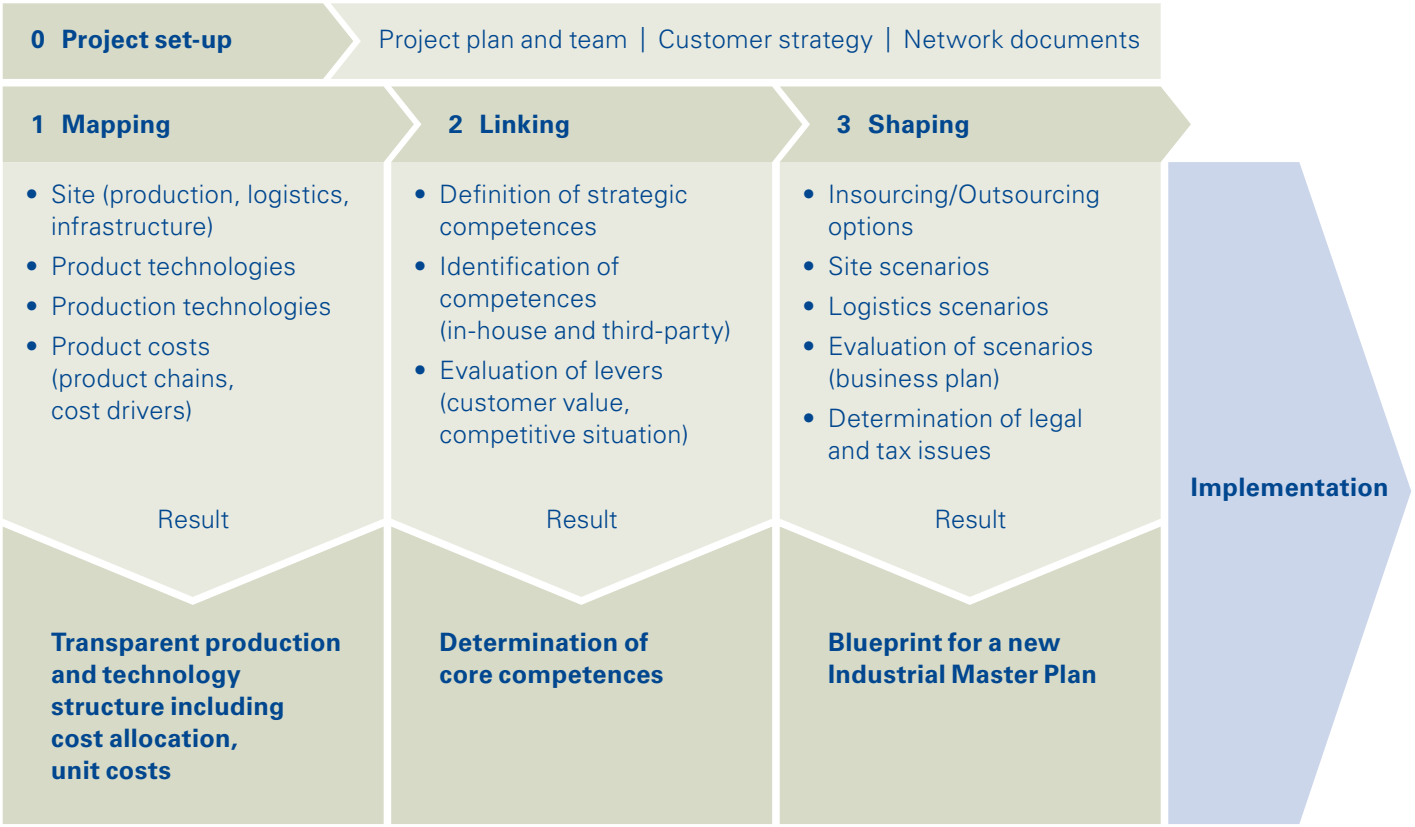
After the detailed mapping is completed, a company should then have the corresponding data and cost transparency in the production network. The relevant markets and the existing production and technology structures including the cost allocation and unit costs are known. Now it is a matter of comparing the results of the mapping analysis with the technical and financial particularities of a production network and identifying the specific core competences of the individual production sites. For example, if one production site is better suited with regard to competence, added value and costs for selected product groups or technologies, it should serve as the lead factory in the production network and take over such product groups or activities for other sites. The total costs must, however, be kept in mind in this case. The possibility of a negative trade-off exists, if the supply-chain costs or logistics costs exceed the production cost advantage.

Phase 3: Shaping

The production technologies, network structures and technical added-value possibilities determined are compared with one another. Here it is a matter of the evaluation of various scenarios such as bundling activities, the optimization of output and, in the end, the question of which products are manufactured at which site. The insourcing and outsourcing scenarios as well as relocation of production must be gone through and evaluated. The legal and fiscal implications must also be taken into consideration in any case. Offering free capacity to the market at marginal costs may also be an option. Beyond that, corporate-wide market and sales structures are also part of the holistic considerations. In the end, an Industrial Master Plan project should also contain the sales portfolios for the various regions including a prognosis for the next five years.

The result
Gains in efficiency and tested growth options

If such a redesign of the Industrial Master Plan is implemented, as a rule cost savings of 20 to 35 percent can be realized. In the end, a roadmap for a new Industrial Master Plan means not only the optimization of existing plants, but also the analysis of scenarios for a possible development of new sites in new growth markets.



Positioned at your best
KPMG's Consulting team

Together with our clients we develop individual, holistic solutions taking into consideration markets, product and technology structures, production competences, added value and costs.

We provide the basis for further strategic considerations that are directed toward the optimization of existing production networks and developing a future-oriented, suitable Industrial Master Plan.

Our specialists provide holistic solutions taking into consideration the supply chain and production perspective as well as the legal* and tax aspects.

KPMG is a network of firms with about 155,000 employees in 155 countries. "Cutting through complexity", our primary promise to our clients and business partners, means that with our expertise we provide clarity in an increasingly complex world.

We focus on the customer: Being part of the global KPMG network allows KPMG in Germany to compile the tailor-made auditing and consulting team suited for every client.

From medium-sized automobile industry suppliers to international pharmaceutical or media corporations, we support clients of every size and from every industry.

* Legal services are provided by KPMG Rechtsanwaltsgesellschaft mbH.

Contact

KPMG AG Wirtschaftsprüfungsgesellschaft
Ganghoferstrasse 29
80339 Munich

Wolfgang Grassl
Partner, Consulting
T +49 89 9282-3819
wgrassl@kpmg.com

Dr. Sylvia Trage
Senior Manager, Consulting
T +49 89 9282-4071
strage@kpmg.com

www.kpmg.de