

INVEST IN INDUSTRIE 4.0 BECAUSE IT SUPPLIES ...

1. ... efficiency of resources

While we have confronted the challenge of improving productivity based on optimising staff costs and machine utilisation over the past century, in the future we shall deal with optimising costs in relation to materials and energy. Industrie 4.0 brings with it new approaches for creating affluence on a global scale. Germany will play a major role in this, because our expertise and technology will influence the factories of this world more than any other country. The effective and efficient use of materials and energy will decide the competitive position.

2. ... competitive ability

Variety is necessary to adequately confront the level of complexity. Managing complexity will become a decisive competitive factor and forms one of the core proficiencies of elite companies. The approaches will differ according to product lifecycle, market and technology. A wide-ranging portfolio, which is developed through a selection process, may also represent a practical strategy. Individual products based on a modular system are also an option. Production is to be structured on the basis of complexity drivers and production techniques will be standardised by technology platforms.

3. ... profitability

The market ultimately decides whether or not a company makes a profit. Market criteria will substantially change, as will the ways in which we consume and therefore also the design of our supply chains. This means that the lifecycle costs of all influencing factors (environmental aspects, process costs, risks) must be the central focus of manufacturers. The market will demand that all solutions are sustainable in future. Sustainability has to be analysed and assessed to ascertain true cost. These are to be controlled in real time based on actual costs.

4. ... robustness and flexibility

The optimisation of transparency along the value chain supports companies in the holistic planning and realisation of flexibility and adaptability. In this regard, virtual reality can play a supportive role similar to that of improved use of business software. The analysis and rating of successful planning strategies and adaptive software facilitate soft factory structure, in which adaptability can be quickly achieved at low investment costs.

5. ... security

The introduction and operation of IT systems designed to optimise factory planning and operations have not yet made great progress. With the help of "Virtual Fort Knox", a federal, secure cloud-based platform for distributed service-oriented applications, information from factory planning and operations can be prepared and then ultimately networked in a task-oriented manner, before finally being assessed. At the same time, the Virtual Fort Knox approach reduces costs for companies.