

# Planning factories the right way

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The new factory hall has just been completed when the owner realizes that several things have gone wrong. The doors should be on the other side and production will need more space. A new planning guideline will prevent such annoying design faults in the future.

Anyone planning a factory has to consider its interior layout beforehand. Where will the machines stand? How much space will they require, and how high do the ceilings need to be? Not until these factors have been decided should an architect begin to design the building. In reality, however, [factories](#) are often built before proper planning has been conducted. It is often the case that an additional hall is built and only afterwards is thought given to how the new space can best be used. "At this point, it is often discovered that a shorter, wider hall would have been better, for example," says Dr. Klaus Erlach, group manager at the Fraunhofer Institute for Manufacturing Engineering and Automation IPA in Stuttgart.

A working group led by Erlach has now laid down a set of guidelines in [collaboration](#) with representatives from prominent architectural and factory planning offices and the most important research institutes in the field. The guidelines describe the individual steps involved in planning a factory and facilitate [coordination](#) between the architects and the production planners. "This prevents the grid dimensions of the supports from being planned too tightly, for example, so that the machines manufactured in the hall don't have to be dismantled again before being delivered," says Erlach, quoting an example that is best avoided.

"We have presented the objectives and results of the individual tasks and explained the various terms used," says Erlach. This makes it easier to compare the services offered by different planners. The guidelines have been published as a directive of the Association of German Engineers (VDI) under the title "VDI 5200: Factory planning - Planning procedures". They are aimed at anyone planning to build or convert a factory. The same rules apply to extensions of existing factories as to new buildings. It is important to plan everything perfectly from the outset. Existing buildings are taken out of the picture completely, and only the new building is considered. Only then is an assessment made as to how the new production hall can best be integrated into the existing building complex. "If you free yourself of all restrictions, you hit on completely new ideas," explains Erlach. The guidelines are organized into milestones that should be achieved in the course of planning a factory - from setting the objectives of the factory to the phase in which production is up and running as planned. The publication was recently awarded the quality seal of "Guideline of the Month" by the VDI.

Source: Fraunhofer-Gesellschaft ([news](#) : [web](#))

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