



# PLAST

We turn industrial buildings into your competitive advantage.  
Through smart solutions specifically designed for the plastics industry.

The specialist for industrial buildings.





**You offer sophisticated plastic products –  
we offer the right industrial construction**

Industrial construction can be so appealing: the flow of materials and people in the factory is designed to be intersection-free, with raw materials and products moving on the ground floor and people one level above. The factory is designed with foresight, allowing for flexible expansion of the building and phased development of the site. The storage area is directly connected to production and, in the event of continued growth, can not only be enlarged but also increasingly automated.

Would you like to have a factory like this? Then you should take one thing to heart: forget about run-of-the-mill, off-the-shelf industrial buildings. Instead, think of the building as part of your production process, which needs to be planned just as carefully as your equipment. After all, if you own a building that is not tailored to your production processes, you will have to take labor-intensive countermeasures on a daily basis. In the highly competitive plastics industry, with its high cost and quality pressures, such efficiency losses are difficult to compensate for.

At IE Plast, we plan and construct industrial buildings for the plastics industry, optimally coordinating manufacturing processes, building services, and architecture. We guarantee that even with unfavorable plots of land and structures that have grown over many decades, a huge leap in efficiency is possible. This is because our architects and engineers have extensive experience in the plastics industry. This allows us to closely integrate operational and construction planning and develop a master plan that will stand the test of time.

Don't settle for just any old hall, but choose an industrial building that deserves this name: a building that is optimally tailored to the production processes – and thus becomes a machine in its own right.

**Benedikt Sticht**  
Managing Director IE Plast Munich



# Smart solutions in industrial construction: Competitive advantages, engineered by IE

We provide you with more than just a shell for your production facility: we increase the efficiency of your processes with industrial buildings that are perfectly tailored to your manufacturing processes. A clear architectural language reflects the optimal process. How do we achieve this? With a great deal of ingenuity. We are not satisfied with standard solutions. The end result is clear competitive advantages for our customers. Here are a few project examples.

1

Away with the welded steel beams

## Downtime completely eliminated

A manufacturer of high-quality plastic films for the pharmaceutical industry is faced with the task of expanding its production capacities. IE Plast demonstrates that the new extrusion hall can be much more than an off-the-shelf solution with an extruder tower system specially developed for the customer. Until now, the company has relied on standard platform systems from machine manufacturers. These steel structures were mostly welded and only suitable for a specific extruder. When an extruder needed to be replaced, the entire system had to be dismantled. The result: a complete shutdown of operations for around three weeks.

IE Plast questioned the necessity of this design and instead developed a variable and flexible tower system that is suitable for all extruders used. Its steel beams are not welded, but completely bolted and clamped. This means that all other machines can continue production while an extruder is replaced during operation. The success is resounding: the downtime is reduced from three weeks to zero days.

2

Away with dead capital

## Storage time reduced by 80 percent

Actually, the plastic packaging manufacturer had not even considered its warehouse when it came to expanding its production. But it was precisely the warehouse that IE Plast identified as the pivotal point for cost reduction and quality improvement. When analyzing the existing buildings and operational processes, IE Plast noticed that the warehouse was very spacious compared to the production hall. Did it really need to be enlarged as part of the production expansion? The customer's answer was a resounding yes: the finished plastic films have to cure for 14 days before they can be packaged and delivered. That's why the warehouse is so large.

IE Plast's unconventional optimization proposal: simply raise the temperature in the warehouse. This significantly reduces the time required for the films to cure. Tests showed that at 50 degrees Celsius and a defined humidity level, only three days of storage time are required instead of 14. And this is achieved with almost no increase in energy costs, as the existing surplus heat from production is available for heating. This made it possible to significantly reduce the size of the warehouse and design it as a fully automated high-bay warehouse. The result: significantly lower operating costs and considerably less tied-up capital. In addition, automated warehousing also improved the quality of the products.



General planner



COMBINATION OF OPERATIONS  
AND CONSTRUCTION EXPERTISE

# 3

Away with the hall supports

## Operating costs radically reduced

An injection molding company learned the hard way what it means when operational processes are adapted to the architecture instead of the building being adapted to the processes. The company had opted for a standard architectural solution: the roof of the 40 x 40 meter production hall was to be supported by several columns, as is usual for such spans.

Even before construction began, the company had doubts about the operational concept for the hall and brought IE Plast on board to review the plans. The analysis quickly revealed that the originally proposed architectural solution would lead to significantly higher costs. For example, the supports meant that four crane systems were needed to replace the injection molding tools.

The capacity of one crane would have been sufficient to transport the tools at the required speed – if the supports had not been in the way.

IE Plast developed an alternative: a truss-type support structure. This meant that all the supports could be dispensed with. Not only did this eliminate the need for three crane systems, it also significantly simplified the production processes and logistics. The external truss also gave the company valuable additional headroom for the large injection molding machines, as the building height was limited by building regulations. The supposedly inexpensive standard solution would have been much more expensive during ongoing operations. In addition, the truss construction was also 25 percent cheaper than the standard roof in terms of construction costs.



## The IE master plan: Orderly growth instead of uncontrolled expansion

You may be familiar with the effect: business is booming, you expand your production facility, and just a few years later, the next adjustment is necessary. Unfortunately, the first expansion now stands in the way of the second. This situation can be avoided with the IE master plan. It is a reliable control instrument for your investment planning. With the IE master plan, change and growth scenarios can be anticipated and guidelines set for the phased

development of buildings and infrastructure – until the optimal final state of the property development is achieved.

Well-known industrial companies such as Nestlé, Sika, Georg Utz, and Schleicher Fahrzeugteile are moving forward with a master plan from IE. Into a future that no one knows what it will look like. And yet one that is still manageable.

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## The space miracle: Same plot of land, more space, more efficiency

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A company's production facilities had grown over many years. When space at the headquarters slowly became scarce, management was faced with a fundamental decision: Should it stick with the existing location, whose land could not be expanded? Or would it make more sense to move to an additional location and gradually expand production there? The company commissioned IE to prepare an expert opinion on the expansion potential of the existing premises. The results were surprising.

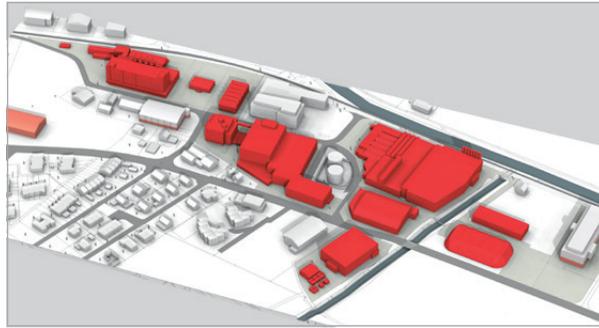
During their initial inspection of the facility, the experts from IE Plast noticed that the various functional areas were located on the property without any discernible system: production areas, warehouses, administrative offices, and research and development buildings were scattered across the entire site in several small units. This resulted in an extremely complex flow of materials and people, as well as duplicate structures. In short, the uncoordinated growth of the business had led to inefficient structures and processes, and the site's space potential was far from being fully exploited.

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### Separate and centralized functions

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IE's solution envisaged a phased conversion and expansion of the entire factory site, with the following end result: the areas are divided into different functional zones. Rooms belonging to the same functional zone that were previously scattered across the site are now brought together in one place. The new buildings make consistent use of the cubic volume permitted under building regulations – wherever operationally possible and sensible. As a result, the available space grows from one implementation stage of the master plan to the next, while at the same time processes become more efficient.



A developed area without clear separation of functional areas.

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### Metamorphosis during ongoing production

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It is precisely this increasing efficiency that demonstrates the potential of a master plan: it reverses the normal logic of organic growth. Increasing complexity and sprawling structures are replaced by a clear scheme for progressive expansion, geared towards an optimal end state. In this way, the company can “grow into” ever greater efficiency. And it can do so without major disruptions to production. In the case described here, the master plan was designed so that all construction measures could be carried out while operations continued.

And how much additional space is available to the company? Once the master plan has been fully implemented, the floor space will increase by a good 20 percent - despite the size of the property remaining the same. Relocating production was definitely not necessary.



The final stage of the master plan: The functional areas are separated and the cubic volume permitted under building regulations is utilized optimally.



## IE Group: The specialist for industrial buildings

**We plan, design, and construct industrial buildings.** Our goal is to maximize the efficiency of your production - with the help of industrial buildings that are perfectly tailored to your manufacturing processes. That's why, at the start of a project, we don't focus on the buildings themselves, but rather on factors such as production processes, the flow of goods and people, hygiene and cleanroom requirements, and potential for expansion. This means that we provide you with integrated operational and construction planning, regardless of whether it is a new building or the expansion of an existing facility. The end result is sustainable industrial buildings: efficient, low-emission, and flexible in use.

We work in manageable and therefore effective teams of industry experts. **IE Food, IE Plast, IE Life Science und IE Technology** are part of the IE Group, which has been in business since 1966 and provides the necessary financial backing - even for large construction projects.

### EMPLOYEES

› Construction and operations planners, architects, industrial and mechanical engineers, logistics and building technology experts

### ORIGIN

› Founded in Switzerland in 1966, now based in the DACH region

### LOCATIONS

› Offices in Zurich and Munich

### SALES

› CHF 100 million (EUR 95 million)

## What defines us



### AT HOME IN YOUR INDUSTRY

We specialize in industrial buildings in five sectors. Thanks to our extensive experience in these areas, we speak your language and understand your manufacturing processes. That's why we plan your industrial building consistently from the inside out.



### EMPLOYEES AS ENTREPRENEURS

At our company, all employees are involved in the business. That's why you can rely on the motivation and initiative of our teams. Experience a new form of partnership-based collaboration..



### ALL EXPERTS UNDER ONE ROOF

Our IE industry engineers, architects, specialist planners, and logistics experts all work together. This enables us to create industrial buildings that are impressive from every perspective. Manufacturing processes, technical building equipment, and architecture are optimally coordinated.



### SECURITY THROUGH GUARANTEES

Our guarantees for planning and implementation give you complete certainty in terms of costs, deadlines, quality, and function. From the initial design idea to the selection of production technology, operations and logistics planning, general planning, and building execution, we take care of all project steps - also in the form of a work contract.

## Our range of services

### DEVELOPMENT

- ✓ Goal-setting workshops
- ✓ Investment strategies
- ✓ Feasibility studies
- ✓ Site structure plan/master plan
- ✓ Industry trends

### PRODUCTION TECHNOLOGY

- ✓ Requirement profiles
- ✓ Tenders
- ✓ Technical comparison
- ✓ Draft contracts
- ✓ Specifications
- ✓ Commissioning

### OPERATIONS PLANNING

- ✓ Requirements planning
- ✓ Operating concepts
- ✓ Process plant planning
- ✓ Hygiene concepts
- ✓ Logistics concepts

### CONSTRUCTION PLANNING

- ✓ New buildings
- ✓ Conversions
- ✓ Extensions for production, administration, and warehouse buildings

### EXECUTION

- ✓ Construction management
- ✓ Construction supervision
- ✓ Coordination of operations, building services, and construction
- ✓ Guarantees for costs, deadlines, function, and quality
- ✓ Documentation



LOGISTICS — HYGIENE AND CLEANROOM — SUSTAINABILITY



## We have a clear methodology, you have full control

We work in clearly separated project stages. This allows you to review the results of our collaboration with you from phase to phase and make adjustments if necessary - from the initial idea to implementation.

At the same time, you have greater cost certainty from project step to project step. During execution, you can rely 100 percent on us to stay within budget. We give you our word on that – and contractual guarantees.

### Trust and transparency characterize the relationship between customer and IE.

With our transparent approach and guarantees, we pursue one goal above all else: a solid partnership with our customers based on mutual trust. This is the basic prerequisite for close cooperation, which is crucial to the success of our projects.

INVESTMENT IDEA



PROJECT DECISION



INVESTMENT DECISION

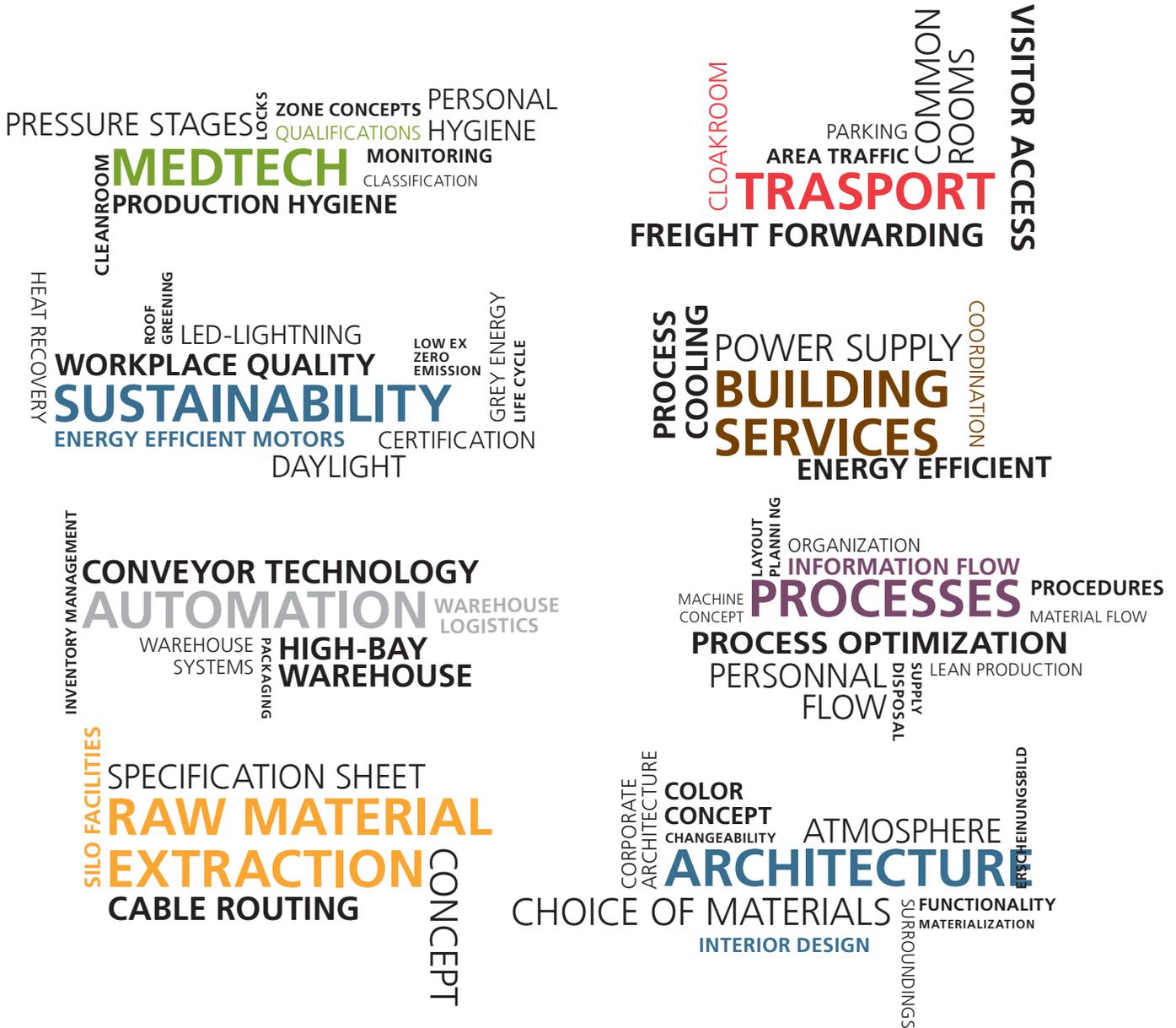


EXECUTION DECISION

# Our services for the plastics industry

Why are we able to cover all these aspects and combine them in a meaningful way? Because we are at home in the plastics industry and have already completed a large number of industrial buildings. We are therefore just as familiar with the manufacturing processes in the industry

as we are with the typical problems of organically grown plants. Trust in the experience of our experts: together we create industrial buildings in which all the wheels mesh together.



## Try us out - and your own idea!

Do you already have an idea for your construction project? We will examine your idea in detail and assess the extent to which it can be realized within your budget. As part of this feasibility analysis, we will also identify possible alternatives and compare the cost-benefit ratio. This will allow you to familiarize yourself with our working methods and, at the same time, have all the facts you need to make a decision about the project.

**You have a lot to gain without risking anything: greater efficiency, lower costs, and better quality.**

Don't miss out on these competitive advantages. Arrange a no-obligation initial meeting.

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