

FOOD



We turn industrial buildings into your competitive advantage.
Using clever solutions specially developed for the foodstuffs sector.

The expert for industrial buildings.





**You offer high-quality foodstuffs –
we provide the industrial building to match**

Consumers who expect long shelf lives but reject preservatives. Dealers who turn the price screw, but are always demanding new, more attractive packaging: foodstuffs manufacturers have a hard time matching up hygiene standards, cost effectiveness and consumer expectations.

This is exactly where we can offer our support: with an industrial building perfectly matched to your operating processes and hygiene standards. Thanks to more than 40 years of experience we understand the complexity of new builds, conversions and extensions. Logistics and production processes, regulatory constraints, hygiene standards, energy balance: each one of these problems is relatively easy to solve. The fine art lies in finding the optimal solution across all areas. That is where you will find our strength.

At IE Food, architects and engineers from the foodstuffs industry work hand in hand in a team with hygiene and logistics experts – under the leadership of a single contact person, who is available over the entire project duration. This means that you get single-source operational and construction planning and do not need to reconcile the contradictory recommendations of different specialists.

Our industry experience is revealed when dealing with seemingly minor details: for example, stainless steel floor drains are installed as standard and embedded in an epoxy flooring. However, these two materials have different rates of expansion, meaning that cracks often form. There is a simple solution to this problem. However, very few architects even consider this.

Rely on experts who see the big picture just as clearly as the finer details. We guarantee that, with a holistic industrial building from IE Food, you will have a decisive competitive advantage – indeed, for many years to come.

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Clever industrial buildings solutions: competitive advantages engineered by IE

We will give you more than just a shell for your production facility: we enhance the efficiency of your processes – with industrial buildings perfectly matched to your production processes. The optimal process is reflected in a clear architectural language. How we do it? With a lot of brainwork. We are not satisfied with mere run-of-the-mill solutions. Clear competitive advantages await our clients at the end of the process. Here are a few project examples:

1

When old becomes new

Change of direction enhances efficiency

A producer of cheese specialities intended to amalgamate two production facilities at one of the two sites. The challenge was to reuse the existing building as much as possible. The crux of the IE solution was a five-floor extension on the east side of the building. Processes with strict hygiene requirements were predominantly located here. They can be implemented in the new build substantially more cost-efficiently.

The old building was refurbished and reorganised. IE rotated the direction of previous production process by 180 degrees. The raw materials were previously brought from the warehouse on the west side to the

immediately adjacent facility and ran through the production line to the packing line at the eastern end of the building. The finished products then had to be taken back to the warehouse along the same route. Now the raw materials are delivered directly to the new build in the east, production runs towards the west and the finished and packed products are finally transported to the neighbouring warehouse.

This saves logistics resources. In conjunction with other IE optimisation measures, the company's operating costs were substantially reduced – while simultaneously improving hygiene standards.

2

When waiting time becomes planning time

Fast construction thanks to prefabricated concrete elements

A baby food manufacturer needed a new build for a spray tower line including a packaging shed. The customer's change of plant supplier at an advanced planning stage threatened to completely torpedo the original schedule: It was only possible to deliver the production facility at a much later date.

IE, as general planner, then proposed a solution using prefabricated concrete elements. The advantage: it was possible to exploit the waiting time until delivery for detailed planning purposes. This was necessary because all plant details needed to be incorporated during production of the 641 prefabricated elements, for example component dimensions, loads and suspension points. Subsequent corrections to the concrete elements, with a gross weight of three to four tonnes each, would have made the entire solution uneconomical.

Thanks to the use of prefabricated concrete elements, pure construction time was only around 25 weeks as complex facade work such as insulation and other sub-structures were dispensed with. Despite a plant supply delay of several months by the external suppliers, IE was thus able to adhere to the original commissioning schedule.

The smooth and practically flawless surfaces also came out in favour of the prefabricated concrete elements. They allow for the creation of hygienically sound production rooms with very little effort. Furthermore the exceptional heat insulation provided by the prefabricated elements (concrete – insulation – concrete) ensure low heating and cooling costs.



3

When two merge into one

Improved utilisation thanks to synergies

A producer of potato croquettes and a pasta producer had both hit full capacity. They presented IE Food with an unusual task: was it possible to build a new, joint facility for both companies, thereby saving costs as the buildings and facilities for packaging, warehousing and logistics could then be jointly used?

In the context of a feasibility study, IE's construction and operational planners went through both companies and their production processes with a fine-tooth comb in search of possible synergies. The result was surprising: the largest savings potential lay in the joint utilisation of cooling processes. Both companies are subject to strong

seasonal demand fluctuations and had therefore each built an additional, separate tunnel refrigerator to cope with these peak order periods. IE came up with a concept allowing both companies to freeze the filled pasta and cool the croquettes in the same tunnel refrigerator. At the same time, peak order periods can be met by the higher overall refrigeration capacity.

Just one of many advantages: the companies can do away with their 'standby facilities'. This means they save both investment costs for the facilities as well as considerable running costs. A synergy potential available to many companies, even outside of your own company.



The IE master plan: order growth instead of uncontrolled proliferation

Perhaps you are familiar with the scenario: business is good, you expand your production facility. Just a few years later, the next adaptation is needed. But now the first extension is standing in the way of the second one. This situation can be avoided – with the IE master plan. It is a reliable steering instrument for your investment planning. Using the IE master plan, change and growth scenarios can be pre-empted and guides for the staged development

of buildings and infrastructure put in place – right through to the optimal final plot development. Notable industrial companies such as Nestlé, Emmi, Hochdorf Swiss Nutrition, Ehrmann and Pacovis all work to an IE master plan, thereby securing their investments.

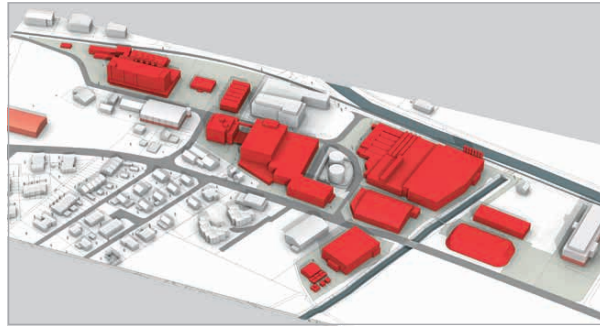
The space miracle: same plot, more area, more efficiency

A company's production facilities had grown over many years. As the available area at the headquarters slowly grew scarce, management faced a fundamental decision: should they stick to the existing location, the plot of which could not be extended? Or would it make more sense to move to an additional site and gradually expand production there? The company commissioned IE to compile an expert report on the expansion potential at the existing company premises. With surprising results.

As early as the first site inspection, IE Food experts noticed that the different functional areas were apparently located around the plot without any recognisable system: production areas, as well as warehouse, administration and research and development buildings, were spread across the site in a number of small units. This led to an extremely complex flow of material and personnel, and to duplicate structures. In short, the company's uncoordinated growth had led to inefficient structures and processes, and the site's potential in terms of floor area was not exhausted, not by a long shot.

Separate and centralise functions

IE's solution envisaged a step-by-step conversion and development of the complete site with the final objective being to separate the surfaces into different functional areas. Rooms belonging to one and the same functional area, previously strewn across the entire site, are brought together in one location. The new buildings fully utilised the volumes allowed by building regulations – where this was operationally possible and useful. This allows the available space to grow as work proceeds from one master plan implementation stage to the next; at the same time, processes become ever more efficient.



Plot without clearly defined functional areas.

Metamorphosis during ongoing operations

It is exactly this increasing efficiency that demonstrates the potential of a master plan: it turns the normal logic of organic growth on its head. A clear pattern for continued expansion, aimed at an optimal end product, takes the place of increasing complexity and rampant structures. In this way, the company can continuously 'grow into' increasing efficiency. All this without major obstacles to production. In the case described here, the master plan was designed such that all construction measures could be executed during ongoing operations.

And how much additional space is now available to the company? If the master plan is implemented completely, the floor space will increase by a good 20 per cent – despite having the same plot size. Therefore, it was certainly not necessary to relocate the production facilities.



Red: existing buildings without any changes needed.

Green: optimised buildings (conversion – extension – new build).

The final master plan development stage: the functional areas are disentangled and the volume allowed by building regulations is optimally utilised.



IE Group: the expert for industrial buildings

We plan, design and execute industrial building projects. Our aim is the greatest possible efficiency for your production – with the aid of industrial buildings perfectly matched to your production processes. This is why the building as such is not the focal point at the beginning of a project, but instead factors such as the production process, goods and personnel fluxes, hygiene and clean room requirements, and the expansion potential. You thus get operations and construction planning from a single source, regardless of whether it is a new build or the expansion of an existing system. At the end of the process are sustainable industrial buildings: efficient, low-emission and flexible.

We work in small and powerful teams of industry experts. **IE Graphic, IE Food, IE Plast, IE Life Science and IE Technology** are embedded in the IE Group, which has been a market player since 1966 and provides the necessary financial backbone – even for large construction projects.

EMPLOYEES

- 125 construction and operations planners, architects, business and mechanical engineers, logistics and building services engineering experts

ORIGIN

- Founded in 1966 in Switzerland, now at home in Germany and Switzerland

LOCATIONS

- Offices in Zurich, Munich and Lausanne

TURNOVER

- CHF 100 million (EUR 95 million)

What makes us different



AT HOME IN YOUR INDUSTRY

We specialise in industrial buildings in five different industries. Our extensive experience in these fields mean that we speak exactly your language and understand your production processes. Our industrial buildings are therefore uncompromisingly planned, from the inside out.



EMPLOYEES AS ENTREPRENEURS

Here at IE Engineering, all employees are stakeholders in the company, meaning you can rely on our teams' motivation and initiative. Experience a new kind of partnership in cooperation.



ALL EXPERTS UNDER ONE ROOF

Our IE industry-specific engineers, architects, planners and logistics specialists all work for a common cause, allowing us to create industrial buildings that convince from any angle. Production processes, technical building services and architecture are thus optimally coordinated.



GUARANTEED SECURITY

Our planning and implementation guarantees give you complete security in terms of costs, deadlines, quality and function. From the initial design idea, through the choice of production technology, operational and logistics planning, to general planning and implementation, we execute all project stages – including in work contract format.

Our range of services

DEVELOPMENT

- ✓ Objective definition workshops
- ✓ Investment strategies
- ✓ Feasibility studies
- ✓ Site structure plan/master plan
- ✓ Industry trends

PRODUCTION TECHNOLOGY

- ✓ Requirements profiles
- ✓ Invitations to tender
- ✓ Technical comparison
- ✓ Draft contracts
- ✓ Specifications
- ✓ Commissioning

OPERATIONAL PLANNING

- ✓ Requirements planning
- ✓ Operational concepts
- ✓ Processing plant planning
- ✓ Hygiene concepts
- ✓ Logistics concepts

CONSTRUCTION PLANNING

- ✓ New builds
- ✓ Conversions
- ✓ Extensions to production, administration and warehouse buildings

CONSTRUCTION EXECUTION

- ✓ Construction supervision
- ✓ Construction monitoring
- ✓ Coordination of operations, building services engineering, and construction
- ✓ Guarantees in terms of costs, deadlines, functions and quality
- ✓ Documentation



LOGISTICS — HYGIENE AND CLEAN ROOMS — SUSTAINABILITY



We have a clear methodology, you have complete control

We work in clearly delineated project stages. This allows you to examine the results of our collaboration from phase to phase and to make corrections where necessary – from the initial idea through to implementation. At the same time, you enjoy cost stability, which is enhanced from one project stage to the next. You can fully rely on adherence to costs during project implementation. We give you our word on that – and contractual guarantees.

Trust and transparency characterise the customer-IE relationship

With our transparent procedures and guarantees, we follow one objective above all others: a robust partnership with our customers characterised by mutual trust. This is the most fundamental requirement for close cooperation and determines the success of our projects.

INVESTMENT IDEA



PROJECT DECISION



INVESTMENT DECISION



EXECUTION DECISION

Our services for the foodstuffs industry

How are we able to cover all of these aspects and sensibly interlink them all? Because we are at home in the foodstuffs industry and have already implemented a large number of industrial building projects. This is how we know our way around the industry's production processes just as

much as we are aware of the typical problems of organically developed facilities. Rely on the experience of our specialists – and together, we can create industrial buildings in which all gears intermesh perfectly.



Try us out – and your own ideas!

Already have an idea of your investment project? We will thoroughly assess your idea and examine how well it can be implemented within your budgetary framework. In addition, as part of this feasibility study, we identify possible alternatives and compare the cost-benefit ratios. You get to know our way of working and at the same time have all the facts in order to make a project decision.

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

Don't miss out on these competitive advantages. Why not arrange an initial meeting, with no obligation.

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