



**TECHNOLOGY**

The specialist for industrial buildings.

**MIKRON SWITZERLAND AG**

**INSIGHT**



**Mikron Switzerland AG, Automation Division, based in Boudry (Canton of Neuchâtel), specializes in the manufacture of automation systems for the pharmaceutical, medical, electrical, and automotive industries. The continuous growth of this business area in recent years could no longer be managed with the existing infrastructure. The existing infrastructure was no longer sufficient, so the production facility had to be expanded. The contract for the planning and construction execution of the project was awarded to IE Technology. With good reason.**

Mikron Switzerland AG, Boudry is part of the globally active automation division of the Swiss Mikron Group. Production in Boudry was previously spread across two locations several hundred meters apart. The long travel distances hampered productivity and led to higher running costs. It was therefore clear to Mikron that an expansion project had to focus on a single location. The aim was to integrate a new two-story building at the main site, offering new production space on the ground floor and spacious, flexible rooms for project and development teams as well as central services on the upper floor. The production processes, development collaboration with customers, and access control had to be completely rethought and reorganized. With IE Technology, Mikron chose a planning partner that not only has construction expertise but also know-how in the organization of processes.

# ROOM FOR DYNAMIC GROWTH

## INCREASED **EFFICIENCY** AND **INNOVATIVE CAPABILITY** AT **MIKRON BOUDRY**

*«The industrial expertise of IE Technology's planners and their understanding of our strategic objectives contributed significantly to the successful execution of our expansion project. The collaboration was outstanding.»*

*Félix Arrieta,  
General Manager*



# SUCCESS FACTORS

# 1

HOLISTIC PLANNING BASED ON PROCESSES

## **SUCCESSFUL INTEGRATION OF BUILDINGS & FUNCTIONS.**

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The overall planning for the expansion of Mikron Boudry's production site essentially comprised the construction and integration of the new production building, the conversion of the existing buildings, the creation of an energy center designed for efficiency, and the redesign and organization of the surrounding area. Working closely with the client, the planners at IE Technology developed a master plan that defined the positioning and dimensions of the new hall and the location of the new energy center. The axes for the separate routing of material and personnel flows were defined, and truck access and exit routes were adapted to the new conditions on the site. The master plan also shows the options for future expansion steps.

# 2

SMART CONCEPT FOR THE EXTENSION BUILDING

## **PERFECT INTERACTION BETWEEN DEVELOPMENT AND PRODUCTION.**

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Mikron's automation solutions, which are manufactured to customer specifications, are the result of close cooperation between development and assembly. The expansion project now offered the opportunity to bring both areas of expertise under one roof: production is located on the ground floor, while the development department, technical support, and administration are located on the upper floor. The dimensions of the new hall were based on production requirements: the floor space had to be as large as the limitations of the site would allow. At the same time, the number of columns had to be reduced to an absolute minimum in order to maximize modularity of use.

What may seem contradictory at first glance was solved by the planners at IE Technology with a bold structural concept that uses seven load-bearing pillars to cover an area of 3600 m<sup>2</sup>. This ensured maximum flexibility for operations management in the production hall.

# 3

INNOVATIVE SOLUTION TO THE ENERGY AND EMISSIONS ISSUE

## **A NEW ENERGY CENTRAL AS THE HEART OF THE «GREEN FACTORY».**

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Mikron contributes to climate protection as part of an internal initiative for CO<sub>2</sub>-neutral business operations. Consequently, the economical and ecological use of energy was also an important issue in Mikron Boudry's expansion project: the aim was to significantly reduce natural gas consumption.

In an iterative process, the client and IE planners, with the involvement of experts in the field of cooling and heating technology, developed a solution that would enable the objectives to be achieved. The new energy center is based on the use of high-tech heat pumps and the production of solar energy. Solar collectors covering an area of 1,300 m<sup>2</sup> on the roof of the new production halls generate green energy, 100 percent of which is used by Mikron.

# 4

COMPREHENSIVE REORGANIZATION AND  
NEW CONSTRUCTION DURING ONGOING PRODUCTION

## UNINTERRUPTED PRODUCTIVITY GUARANTEE.

Building without interrupting production is standard practice at IE. Nowadays, hardly any company can afford to halt production when construction work is being carried out. Accordingly, construction planning must be carefully coordinated with operations planning. The expansion of Mikron Boudry's production site was much more than just a construction project: the relocation of part of the production from an external site to the main area, the conversion of the existing buildings, and the integration of the new production building offered the client the opportunity to fundamentally reorganize and optimize operational processes. Under these circumstances, it was particularly challenging for all parties involved to maintain operations during the execution phase.

# 5

NO COMPROMISES ON BUDGET AND DEADLINES

## COST OPTIMIZATION AND REDUCED CONSTRUCTION TIME.

The planners at IE Technology developed several solutions that met the client's strategic objectives. Cost was a decisive factor in this process. The planners' task was to identify and exploit potential savings without making any significant concessions in terms of function and quality.

Since reducing the production area was out of the question, the planners at IE Technology focused on optimizing the building concept and structure, as well as the facade. Ultimately, they were able to present the client with a final solution that met the budget target and fulfilled all functional requirements without exception.

Thanks to the partnership between Mikron and IE Technology, the planners' controlled project management, and the involvement of motivated development and construction partners, the expansion of the Boudry factory site, including the construction of the energy center, was completed on schedule to the client's complete satisfaction. The new building is now fully operational and has already been awarded the Swiss Green Building Council's "CERTIFIED" label.



### 27 MONTHS

› From feasibility study to handover

### AUGUST 2021

› Move into and commissioning of the new production hall

### DECEMBER 2021

› Commissioning of the energy center



### 7940 m<sup>2</sup>

› Usable floor space of extension building



### CHF 15.6 MILLION

› Building investment volume

### CHF 2.5 MILLION

› Investment volume for the energy center



### IE TECHNOLOGY SERVICES

› Project management as general planner  
› Feasibility study, tenders, implementation on project, construction execution, and commissioning



# IE TECHNOLOGY

The specialist for industrial buildings.

## We are the IE Group: Your 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. We work in manageable and therefore effective teams of industry experts whose motivation and initiative you can rely on. Because at our company, all employees are involved in the business. It goes without saying that we also give you guarantees on costs, deadlines, and quality. **IE Plast, IE Food, IE Life Science** and **IE Technology** are part of the IE Group, which has been on the market since 1966 and offers the necessary financial backing - even for large construction projects.



AT HOME IN YOUR INDUSTRY



ENTREPRENEURIAL THINKING AND ACTION



ALL EXPERTS UNDER ONE ROOF



SECURITY THROUGH GUARANTEES

## CONTACTS

**IE Technology Zurich**  
Wiesenstrasse 7  
8008 Zurich | Switzerland  
T +41 44 389 86 00  
zuerich@ie-group.com

**IE Technology Munich**  
Paul-Gerhardt-Allee 48  
81245 Munich | Germany  
T +49 89 82 99 39 0  
muenchen@ie-group.com