

Factory Planning & Operations Engineering

Your strategic partner for complex industrial projects



Your challenge is our motivation!

As an independent partner, we support you in all phases of factory planning & operations engineering. From the development of innovative production concepts, and the optimization of existing systems to the verification of economic efficiency.

Embedded in a unique service portfolio

The unique combination of expertise in technological innovation and business consulting makes us one of the few service providers capable of

approaching tasks not only in a specialist and project-oriented manner, but also from an overall entrepreneurial perspective.



Your challenges

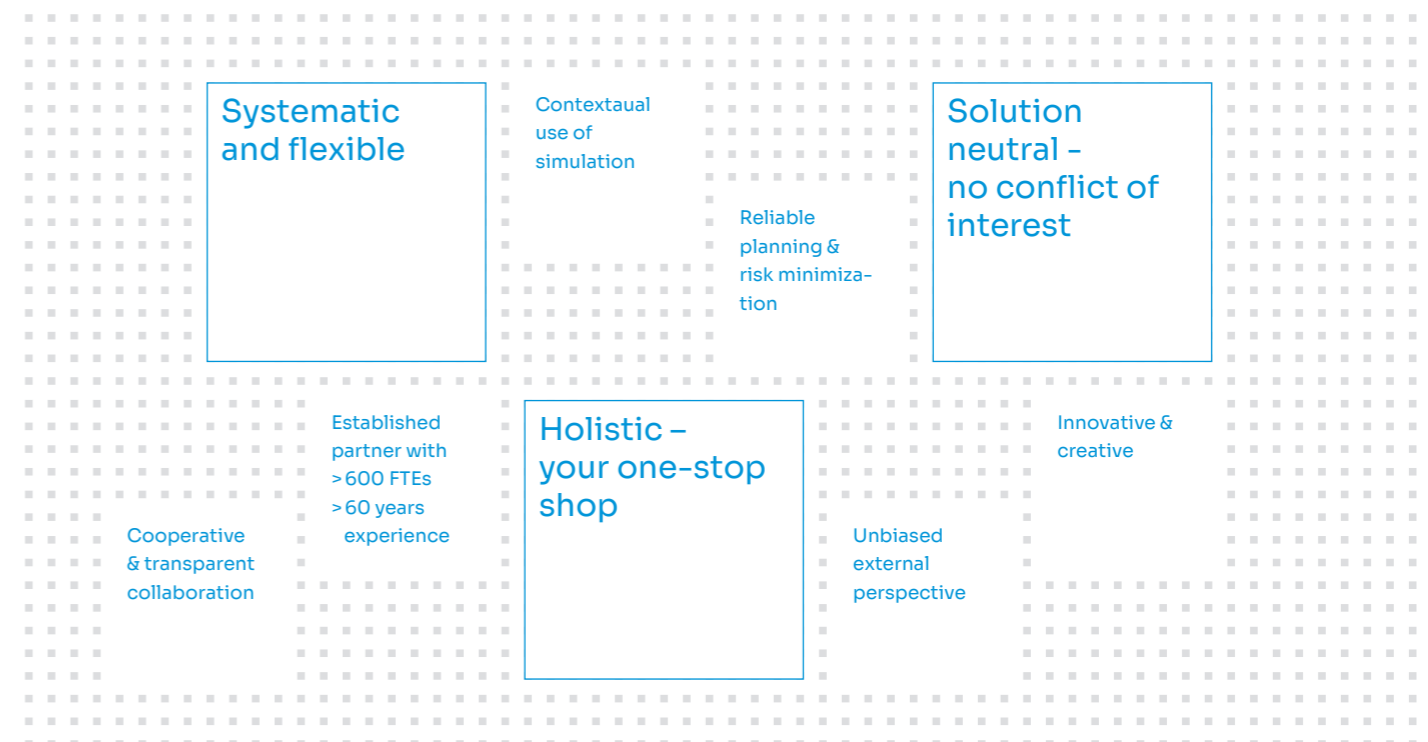
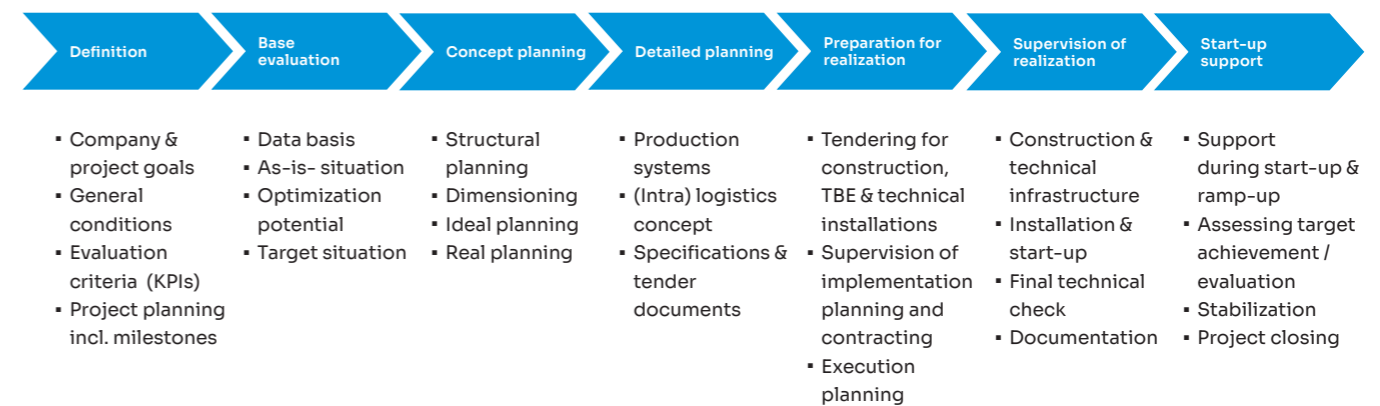
- Planning a new factory / logistics facility
- Redesign / optimization of existing infrastructure
- Taking strategic location decision (consolidation / relocation / acquisition)
- Verification of feasibility and assessment of risks (technology, timeline, and profitability)
- Optimization of capital expenditures and operating costs (increasing competitiveness)
- Definition and implementation of a sustainability strateav
- Design of efficient and resilient supply chains, production and logistics networks
- Throughput improvement / capacity expansion
- Minimization of lead time
- Optimization of inventory
- Definition of the right automation level
- Ensuring on-time delivery
- Ensuring and enhancing quality
- Optimization of production planning and control
- Intearation of Industrv 4.0 / IoT

Why Helbling?

Our systematic approach (based on VDI 5200)

We systematically guide you through all phases of the factory planning process, from the definition of the requirements to the support during realization. This way, we guarantee the best possible result in

terms of quality of implementation, risk minimization, on-time delivery and target costs. As a flexible partner, we adapt our approach to the individual situation and your needs.



Factory Planning & Operations Engineering

Whether you are a production company, logistics firm or maintenance provider – as a flexible and versatile service provider, we support you in all planning matters relating to your business and beyond.

- Feasibility studies
- Factory / facility layouts and site structure
- Planning in a BIM environment
- Interface coordination
- Investment and operating cost calculations
- 2nd Opinion (external view)
- Technical / operational due diligence
- Green-/brownfield projects
- Site location selection
- Project management

Production

For maximum productivity, we plan "from the inside out" and ensure well thought-out and efficient production.

- Maximization productivity per unit area
- Capacity calculations
- Production concepts: Workshop vs. flow production, etc.
- Production strategies: Push vs. pull, batch production vs. one-piece flow, etc.
- Production principles: Make to stock, make to order, engineer to order, etc.
- Make or buy decisions
- Flexible and scalable infrastructure
- Implementation of production planning principles

Logistics

As an independent partner, we support you in selecting and planning the optimum (intra)logistics solution, making a significant contribution to your profitability.

- Concepts to optimize material flow, degree of automation, etc.
- Selection and dimensioning of suitable warehouses, transportation and commissioning systems
- Specification of logistics and packaging systems
- Evaluation and coordination of system suppliers
- Specification of internal load carriers
- Material provision principles: Just-in-Time (JIT), Just-in-Sequence (JIS), Kanban, etc.

Process design and optimization

Right from the start, we approach layout and operating processes as an inseparable unit to achieve holistic optimization.

- Value stream mapping and design
- Optimization of processes and operating procedures
- Identification of bottlenecks
- Coordination with digital planning and control systems (ERP, MES, EWM, etc.)
- Introduction and improvement of Lean principles and Six Sigma
- Evaluation of automation concepts
- Implementation of quality assurance

Digital twin / material flow simulation

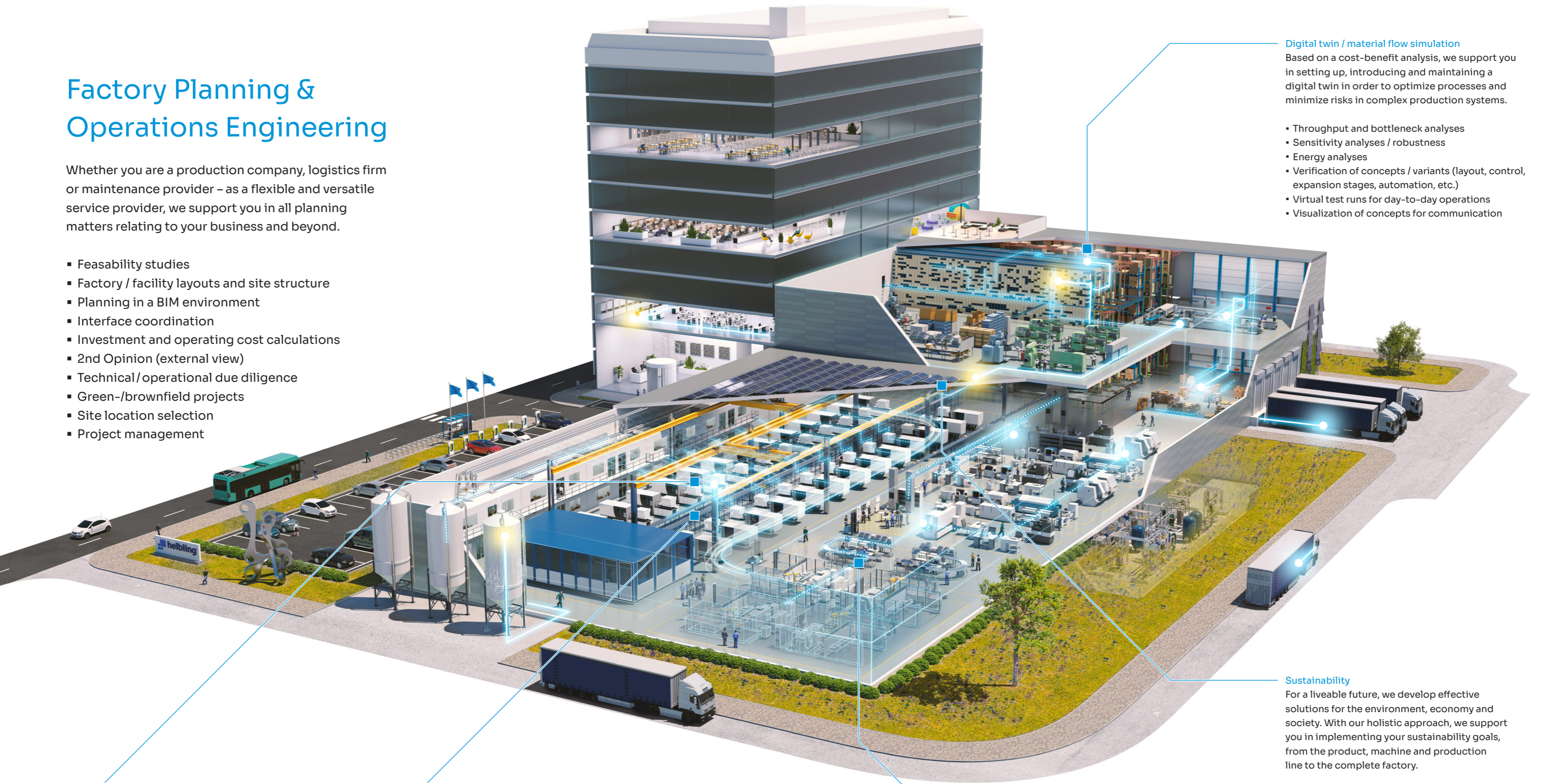
Based on a cost-benefit analysis, we support you in setting up, introducing and maintaining a digital twin in order to optimize processes and minimize risks in complex production systems.

- Throughput and bottleneck analyses
- Sensitivity analyses / robustness
- Energy analyses
- Verification of concepts / variants (layout, control, expansion stages, automation, etc.)
- Virtual test runs for day-to-day operations
- Visualization of concepts for communication

Sustainability

For a liveable future, we develop effective solutions for the environment, economy and society. With our holistic approach, we support you in implementing your sustainability goals, from the product, machine and production line to the complete factory.

- Technology scouting
- Adaptable infrastructure
- Energy-focused layout optimization
- Life cycle assessment (LCA)
- Certification support
- Utilization of synergies
- Sustainable resource management
- Environmental footprint optimization
- Reporting according to ESG



Selected references



RONAL GROUP – Automotive

Development (concept planning, investment proposal, detail planning) and support in the implementation of a highly integrated and automated intralogistics and production system for the construction of a new factory for aluminum wheels in Spain.



SHL Medical AG – Medtech

Planning of layouts, intralogistics systems and processes for multiple sites in a complex and highly regulated environment. Virtual validation & optimization of concepts for different scenarios with a digital twin.

Helbling Group

The internationally operating Helbling Group, which was founded in 1963, positions itself as an interdisciplinary nexus of engineering and consulting expertise. The independent Group is run by 36 managing partners. The Group has its headquarters and four locations in Switzerland, is represented through companies in Germany, Poland, the USA and China and employs more than 620 professionals. The Group's main focus is on providing selected services in the fields of technological innovation and business consulting.

Helbling Technik

Helbling Technik is a division of the Helbling Group, which was founded in 1963 and currently employs more than 500 professionals in Switzerland, Germany, the USA and China. The vision "Innovation, together we do it" positions Helbling Technik as a trusted long-term partner within clients' innovation network. Helbling Technik's highly trained and skilled Engineers, Computer Scientists, Physicists, and Human Factors experts utilize state-of-the-art development tools, processes, laboratories and equipment to develop innovative and successful products and support clients.

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