## **COMPREHENSIVE TUNNELING SOLUTIONS.**

ENGINEERING EXCELLENCE.



## TARGETED DESIGN AND CONSULTING SERVICES.

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# COMPREHENSIVE TUNNELING SOLUTIONS

Society's high demands on mobility, and the many different requirements for the protection of our living space and environment, call for increasingly complex underground transportation systems. In order to be able to deliver sustainable and future-proof solutions, efficient interdisciplinary interaction over the entire life cycle of a structure is a prerequisite. With decades of experience in offering a comprehensive range of services, across a number of areas of expertise, and with a one-stop approach to meeting clients' needs, ILF is the ideal partner for the planning, design and implementation of underground road and rail systems.

#### DESIGN

More than 100 experienced experts from the various tunneling disciplines support clients to find optimal solutions for their high-profile projects. Whether in the area of geology or geotechnics, with design services relating to transportation, structures, equipment, safety and security, or with environmental topics, ILF's experts consult clients in an individualized and reliable manner. Knowledge and experience in applying modern design tools (like BIM) or sophisticated simulation tools for the optimization of tunnel equipment, guarantee that cost-effective, state-of the-art solutions are found for construction and rehabilitation projects.

#### CONSTRUCT

Drawing on sound expertise from many years of experience in construction, and offering the complete range of construction-related services, ILF ensures that its clients' interests are both represented and pursued during the construction stage. In addition to the classical tasks involved in project management, construction management and construction supervision, ILF also takes on tasks that are necessary for the smooth commissioning of tunnels, such as professional flow and grounding measurements or expert fire tests.

#### **OPERATE**



and its proven track record of successful cooperation with major infrastructure operators, ILF has the necessary expertise to rise to the challenges posed by operating underground transportation systems. This know-how enables future operational needs to be taken into account early on, during the planning stage, and qualified consulting services to be provided, in order to meet operational requirements such as availability and safety of infrastructure or the management of extraordinary events. Efficient instruments, such as highly-developed quantitative models or multidisciplinary assessment models, form the basis for safe, secure and economic solutions.

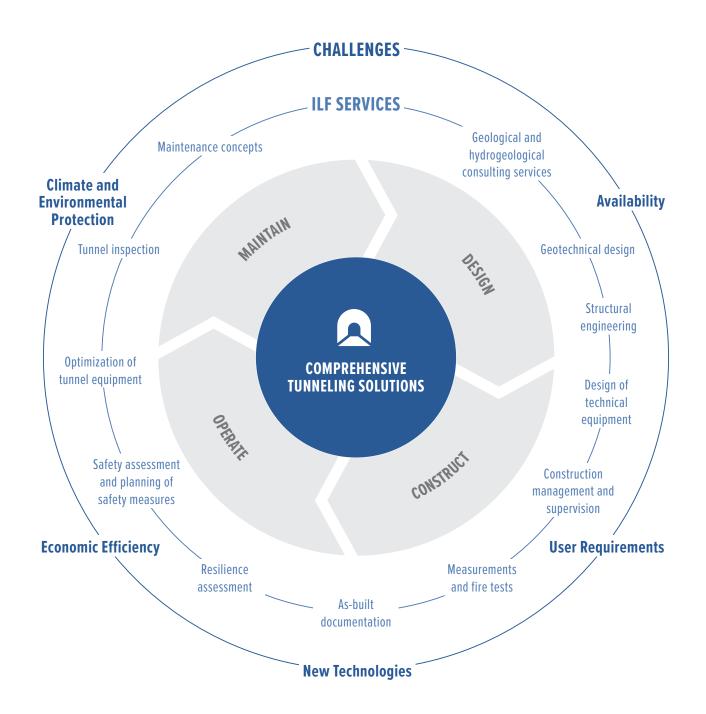
#### MAINTAIN

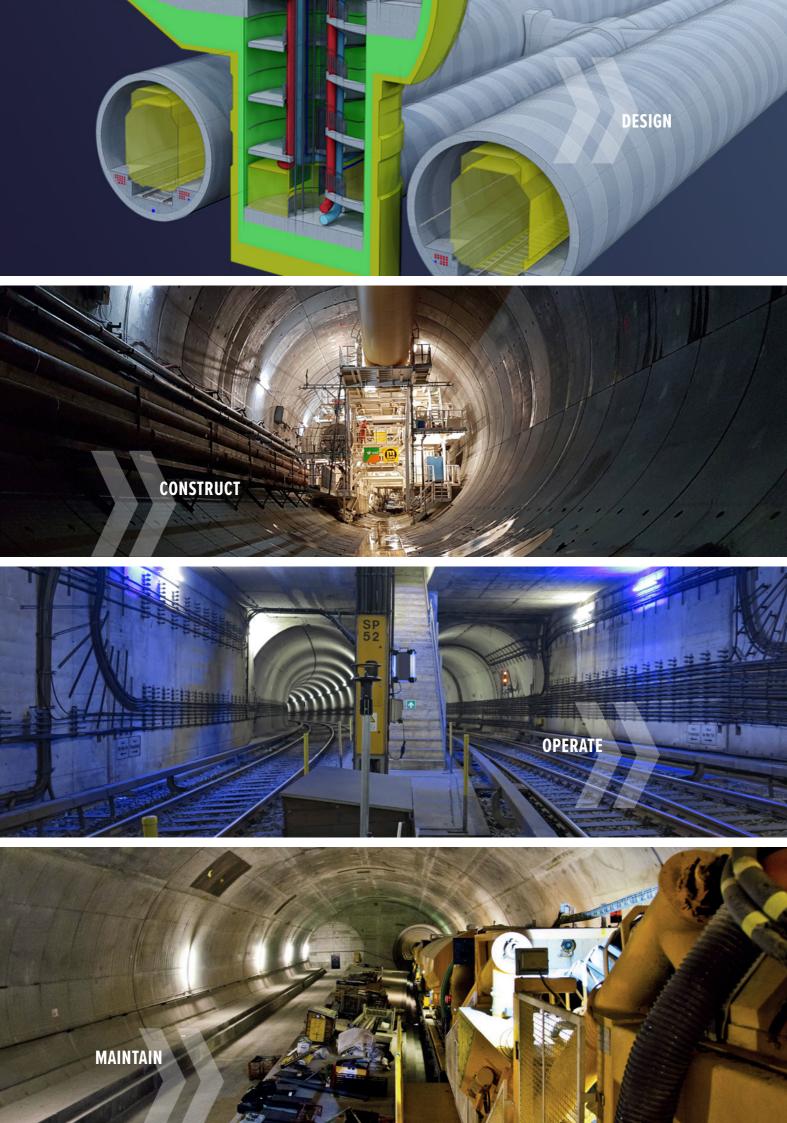
The maintenance and repair of aging infrastructure in underground transportation systems, whilst they are in operation, raises complex issues that are closely linked to planning, constructional and operational considerations. By combining an interdisciplinary approach with innovative thinking, ILF is able to deliver optimal, integral solutions for the renewal, maintenance and repair of tunnels and technical equipment. "The provision of design and consulting services for the construction, operation and maintenance of tunnels constitutes some of ILF's core competences."

Bernhard Kohl Business Group Director Transportation & Urban Spaces



### FOCUSSING ON INTEGRAL SOLUTIONS.







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