46 years collaborating with the progress of Chile

Infrastructure - Environment - Energy - Complex Projects - Technical Inspections - Mining and Industrial Processes
EN Ingeniería is an organization with more than 46 years of experience collaborating with the progress of Chile.

We are the leading company in the development of engineering consulting and project studies within the region.

Since its inception in 1974, LEN has addressed Infrastructure projects of increasing importance and size, highlighting its participation in works of great significance for the growth of the country, such as highways and urban and intercity roads, ports, railway projects, docks and underground parking, among others.

Our vast resources allow us to have the necessary experience to address new areas of engineering, as well as projects of various magnitude, concentrating in works of road infrastructure and transport, energy, technical inspection of works, environment and territory, special projects, mining and industrial processes, hydrology, hydraulic works and irrigation, telecommunications, railway, among others, positioning itself as one of the leading Chilean companies with the greatest reliability in the field.

This is how LEN has started an important process of diversification, incorporating new divisions into its work, each with highly qualified professionals. Decades of experience support our teams into a comprehensive understanding of every possible technical challenge. We master advanced technics which guarantees best-class solutions in the industry.
mission

We are a multidisciplinary engineering organization recognized by its technical and human quality. Driven by Excellence, we meet the needs of our external and internal customers by delivering professional and reliable services leading the development of the industry.

vision

To be a leading company in engineering for the progress of Chile and Latin America.

values

**COMMITMENT:** Our commitment born from our strong convictions and love on what we do. It allows us to move ourselves from promises to facts generating a positive outcome not only with our teams but also with our customers.

**RESPECT:** We recognize the rights and dignity of our most important asset: our People

**HONESTY:** Our everyday work is defined by the value of truth and transparency.

**LOYALTY:** We act with loyalty and a deep sense of belonging to what we are. Our behavior will never have a negative impact to our People and Customers.

Pedro Inojosa Bañados
Chief Executive Officer,
36 years of experience in Civil Engineering in the field of Construction
Road Infrastructure and Transport Division

This division groups our main experience in the areas of road infrastructure; both, urban and suburban. LEN counts with solid knowledge in the field of transport systems and design of road projects, ranging from its conceptual definition, feasibility and demand studies, through the preliminary and definitive design and up to the technical specifications of construction and determination of investments.

LEN Ingenieria has developed significant infrastructure engineering projects for the Ministry of Public Works, both concession works and direct administration.

LEN developed the Road Manuals currently in force, volumes 2,3,5,7 and 8, with the procedures, instructions and criteria of design, maintenance and methods of sampling, testing and control in the area.

Claudio Muñoz R.
Civil Engineer
with 28 years of experience
Manager
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PROJECTS:

- Industrial Bridge concession project
- Construction engineering study Maipo Bridge - Route 5 South
- Improvement Route F-30, Concon Cemetery Sector - Concon Roundabout
- Manquehue Link
- San Cristobal Tunnel
- Las Chilcas
Technical Inspection of Works Division

Formed by a multidisciplinary professional team, this division is responsible for the integral control of a contract, both in the initial phase of construction as well as the development of the project. This is done having complete adherence to the stipulated terms of the contract. For example: construction and operation stages of a work, taking care of the exploitation compliance with what is indicated in its bidding bases, legal and contractual provisions, including both administrative and technical obligations; including quality of works, problem identification, risk prevention, coordination of modifications, monitoring of progress and review of payment statements.

Pablo Fuenzalida A.
Civil Engineer
with 22 years of experience
Manager
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Projects:

Advice to the O’Higgins Basic Roads Tax Inspection, Group 35, Route I-518, Las Comillas-Nuevo Reino Sector, O’Higgins Region.

Advice to the fiscal inspection for mixed global conservation route 23-ch step by step Sico.

Advice to the Fiscal Inspection for Mixed Global Conservation Route 23-Ch to Paso Sico, Province of the South Loa, Antofagasta Region.
Mining and Industrial Processes Division

Business unit: “Mining and industrial processes” focus in the development of consulting projects, conceptual studies of basic and detail engineering, including technical specifications and CAPEX analysis. On top of that, the vast experience of our teams allows us to manage and advice models of contractual projects.

Sergio Rosales T.  
Civil Engineer  
with 37 years of experience  
Manager  
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Services we offer:

1. Mining infrastructure and other processes  
   • Construction and operation camps.  
   • Administrative and industrial buildings.  
   • Truck and annex workshops.  
   • Platforms and access roads.  
   • Catchment and supply of industrial water and treatment plants  
   • Hydraulic tunnel and platform sanitation

2. Mining process buildings  
   • Crushed ore  
   • Grinding  
   • Classification

3. Design of tailing and dam system  
   • Tailing transport  
   • Recovery of tailing water  
   • Handling and disposal of tailing  
   • Tailing removal and transport.

4. Pipe transport  
   • Water transport.  
   • Hydraulic transport of conventional tailings.  
   • Air and gas transport.  
   • Transporting acidic solutions

5. Cellulose plant buildings  
   • Digester  
   • Bleaching  
   • Machine  
   • Packing  
   • Boiler and Turbo  
   • Maintenance  
   • Storage  
   • Administration, general offices and canteens  
   • Access control trucks and smaller vehicles

6. Railway lines and chip stockpiling

7. Electric rooms

8. Cellulose plant peripheral services  
   • Intake  
   • Water treatment plant  
   • Plant treatment effluents  
   • Compressed air  
   • Chemical plant  
   • Oxygen plant  
   • Roman scale
Participation can be at different stages of project development, such as:

1. Consultancies
   - Technical audit of projects.
   - Risk studies.
   - Strategic planning.
   - Asset valuation and due diligence.
   - Comparative studies (benchmarking).

2. Pre-investment phase
   - Profile studies.
   - Pre-feasibility studies.
   - Conceptual engineering.
   - Basic engineering or feasibility.
   - Cost studies and project evaluation.

3. Investment phase
   - Detail engineering.
   - Field engineering.
   - Technical audit of works.
   - Technical inspection on field and factories.
   - Operating and commissioning manuals.

4. Start-up phase
   - Training and training of operators.
   - Pre-commissioning.
   - Commissioning.
   - Start-up assistance.
Inclusion of high-level engineering in the field of Sustainable Energy, in aspects of Energy Efficiency (EE), Non-conventional Renewable Energy (ERNC) –especially Photovoltaic Solar Energy and Wind Energy, and Carbon Footprint, this Business Unit seeks to be a contribution to the value chain of our Customers.


Rodrigo Cristi R.
Civil Engineer
with 24 years of experience
Manager
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PROJECTS:

Floating photovoltaic plant in tailing pond

Interactive Mirador Museum

Basic Engineering and Details System FV
20 kWp Rooftop – Viña Cousiño Macul

Photovoltaic park “Hope”
Environment and Territory Division

The Environmental Division concentrate its efforts in both the private and public sectors, ensuring sustainability while minimizing the negative impact to the environment and its costs.

Len’s accumulated experience in diverse types of projects, ensure pinpoint accuracy with guaranty of quality and satisfaction.

Our Services:

- Project Management in the Environmental Assessment Division
- Environmental Impact Studies
- Declaration of Environmental Impact
- Environmental Relevance Analysis
- Environmental baselines
- Environmental and Territorial Impact Studies
- Compliance Audits and Environmental Monitoring
- Environmental Management and Management Plans
- Environmental Due Diligence
- E-P Equator Principles
- IFC International Policies
- Finance Corporation -World Bank Policies
- Advice on environmental legislation and compliance verification.
- Application and the Securement of Sectoral Permit Management

René Tobar Q.
Civil Engineer
with 30 years of experience
Manager
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Projects:

- Modification of the RCA of the Chronta Irrigation Reservoir
- Sulphuric Acid spillage on railway infrastructure inside the terrain of the Terquim discharge terminal.
The Complex Projects Division aims to deliver support services in the pre-feasibility, subsequent feasibility and detail phases to industrial projects, miners, road infrastructure, railway, energy, ports and others.

Services are oriented in the following areas:

**Early works**: Movement of land platforms, deposit of waste, emergency pools, access roads, contour channels.

**Infrastructure**: Industrial facilities urbanization, roads, railways, sanitation rainwater, pavements.

**Permit**: Modifications of water courses, regularization and preservation of water courses, parallelism and transversal studies, EFE road splices, feasibility accesses, interference with gas services, high voltage lines, miner ducts etc.

**Private infrastructure initiatives**: Support and follow-through, from the beginning of a project in conceptual engineering, and basic engineering and detail.

**PROJECTS:**

- Access from Public Roads
- Ground Movement Platforms Early Works
- Railways industrial plants
- Emergency lagoons

**Pedro Villablanca C.**  
Civil Engineer  
with 37 years of experience  
Manager  
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Hydraulic Works and Irrigation Division

This team is responsible for giving solution of various hydraulic engineering challenges, allowing, among others, the best use of the water resource, as well as the security of the territory being managed and the improvement of the quality of life for people living in the area.

Our staff seeks to contribute to the harmonious and sustainable development of the environment in which its projects are inserted through the advice, engineering, management and inspection consultancy in projects and works for the following areas:

- **Irrigation**: through the design of dams, main and distribution channels.
- **City drainage**: with the design of rainwater collectors
- **Alluvium control**: using structures for the solid retention in streams, upstream of the city and works of fluvial defenses.
- Drinking water for the rural towns and villages of the country.

**PROJECTS:**

1. **Advice to the Fiscal Inspection “Review and Validation of Small Dams Studies Macrozone North and South, Phase II”**
   - Client: Irrigation Projects Department, Hydraulic Works Department, MOP.
   - Location: Metropolitan Region.

2. **Fiscal Inspection Advice “Review and Validation of Small Dams Studies Macrozone North”**
   - Client: Irrigation Projects Department, Hydraulic Works Department, MOP.
   - Location: Metropolitan Region.

3. **Advice to the Fiscal Inspection “Review and Validation of Dam Studies in basins La Ligua and Petorca, Valparaiso Region”**
   - Client: Irrigation Projects Department, Hydraulic Works Department, MOP.
   - Location: Metropolitan Region.
EN Ingeniería is a multidisciplinary company that conducts Engineering Studies and Technical Inspection services at all stages of the project lifecycle for customers in the public and private sector, ensuring sustainable solutions with technical and human quality, reflected in a continued commitment to excellence.

**According to the above, LEN Ingeniería is committed to:**

- To fully meet the needs of our customers and other stakeholders, ensuring resources for the proper development of our services, implementing operational controls that prevent occupational safety and health damage and the implementation of controls that contribute to the reduction of the environmental impact generated by the activities of LEN INGENIERÍA.

- Ensure the quality of our services throughout its value chain, involving employees, customers, suppliers and other stakeholders.

- Develop an Excellence driven culture committed to provide safety and health at work, with the environment and society, through contribution to the sustainable growth of the country.
• Provide our teams with best in class working conditions, in order to prevent injuries or health deterioration of LEN’s most valuable asset: our People. Management to eliminate hazards and reduce risks to occupational safety and health. Ensuring the participation and consultation of staff and their representatives.

• Establish a Continuous improvement system of all our working processes, in order to contribute to environmental protection, pollution prevention, and a sustainable use of resources which mitigates climate change as the main threat for future generations.

Through the implementation of Integrated Management Systems Policies, LEN Ingeniería guarantees compliance with ISO 9001, ISO 14001 & ISO 45001 standards and provides our clients with the highest standard in the Consulting Engineering Industry. Our long-term commitment to our strategic partners and customers is based on the fulfillment of our Vision, Mission and corporate values, pillars of LEN Ingeniería sustainability over time.
company's registrers

LEN HAS A FIRST SUPERIOR CATEGORY AS CONSULTANT OF MPW-MINISTRY OF PUBLICS WORKS in the most relevant areas of engineering:

- Roadwork
- Road Safety
- Inspection of Roadworks and Airports
- Transportation Systems
- Economic, Financial and Tariff Studies
- Soil and Rock Mechanics
- Geo-measuring and Topography
- Transit Engineering
- Hydrological, Hydrogeological and Methodological Studies
- Structures (bridges, viaducts, walkways, retaining walls, etc.)
- Hydraulic and Irrigation Works
- Environment
- Civil Works Inspection and Laboratory
- Cadastres
- Fluvial Works
- Geology, Prospecting and Geophysics

In addition, it has records:
- REGIC
- SICEP
- REPRO
- SERVIU
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