

NEED GLOBAL MANUFACTURING SOLUTIONS?





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1.0 YOUR BUSINESS AND GOLDER

More than ever, manufacturers are confronted with environmental issues that impact performance, cost, and production. The success of your business is top priority at Golder Associates. From helping you navigate complex regulatory environments to developing plans and implementing procedures, we work with you to increase access to resources, maximize production and minimize costs.

We assist clients across the globe at all stages of the manufacturing cycle: new development and mergers; operations and compliance; divestment and closure. In each case, we have assisted our clients in either making money or saving money by enabling development, taking opportunities, reducing costs, minimising liabilities or ensuring regulatory compliance.

We provide a broad range of services to the following industries:

- Automotive and Transport
- Chemical Industries
- Electronic Manufacturers
- Food and Beverage
- Forestry
- Industrial Goods and Services
- Personal and Household Goods
- Pharmaceutical & Health Care
- Primary Metals
- Telecommunications



2.0 YOUR COMPANY, OUR BUSINESS

Golder Associates is driven by our purpose to “engineer earth’s development” while “preserving earth’s integrity”. As a global, employee-owned company with over 50 years of experience, we deliver solutions to our clients by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields.

Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth, now employing more than 8,000 people who operate from more than 180 offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

3.0 YOU HAVE ACCESS TO OUR GLOBAL NETWORK

Being a global consulting company means that Golder can offer locally-based teams in each of its offices around the world. These professionals are familiar with the local regulatory environment and commercial conditions, and speak the local languages. We can represent your interests in Thai, French, German, Spanish, Italian, English, Swedish, Finnish, Hungarian, Romanian, Polish, Chinese, Arabic, Russian, Turkish, Portuguese, Norwegian, Dutch and many other languages.

A strong tradition of technology transfer, supported by an international network of electronic communications, allows Golder to apply global experience to local problems. We are large enough and international enough to succeed with the most extensive and challenging environmental and engineering problems around the world, but we are also committed to our local markets. International and domestic companies – large and small – trust Golder to help manage their environmental responsibilities.

4.0 GLOBAL COMPANY WITH THE EXPERIENCE YOU CAN TRUST

GLOBAL SECTOR HIGHLIGHTS

The tables below showcases Golder solutions that have been applied to our Global Manufacturing clients; we have removed our clients' names to respect and protect their confidentiality.

AUTOMOTIVE AND TRANSPORT	
SERVICE	DESCRIPTION
Energy Study	Detailed engineering study to improve compressed air system energy efficiency.
Due Diligence	Pre-purchase environmental and geotechnical due diligence on over 50 green/brown fields.
Environmental Management and Compliance	Soil and groundwater investigations, risk assessment, permitting and assessment for disposal at facilities.
Life Cycle Assessment	Identification of key life-cycle considerations and data sources in designing steel components.



BUILDING MATERIALS, CEMENT AND AGGREGATES	
SERVICE	DESCRIPTION
Resource Access Planning and Management	Created value for our clients by achieving innovative ways to Access Resources through; site selection, intrusive investigations and evaluation of reserves, life cycle assessments, extraction and mine planning, and permitting of new resources.
Permitting of Alternative Fuels, Energy & Power Generation	Conduct multi-disciplinary studies to assess the feasibility of and permit the use of alternative fuels in cement plants. Completed energy management and consumption studies and assessed power generation concepts for the purpose of alternate sources of income or cost off-setting at cement and aggregate facilities.
Biodiversity Assessment & Design	Developed and implemented biodiversity plans that have helped our clients achieve recognition in their Corporate Social Responsibility metrics related to the environment. This assisted in Social, Media and Stakeholder engagement programs and improving client access to resources.
Construction Material Research & Development	Provide construction material expertise, supported by state of the art aggregate and materials testing facilities to help our clients with research and development of their products and supplying third party verification on performance.
Mergers, Acquisitions & Divestment Auditing	Third party auditing of potential mergers and acquisitions that our clients engage in and also providing them with baseline environmental, health and safety; such as areas of risk to worker safety, including exposure thresholds through industrial hygiene assessments, and resource baseline data for divestments.





CHEMICAL AND PHARMACEUTICALS INDUSTRIES

SERVICE	DESCRIPTION
Air Services	Dispersion modeling analysis for coal-fired cogeneration facility located and Class I impacts evaluation.
Permitting	Title V applications and permitting assistance at chemical manufacturing facilities.
Site Remediation	Project planning; site reconnaissance; gap analysis; development of estimating template and estimating and reporting.
Environmental Management and Compliance	Site closure, including Phase I and II ESA; borehole creation, piezometric surveys; groundwater sampling; remediation and decommissioning plan.
Auditing	Process Safety Management Auditing.
Auditing: Supply Chain Environmental Monitoring Program	Environmental assessments of the suppliers' manufacturing sites for the purpose of developing an environmental profile.



ELECTRONICS MANUFACTURERS

SERVICE	DESCRIPTION
Site Assessment and Remediation	Expansion of an existing pump and treat system to provide enhanced groundwater containment and improve the efficiency of operational controls.
Mergers and Acquisitions	Numerous environmental projects undertaken ranging from pre-acquisition, divestiture, and compliance audits.
Industrial Hygiene	IH exposure monitoring (Lead in wave soldering, melting and manual welding; Formaldehyde in adhesive operation; Noise) and local exhaust ventilation testing.
Due Diligence	Vendor Due diligence and sale preparation of 27 cable manufacturing facilities.

FOOD AND BEVERAGE

SERVICE	DESCRIPTION
Environmental Audit, Waste Minimization/ Reduction, Water Use Reduction/ Effluent Reduction/ Wastewater Treatment	Benchmarking US and International Water Minimization; Multi-Barrier Treatment Evaluation focused on water reuse, rainwater harvesting and reuse evaluation globally; sourcewater and plant assessments.
Environmental Site Assessments (ESA)	Soil and groundwater quality investigation and Phase I & II ESA.
Industrial Hygiene and Remediation	Occupational Hygiene Assessment and a Remedial Action Plan for groundwater impacted by facilities operations.
Permitting	IPPC permit applications assistance, materials surveys, air dispersion modelling, site decommissioning, and gap analyses for compliance with occupational health and safety management systems.
Energy Services	Design of a metering and data acquisition system to reduce utility consumption.
Waste Management	Provided consulting on alternative methods for disposal; provided geotechnical investigation, landfill auditing and extension design, and site construction supervision.



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FORESTRY CLIENTS

SERVICE	DESCRIPTION
Site Remediation	Environmental site assessment; remedial planning; remediation contract preparation and monitoring for chlorophenol dip tank site remediation.
Regulatory Compliance Audits	Comprehensive environmental health and safety audits to 50 facilities.
Air Pollution control	Design study to estimate air flow required to capture hazardous air pollutant emissions.
Energy Audits	Audit of GHG emitting fuel sources as a third party verification for publication of a sustainability report.
Life Cycle Assessment	Analysis to quantify Scope 3 GHG emissions associated with the production and transportation of chemicals.
Decommissioning	Project management, environmental services, engineering services and remediation contracting.





INDUSTRIAL GOODS AND SERVICES

SERVICE	DESCRIPTION
Environmental Health and Safety (EHS) and Compliance	Review of manufacturing facilities for EHS compliance and potential land legacy issues.
Due Diligence	Review of operations and liabilities as part of airport privatization activities.
Air Permitting	Air permits for space shuttle solid rocket booster refurbishment facility.
Certificate of Approval (CofA)	Preparation of an application for a Basic Comprehensive CofA certificate of approval for air and noise emissions.



PERSONAL AND HOUSEHOLD GOODS

SERVICE	DESCRIPTION
Site investigation and remediation	White goods manufacturer evaluation & remediation of operating legacy assets.
Waste Discharge Compliance	Clothing manufacturer evaluation of water discharge process and compliance.
Regulatory Compliance	Compliance audit of clothing manufacturer.
Industry Hygiene evaluation	IH evaluation and solution design for international cosmetic operations.

PRIMARY METALS	
SERVICE	DESCRIPTION
Geotechnical Investigation	Offshore geotechnical field investigation for a new docking facility.
Geomatics and remote sensing	Prioritization of new bauxite exploration areas through the use of remote sensing and digital elevation data processing.
Emissions Inventory	Comprehensive emissions inventory of aluminum smelter in support of permit amendments and in accordance with municipal environmental requirements.
Waste Management	Waste Management system review and waste diversion work plan development.
Geochemistry and Waste Management	High-level review of current and future waste management strategy; including, risk classification, assessment of disposal methods, and identification of off-site potential waste streams.



Photo by J.C. 2086 stockx

TELECOMMUNICATIONS	
SERVICE	DESCRIPTION
Mergers and Acquisitions	Review of over 100 operations as part of a purchase.
Due Diligence	Due diligence review to assess exposures with operations in preparation of an approximately 100 Billion insolvency protection exit.
Remediation	Supplemental Site Assessment and remedial plan.
Geotechnical	Geotechnical engineering support for directional drilling; archaeological monitoring and environmental impact assessment on a river crossing.



JUST **ASK** GOLDER

We help you find the balance between a successful manufacturing business and natural resource preservation. Our team of experts supports your business strategies by identifying risks, liabilities, and costs associated with engineering and environmental exposures and we provide the solutions you need to reach your corporate sustainability goals.



5.0 SERVICES AVAILABLE TO YOU

Health and Safety and Industrial Hygiene

We understand that safety is vital to your operation and that is why we work with you to prioritize risks and maintain regulatory compliance. Some of our most commonly requested solutions include but are not limited too the following:

- Hazardous materials assessment and management
- Indoor air quality, noise and vibration assessment
- Fungal investigative and building science services
- Health and safety, ergonomics
- Radiation protection
- Confined space assessments and training

Environmental Health & Safety (EHS) Compliance for your business

Helping you maintain regulatory compliance and achieve your sustainability targets, we provide the following key services:

- EHS compliance program development
- Compliance auditing
- Employee training development and delivery
- Waste management
- Emergency response planning
- Agency reporting

Energy and Sustainability Solutions

Golder provides you with innovative solutions that maximize efficiency and reduce long-term costs. Some of our solutions in this area include:

- Risk and opportunity assessment
- Identification of sustainability indicators and metrics
- Water use and waste reduction, wastewater and waste management
- Energy management and carbon footprint reductions
- Development of corporate sustainability policies, programs, and reports (including ISO 50001)
- Life cycle assessment tools for evaluation of resource efficiency

Environmental Due Diligence (EDD)

We provide the financial and compliance risks assessments you need during corporate acquisitions and divestitures. Examples include:

- Environmental and geotechnical liability
- Entry and exit assessments
- Hazardous building material audits
- Ecological assessment services
- Climate change vulnerability assessment

Assessing Site Contamination and Remediation of your Sites

The environmental liability associated with soil and groundwater contamination is challenging for all our clients; our proven expertise preserves the value of your assets and minimizes complex liabilities with the following services:

- Environmental site assessments (Phase I, II, III)
- Strategy development for regulatory approval
- Risk assessments and risk management strategies
- Expert testimony and litigation support
- Remediation system design, construction, operation and maintenance

Demolition and Decontamination

We support all phases of your redevelopment projects ensuring that adequate emphasis is placed on pre-project planning, safety, liability management, and cost control. Some of our core services in this area include:

- Preliminary site assessment
- Selection and design of remedial activities
- Implementation of selected remedies
- Overseeing site redevelopment program
- Long-term Operations and Maintenance (O&M)

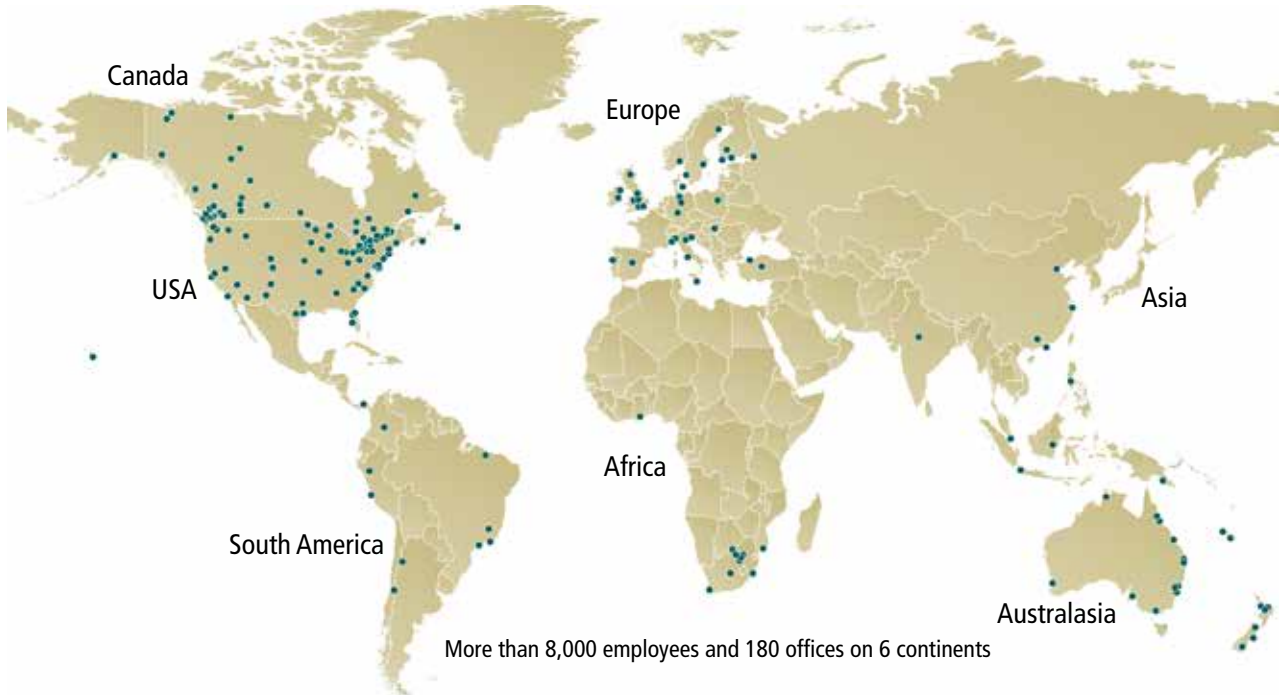
Building from the Ground Up

Developing new facilities? Golder provides specialized support for new construction, including:

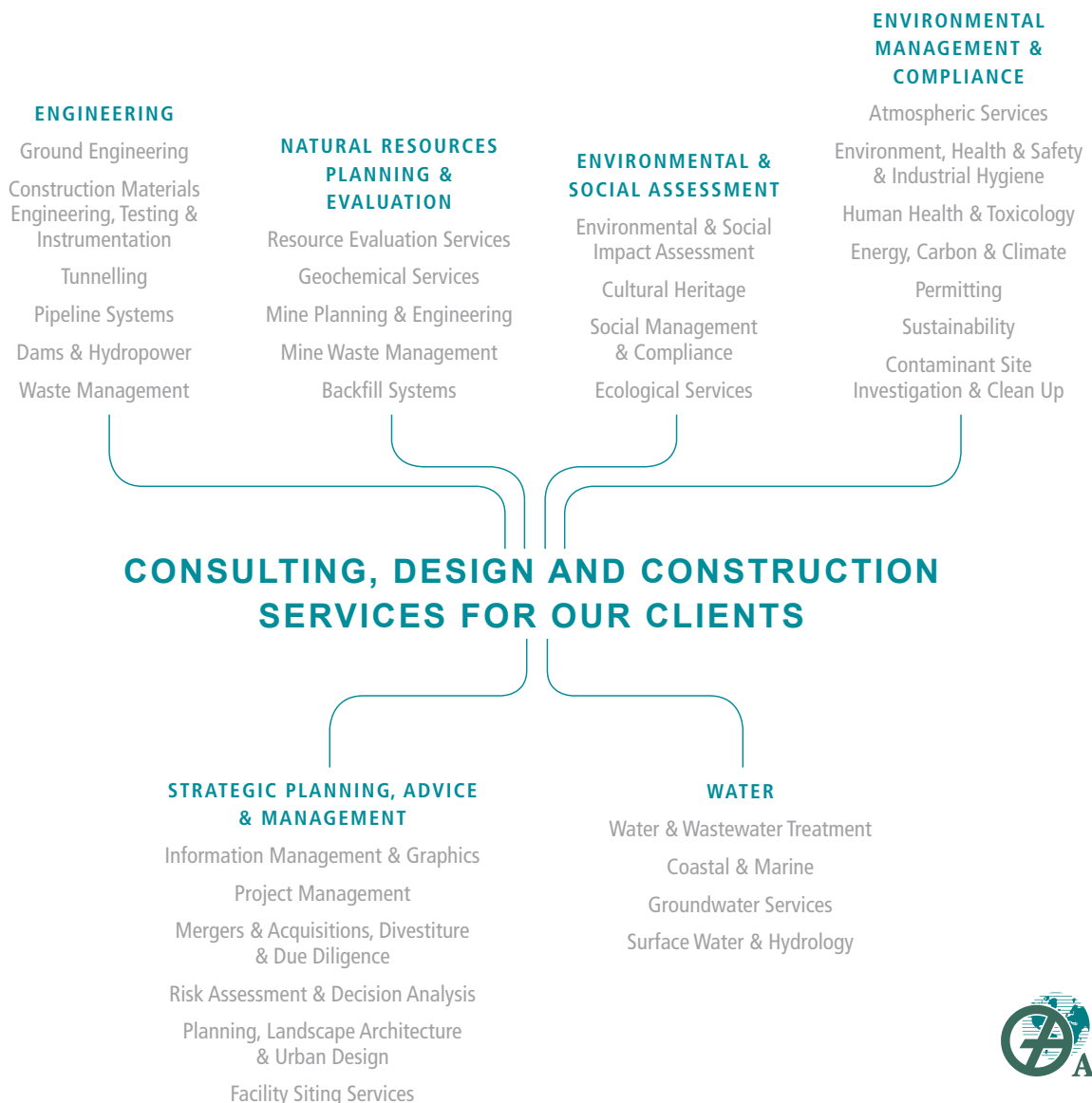
- Construction testing and inspection
- Facility permitting, including environmental impact assessments
- Facility sustainability planning



6.0 LOCATIONS TO SERVE YOU GLOBALLY



7.0 WE CAN PROVIDE ALL THE SERVICES YOU NEED



MAKE YOUR BUSINESS DECISIONS ON A SOLID FOUNDATION.
CHOOSE A COMPANY WITH THE TECHNICAL EXPERIENCE AND COMMITMENT
TO SERVICE EXCELLENCE AND SUSTAINABILITY THAT YOU NEED TO BE SUCCESSFUL.

JUST ASK GOLDER

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ENGINEERING EARTH'S DEVELOPMENT, PRESERVING EARTH'S INTEGRITY.

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