

TATA CONSULTANCY SERVICES

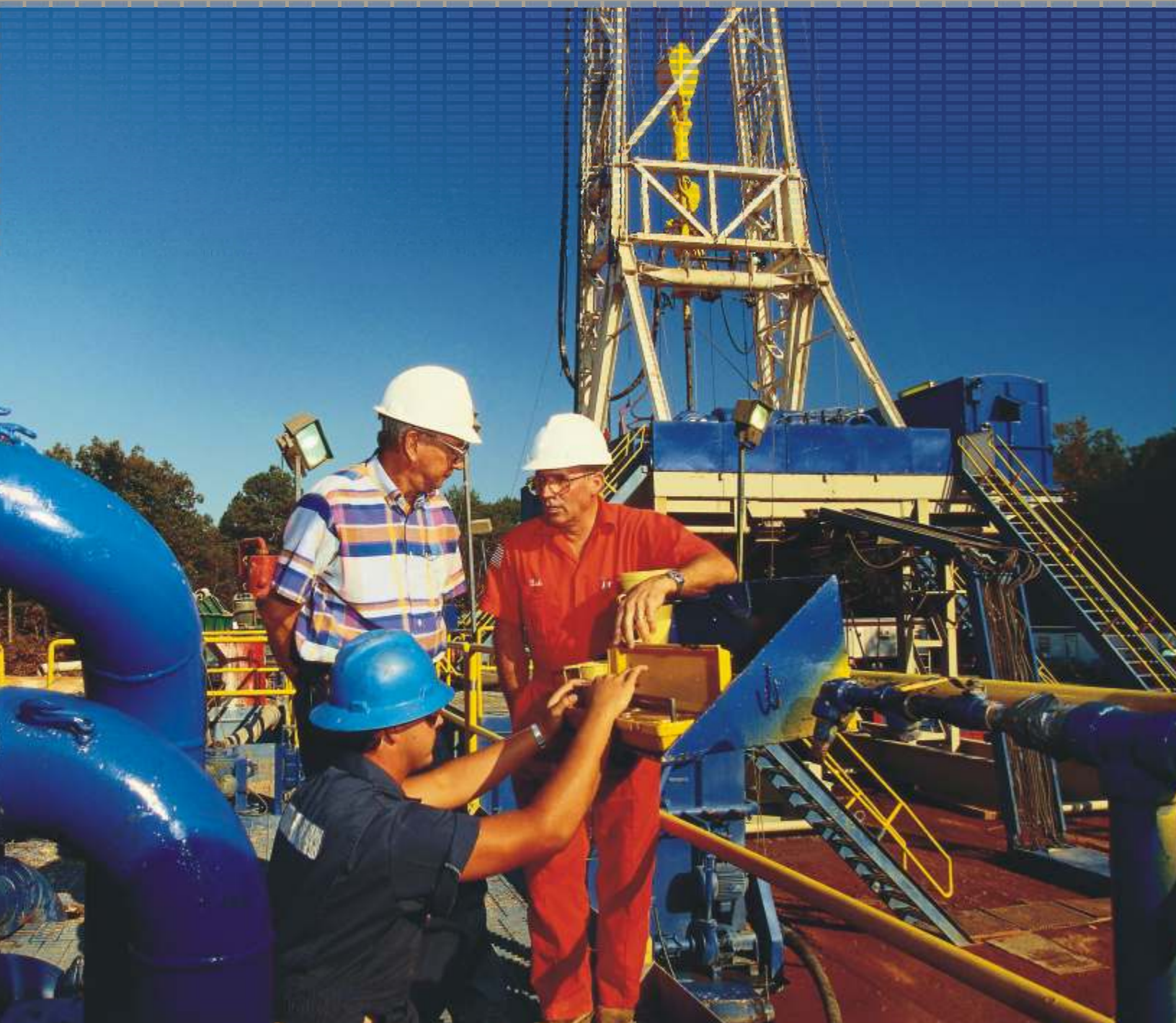
Experience certainty. IT Services
Business Solutions
Outsourcing



Industrial Machinery

Power, Oil & Gas, Material Handling, Earthmoving
& Farm equipment

Engineering and Industrial Services



The increased demand for global infrastructure, manufacturing, material handling, transportation, and focus on rural agriculture (mechanized farming) have raised the requirement for industrial machinery and heavy engineering in their respective sectors. Original Equipment Manufacturers (OEMs) such as yourself in a commitment to meet large orders, need to quicken time-to-market through concurrent engineering taking advantage of globalization and offer competitive pricing. At Tata Consultancy Services (TCS), we help you meet the growing industry challenges with engineering and engineering-IT through domain solutions. Our services across this industry life cycle help you respond effectively in meeting industry challenges through value differentiators like innovation, Lean Concept, and process maturity under a global engineering environment.

Overview

Globally increasing demand for energy, coupled with depleting fossil fuels, green energy and emission compliances, drive the need for energy efficient machines for Power and Oil & Gas industry. Beyond power generation, there are increasing demands for energy saving devices and reduction in power loss in the Transmission & Distribution sector. While you strategize to capitalize on market demand, we can complement your efforts through our expertise in technology and domain services. Our team of professionals helps you to address the industry challenges such as

- Build energy efficient machines
- Comply with emission norms and environmental regulations
- Energy conservation in Transmission & Distribution sector: Efficient power distribution & reduction in transmission losses
- Product adaptation for localization
- Modularization and standardization requirements
- Increasing demand for innovation and new product development

Why TCS

Our global presence ensures efficient delivery across continents, while our Global Network Delivery Model™ gives you cost, quality and capacity advantages. We have single-window operations, to make our engagements smooth and efficient, and are backed by Centers of Excellence (CoEs) to augment domain competencies and flexibility. Our strengths include:

- **Domain expertise** with a rich pool of experts who have worked in design and engineering of machineries for various industrial segments – power and process machineries, oil and gas, material handling, earthmoving and farm equipments.
- **Valued alliances** with premier institutions like Indian Institute of Technology (IIT), Indian Institute of Science (IISc), Central Manufacturing Technology Institute (CMTI) and Tata group industries, including TRDDC – TATA Research Center.
- **Process-driven approach**, as we are an enterprise-wide ISO 9000:2000, CMMI and P-CMM Level 5 certified company, with delivery centers across the globe that meet BS 7799 standards.

What we offer

Engineering for Business Transformation

Product Portfolio Management

- Product adaptation for localisation
- Modularisation & Standardisation
- Integrated PLM solution for Global engineering
 - Multi-site collaboration
 - "Engineer – to – order" (ETO)
 - Engineering change management (ECM)

Engineering for Product Development & Sustenance

Design Engineering (System, Sub-system, Component)

- Turbine ,Compressor, engine & aux system
- Material handling, Earthmoving & Farm Equipment
 - Chassis, Powertrain, Attachments, Hydraulics, Cab ,Electrical, Electronics & Embedded engineering
- NPD - Regulatory, Reliability, Should costing, Value analysis / Value Engineering (VA/VE)
- Design automation
- O&M Manual and Parts catalogue
- Power Transmission & Distribution (T&D) Services
 - Geospatial applications
 - Control monitoring & diagnostics equipments

Engineering Operational excellence

Plant design

- Mechanical, Electrical, Control & Instrumentation, Piping, P&ID

Manufacturing

- Digital Mfg (Virtual factory simulation & Machining)
- Sourcing services (Supplier qualification & sourcing)
- Prototyping & Testing

Operation

- Industrial automation
- Manufacturing execution system
- Process optimisation
- Plant performance monitoring & analysis (Plant intelligence)
- Integrated asset & maintenance management

How we help our customers

Comprehensive engineering services reduce lead time and cost

A market leader in manufacturing of Power and Oil & Gas machineries required a reduction of their lead time and cost through global engineering. The challenges were to establish global centers and a suitable offshore service provider to bring about the quick launch of products and services. The key differentiators such as depth of global engineering best practices, domain knowledge and engineering -IT capabilities (core for design and engineering collaboration globally) put us in the preferred service provider status. Value-added services such as Lean Concept, standardization, Built to print and automation initiatives in the domain services ranked us as an appreciable partner. With the help of TCS' solutions, the company was able to deliver relevant engineering services with increased offshore ownership up to 70 per cent in two years with a team of 100 professionals. The manufacturer was able to cut-down lead time by 30 per cent in the design and application engineering space and reduce cost with our comprehensive engineering services support.

Faster time to market improved operational efficiency by product design and development solutions

A major US forklift manufacturer was seeking a partner who could leverage its global engineering capabilities in product design and development for faster time-to-market, apart from reduction in costs. TCS developed an offshore delivery center in India supporting multiple development centers of the customer and various forklift development programs concurrently, while meeting the quality and reliability targets. Our product design and development services included engineering design, modeling, detailing and engineering analysis using CAE and CFD. With our ability to scale up/down the team as per requirement and access to our best practices and process tools we were able to reduce costs for the company ensuring reduction in product design cycle and faster time-to-market.

About Tata Consultancy Services (TCS)

Tata Consultancy Services is an IT services, business solutions and outsourcing organization that delivers real results to global businesses, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled services delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development.

A part of the Tata Group, India's largest industrial conglomerate, TCS has over 160,000 of the world's best trained IT consultants in 42 countries. The Company generated consolidated revenues of over US \$6.3 billion for fiscal year ended 31 March 2010 and is listed on the National Stock Exchange and Bombay Stock Exchange in India. For more information, visit us at www.tcs.com

Contact

To know more about our Industrial Machinery solutions, contact corporate.engineering@tcs.com

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