At Total, our mission is to meet the challenges facing the energy industry. In our management of projects, our capacity for innovation using tried and tested expertise along with our process standardization techniques all combine to ensure our projects are delivered safely, on time, and within cost.
A WORLD OF EXPERIENCE

Long term partnerships and large scale projects forged across the globe ensure that Total remains at the forefront of knowledge and technology. Through research and development, exploration and production, Total has a wealth of data and know-how ready to use.

SAFETY, A CORE VALUE

We carry out development studies and execute large international projects, we can manage budgets deadlines and ensure profitability, however, to do any job properly we must design “in-built safety” for people, equipment, and the environment.

WIDE RANGING EXPERTISE IN MAJOR PROJECTS

At Total we have the “savoir-faire” to manage major projects. From field discovery to production we understand time management and cost control. The highly regarded technical ability of our development teams is employed throughout. We undertake rigorous development using clear and detailed methodologies, derived from proven technical know-how and using a range of high-performance in-house managerial tools. Our ability to ensure low technical costs by controlled planning in developing small or large fields is well known, and supported by a long list of successful projects.
Wherever we operate our project strategy is defined and structured, we combine knowledge and expertise, we make optimum use of local content. This structure is critical. Our projects are held in high esteem by our industry peers and have been voted winner of three OTC (Offshore Technology Conference) and IPTC (International Petroleum Technology Conference) awards in recent years.

THE LIFE OF A PROJECT

We offer a standardized approach in all our projects, small or large. This makes for good “up-front” cost control. To enable this we ensure that our operating rules are acceptable to our partners and applied by our contractors.

- Integrated project organization combining geosciences, drilling, facilities and operations engineers all fully accountable to project deliverables and deadlines. This is how we work, and demonstrable across a large international project portfolio. A key element is the creation of clear and comprehensive “road maps” early in design and planning.
- Our method of separating pre-project studies from basic engineering versus the more traditional “FEED” study approach allows for an early and more developed project definition, saving time and money during execution.
- Total is committed to strong local content, performing comprehensive industrial surveys and analyses early in project planning phases to determine the most appropriate industrial development program.
Project Risk Management (PRM) is employed on all development projects at Total. This ensures enhanced accuracy of cost and scheduling estimates and optimum resource allocation to the project team. This is achieved via an explicit risk register with controlled inputs and cost contingencies (using Monte Carlo simulations).

WELL DEFINED PROJECT STAGES
SAVING TIME AND MONEY

HIGH PERFORMANCE TOOLS
ENSURE SPEED AND PRECISION

The use of recognized project management tools means our customers are able to easily identify and track project progress using universally accepted protocols.

- Project Tool Kit (PTK) improves project organization by promoting good working practices and developing a common approach for the management of all of our projects.
- U-cost, an in-house software package, used across our projects ensures consistency, good cost control from the onset plus an excellent longer term budget overview.

On larger projects our surface and sub-surface teams are integrated working side by side. Development is one of our core strengths, and our geosciences teams use state-of-the-art patented tools fully integrated within an interpretational platform for analysis and strategy optimization. This platform enables us to reduce modeling uncertainty and improve reliability, as well as offering considerable performance gains verses traditional methods.

- Sismage®, our proprietary suite of seismic interpretation software tools, developed by Total and used by over 800 associates in 35 E&P subsidiaries.
- Wake-Up® enables us to analyze well data and to upscale it to reservoir scale.
- T-StoRM® (Total Seismic to Reservoir Modeling) is our geo-modeling tool.
- Equipped with advanced processing capabilities, Intersect® is a next generation reservoir simulator, it is connected to our integrated geoscience chain and is designed for parallel computations on diverse and complex reservoirs.
We combine technological progress with social commitment. As well as ongoing improvement in plant safety and efficiency, our project management fosters consensus building and communication in and around our activities. In partnership with local social and economic stakeholders, we contribute to the development of the regions where we operate.

TUNU AND PECIKO GAS FIELDS SPEARHEAD PRODUCTION IN INDONESIA REINFORCED BY LOCAL CONTENT

Operating in Indonesia since 1968, we are focusing today on extending mature field life within the Mahakam Production Sharing Contract (PSC), where Total has a 50% stake. Our two latest projects, Bekapai 2B and South Mahakam 3, were delivered recently with zero LTIs (Lost Time Incidents), within budget and ahead of schedule, the result of professional project management.

Bekapai 2B, a brownfield development, involved the laying of a 12"x13km pipeline which increased gas export capacity by 60 MMscfd. South Mahakam 3 brought a new tripod platform and a 12"x 8 km pipeline. Our local content strategy fosters the creation of jobs, supported by training and work placement. All fabrication works were undertaken locally in East Kalimantan province and the projects utilized 100% Indonesian flagged vessels.
CLOV (ANGOLA): PROJECT MANAGEMENT
DELIVERING ON TIME

Operated by Total with a 40% stake, this fourth development cluster in Block 17 showcases our deep water drilling capability. Subsea multiphase pumps were installed in readiness for any future decline in production pressure, thus ensuring an extended field life. Following an on time start up in June 2014, plateau production capacity of 160,000 barrels per day was reached ahead of schedule. Local content has played a significant role in CLOV’s development accounting for 10 million man hours worked in equipment manufacture. Its FPSO includes a unit built locally in Angola, contributing to a sustainable local industrial sector. Manufacturing and assembly operations carried out by local companies represent 25% of the global project cost.

MARTIN LINGE DEVELOPMENT SCHEME:
AN INNOVATIVE NORTH SEA PROJECT

As project operator (Total 51%) our challenge was to economically develop and produce two completely different fluids from overlying reservoirs. The Martin Linge field is in 150m water, 180 km offshore from Norway close to the mid-point between British and Norwegian waters. The upper reservoir contains heavy and highly acidic (TAN 3.5) biodegraded crude. The high acidity means the oil cannot be transported via a shared product pipeline. The lower reservoir contains conventional gas condensate at a high reservoir pressure of 750 bar. We have the technology but the challenge was to find a safe and economic way to bring both these products to shore. The solution was the development of a standalone production platform with living quarters, the wells being drilled using a heavy duty cantilever jack up rig. The gas is exported via a new 24” pipeline joining the 32” line to St Fergus in Scotland. A permanently moored Floating, Storage and Offloading vessel (FSO), stands adjacent, to receive the oil.

To minimise environmental impacts, the platform and FSO are powered from shore via a 160km high voltage power line, a world first. A further major innovation was the installation of a remote onshore control room significantly reducing the offshore staffing level. Finally, on board oil and water separation is achieved using the Total patented “Wash Tank” technology allowing high quality, low cost water separation.

“CLOV wasn’t all plain sailing but we achieved start-up on time: it’s a triumph for the whole team.”
Geneviève Mouillerat, Director CLOV Project.

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Local construction for CLOV at the Pena shipyard.

© Martin Lord
Energy drives progress where it is readily available. Two of the biggest challenges in building a responsible energy future are ensuring access for all and using energy wisely.

This is the environment in which we conduct our business. With operations in more than 130 countries, we are a leading international oil and gas company. We produce, refine and market oil, manufacture petrochemicals. We are also a world-class natural gas operator and rank second in solar energy with SunPower. Demonstrating their commitment to better energy, our 100,000 employees help supply our customers worldwide with safer, cleaner, more efficient and more innovative products that are accessible to as many people as possible. We work alongside our stakeholders to ensure that our operations consistently deliver economic, social and environmental benefits.