NExT
A Schlumberger Company

Oil and Gas Training
and Competency Development

Developing expertise to efÿciently meet key industry challenges

Training for today's complex challenges

While the demand for oil and gas increases relentlessly, it is proving harder to ÿnd not only hydrocarbon reserves but also the personnel with the skills it takes to exploit those reserves. This is where we come in.

NExT is dedicated to the professional development of the E&P industry's petrotechnical professionals. Our goal is to provide the best tools to help you meet your training objectives in a sustainable way. Our years of experience in the oil and gas business, backed by ÿrst-class training knowledge gained through university partnerships, enable us to develop, customize, and continually update advanced E&P training and competency development plans to meet your business goals, despite the complexities of industry challenges.

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About NExT

The NExT Edge

- Full suite of training courses in upstream disciplines as well as surface facility and midstream instruction

- Training on industry-leading software tools and software certification

- Partnership with advanced industry and academic institutions to continuously deliver up-to-date and evergreen instruction

- A teaching faculty of more than 3,000 independent instructors, all experts in their fields, with a wide variety of technical and regional experience

- Access to a global network of Schlumberger training centers, where Schlumberger trains its customers as well as its own staff

- Winner of 2013, 2014, 2015 Getenergy Training Provider of the Year Award and 2016 Getenergy Localization Award, reinforcing NExT as the industry's trusted partner for training and competency development.

Build multidisciplinary technical expertise faster.

NExT, a Schlumberger company, provides technical and software training and professional development services for the E&P industry. With a portfolio of more than 420 practical courses, training programs, and competency services, NExT covers technical and software skills that today's technical and asset teams need.

Our curriculum includes introductory to advanced training in industry-spanning disciplines, including geology, geophysics, petrophysics, drilling, reservoir engineering, production, facilities, management, and economics. We also offer training in industry-standard Schlumberger software, including

- Petrel* E&P software platform
- Techlog* wellbore software platform
- PetroMod* petroleum systems modeling software
- ECLIPSE* industry-reference reservoir simulator
- OFM* well and reservoir analysis software.

Our partnerships with Texas A&M, University of Oklahoma, and Heriot-Watt University ensure that NExT training re°ects the latest in academic and industry knowledge.

With more than 13 years' experience delivering training to E&P companies in more than 50 countries, NExT understands your training challenges and delivers solutions that match speciÿc customer needs.

getenergy
GLOBAL EDUCATION & TRAINING FOR ENERGY

Winner:
2013, 2014, 2015 Getenergy Training Provider
of the Year Award 2016 Getenergy
Localization Award

Technical Challenges

Increase the ability to discover and access the reserves previously thought to be unrecoverable.

NExT offers a wide range of training and multidisciplinary competency assessments related to technical challenges that helps operators meet the challenges facing oil and gas exploration and production.
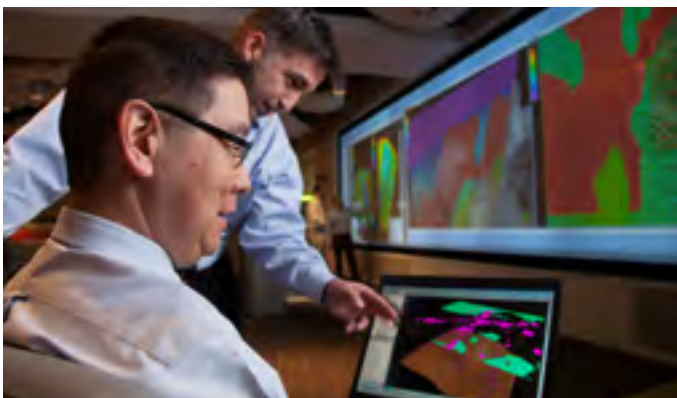
Global energy demand is increasing while assets around the world are maturing and declining, challenging the industry as never before. Advances in technology are enabling the discovery and access of hydrocarbon reserves that were once thought to be inaccessible. Technology is also allowing mature ÿelds to be a signiÿcant source of production for many more years than initially planned.

As the industry focuses on hard-to-extract oil and gas resources, professionals at all levels need to acquire fresh skill sets and must better understand new technologies and their applications.

By combining expert-led courses, in-class projects customized for your asset challenges, ÿeld and lab courses that provide hands-on learning experiences, industry-leading software tools, and one-on-one mentoring, NExT training on technical challenges blends a targeted skills-development program that aligns your team's abilities to your strategic objectives.

NExT Technical Challenges Curricula

- Deepwater Operations
- Flow Assurance
- Unconventional Resources
- Heavy Oil
- Enhanced Oil Recovery
- Exploration
- Carbonate and Fractured Reservoirs
- High Pressure, High Temperature (HPHT)
- Geomechanics

Deepwater Operations

Improve production in an environment that pushes every boundary.

Field Trips

- **County Clare, Ireland:** Delta Slope Turbidite Deposition and Synsedimentary Deformation

- **Tabernas & Sorbas Basins, Spain:** Depositional Environments from Slope Aprons to Tropical Reefs

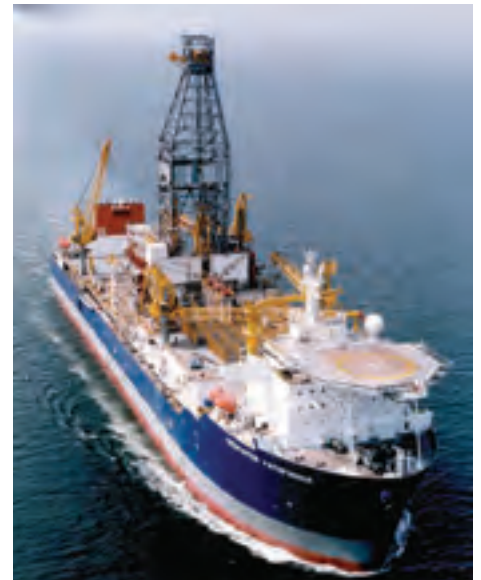- **Karoo, South Africa:** Permian Basin Floor Fan Systems

Deep waters are among today's most crucial and challenging frontiers and offer a unique opportunity for adding significant volume to the world's proven oil reserves. As the search expands to deeper waters, evermore technically and economically challenging environments are revealed—many of which are unexplored with minimal local support.

NExT has a wide range of technical and software courses, including field trips that are designed to help you develop your exploration, drilling, and production skills in deep water.

Some of the courses offered by NExT under this discipline include
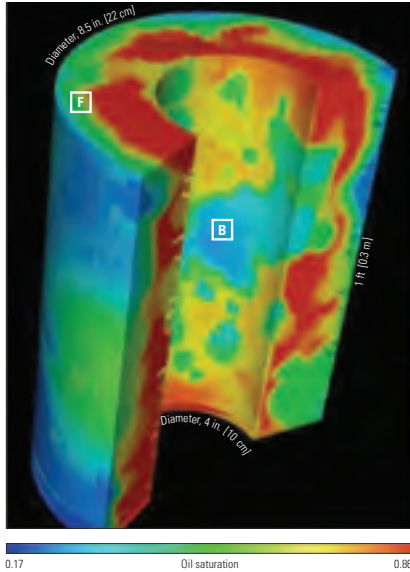
- Deepwater Seismic Interpretation
- Deepwater Drilling Design and Operations
- Economics of Deepwater Projects
- Deepwater Well Project and Risk Management
- Deepwater Petroleum Systems.

NExT also offers software courses for the deep water discipline that use Petrel platform, ECLIPSE simulator, OLGA simulator, Drillbench* dynamic drilling simulation software, and PIPESIM* steady-state multiphase flow simulator.
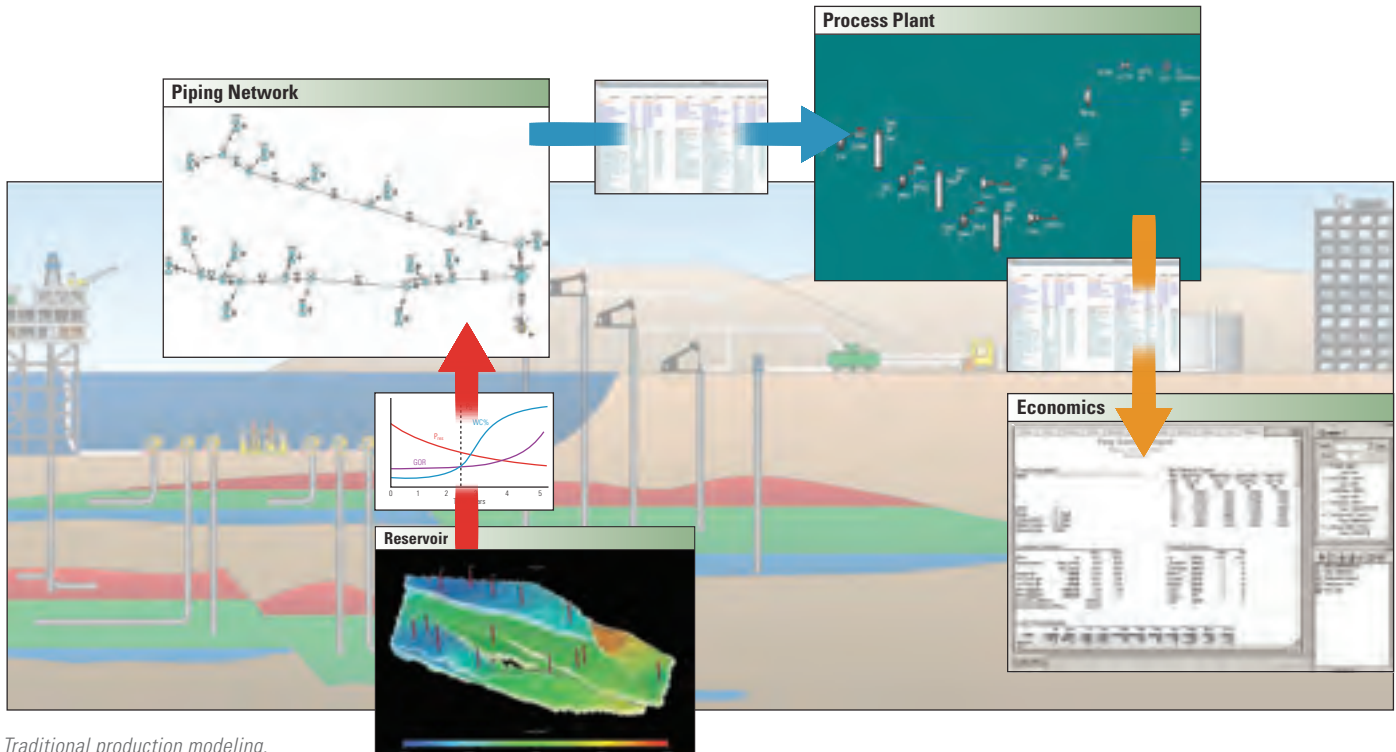
Flow Assurance

Ensure the successful and economical flow of hydrocarbons.

0.17   Oil saturation   0.86

As time goes by, even long-producing yields develop flow assurance problems. Additionally, ever-deeper yields create new challenges that extend the envelope within which our industry can safely and economically produce. Optimal flow assurance design and operation requires evaluating all disciplines interfacing flow assurance as well as carefully considering the interactions between fluid, reservoir, wells, pipelines, surface facilities, and the surrounding environment.

NExT courses for flow assurance teach participants how to successfully manage and ensure flow. Some of our technical and software courses for flow assurance include

- Introduction to Flow Assurance
- Assuring Flow from Pore to Process
- Full Life Cycle Fluid Evaluation
- OLGA Flow Assurance
- OLGA Advanced Flow Assurance.

Traditional production modeling.

Unconventional Resources

Increase efÿciency and reduce risk in basins around the world.

Field Trip

East Kentucky:
Characterization and Petrel 3D Modeling of Fluviodeltaic Sedimentary Architecture, Upper Carboniferous

Better reservoir knowledge and increasingly sophisticated technologies make producing unconventional resources more economically viable and efÿcient. This efÿciency is bringing shale reservoirs, tight gas and oil, and coalbed methane into the reach of more companies around the world.
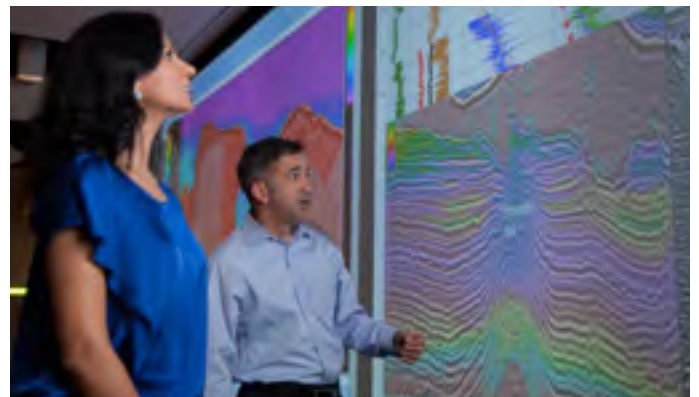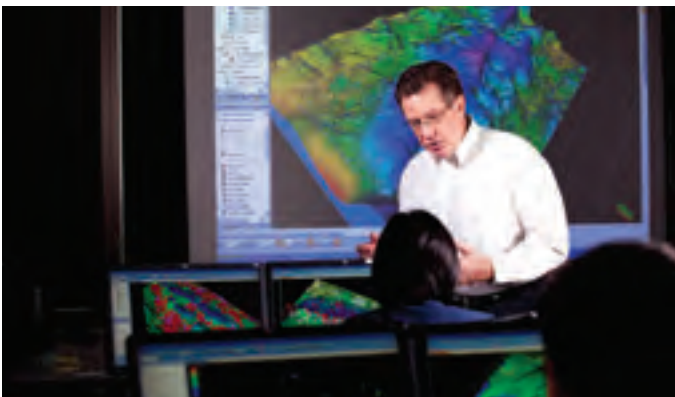
NExT has a global network of petrotechnical experts who have the technical knowledge and experience to help you learn about and meet the challenges of unconventional plays and to maximize success. Some of the courses offered by NExT under this discipline cover

- shale gas and liquids
- tight gas and oil
- coalbed methane (CBM)
- gas hydrates
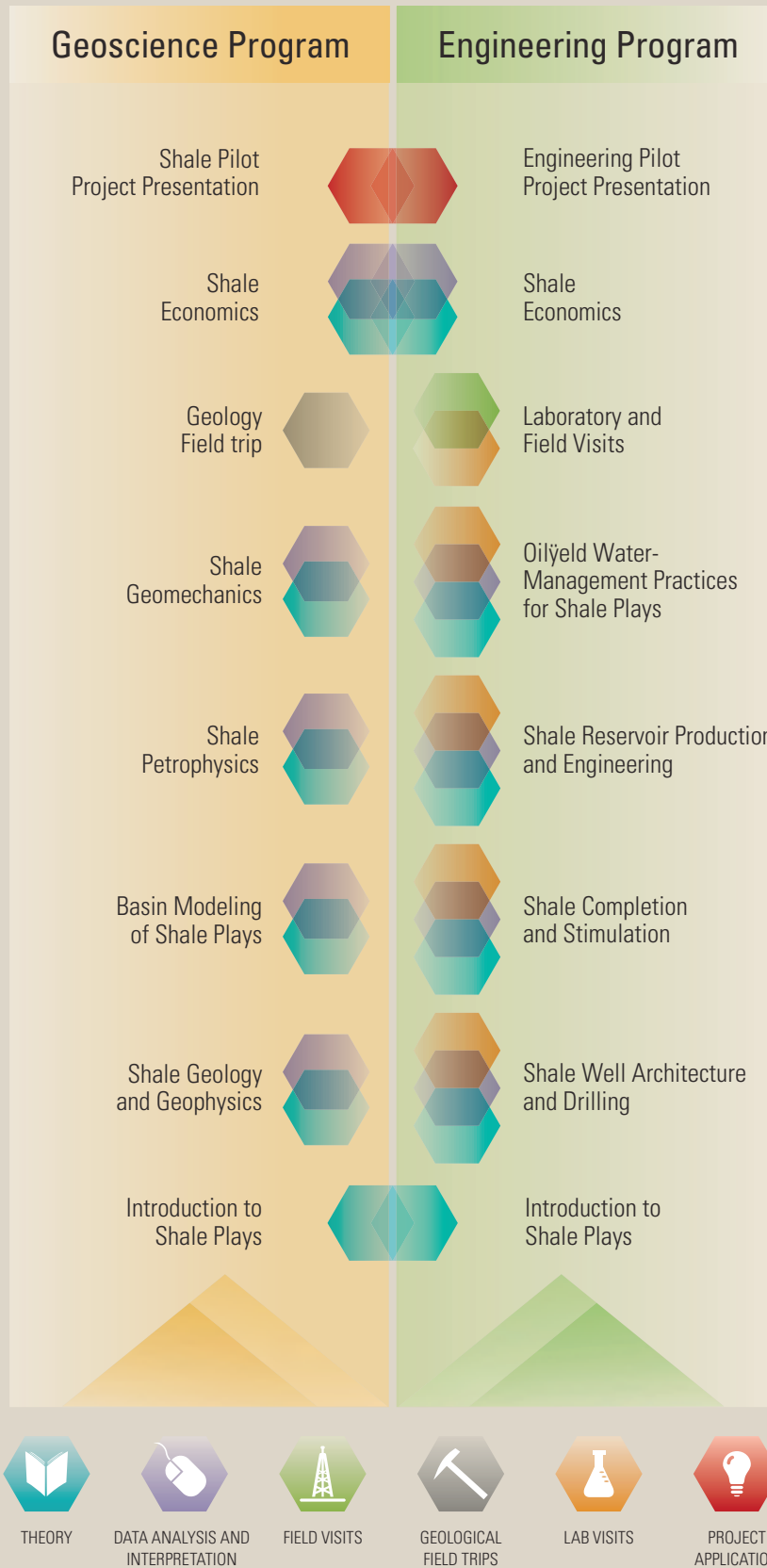- unconventional resource basins and plays.

NExT also offers software courses under this discipline using Petrel platform, PetroMod software, OFM software, and ECLIPSE simulator.

Multidomain shale training program
The modular NExT multidomain shale training program is the fastest, most effective way of equipping your team with the knowledge necessary to efÿciently and properly identify and develop unconventional plays. Participants learn about these complex reserves from industry experts with decades of experience as well as by modeling actual shale prospects, visiting core laboratories, taking ÿeld trips, and ultimately presenting a pilot project that studies develop in class.

Integrated Modular Shale Training Program

Geoscience Program	Engineering Program
Shale Pilot Project Presentation	Engineering Pilot Project Presentation
Shale Economics	Shale Economics
Geology Field trip	Laboratory and Field Visits
Shale Geomechanics	Oilÿeld Water-Management Practices for Shale Plays
Shale Petrophysics	Shale Reservoir Production and Engineering
Basin Modeling of Shale Plays	Shale Completion and Stimulation
Shale Geology and Geophysics	Shale Well Architecture and Drilling
Introduction to Shale Plays	Introduction to Shale Plays

THEORY   DATA ANALYSIS AND INTERPRETATION   FIELD VISITS   GEOLOGICAL FIELD TRIPS   LAB VISITS   PROJECT APPLICATION

The program is divided into two modules: Geoscience and Engineering. Both include common workflows, simulations using field data, and courses that enhance the competencies and skills needed to work effectively in multidisciplinary shale teams.

Heavy Oil

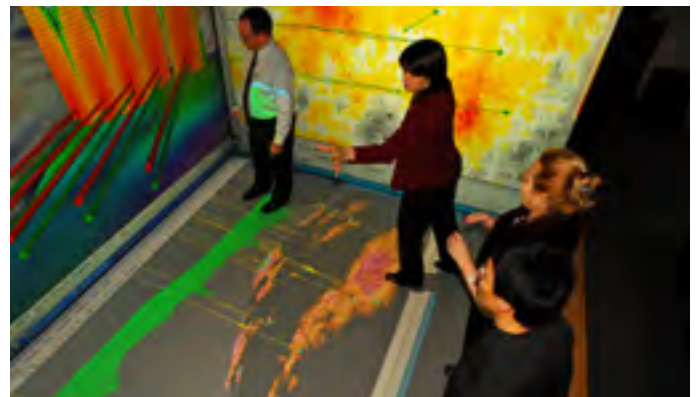Better understand challenges and implement solutions in heavy oil operations.

Some of the world's largest reserves are heavy oil reservoirs. With oil in place equal to the largest conventional oil ÿelds in the Middle East, these large reserves are found in more than 30 countries around the globe, but few of these deposits have been extensively developed. The signiÿcant operating investment in recovering heavy oil requires a high oil price to ÿnancially justify heavy oil operations.

The NExT technical and software team of oil and gas experts is committed to sourcing the best instructors, producing materials to the highest standard, and ensuring that curricula evolve to embrace the latest technology advances to cover all the requirements of the E&P professionals attending our courses.

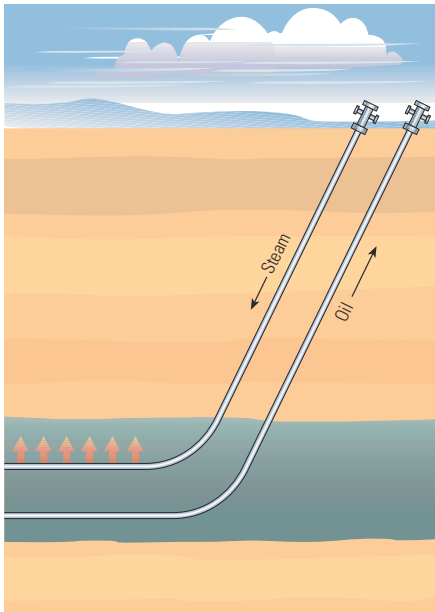Operators involved in heavy oil recovery face special production challenges. NExT courses cover

- heavy oil exploitation
- heavy oil production using steam injection
- heavy oil sampling, characterization, and modeling
- heavy oil transportation and processing.

Enhanced Oil Recovery

Accelerate the recovery of more reserves with minimal environmental impact.

The global average recovery factor for a typical oilÿeld is approximately 40%. This results in a large amount of identiÿed oil left behind despite existing production infrastructure. Improving the recovery factor and accelerating the associated production are the two main drivers behind the many EOR schemes in practice around the world.

NExT EOR training is fast tracked for experienced reservoir and simulation engineers who have limited expertise on EOR processes, such as mechanisms, experimental analysis, and ÿeld implementation. This training focuses on miscible, immiscible, chemical, and thermal process for clastics and nonfractured carbonates and can include applications of the Petrel platform and ECLIPSE simulator.

Exploration

Reduce uncertainty with greater comprehension of petroleum systems.
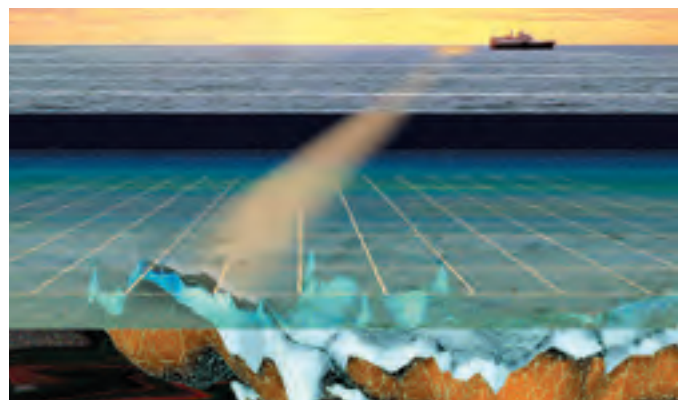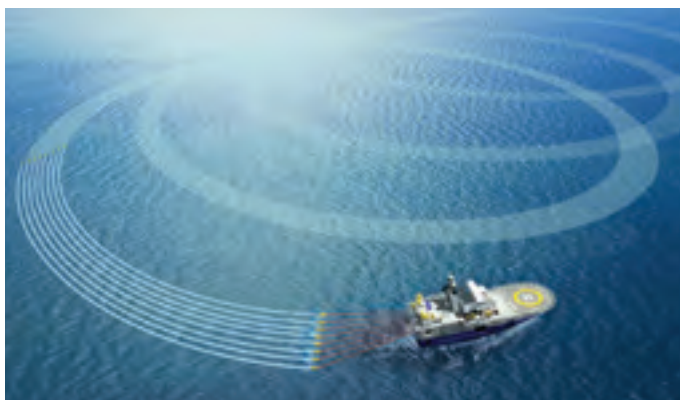

Two out of three of today's frontier exploration wells do not successfully meet their original objectives because of unexpected geology or unanticipated hazards. These issues may signiÿcantly increase the cost of ÿnding hydrocarbons and challenge a project's economic viability. Developing new work°ows and processes to better understand the petroleum system of an area, combined with improving and developing new seismic imaging and processing techniques, helps to reduce the uncertainty of exploration.

NExT has a portfolio of courses built for exploration success that covers all stages of the exploration value chain. With an improved understanding of the geology of their prospective areas, exploration teams can extract maximum value from their exploration investment.

Some of our technical and software courses include

- Geological Assessment of Reservoir Seals and Pay
- Exploration Geochemistry and Petroleum Systems Modeling
- Integrated Reservoir Modeling: Interpretation, Evaluation, and Optimization with Petrel
- Clastic Sedimentology for Exploration and Development
- Prospect Evaluation, Risks, and Volumes
- Petrel Petroleum System-Based Play-to-Prospect Exploration.

Carbonate and Fractured Reservoirs
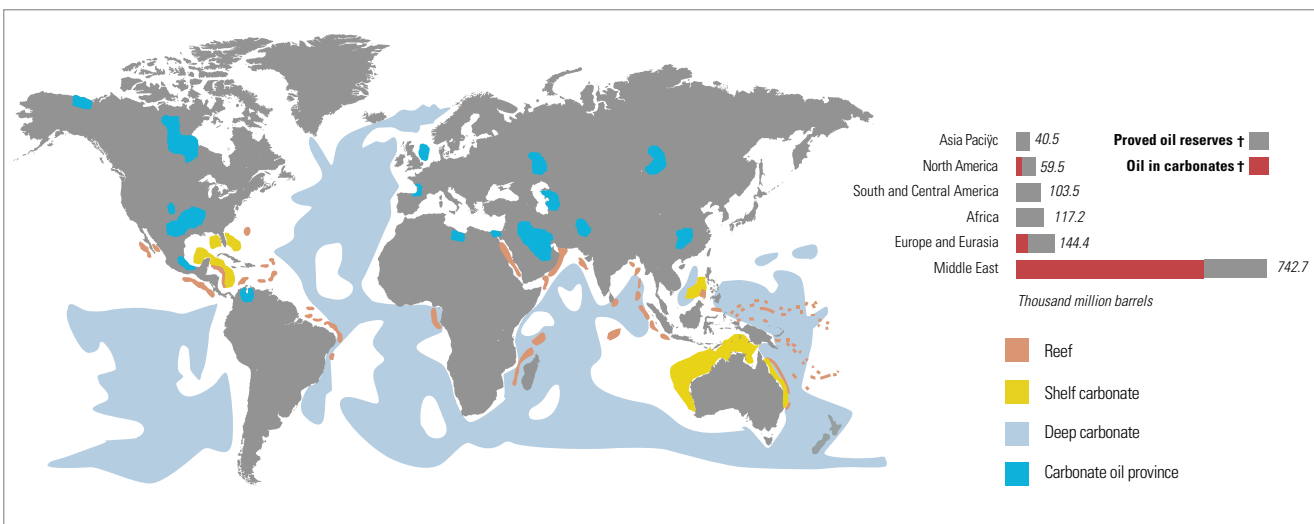
Unravel the complexities of carbonate reservoirs.

It is estimated that more than 60% of the world's oil and 40% of the world's gas reserves are held in carbonate reservoirs. The Middle East, for example, is dominated by carbonate yields, with around 70% of oil and 90% of gas reserves held within these reservoirs.

Carbonates can exhibit highly varying properties (e.g., porosity, permeability, flow mechanisms) within small sections of the reservoir, making them difficult to characterize. A focused approach is needed to better understand the heterogeneous nature of carbonate reservoir rock as well as the fluids and flow properties within the porous and often fractured formations. This involves a detailed understanding of the fluids' saturation, pore-size distribution, permeability, rock texture, reservoir rock type, and natural fracture systems at different scales.

NExT offers a wide range of training courses, including geology yield trips, that cover this complex discipline to ensure that attendees develop the necessary skills required to address carbonate challenges. We combine an essential mix of learning experiences to maximize the return on your training investment in courses that include

- Carbonate Seismic Reservoir Analysis

- Characterization, Evaluation, and EOR in Naturally Fractured Reservoirs

- Evaluation and Management of Fractured Reservoirs

- Advanced Formation Evaluation in Carbonates

- Fractured Reservoir Characterization with Emphasis on Carbonates.

Asia Pacific	40.5	**Proved oil reserves †**
North America	59.5	**Oil in carbonates †**
South and Central America	103.5	
Africa	117.2	
Europe and Eurasia	144.4	
Middle East		742.7

Thousand million barrels

- Reef
- Shelf carbonate
- Deep carbonate
- Carbonate oil province

Distribution of oil from carbonate sources around the world.
Source: †BP Statistical Review, 2007. ‡Schlumberger Market Analysis, 2007.

High Pressure, High Temperature

Overcome the challenges and risks of operating in extreme conditions.

Finding and producing new hydrocarbon reserves involves contending with increasingly harsh downhole conditions. Attractive new prospects like deepwater high-pressure wells in the Gulf of Mexico, the commercial viability of previously uneconomic gas plays, and the increasing use of thermal recovery techniques has dramatically increased the requirement for HPHT expertise.
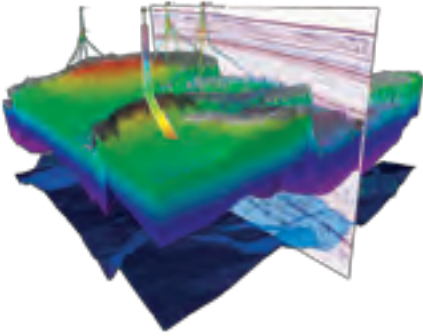
NExT courses cover the theories, technicalities, and practicalities of HPHT wells complete with impending risks and challenges. The courses are equipped with case studies on successful HPHT well projects and the lessons learned from past projects. Special emphasis is placed on geopressure detection analysis, practical exercises and assessments, and interactive discussion to meet the speciÿc needs of every participant. This focus does more than merely impart technical knowledge; it works on improving both communication and personal focus.

By the end of the HPHT training, attendees will have obtained an improved understanding of the challenges that will be faced and the mitigations required to minimize the probability of failure. Team-building, safety, leadership, and communication skills are just some of the key elements addressed in the course.

Geomechanics

Mitigate risk and maximize production—from well to reservoir to basin.

Without a strategy for avoiding or minimizing potential geomechanical problems, your project may cost many millions more than budgeted. Today, most operators consider geomechanics analysis and planning a necessary strategic component of exploration and ÿeld development activities. Identifying, planning for, and managing potential issues saves time and improves safety at the wellsite.

NExT courses under geomechanics are designed to align and accelerate the skills development of your engineering and geomechanics teams. Our technical and software courses for geomechanics include

- Pore Pressure Prediction Methods
- Geomechanics of Salt Dome Reservoirs
- Practical Aspects of Shale Gas Geomechanics
- Geomechanics Applications in Shale Gas
- Fundamentals of Petroleum Geomechanics
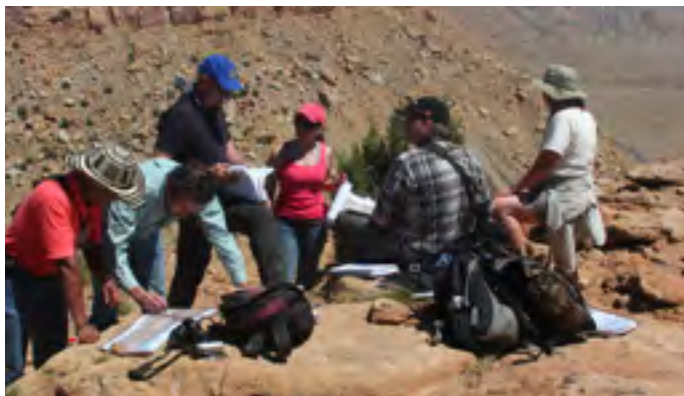- Petrel Reservoir Geomechanics Introduction.

NExT understands that hands-on education is one of the most effective ways to increase understanding and maximize knowledge retention. Our practical training courses use a learning-by-doing approach.

By leveraging the Schlumberger Global Learning Centers and operational facilities such as laboratories, workshops, and simulators, these trainings deliver value and impact.

Scheduled Courses

- Integrated Reservoir Modeling: Interpretation, Evaluation, and Optimization with Petrel
- 3 Day Hands-On Practical Wireline Logging at the Kellyville Training Center
- Advanced Slickline Operations
- Advanced Well Testing Operations - European Learning Center
- Borehole Seismic Acquisition, Processing and Operations
- Cement Integrity Assurance and Evaluation
- Fishing, Perforating, and other Slickline Applications
- Formation Testing: Wireline and LWD
- Fundamentals of Slickline Operations
- Fundamentals of Well Testing Operations - European Learning Center
- Integrated 3D Reservoir Modeling Workshop
- Integrated Reservoir Modeling: Interpretation, Evaluation, and Optimization with Petrel
- Introduction to Coiled Tubing Operations
- Matrix Stimulation Engineering
- Mud Logging - Surface Gas Measurement & Fluid Characterization
- Mud Logging Operations
- Practical Directional Drilling and Surveying
- Practical Wireline Logging for Geoscientists
- Well Testing Operations

Visit **www.NExTtraining.com** for more details and scheduled classes.

OilSim Upstream Learning Simulator for Interactive Training
Explore decision making through the entire upstream value chain.

About OilSim Simulator

- Market-leading simulation created by industry experts, software developers, and learning simulation specialists

- Real-world oil and gas business scenarios

- More than 30,000 participants instructed in disciplines covering exploration, field development, and production

- Available in nine languages, including Arabic, Danish, English,   French, Norwegian, Portuguese, Russian, and Spanish

The OilSim upstream learning simulator takes users through the entire exploration and production business process—from acquiring a block through its development, production, and abandonment. In this innovative and interactive training method, participants are divided into teams and challenge each other to achieve the best results based on strategy selection and decision making in a simulated business environment.

NExT offers a portfolio of oil and gas training and competency development courses that include interactive OilSim platform sessions. Our expert facilitators use their industry background, simulation experience, and practical skills to engage partcipants and adapt courses to meet the individual needs of each audience.

Latest courses include

- Oil and Gas Business Simulation Game with OilSim
- Introduction to Petroleum Exploration and Production with OilSim
- Introduction to Management of E&P Business with OilSim
- Project Management Fundamentals
- Introduction to Geology with OilSim

OilSim

Challenge 1	Initial Screening
Challenge 2	Prospecting
Challenge 3	Exploration Drilling
Challenge 4	Depletion Plan
Challenge 5	Facilities Plan
Challenge 6	Construction Project
Challenge 7	Production

OilSim upstream learning simulator modules address challenges through the upstream value chain.

Surface Facilities, Operations, and Maintenance
Develop technical skills and build practical experience.

> NExT training blends a targeted skills-development program that aligns your team's abilities to your strategic objectives.

Oil and gas production facilities require competent E&P professionals to reliably operate at peak efÿciency. However, the industry is facing signiÿcant human resource challenges; operators with a deÿcit of midcareer expertise must accelerate the development of their young professionals as well as acquaint experienced personnel with the latest software and technologies.

A broader expertise through partnership

NExT has partnered with TPL Global to offer surface facilities competency assurance and training to operations and maintenance (O&M) technicians. TPL has provided manpower and technical consulting services to the oil and gas industry since 1996 and has a broad portfolio of experience training consultants, engineers, technical writers, and operations personnel who are based in strategic locations around the world, including Houston, Chad, Libya, Qatar, the UK, and Papua New Guinea.

ABOUT NExT

NExT, a Schlumberger company, provides training, competency and professional development services for the oil and gas industry. With a portfolio of over 700 courses, training programs, and competency services covering technical and software skills, NExT, assists in developing the petrotechnical expertise needed to meet today's increasingly complex industry challenges. NExT was awarded the Getenergy's 'Localization Award' in 2016, after three consecutive year wins of 'Education and Training Provider of the Year'.

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For a comprehensive portfolio of courses
covering a broad spectrum of disciplines, visit

NExTtraining.net

NExT
A Schlumberger Company