



➤ Company Overview

- About Peritus
- Scope of Services
- Expertise
- Projects
- Why Peritus
- People

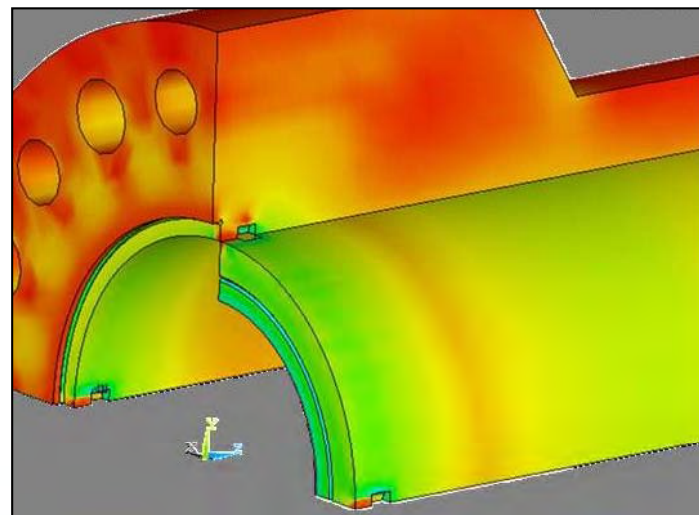


experts in difficult and deepwater environments

➤ Company Description

Peritus

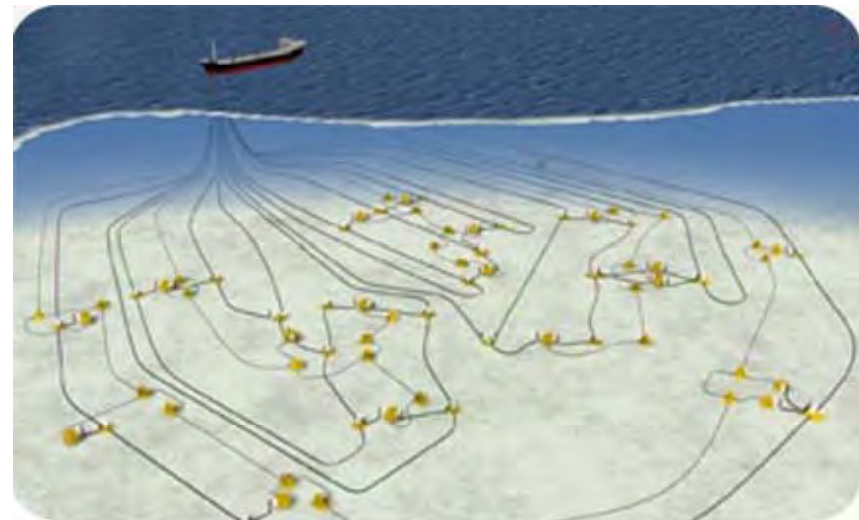
- Peritus provide advanced subsea and floating systems engineering and project management services to offshore oil and gas clients.
- Specialists in developments in remote, hostile or deepwater environments.
- Key enablers:
 - Highly experienced people – recognised and respected in the industry
 - Innovative technology
 - Global knowledge networks



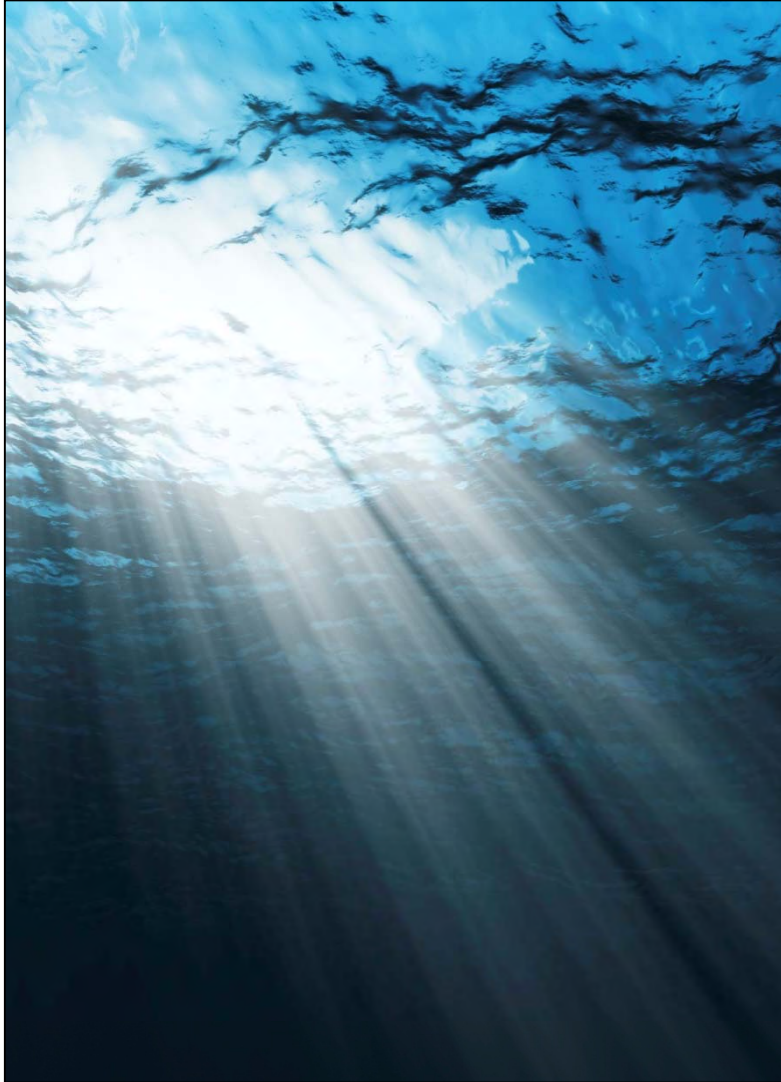
➤ Vision

Peritus

The Peritus vision is to be the preferred supplier of highly skilled subsea and marine engineering services to the offshore oil and gas industry with a recognized leadership position in developing projects in deepwater and challenging environments.



➤ Mission



To be successful, Peritus will:

- Provide high end system engineering services to the offshore oil and gas industry with a particular focus on deepwater and difficult environments for:
 - » Subsea Systems
 - » Subsea Pipelines
 - » Marine Risers
 - » Floating Structures
 - » Flow Assurance
 - » Specialist Engineering
 - » Field Development
- Work in all phases of project development from concept evaluation through Front End Engineering Design (FEED), detailed design, PMC, EPCM, construction, commissioning and operations with a strong competence in Concept Evaluation and FEED.
- Achieve excellence and growth through innovation and the application of technology.
- Provide employees with challenging work, professional growth, a safe and enjoyable work environment, and rewarding compensation and benefits.

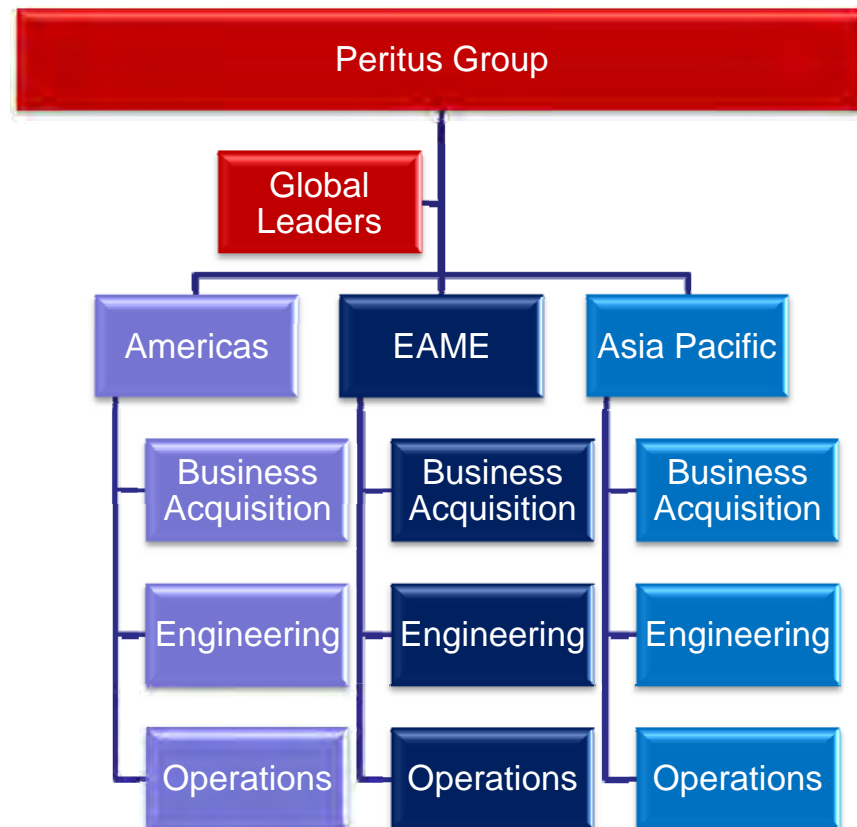
➤ Values

The Peritus logo features the word "Peritus" in a bold, blue, sans-serif font. Above the letters "e" and "i" are two curved lines, one red and one blue, that sweep across the top of the text.

- **Profitable:** we will create stakeholder value and provide sustainable growth for the company
 - *add stakeholder value.*
- **Customer satisfaction:** we will pay unrelenting attention to exceeding our customers' expectations
 - *go the extra mile.*
- **Fairness:** we will treat all people with honesty, respect and without prejudice.
 - *we are all important.*
- **Personal growth:** we will offer every employee the opportunity to reach their maximum potential, to the extent that they desire
 - *be all you can be.*
- **Continuous improvement:** we will always work to better our performance
 - *good enough never is.*
- **Courage:** we will stand our ground when we are right and walk away when our beliefs or ethical standards are threatened
 - *always do what's right.*



➤ Organisation Structure



The Peritus business model works on a global network of regional engineering centres which enable specialised skills, knowledge and expertise to be shared across global operations. Each region is led by one of the three founding partners.

Global Leaders are responsible for leading Peritus in their specialised fields and ensuring that the same superior level of technology knowledge is available to all of Peritus staff and clients wherever they may be in the world.

This model reduces the duplication of resources to deliver lower cost, technically superior subsea solutions for clients.

➤ Global Management Team



Peritus Group

Americas
Peter Breese
Senior Vice President



Europe Africa Middle East
Graham Taylor
MD



Asia Pacific
Steven Hindmarsh
CEO & MD



Jie Fang

Global
Manager,
Riser Systems

Peter Carr

Vice President,
Risk and
Integrity
Management

Ian Nash

Director,
Operations &
Business
Acquisition

Chin Teh

Global
Manager,
Flow
Assurance

Bill Neilson

Engineering
Manager

Thyl Kint

Global
Director,
Floating
Systems &
Field
Development

Stephen Rivers

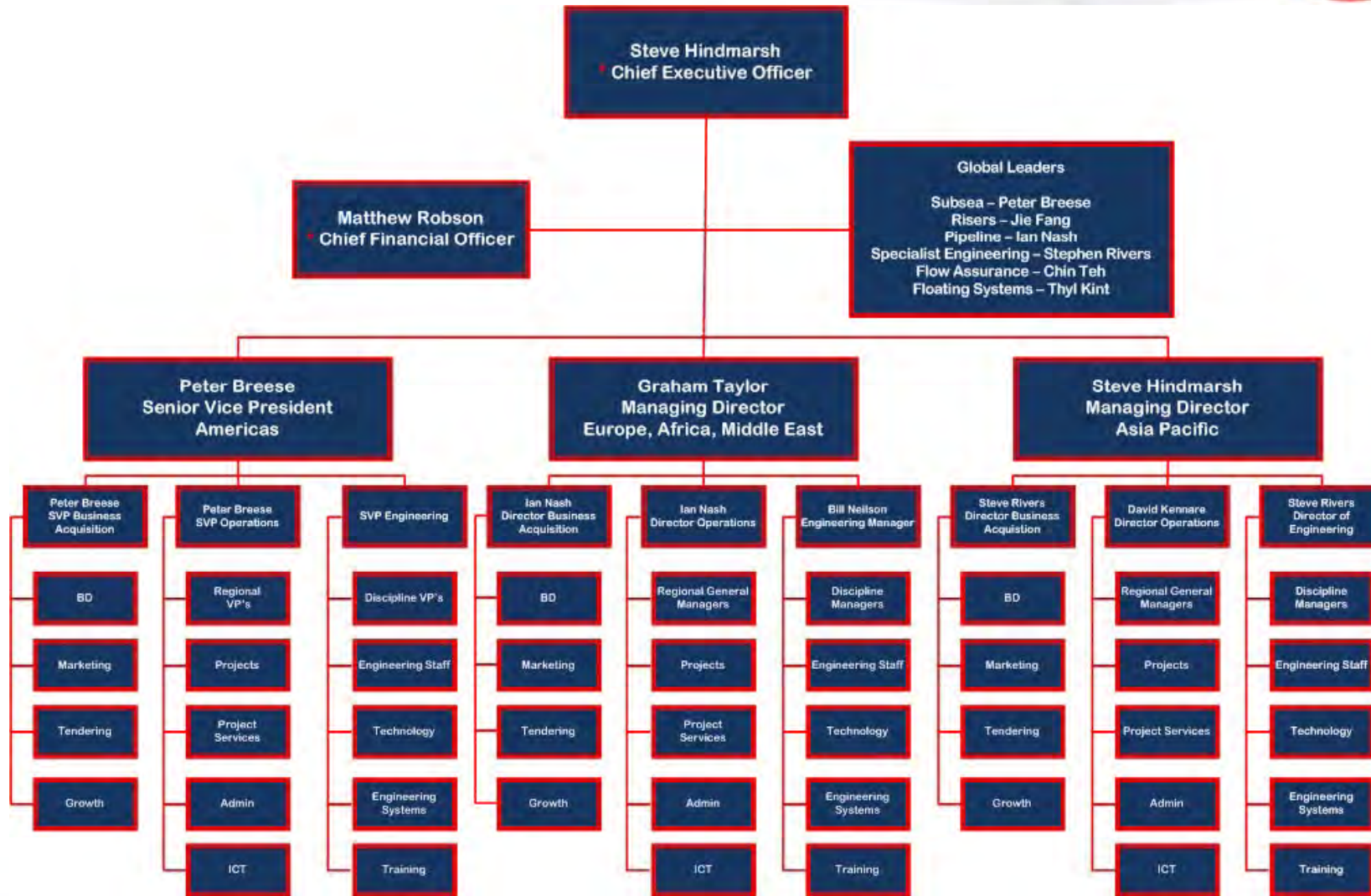
Director,
Business
Acquisition &
Engineering

David Kennare

Operations
Director










➤ Organisation Chart - Global



➤ Technology Leadership



Global Leaders

Global Manager Pipelines Ian Nash	Global Manager Subsea Systems Pete Breese	Global Manager Floating Facilities Thyl Kint	Global Manager Riser Systems Jie Fang	Global Manager Flow Assurance Chin Teh	Global Manager Specialised Engineering Steve Rivers	Global Manager Field Development Thyl Kint
						

- Globally lead the Discipline within Peritus.
- Foster industry leadership position through strategic recruitment, training, technology & tool development, technical papers, journals, conferences, seminars.
- Work in partnership with Clients to identify, develop and integrate project critical technologies
- Technical integrity assurance and technical risk management

About Peritus

➤ Scope of Services

Expertise

Projects

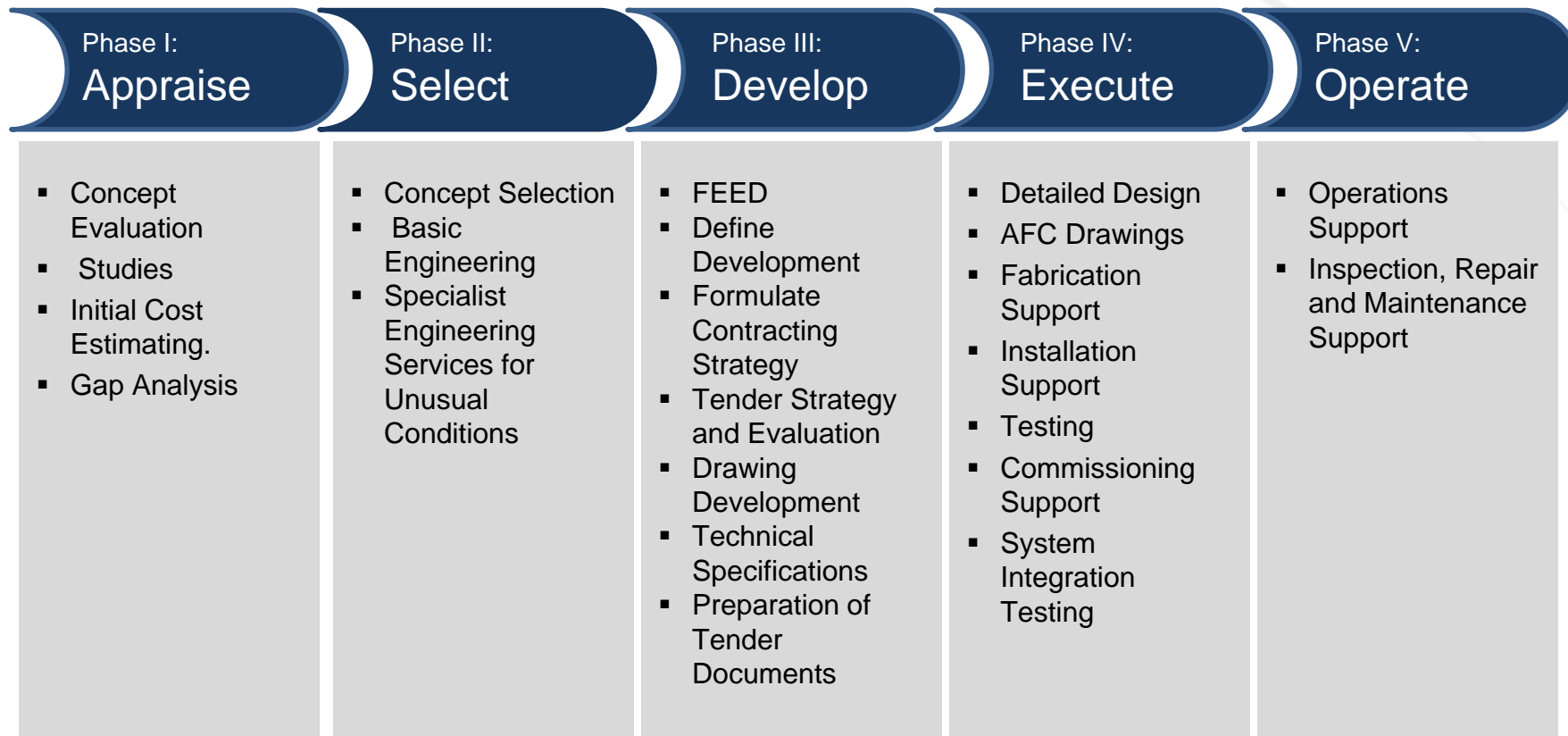
Why Peritus

People



experts in difficult and deepwater environments

➤ Scope of Services

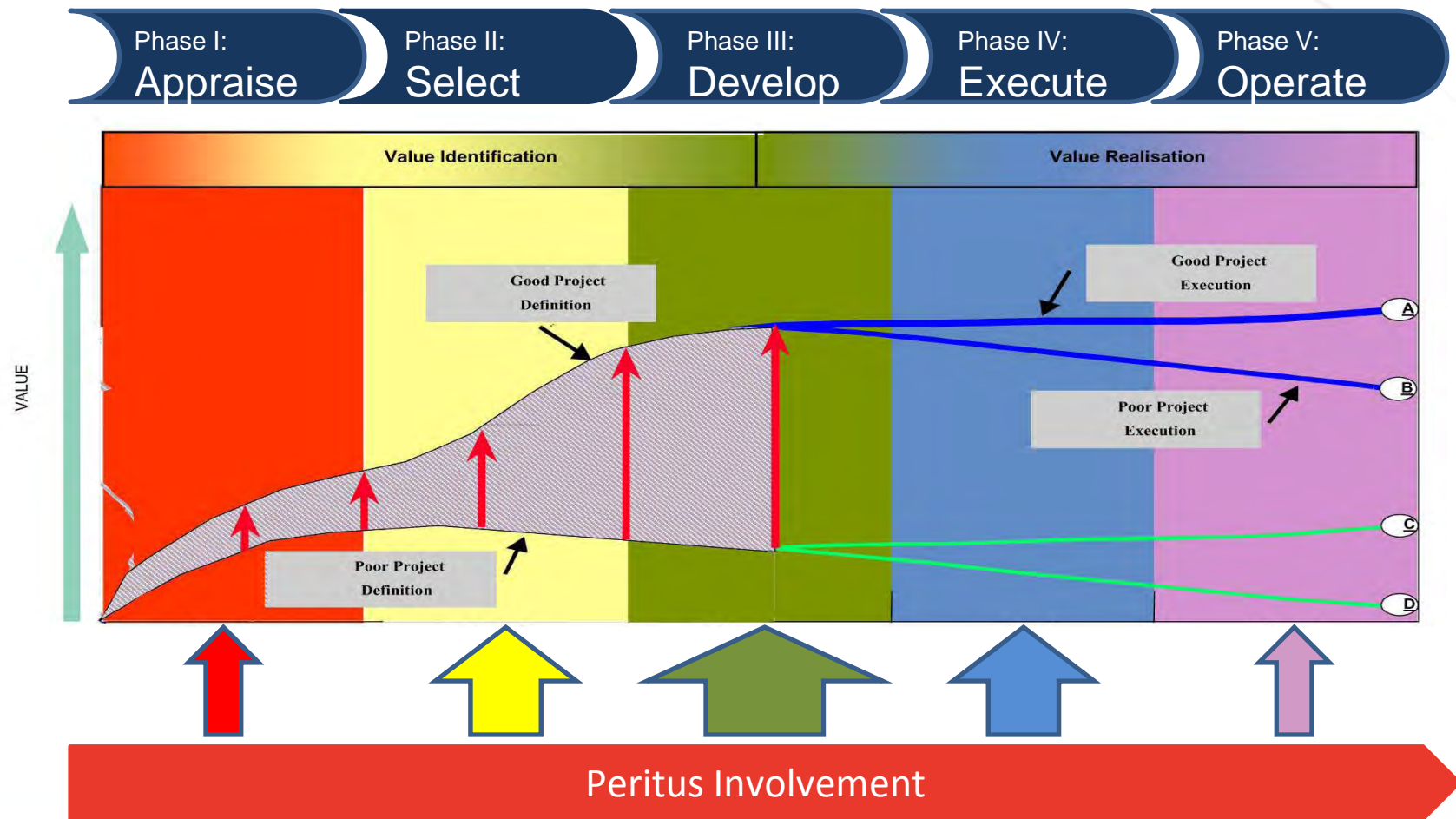


Engineering and Project Management

➤ Ability to add value



Peritus' ability to create value in a project is maximum in the Front End phases (Appraise and Select) but its ability to mitigate against value erosion is at execution and operation phases (Develop, Execute, Operate)..

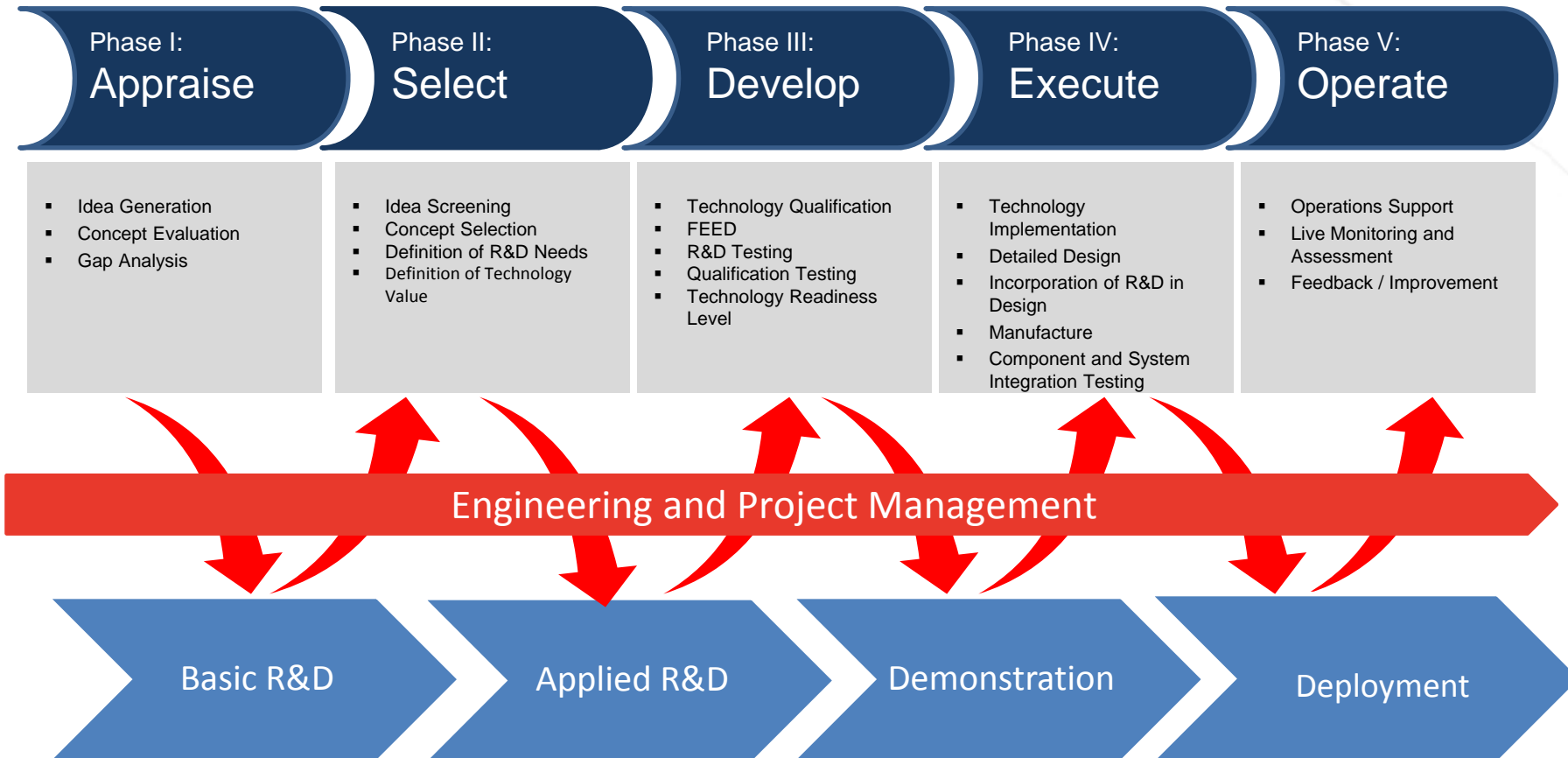


Technology Management Model



Technology is key to making many deepwater and difficult environment projects possible or economic.

Peritus provides an in depth knowledge of the latest technology and a structured process to manage its assessment and implementation.



About Peritus

Scope of Services

➤ Expertise

Projects

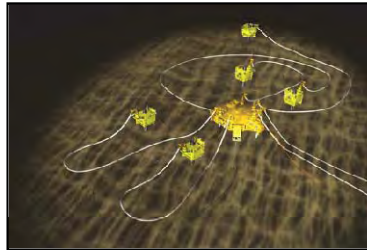
Why Peritus

People

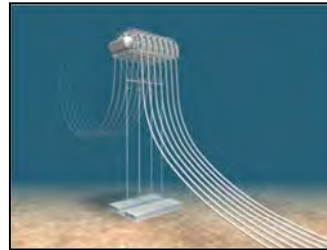


experts in difficult and deepwater environments

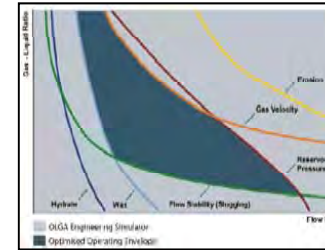
➤ Expertise / Scope of Services



Subsea Systems



Marine Risers



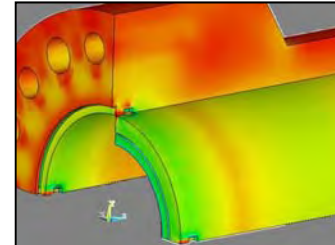
Flow Assurance



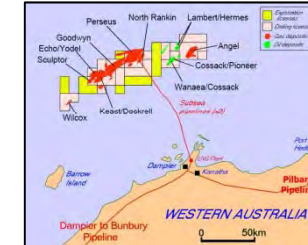
Subsea Pipelines



Floating Structures



Specialist Engineering



Field Development

➤ Subsea Systems

Peritus

- Systems engineering approach to the design of field developments
- Subsea system engineering capabilities include:
 - » Field Architecture development and cost estimating
 - » Field operability through flow assurance evaluations
 - » Evaluation / selection of subsea hardware and control system to suit life cycle requirements
 - » Development of tendering strategies and managing the bidding process for the selection of suitable fabrication and construction / installation contractors
 - » Management and supervision of fabrication and construction phases of field development projects, including factory acceptance tests (FAT), system integration tests (SIT), offshore installation, testing and commissioning.



➤ Subsea Pipelines



- Conventional and limit state design practices, such as DNV and API
- Advanced pipeline engineering, including free-spanning, seismic, strain-based assessment.
- Route survey and geo-hazard assessment covering route selection in extreme terrains, together with intervention strategy planning and implementation.
- Landfall design including trenching, tunneling, directional drilling pull ashore / pull offshore engineering.
- Concept studies, FEED, detailed design, procurement support, tendering support, fabrication and construction management and supervision.
- Pigging, testing, pre-commissioning and commissioning.
- Operation and inspection, maintenance and repair (IMR) strategy development and implementation.

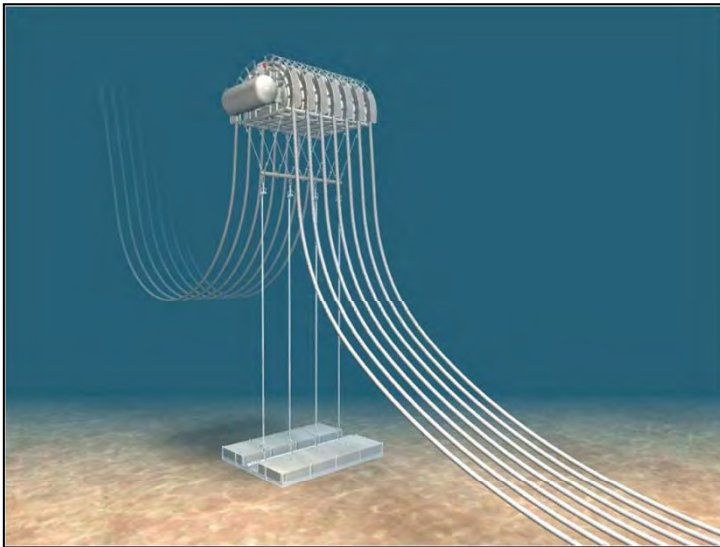
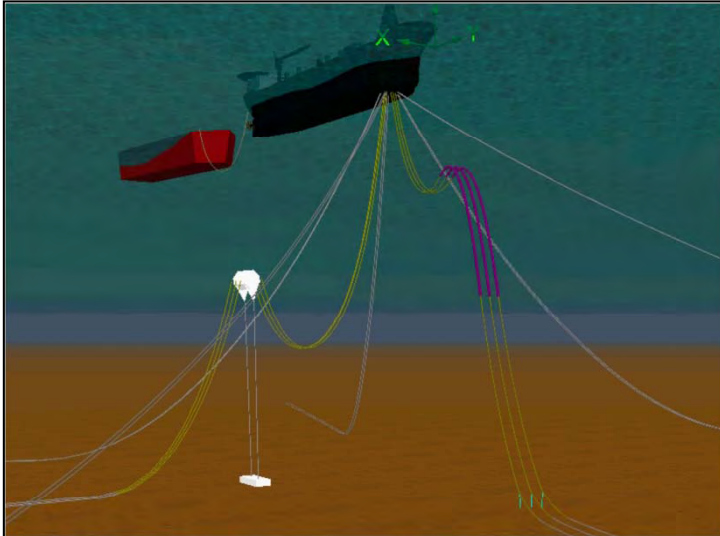
➤ Floating Structures

Peritus

- Concept selection including economic trade off evaluations to suit field development needs whether it is an early production scenario or full field development approach.
- Specialty design activities such as structural design, hull design, mooring analysis, interface design and riser design.
- Project management including tendering strategy development, technical specification preparation, tender evaluation and site support.



➤ Marine Risers



- Focus on dynamic risers in deep to ultra-deep water depths with challenging seabed and current conditions.
- Provide all phases of engineering services for the following dynamic riser types
 - » Steel Catenary Risers (SCR), ranging from small diameter flowlines to large diameter export pipeline risers.
 - » Freestanding riser towers/bundles
 - » Hybrid risers
 - » Flex joint, stress joint and keel joint concept evaluation
 - » Flexible risers
 - » Novel riser concept development and material selection

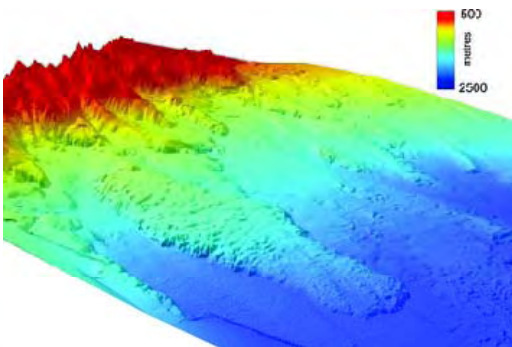
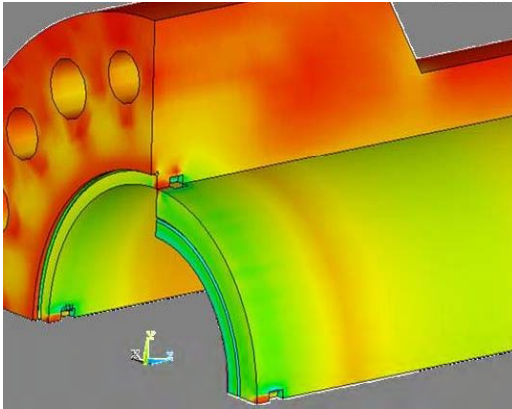
➤ Flow Assurance



- System design including networking and thermal-hydraulic simulation to assessment layout creditability.
- Thermal / hydraulic analysis of individual pipeline systems and networks, both steady state (Pipesim multiphase) and transient (OLGA).
- Product chemistry related issues such as scaling, waxing and asphaltene.
- Hydrate prediction, inhibition, and remediation.
- Product flow related issues such as slugging prediction, slug catcher sizing and slug catcher design.
- System operability design including simulations for steady state flow, planned start-up shut down, emergency shutdown and other unplanned scenarios.
- Preparation of operating and maintenance manual.



➤ Specialist Engineering



Advanced Mechanics

- Two and three dimensional FE modeling using ANSYS and ABAQUS
- Advanced pipeline & riser installation analysis
- Rough and/or steep seabed terrain modeling
- Advanced solid modeling – including turret swivels, riser flex joints, bulk heads, buckle arrestors, J Lay collars
- Transient/Dynamic FEA of pipelines including stability, trawl gear interaction, thermal, earthquake, turbidity and debris flow interaction, lateral buckling & pipeline walking
- Novel testing methods and pushing the boundaries of design codes

Risk & Integrity Management

- Reliability, Availability & Maintainability (RAM) analysis
- System and equipment failure mode analysis (FMEA & FMECA)
- HAZID, HAZOP, SAFOP, ENVID reviews
- Quantitative risk analysis (QRA)
- Root Cause Analysis (RCA)
- Support to operators in the development and implementation of risk and integrity management systems to API 17N and ISO 20815

Materials & Corrosion

- Internal / external corrosion evaluation, control & monitoring
- Materials selection
- Welding and NDE
- Fitness for Service assessments
- Fatigue and ECA assessment

Geomechanics

- Geophysical & Geotechnical Survey specification and management
- Seismic and slope stability analysis and interaction with the pipeline

About Peritus

Scope of Services

Expertise

➤ Projects

Why Peritus

People



experts in difficult and deepwater environments

➤ Sample Projects



- **Woodside:** Remote Deepwater Gas Technology Application Study, Low Cost Relocatable Mooring for DTUs Study, Flow assurance, facilities definition, cost/schedule
- **Woodside:** Lady Nora Development: FPSO procurement strategy advice and Concept Definition.
- **Woodside:** Sunrise Development: study of light well intervention for deepwater flowline hydrate remediation
- **Woodside:** Concept study for interim single well FPSO production system in the Cossack-Wanaea-Lambert-Hermes field
- **Apache:** Balnaves Development: FPSO Screening & Procurement Strategy. Pre-FEED support with preparation of Basis of Design, FEED scoping & project support
- **Apache:** Coniston: Subsea Systems support
- **INPEX:** Ichthys Development: Gas export pipeline ITT technical documentation review
- **INPEX/AMEC:** Ichthys Project: GEP and Flowline FEED Technical Assurance review

➤ Sample Projects



- **SAGE:** Project management and pipeline design consultants for the planned Middle East to India Deepwater Pipeline (MEIDP)
- **RioTintoAlcan:** FEED for CO₂ pipeline
- **Petrofac:** Confidential engineering evaluations
- **JOGMEC:** Nankai Trough: Conceptual Design of Offshore Production Test Facility for Methane Hydrate recovery (1500m)
- **SeaTrucks** PTTEP Montara Recovery: Offshore project engineering support
- **Hess:** WA 390P Development: Review of concept select studies (1500m)
- **Modec:** Steel Catenary Riser Design of Woodside Browse Deep Water Structure Delivery Competition
- **Pearl Energy:** Field Development costings for South East Asia projects
- **Otto Energy:** Field Development costings for South East Asia projects and Brownfield FPSO/Mooring/Riser and Subsea consulting
- **BP:** Development of 20k psi subsea systems

About Peritus

Scope of Services

Expertise

Projects

➤ Why Peritus

People



experts in difficult and deepwater environments

➤ Why Peritus



Specialists – The Peritus team consists of industry leaders in respective disciplines who specialise in the development of projects in deepwater and challenging environments.

- We have specifically recruited staff that have a wide and varied background and specialists who are recognized leaders in their disciplines
- We have a very focused business model aimed at being the best in the services we offer
- We are focused on Quality of delivery to provide maximum value to our clients and enhance our reputation
- We utilise state of the art analysis tools and design procedures

➤ Why Peritus



Global Networks – The Peritus business model works on a global network of regional engineering centres which enable specialised skills, knowledge and expertise to be shared across global operations. This model reduces the duplication of resources to deliver lower cost, technically superior subsea solutions for clients.

- We work as a Global company, sharing resources and skills to ensure the most qualified and experienced people are involved with particular skill sets required for a development
- We have access to Global Resource pool supported by a unified standard Management System and collaboration tools
- We are regionally based to provide services local to the project or client when required

➤ Why Peritus



Global Technology Leadership – Peritus use a superior understanding of technology and an extensive knowledge base to overcome the challenges associated with oil and gas developments in remote, hostile or deepwater environments.

- We strive to keep abreast of latest technology via involvement in projects to bring new technology to market and global industry forums
- We adopt a systems engineering approach to developments
- We apply Lessons Learned procedures to ensure greatest added value for Clients
- We will be actively involved in JIP's associated with Subsea and Floating Technology
- We will ensure application of the reliability principle

➤ Why Peritus



Independence – Peritus operate as a completely independent organisation which enables the flexibility to respond to ever evolving needs of offshore contractors and operators.

- We are a flexible and nimble company, providing a small company approach and feel, enabling us to be more responsive to client needs
- We have proven unified company systems available to handle both small and large project scopes and roles
- We are able to team in collaborative relationships with engineering houses, installation contractors and operators who don't have the Peritus skill sets in – house
- We offer independent / non aligned opinions and solutions

About Peritus

Scope of Services

Expertise

Projects

Why Peritus

➤ People



experts in difficult and deepwater environments

➤ Key Personnel



Key competitive advantage is the strength of our Key Personnel, consisting of respected industry experts with decades of subsea experience. Key Personnel include:

Asia Pacific

- » **Steve Hindmarsh,**
Chief Executive Officer and
Managing Director
- » **Thyl Kint,**
Global Director Floating
Systems and
Field Development
- » **Stephen Rivers,**
Director of Engineering and
Business Acquisition
- » **David Kennare,**
Director of Operations
- » **John Ballantyne,**
Executive Engineer
Field Development

Europe, Africa and Middle East

- » **Graham Taylor,**
Managing Director
- » **Ian Nash,**
Director of Operations and
Business Acquisition
- » **Dr Chin Teh,**
Group Leader Flow Assurance
- » **Bill Neilson,**
Engineering Manager
- » **Russell Smith,**
Riser Group Leader
- » **Brendan Herd,**
Subsea Systems Group Leader

Americas

- » **Dr Peter Breese,**
Senior Vice President
Operations and
Business Acquisition
- » **Dr Jie Fang,**
Global Director
Riser Systems
- » **Peter Carr,**
Vice President
Risk and
Integrity management

➤ Steve Hindmarsh

Chief Executive Officer and Managing Director - Asia Pacific



Qualifications

- MSc in Structural Design, Cranfield Institute of Technology, Bedfordshire UK
- Kvaerner Management Programme, International Institute for Management Development (IMD), Lausanne, Switzerland

Affiliations

- Fellow of the Institute of Engineers Australia (FIEAust)
- Chartered Professional Engineer (CPEng)
- Associate Member of the Australian Institute of Management (Ass. M AIM)

Experience

- 30 years of oil and gas experience
 - » 4 years with a major operator developing and maintaining offshore oil and gas fields
 - » 26 years managing international engineering and construction offices and divisions in The Netherlands, Malaysia, United Kingdom and Australia.
- Worked in senior technical , management and executive positions R J Brown and Associates, J P Kenny, Kvaerner and INTEC Engineering.



➤ Graham Taylor

Managing Director - Europe, Africa and Middle East



Qualifications

- BSc. (Hons) in Civil Engineering, Kingston University, London UK
- Managing Corporate Resources course at IMD in Lausanne, Switzerland.

Affiliations

- Chartered Engineer (CEng)
- Fellow of the Institute of Marine Engineers (FIMarEST)

Experience

- 30 years experience in the oil and gas industry
- Responsible for leading the growth of an engineering business in the UK Europe and Africa
- Extensive experience in Europe, FSU, Egypt, Nigeria, Angola, Israel, Libya and the Far East.
- Held senior professional and technical positions with INTEC Engineering, JP Kenny, Britannia Operator, Maersk Olie og Gas, ARCO British Ltd, Shell Expro, and RJ Brown and Associates.
- Project experience encompasses concept through FEED, detailed design, fabrication, installation, construction supervision and commissioning.

➤ Steve Rivers

Director of Engineering and Business Acquisition – Asia Pacific



Qualifications

- BSc (Hons) in Mechanical Engineering, University of Surrey, UK

Affiliations

- Fellow of the Institute of Engineers Australia (FIEAust)
- Chartered Professional Engineer (CPEng)

Experience

- 30 years experience in engineering and engineering management
- 25 spend in offshore oil and gas industry specialising in design and construction of marine pipelines, structures and process decks
- Experience with engineering consultancies, EPC contractors and Operator organisations in the North Sea, Asia Pacific, Middle East and Caspian Sea regions.
- Worked in senior technical and management positions for R J Brown and Associates, Kvaerner, J Ray McDermott and INTEC Engineering.



➤ Dr. Peter Breese

Senior Vice President Operations and Business Acquisition - Americas



Qualifications

- PhD in Engineering, University of Aberdeen, Scotland
- BSc in Engineering, University of Aberdeen, Scotland

Affiliations

- Member of the Institution of Mechanical Engineers (MIMechE)
- Member of the American Society of Mechanical Engineers (ASME)
- UK Chartered Professional Engineer (CEng)

Experience

- 30 years experience Subsea Field Development including design, fabrication, testing, offshore Installation, and project management
- Worked in on major subsea projects in the Gulf of Mexico, West Africa, Australia and the Irish Sea.
- Held senior technical and managerial positions for INTECSEA, Vetco Gray and Oceaneering International

➤ Ian Nash

Director of Operations and Business Acquisition
- Europe, Africa and Middle East



Qualifications

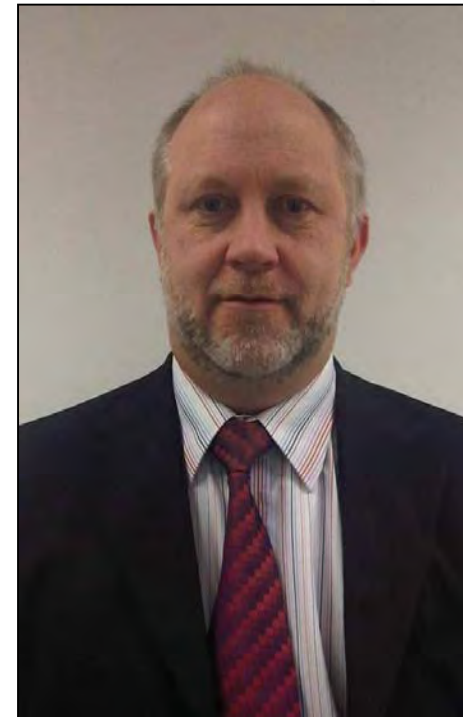
- BSc (1st Hons) in Civil Engineering from Loughborough University, Leicestershire, UK
- MSc in Marine Technology from Strathclyde University, Glasgow, UK

Affiliations

- Fellow of the Institute of Marine Engineers (FIMarEST)
- Chartered Engineer (C Eng)
- Chartered Marine Engineer (C Mar Eng)
- European Engineer (Eur Ing)

Experience

- 27 years engineering experience (23 in subsea)
- 23 years subsea experience specialising in subsea engineering and offshore pipeline design and installation.
- Worked throughout Europe, Africa, Australasia, North America and the Middle East.
- Held senior technical and management positions for major INTEC Engineering, R J Brown and Associates, ABB Global Engineering, Saipem and SASP Offshore Engineering.



➤ Thyl Kint

Global Director Floating Systems and Field Development
– Asia Pacific

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Qualifications

- MSc in Engineering from Berkeley University of California, USA
- BSc in Civil Engineering (La Plus Grande Distinction) from Universite Catholique de Louvain, Belgium

Affiliations

- Professional Engineer Texas, USA
- European Engineer (Eur Ing)

Experience

- 25 years oil and gas experience
- Experience includes several FPSO projects including Project Director for the and Pyrenees Developments
- Project Director for Stybarrow Development including an FPSO and the deepest offshore development in Australia to date
- Worked throughout Europe, Australia, North America and Asia.
- Held senior positions with Shell, BP and Kerr McGee



➤ Chin Teh

Group Leader Flow Assurance - Europe, Africa and Middle East



Qualifications

- B.Sc. (Hons) Chemical Engineering
- PhD University of Southampton, UK

Affiliations

- Member of the Society of Petroleum Engineers (SPE)

Experience

- 30 years experience in Flow Assurance and Process related projects
- Worked throughout Europe, Middle East, Australia, and Asia
- Held a number of senior positions, including Flow Assurance Manager for Petrofac and Flow Assurance Manager for INTEC Engineering
- Lead roles in flow assurance in technical studies and field development projects ranging from Concept Screening (pre-feasibility), FEED to Detailed Design phases. Experience covers all phases – concept, FEED, Detailed Design and Pre-commissioning / Commissioning
- Sound knowledge of flow assurance challenges in deepwater oil and gas developments

↗ Jie Fang

Global Director Riser Systems – Americas



Qualifications

- BSc Naval Architecture – Shanghai University, China
- PhD Naval Architecture - University College, London

Experience

- 22 years postgraduate experience in the Oil and Gas Industry
- Specialising in hydrodynamics and structural dynamics of slender bodies, including deepwater risers, umbilicals, cables, mooring lines and pipelines
- Held Senior positions including Head of Analysis at EMC and latterly Manager of Riser Engineering for INTECSEA
- Experience covers conceptual, FEED and Detailed Design
- Recognised industry expert on Steel Catenary Risers (SCR's)
- Experience includes all types of risers – SCR's Flexible, Hybrid Risers, PIP Hybrid Risers
- Lead Riser Engineer for the Detailed Design of the prestigious Mardi Gras SCR' (worlds largest diameter at 28" in 2200m water Depth)
- Other leading projects include ExxonMobil Kizomba, BP Tubular Bells and Chevron Blind Faith
- Author / Co-author of 26 papers



David Kennare
Operations Director – Asia Pacific



Qualifications

- Bachelor of Engineering, Chemical (Hons) – University of Adelaide, Australia

Affiliations

- Member of the Society of Petroleum Engineers (SPE)
- Fellow of the Institute of Chemical Engineers (FIChemE)
- Chartered Engineer (CEng)

Experience

- 22 years postgraduate experience in the Oil and Gas Industry
- Management experience includes
 - Management of an onshore natural gas field and production facility in Australia
 - Management and leadership of engineering consulting services businesses in Australia and Asia
- Project experience includes facilities engineering from concept select phase through FEED, detailed design, construction, commissioning, start up to operations.
- Experience covers UK, Australia, Malaysia, Indonesia, Vietnam and Brunei



➤ John Ballantyne

Executive Engineer, Field Development – Asia Pacific

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Qualifications

- BEng (Hons) in Chemical Engineering, University of Bradford, UK

Affiliations

- Member of the Institute of Chemical Engineers (MIChemE)

Experience

- Over 20 years post-graduate experience in engineering, management and business development roles
- More than 10 years spent in concept, feasibility and field development roles in the oil and gas industry
- Experience in onshore and offshore oil and gas in the upstream and downstream sectors
- Worked with engineering consultancies, EPC contractors and IOC's in the UK, Norway, Netherlands, Oman and Asia Pacific
- Specific experience in operations management, development engineering and in leading development studies for BP, Shell and Woodside among others

➤ Bill Neilson

Engineering Manager - Europe, Africa and Middle East



Qualifications

- MSc in Mechanics of Materials, University of Strathclyde
- BSc (1st Class Hons) in Mechanical Engineering, University of Glasgow

Experience

- 31 years experience in the Oil and Gas Industry
- Held senior positions including Operations Director for Pegasus International (formerly Mentor Project Engineering)
- Other industry experience includes J P Kenny and secondments to BP, Marathon and SLP
- Worked on a number of major projects - in various roles – including Centrica Baird, ATP Tors and Cheviot, SLP, MacCulloch, CNR Baobab, BP Forties Replacement Pipeline, Marathon East Brae, Statoil Gullfaks Pipelines and the Arco Thames Project.



➤ Pete Carr

Vice President, Risk and Integrity Management - Americas



Qualifications

- MSc in Steel Structures, Imperial College, London, England
- BEng in Civil and Structural Engineering, Sheffield University, England

Affiliations

- Member of the Institution of Civil Engineers (MICE)
- Member of the Institution of Structural Engineers (MIStructE)
- Member of the American Society of Civil Engineers (MASCE)
- UK Chartered Professional Engineer (CEng)

Experience

- Background in engineering design followed by 25 years specialist experience in risk assessment, reliability analysis, and engineering optimization studies.
- Worked on offshore and onshore pipelines, subsea facilities, platforms, and floating facilities in many parts of the world.
- Held senior positions at Atkins Oil & Gas and Brown & Root. Also successfully managed his own consultancy for many years.



➤ Ken Hook

FPSO Technical Consultant, Asia Pacific / Europe, Africa and Middle East



Qualifications

- B.Sc.(Hons) Mechanical Engineering (Naval Architecture)
- M.Sc. Ocean Engineering (Naval Architecture)

Affiliations

- Member of Royal Institution of Naval Architects (CEng)

Experience

- Over thirty years marine and offshore experience; including as owner's resident engineer, shipyard site representative and offshore installation representative for a number of FPSO, FSO and SPM projects.
- Worked in South East Asia, Europe, Norway, China, Mexico, USA, and Australia; and is now based in the UK.
- Experienced in the preparation of detailed technical specifications and procedures for new-build, refurbished & converted vessels and mooring systems; for preparation of contract documents, project execution plans, general administration procedures, and Invitation to Bid packages for repair, conversion and new fabrication projects; and for general FPSO/SPM support including troubleshooting, contractor's documentation reviews, project scheduling, project control and change order verification/negotiation.



➤ Steve Sinclair

Principal Technical Consultant, Field Development – Asia Pacific



Qualifications

- Bachelor of Engineering (Chemical) 1st Class Honours
– Melbourne University

Affiliations

- Associate member of The Institution of Chemical Engineers (AIChemE)

Experience

- Over 20 years process facilities and project & engineering management experience, including responsibility for all project stages from concept through shipyard construction and commissioning of the major and successful Stybarrow FPSO facility. Extensive facilities engineering and management experience, both onshore and offshore, ranging from technical feasibility reviews through to conceptual development, to detailed engineering, construction, commissioning, operation and brownfield modification of oil and gas facilities.
- Extensive FPSO experience having been involved both in FPSO projects and in ongoing engineering maintenance operations for existing FPSOs. Steve also has extensive Gas To Liquids (GTL) experience having held major responsibility for a prototype (and Australia's only) gas to methanol plant and having been involved in extensive floating GTL and LNG studies.
- Worked with Woodside, Apache, BHP and ICI and has worked in the UK, Singapore, Japan & Australia.

➤ **Brendan Herd**

Subsea Systems Group Leader - Europe, Africa and Middle East



Qualifications

- BSc (Hons) Mechanical Engineering

Affiliations

- Chartered Engineer (CEng)
- Member of the Institute of Marine Engineers (MIMarEST)
- Member of the Institution of Structural Engineers (MIStructE)

Experience

- 30 years experience in Subsea and Marine Engineering encompassing design (conceptual, FEED, detailed and execution), specification, procurement, construction (surface and ROV driven) and testing of subsea mechanical, structural, manifolding, flowline (including bundles), riser and marine systems together with offshore installation.
- Lead roles in engineering teams associated with taking projects from conceptual design through to execution, and intermediate phase combinations. Examples include Deepwater Subsea Modular Manifolds, numerous Deep and Shallow Water Field Development technical studies, Heated/Cooled bundled flowlines, Major scale multi-field manifolds, TLP Moorings and projects requiring mechanical accommodation of maturing technologies with attendant modularisation.
- Senior positions in subsea/marine projects and study/concept developments for major companies including JPKenny, KBR, BP, Granherne, Kvaerner (Oslo), and Brown and Root/VO Offshore.



Russell Smith

Riser Group Leader - Europe, Africa and Middle East



Peritus

Qualifications

- BEng, Naval Architecture and Offshore Engineering
- MSc, Mathematics
- PhD, Engineering
- University of Strathclyde, Glasgow, UK

Experience

- 22 years experience in industry and research, primarily involved with Design & Analysis, Project Engineering & Management and Business Development, with an emphasis on Flexibles, Integrity Management and related technologies.
- Technical authority in various Joint Industry Projects (JIPs) for fatigue analysis of Flexibles Risers and Steel Tube Umbilical's.
- Software Developer for Flexible Riser Hysteresis and Extreme Value Statistics, Flexible Riser & Umbilical Fatigue Analysis and Bend Stiffener Design. Acquired extensive experience as a senior advisor in a leading oilfield services company for subsea integrity monitoring based on fibre-optic sensor and composite materials technologies.



The Peritus logo features the word "Peritus" in a bold, dark blue, sans-serif font. It is framed by two curved lines: a red one above and a blue one below, both starting from the left and ending on the right, with a small gap between them.

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Questions?