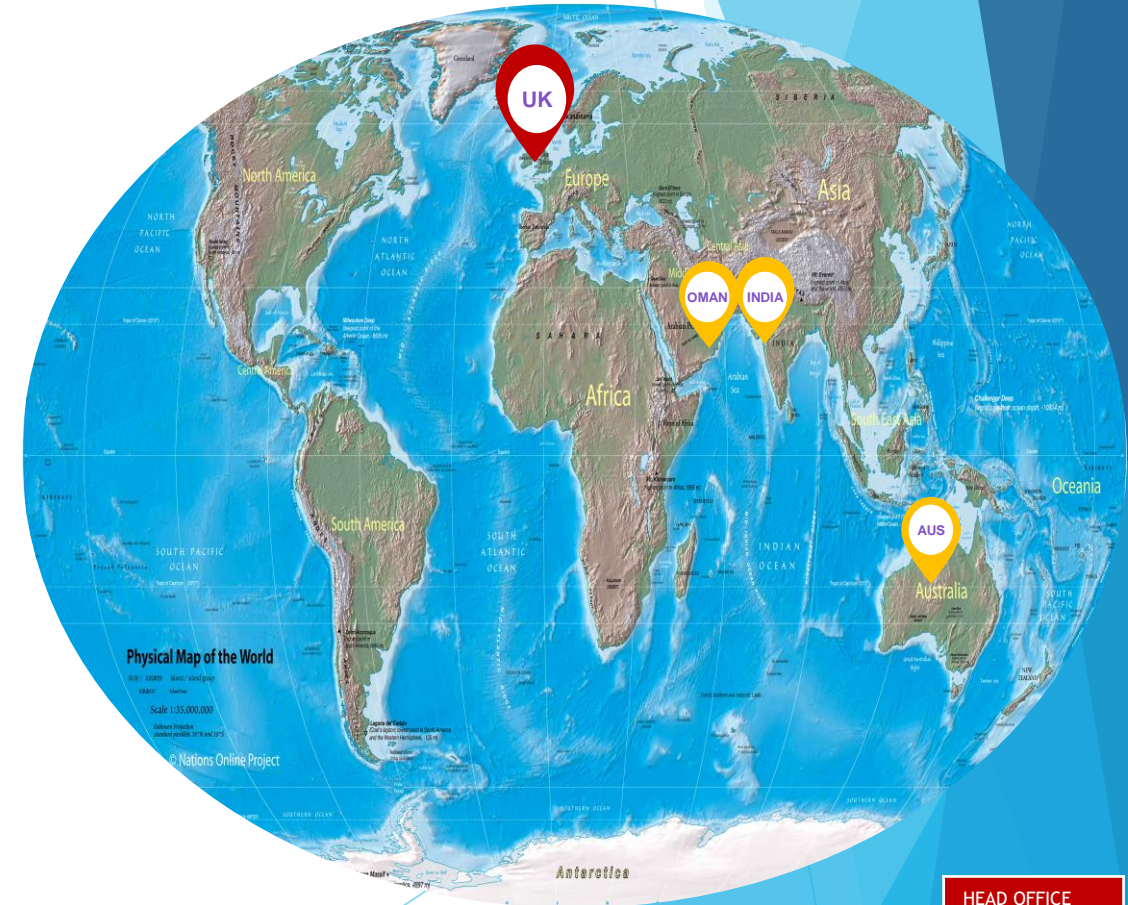




# ELIXIR Services Overview

# GLOBAL EXPERT IN ENGINEERING SERVICES

- ❖ Rapid Growth - turnover up by 100%
- ❖ High % repeat business
- ❖ **Good staff retention and hence continuity in support**
- ❖ Services with competitive edge
- ❖ Achilles Registration
- ❖ QS ISO 9001 approved
- ❖ One stop solution (Reservoir to Export)
- ❖ Holistic Approach
- ❖ Aspen Suite, OLGA, PHAST, PIPENET, ANSYS Fluent etc.
- ❖ **Multidisciplinary Engineering**
- ❖ **Vendor Registration is already with Px**



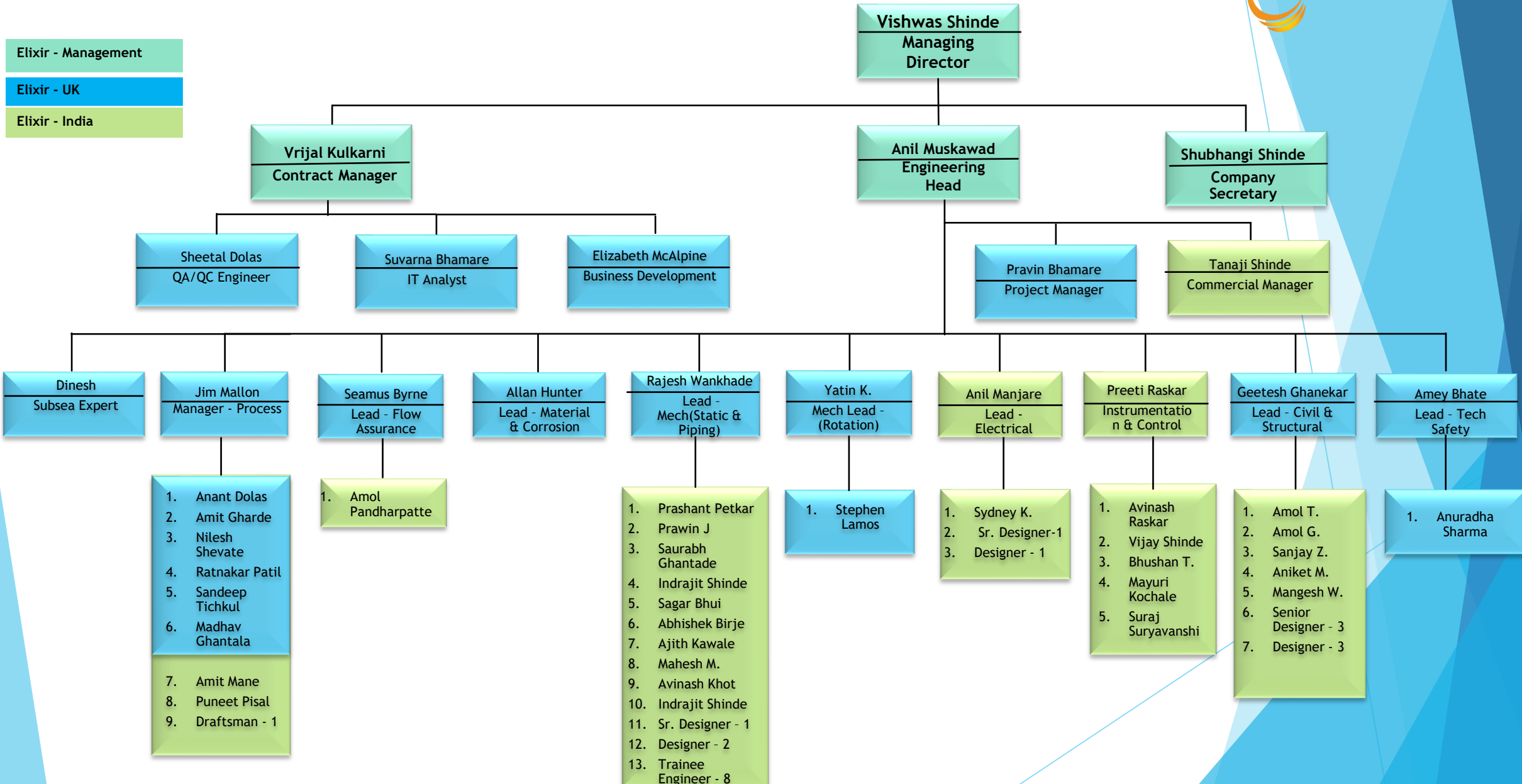
# BUSINESS GROWTH



# ORGANISATION CHART



- Elixir - Management
- Elixir - UK
- Elixir - India



# OVERVIEW

## SECTORS

Upstream / Midstream Oil & Gas
Refinery & Petrochemical
Chemicals(Organic/ Inorganic)
Energy Transition(CCUS & Hydrogen)
LNG Manufacturing & LNG Regassification
Storage Terminals
Desalination Plant
Effluent Treatment Plant
Biorefinery



## SCOPES HANDELED

Feasibility Studies / Concept Studies
FEED/ Detailed Design
Operational/ Commissioning Support
Flow Assurance Studies
Process Optimization & Debottlenecking
Flare Network Analysis & Blowdown Studies
Dynamic Simulation, CFD Analysis
Firefighting Network Analysis
Technical Safety Studies
Project Management & Control

# GLOBAL PRESENCE

## UK

FEED / DETAIL DESIGN	Harbour, DANA, Repsol, Apache, TAQA, PX, Spirit Energy, Shell
SPECIALITY STUDIES	PD&MS BLUE WATER ENQUEST
FLOW ASSURANCE	Spirit Energy Apache
TECHNICAL SAFETY STUDIES	PD&MS Perenco AOC
FACILITATION SERVICES	KEW Tech Enquest PX
DECOMMISSIONING	Total Energy TAQA

## NORWAY



## UK



CONCEPT  
OPTIMISATION

## IRAQ

YAMAMA

FEASIBILITY &  
CONCEPT STUDIES

## INDIA

SAIL

FEED /  
DETAIL DESIGN

RELIANCE

## OMAN

TECHNICAL  
SAFETY STUDIES

OQ

FACILITATION  
SERVICES

PDO / OQ

DETAIL DESIGN

OQ

FEED + DD

## SAUDI ARABIA

NATPET

## BAHRAIN

COMMISSIONING  
PROCEDURES

TATWEER  
PETRO

## UAE

DETAIL DESIGN

ADNOC

## AUSTRALIA

CONCEPT STUDY

ENGV

SPECIALITY  
STUDIES

BEACH  
ENERGY

DETAILED DESIGN

LONG  
ENERGY

## AUSTRALIA



# FLOW ASSURANCE STUDIES

## SLUG MANAGEMENT

- ❖ Arran pipeline to shearwater platform slug management study- For Shell.
- ❖ Slug prediction and impact on pipeline & piping- For Iona-3, Australia.

## WATER HAMMER

- ❖ Water hammer effect study for produced water injection system- For BW offshore, UK.
- ❖ Water hammer effect study for produced water treatment facility- For Blue Water, UK.

## TEMPERATURE STUDY

- ❖ Minimum temperature analysis for FG import scrubber during platform startup –For Spirit Energy.

## STEADY STATE & DYNAMIC SIMULATION

- ❖ Steady state & dynamic simulation of Arran Pipeline to shearwater platform (temperature & pressure profile) - for Shell, UK.
- ❖ Steady state and dynamic for CO2 dense phase of SWAG CO2 EOR Pilot pipeline project- For Bu Hasa, Qatar.

## SAND MANAGEMENT

- ❖ Sand Transport modelling in subsea well to Offshore Platform- For North Sea Client.

## TRANSIENT STUDY

- ❖ Transient simulation for N16, N7 and BK8 wells- For Apache, UK.
- ❖ DP6 DP8 pipeline transient analysis- For Spirit Energy

# TECHNICAL SAFETY STUDIES & WORKSHOPS

## HAZOP

- ❖ HAZOP facilitation for ILI Pigging Campaign for Shetland Gas Pipeline to Alwyn Platform – For TOTAL, UK.
- ❖ HAZOP facilitation for various brownfield projects- For Enquest, UK
- ❖ Procedural HAZOP for pipeline pigging facility-For North Sea UK

## FIRE WATER NETWORK

- ❖ Fire Water network hydraulic study- For Perenco UK.
- ❖ Fire Water demand calculations based on various Fire Scenarios - For OQ Oman.

## TSE STUDIES

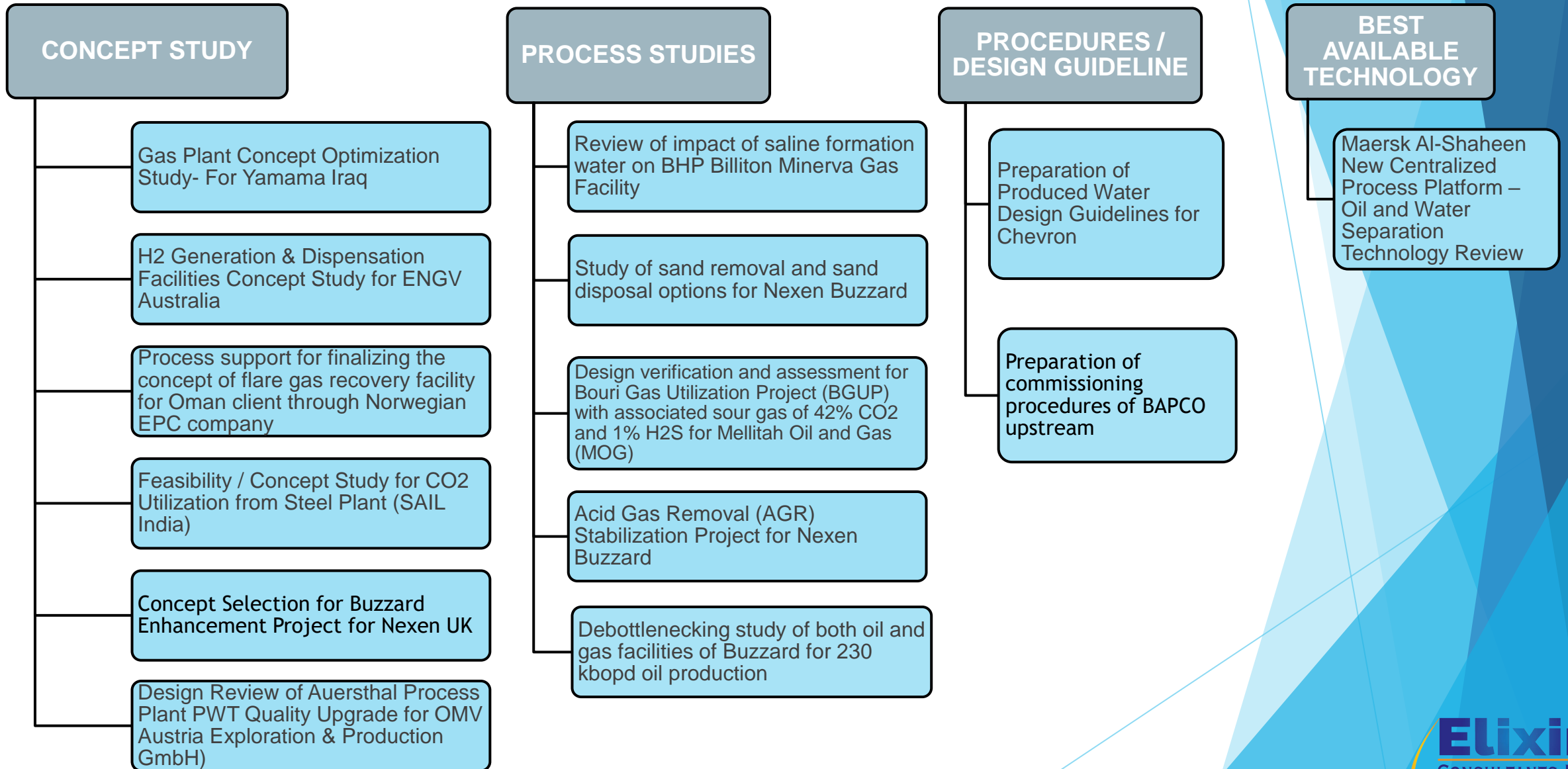
- ❖ Risk Decision Analysis and work prioritization for AOC FPSO UK
- ❖ Shell Gannet DGS – Seals N2 & O2 Rich vent Dispersion Study, UK
- ❖ Thermal Radiation study for Beach Energy Beharra Spring Gas Plant
- ❖ QRA study for Pride Packaging project, OQ, OMAN
- ❖ HAZOP and LOPA Actions Closeout for Anasuria Operating Company (AOC) UK

## HAZID

- ❖ HAZID facilitation Ras Tanura Refinery, Hydrogen Manufacturing Unit- For Saudi Aramco
- ❖ HAZID, DR, HAZOP, SIMOP Facilitation- Network Gas Supply Stations of- For OQ, OMAN
- ❖ HAZID for subsea pipeline (Alwyn Platform to St. Fergus ILI campaign- For TOTAL UK



# FEASIBILITY & CONCEPT STUDIES



# MAJOR FEED PLUS DETAILED DESIGN PROJECTS

- 1** Flare System Improvement Project for NATPET Saudi Arabia
- 2** Process and Technical Safety support for Fire Water Network modifications Project for OQ Oman
- 3** Process Engineering Simulation Support for Beach Energy Gas Production Facility for additional HC recovery by installing one more stage to CO2 membrane system.

# MAJOR DETAILED DESIGN PROJECTS

Process Decommissioning Support for Attic Oil Removal for Cormorant Alpha TAQA UK

Structural Piperack Modification for DANA Tritan repair & replacement of perforated areas Work, UK

POPM updation of Chemical Injection System and North Sea pipeline (Scoter Merganser) post decommissioning for Shell

Subsea Well and Pipeline Tieback to Shearwater – Shell Acorn Detailed Design Project

TOTAL Pipeline Decommissioning Process Support

Flare Network Analysis & Blowdown Studies for Beach Energy Gas Plant –2nd Stage addition to CO2 membrane System

Process Engineering Assurance for Bu Hasa SWAG CO2 EOR Pilot Project (Dense Phase CO2 Pipeline Transpiration & Injection)

Stress Analysis Support to Long Energy for various Brown Field Modifications of Lochard Energy and Beach Energy

# MAJOR DETAILED DESIGN PROJECTS

Detailed Design of Brownfield Modification Projects of Reliance Jamnagar Refinery

As Building of Catalytic Point Gas Detectors Work pack 8 and 10- Instrumentation upgrade, UK

Replace Local Deck Plating- Structural Modification scope for replacing Kennedy gratings, UK

Claymore - Oil Export - Pump Outages Post SD Pipework Replace- Instrumentation Detailed Design, UK

Armada Destec Seal ring Replacement NWS & Maria - Piping Drawings, Civil Support Drawings & Load data Preparation.

Pre-Bid Engineering support for Refinery unit (7000lines)

# POSSIBLE SUPPORT AREAS

## FLOW ASSURANCE RELATED WORK

- ❖ Hydraulic Studies
- ❖ Transient Analysis (wax, hydrate, slug etc.)
- ❖ Developing First Gas Procedure and LP Cold Restart procedure based on Production Technologist input (drawdown and ramp rates)
- ❖ Chemical Injection requirement & Umbilical Core Sizing
- ❖ Pipeline POPM development covering planned and unplanned shutdown
- ❖ Pipeline pigging analysis and procedure development
- ❖ Pipeline sand deposition study

## ENGINEERING SUPPORT

- ❖ Options Screening and Concept Select for Brown Field Modification Projects
- ❖ Technical Safety Studies (Radiation & Dispersion Analysis, QRA followed by Safety Case Updation, ALARP Demonstration, Risk Decision Analysis, SIMOPS ,HAZID, HAZOP/LOPA Closeout)
- ❖ Workshop Facilitation Services
- ❖ **Multidisciplinary FEED + Detailed Design work for Brownfield Modification Projects**

## SIMULATION STUDIES

- ❖ Steady State & Dynamic Process Simulation
- ❖ Blowdown / Depressurisation Studies, Flare System adequacy checks
- ❖ Pressure Surge Studies
- ❖ CFD Analysis

# CONTACT US

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# Thank You

