Shell Petroleum Development Company of Nigeria

Classification Status: Restricted

September 2021 SCiN-2021-08-00000043

SCiN Reshape Initiative

80-20 HCM Framework for Drill to Fill (D2F) Program

Guidance Note

(Comprising: HCM Process Scaling, Standardized Design Archetypes, Pause/Exit Criteria for projects, Rationalization of IPA Benchmarking, Clustering Campaign for contracts)

REVIEWED BY:

Title	Name	Signature & Date
Front End Engineering Manager	Elisha Ezekiel-Hart	ELISHA.EZEKIEL-HART Digitally signed by ELISHA.EZEKIEL-HART Date: 2021.09.06 16:06:13 +01'00'
Growth and Portfolio Manager	Peter Osadjere	Peter Osadjere Digitally signed by Peter Osadjere Date: 2021.09.06 16:07:47 +01'00'
WEM Discipline and Interface SPDC	Trost Amos	Trost Amos Digitally signed by Trost Amos Date: 2021.09.06 17:21:58 +01'00'

APPROVED BY:

Title	Name	Signature & Date
GM Development & Subsurface (Sponsor)	Sam Ezugworie	Sam.C.Ezugworie Digitally signed by Sam.C.Ezugworie Date: 2021.09.07 10:10:04 +01'00'
GM Projects	Benno Touw	Benno.Touw Digitally signed by Benno.Touw Date: 2021.09.08 14:27:58 +01'00'
GM Contracting & Procurement	Laurie Schmidt	Gregory Akhibi Digitally signed by Gregory Akhibi Date: 2021.09.13 12:21:39 +01'00'
GM Wells Operations	Joseph Mordi	Joseph.Mordi Digitally signed by Joseph.Mordi Date: 2021.09.08 07:20:12 +01'00'
GM SPDC	Wessel de Haas	Wessel.O.DeHaas Digitally signed by Wessel.O.DeHaas Date: 2021.09.07 09:01:33 +01'00'

Revision History

Revision No.	Date of Issue	Reason for Change
R01	15 Jul 2021	Issued for Review
R02	26 Jul 2021	Revised abridged version for review
R03	2 Sept 2021	Issued for Use

1. EXECUTIVE SUMMARY

In the next 10-year plan in OP, more than **60% of SPDC projects have similar scope** – they are all tiebacks to existing facilities, and the scope is made up of wells, flowlines, manifolds, bulklines. To put it in numbers, there is **roughly $3b in CAPEX, ca. 40-50 wells, and ~300km of new pipelines**. What we currently do, is deliver each project individually. And for each project, we go through the activities that underpin PMF and ORS sequentially.

What we are changing, is to apply a portfolio lens to deliver all these projects, in a more efficient way. This will result in Schedule & Cost savings i.e., go from ***7+ years to ~4 years and up to $1B CAPEX reduction (~15-30% vs. OP20), ~$0.5M per annum Feasex savings***. This safeguards business value to **deliver DCQ+10% as a norm and early oil delivery**. The other salient benefits include efficient manpower utilization across the portfolio, gains from replication of standard design archetypes & synergies from clustering campaign at Portfolio Level.

Post Reshape expected leadership behaviors (amongst project practitioners; Project leads, BOMS etc.) to drive and embed these initiatives include ownership, empowerment, and commitment to delivery. SCiN leadership support is key for sustainability and success.
The key improvement levers are underpinned on 3 main pillars, Standardization, Clustering & Scaling with improvement initiatives nested within these pillars to ensure nimbleness in our opportunity maturation processes and timeline.

DELIVERY THROUGH PORTFOLIO VS. PROJECT LENS

- **Standardization** vs. *Bespoke designs*
- **Proactive scaling** vs. *Overengineering*
- **Portfolio development plans** vs. *Project specific plans*
- **Portfolio contracting** vs. *Tendering by project*
- **Natural teams** vs. *Siloed project teams*
- **Campaign approach to execution**

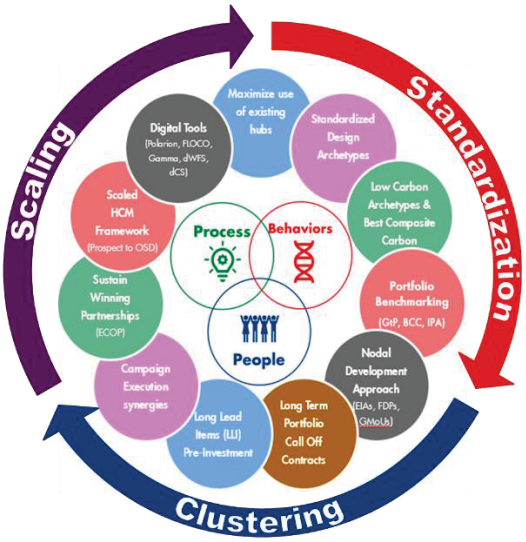

Figure 1: Key Improvement Pillars

This "Guidance Note" documents simplifications in the Way We Work Post Reshape for a number of Workflows (WFs) in Shell Nigeria and will be live with subsequent updates incorporating learnings. These simplification initiatives are described in the Section 2 and mapped to the WFs in Figure 2.

2. PROCESS SIMPLIFICATION INITIATIVES SUMMARIES

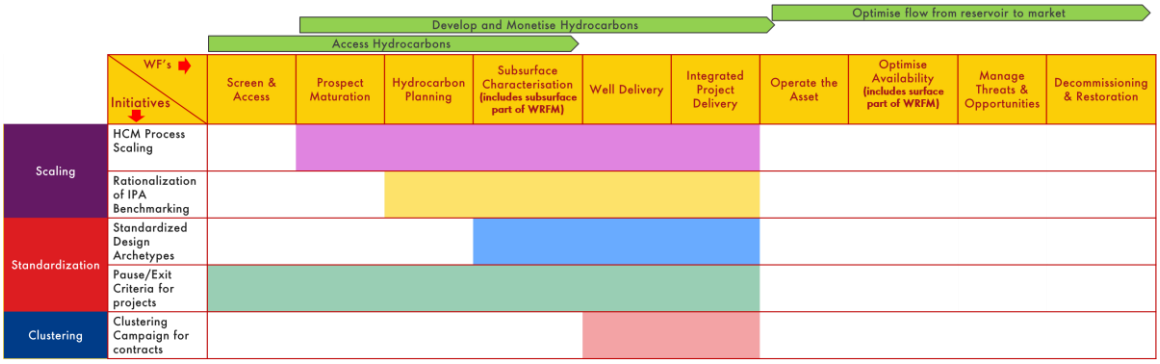

Figure 2: Process simplification initiatives benefits mapped across workflows

I. HCM Process Scaling (Gains ~12 – 18 months on cycle time & ~$0.25M p.a. Feasex)

This initiative presents a scaled and agile hydrocarbon maturation process *(80-20 HCM Framework)* for infill projects that leans the PMF (and DCAF) whilst meeting intent of controls & control points and complements the updated Global Well Delivery Process (GWDP).

Key highlights: **Over 80 PMF Expected Practices condensed to 20 Steps from DG1 to OSD & Asset Handover; One Assess-Select phase for projects; FEED by difference in Define Phase.**

For further details, click here or contact Ganesh Subramanian, Martyn Turner, Bolaji Ajao.

II. Rationalization of IPA Benchmarking (Gains: ~1 – 2 months on cycle time & ~$0.25M p.a. Feasex)

This initiative enables projects to leverage on recently concluded IPA evaluations of projects for future projects in the SCiN portfolio with similar scopes approaching DG3 milestone vs. carrying out standalone IPA evaluations required by PMF.

Key highlights: **Fit for purpose benchmarking for projects utilising Global & In Country knowledge, Data catalogue of In-Country projects & component level benchmarking for portfolio.**

For further details, click here or contact Olami Festus, Uju Ndibueze or Ganesh Subramanian.

III. Standardized Design Archetypes (Gains: ~6-12 months on cycle time & 5 – 10% on CAPEX)

This initiative provides standard design archetypes for new oil and gas developments (onshore, deepwater, shallow water offshore) in SCiN including competitively defined & repeatable subsurface workflow process (with several repeat applications) that translates to Well Franchise Operating Model *(once standard wells design archetypes are deployed and franchise content utilised, DG3 is passed from a Wells perspective)* and surface facilities design selection.

Key highlights: **Size of the prize (volume) & risks drive design archetype selection; Parameters for subsurface-surface-wells data handshake; One set of Technical Peer Assist (TPA) & concurrent work by PT, Wells & surface teams, Guidance SoP on application of Standardized Design Archetypes on projects**

For further details, click here or contact Adekoyejo Sonde, Bolaji Ajao or Uju Ndibueze.

IV. Pause/Exit Criteria for Projects

This initiative delivers a clear framework that links decision on pausing or exiting projects to full TECOP spectrum rather than only economic hurdles and provides a Guidance on how to restart projects in case of Pause & how to redeploy resources in case of Exit; One Pager Summary template for knowledge retention and sharing.

Key highlights: **Flag Off Points in the 80-20 HCM Framework for project leaders to check the robustness of their projects against Pause/Exit Trigger List including best practices.**

For further details, click here or contact Peter Obidike, Dave McPherson or Oke Ojonah.

V. Clustering Campaign for Contracts (Gains: ~12-15 months on cycle time & 10–20% on CAPEX)

This initiative delivers an ***Approved Portfolio CP strategy (Ep+C)*** endorsed by regulators and an approved Awardee(s) list by scope for the project teams to call-off using the portfolio level contracts on their individual D2F projects. Leveraging on standardized design archetypes and use of known contractors (who are experienced operating in the Niger Delta) to not only improve the speed of execution but also enable growth of local small & medium sized contractors with a steady influx of work

Key highlights: **Long tenure (5+2 years) Portfolio Call Off Contracts for SPDC; Simplification of project CP processes, Reduction in project tendering cycle times.**

For further details, click here or contact Toni Oyetunde, Olami Festus or Pendo Lawani.