



Culture Transformation & Marginal Gains

A Nexen Culture & Efficiency “Case Study”



A New Energy

Background - About CNOOC Nexen UK Business



0 / 0 / 0 everyday
Excellent HSE performance
By Choice programme
Safety, HRP & E-Reps
Strong asset integrity culture



3 of the top 7 UKCS producing assets
Long asset life > 2030
Increasing plant reliability



Low cost operator in UKCS
Strong cost management culture
"Cherish The Margin"

A compelling vision that affirms our top quartile operator status

Moving from Top Quartile to Best-in-Class



1. We needed a clear vision and ownership of results by the whole organisation

2017 NEXEN KEY RESULTS

HEALTH, SAFETY
& ENVIRONMENT

0/0/0
Every day

Lost Time Incidents (LTI)
Recordable Process Safety Events
Significant Events

PRODUCTION

Profitable
Barrels

Net Production of 234 mboe/day
All-in cost per barrel

PROFIT
GROWTH

Cherish the
Margin

Improvement in Cash Flow
Improvement in Earnings

VALUE
CREATION

Achieve
"OE²"

Global Exploration
Capital Execution of Major Projects
Governance Framework and Internal Controls
Innovation
Quality & Efficiency

CIRCUIT BREAKER: Minimum threshold on HSE performance at Corp. Level (i.e. Fatality, Env. or Reputation)



NEXEN'S CULTURAL BELIEFS



SAFETY FIRST

I protect the safety and well-being of myself, my co-workers and the communities and environment in which I work.



BE BOLD

I innovate and take informed risks to achieve superior results.



BE THE BEST

I relentlessly drive to be Best in Class.



STEP UP

I hold myself and expect others to be accountable for delivering superior results.



RESULTS MATTER

I contribute to defining the expected result and strive to exceed expectations.



VALUE FEEDBACK

I seek, provide and act on constructive feedback.



DO IT RIGHT

I plan effectively and know when to move to action.

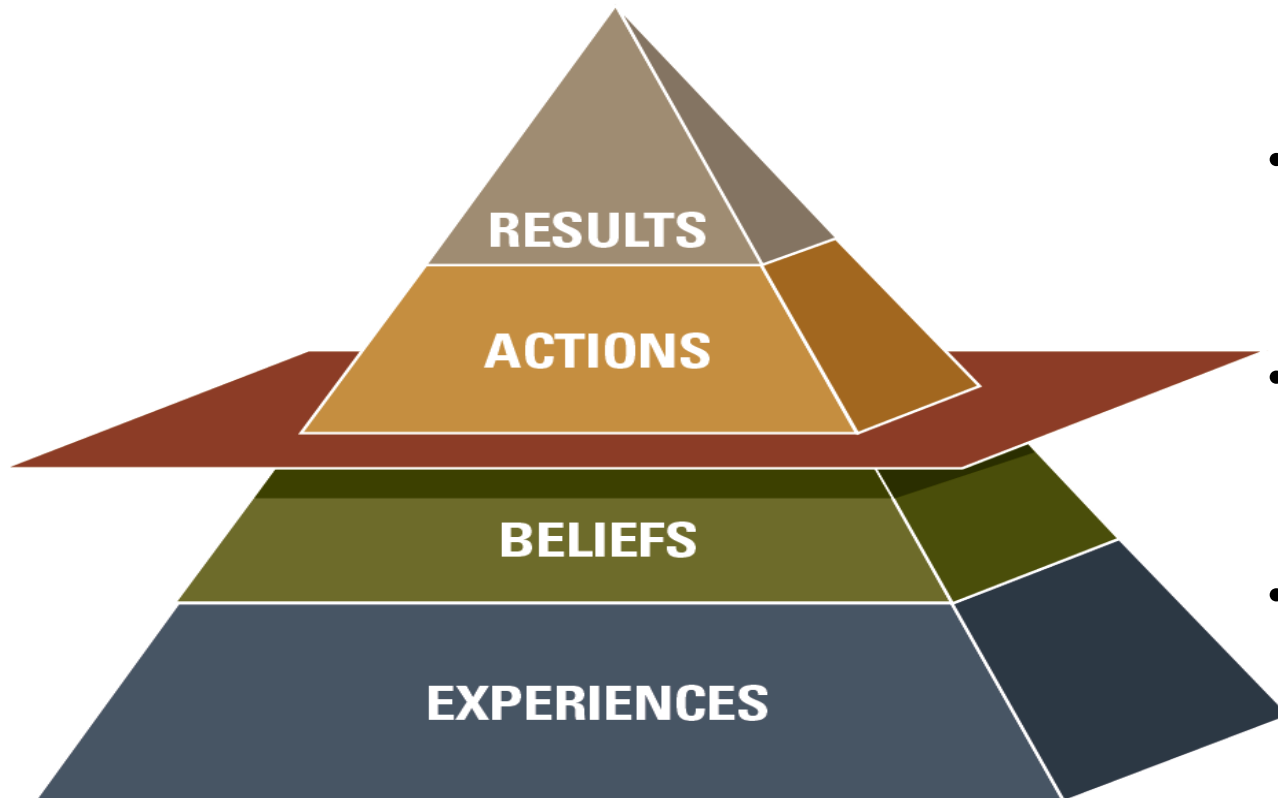


WIN TOGETHER

I collaborate without boundaries and align with the team to achieve superior results, and I share our successes and learnings.

2. We identified the cultural shifts required to deliver results

RESULTS PYRAMID®



- The results we achieve are a product of the actions we take.
- The actions we take are influenced by the beliefs we hold.
- The beliefs we hold are created by the experiences we have.

HOW DO WE WORK AROUND HERE?



FOCUSED RECOGNITION

I want to recognize for demonstrating

- | | | | |
|---------------------------------------|---|----------------------------------|---|
| <input type="checkbox"/> Safety First | <input type="checkbox"/> Results Matter | <input type="checkbox"/> Be Bold | <input type="checkbox"/> Value Feedback |
| <input type="checkbox"/> Be the Best | <input type="checkbox"/> Do it Right | <input type="checkbox"/> Step Up | <input type="checkbox"/> Win Together |

in the following manner:

By doing this, you have positively impacted the following key result(s):

Given by

Date

Moving from Top Quartile to 'Best In Class'



3. We then realised we needed to identify MARGINAL GAINS to change experiences and create new results quickly
 - 'Marginal Gains' - small enhancements to any activity / scope / project or process that will sustain or improve our aspirational targets over the short and longer term
 - Remember, it is not one special solution; it is about continuously looking to see where you can make many small gains
 - Focusing on gains which will positively influence our targets

TODAY  **TOMORROW**

Marginal Gains – Olympic History



How do you measure the difference between first and second place?
This difference is 1/100th of a second – but what can you do different to the competition who are all trained athletes too?

Marginal Gains – Water Injection Performance

TODAY

*Production is priority and
Water Injection is secondary*

TOMORROW

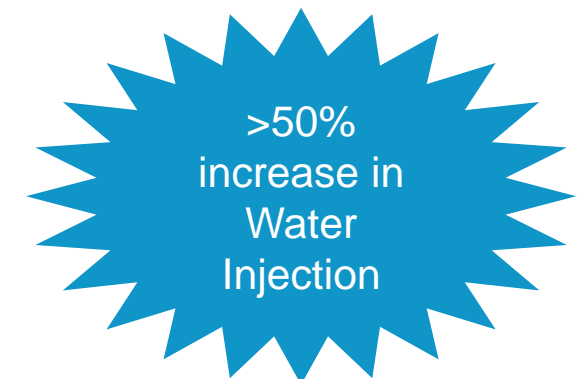
*Water Injection rates will underpin
Production success*

What is the key belief we want to create?

Water Injection is vital to the delivery of production barrels

Marginal Gains that will help instill the new belief:

- 1) Start each shift handover discussing water first – oil next
- 2) Water Injection shown in our daily and weekly reports above oil
- 3) Communicate recognition of Water Injection success at all levels of the organisation
- 4) Buzzard - Sulphate Removal Package by-pass allows higher volumes
- 5) Scott - maintain 4 Water Injection pumps as priority
- 6) Golden Eagle – prioritise Water Injection commissioning



Marginal Gains – Green Hats Impact on Non-Productive Time (NPT)



2 Hours
NPT

Induction by Core Crew

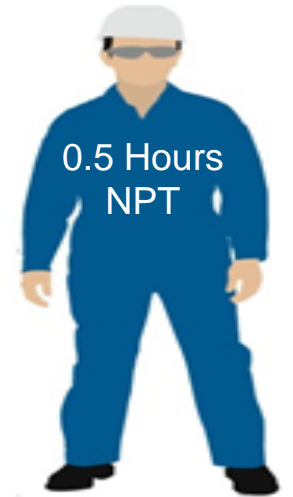
3,000 New Green Hats
every Year on Nexen
UK Installations



8.5 Hours
NPT

Induction / Platform Familiarisation

£3-4 million of NPT
cost annually



0.5 Hours
NPT

OIM Evening Brief



8
Hours
NPT

Core Crew Support / Shadowing



Additional Supervision

Marginal Gains



Interventions
Non-Productive Time
Down from
38% to 3.5%



Vessel NPT
Down from
60% to 30%



Helicopter Utilization
Up from
14 to 16 people per flight

Marginal Gains



Optimizing Wellhead Maintenance
A gain of 140mboe

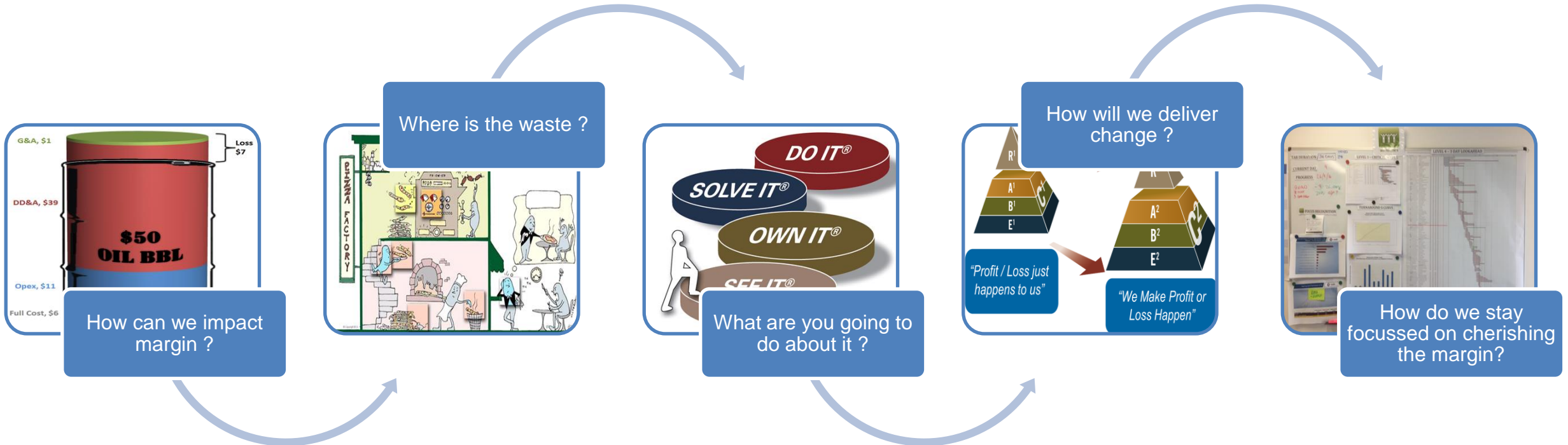


Annual TARs
completed On Time and Leak Free



Offshore Productive Time
Up from
5.5 hours to 9 hours

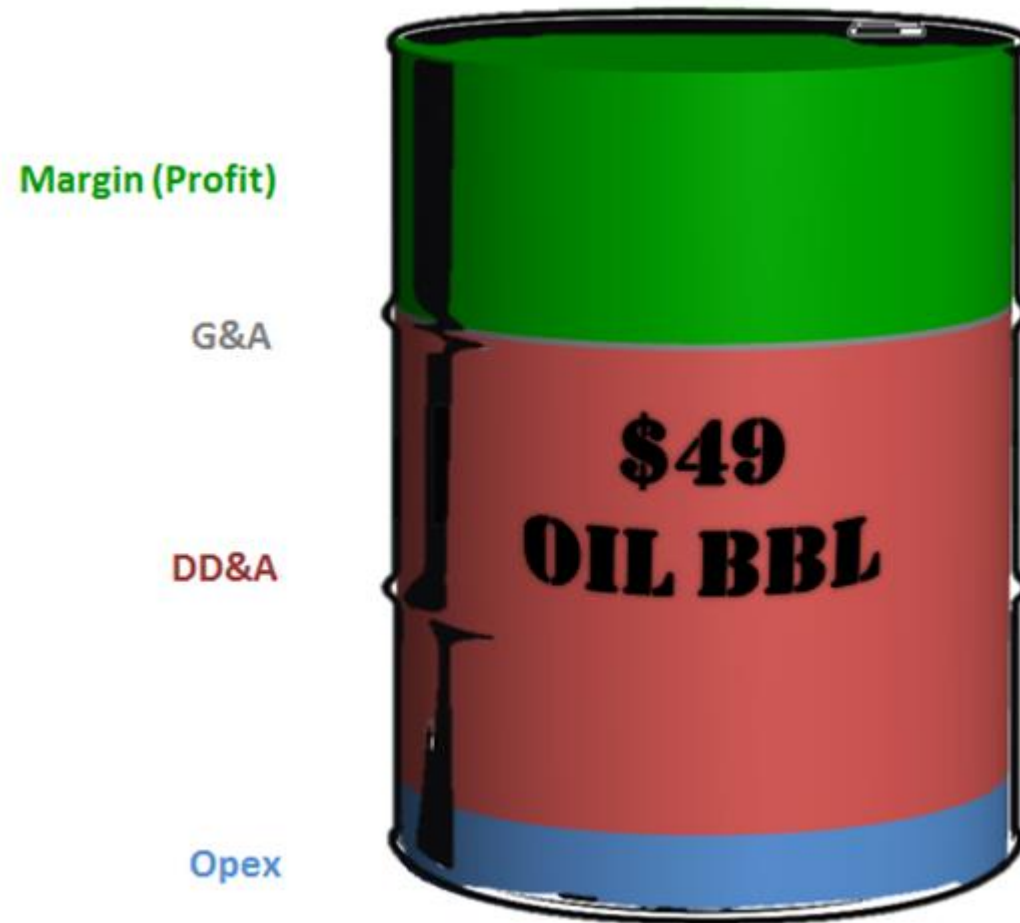
Taking marginal gains to the next level : "Cherish the Margin"



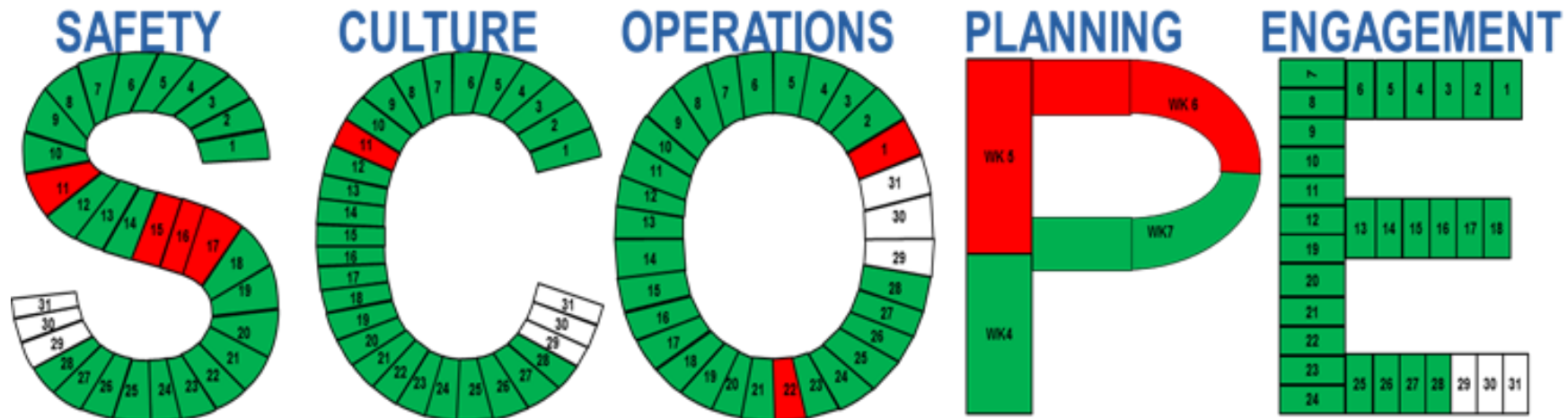
- Cherish the Margin – focus on profitability
- War Room – managing operations and large scopes effectively between onshore and offshore
- SCOPE - measuring our operational performance every day

What is the Margin?

$$\text{MARGIN} = \text{REVENUE} - \text{OPEX} - \text{DD\&A}$$



A war room mentality to deliver the margin everyday

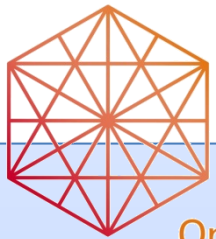


How can this continue to work for us?



- ‘Key Results’ - A clear vision that can be easily communicated is essential
- Maintain a focus on a small number of initiatives to ensure success
- Keep it simple, consistent and use a common language and process
- Empower the workforce to drive the improvements
- Ensure sustainability by demonstrating results and being relentless in the commitment to the vision

Our Journey



Operational Excellence



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- RESULTS MATTER**
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- DO IT RIGHT**
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- BE BOLD**
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- STEP UP**
I hold myself and expect others to be accountable for delivering superior results.
- VALUE FEEDBACK**
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- WIN TOGETHER**
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2017 UK KEY RESULTS - DRAFT			
HEALTH, SAFETY & ENVIRONMENT	20%	0 / 0 / 0 Everyday	2017 Target
		<ul style="list-style-type: none"> Combined Lost Time Injury Frequency (LTIF) Recordable Process Safety Events Significant Events 	0.04 0 0
PRODUCTION	20%	Best-in-Class Delivery	2017 Target
		Net Production (mboe/day)	90.6
PROFIT GROWTH	20%	Cherish the Margin	2017 Target
		<ul style="list-style-type: none"> Operating Costs First Spend G&A Capital Expenditure 	\$224mm \$159mm \$112mm
OPERATIONS EFFICIENCY	20%	Achieve "OEI"	2017 Target
		<ul style="list-style-type: none"> Water Injection Gross (mboe/day) IAP Plan attainment - Quarterly commitments achieved. 	573 >80%
Compliance	20%		
		<ul style="list-style-type: none"> No unremediated or not acted upon Regulator Notices No OGA Sanction Warning Notices 	



Marginal Gains

- Interventions Non-Productive Time Down from 38% to 3.5%**
- Vessel NPT Down from 60% to 30%**
- Helicopter Utilization Up from 14 to 16 people per flight**
- Optimizing Wellhead Maintenance A gain of 140mboe**
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Cherish the Margin

