

BEYOND TRADITIONAL DIGITAL TRANSFORMATION – A PORTFOLIO APPROACH

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WITH YOU TODAY



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We have been collecting cost/headcount data with our General & Administrative (G&A) Diagnostic since 2015



About the G&A Diagnostic

- The PwC Lower 48 G&A Diagnostic has emerged as the industry-leading source of truly comparable, consistently defined peer-based G&A costs and headcount. Data are collected and vetted by component – for both Technical (e.g., Operations, HSE, Land) and Support G&A (e.g., IT, HR, Legal, Finance and Accounting) areas.
- To enhance comparability, we focus on “Adjusted Gross G&A” costs and normalize cost and headcount data on a variety of bases – barrel of oil equivalents (boe), oil and gas revenue, capex, wells, total G&A headcount, rigs, etc.
- Since 2015, the 85+ participating entities have collectively accounted for more than three quarters of all companies in the IHS global integrated, regional integrated, large and mid-sized E&P US peer groups (ihsmarkit.com).
- There is no cost to participate, and all submitted data are kept confidential.

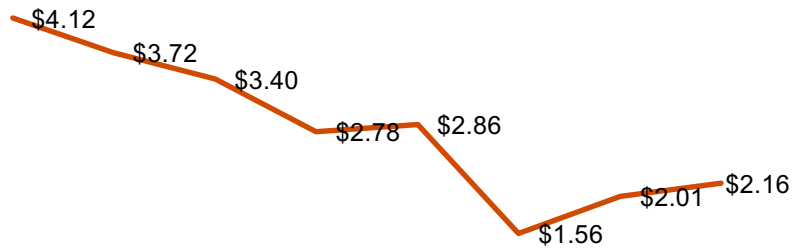


Participant profile (based on most recent study)

| Production and other statistics | Median |
|---|---------------|
| Net production (boe/day) | 282,831 |
| Gross operated production (boe/day) | 363,305 |
| Gross operated producing wells | 3,031 |
| Total gross producing wells | 3,700 |
| Gross operated wells drilled | 51 |
| Average operated rig count | 5.8 |
| Oil and gas revenue (\$MM) | \$1,785 |
| G&A FTE per net MMBOE | 6.7 |
| Gross operated boe/well/day | 76.1 |
| Oil/Liquids percentage (based on gross operated production) | 60.1% |
| Total capital spend (\$MM) | \$484 |
| Exploration & Development capital spend (\$MM) | \$393 |

Understanding the extent of cost declines/efficiency gains, 2015-2022

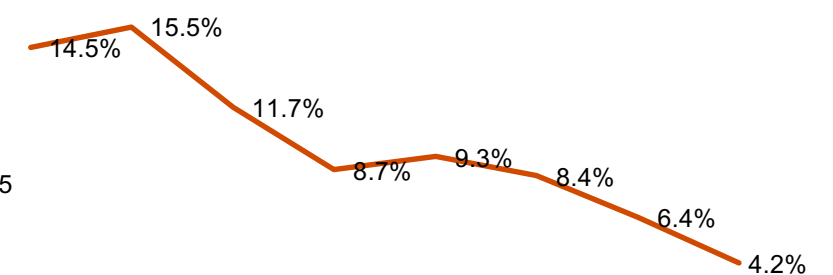
G&A per Net BOE



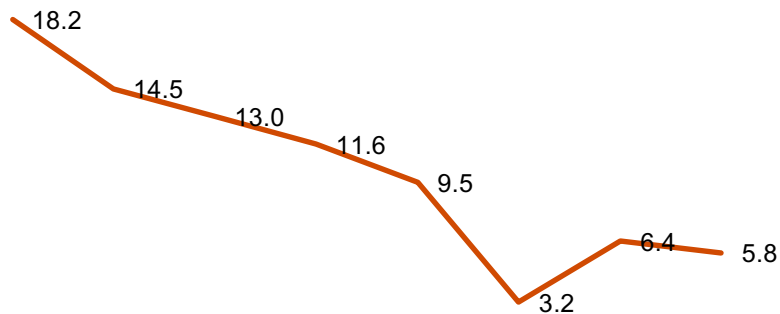
G&A per Gross Operated BOE



G&A as a Percentage of Revenue



G&A FTE (Full-time Equivalents) per Net MMBOE



Exploration & Development Capex per Net BOE



G&A cost and exploration and development capital have been cut roughly in half on a BOE basis. G&A headcount (FTE) is about 1/3 of its 2015 level, as is G&A cost as a percentage of oil and gas revenue.

With such declines over the past eight years, where will additional efficiencies come from?

Source: PwC L48 Upstream G&A Diagnostic

The oil and gas sector is entering uncharted waters with several headwinds...



Global & Macro Trends

- Russia supply disruption
- High global Inflation
- Rising interest rates/USD strength
- Global recessionary concerns



Industry & Sector Trends

- L-T O&G demand reduction
- Renewables in energy mix
- No real alternatives to O&G found
- Supply shock/underinvestment
- Long-term cost of supply pressure



Global & Macro Trends

- Regulatory pressure
- Investor pressure
- Public capital exited the sector
- Unclear and ever-changing remit
- No clear path forward



Workforce

- Aging workforce
- Great resignation
- Tainted reputation
- Critical skills shortage
- Reskilling/retraining



Technology

- Migration to cloud
- OT and IT sophistication
- Value unlock from data
- Increased automation
- Cyber resiliency

... and stakeholder expectations and the value drivers are shifting

Stakeholders now looking for



Unlocking growth and value in low-carbon future



Increased efficiency and targeted production



Free cash flow even at low oil price conditions



Better balance sheet



Delivering net-zero pledges



Offering higher dividend yields

Changing the value drivers

| From | To |
|--|--|
| Focus on NPV | Focus on cash flow |
| Reserve-replacement ratio | Carbon intensity |
| Long-term major capital project delivery | Short-cycle development |
| Concentrated portfolio | Diversified portfolio |
| Autonomous/siloed businesses | Integrated structures |
| Proprietary & tailored tools/processes | Standard & open-source tools/processes |
| Energy-friendly policies | Sustainable products |
| Supply chain optimization | Supply chain resilience |



Shift towards **customer centricity** can be key to unlocking sustainable and long-term value in oil & gas sector

Digitalization plays a key role in helping the industry transition and manage complexity

Digital transformations can generate more value as we move from pure-play cost cutting to efficiency-driven growth

WHAT & WHO:

Portfolio Choices

Reimagine work

WHERE:

Op Model

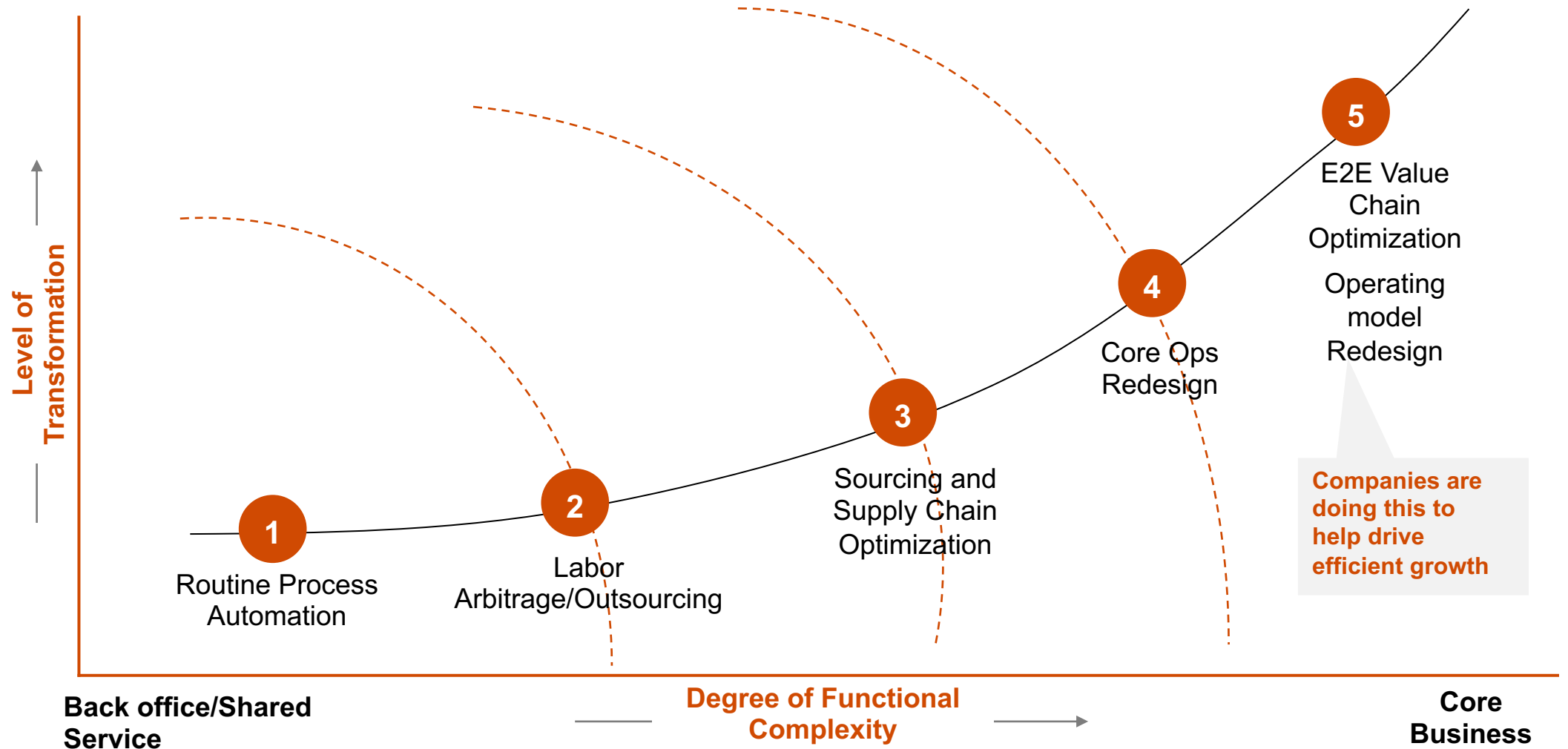
Sourcing

HOW & HOW

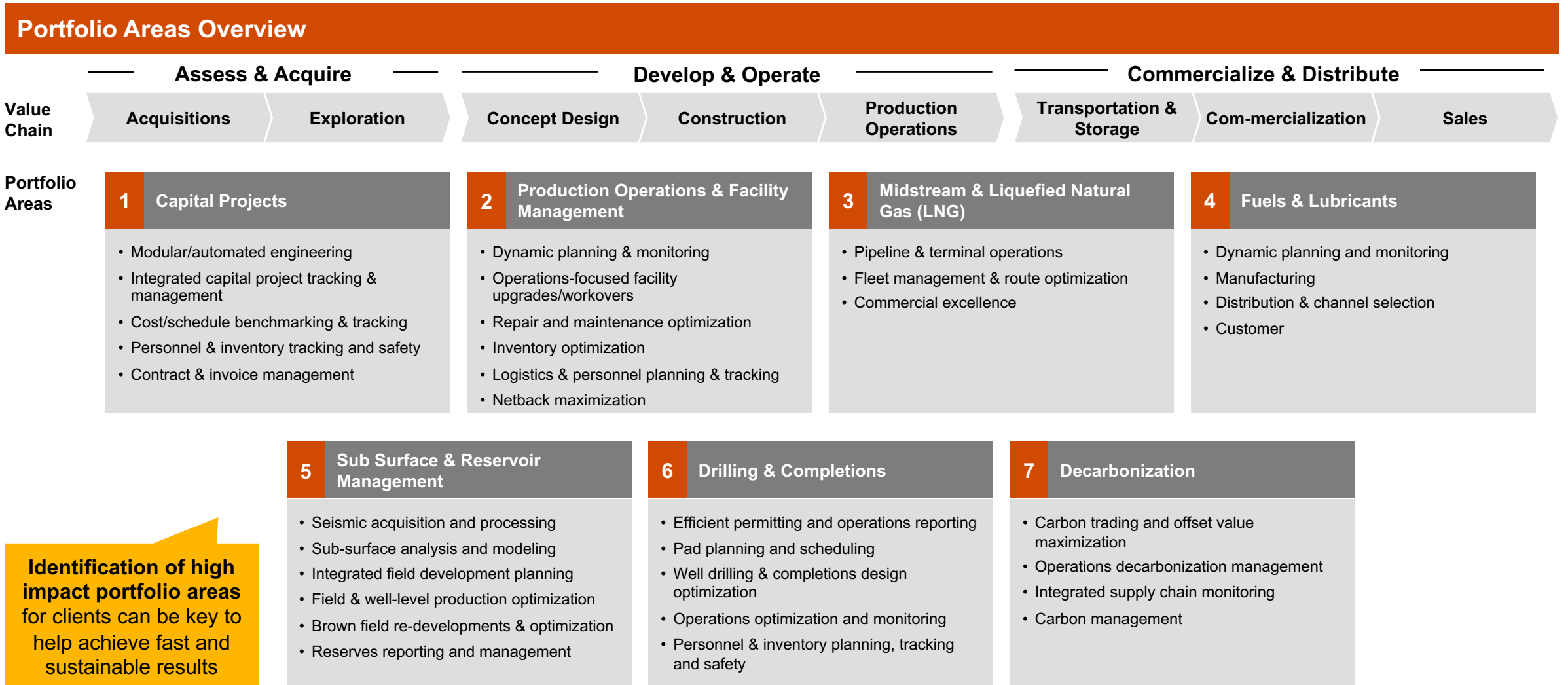
WELL:

Process
Simplification

RPA

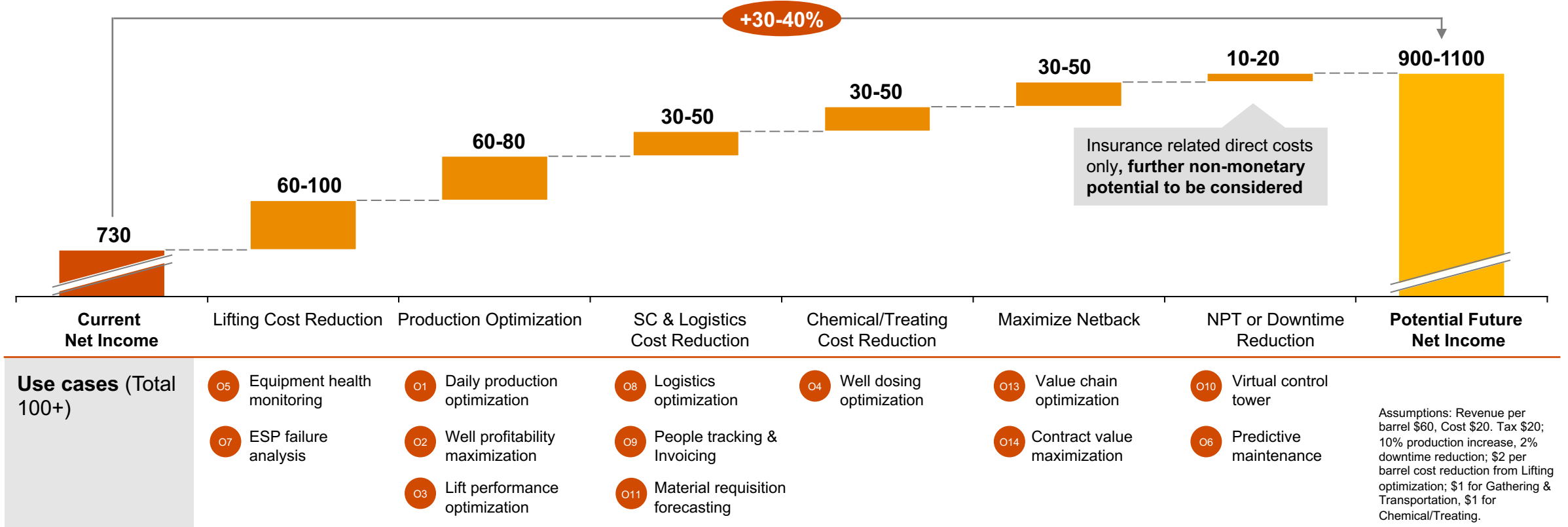


There are 7 core areas for digital transformation in O&G value chain



As an example, production operations can be digitally transformed to generate 30-40% more value

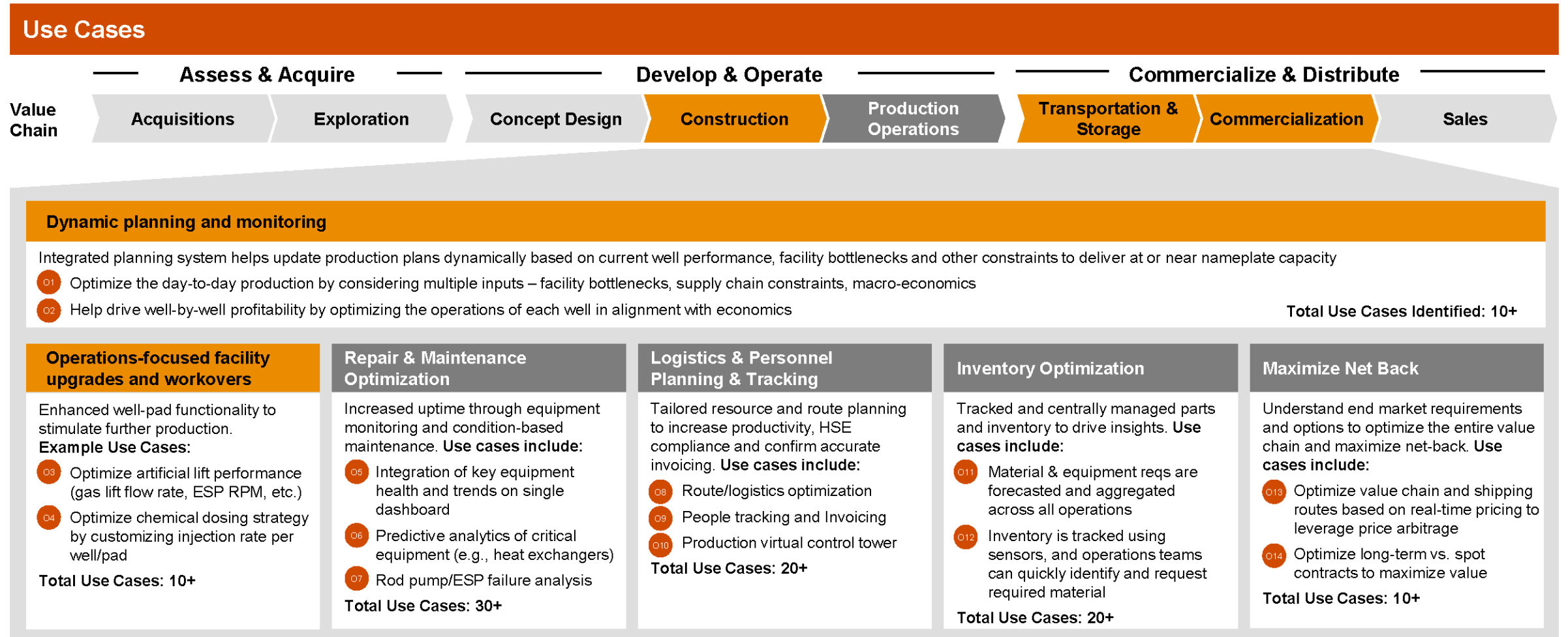
Net Income Improvement Potential (for 100MBPD¹) Facility), \$MM



A typical E&P company could have 10-20 such facilities

1) Thousand barrels per day

There can be 100+ use cases in production operations alone



Sustainable digital value creation requires a holistic approach based on integrated IT platforms and supported by change management

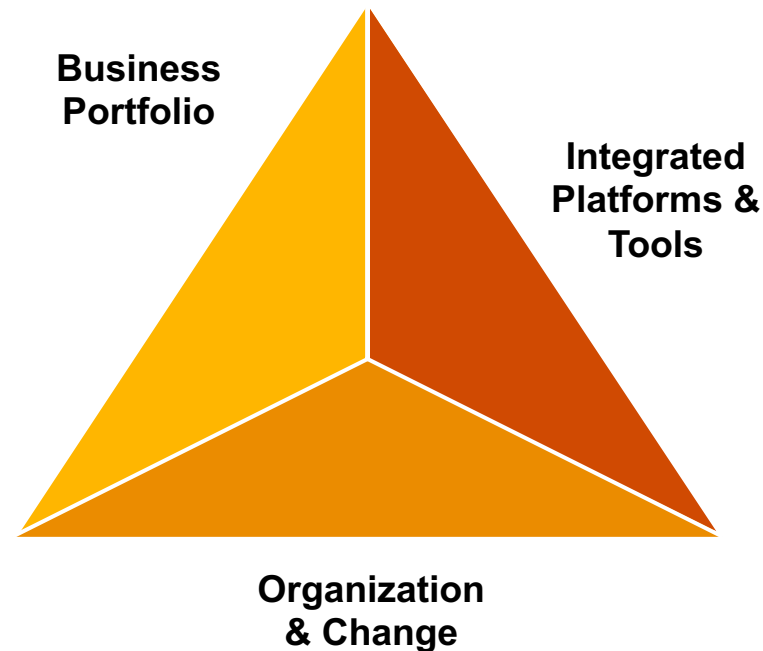
Overview

Create Value

- Focus on portfolio areas and KPIs that really matter
- Drive immediate value via integrated use cases

Embed Change Management

- Design with end-users in mind (who is making the decisions)
- Work with the business to embed solutions in the functional workflow



Build an Enabling Platform

- Prioritize for value creation potential and ease of implementation
- Take a modular approach -- do not wait to light-up all functional areas

Business portfolio value creation focuses on progressively complex and integrated use cases to unlock exponential impact

Approach

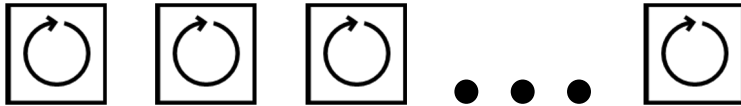
Identify



- Perform initial lighthouse project to demonstrate value creation potential
- Select high impact use cases based on hypotheses for value creation
- Leverage initial insights for prioritization of use cases

Immediate Business Impact

Integrate



- Understand relationship between use cases
- Combine and integrate use cases to create synergies
- Ramp up multiple teams and parallelize efforts to accelerate approach

Synergistic Value Optimization

Scale



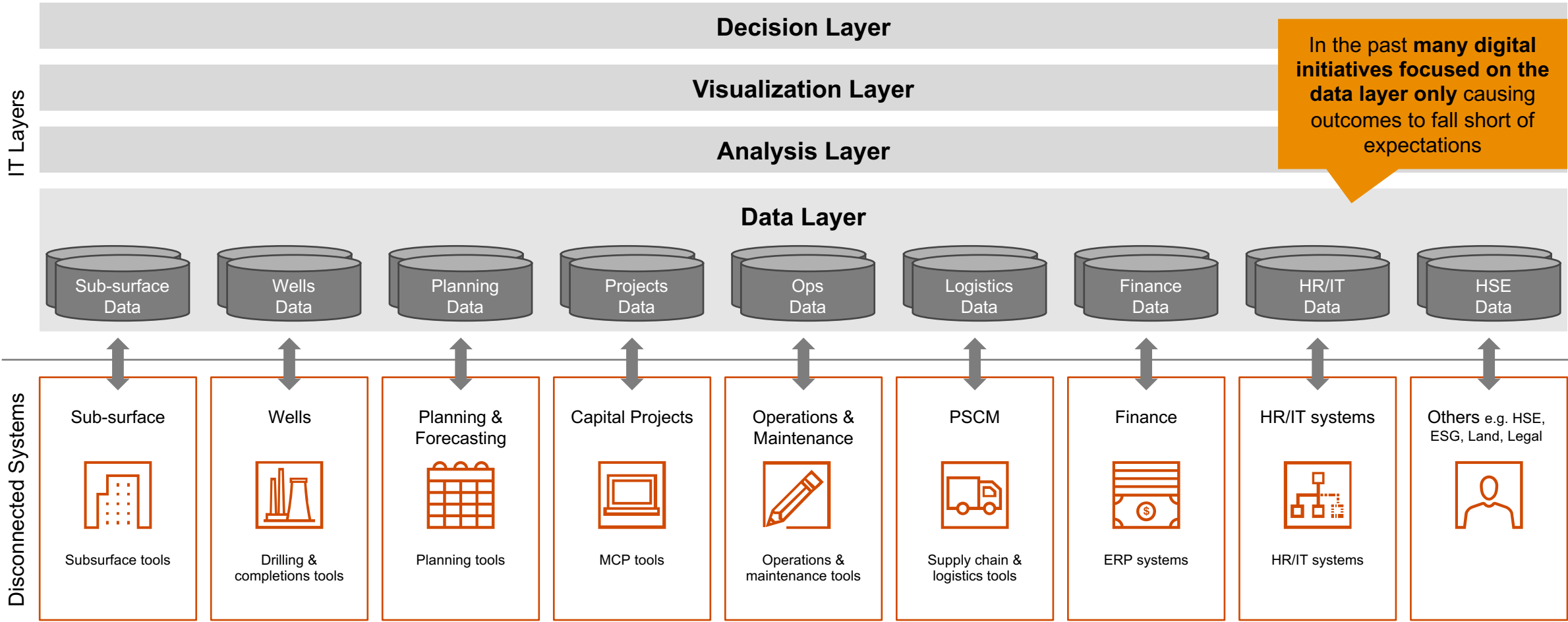
- Roll-out full-scale solutions to high impact portfolio areas
- Deploy digital platforms to enable scaling and facilitate repeatability
- Support transformation via larger cultural change program

Sustainable Value Creation

Enabling digital platforms span IT layers and break silos between legacy systems

Illustrative only

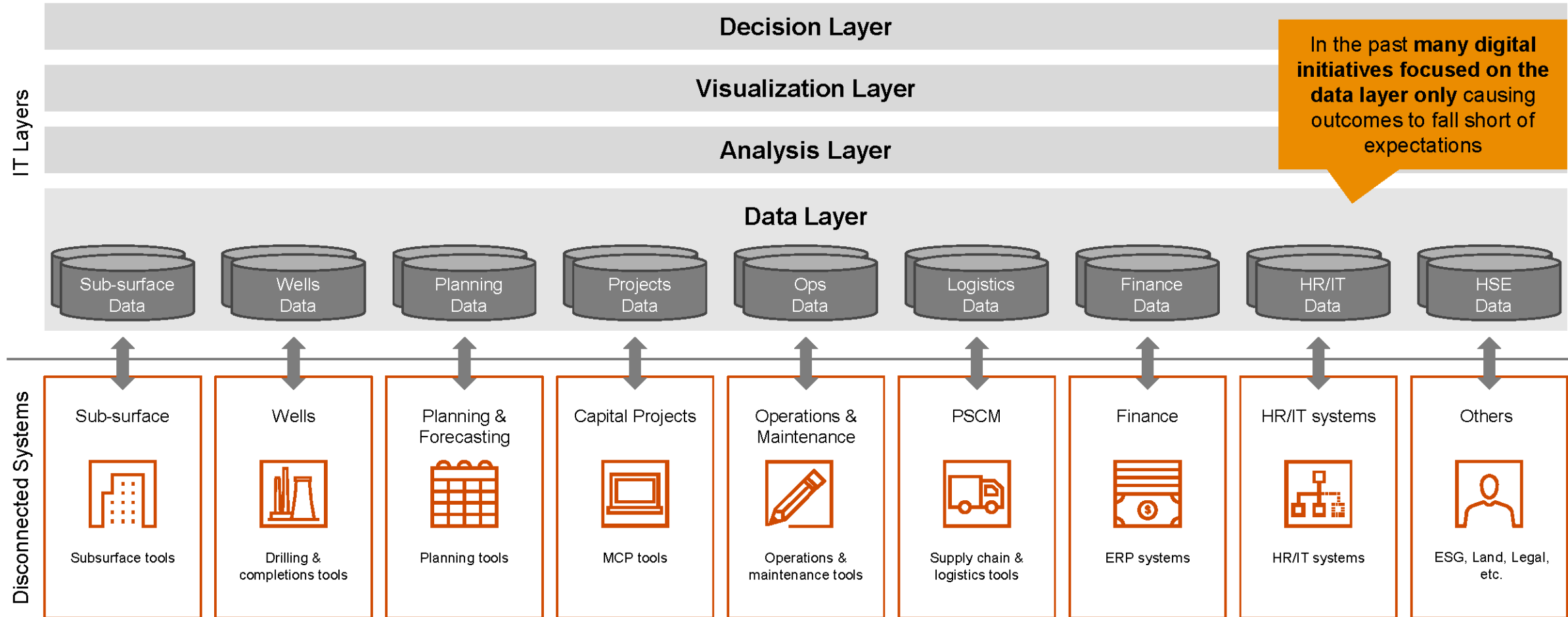
Digital Platforms



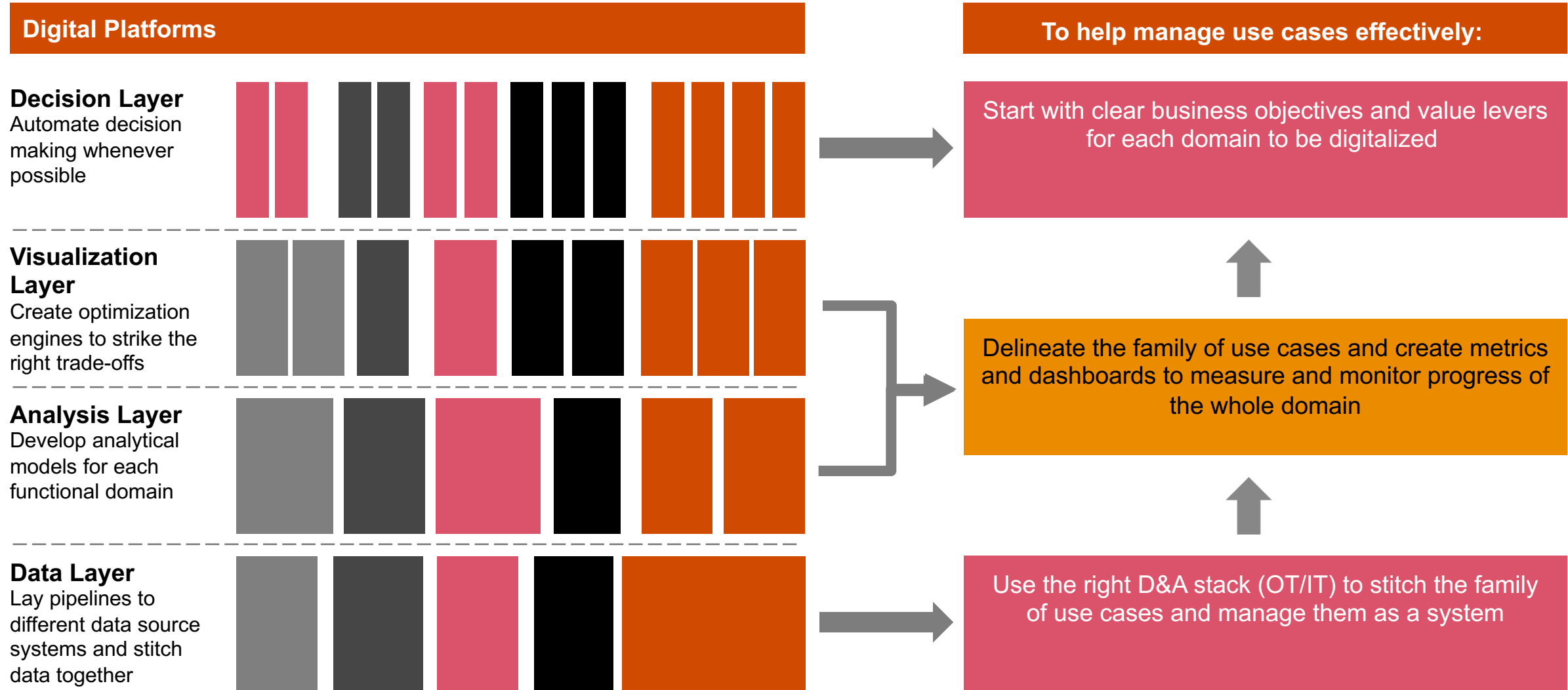
Enabling digital platforms span IT layers and break silos between legacy systems

Illustrative only

Digital Platforms

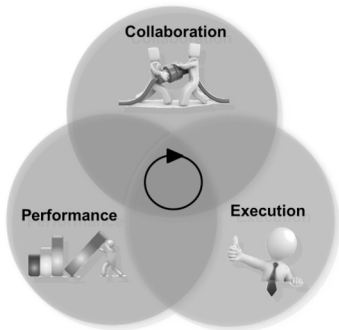


Scaling of digitalization will likely require a modular platform build-up based on a microservices architecture

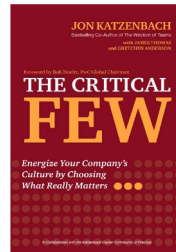


To sustain the value created and embed digital transformations, cultural change management is likely essential

Cultural Change



- Define target elements **based on culture priorities**
- Align to **strategic aspirations** and base them on the **existing culture**

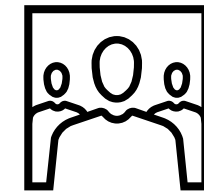


1)

- Behaviors are an **enduring way of acting** that is considered **regular or expected**
- Involve management to **specify relevant behaviors**
- **Katzenbach Center** is a recognized leader in organization, change and leadership



- Define **formal and informal interventions** to help implement the behaviors in **day-to-day work**
- Management to **lead by example**



- Establish **behavior reviews** with managers and employees
- Regularly track progress and **celebrate success**

1) Key publication from PwC Katzenbach Center: A practical guide for leaders at all levels on leveraging culture to accelerate and sustain transformation

Questions?

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