



The Outsourced Exploration Department OE_xD®

A Successful Model with Track Record

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P.D.F. Limited
Mark Enfield

Friday 5th June 2015
Finding Petroleum,
Geological Society of London

Mark.enfield@pdf.ltd.uk

www.pdf.ltd.uk

www.oexd.co.uk



P.D.F. Limited

The Outsourced Exploration Department®

21 year
track record

Long-term
Relationships

Experience
& exploration success

Full Spectrum of
Capability

Quality-focused exploration



P.D.F. Limited Track Record

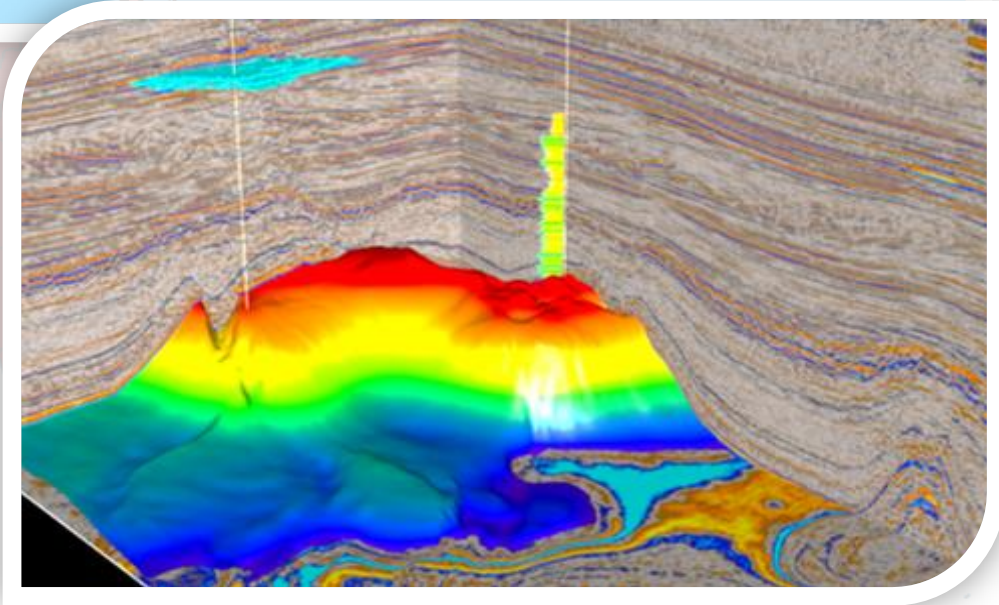
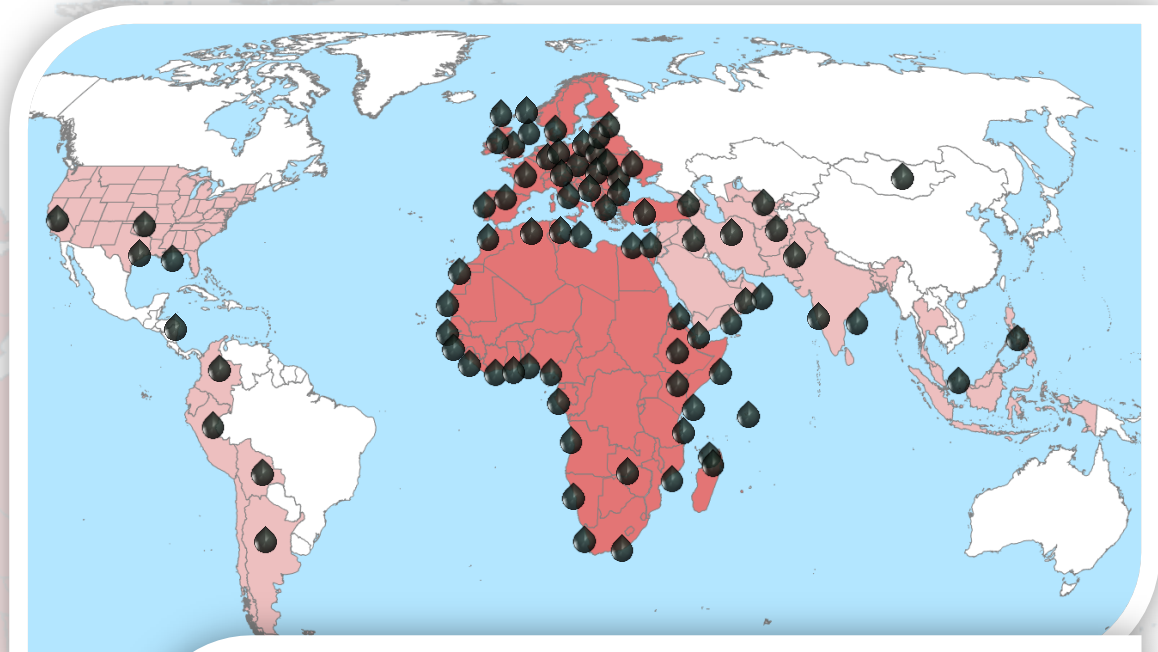
26 Companies

Listed

Private

Independents

Majors + Super-majors

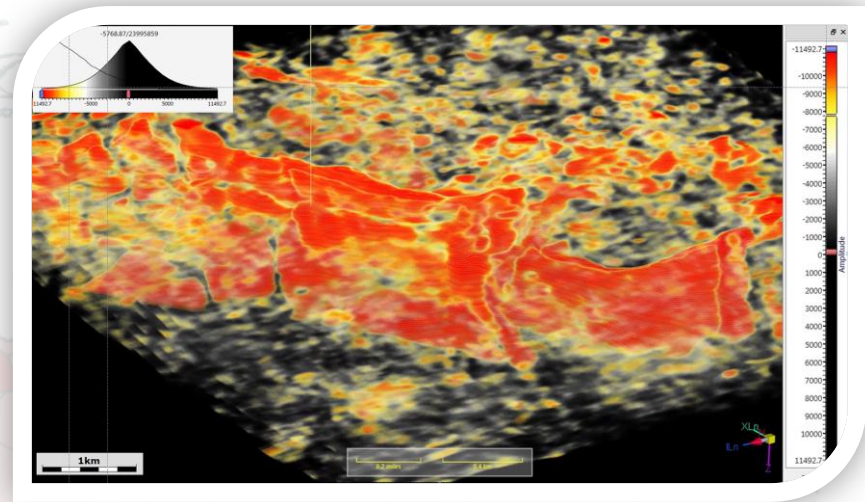


P.D.F. Limited Track Record

Adding Acreage
&
Project Farmouts

40%

Added
+25 licences



Attribute extraction of pay sands



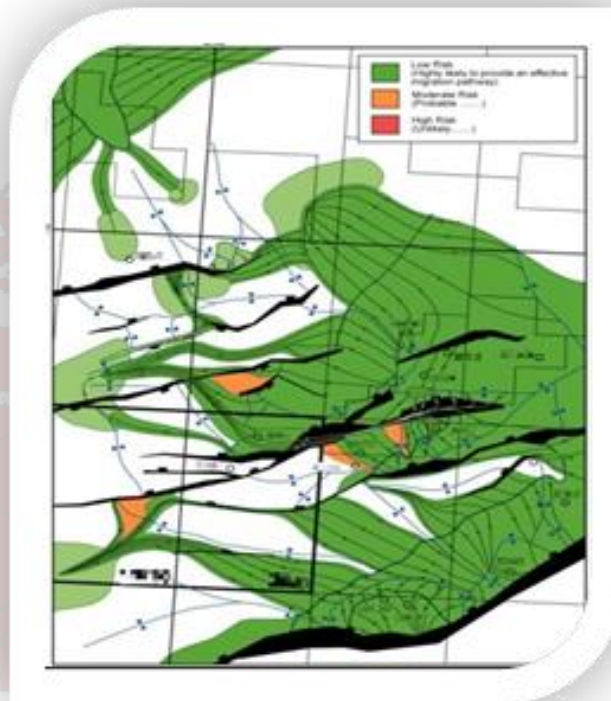
P.D.F. Limited Track Record

Enabling success

35%

assisted Clients to
make discoveries

13

 discoveries

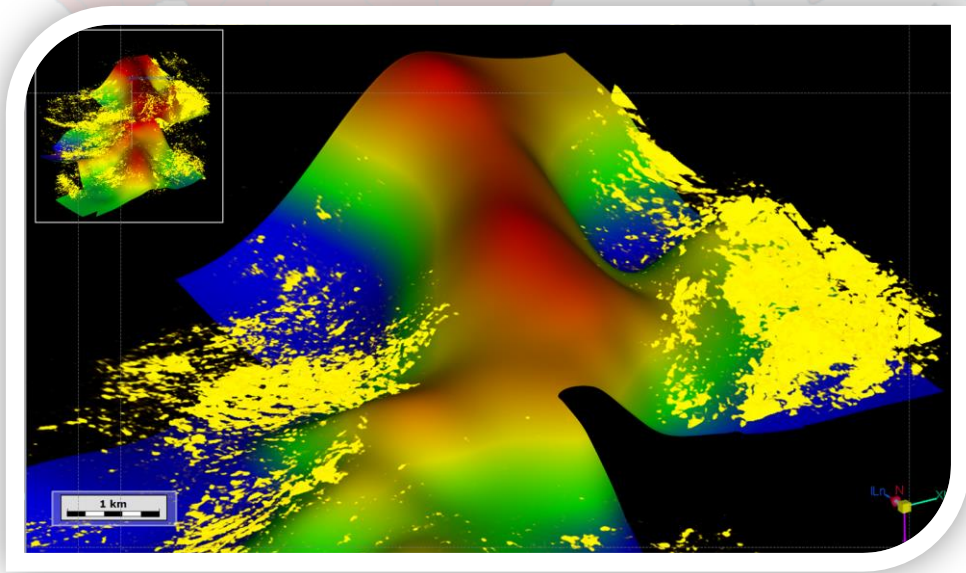
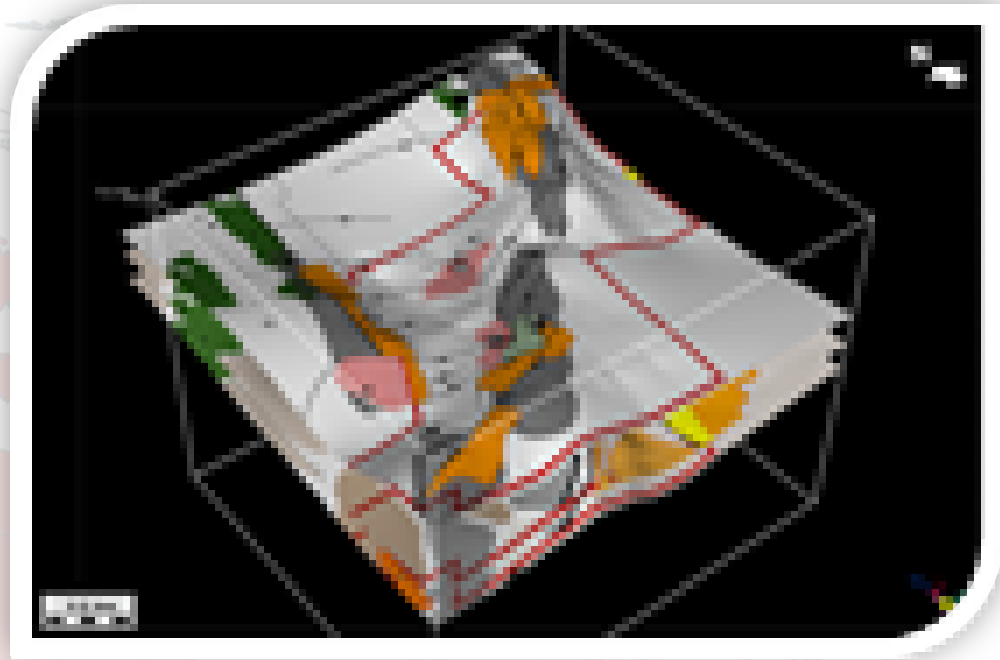
N. Sea
Basin (charge)
modelling

Tanzania

P.D.F. Limited Track Record

4 Initial
Public Offerings

8 Market-based
Money Raises



Cameroon



C.R.I.T.E.

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C.R.I.T.E. “Cost Reduction in this Era”

Brent Crude – Price per BBL

\$ 63

Lower Commodity Price

Cost conscious environment

Uncertainty

Need for efficiencies

Does Outsourcing have a role?



Source: <http://www.jamaicaobserver.com/assets/11161011/Oil.jpg>

What is Outsourcing? /owt-sorc-ing/

....transferring functions to (trusted)
outside suppliers....

....rather than completing it internally....

....could have been provided in-house....

....an effective strategy to reduce costs....

Help companies to perform well in their core competencies
and mitigate shortage of **Exploration Dept.**

Allows a smaller company to better comply with the Sarbanes-Oxley Act (SOX)

What is Outsourcing? /owt-sorc-ing/

Exemplar: Toyota

“Only outsources to suppliers who have **proven** their ability to **deliver** with **timeliness, quality, cost reduction**, continuous **innovation** and have established professional **trust** and an **overriding preoccupation with quality.**”

“Toyota works **closely** with its suppliers and **responds** to supplier concerns with integrity and **mutual respect.**”

Crucial: Quality Management

Achieved with Executive Steering Committee (ESC)

Outsourcing: Perceived Advantages...

Lower operational costs

Reduced labour expenses

Freedom to focus on core business processes
...rather than on more 'mundane',
time-consuming tasks

Outsourcing the business function/process
– and the resultant **management** –
to outside (**trusted**) providers



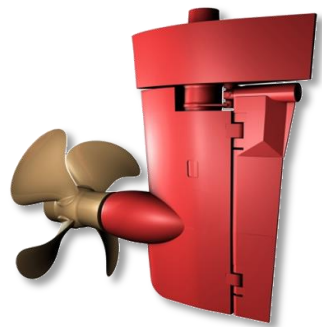
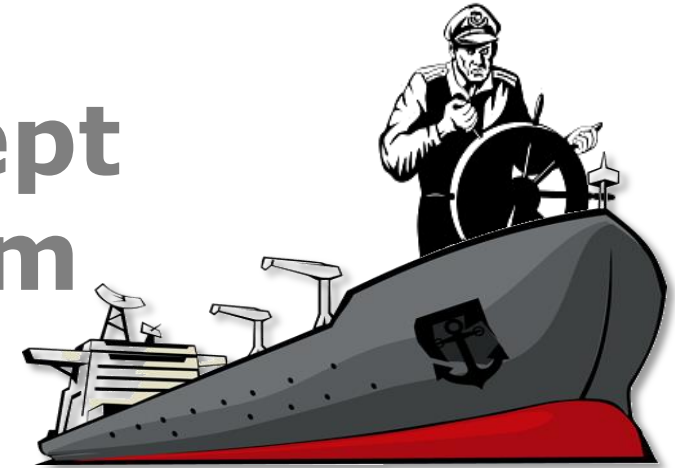
Is Cost Reduction the Only Issue?

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Let's look first at what the exploration department does...

What Does the Exploration Department Do?

**Exploration Dept
= Engine Room**



Drives the ship forwards
In the direction (strategy)
Set by the captain (the Executive)

IT'S A CORE FUNCTION

Interpretation
wiggle picking +++

New Ventures
adding assets

**Portfolio/Asset
Management**

OE_xD® Brings Full Spectrum Exploration Department

Brought to Bear

50

Different Personnel
on Projects

2014

Cumulative Experience

850 years

Average Experience

17 years per person

OE_xD® Brings Full Spectrum Exploration Department

Brought to Bear

50

Different Personnel
on Projects

*"Provides us with
the scale of a
larger independent"*

Source: CEO Feb. 2015

Cumulative Experience

850 years

Average Experience

17 years per person

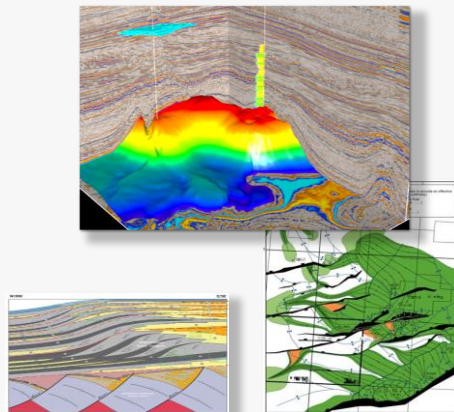
Spectrum of Activities

What Does the Exploration Department Do?

Expertise

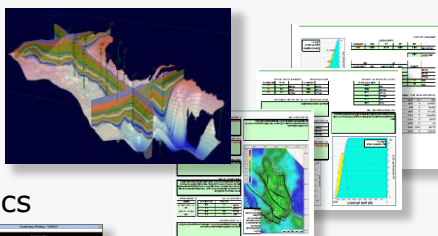
Core Exploration Techniques

- Seismic Interpretation & Mapping
- Play Fairway Analysis
- New Ventures
- Charge/Basin Modelling
- Reservoir Analysis
- Prospect and Lead Inventories
- Conventional & 'Unconventional' Exploration



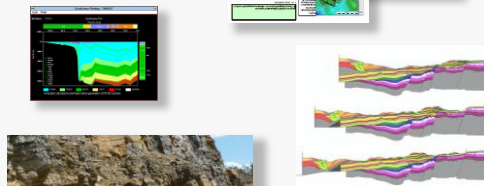
Specialist Services

- Structural Geology
- Sequence Stratigraphy
- Petrophysics
- Fieldwork (rigorously exploration focused)
- Core Logging/Description/Fractures
- Petrography
- Exploration Acquisition & Processing Geophysics



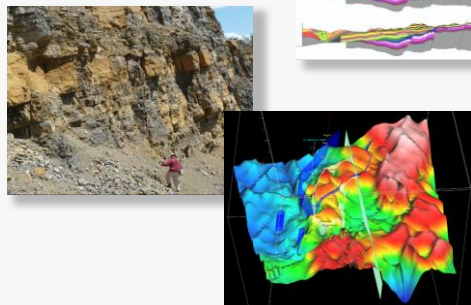
Specialist Disciplines

- Potential Fields (Grav-Mag)
- Geochemistry
- Geodetics / GIS



Corporate Capabilities

- Project and Portfolio Management
- New Ventures (corporate opportunities)
- Data Management
- Legal / Contractual
- Relationship Building



Software / Hardware

Paradigm®



IHS Kingdom®



ArcGIS®

(+ other GIS platforms)



REP® (reserves & risks modelling)



TerraMod™ (charge/basin modelling)



Structural balancing / restoration

Data backup & management

Drafting

Quad-core, 6 & 3 screen seismic workstations

+100TBytes networked storage



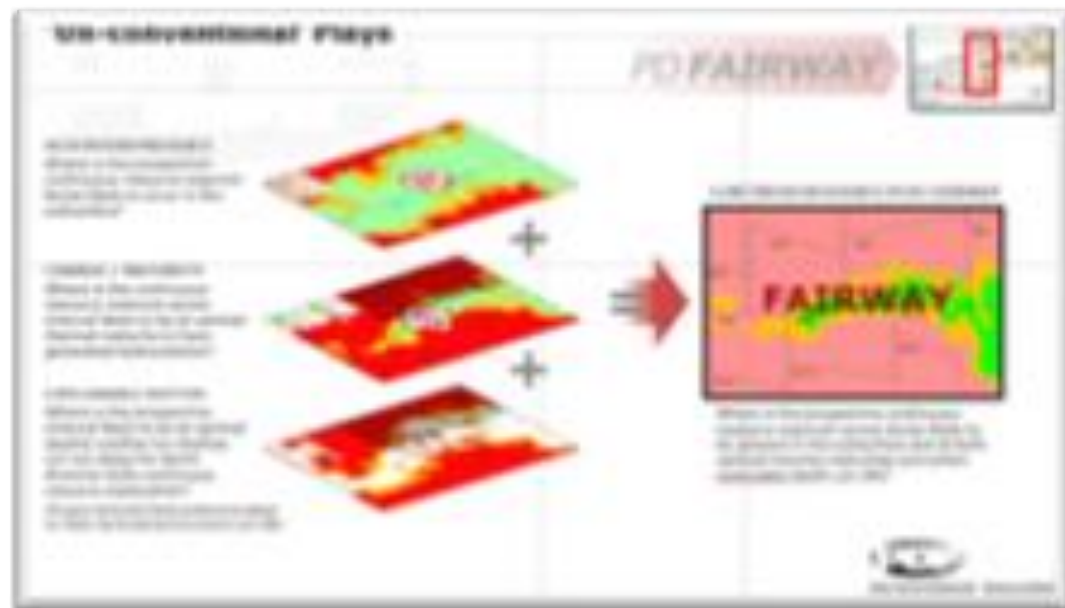
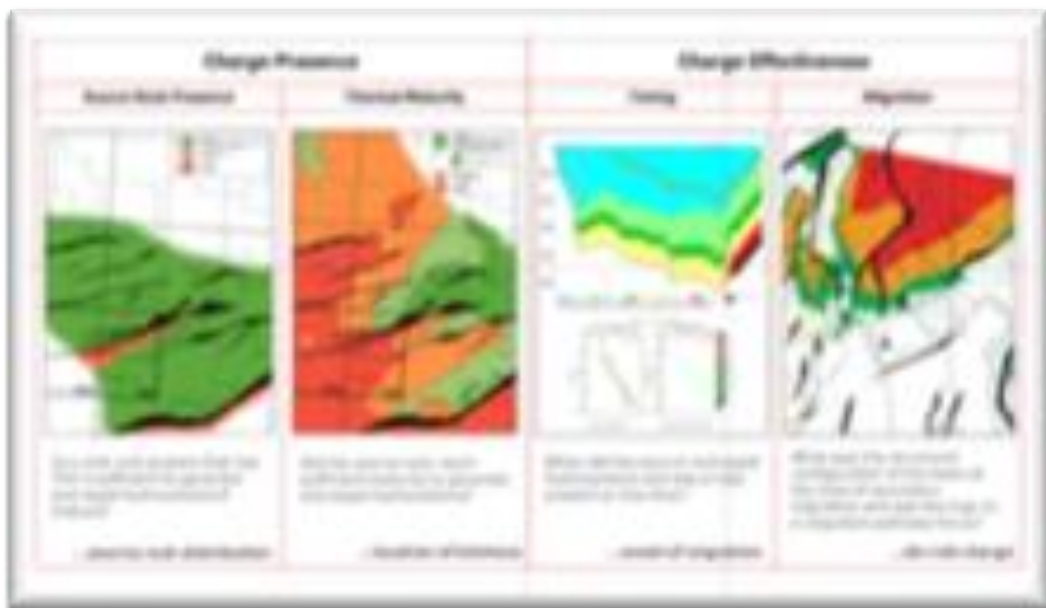
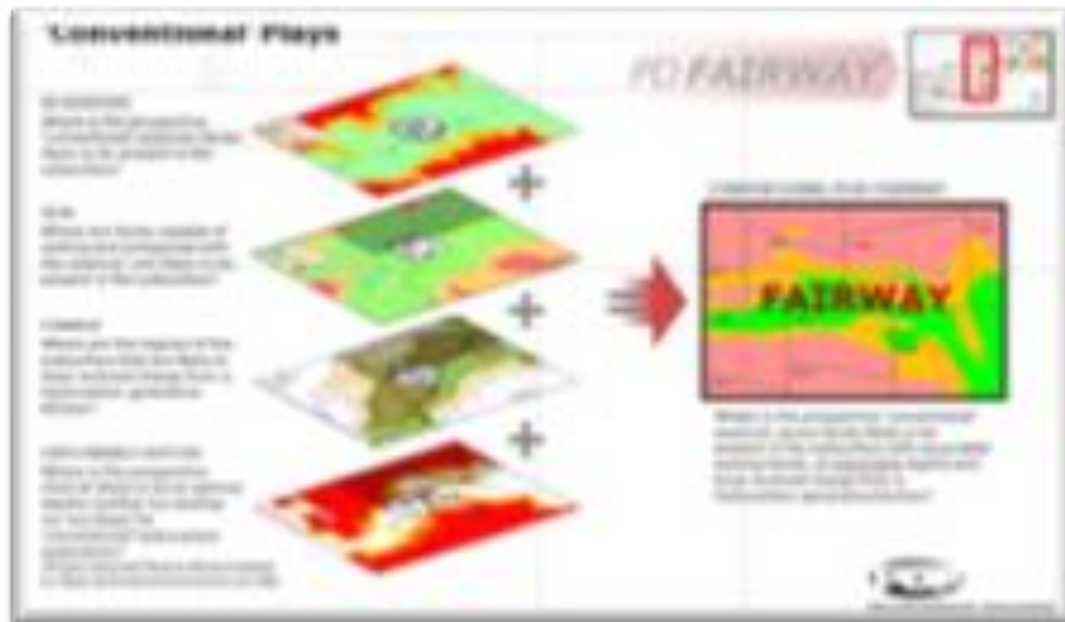
Labs/R&D

- Rock Mechanics – complete lab facilities
- Fluid Inclusions (laser ablation)
- XRD – XRF
- SEM & other Petrography
- Geochemistry (TOC, Rock Eval, GCMS...)
- Vitrinite Reflectance
- Biostratigraphy / Age Dating



IN PARTNERSHIP WITH PLYMOUTH UNIVERSITY

In-house Workflows



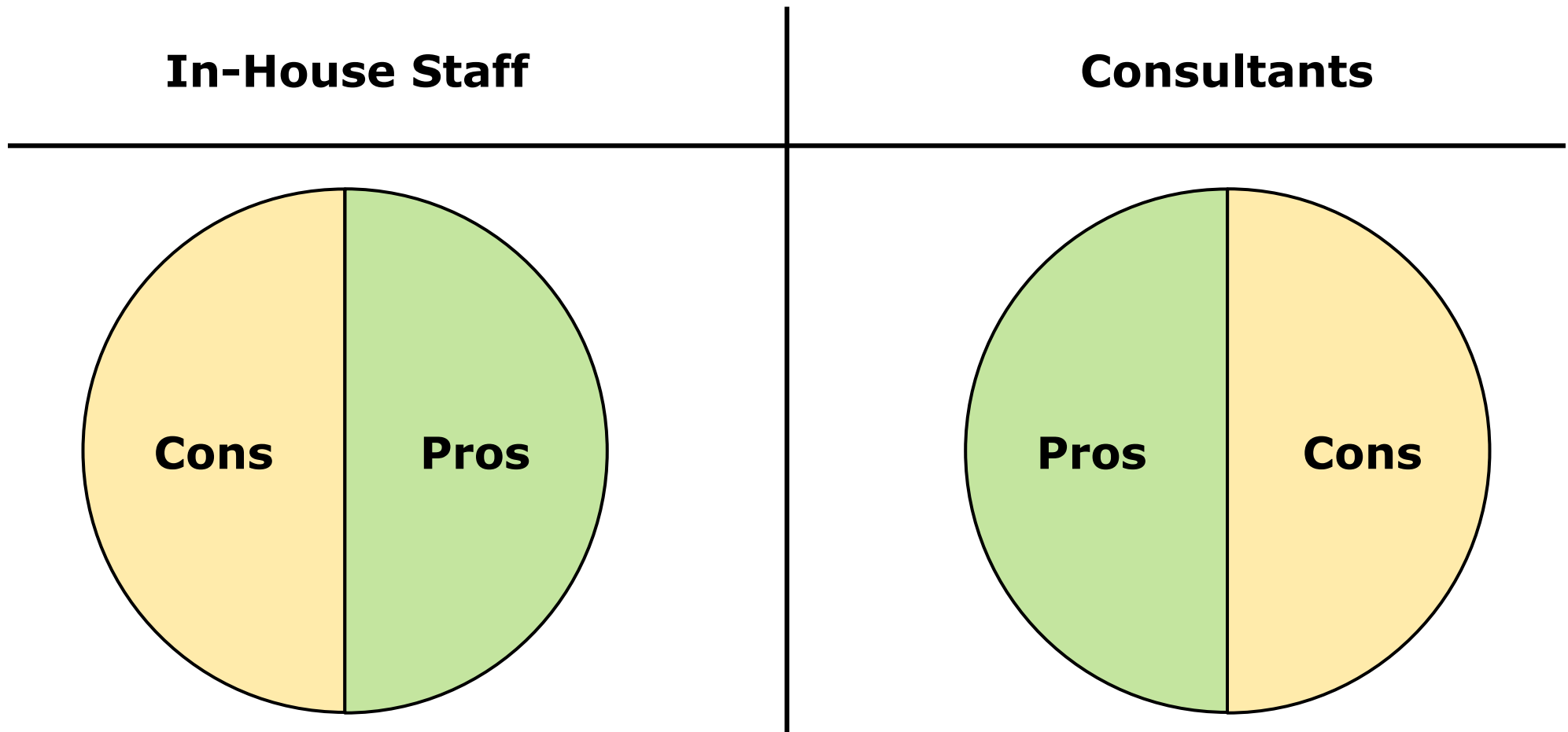


Models End Members & Third Way

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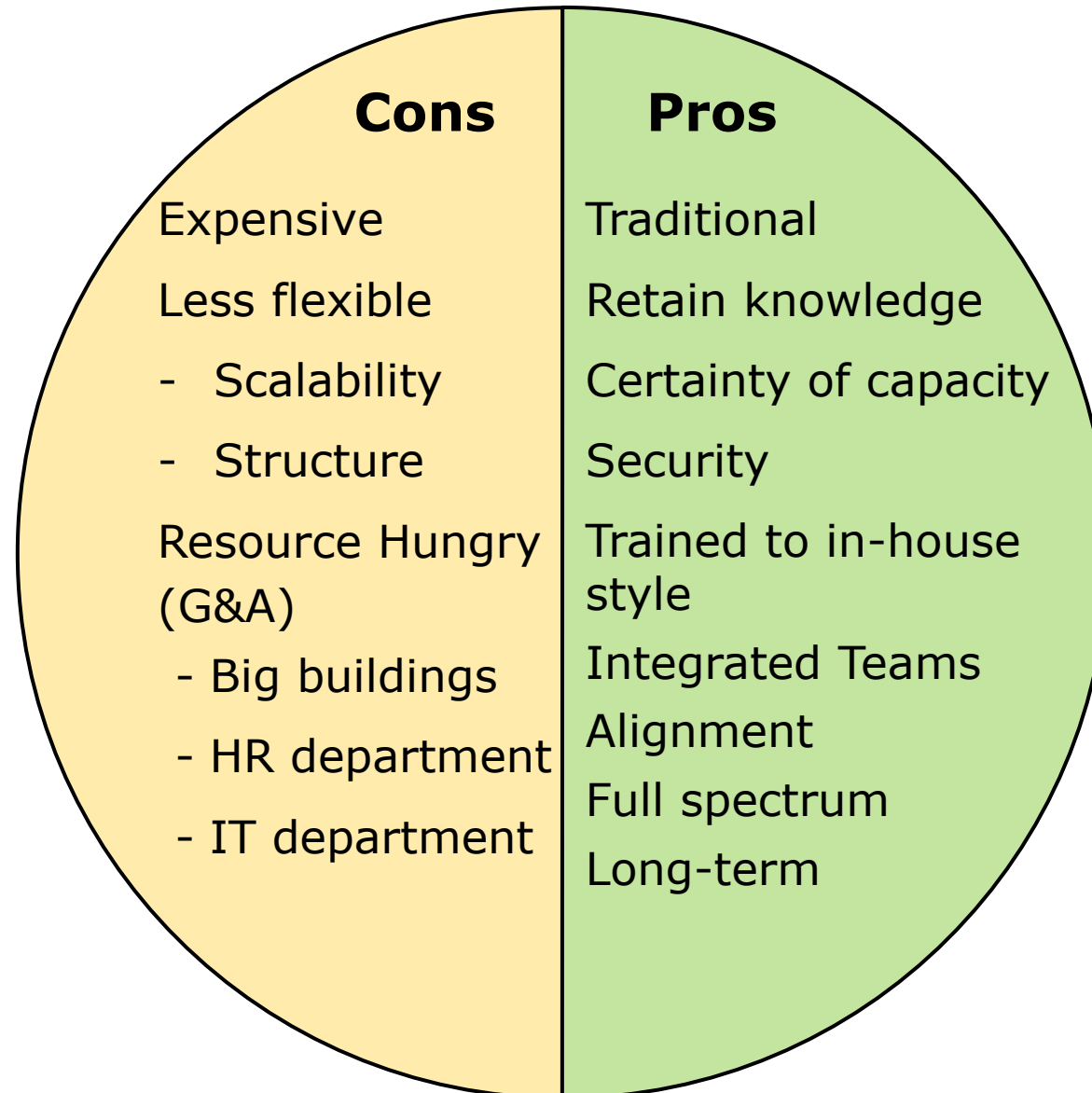
Traditional Models

What is the difference?

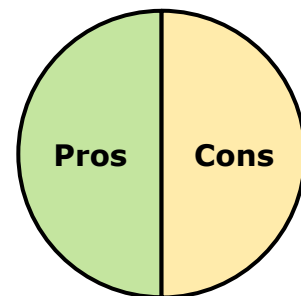


Pros & Cons of In-house Staff

In-House Staff



Consultants



Pros & Cons of Consultants

Consultants

Traditional

A company
Many clients

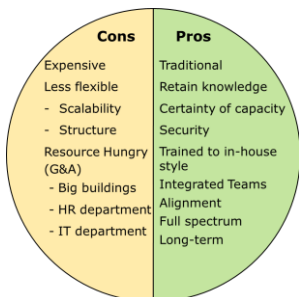
Virtual

A grouping of
independents

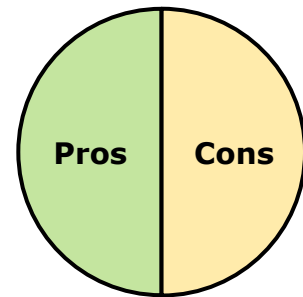
Independent

An individual

In-House Staff

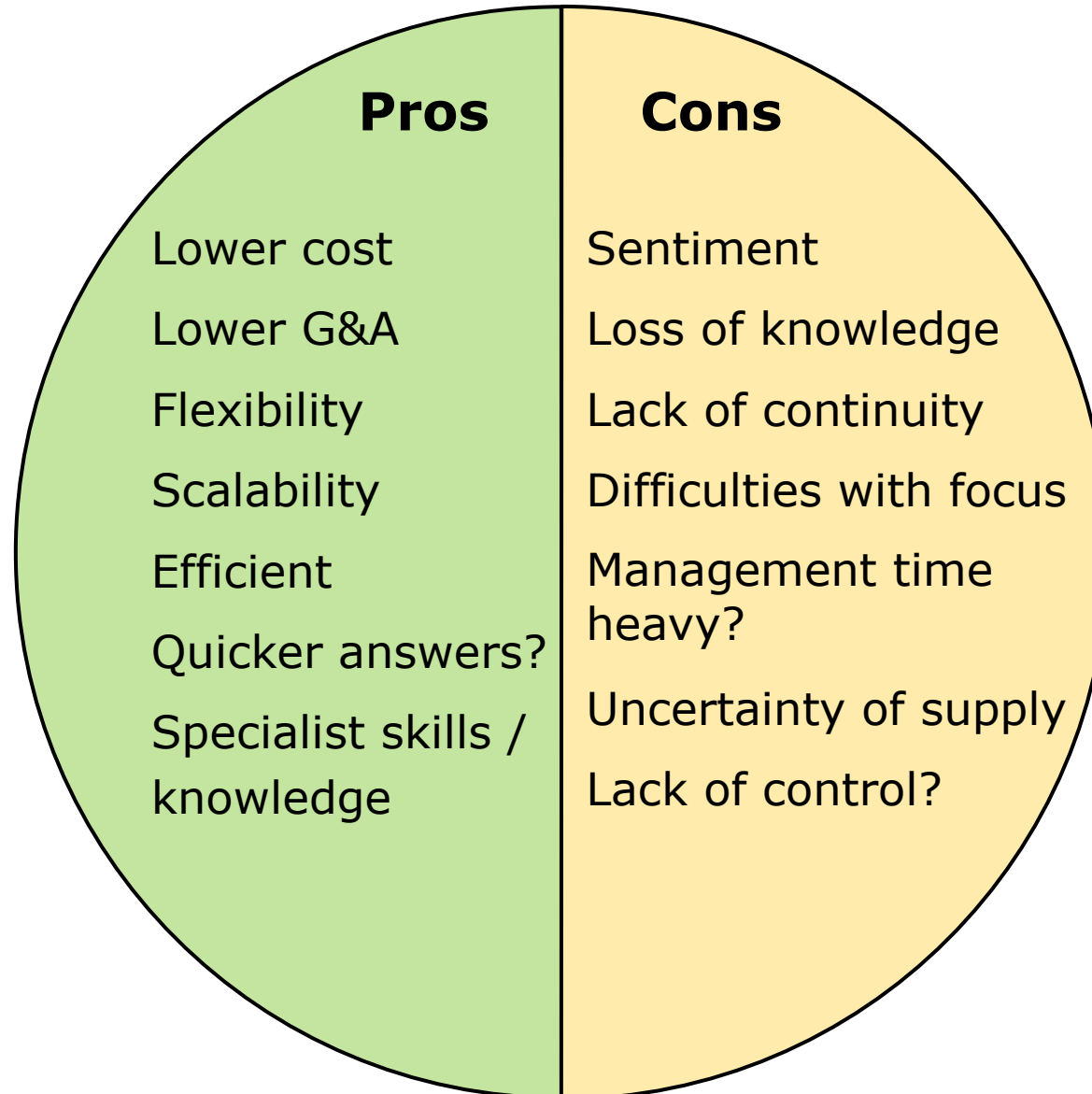


Consultants

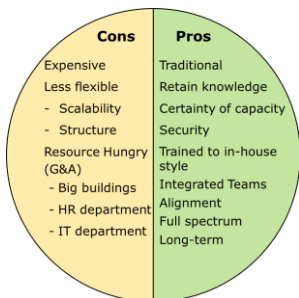


Pros & Cons of Consultants

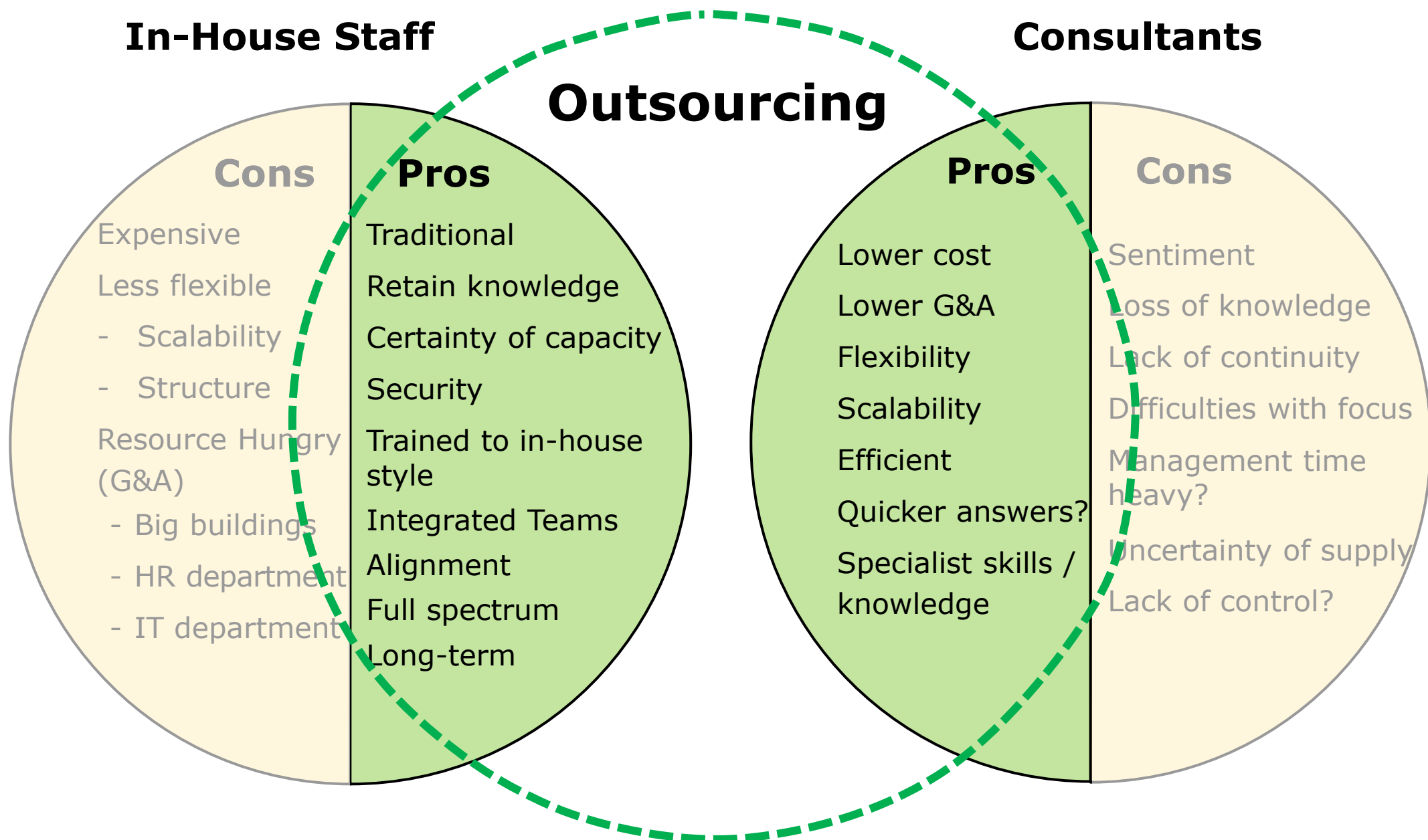
Consultants



In-House Staff



Pros & Cons of Traditional Models vs Outsourcing





Outsourcing - A Model

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Objectives and Goals Strategic Partnership Agreement

The overall **spirit** of the OE_xD strategic partnership agreement create a **focused & dedicated** exploration department **operates seamlessly** in an **open** and **collaborative** environment for the **success** of E&PCo. Where OE_xD personnel work **as part of** the E&P company.....

Objective: **“to achieve a seamless relationship”** between E&PCo & OE_xD

“Structured to reflect the **best aspects of an oil company management group & exploration dept.**”

OE_xD to be trusted and integral part of E&PCo with a “strategic relationship with E&PCo for communication, planning, implementation and achieving E&PCo’s G&G exploration and corporate goals”

“.....**committed** to E&PCo’s projects and **to achieving success for E&PCo** ”

“.....**allows E&PCo management to have maximum focus** on their executive role and developing the Company”

OE_xD wishes to **maximise the cost saving/benefits to E&PCo** which can be obtained by creating this long-term strategic outsourcing and partnering agreement”

Governance

Exploration Steering Committee (ESC)

- A delegated committee of the Board of Directors
- To discuss significant matters
- The ESC scope includes:
 - annual work programme
 - budget (+amendments)
 - portfolio management
 - advisory...

OUTSOURCED EXPLORATION DEPARTMENT (OED)

EXPLORATION STEERING COMMITTEE (ESC)

Delegated sub-committee of the COMPANY's Board of Directors

COMPANY
Exploration
Director

COMPANY
?CEO

PDF
Managing
Director

PDF
Technical
Director

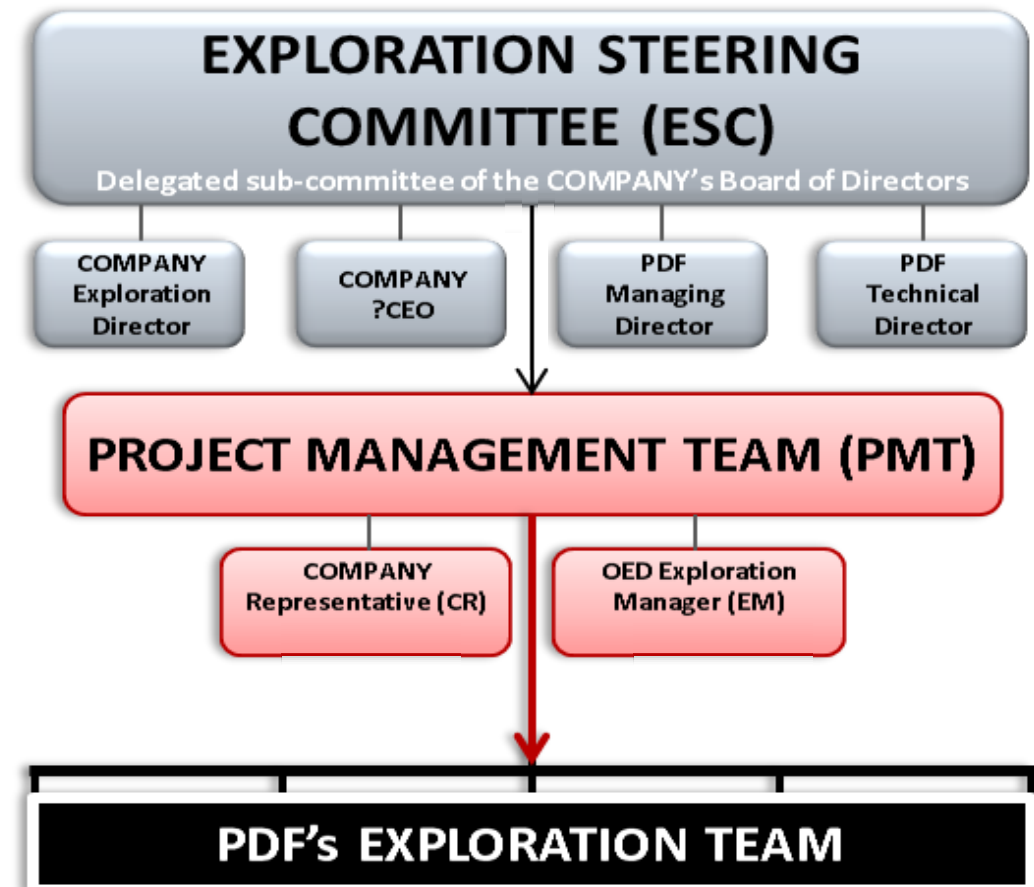
Governance & Project Management

E&PCo-OE_xD Project Mgmt Team (PMT)

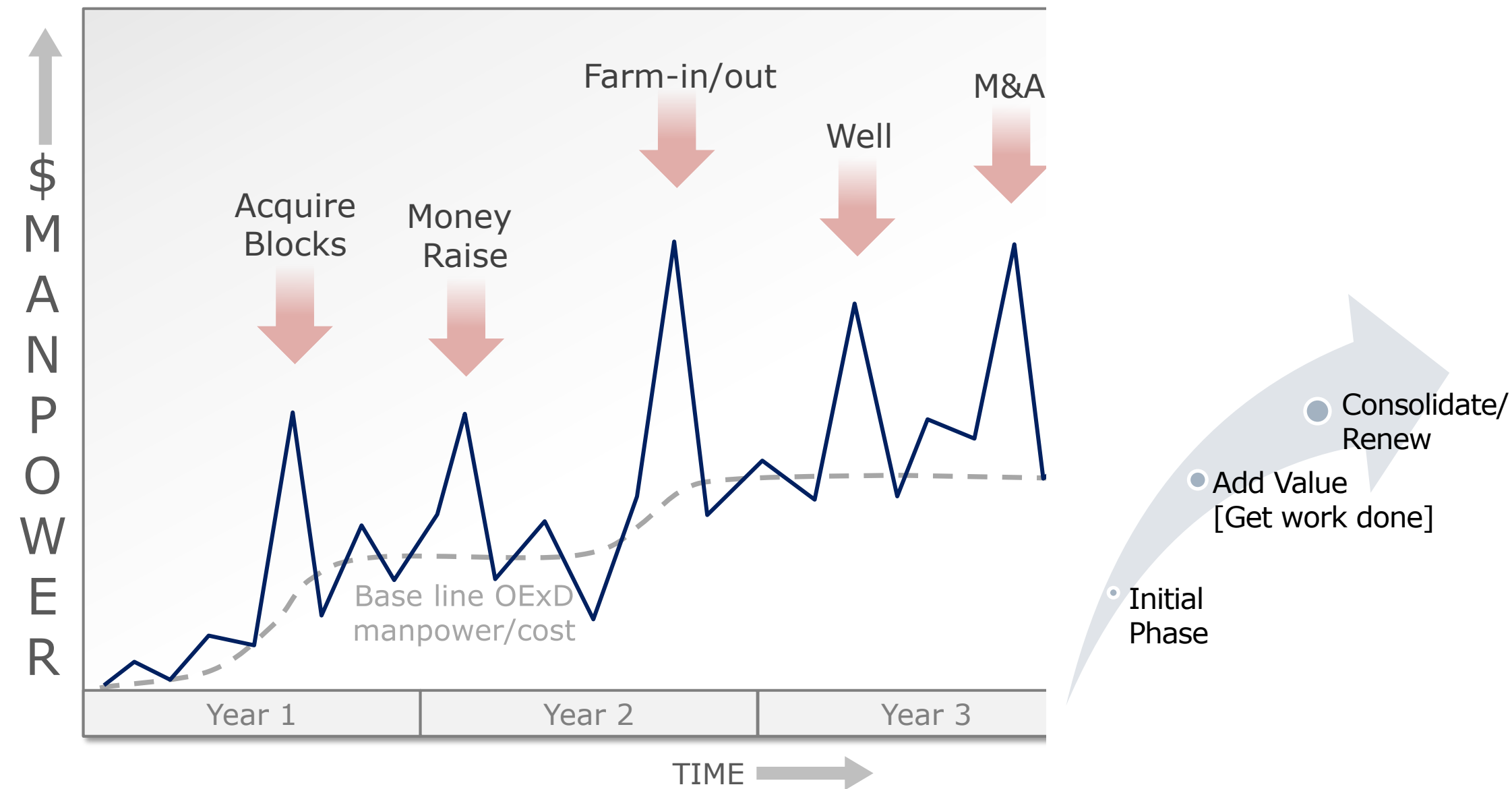
- PMT meets regularly
 - to discuss all projects and operations
 - agree interim objectives, milestones
 - agree spend (annual work programme & budgets)
- Jointly develop & share annual work programmes & budgets, project management, responsibility for projects

Intent is to work together to achieve seamless project management

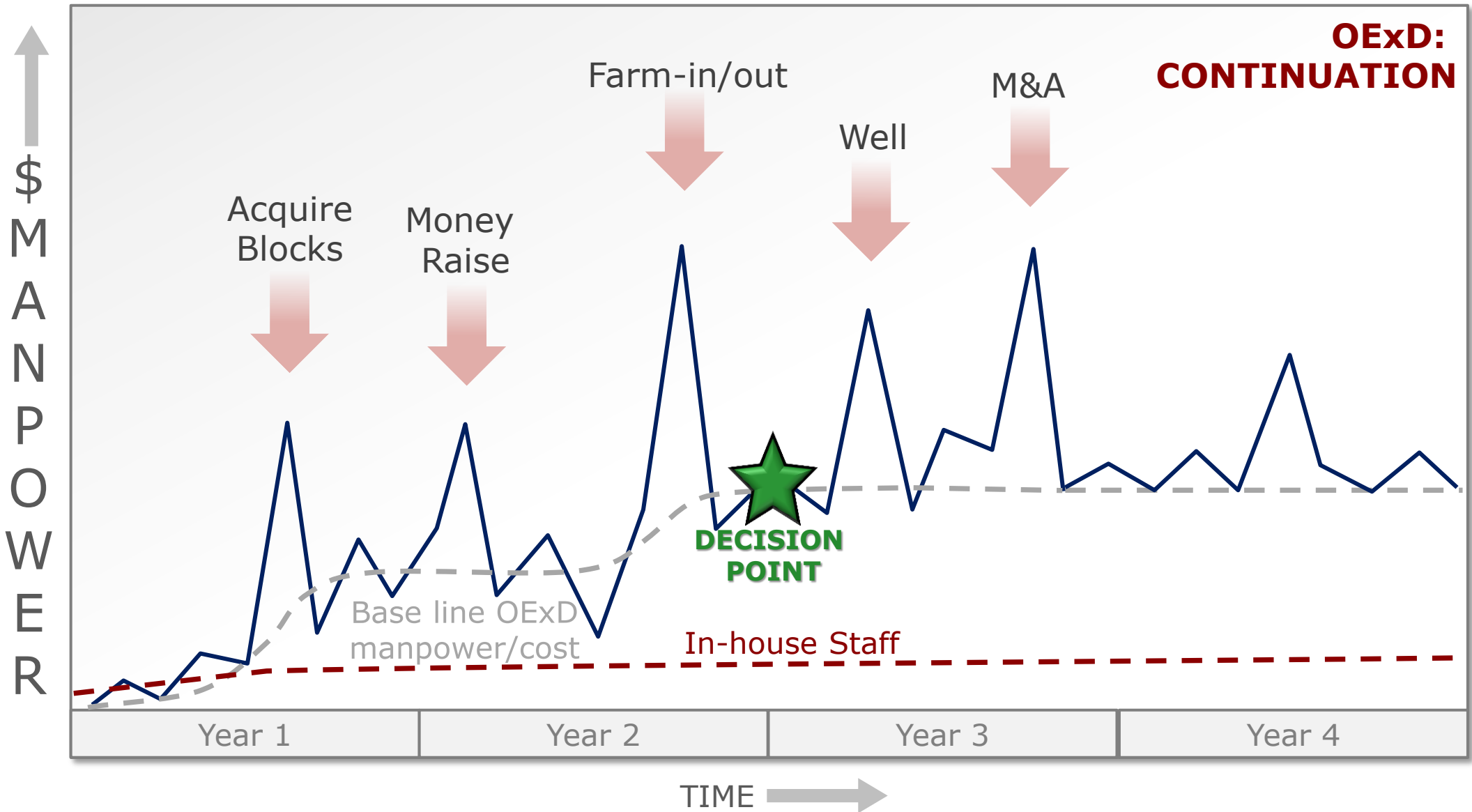
OUTSOURCED EXPLORATION DEPARTMENT (OED)



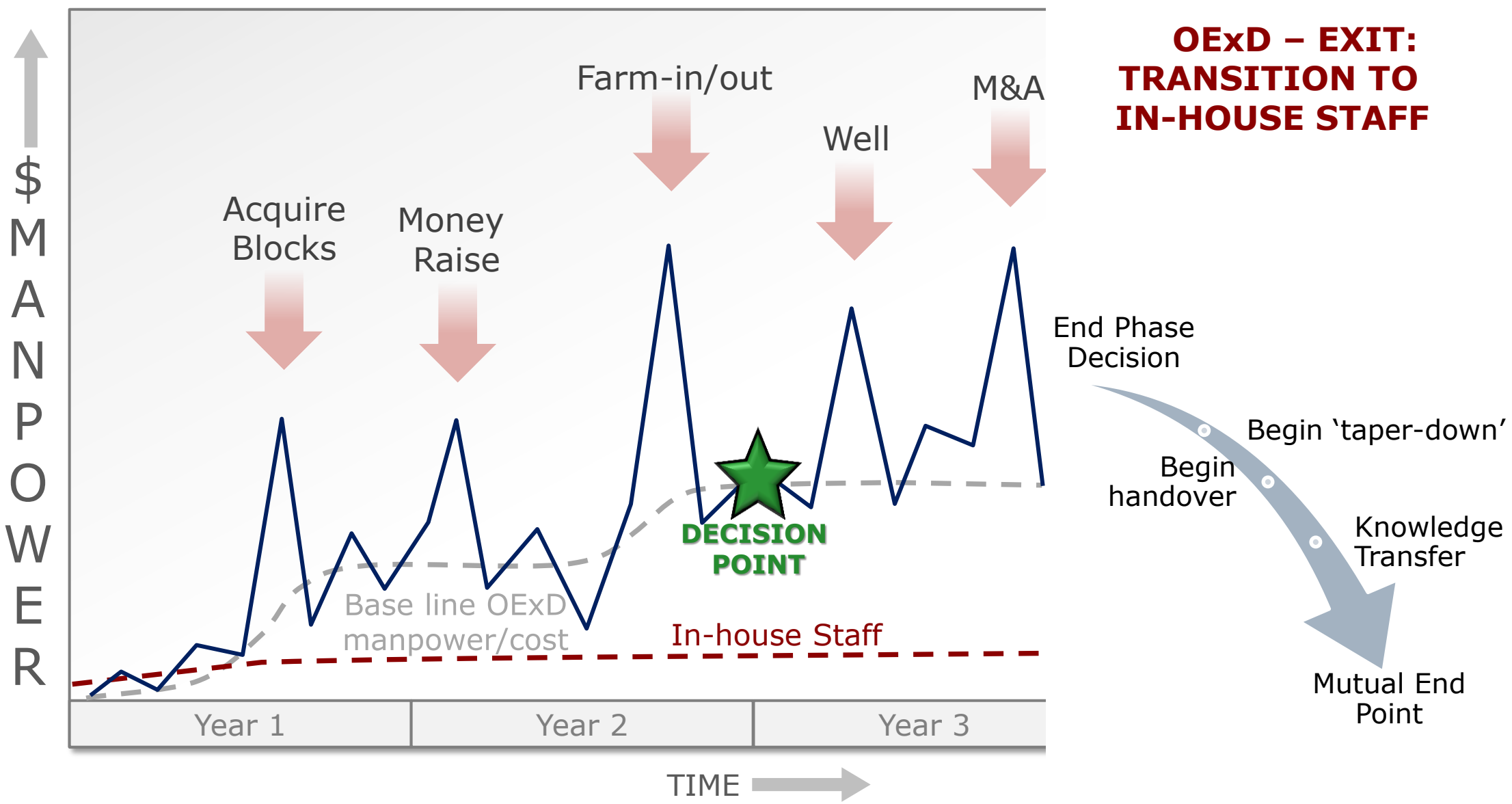
Typical OExD Life Cycle



Typical OExD Life Cycle

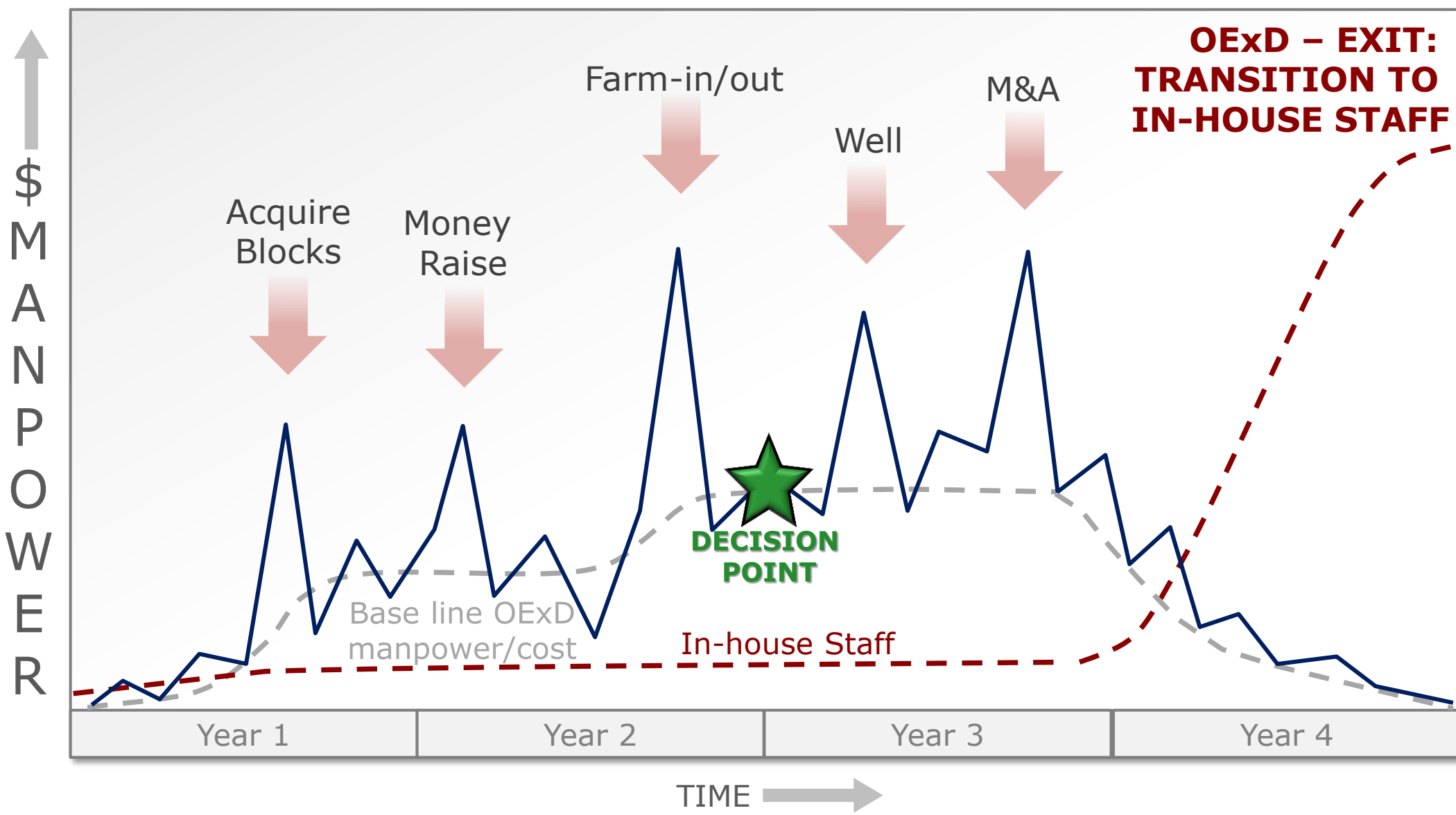


Typical OExD Life Cycle



**OExD - EXIT:
TRANSITION TO
IN-HOUSE STAFF**

Typical OExD Life Cycle





Conclusions

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Conclusions

Quality

focus
speed
team



Outsourcing = Strategic Partnership

Quality

focus
speed
team

Conclusions

Relationships

trusted partners, mutual respect, long-term

Alignment

of long-term objectives for company

Change

is OK.....is expected.....is a part of success

Cost-effective

low G&A, focused work

Value Adding

Integrated, long-term team

Full Spectrum

Bring to bear experience & specialisation

Quality

focus
speed
team

Quality

focus
speed
team

Conclusions

Functionally Effective – i.e. It Delivers

In-House

Outsourced

Consultant





END

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