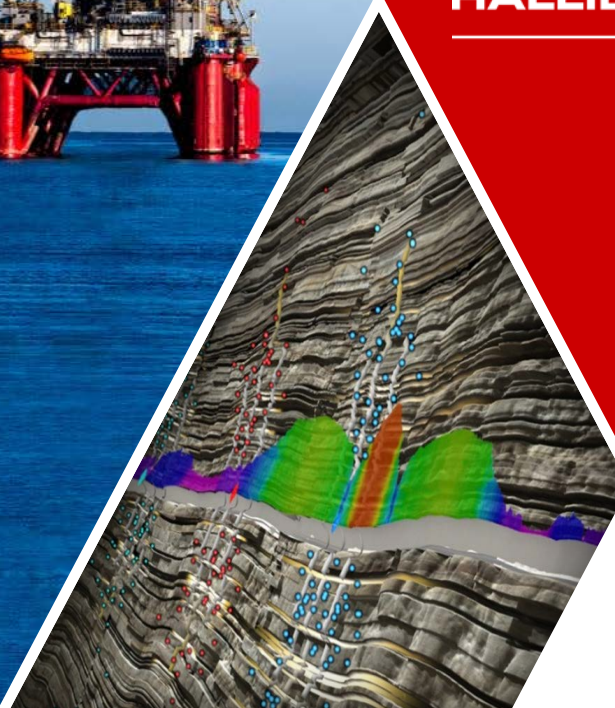




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ARIES™ Economics System – Managing the Petroleum Investment Lifecycle

SPEE Software Symposium

September 10, 2015

Disclaimer

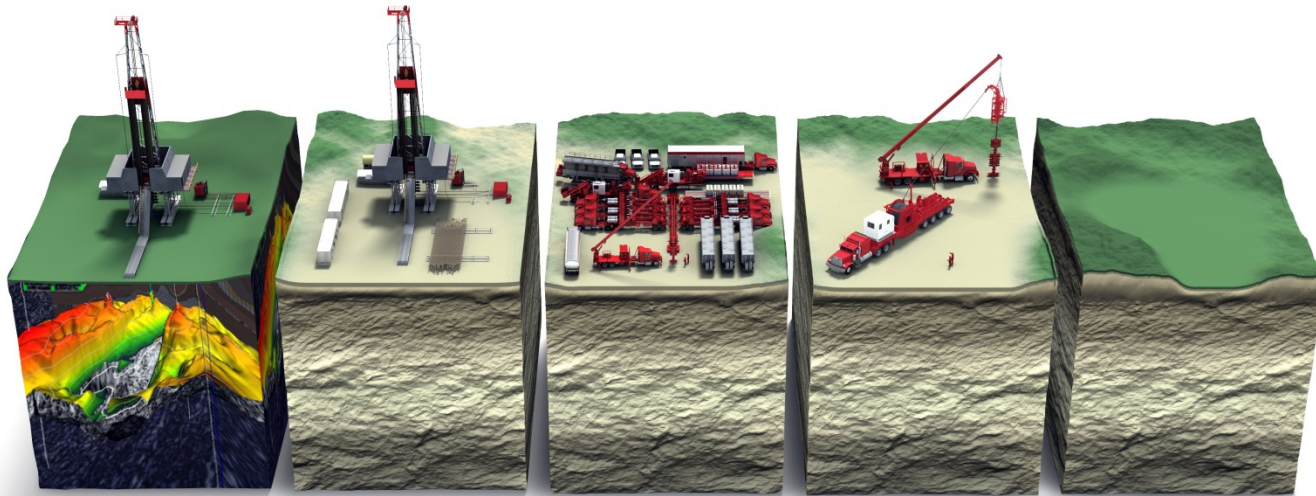
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ARIES™ – The Foundation for the End-to-End Solution

ARIES is a widely-used reserves and economics solution that helps oil and gas companies establish asset and reserve values.

- Property-level evaluations easily consolidate to asset, business unit, and corporate levels as the basis for *end-to-end* project decisions.
- The open, sharable database enables access for business solutions



ARIES™ – Key Benefits Add Value

- Enterprise power and capacity rapidly and efficiently handles any number of properties and projects

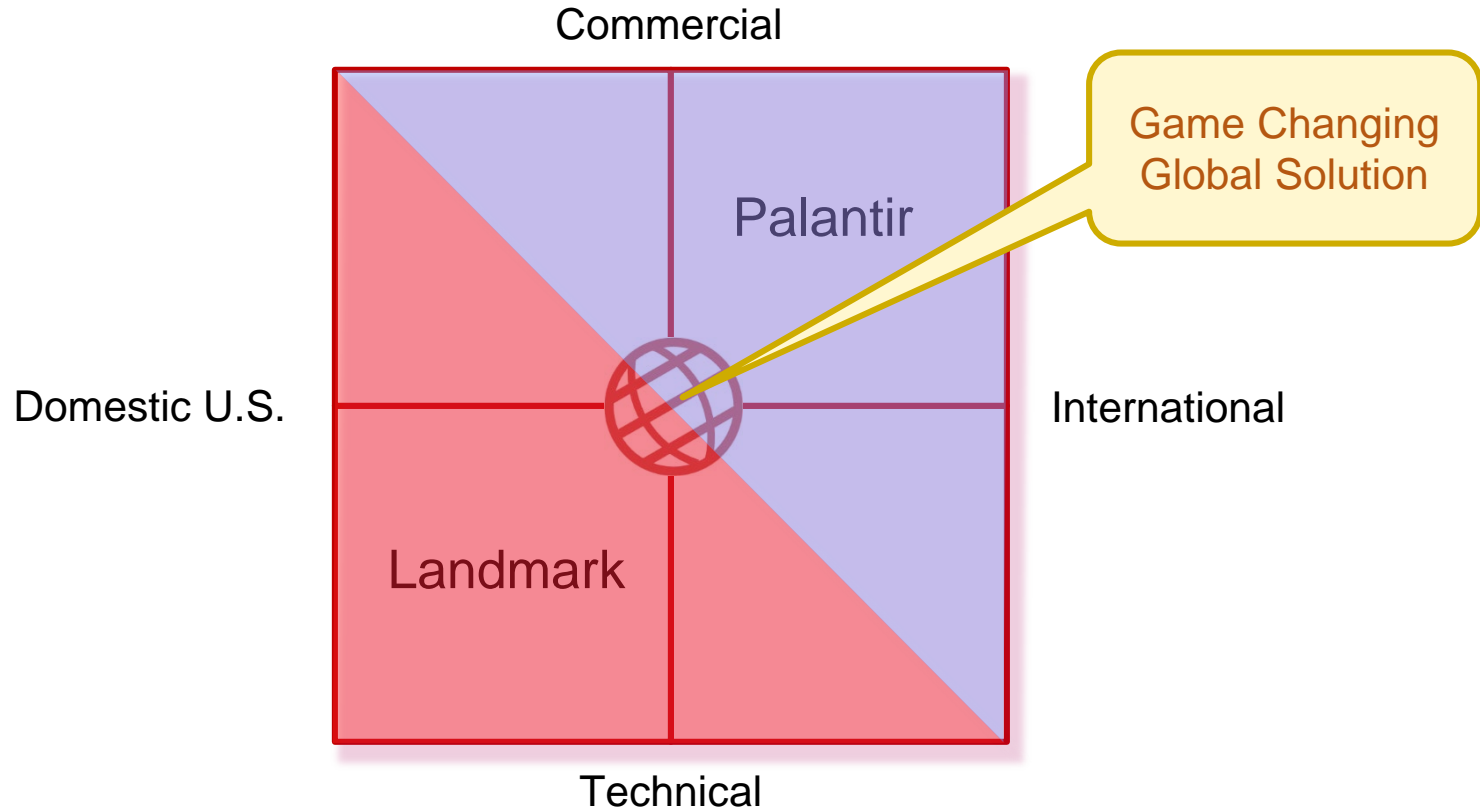
- Automation for property forecasting and updating, for scheduling of development drilling projects, and for profitability testing

- Powerful data quality management tools to ensure transparency and provide confidence



**84% of the O&G Journal top 100
use ARIES for reserves and economics**

Introducing the **Landmark – Palantir** Strategic Alliance



- Integrates ARIES™ with Palantir's suite of reserves, financial, portfolio solutions
- Bridges the gap between the petro-technical world and business planning
- DecisionSpace® meets PlanningSpace™

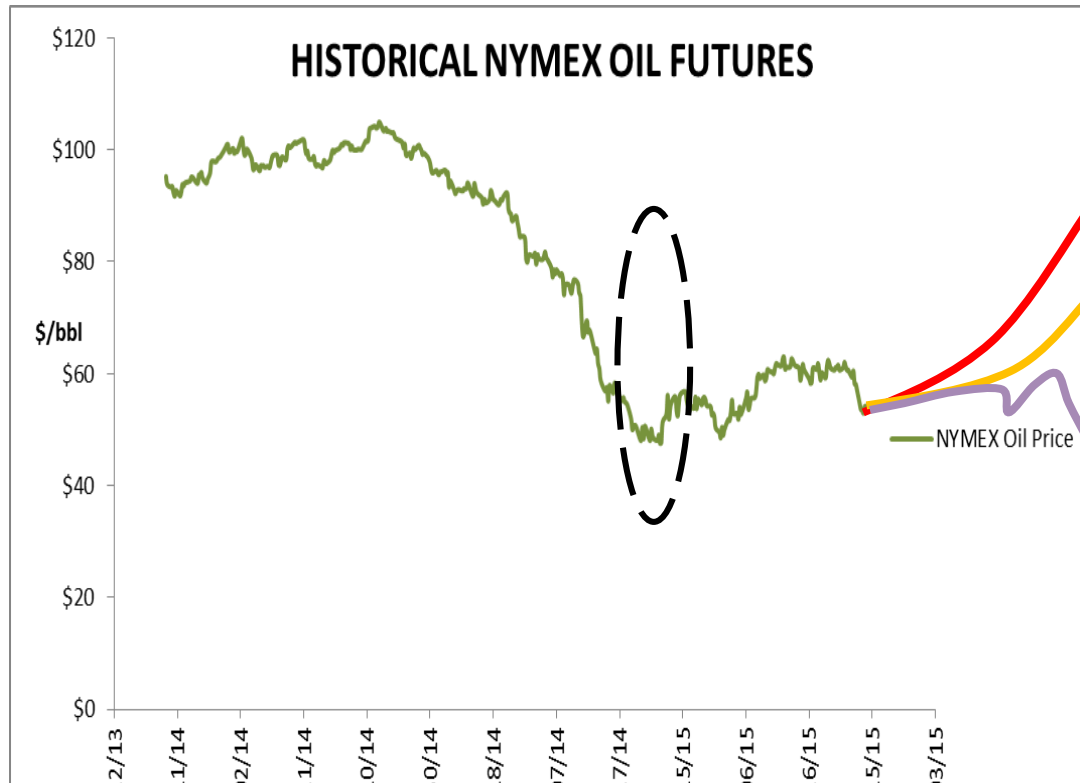


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Landmark Palantir Alliance

The Oil & Gas Business isn't getting any easier!

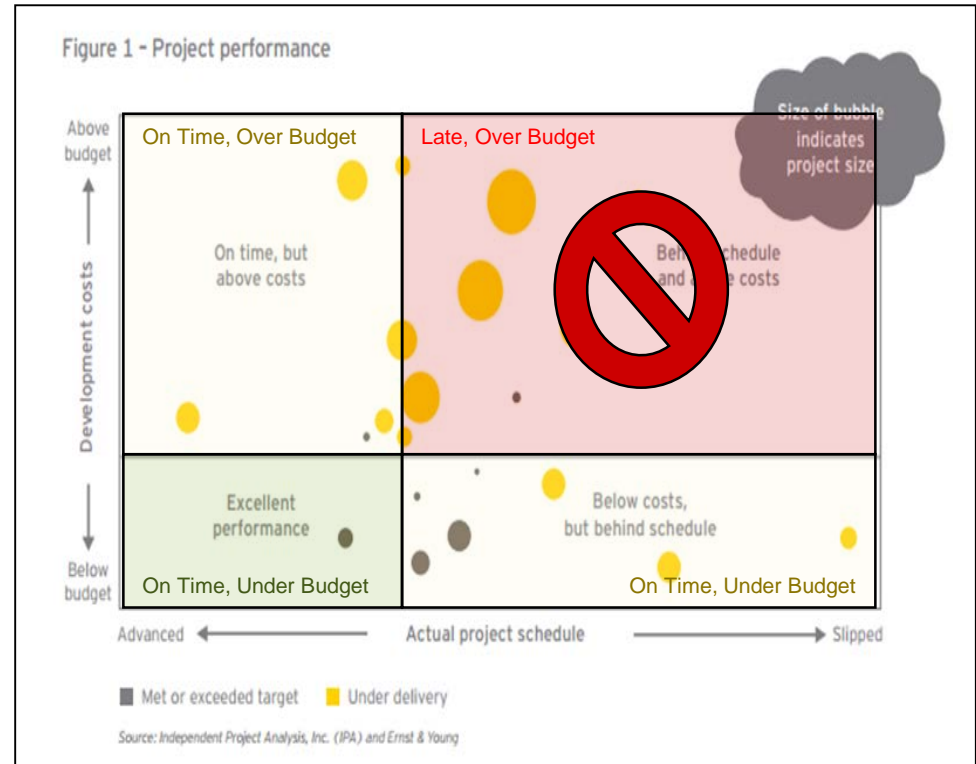


In our business, uncertainty is seen in oil price.

Technical, political and commercial uncertainty is impacting the oil and gas business more than any other time in the previous 40 years.

Large, Capital Intensive, Integrated Projects are becoming the Norm

- Much of the associated forward risk lies in engineering and execution models which exist only in petro-technical applications;
- Economics models currently in use are currently unable to access and calibrate to engineering and execution risks;
- Therefore, technical, operational and commercial uncertainties aren't effectively coupled to allow for ongoing, quick and optimal decision making.



- 8 out of every 10 upstream oil and gas project overrun its budget (CAPEX) by an average of 40%

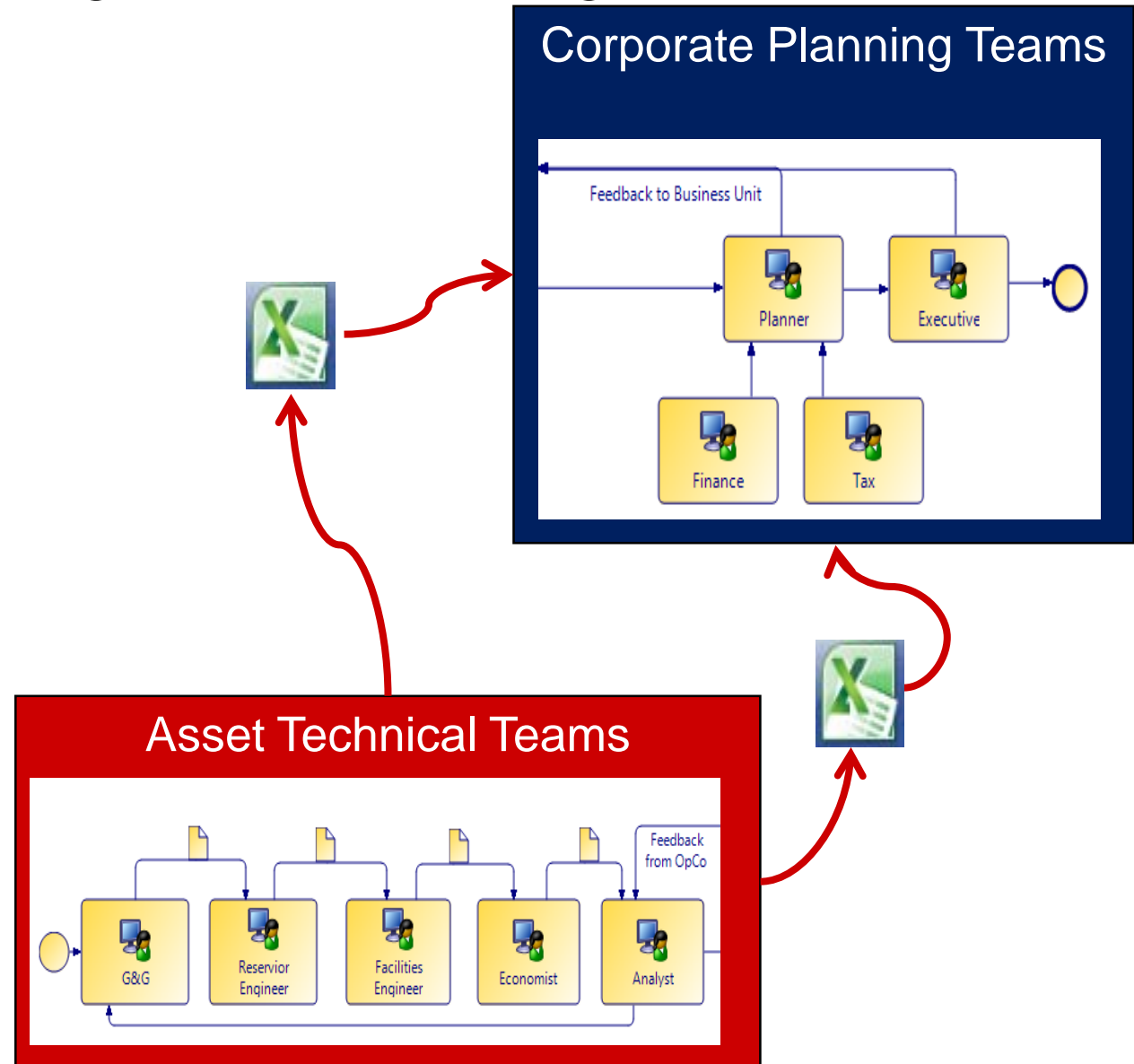
Source: Presentation, Evans Akwasi Gyasi, Warwick University, UK

Why has Planning been a challenge?

The oil business is very complex.
Technical teams operate in silos.

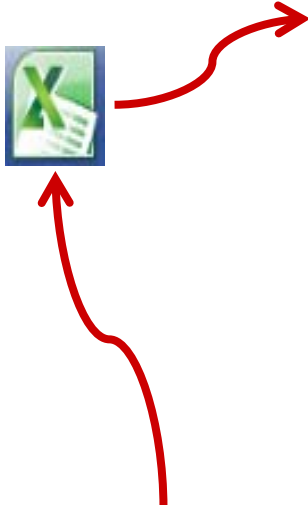
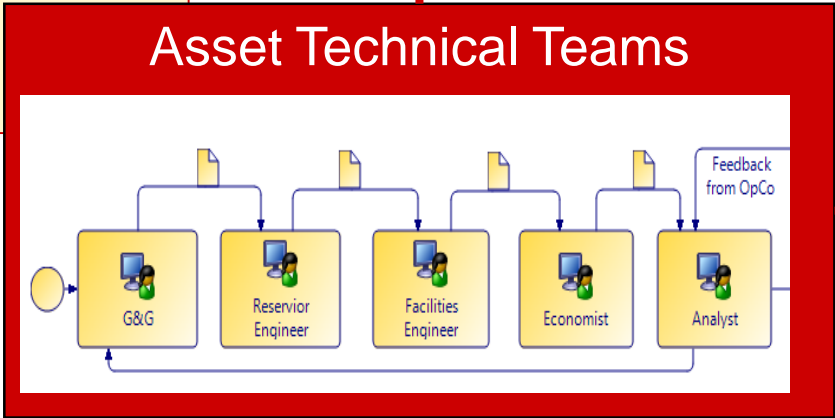
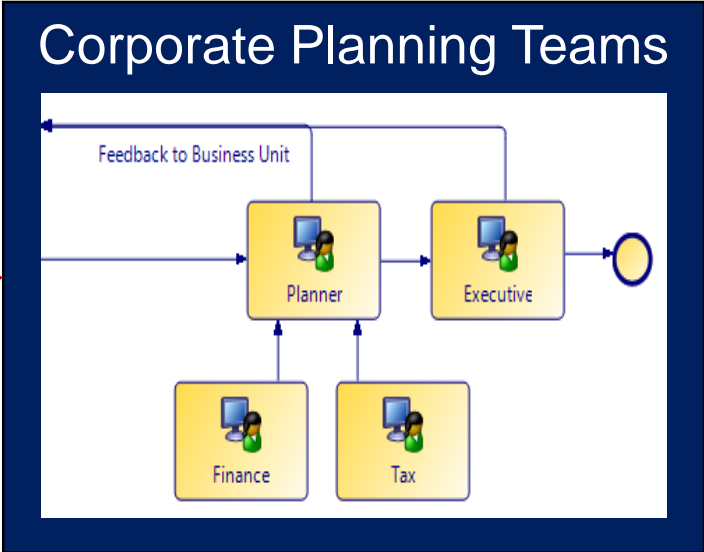
Asset teams and Corporate use complex software tools that are disconnected

Excel models become the way that people share and analyze information



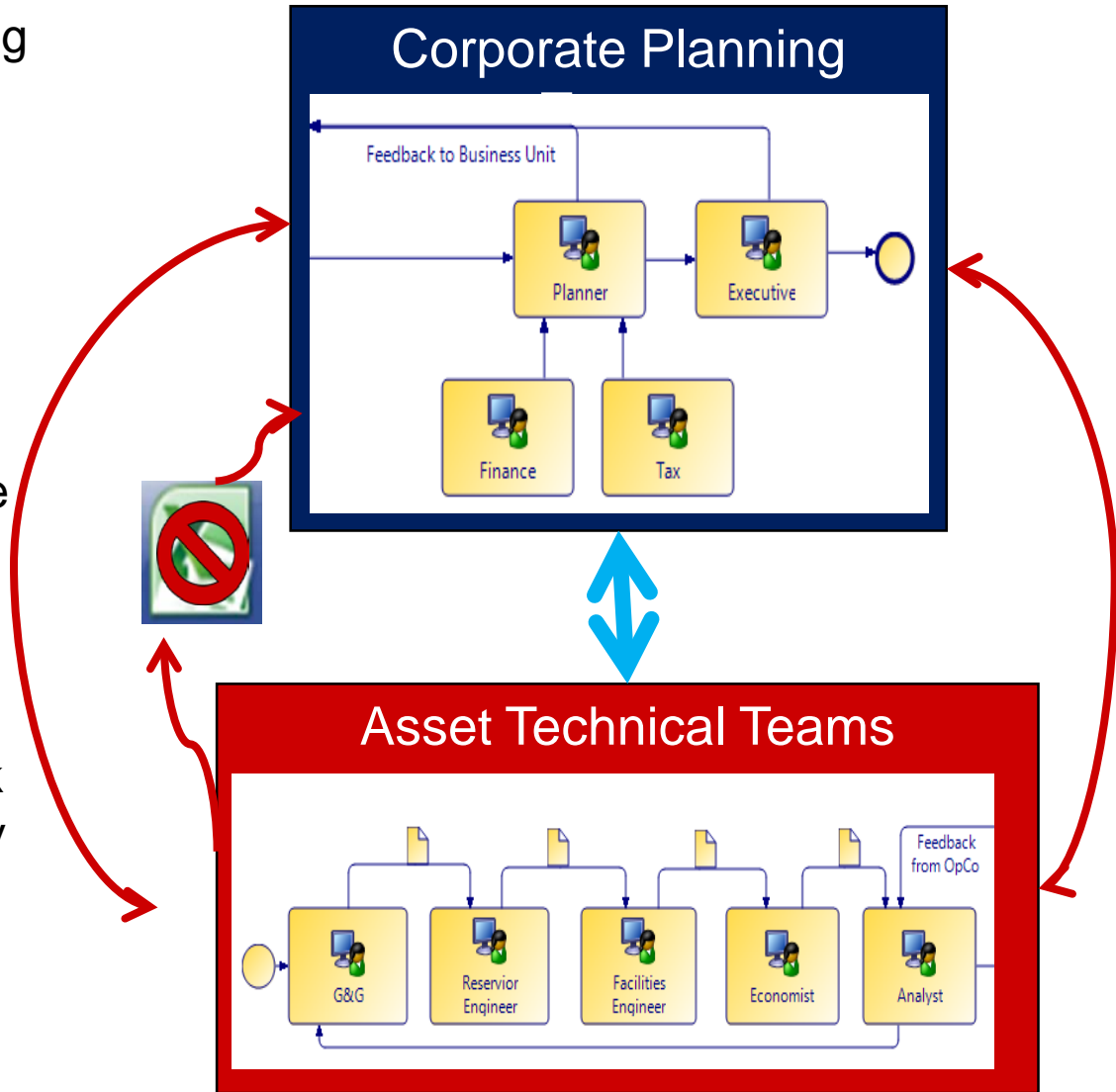
There is a better way to do this!

Fully
Integrated
Lifecycle
Economics
Planning

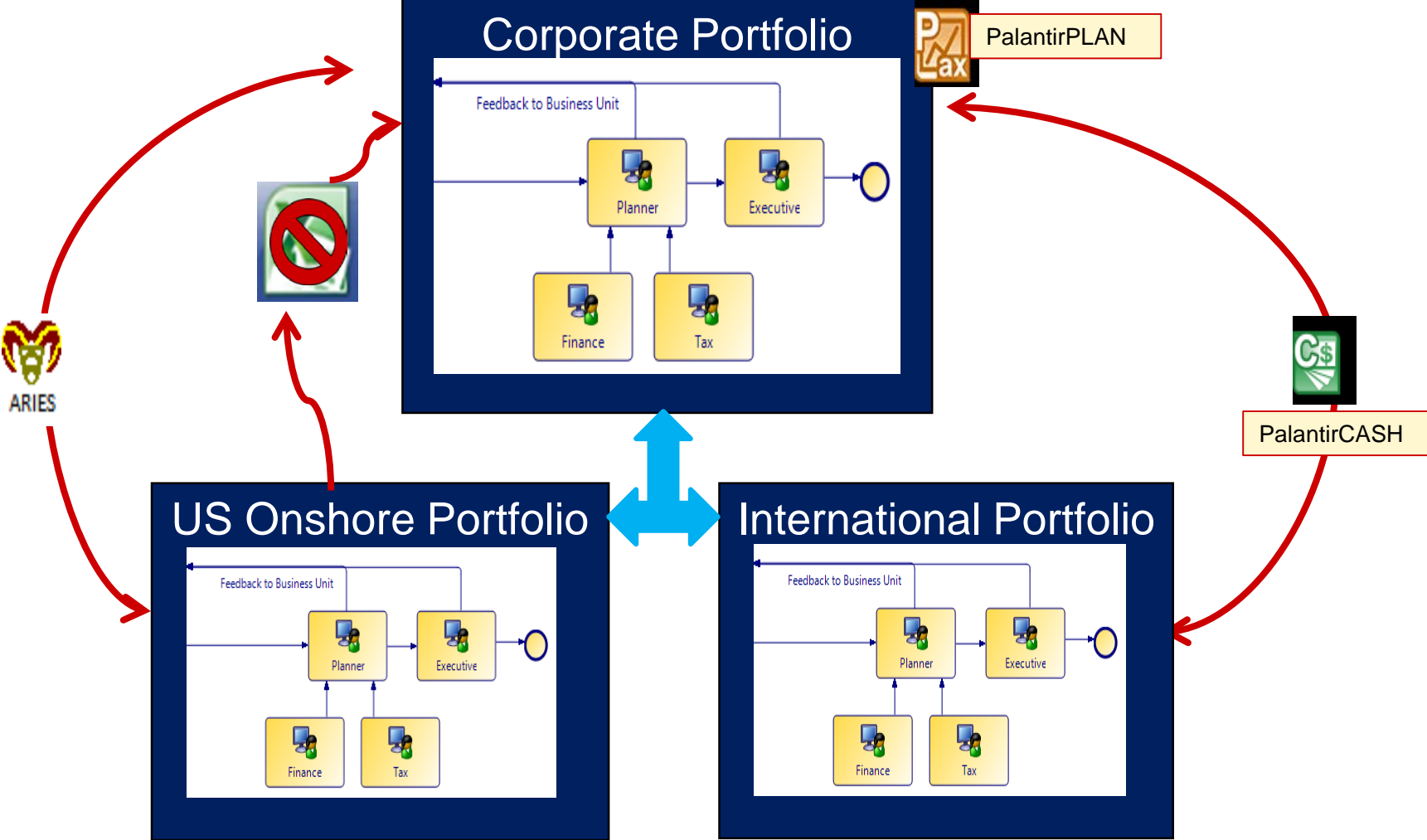


Connect People, Platforms and Processes

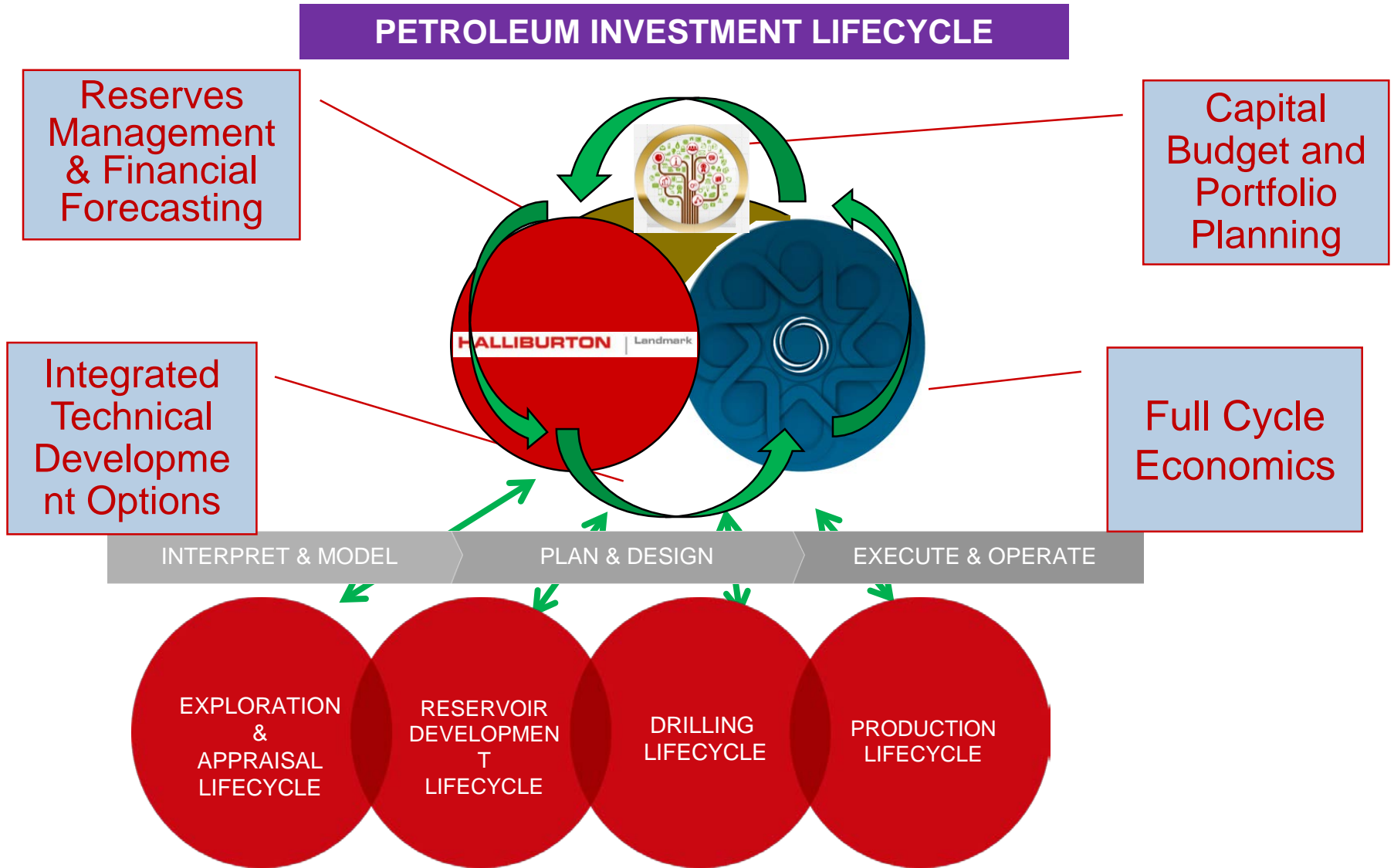
- Eliminate data sharing via Ad Hoc Methods
- Directly connect platforms using common protocols
- Standardize data definitions and create alignment between Asset and Corporate Teams
- Continuous feedback improves data quality enabling better decisions and better plans



Our Life Cycle Planning Solution Removes the Pain of Consolidating US Onshore and International Portfolios



Palantir and Landmark “Petroleum Investment Lifecycle”



In order to deliver the Portfolio Investment Lifecycle, the products you know are coming together:

“Petroleum Investment Lifecycle”

1. Exploration Prospect Value

- FieldPlan-PalantirCASH

2. Portfolio Analysis

- ARIES-PalantirPLAN
- ARIES-PalantirFINANCIALS

3. Reserves Management

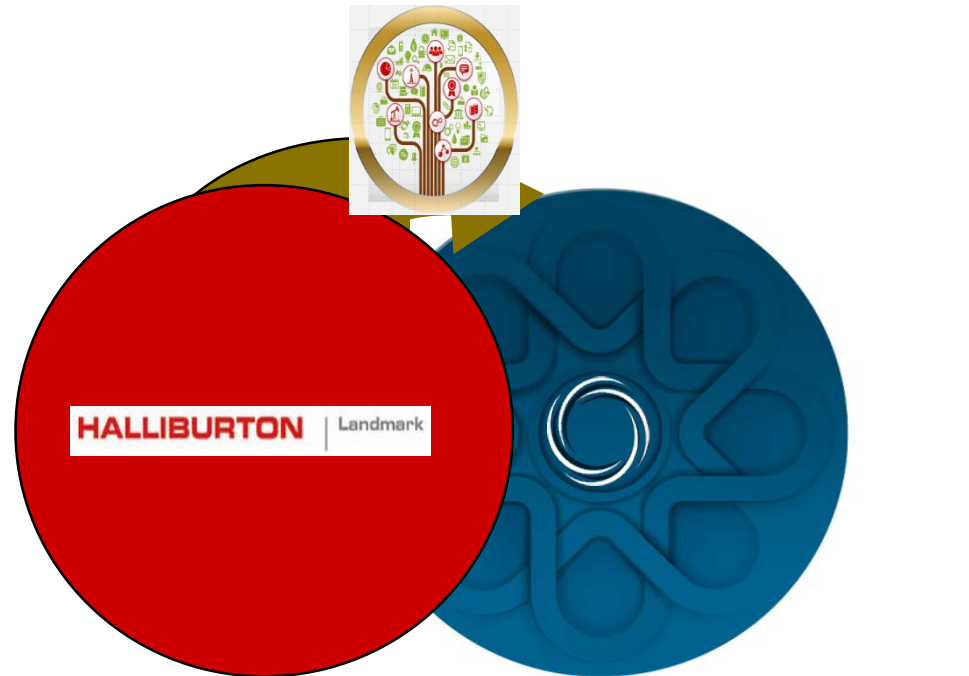
- ARIES-PalantirRESERVES

4. Resource/Rig Scheduling

- ARIES-PalantirRESOURCE

5. Lifecycle Economics

- Petro-Technical Tools + PalantirCASH



Landmark
DecisionSpace[®] Palantir
PlanningSpace[™]

Benefits of Integrating Economics with Robust Petro Technical Data

- Scenario plans can be designed to perform under the widest range of business environments
- Enable focus on analysis and intervention rather than data gathering, entry and manipulation.
- Match Strategy with delivery
 - Strategies can be developed or modified as market conditions change
- Planners can make fact based, economic decisions throughout the full lifecycle of their asset
- Portfolios can be balanced for the desired level of risk and reward