

## Discussion

GEOCAP course 1.07  
PPSDM, Jakarta, Oct/Nov 2017

**Decision-making**  
**Valuation**  
**Organizational issues**

1

### Discussion points: Decision-making

1. **How does subsurface asset decision-making differ from other sectors?**
  - Which *fundamental* characteristics make E&P / GTE different?
  - Can we learn from other sectors? Which ones in particular? How?
2. **How do we define a “good decision”?**
  - What are the key elements in good decision making?
3. **How can we measure the quality of our decision-making?**
  - How do we know when we have been successful in our decision-making?
4. **How can we improve our decision-making?**
  - What are the key biases we tend to bring into our decision-making and how can we avoid them? Which processes to improve?
5. **How can we best learn (organizationally) from our experiences?**

2

## Exercise 1 - Why is GTE different?

(team A and B suggestions)

### *Team A*

- XXX

### *Team B*

- XXX

3

## Why is GTE different? (MPBE 2006 team A and B suggestions)

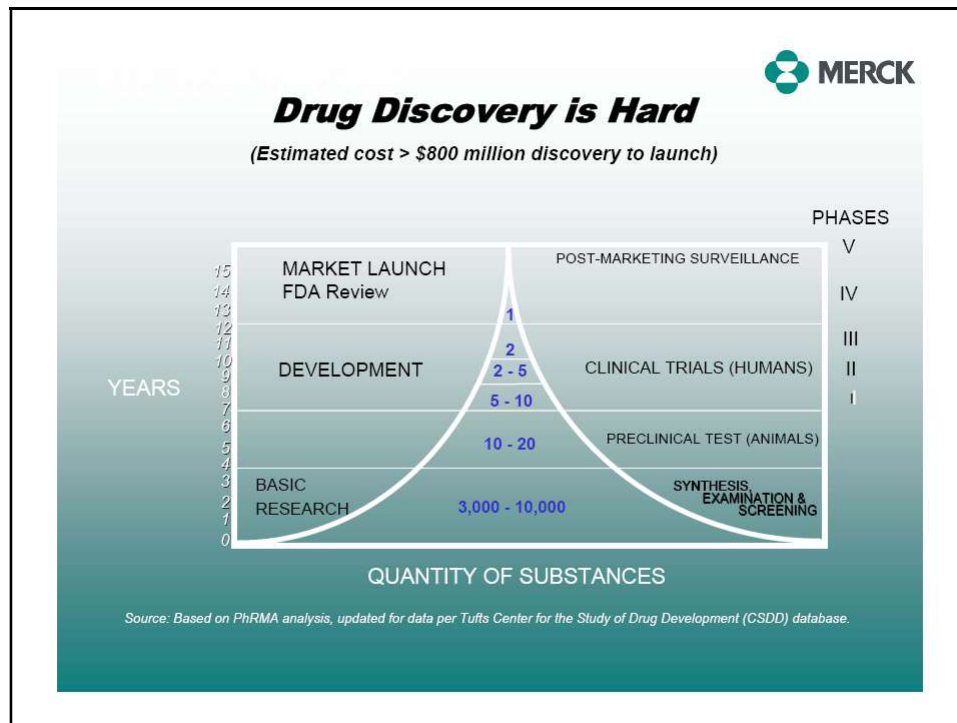
### *Team A*

- **Capital intensive, long PoT**
  - But does this differ from e.g. aviation?
- **Depletable resources**
  - High risk of finding nothing: but for Pharmaceutical this is 1/1000!
- **Supply/demand (gas)**
  - Creating markets difficult
- **Major capex decisions based on very ltd info**
  - Understanding of geology / physics comes only gradually
- **Learn from finance: more scientific approach to portfolio mgt, marketing (gas: how to show added value)**

### *Team B*

- **Data, reliability, cost & scarcity of data**
  - Other sectors can do data acq at less cost, more reliable, data not scarce
- **Complexity of value chain**
  - Geopolitical, team mgt: full value chain
- **Cannot select production area**
  - Given by nature
  - Often remote from populated areas
- **Learn from pharma (creating demand, ethical issues) + telecom (innovation: E&P can be more cost efficient)**

4



## Exercise 2 - What is a good decision? (team A and B suggestions)

### **Team A**

- XXX

### **Team B**

- XXX

## What is a good decision?

### Lecturer's suggestions

- **A good decision is a decision that has been taken according to a *precise* process that is *consistently* applied to different cases**
  - **Precise:** unambiguous, repeatable
    - Little room for subjective, haphazard process steps, nor for omitting steps
    - Beware: process should not become a “box-ticking exercise” & should continuously invite critical thinking / innovation so as to improve corporate learning
  - **Consistent:** this allows *corporate learning* (signal-noise ratio)
- **A good decision is *not necessarily* a decision that resulted in a good (or acceptable) outcome!**
  - Certainly not in case of large uncertainties! Being lucky is not same as being good.
  - But when applied consistently, process should lead to **excellent** *average* outcome
- **Staff should not be rewarded based on outcome, but on having properly applied the agreed process**
  - And on proposing process innovations
    - Staff should not be rewarded for being lucky!

7

## DQ, DP, DA (Stanford)

- **Decision Quality - the framework that defines the requirements of a good decision**
- **Dialogue Decision Process - a collaborative approach to address complex issues to reach quality decisions**
- **Decision Analysis - the concepts and tools that produce clarity about the best choice in an uncertain and dynamic environment**

8

## Decision Quality – DQ (Stanford)

- **The six elements of strategic decision quality form a chain, because a decision is no better than its weakest link.**

1. Setting the appropriate frame.
2. Identifying creative and doable alternatives.
3. Gathering meaningful and reliable information.
4. Gaining clarity around values and tradeoffs.
5. Using logically correct reasoning.
6. Committing to action.

Add: enabling corporate learning

(see notes)

9

## Discussion points: Valuation

### Valuation should be addressed explicitly

- This is a very important part of creating an environment for world-class decision-making
- **How do we value individual activities in a maturing asset?**
  - Exploration, appraisal, development, production, incremental devt.
- **Are our value drivers optimal?**
  - What is optimal? How to «roll-up» projected ST/LT KPIs and time-series on the Project-Asset-Portfolio-Business Uni-Opco-Corporate level
  - How to «roll-up» risk? How to consolidate probability of mtg targets/exceeding constraints....?
- **How can we account for the value of flexibility in our projects?**
  - Future is uncertain, productive system is poorly known.
  - Also to grasp later opportunities from (poorly known) New Tech

10