



# Decision Quality and You

Real Companies, Real Journeys

# Decision Quality Enablement

decision | FRAMEWORKS



Decision Frameworks...  
Decision Craftsmen...  
Decision Quality...

Decision Consulting

**Facilitating Quality Decisions**

Skill Development

**Fostering Decision Quality  
through Practical Training**

Decision Quality Software

**Ensuring Decision Quality with  
the right Decision Software**



# Decision Framework - Decision Empowerment



**DTrio**  
Decision Framing

- Framing and DQ/DA workflow software
- Value of information framing and analysis
- Standalone and Excel™ Add-in versions



**TreeTop**  
Decision Analysis

- Standalone decision tree software
- Tornados, trees, and cum-prob plots
- Links to models in Excel & Enersight™



**OWL**  
Decision Case Library

Houston – Calgary – Hamburg – London – Adelaide  
[www.DecisionFrameworks.com](http://www.DecisionFrameworks.com)



# Today's objective is to learn from other companies' Decision Quality journeys

- Successful Decision Quality implementation ingredients
- Today's panel discussion of their stage and approach to DQ
  - Biggest value gain from DQ implementation
  - Biggest challenges and triumphs
  - Tips and tricks
- Rapid fire Q&A



# Agenda

- Today's panelists, their role and ODQ set-up
- DQ implementation
- Panelist discussion
  - DQ org structure
  - Biggest value gain
  - Challenges and triumphs
  - Tips, tricks and lessons learned
- Rapid fire – questions, similarities and differences



# Five Panelists Driving Decision Quality



**Jeremy Brann (Shell)** – Manager of the Decision Analysis Services group in Shell’s Economics discipline. Jeremy has been in Shell’s DAS group for 7 years and practiced DA in a small upstart business for 6 years prior to joining Shell.



**Dinesh Cheryan (Hess)** – Chief Economist at Hess, with functional responsibility for economics and DA. Previous Hess roles as Strategy and Risk Manager on an offshore project and South East Asia Economics Manager. Worked for Shell previously in Economics and Facility Engineering in Asia and Europe.



**Gerardo Franco (Noble Energy)** – Strategic Planning Advisor with responsibility for planning, strategic guidance and Decision Analysis. Previously, he was a Subsurface Manager for Noble’s Israel and Cyprus major discoveries. Gerardo has been involved in DA, risk and uncertainty analysis since 2007 through his work with Chevron.



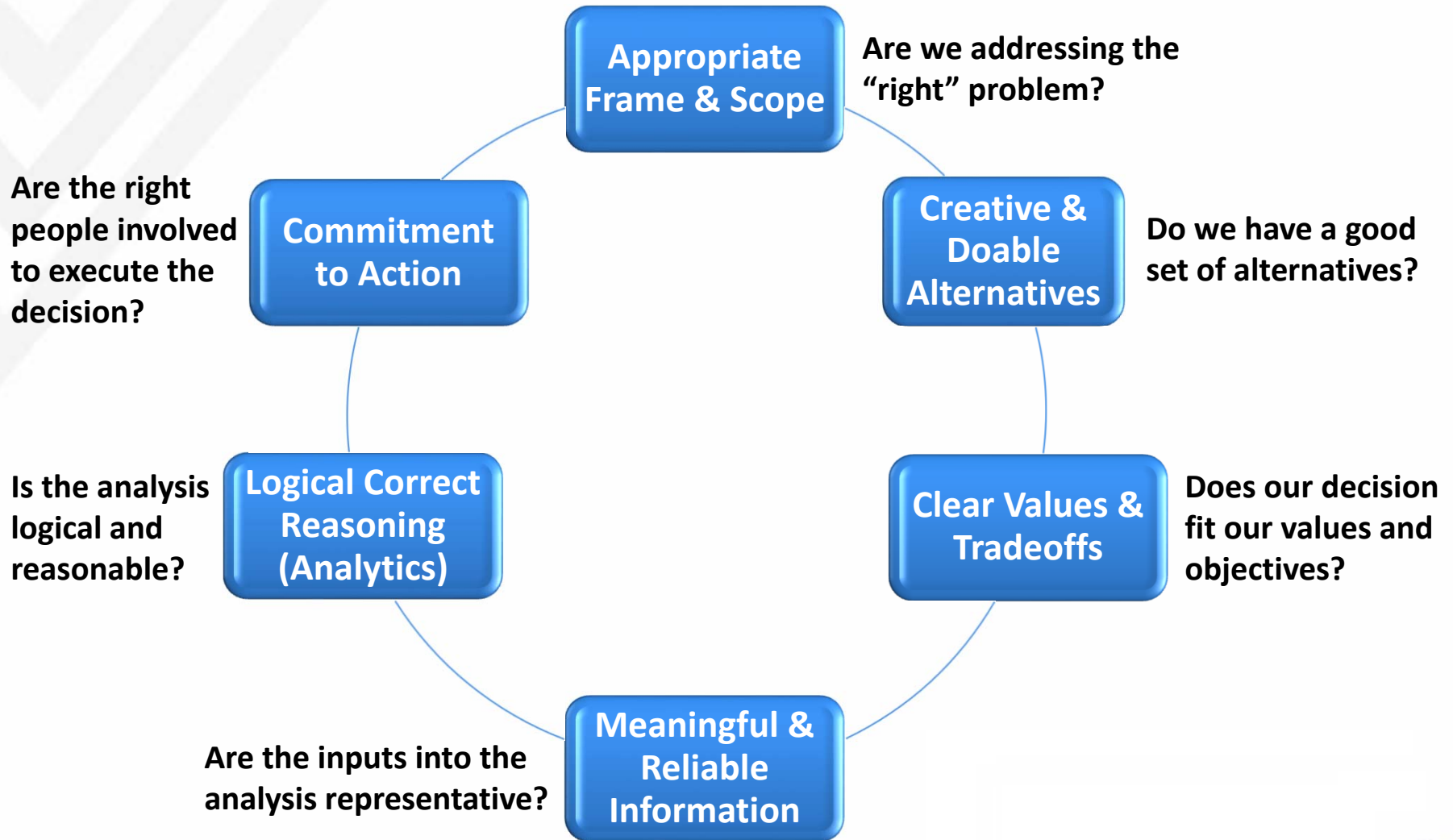
**Josh Harrison (Nexen CNOOC)** – Decision Analysis Lead within Nexen’s Development Excellence group enabling DQ with project teams across Nexen through framing, uncertainty assessment, and scenario planning. In previous life Josh was a geophysicist at Shell working exploration and development, and started his career too many years ago in seismic processing.



**John Jeffers (Southwestern Energy)** – John is Director of Geosciences for the SW Appalachia region, and is leading the design and implementation of risk/uncertainty assessment and decision quality at SWN. A geologist by degree, John has been involved in risk and decision analysis in several previous roles at Mobil and Schlumberger. John joined SWN in 2009.



# Six Classic Elements of Decision Quality



## Poll Question #1

How does your organization frame decisions? (choose one)

- Select decisions framed by internal experts
- Select decisions framed by individuals thru the organization
- Many types of decisions framed by internal experts
- Many types of decisions framed by individuals thru the organization
- Not applicable (academic/consultant)





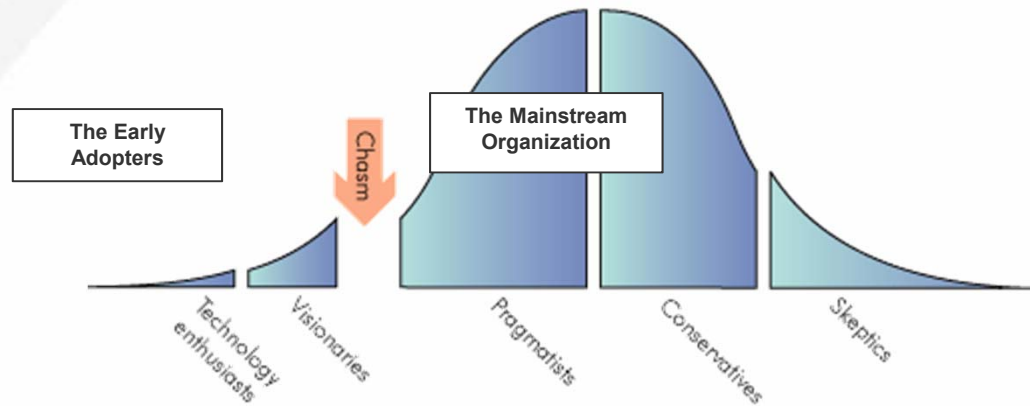
## Poll Question #2

What percent of investment decisions are evaluated using some level of uncertainty analysis (Decision Trees and or Monte Carlo)? (Choose one)

- 75% - 100%
- 50% - 74%
- 25% - 49%
- Less than 25%
- Not applicable (academic and consultant)



# Crossing the Chasm to Successful DQ Adoption



***In Crossing the Chasm***, author Geoffrey Moore proposes there is a chasm between the early adopters of new technology (the enthusiasts and visionaries) and the early majority (the pragmatists). Visionaries and pragmatists have very different expectations.

Visionary users adopt technology which has promise, and live with the “growing pains” of early adoption because they can see the long term benefit of its use.

Early majority pragmatists will not adopt if the benefit is not clear and the technology is not easy to use.



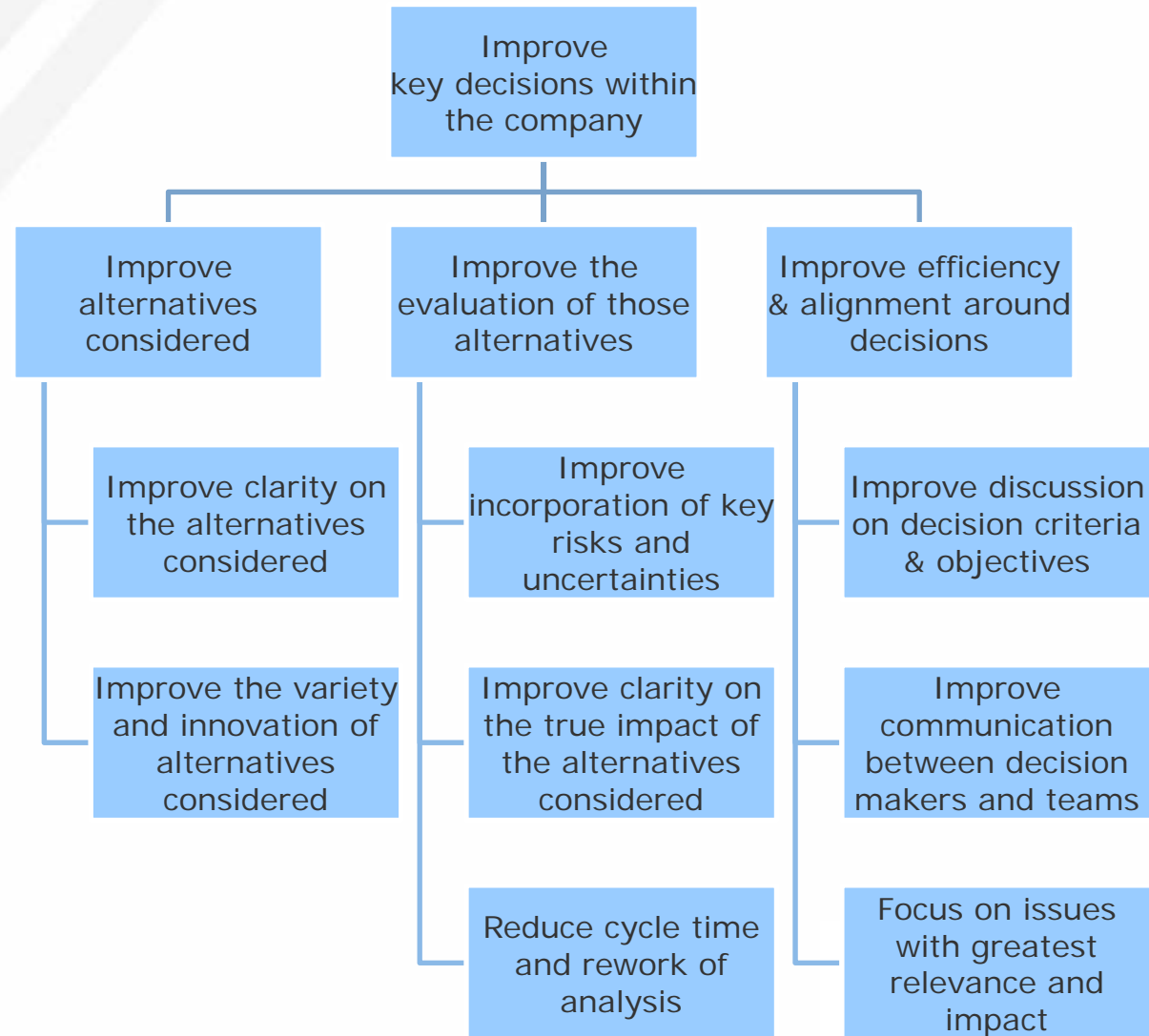
## Poll Question #3

What stage of DQ implementation is your organization in? (Choose one)

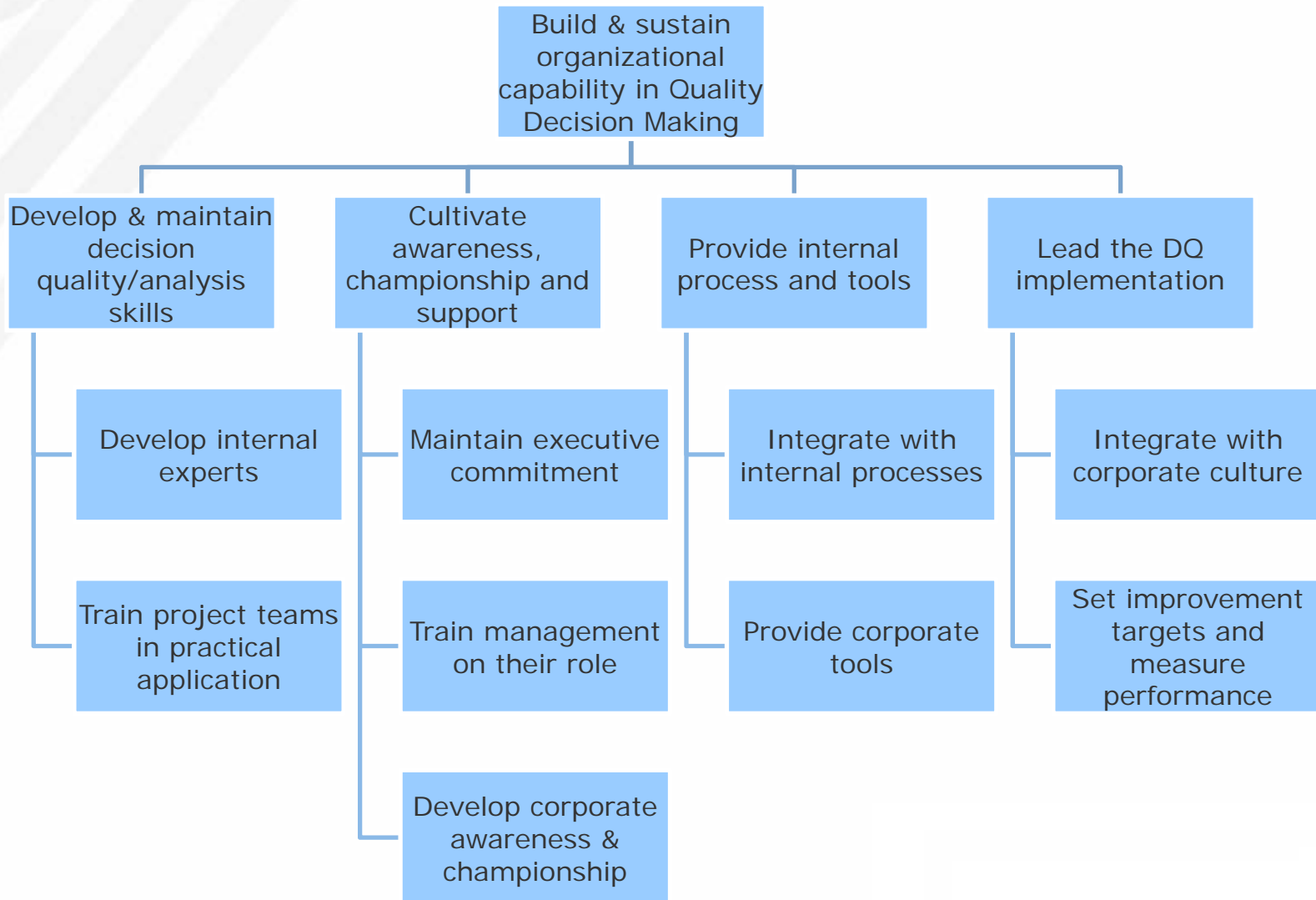
- Thinking about it
- Proof of concept - Piloting DQ to decide path forward
- Early DQ implementation
- Established DQ implementation
- Mix across the organization and globe



# The DQ Objective – Improve Key Decisions



# Framework for Successful DQ Implementation



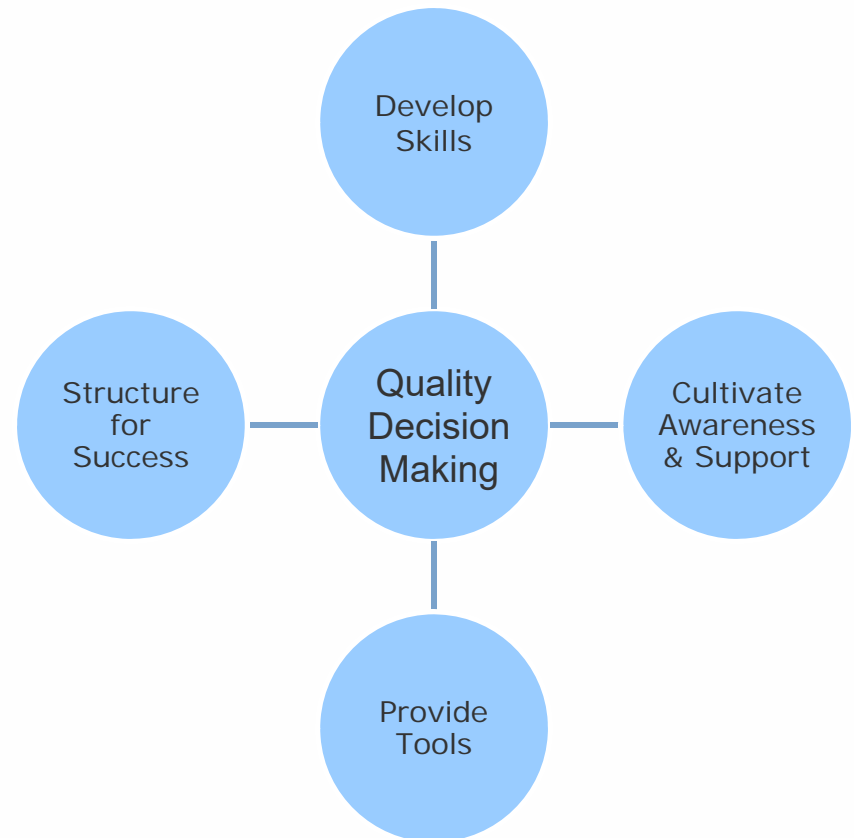
# Key Elements of Organizational DQ Success

Decision making is a skill in and of itself, not unlike other technical and business skills.

It needs to be continually fostered, monitored and grown appropriately.

To continually improve, most companies establish a DQ implementation plan and infrastructure to nurture and guide its use and growth organizationally.

*Note: The ingredients for successful DQ implementation are the same, but the “recipe” differs from organization to organization.*

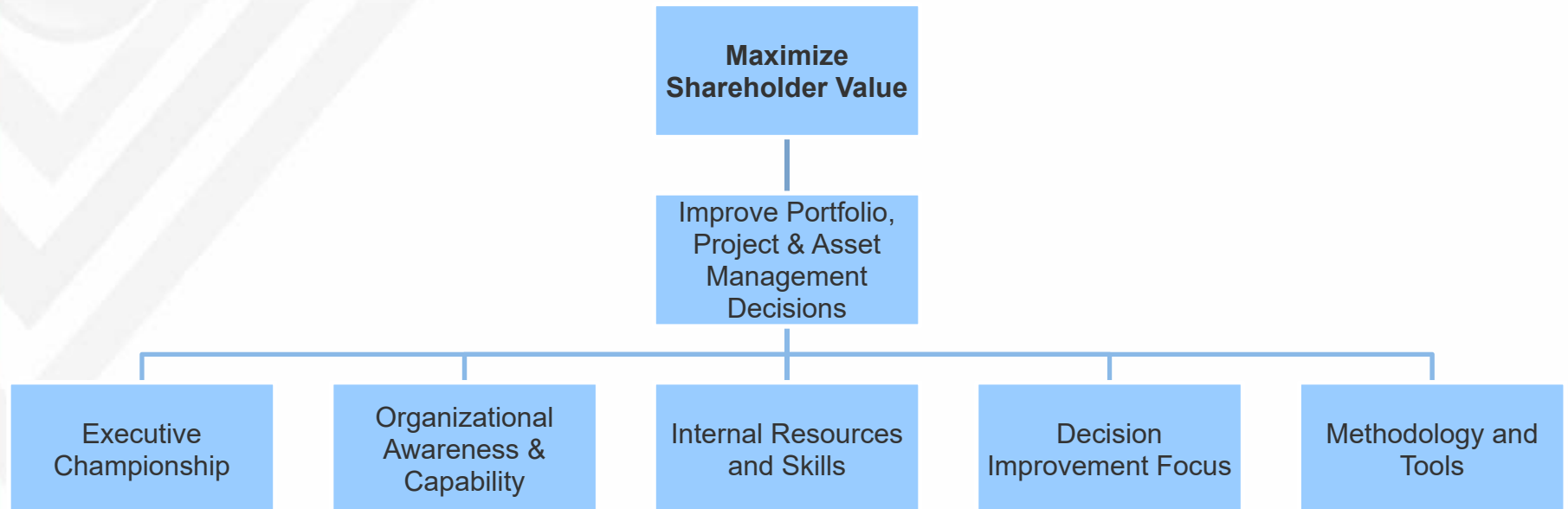


# Organizational DQ “Haves and Needs”

*An annual check of progress and realignment of the ODQ plan is helpful.*



# DQ Targets and Progress



**2016**

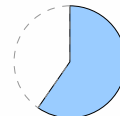
Status / main achievements



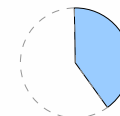
Status / main achievements



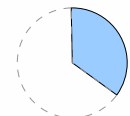
Status / main achievements



Status / main achievements



Status / main achievements



**2017**

Key action items for 2017

Key action items for 2017

Key action items for 2017

Key action items for 2017

Key action items for 2017





## Poll Question #4

What are your main areas of DQ implementation focus for 2017? (Choose two)

- Executive championship
- Organizational awareness & capability
- Internal resources and skills
- Decision improvement focus (better at a few targeted types of decisions)
- Methodology and tools





Question 1 – Organizational Model

# HOW IS YOUR ORGANIZATIONAL DQ SETUP?



# Shell DQ Structure



Optimizing



Early/Establishing



# Hess DQ Structure

Most DAs are embedded in asset (asset model) with functional reporting into Central Economics/ DA group

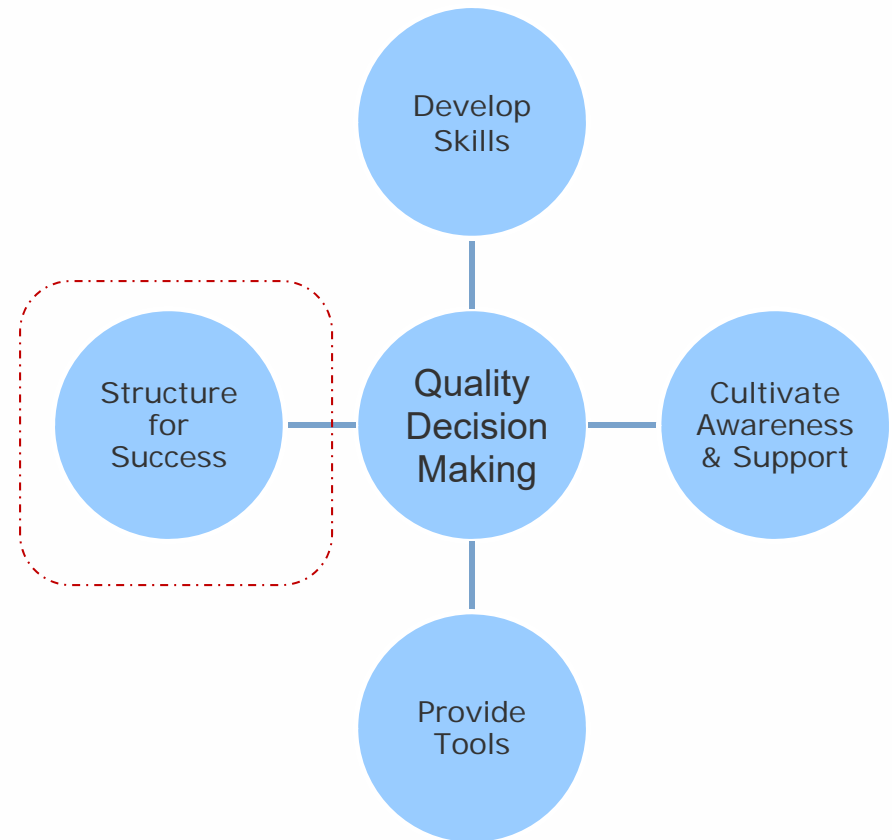
My role is functional ownership of standards, provide training, subject matter expertise, monitor progress

Stage of DQ

- Stage 2 – Established DQ

Decision Excellence is umbrella effort

- Portfolio planning
- Individual decisions (main focus)
  - Economics and DA framing, analysis
  - Capital Stage Gate process (Value Assurance)



# Noble DQ Structure



## Role

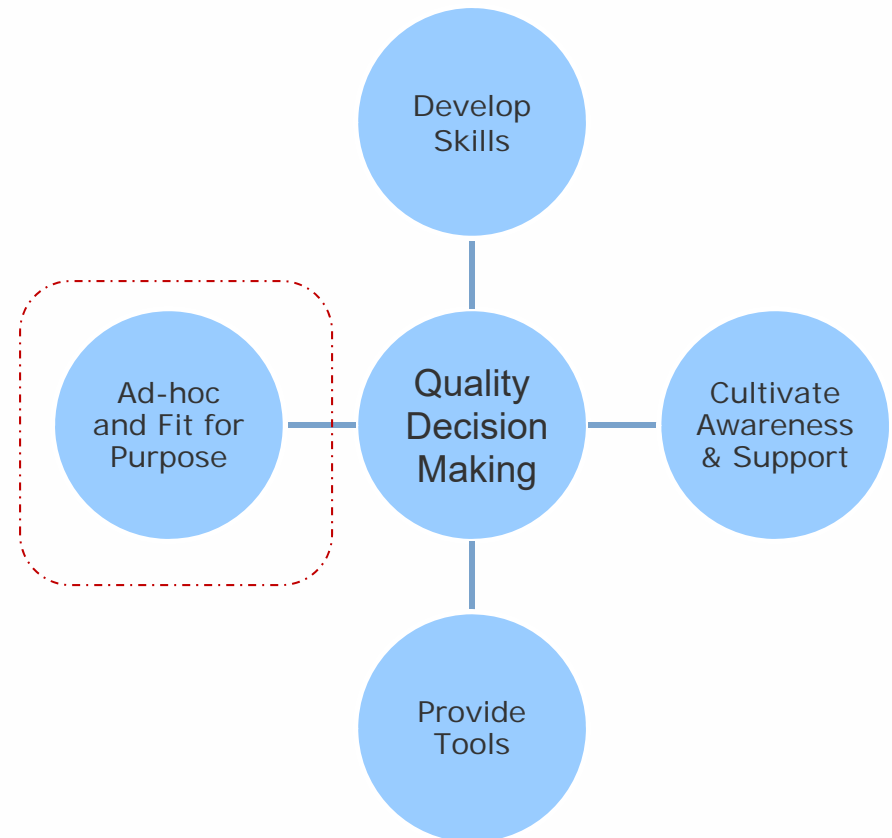
- Decision Analysis Champion

## Stage of DQ

- Stage 2 – Established DQ

## Approach/structure to DQ

- Methodology embedded in the excellence process
- Support to Business Units and Teams as needed
- Support to major projects



# Nexen DQ Structure

## Nexen

- Oil & Gas company based in Calgary, Canada. Owned by CNOOC Ltd.

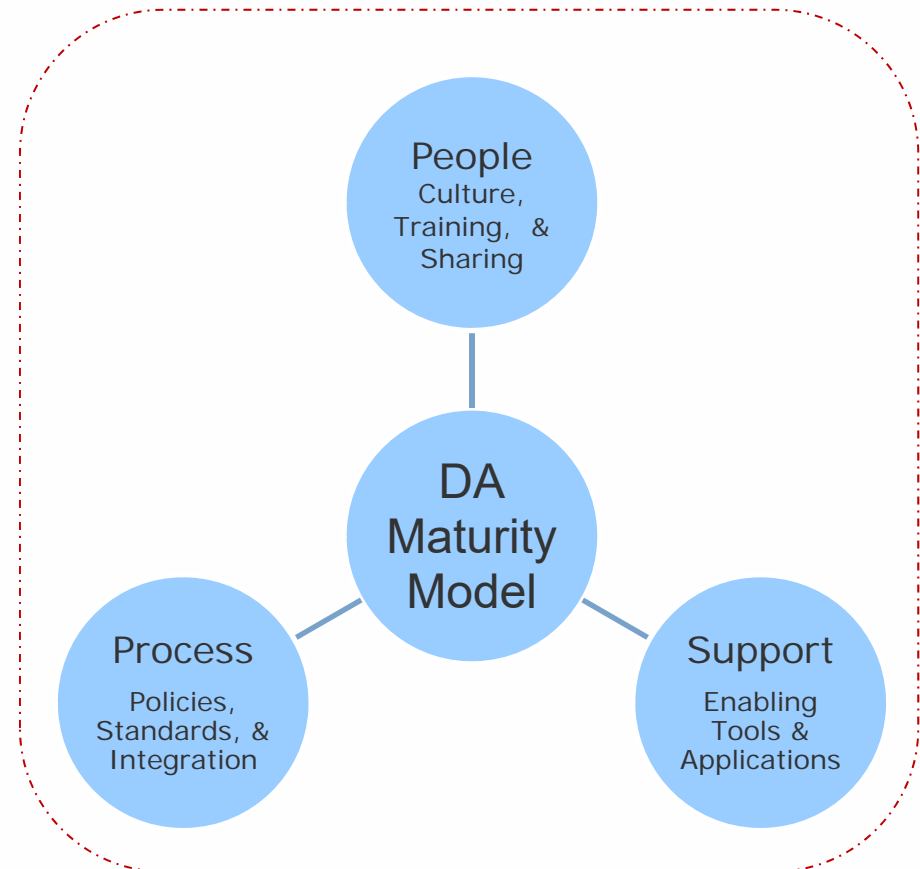
My role – Decision analysis lead

## DQ Implementation @ Nexen

- Stage 2 – Established DQ
- 2 DA models
- Consultancy and embedded
- Maturity Model set up in the early stages
- Grass roots growth with initial executive sponsor



Create Clarity  
Build Commitment  
Feel Confident



# Southwestern DQ Structure

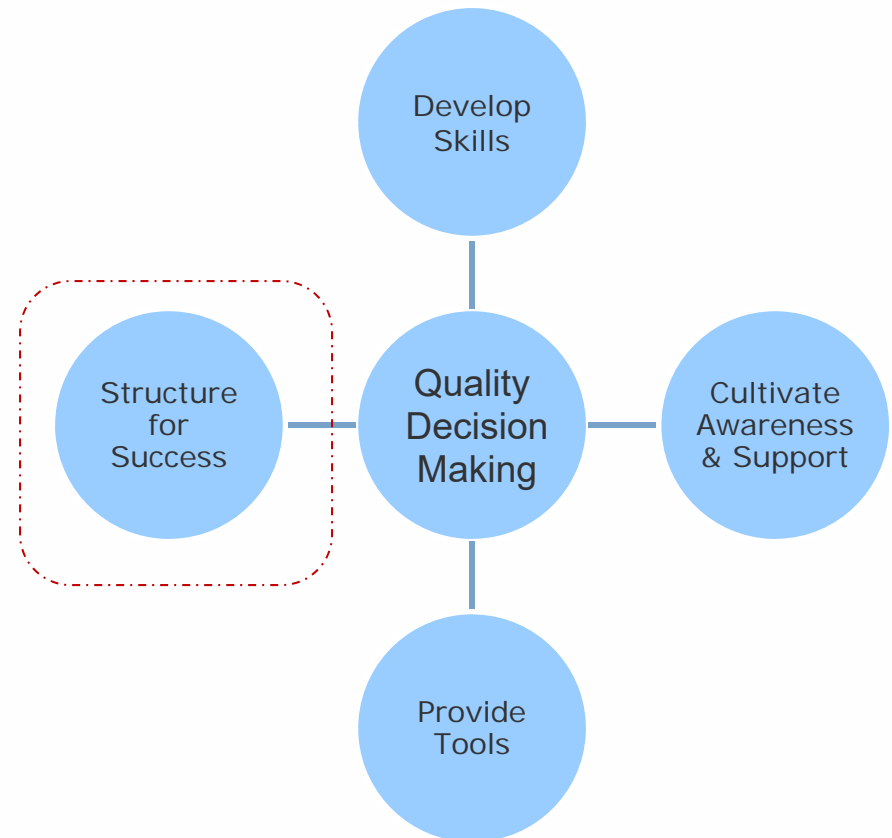
Southwestern Energy is an independent E&P company

My role: Implementation lead (part-time)

Effort initiated in mid-2016

## Approach

- Train a group of “champions” across the organization
- Learn by doing
- No dedicated DQ organization
- “Rigor without bureaucracy”





Question 2 – Value Gain

**WHAT IS THE BIGGEST VALUE GAIN  
FROM ODQ?**





# Shell Biggest Value Gain



Framing →

Efficiency \*  
Effectiveness



Doing the Right Things  
Right



# Hess Biggest Value Gain

- Coherent and consistent approach to:
  - Problem framing, evaluations, presentations
  - Portfolio impact crucial (for larger decisions)
  - Overall greater sense that the Decisions are being framed and analyzed better
- Executive management perspective?
  - Strong support
  - Has enabled much clearer conversations around tradeoffs, quantifying downside
- Project managers' perspective?
  - Mixed – more work, unclear what work is for
- Team perspective?
  - Mixed – more work, unclear what work is for



# Noble Biggest Value Gain



- **Your perspective?**
  - Communication, Framing & Uncertainty Analysis
- **Executive management perspective?**
  - Communication
  - Methodology to evaluate opportunities/assets
- **Project managers' perspective?**
  - Evaluation and selection of different alternatives
  - Communication tool with Decision Makers
- **Team perspective?**
  - Framing of opportunities and issues
  - Value of Information
  - Understanding of risk and uncertainty



# Nexen Biggest Value Gain



Create Clarity, Build Commitment, Feel Confident

- Enabling the dialogue between decision makers and project teams has been huge
- Decision makers value the structure brought from framing
  - Do the right work to answer the right question
- Project teams value the clarity
  - Line-of-sight between their work and key decisions
  - They also really appreciate a good deck!
    - Enabling the team to build the story
- We initially focused on framing over analysis
  - Significant demand for framing



# Southwestern Biggest Value Gain

- Your perspective?
  - Making sure we are addressing the right problems in the right way
- Executive management perspective?
  - Actionable alternatives aligned to business goals
  - Consistency and objectivity in approach to evaluation across the organization
  - Foundation for conversation
- Project managers' perspective?
  - Aligning everyone's work to the problem as framed
  - Clarity among stakeholders
- Team perspective?
  - Greater engagement, ownership of decision





Question 3 – The Journey

**WHAT HAVE BEEN THE BIGGEST  
CHALLENGES AND TRIUMPHS?**



# Shell Challenges and Triumphs

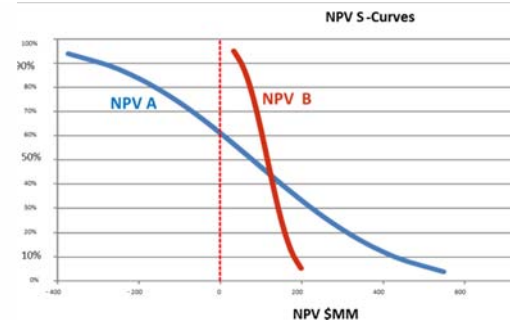
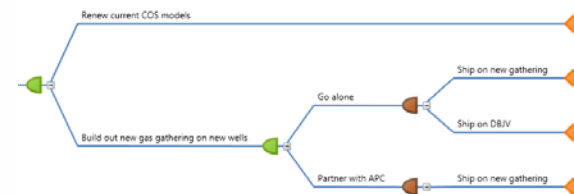
## Biggest Challenges



## Biggest Triumphs



» Renew or Build New » Partner on new? » APC shipping decision »



# Hess Challenges and Triumphs

## **Biggest Challenges**

Consistently getting leaders onboard

Project teams understanding why data is required

Skilled practitioners

Distance/ geography

Confidential projects

## **Biggest Triumphs**

Default framing for major project decisions

Probabilistic economics for major decisions

Consistent messaging to decision makers

Practitioner growth/ development





# Noble Challenges and Triumphs



## Biggest Challenges

Change the deterministic / “gut feeling” culture from decision makers

Identify the projects that will benefit the most from DA tools

Continue to grow a DA culture in a “low commodity cycle” environment

## Biggest Triumphs

Prioritization of opportunities and focus on the right ones

Valuation of each opportunity

Consistent evaluation of opportunities (standard process and methodology)

Alignment between teams and stakeholders



# Nexen Challenges and Triumphs



Create Clarity  
Build Commitment  
Feel Confident

## Biggest Challenges

Overcoming the 'busy-fallacy'

Project management vs  
opportunity management

5-6 year into DA  
implementation there is still  
work to do

## Biggest Triumphs

Original executive sponsor left  
Nexen – DA continued to grow

DA is in the corporate culture



# Southwestern Challenges and Triumphs

## Biggest Challenges

DQ as a thought process rather than a workflow

Building/maintaining a distributed network of practitioners, from scratch

Finding time in a busy world

Engaging decision makers

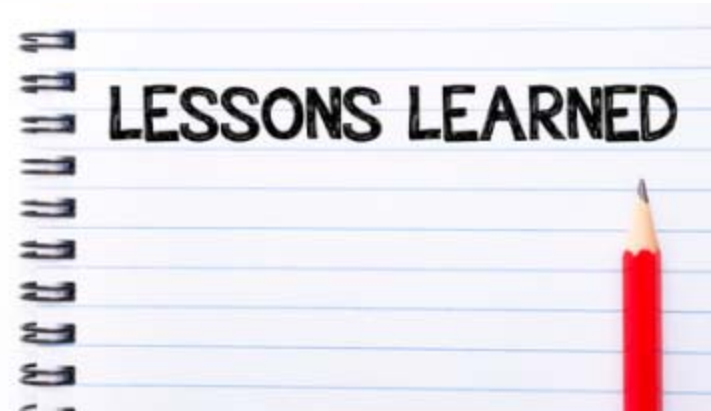
## Biggest Triumphs

People are asking the right questions, especially around risk/uncertainty

“Success Cases” in several early applications

Actionable insights from framing alone





Question 4 – Learnings

## **WHAT ARE SOME TIPS, TRICKS AND LESSONS LEARNED?**

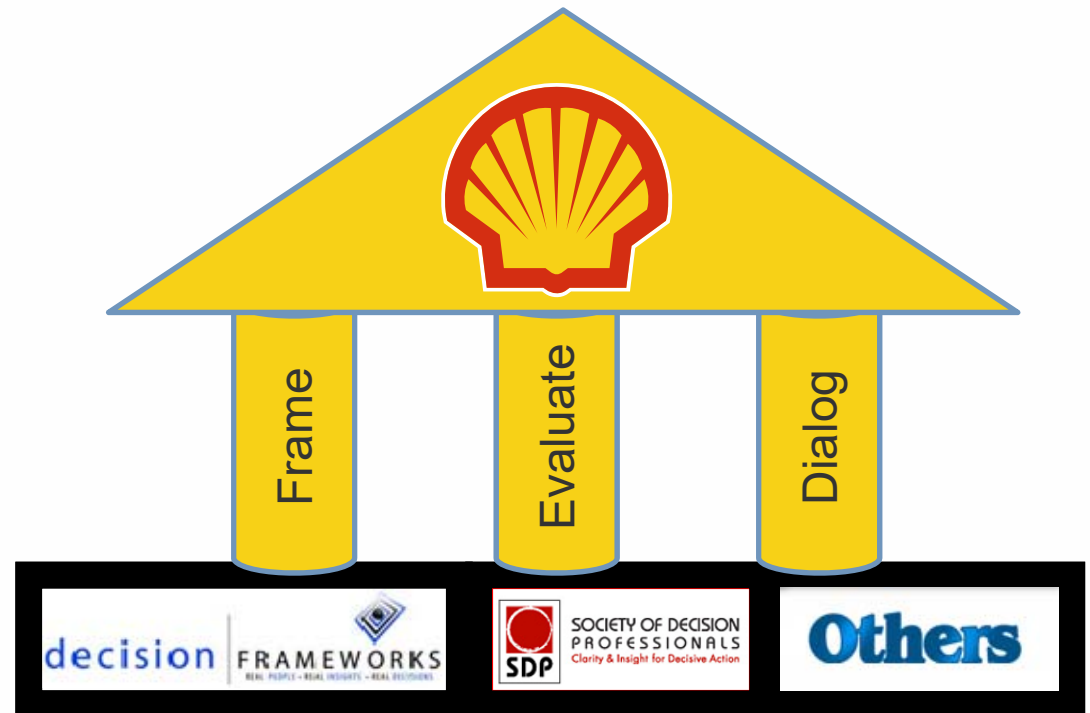


# Shell Tips, Tricks & Lessons Learned

## Tips and Tricks



## Lessons Learned



# Hess Tips, Tricks & Lessons Learned

## Tips and Tricks

Senior leader champion points their leaders in this direction

Have one excellent example of quality evaluation to reference

Have standards documentation that are supported/ signed

## Lessons Learned

Senior leader champion

Non-linear progress: It is not tool, process change – it is culture change

VP/ Project director level engagement is crucial

A marathon rather than a sprint



# Noble Tips, Tricks & Lessons Learned



## Tips and Tricks

Create a plan:

- Identify the needs of your organization – Focus first on the low hanging fruit
- Identify the Executive and Management sponsors
- Identify the early adopters and practitioners

Prepare to be flexible & adapt to the situation

## Lessons Learned

Be prepared for a marathon– It takes time and stamina

Plan to do incremental improvements to your current decision making culture

Create a robust DA group of champions – people move across companies



# Nexen Tips, Tricks and Lessons Learned

The demand needs to be real – they should want you in the room

Pull not a push – we didn't mandate





# Southwestern Tips, Tricks & Lessons Learned

## Tips and Tricks

Avoid making DQ a “software thing”

Aim for quick wins early

## Lessons Learned

Change takes effort and time – easy to underestimate

Always follow training with immediate, hands-on application

DQ is a two-way street (decision teams AND decision makers)





Rapid Fire - Discussion & Insights

# QUESTIONS, SIMILARITIES AND DIFFERENCES



# What are key similarities amongst the panelists?

Value of DQ

Challenges & Triumphs

Tips, Tricks, Lessons Learned



# What are key differences amongst the panelists?

Value of DQ

Challenges & Triumphs

Tips, Tricks, Lessons Learned



# Decision Quality Enablement

decision | FRAMEWORKS



How is your organization implementing DQ?

What are some takeaways for you from this webinar?



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# APPENDIX



# Training: Relevance, Repetition & Ease of Use

