APGQ ASSOCIATION PÉTROLIÈRE ET GAZIÈRE DU QUÉBEC
QUEBEC OIL AND GAS ASSOCIATION QOGA

ATTRACTING CAPITAL TO BUILD AN INDUSTRY

RAYMOND JAMES®

Key Topics

Oil & Gas in Quebec

Sustainability

Information Flow

Stakeholder Interests

Oil & Gas Industry in Quebec: What should it be?

"The oil and gas business should be developed into a sustainable productive industry that provides growth and returns to all stakeholders, financial or otherwise, in a manner that is responsible to the environment and the citizens of Quebec."

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"An industry where success is applauded but greed and jealousy are not allowed to exist."

+

"An industry that aids and challenges the uninformed to become informed."

Sustainability: What does it Mean?

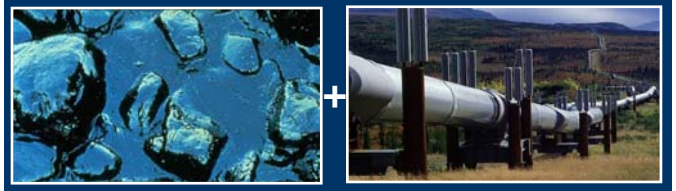
- In general, sustainability is often defined as “developments that meet present needs without compromising the ability of future generations to meet their needs.”

- If tailored to oil and gas capital markets in Quebec, such definition might be…

> “A business environment designed to meet current stakeholder needs while providing the basis and stability to meet the needs of future stakeholders.”

What are the keys to a sustainable industry?

ACCESSIBLE & DELIVERABLE RESOURCES



CAPITAL (DEBT & EQUITY)

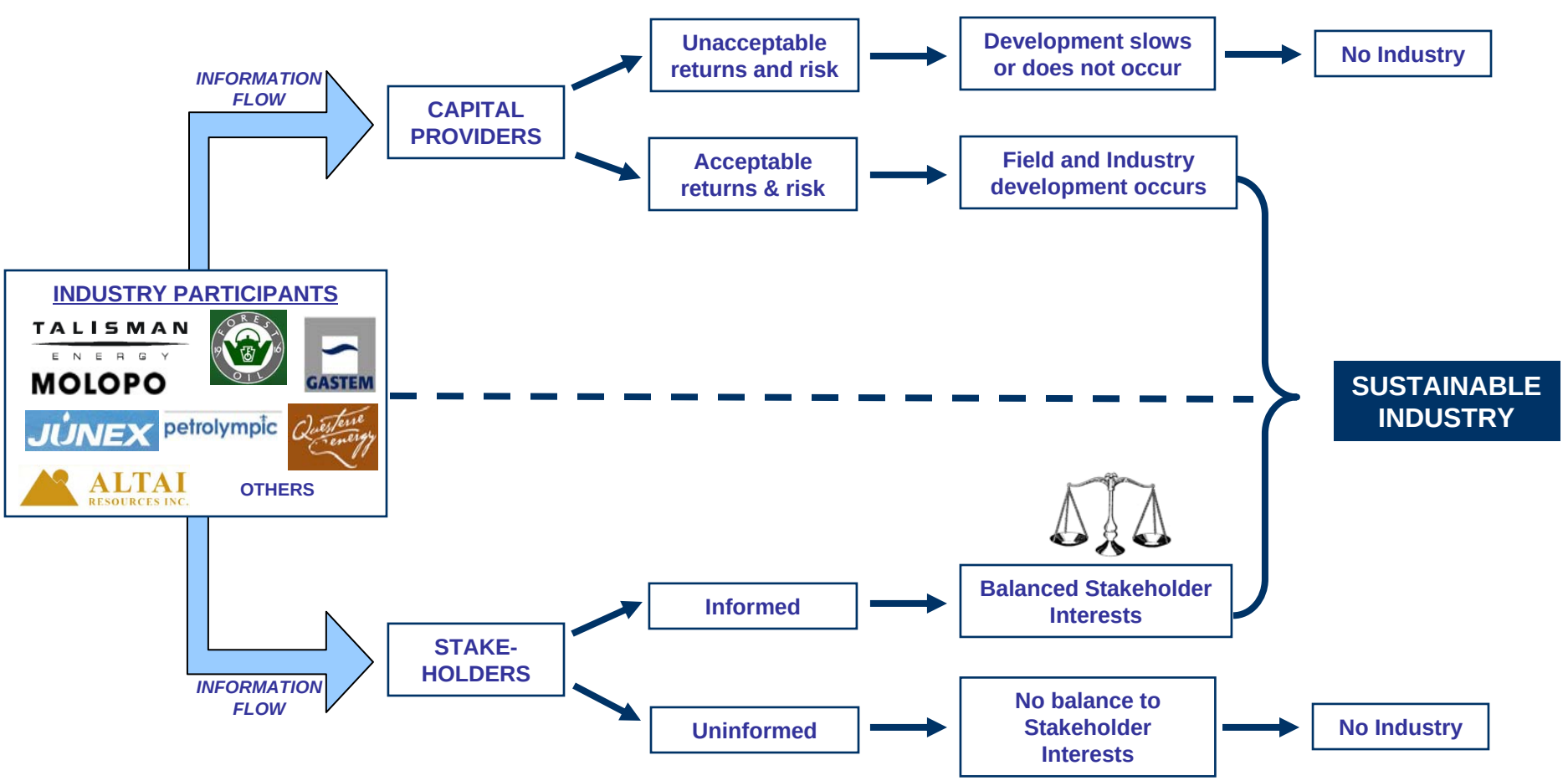
REGULAR, TRANSPARENT INFORMATION FLOW

BALANCED STAKEHOLDER INTERESTS

REGULATORY & FISCAL STABILITY

Ressources naturelles et Faune Québec

What are the keys to a sustainable industry?



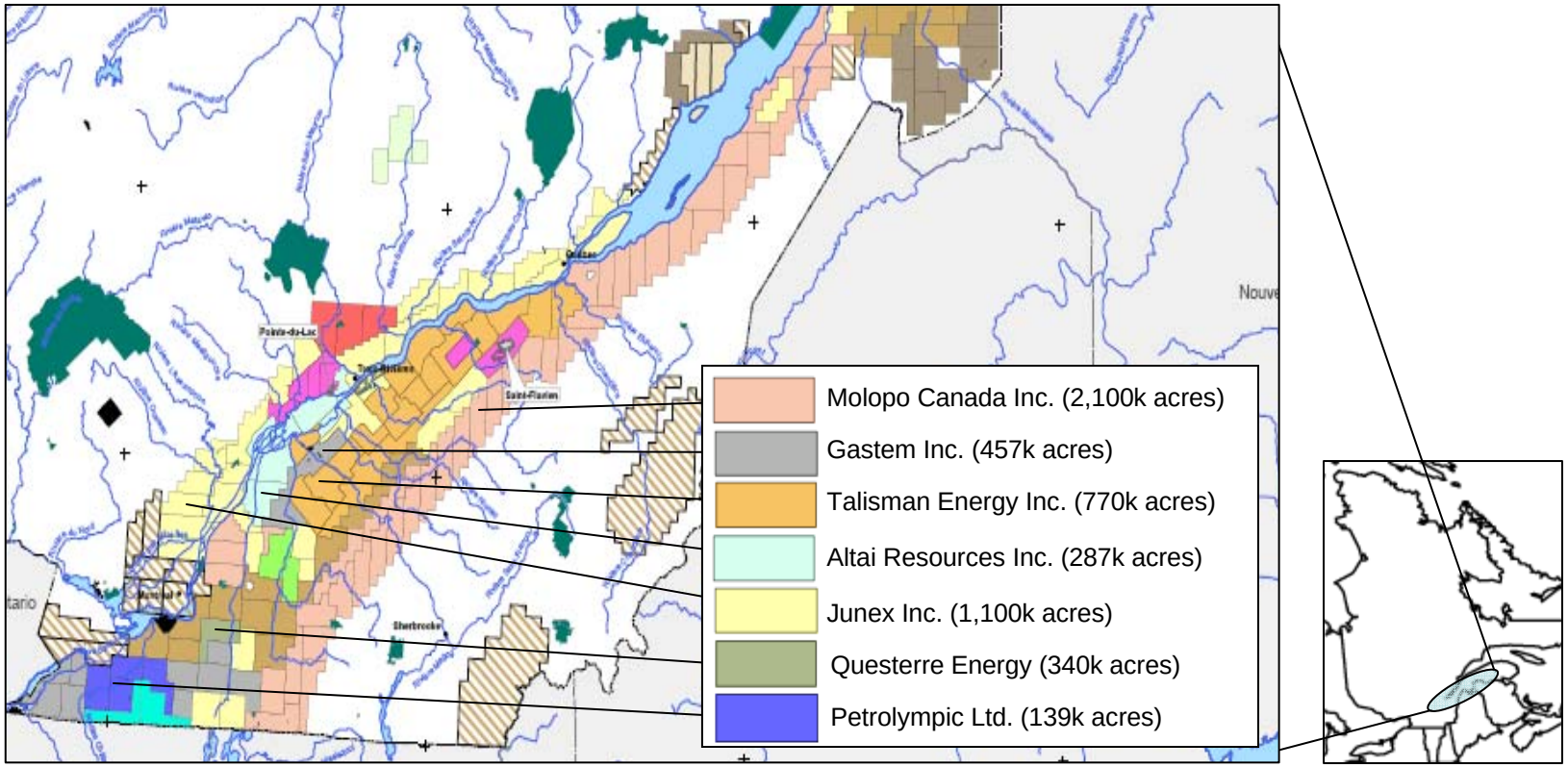
Where are we and what do we know?

- Ongoing exploration for over 125 years.
- Up until recently, majority of production has been conventional in nature and generally on the small side:
  - Quarternay age Point-du-Lac gas field – 1995;
  - Ordovician age St. Flavien gas field – 1973;
  - Galt discovery – mid 1980's; and
  - Port au Part oil discover – 1995.
- Size and scale has been limiting.
- Information flow has been sporadic and potentially insufficient.
- Recent Utica shale discovery may be game-changing for the industry in Quebec.

"What do we capital providers know about the Utica shale?"

What might capital providers know about the Utica?

- The Utica deposit is located in the St. Lawrence Lowland in Quebec and is approximately 5,000 sq km.
- Major participants in the Utica shale have been acquiring land positions since 2005 and are shown below.
- Larger players have identified the resource potential, but have moved slowly toward commercializing the asset base.



Source: Government of Quebec Note: Forest Oil lands located with partners Junex & Gastem.

What might capital providers know about the Utica?

- The Utica geology is an Ordovician age shale package and is presumed by capital providers to be similar to other shale formations found extensively throughout the Appalachian basin.
- The rock itself is recognized to be a prolific source of hydrocarbons and ranges in depth from 700 to 2,500 meters.
- On average, Utica shale wells have the following characteristics:
  - Depth: 2,300 – 6,000 ft.
  - Well Costs: $1.5mm
  - Completion Costs: $1.0mm
  - Initial Production Rates: 1,000 mcf/d
  - Recovery Factor: 20%
  - Gross Reserves: 2,500 mmcf/well
- These average well production and cost statistics will change as operators obtain more information regarding the Utica and service providers offer new technological solutions to increase production and recovery rates.

What is required/missing from the information flow?

- Capital markets participants have tried to piece together information from Utica shale participants in order to determine economic viability.
  - The key to pertinent information from an investment standpoint is history. Investors will need to see how new wells perform over time using different key metrics.
  - Below is a summary of the key evaluation information capital providers will look for and their availability in the Utica shale.

GEOLOGICAL					
Formation Type	Formation Depth	Net Thickness	Rock Properties	Quality	Reserves
✓	✓	✓	✓	?	?

FISCAL						
Royalty Rates	Corp. Taxes	Regulatory Costs	FX Rate	Environmental Burdens	Risk Capital Incentives	Proximity to End Markets
✓	✓	?	✓	?	?	✓

PRODUCTION					
Initial Production	Initial Decline Rates	Avg. Well Production	Production Type Curve	Gas / Oil Composition	Water Production
✓	✓	?	?	?	?

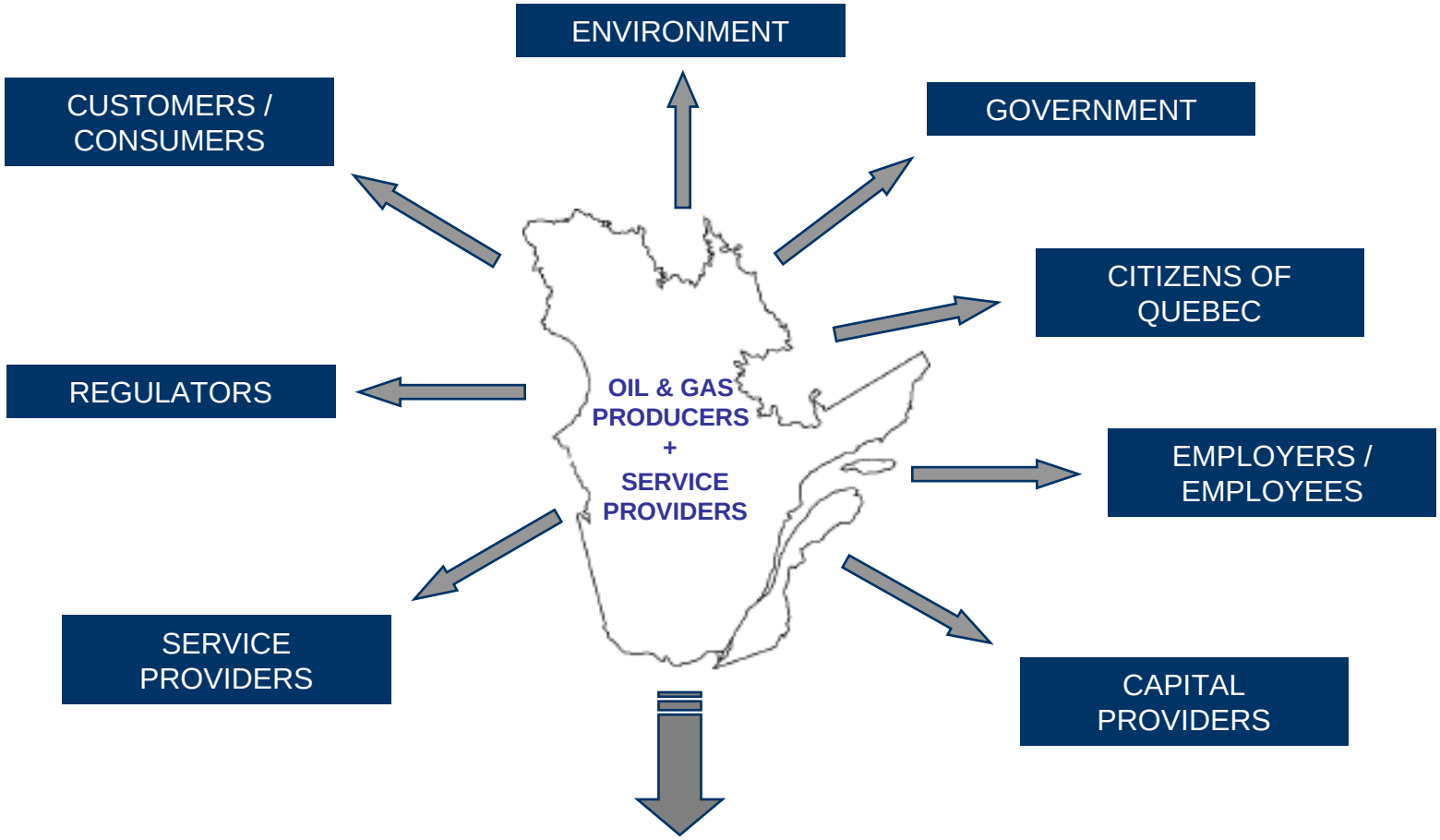
COSTS							
Avg. Well Cost	Avg. Completion Costs / well	Tie-in & Infrastructure Costs	Operating Costs	Transport Costs	Abandonment Costs	Land Costs (per acre)
✓	✓	?	?	?	?	?

AVAILABILITY OF SERVICES				
Seismic / Geophysics	Drilling Rigs	Stimulation Services	Ancillary Services	Skilled Labor
?	?	?	?	?

DEVELOPMENT HURDLES			
Regulation Timeline	Environmental Restrictions	Access to Water	Land Access
?	?	?	?

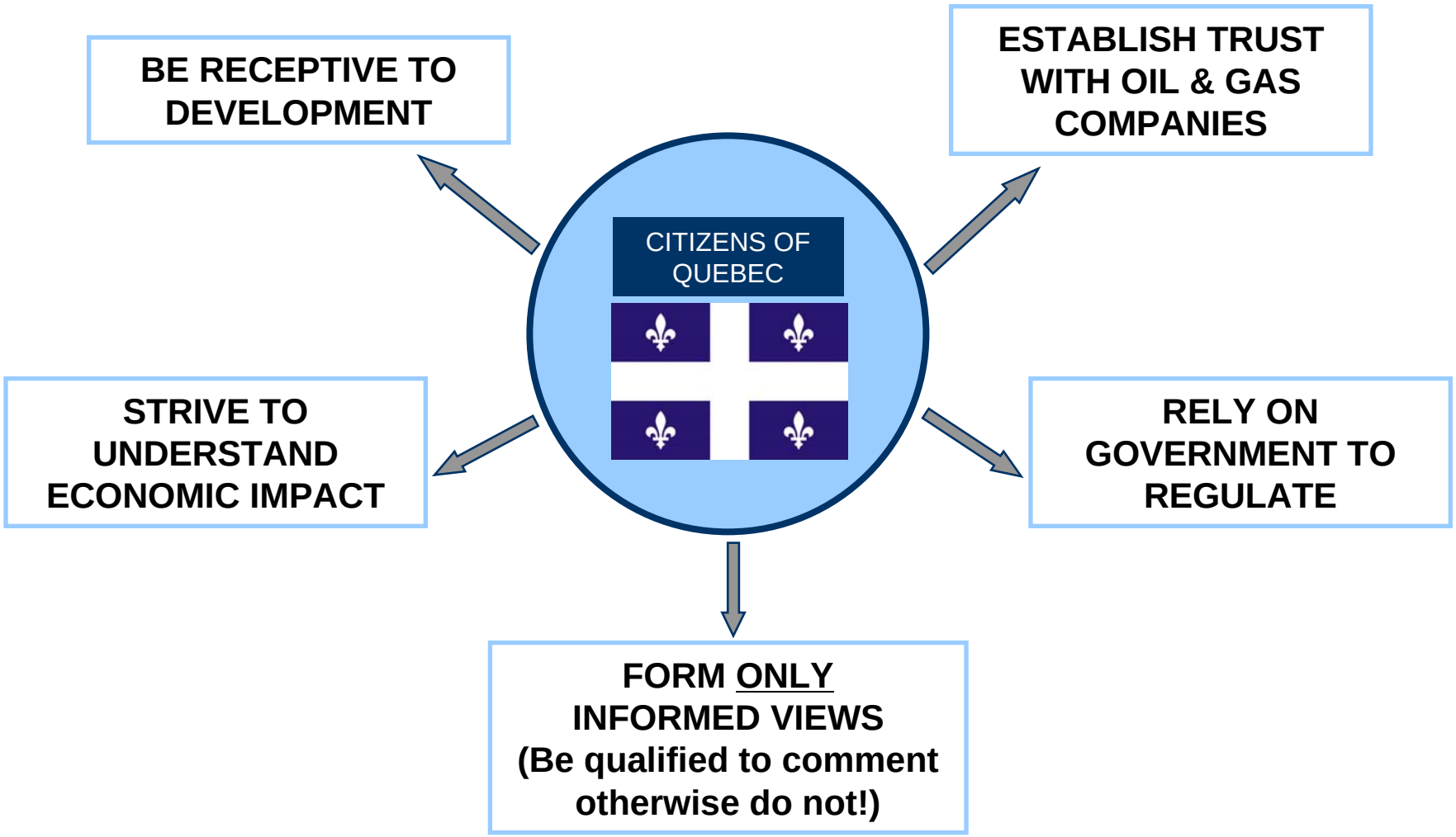
Note: Question marks denote historical data is not adequate enough to allow for accurate forecasting and thus economic modeling.

Who are the Stakeholders?

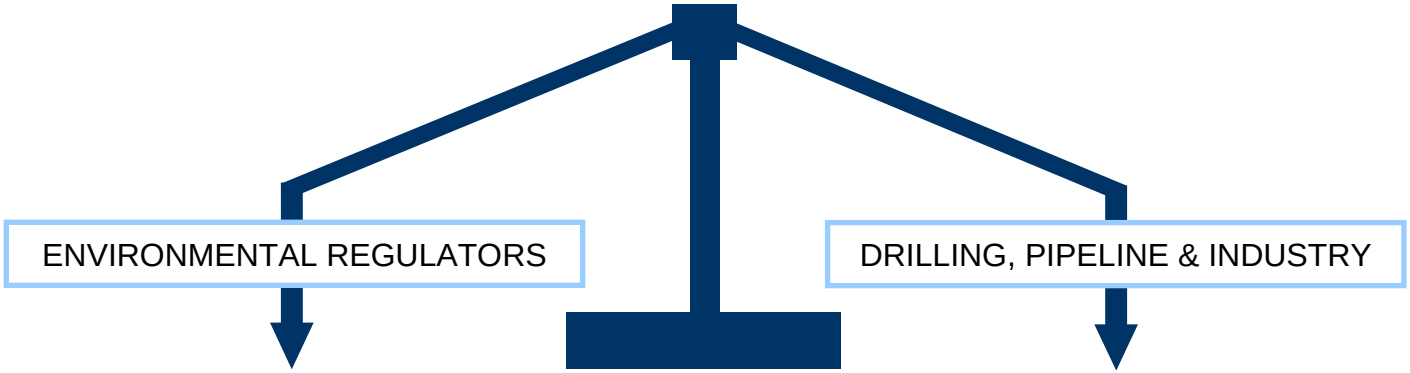


ALL STAKEHOLDERS MUST WORK TOGETHER WITH FOCUS AND DILIGENCE TO CREATE A DYNAMIC, FAST-PACED AND GROWTH-ORIENTED INDUSTRY.

Citizens of Quebec



Environment and the Industry



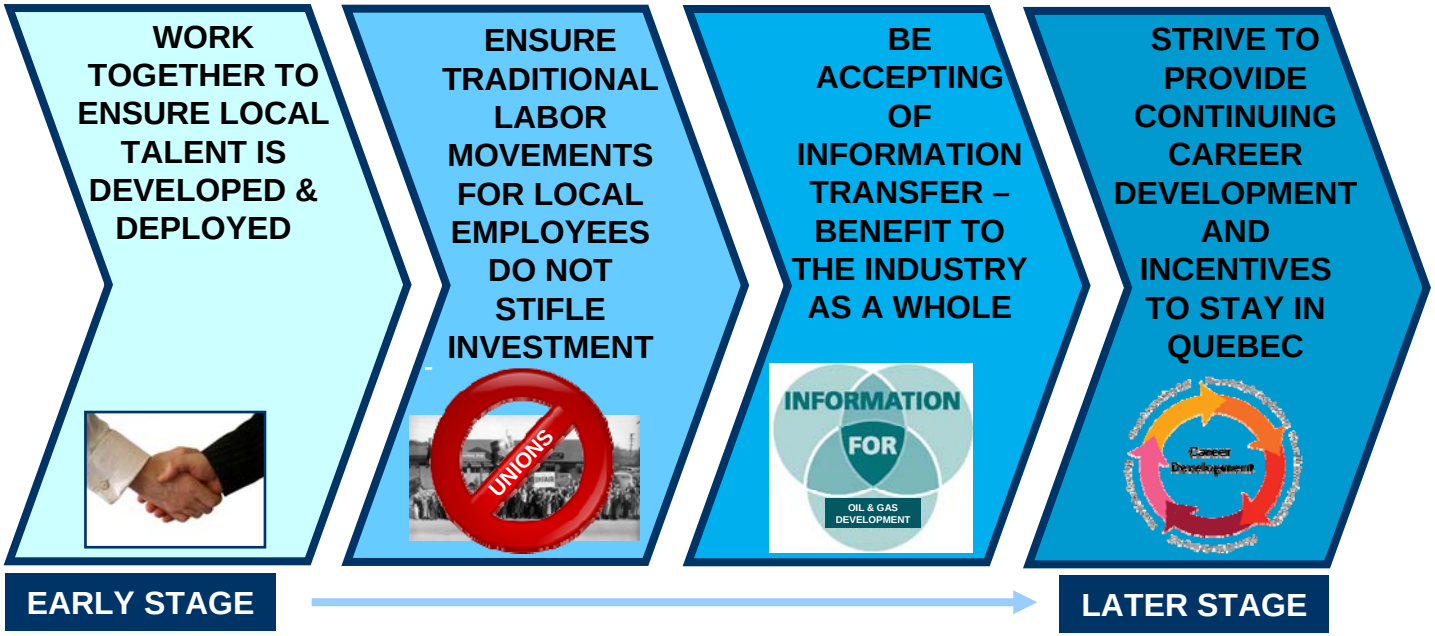
- Well defined regulatory guidelines that protect the environment but ensure timely and efficient development.
- Must be sufficient recourse to ensure compliance.
- The uninformed and hypocritical do not get a say. (i.e. Should Obama get a say on oil sands development when he has never seen them or does not understand them?)

- Stakeholders must be informed about plans and actions regarding the environment.
- Need to establish plans and funding solutions for abandonment and reclamation.
- Industry participants must be allowed to develop the resource base with reasonable environmental guidelines.

"Both parties must have input to create balance."

Employees and Employers

- Employees and employers must first subscribe to act and govern themselves as citizens of Quebec (as discussed earlier), then:



Government and Regulators

- What is required?
  - A fair and level playing field with clear and stable operating regulations and fiscal regime for all (the market hates uncertainty and surprises);
  - Establish a framework for dealing with all stakeholders, some of which have been discussed today;
  - A clear methodology/process for dealing with disputes;
  - Responsible and committed Provincial Energy Department (one regulator) to oversee, facilitate and regulate responsible resource development;
  - Commercial terms of fiscal regime must be competitive (i.e. which jurisdictions will our resources compete with: Alberta? New York? Pennsylvania?);
  - An overall plan must consider incentives for initial development and make provisions for infrastructure;
  - Environmental regulations must be clear, fair and practicable. They must also contain conflict resolution methodology;
  - Process for leasing and overseeing purchase and administration of mineral rights to encourage development;
  - Program to encourage the development of ancillary support and service industry; and
  - Establish room for all participants!

Government and Regulators: What works and what does not

Region	British Columbia	Alberta	Saskatchewan	United States	Colombia
Regulator	B.C. Ministry of Energy, Mines & Petroleum Resources	Alberta Ministry of Energy	Saskatchewan Ministry of Energy & Resources	State Agencies	National Hydrocarbon Agency (ANH)
Date Established	1998	1930	1969	Varies by State	1921
Royalty Rates:	Natural Gas: 8% - 27% Oil: 0% - 35%	Natural Gas: 5% - 50% Oil: up to 50% Oil Sands: 25%-50%	Natural Gas: 0% - 30% Oil: 0% - 30.5% Heavy Oil: 0% - 31% SW Sask. Oil: 0% - 21%	Varies by State: 12.5% - 26%	Natural Gas: 5% - 25% Oil: 5% - 20%
Rate Change Function	Commodity Price & Production Rate	Commodity Price & Production Rate	Commodity Price & Production Rate	Commodity Price & Production Rate	Production Rate
Incentives	Deep Drilling Royalty Credit: 15% Royalty Deduction (2500m vertical or 2300m horizontal)	Drilling Royalty Credit: $200 per meter drilled on new conventional oil and gas wells	Volume Based Oil Well Drilling Incentive: Royalty rate of 2.5% for initial 16k cubic meters produced.	Limited incentives, varies by State	No Incentives
	Summer Drilling Credit: 10% of cost of goods and services used on individual wells	Deep Drilling Royalty Credit: Royalty reductions on wells drilled over 2500m	Volume Based Exploratory Well Drilling Incentive: Royalty rate of 2.5% for initial 25mm cubic meters produced.		
	Temporary Royalty Reduction: Royalty of 2% on wells drilled from Sept 2009 to June 2010	Temporary Royalty Reduction: Royalty of 5% on wells drilled from April 2009 to March 2010			
Land Sale Process	Monthly auctions held through the Ministry of Energy, Mines and Petroleum Resources.	Public auctions every 2 weeks. Private land (freehold) sales available to qualified bidders only.	Public auction every 2 months through the Ministry of Energy & Resources.	Varies by State, auction times vary between 1 month and 3 months.	Sealed bid auction through the ANH.
Land Turnover	5 Years	5 Years	5 Years	5 Years	Varies by agreement - 1.5 to 3 Years

Note: Data obtained from regulatory agency websites and available documentation.

Government and Regulator:
Understand development stage & role in attracting capital

	HIGH RISK → *INVESTMENT RISK* → LOW RISK		
	STAGE 1	**STAGE 2**	**STAGE 3**
	Discover and Establish Resource Base	**Develop Resource**	**Maintain Mature Industry**
ROYALTY RATES	Must provide strong returns/incentives to attract initial high-risk capital to ensure viability of resource base.	Must provide industry participants with strong returns on capital (royalties at manageable rates).	Must attract capital to maintain basin; likely requires monitoring or a reduction of royalty rates.
INFRASTRUCTURE	Establish incentives for further development and ensure streamlined approval process.	Monitor returns and costs to ensure level of competitiveness is maintained.	If required, establish controls to ensure returns remain and field is sustained.
ENVIRONEMENTAL PLANNING	Establish clear guidelines and regulations.	Hold Constant (No Surprises)	Hold Constant (No Surprises)

Summary

- Understand what you have got.
- Understand what you are competing against.
- Establish information flow so capital providers know what Quebec has.
- Establish a royalty and regulation framework that ensures development starts.
- Balance shareholder interest to ensure competitive returns are sustained.
- Do not let stakeholders get greedy (i.e. Alberta).

"A LITTE OF SOMETHING IS SOMETHING, A LOT OF NOTHING IS NOTHING."

THANK YOU

QUESTIONS?

Appendix: Shale Play Comparison

Shale Play	Horn River	Montney	Marcellus	Bakken	Woodford	Barnett	Fayetteville	Utica
Size (sq km)	12,800	1,800	240,000	62,000	4,000	13,000	10,300	5,000
Estimated Reserves	25 - 265 TCF	34-250 TCF	260 TCF	3,650 MMBOE & 1.85 TCF	4 TCF	30 TCF	20 TCF	5 - 25 TCF
Average Producing Zone Depth (ft)	9,000	6,000 - 9,000	6,350	7,000	7,550	7,500	6,500	2,300 - 6,000
Average Cost of Well ($mm)	$6 - $10	$5.0 - $6.0	$3.5 - $4.5	$4.0	$5.0	$3.0	$2.5 - $2.8	$2.0 - $4.0
Average Production Cost ($/mcf)	n.a.	$1.00	$1.32	$1.90	$1.25	$0.88	$1.20	$1.67
Average Decline Rate (1st Year of Production)	60%	60%	n.a.	40%	65%	55%	65%	55%
Infrastructure	Limited	Developing	Limited	Developed	Developed	Developed	Developed	Limited
Proximity to Markets	Pipeline operational in 2011 (deliverable to AECO - Edmonton, AB)	Pipeline availability for produced gas to AECO	Limited infrastructure, but proximal access to NYC (most expensive gas market in USA)	Pipeline availability to major US markets	Pipeline availability to major US markets	Pipeline availability to major US markets	Pipeline availability to major US markets	Proximal to major US and Canadian natural gas end users.

Note: Data obtained from public information, government sources, area-specific company reports and consensus research.