

# Canada: Winning as a Sustainable Energy Superpower

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# “Superstore” or “Superpower”?

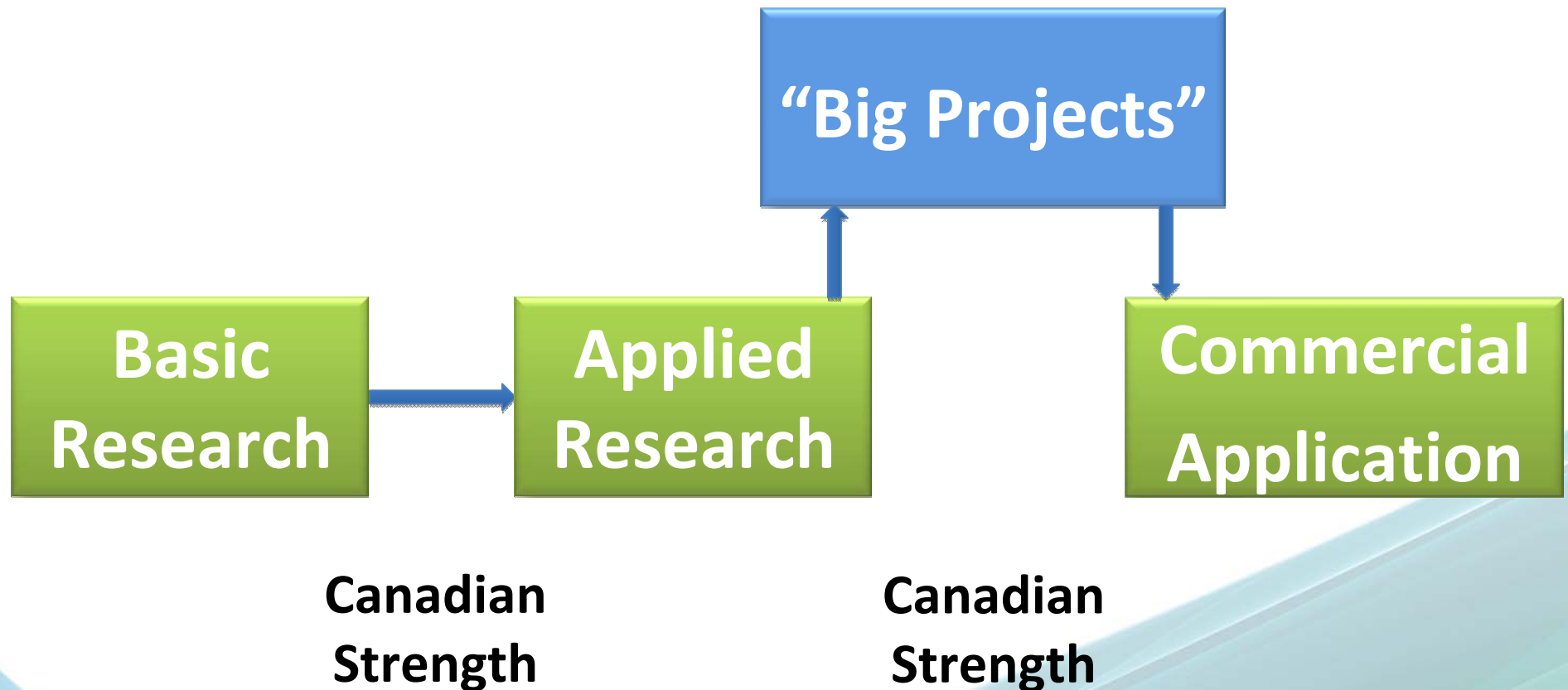
- Canada sells its energy resources to the highest bidder
- For more jobs, greater wealth, greater quality of life, need to sell high value-added products, not untreated natural resources
- For impacting climate change, sustainability is key
- If Canada does not move forward aggressively, it will fall behind ...

# Conventional Innovation ...



# How Canada 'Crosses the Chasm'

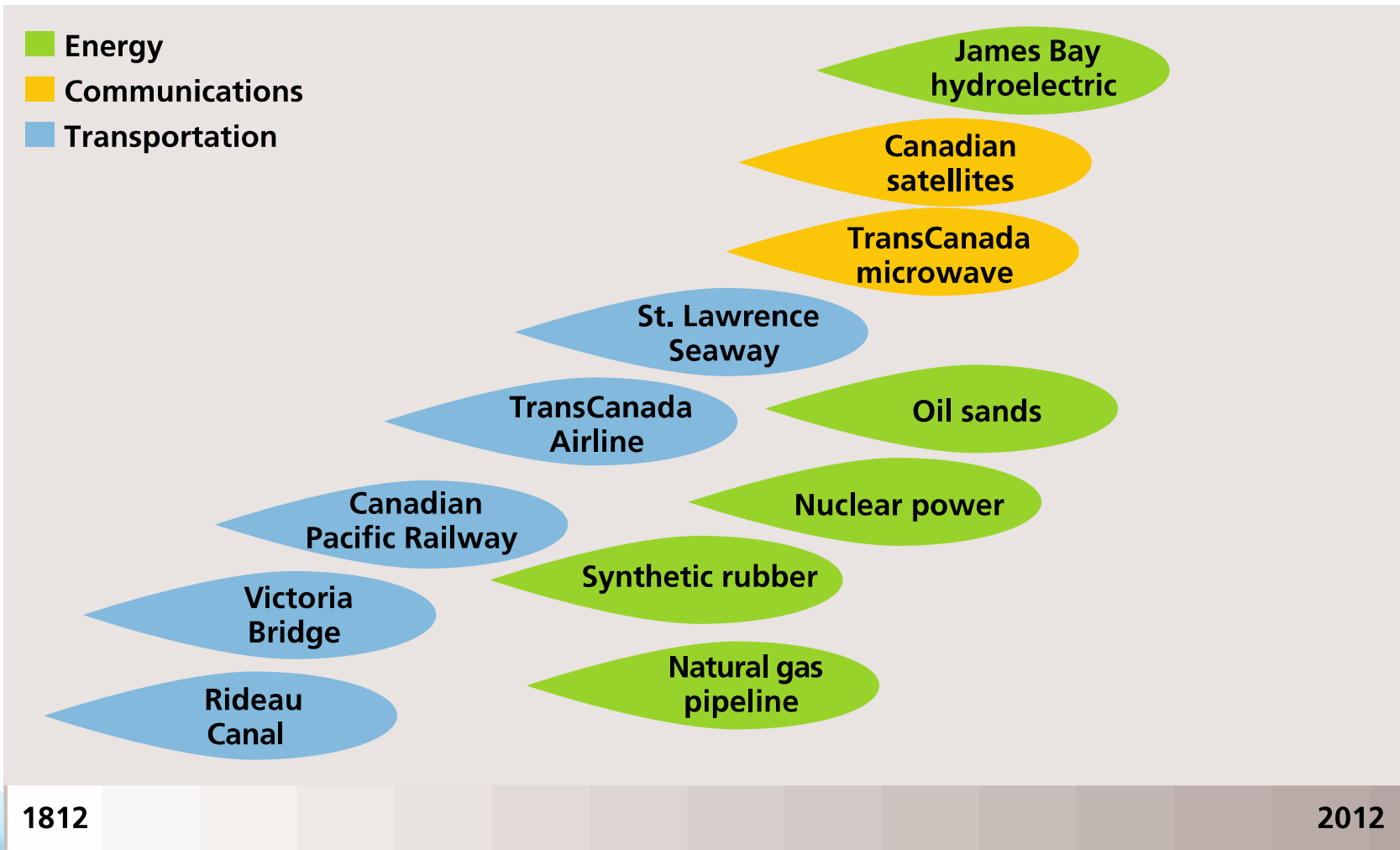
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# The Drivers of “Big Projects”

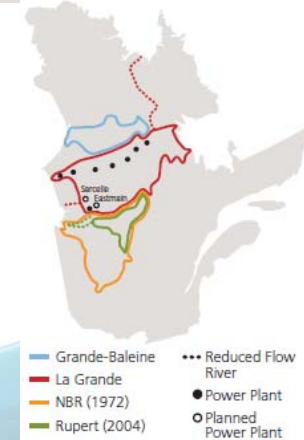
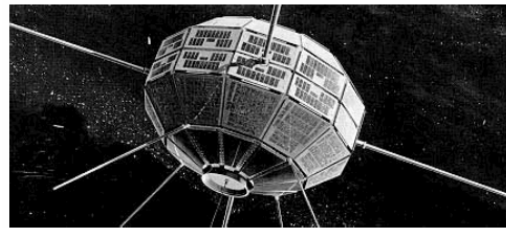
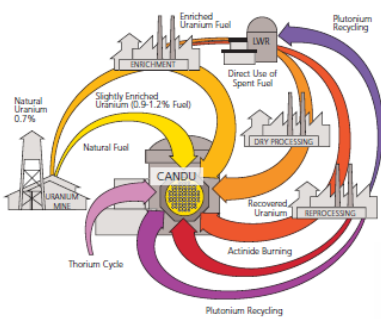
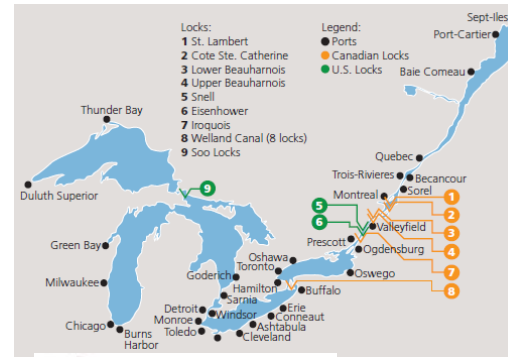
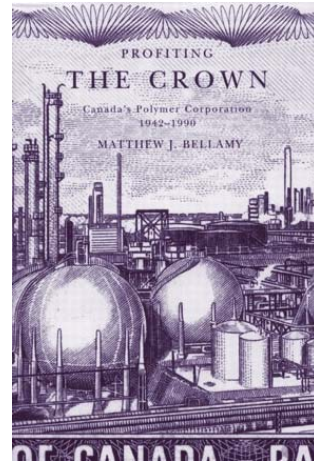
- Establish sovereignty (low population density)
- Strengthen national unity (through infrastructure in: communications, transportation, energy)
- Provide a “Razor Focus” for successful use of limited financial and people resources
- Create an “Innovation Ecosystem” which drives technological progress during construction
- Create long-term competitive advantages; rarely short-term economics
- Often involve public-private partnerships
- Change the economics of all future projects!

# 12 Successful “Big Projects” – 1812-2012





# Successful "Big Projects"

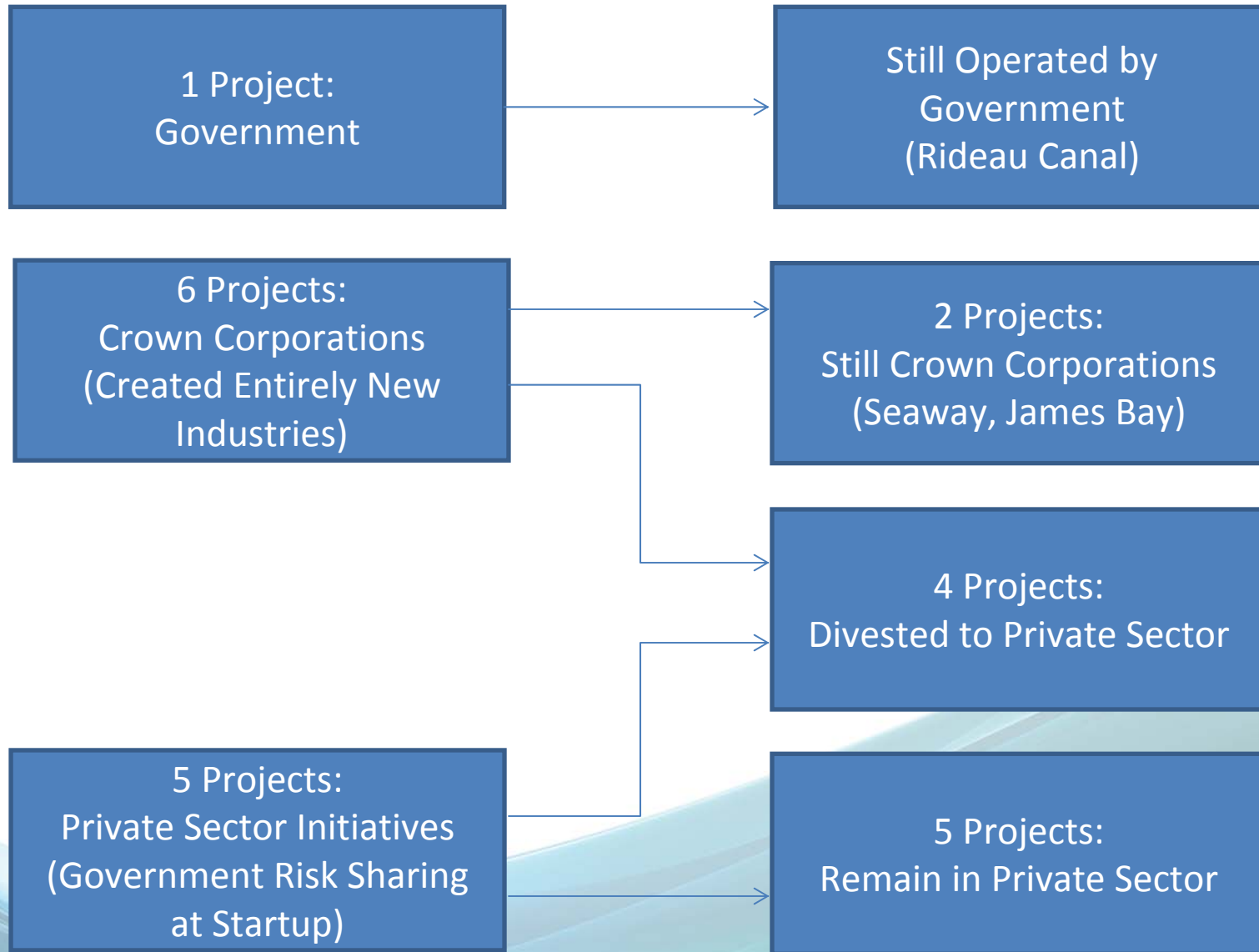


# Financing of Big Projects - 1

	Big Project	Then	Now
1.	Rideau Canal	G	G
2.	Victoria Bridge	P/G	P
3.	Canadian Pacific Railway	P/G	P
4.	Trans Canada Airlines (Air Canada)	CC	P
5.	Polymer Corporation	CC	P
6.	St Lawrence Seaway	CC	CC
7.	TransCanada Pipeline	CC	P
8.	Atomic Energy of Canada (CANDU)	CC	P
9.	TransCanada Microwave System	P/G	P
10.	Alouette Satellite (Telesat)	P/G	P
11.	Oil Sands	P/G	P
12.	James Bay Hydroelectric Project	CC	CC



# Financing of Big Projects - 2



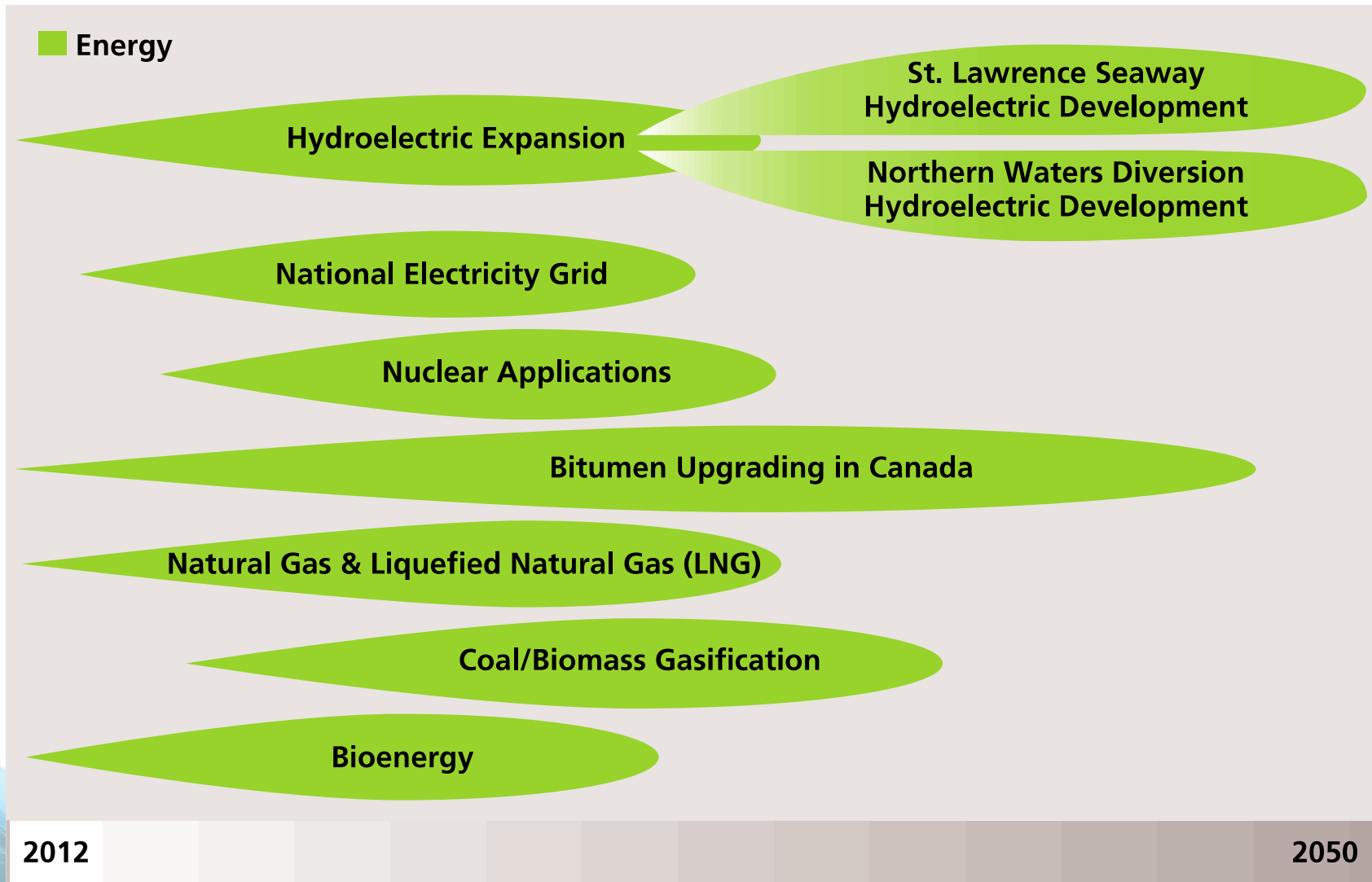
A Postulate ...

**“Big Projects”** are **THE**  
**Canadian Innovation**  
**Strategy**

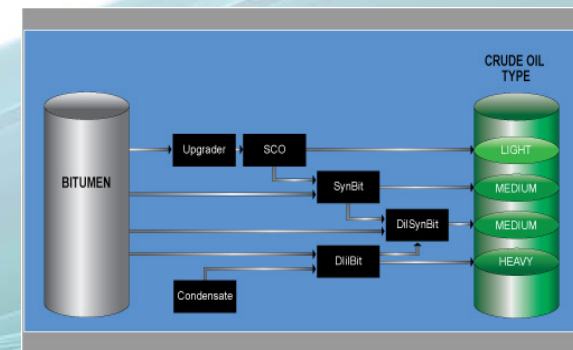
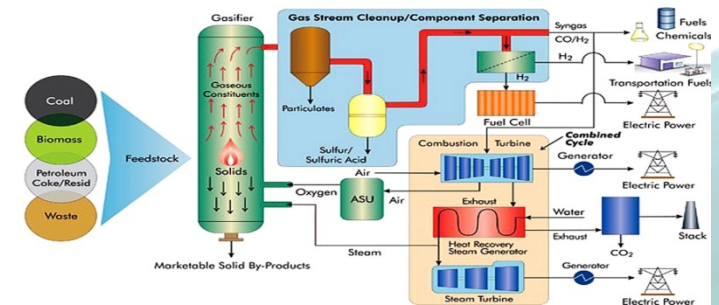
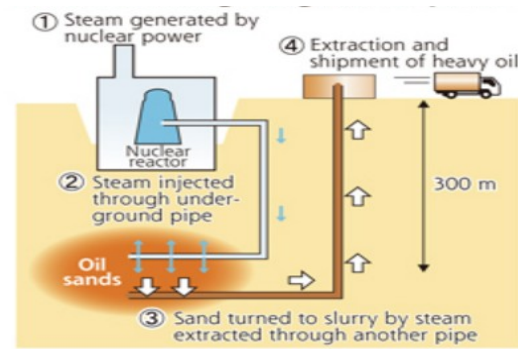
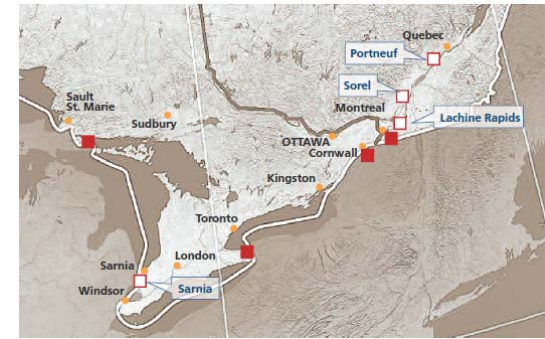
# Criteria for Next Big Projects

- ↓ carbon footprint
- ↑ grade raw energy resources to provide value-added energy products to world markets

# Potential Projects – 2012 - 2050



# New "Big Projects" 2012-2050





# Next Step: Government Leadership!

- Government leadership is essential: no big project was ever started by the private sector (the “national interest” must be clearly identified and pursued!)
- Have an outcomes-based approach: create conditions favorable to individual “Big Projects”
- Avoid investing time in overarching policies, frameworks, etc.
- Partner with all stakeholders: First Nations, political, jurisdictional, industry, etc.
- Aim to reduce risk of failure
- When a “Big Project” is successful, government moves on to the next one!