CIRRELT The Science of Networks La science des réseaux

KICs and the NSPS

Sailing toward global leadership (?)

Yan CIMON
CIRRELT and HEI
Faculty of Business Administration
Université Laval
Yan.Cimon@fsa.ulaval.ca

Maritime Security Program Workshop

National Shipbuilding Procurement Strategy (NSPS) – Charting the Course

June 6th, 2014

HEI UNIVERSITÉ LAVAL

NOTES

- This presentation is for information purposes and does not constitute a recommendation to buy or sell products, stocks, or any type of asset.
- The opinions presented here should not be interpreted as the official position of any organization to which the author may be a member.
- To the best of his knowledge, the author does not hold financial interests in the companies discussed in this presentation.
- This presentation does not have a commercial objective.

CIRRELT

TODAY

1. Introduction
2. A challenging context
3. KICs and the NSPS
4. What do we want to be?
5. Some conclusions

CIRRELT

CANADA'S DEFENCE INDUSTRY

- Relatively large (by Canadian standards)
  - **CA$12.6 bn** in revenues for **2000 firms**

- A conundrum:
  - A major global exporter (ranked 14th)…
  - …with just **one top 100** global player

Sources: KPMG, CADSI, SIPRI

1. INTRODUCTION

FIRST THINGS FIRST

The NSPS is ambitious, wide-ranging and represents an essential step for Canada’s **security** as well as for its industrial **competitiveness**.

Government and industry (and academia) must work closely to make Canada a global leader.

As the program for this event notes: “the Auditor General […] noted that ‘a gap appears to be developing between the CFDS level of ambition, the evolving naval capabilities, and the budgets’. ”

CIRRELT

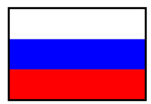
2. A CHALLENGING CONTEXT

CIRRELT

THE WORLD IS NOT STATIC…

Strategic environment

- **China**
  - Blue-water navy
  - Territorial claims
  - Arctic



- **Russia**
  - Expanding sphere of influence (UA, Syria, Egypt, China, BRICS, etc.)
  - Arctic
- **Non-military NATSEC ops**
  - Drug smuggling interdiction (CBSA, CBP)
  - Homeland security (USCG, USN)
- **Anti-piracy**
- Etc.

Industrial environment

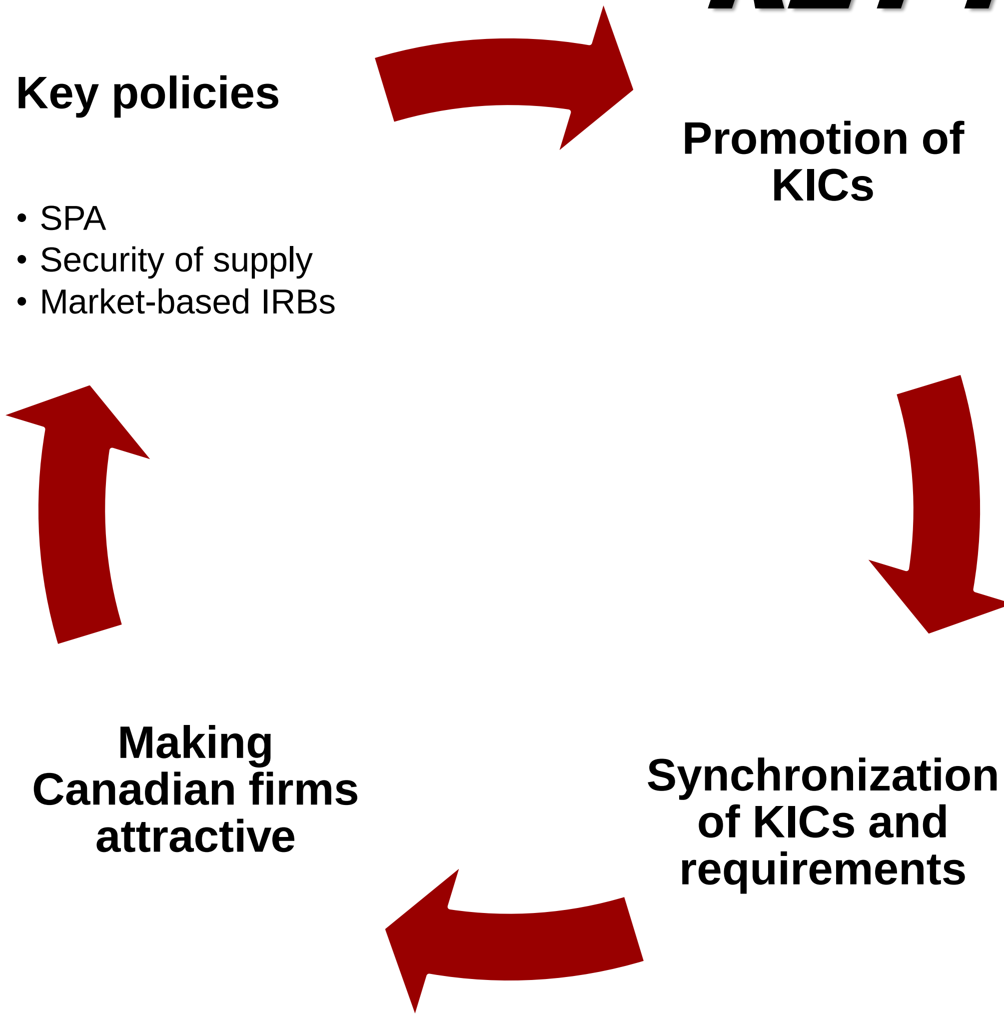
- **General industry trends**
  - COTS
  - Decreasing # of platforms
- **Some shipbuilding trends**
  - The rise of emerging economies
  - Consolidation to cut capacity (e.g. China)
  - The end of go-it-alone?
    - UK and South Korea (MoD Daewoo contract)
    - Australia and South Korea (Daewoo again)
  - Non-traditional Partnerships (French Mistral sale to Russia)

…NOR ARE CANADIAN STRATEGIC ADVANTAGES

- Canada a niche player while the global industry is highly concentrated (4 players account for 55% of global revenues [IbisWorld, 2014])
- From a hull (limited advantage) to a « floating computer » (excellent position)
- IP development vs revenue potential (incl. int'l)
  - Design?
  - Sustainability
  - Training
  - Technology

CIRRELT

KEY ISSUES



Adapted from Cimon (2014)

3. KICs AND THE NSPS

THE INDUSTRY AT LAST…

- Before CFDS (2008): **NO** industry in White papers
- DPS and an approach based around Key industrial capabilities (KICs) can help transform the Canadian industry on the global stage
- The difficult question of Industrial Regional Benefits (IRBs)…
- A central issue: How can we benefit from KICs in the NSPS?

CIRRELT

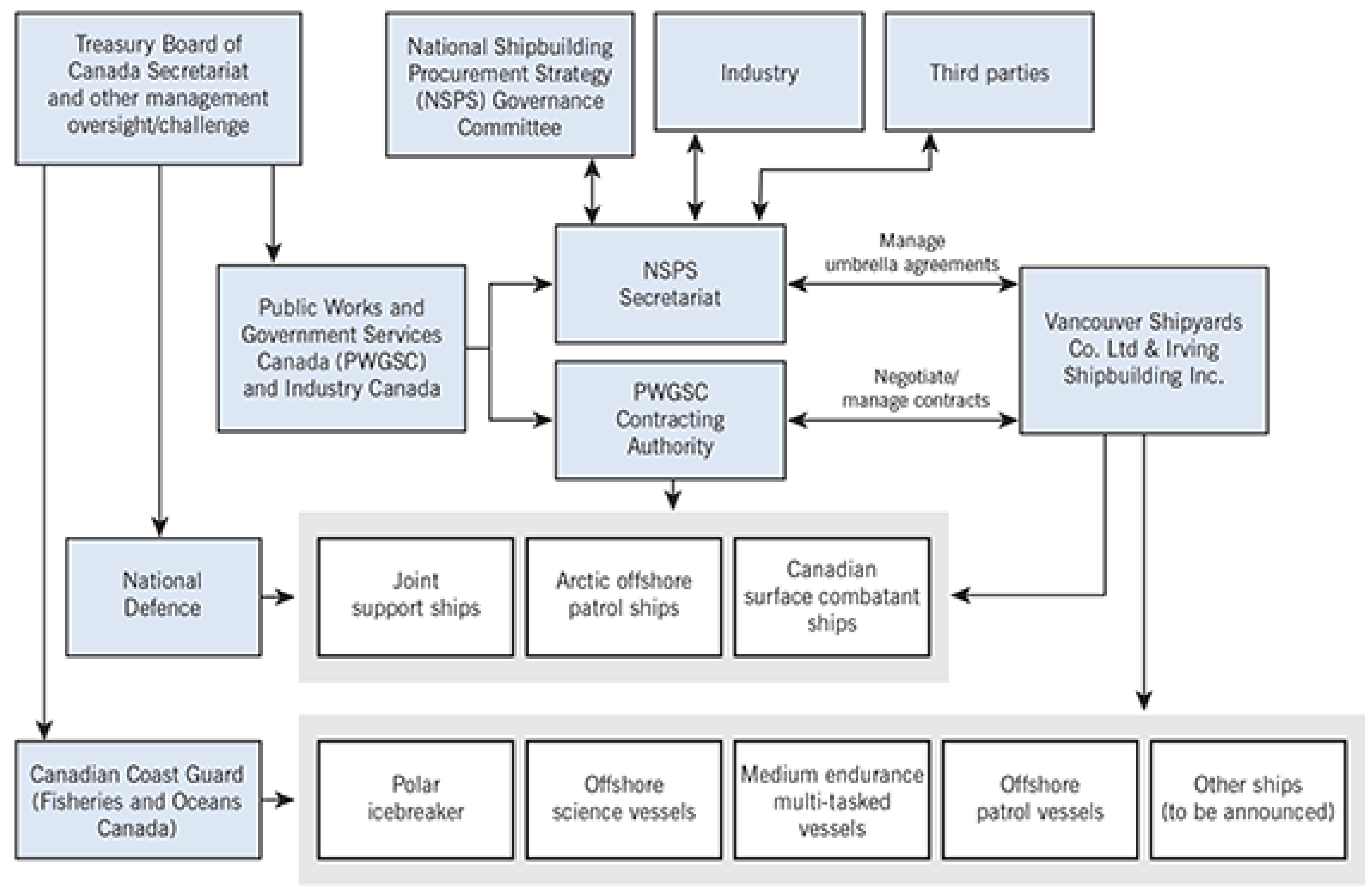
KICs
JENKINS REPORT VS. REVISITED CRITERIA

Jenkins report KICs	Revisited capabilities
• Arctic and Maritime Security • Protecting the Soldier • Command and Support • Cyber-Security • Training Systems • In-Service Support	• Geographic expertise • Software integration and computer security • Specialized garment making and design • Man-machine interaction • Process design • Situational awareness • Experiential learning conception • Customer interaction

Source: Cimon (forthcoming)

CIRRELT

Exhibit 3.2—The interrelationships between key entities in the National Shipbuilding Procurement Strategy



[Exhibit 3.2—text version]

Source: OAG, 2013 Fall report

4. WHAT DO WE WANT TO BE?

SHAKESPEARIAN DILEMMA

A classical national industry

OR

A global value-added supplier (JSF)

$1 of revenue

↓

$0.71 to GDP

$168 M contri-bution

↓

$370 M in contracts

Sources: KPMG, R&D Review

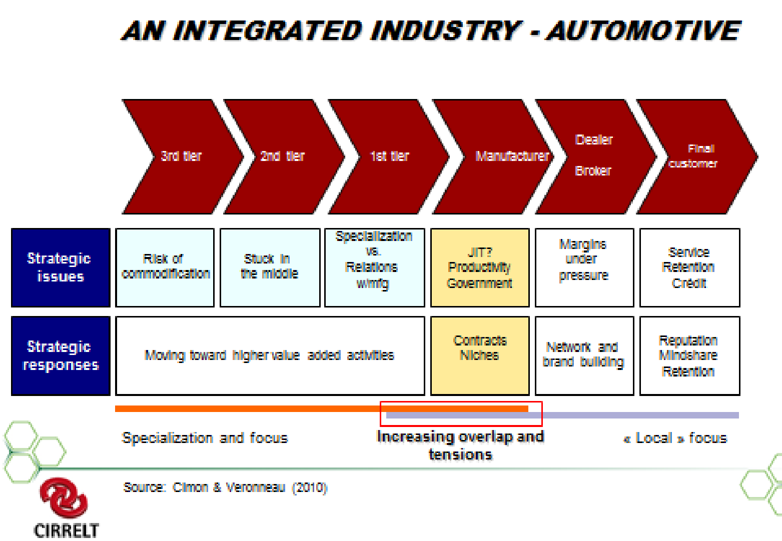
CIRRELT

5. SOME CONCLUSIONS TO MOVE AHEAD

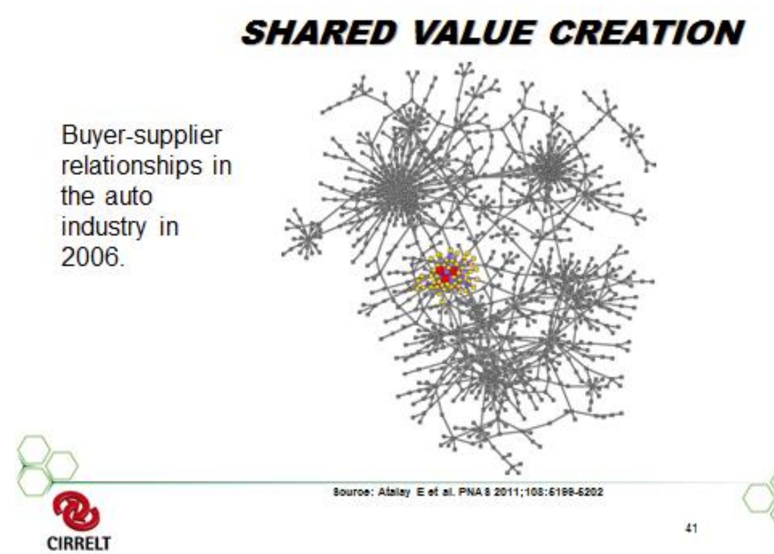
CIRRELT

(1) SHIFT THE MINDSET
e.g. AUTOMOTIVE

From a « national » value chain…



…to global value networks



WHAT RESEARCH SAYS

Summary of network position cost/benefits in the literature

	Primary motivation	**Primary consequence**
Isolated	- Protection purposes	- Reduced performance
Networked	- Maximization of positional advantage	- Improved performance

Source: Cimon (2011)

CIRRELT

(2) INVOLVE STAKEHOLDERS

Source: Armée de l'air/CBC

- The battle for public opinion
  - F-35
    - Dassault vs Lockheed Martin – over Canadian Content
  - Icebreakers
    - Davie vs. Seaspan – over time-to-deliver and cost savings ($500M?)

Source: CCG

- Develop an engagement strategy
- Proactive PR is a must (see data from Strategic Counsel, 2010):
  - 1/3 of Canadians say CF are getting what they need
  - 1/3 of Canadians say the eqpt is procured on time

CIRRELT

(3) DO SWEAT SCM DETAILS

- Collaboration w/suppliers
  - E.g. Intel
- Global sourcing
- Efficient pooling of some resources
- QA and supply chain security controls
  - Back door on military grade chips (Skrobogatov, 2012)
  - Pervasiveness of suppliers from emerging countries (PRC)…
- Other issues
  - Counterfeit parts
  - DPRK gold in IBM processors (Globe and Mail, 06/05/14)

(4) FOSTER INNOVATION

- In products, processes and management techniques.
  - E.g. P&G, paint, Whole Foods

- Challenge the status quo

- Play the value-chain-game
  - Follow the value!!!

CIRRELT

A BALANCING ACT…

- Industrial policy vs. markets vs. defence
  - DPS and industrial policies: a conundrum
- Access to IP vs. control: what are the necessary strategic gains?
- Old issues, new needs? (Arctic issue and ship acquisition)
- Adapting to the Asian century
- What to share? Cisco in China; Global accounting giants, etc.

Sources: Cimon (2011, 2014)

Comments and suggestions are welcome

yan.cimon@fsa.ulaval.ca