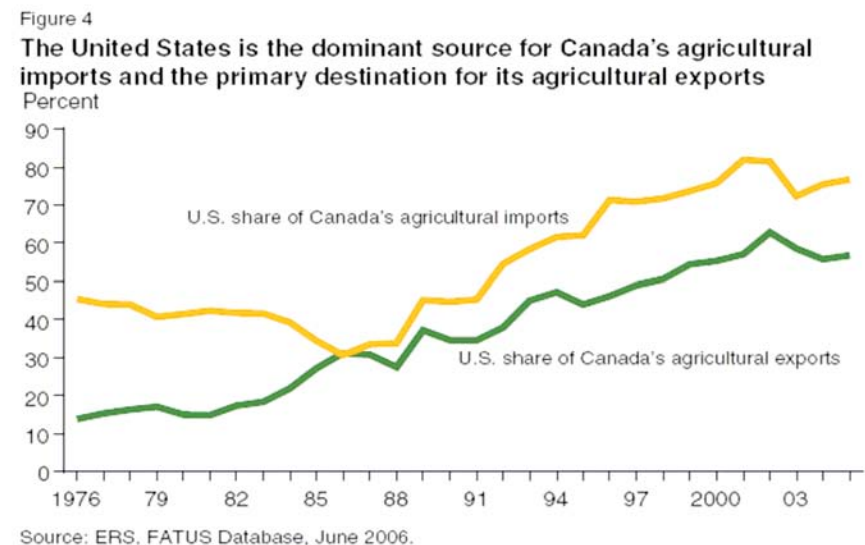
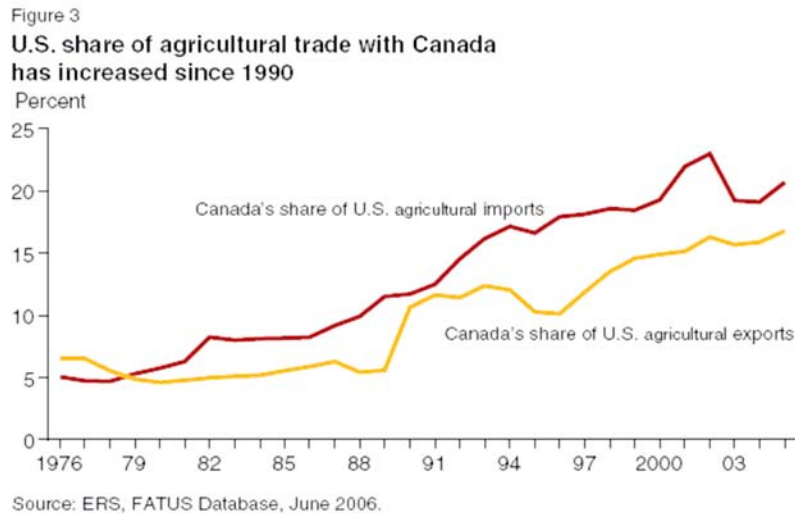
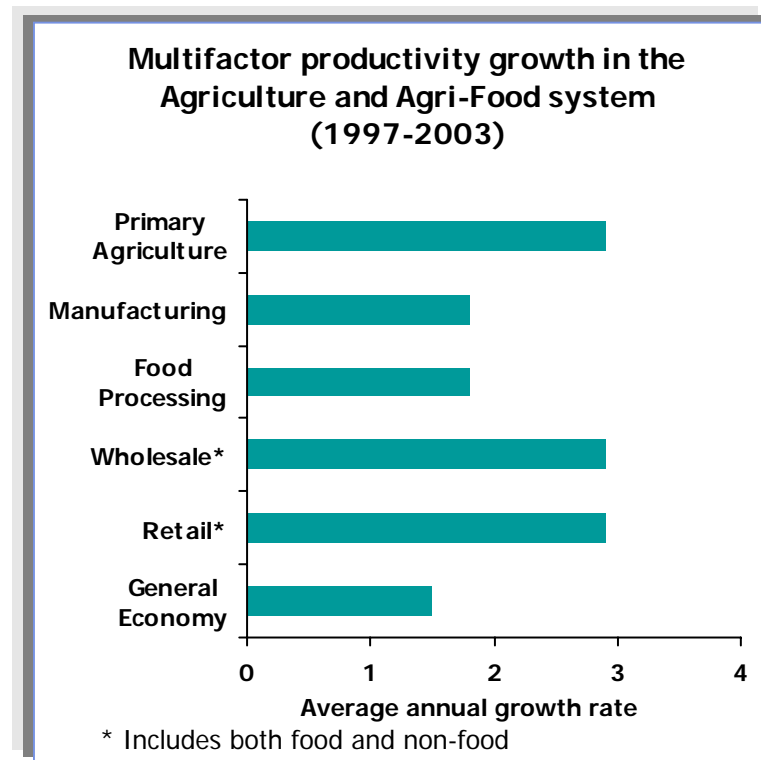
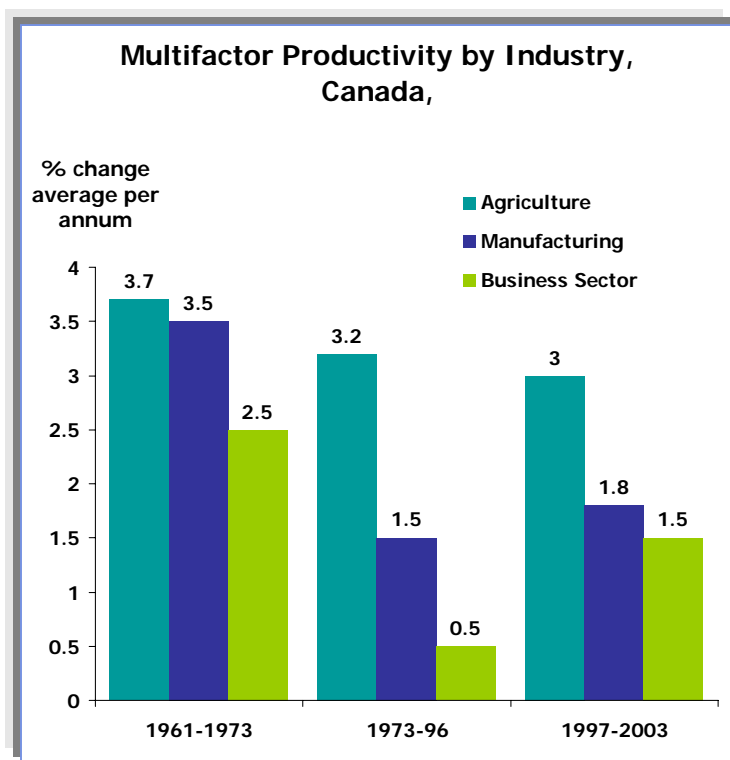


Increasing interdependence of U.S and Canadian Agri-food trade brings increased opportunity & risk



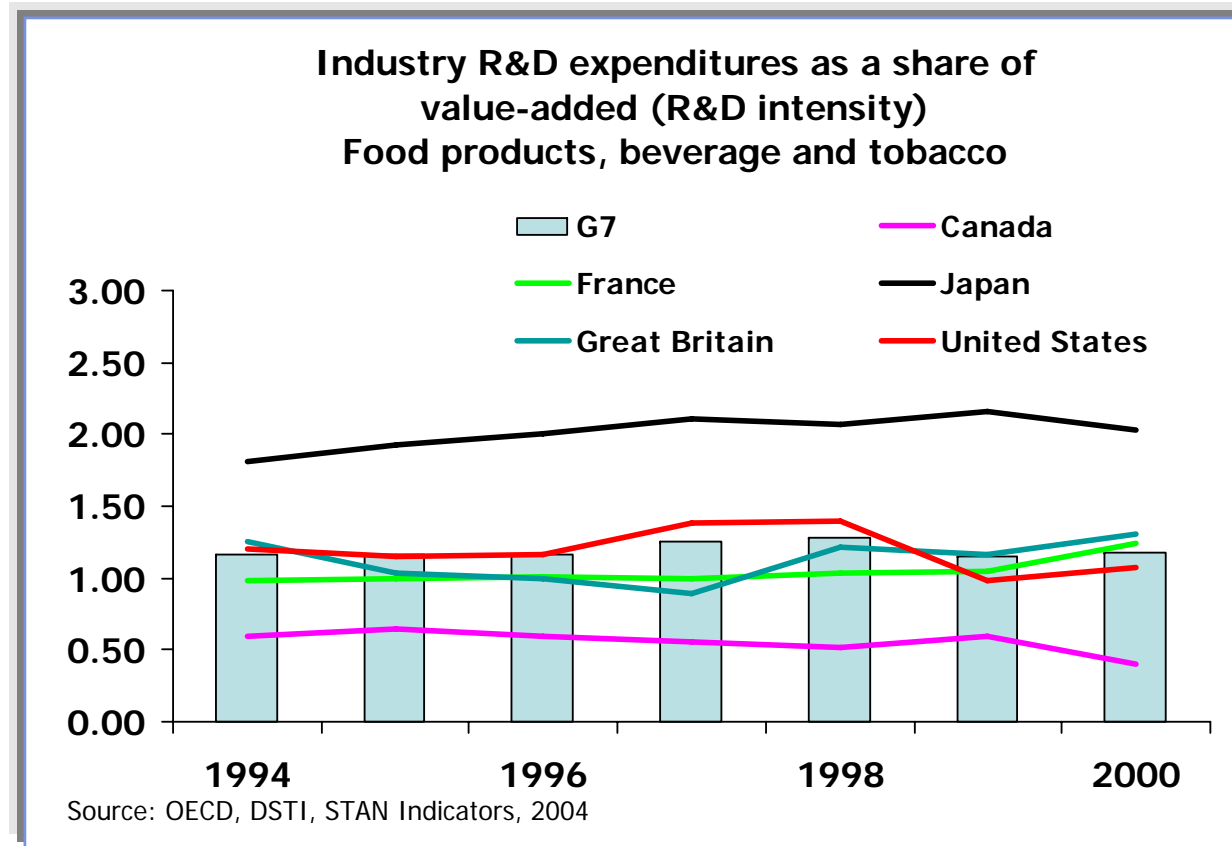
Canada the destination for 19 percent of U.S. agricultural exports
Canada's makes up 21 percent of the U.S. agricultural imports

Productivity growth has been key to competitiveness



Source: An Overview of the Canadian Agriculture and Agri-Food System, 2005

Relative to other countries, Canadian private sector R&D spending in food, beverage and tobacco processing has been low



None of the world's largest F&A companies are Canadian

Top 15 Largest food and agri companies (food sales in bn USD)

	Company sales	Country	F&A
1	Nestle	Switzerland	57.3
2	Cargill	US	56.6
3	ADM	US	36.1
4	Kraft foods	US	32.2
5	PepsiCo	US	29.3
6	Unilever	Netherlands/UK	28.1
7	Tyson Foods	US	26.4
8	Bunge	US	25.2
9	Coca Cola	US	22.0
10	Danone	France	15.6
11	Anheuser-Busch	US	14.9
12	Diageo	UK	14.5
13	ConAgra	US	14.5
14	Heineken	Netherlands	13.6
15	Kirin	Japan	12.4

Source: Rabobank, 2005.

Food Multinationals

Food multinationals are branded players which are expanding their global presence

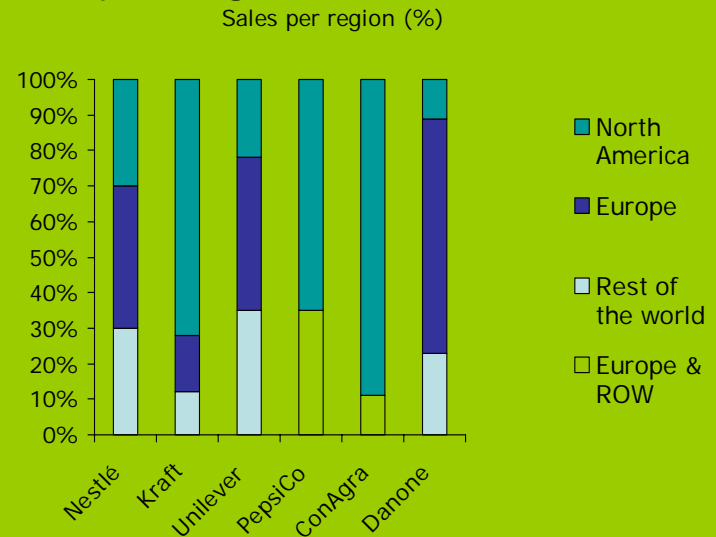
Top 15 Food companies

2005		F&A sales (USD bill)
1.	Nestlé	53.9
2.	Kraft	31.0
3.	Unilever	27.2
4.	PepsiCo	27.0
5.	ConAgra	19.8
6.	Danone	14.9
7.	Mars	11.2
8.	General Mills	10.5
9.	Cadbury Schweppes	10.5
10.	Sara Lee	9.7
11.	Kellogg	8.8
12.	Heinz	8.6
13.	Campbell Soup	7.5
14.	Ajinomoto	6.1
15.	Associated British Foods	5.7

Global presence

Food multinationals have a global presence in sales, sourcing and production

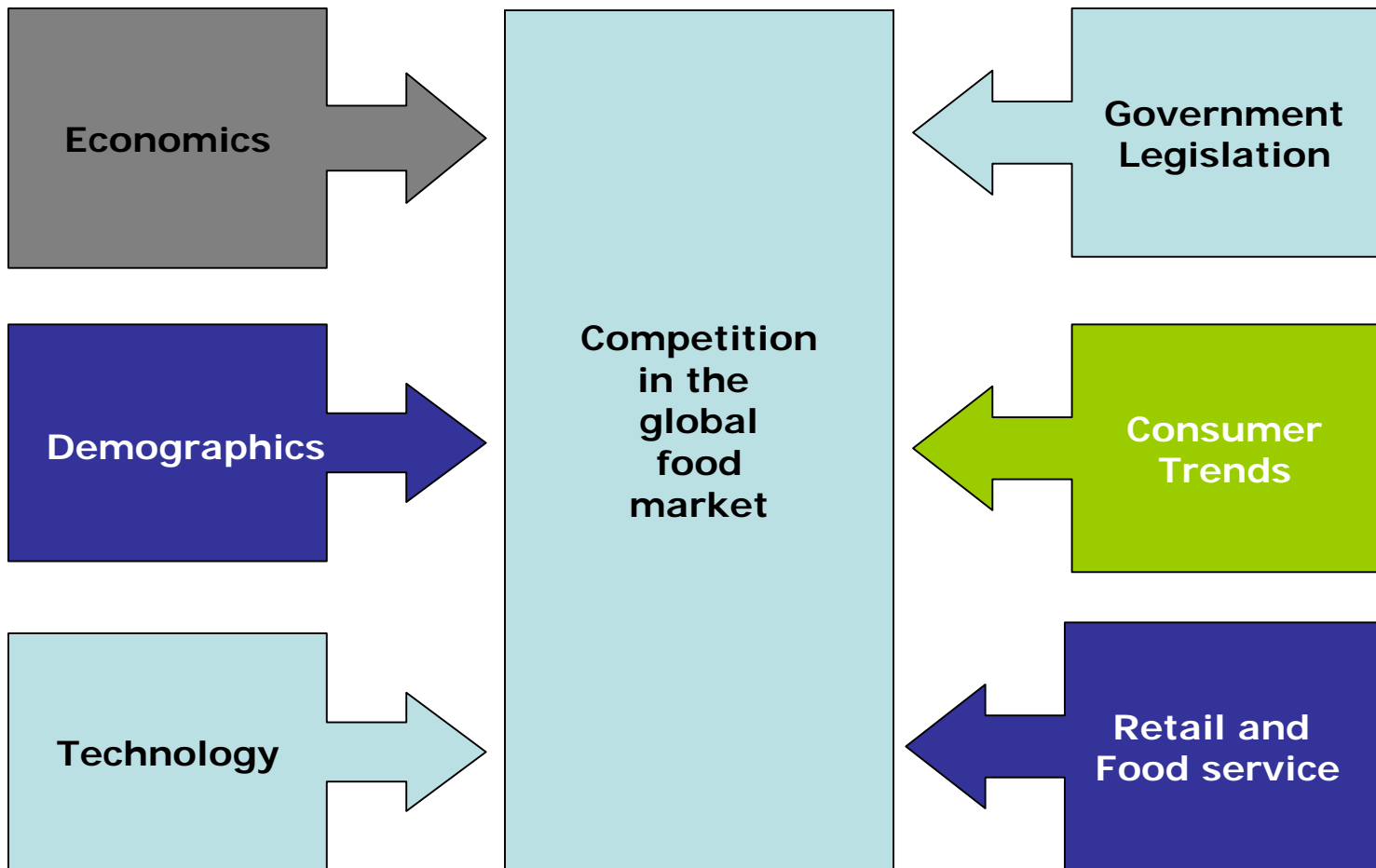
solid positions in their home markets, but expanding in D&E markets



Criteria: revenues and substantial market position in at least two food categories

Diversity in the global food market

Drivers shaping competition in the global food market



Competitiveness and comparative advantage concepts

- Access to labor
- Environmental regulations
- Water availability
 - Shift in focus of crops
- Dealing with potential terrorism threats and other food safety requirements
- Role of renewable fuels
 - Use of corn for ethanol
 - Biodiesel
- Market access and non tariff barriers

- Government support
 - Shifting, not necessarily vanishing
- Logistics
 - Traditional infrastructure (roads, rail, ports)
 - Communications (GPS)
- Management
 - Risk management (price, production)
 - Use of capital

Government, Legislation

Different types of legislation impacting the competition in the industry in multiple ways

Free trade agreements

Food safety

Biotechnology

Food labelling

Nutrition, health claims

Industry policy

Labor policy

Environmental policy

- The Doha Round:
- WTO's 149 member states negotiate on agriculture, industries and services, focus on: domestic support, market access and export support.
- All Doha negotiations are suspended, the reason: Agriculture
- Fast Track expires 1 July 2007.
- Final Doha agreement unsure, but:
- Agriculture subsidies and tariffs will be lowered and market access will be enlarged.

The food supply chain

The food industry is maturing and food companies are specializing



The new game in the food chain is no longer about feeding the customer but offering food products fitting the specific needs and requirements of the consumers

Food producers have to focus on activities in which they can add value – either low cost producing or offering highly perceived food products with special traits

This results in a pattern of strategic alliances (specialisation and cooperation) in different food and beverage industries

Strategic alliances in food

The global food industry is becoming a patchwork of strategic alliances



As food companies start to specialise in the chain they need other companies to perform the complementary activities: Alliances

Example I, an industry: the soft drink industry

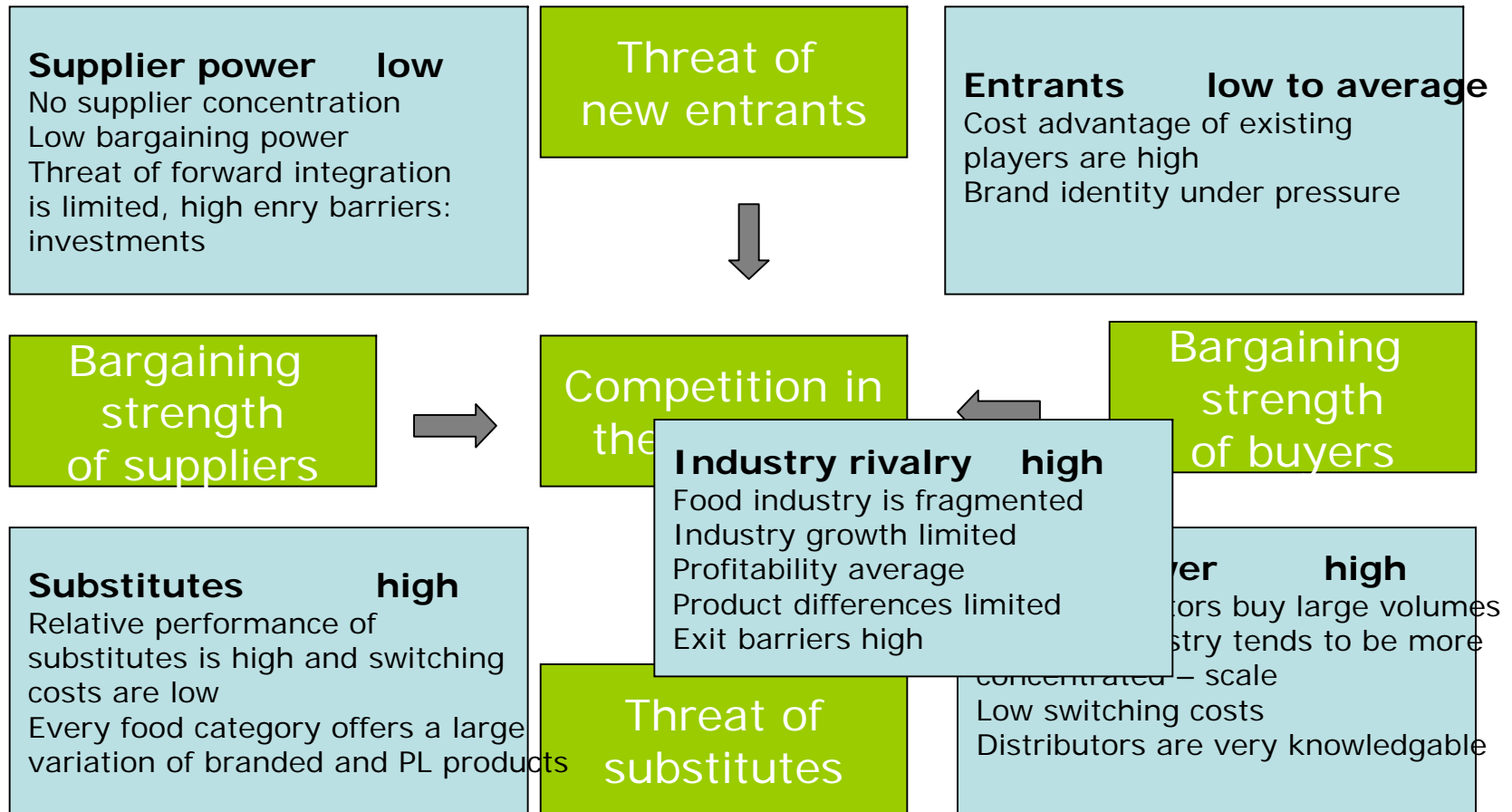
- Danone - Coca Cola: distribution of Danone's waters in the US
- Nestlé – Coca Cola: distribution of Nestlé's RTD tea (Nestea) and coffee
- Cutrale – Coca-Cola (Minute Maid) Cutrale is supplying Coca-Cola's FCOJ
- Citrosuco – PepsiCo (Tropicana) Citrosuco is supplying PepsiCo's FCOJ

Example II, a company: Nestlé

- Nestlé – Coca Cola: distribution of Nestlé's RTD tea (Nestea) and coffee
- Nestlé – Fonterra: dairy processing
- Nestlé – Lactalis: production chilled dairy
- Nestlé – General Mills: distribution

The global food industry

Competition in the global food industry is high driven by bargaining strength of buyers and substitutes



Business models in global food

The dominating business model for food multinationals is still focussing on food brands



Vision Question

- *“We are a council committed to working in partnership with others to meet the challenges of achieving a world-class agriculture and food industry”*
- Will the commodity based structure of council allow it to achieve the vision given the complexity of the opportunities and threats?



I think the next century will be the century of complexity.
Stephen Hawking
January 2000

WHAT IS COMPLEXITY?

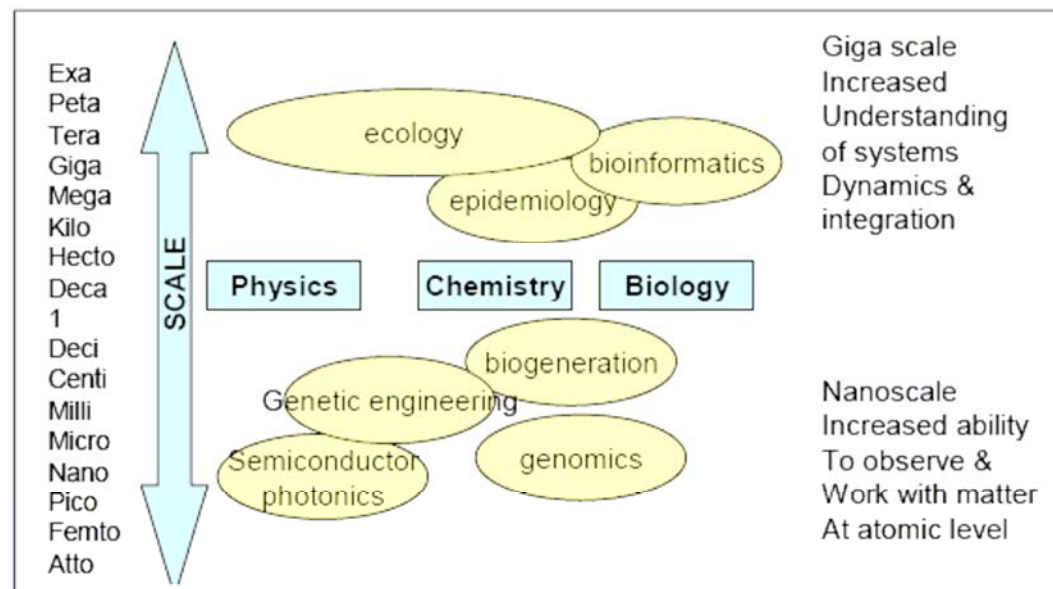
When Einstein was asked what was most helpful to him in developing the theory of relativity, he replied, “Figuring out how to think about the problem.” The challenges we face today and those we’ll confront in the future require new ways of thinking about and understanding the complex, interconnected and rapidly changing world in which we live and work, and insights arising from the study of complex systems are helping us expand our thinking in new directions. Simply stated, complexity arises in situations where “an increasing number of independent variables begin interacting in interdependent and unpredictable ways.” Traffic, the weather, the stock market and the United Nations are examples of complex systems.

Increasingly complex issues in a rapidly changing environment transcends disciplines and sectors

- **Today, many of the major issues facing the Canadian agriculture transcend departmental boundaries and require integrated, multi-sectoral responses**
- Issues facing the Canadian agricultural sector include:
 - Health, nutrition and wellness
 - Food safety and food quality
 - Clean water and air quality
 - Climate change
 - Toxins in the environment
 - Impact of genetically modified organisms
 - Biodiversity, invasive species and emerging diseases
- **Similarly, the research needed to address these issues is increasingly complex, sophisticated and resource intensive**
 - Expertise from several disciplines and organizations is frequently required to effectively address these issues and is increasingly found in non-traditional partners e.g. health, medicine, environment, mathematics, etc.

The new S&T Renaissance has brought complexity and convergence the sciences

- The diagram illustrates the standard disciplines of physics, chemistry and biology which occur at what could be called human scale.
- We can now observe matter down to the atomic scale. The ability to observe and work with energy and materials at these smaller scales has resulted in a convergence, and to some extent an integration of sciences. At the nanoscale atoms, circuits, DNA code, neurons and bits become conceptually interchangeable.
- Similar advances have been made at the gigascale. We can observe not only local weather, but weather systems. The spread of influenza can be mapped. The tools of gigascale science are computers, databases, networks and satellites, which permit us to capture and analyze large amounts of data.



You can't gain insight into the present or foresight into the future from a silo

- Whether you are developing policy recommendations on a specific set of issues, or developing a strategic plan it's important to find ways to see and understand the multiple complexities in the larger environment — nonlinear relationships are reality.
- By applying your thinking and planning resources to emerging phenomena, you have an opportunity to influence the future to your advantage. Complexity science tells us that singular commodity strategies are unlikely to be successful as they do not emulate the real world of growing complexity and convergence

Agriculture and Agri-food is occurring within a complex natural self regulating system

Rules

- Look at the whole system not just its parts
- Complex adaptive systems are self-organizing and pattern forming
- Small changes can create big results
- Maps, models and visual images make it easier to see connections, relationships and patterns of interaction
- Scanning across disciplines and industries is the key to seeing emerging conditions, paradigm shifts and opportunities for innovation
- Non linear thinking is critical to recognizing clues about changes in the environment
- Perspective is important, you have to know what you are observing, (local/global)

Does our structure help us take advantage of opportunity or hold us back?

