Areas of Focus	Table 1: Trends and Observations Specific to Sustainable Consumption Initiatives
Consumer Citizenship (+) green purchasing: organic; buy local; health & environment; green cleaning products; recycled products (+) expectations: Citizens want companies to take more environmental responsibility	• Citizens are increasingly purchasing more sustainably on their own, outside of organized initiatives. (**Sales of green cleaners** and **recycled products** continue to rise even though they cost 10 - 30% more)[1] • Increasing purchase of locally grown products. (US chefs rank **locally-grown and organic produce** as the 2nd and 3rd hottest trends in restaurants in 2007)[2] • Citizens are increasing purchase of **organic products.** (US organic foods sales experience double digit growth every year since 1998 with US$13.8 billion sales in 2005)[3] (CAN certified organic food sales worth CAN$412 million in 2006 with 28% growth from 2005 to 2006)[4] • **Potential health effects of products** containing toxics are increasingly an issue especially for parents of young children and alternatives are increasingly sought. Survey results show that the most heavily populated environmentally conscious consumer group consists of people gravely concerned about their own health and that of their family and they are **more likely to choose toxic-free products**[5]. • Survey results show over **75-90% of citizens take environmental impacts into consideration** when making purchases.[6] [7] • Survey results show **90% of citizens overwhelmingly want companies to take more environmental responsibility** by providing greener products and more than 50% will target their purchases from those companies who provide social and environmental commitment.[8]
Product Bans (+) Municipal leadership	• Municipalities are increasingly addressing consumption issues through product bans and bylaws which limit the types of products offered and used in the community i.e. **disposable packaging** (e.g. City of Toronto, ON) **pesticide use** (e.g. Provinces of Ontario and Quebec), **bottled water** (e.g. Seattle, Los Angeles (US) London, (ON))
Labelling (+) recognition of gov't sanctioned labelling (+) confusion on labelling that is not gov't sanctioned	• There is an **increased unaided recognition** of government sanctioned product labelling programs such as **ENERGY STAR** which identify more sustainable products and services (US: 58% in 2007 vs 25% in 2001)[9] (CAN: 48% recognition in 2005 vs 36% in 2003)[10] • Survey results show **high distrust of environmental claims** (70% of Canadians)[11] • There is **more consumer confusion** with respect to **product labelling which is not government sanctioned**.[12]
Information tools (+) websites on reducing purchases, and what and where to buy sustainable products	• **Increased information** on sustainable consumption - what and where to buy sustainable products, or guidance on reducing consumption - available on the web sites[13]

Areas of Focus	Table 1: Trends and Observations Specific to Sustainable Consumption Initiatives
Incentives (+) financial cost a factor (+) incentives on energy and water efficient products	• **Economic factors** play a significant role in consumer choices which support sustainability. Cost is the principal barrier to adopting more environmentally friendly behaviour and purchasing more environmentally friendly products[14]. • **Many incentives** are available for consumers to **purchase energy or water efficient products** which are offered at the local level. These incentives vary across communities, and therefore mass communications on such initiatives is not possible.
Research on consumer behaviour Need for more research in order to support actions towards SC	• **Some studies** on purchasing behaviour have been **initiated** in NA, but **more needs to be done** to establish how best to translate this information into tangible actions to support SC[15].
Support Network for SC Practitioners and Researchers Need for more coordinated communication, knowledge exchange and collaboration.	• When compared to the SP community, there is **less coordination** of activities and knowledge **amongst SC practitioners and researchers**. Some organizations have emerged to fill this void i.e. North American Sustainable Consumption Alliance (NA)[16] and My Sustainable Canada (CAN)[17] • There remains the **challenge** of **fostering communication and collaboration between** the often-distinct communities of people promoting **sustainable production and sustainable consumption[18]**.
Quantifying Consumption patterns (+) in consumption of energy, water and materials (+) in generation of waste and recycling (+) diversification of waste stream	• OECD report on household consumption trends reveals: a growing demand for energy and water services tied to larger homes, and more energy and water appliances; growing share of electricity in household energy consumption; growing waste generation and recycling and diversification of waste stream[19].
Media (+) attention in media	• There have been more media reports on issues related to sustainability than at any other time in history

Areas of Focus	Table 2: Trends and Observations Specific to Sustainable Production Initiatives
Green Product Development and Design (+) attention to greener product design (+) growing market pressure for green products (+) government initiatives to reduce toxic substances in products	• **Majority** of US businesses surveyed (56%) had **deployed** some form of a **design for greener products strategy**, while another 26% of manufacturers plan to adopt a similar strategy within the next two years.[20] • Key market pressures driving green product development include: o Green products offer **greater competitive advantage** (35%) o **Conscientious customers** demand more eco-friendly products (27%) o Customers **demand** for products that use natural resources more efficiently (23%) o Customers are **willing to pay a premium** for Green products (9%)[21] • **Increased initiatives to reduce toxic substances in products** include **government programs:** Toxics Use Reduction in Massachusetts[22], Green Chemistry initiative in California[23], U.S. EPA's Design for the Environment Program[24], Chemicals Management Plan in Canada[25] **NGO initiatives:** Life-cycle Assessment[26] **and corporate initiatives**: (such as Walmart's Sustainable Value Networks and GE's Ecomagination[27])
Dematerialization (+) sector examples	• North American **examples of dematerialization continue to grow** in the manufacturing sector (e.g. Interface Flooring), the information technology sector (e.g. RIM's Blackberry) and the service sector (e.g. grocery box deliveries through Community Shared Agriculture programs)
Investments (+) in socially responsible investment and clean technology	• **Socially Responsible Investments (SRI) volume is growing** in US (US$2.29 trillion in 2005 with three-fold increase since 1995) [28] and CAN (CAN$500 billion in 2006 vs CAN$65.5 billion in 2004)[29] • **Cleantech global venture capital i**nvestment as a portion of total investment is **growing rapidly -** 11% in 2008 vs 1.6% in 2003, with US providing the majority of global investments in 2007 ($2.5 billion) and 1st half of 2008 ($1.6 billion). [30]
Green Jobs Correlation between energy efficiency and green job creation	• **Investments in energy efficiency** over past 30 years pays off in California with savings of US$56 billion on energy costs, lower per capita energy needs (40% lower than US national average) and in **green job creation** (50 new jobs created elsewhere in economy for every single lost job in the energy sector).[31] • A recent UN report found that changing patterns of employment and investment resulting from efforts to reduce climate change and its effects are **already generating new jobs** in many sectors and economies, and could create millions more in both developed and developing countries. One of the concerns is to ensure "just transitions" for those affected by transformation to a green economy and for those who must also adapt to climate change.[32]

Areas of Focus	Table 2: Trends and Observations Specific to Sustainable Production Initiatives
Purchasing programs (+) expansion of environmentally preferable purchasing programs (+) examples of municipalities supporting local green businesses through procurement practices as an economic development strategy	• **Environmentally Preferable Purchasing programs** have **evolved to include many sectors** including governments and institutions[33] and businesses.[34] • Some governments have initiated programs to promote local economic development by **supporting local green businesses through their procurement practices** (i.e. Province of Nova Scotia, City of Vancouver BC, and Kingston, ON)
Greening the Supply Chain (+) accountability across the supply chain	• Many businesses are becoming **accountable** for their supply chain (i.e. the automotive industry through ISO 14001).
Clean Production Small and medium sized enterprises are most numerous and most in need of technical assistance; yet there are challenges in reaching them Businesses are widely receptive to making improvements in efficiency	• **Small business assistance programs** are somewhat popular where they are provided, but with limited number of programs they are **not easily accessible to most SMEs**, and most SMEs do not have time to access them (examples of SME programs include: Toronto Region Sustainability Program[35], Sustainable Manufacturing Initiative US[36]) • Improving efficiencies is tied into general business best practices and most businesses in CAN and US have undertaken some improvements in efficiencies.[37] • Pollution prevention encouraged by governments in CAN[38] and US[39]

Areas of Focus	Table 2: Trends and Observations Specific to Sustainable Production Initiatives
Labeling and Green Certification (+) in sustainability labels (+) in green buildings Green perception of brand is beneficial	• The number and types of **'sustainability labels'** have been **increasing** e.g. Fair Trade, Forest Stewardship Council, as well as self certification by retailers.[40] • **Green building practices and LEED certification is increasing** rapidly within many companies and governments. Canada Green Building Council reports 88 LEED-certified buildings in Canada with 600 candidates vying for certification, with numbers doubling yearly.[41] • Survey results show that 64% of business decision makers agree that **being perceived as green helps their brand.**[42]
Distribution	• Fleet Greening is increasing both in the private and public sectors • Retailers are increasing green strategies such as building retrofits, which are paying off. The three primary drivers: consumer demand, government/legislation, and potential cost savings[43]

Corporate Citizenship
 	
(+) in CSR reporting amongst large businesses
 	
Need for more reporting from small and medium-sized businesses
 	
Triple bottom line reporting remains a challenge
 	
Ethical and economic considerations are key drivers to reporting
 	
(+) Community-based businesses
	• Businesses are **increasingly providing corporate social responsibility (CSR) reports**[44]
	  o In US: % of top 100 companies with CSR: 74% in 2008 vs 37% in 2005[45]
	  o In CAN: % of large businesses with CSR: 60% in 2008 vs 41% in 2005[46]
	• In the CERES sustainability reporting awards report for 2007 the judges noted a **need for more reporting from small and medium-sized companies**, citing a lack of models for low cost, high-quality sustainability reports from smaller firms.[47]
	• US companies report **top three drivers for reporting: ethical, economic considerations, and innovation and learning**, where ethical considerations (70%) replaced economic considerations (50%) as primary driver since 2005.[48]
	• In CAN, low levels of reporting within the **forest and chemical industries** likely reflect **reliance on voluntary standards to demonstrate performance (**e.g. Sustainable Forestry Initiative, Responsible Care).[49]
	• In CAN **only 2% of companies** surveyed have fully **integrated corporate responsibility information** into their annual reports, indicating the continuing challenge of reporting on a true 'triple bottom line".[50]
	• Of over 4,500 US businesses surveyed, 47% have green initiatives in place, with 74% citing **CSR as the main driver**, and 53% identifying **competitive advantage as the second** top pressure for green initiatives. The increasing complexity of global business environment, rising energy and transport costs and mounting compliance challenges are primary drivers.[51]
	• In the CERES sustainability reporting awards report for 2007 the judges noted that **some reports were still more of a PR exercise than a management tool** and the need for candid discussion of how sustainability integrates with business strategy and planning[52]
	• **Increase in number** of small businesses who **belong to Business Alliance for Local Living Economies**.[53]

Areas of Focus	Table 2: Trends and Observations Specific to Sustainable Production Initiatives
Product Stewardship (+) Measures taken by municipalities (+) Shared responsibility on some specific products	• **Government and business have initiated some** product stewardship programs (i.e. electronics[54], paints/household hazardous wastes, and packaging[55]) and some **local governments, states and provinces are taking additional steps**.[56] [57]
Academics-Practitioners Partnerships on SP (+) need for academic-practitioner partnerships	• **Academics are increasingly engaged in assisting practitioners** with SP (i.e. Business Network for Research Sustainability in Canada)[58]

[1] Consumers Report

[2] National Restaurant Association. What's Hot What's not Chef Survey 2007

[3] Organic Trade Association 2006 Manufacturer Survey

[4] Organic Agriculture Centre of Canada. Retail Sales of Certified Organic Food Products in Canada, in 2006. Anne Macy. May, 2007

[5] Earth Advertising. Conscious Consumers in a Nutshell. February 2008.

[6] HANSA|GCR Green TECHpulseTM '08. Consumer Topline. August 2008

[7] Bensimon Byrne Consumerology Report. The Impact of Environmental Issues. July 2008

[8] AMP Agency. GreenAmplified. August 2008

[9] Consortium for Energy Efficiency. 2007 ENERGY STAR Awareness Survey Report

[10] Natural Resources Canada Tracking Study: Awareness of ENERGY STAR/ EnerGuide Symbols 2006 IPSOS REID. September 2006

[11] Bensimon Byrne Consumerology Report. The Impact of Environmental Issues. July 2008

[12] eco labels org

[13] Examples include: New American Dream (US) ; NRDC Simple Steps (US); Environmental Defence Fund (US); Environmental Defence (CAN); World Wildlife Fund: The Good Life (CAN); David Suzuki Foundation (CAN)

[14] Bensimon Byrne Consumerology Report. The Impact of Environmental Issues. July 2008

[15] American Psychological Association

[16] North American Sustainable Consumption Alliance (NA)

[17] My Sustainable Canada

[18] Luskin, J., Del Matto, T. Introduction to the special issue on, sustainable production and consumption: making the connection (2007). *Journal of Cleaner Production*, 15(6), pp. 489-491.

[19] OECD. Towards Sustainable Household Consumption? Trends and Policies in OECD Countries. *OECD Policy Brief*. Paris: 2002.

[20] Aberdeen Group. Greening Today's Products: Sustainable Design meets Engineering Innovation, 2008.

[21] Aberdeen Group. Going Green: When "Making a Difference Aligns with Market Demand. October 2008.

[22] Toxics Use Reduction in Massachusetts US

[23] Green Chemistry Initiative in California US

[24] Design for the Environment (DfE) US

[25] Canada's Chemical Management Plan CAN

[26] Life-Cycle Assessment (LCA)

[27] The Investor Environmental Health Network and Rose Foundation for Communities and the Environment Fiduciary Guide to Toxic Chemical Risk. March 2007

[28] Worldwatch Institute. Socially Responsible Investment Grows Rapidly.

[29] The Social Investment Organization. Canadian Socially Responsible Investment Review 2006. A comprehensive survey of socially responsible investment in Canada. March 2007.

[30] Ernst and Young Study

[31] David Roland-Holst. University of California at Berkeley for Next 10. Energy Efficiency, Innovation and Job Creation in California. October 2008.

[32] UNEP/ILO/IOE/ITUC Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World, September 2008.

[33] Examples of purchasing programs: Governments Incorporating Procurement Policies that are Environmentally Responsible (GIPPER) CAN and Electronic Product Environmental Assessment Tool

[34] Examples of other purchasing programs include Sustainability Purchasing Network CAN

[35] Toronto Region Sustainability Program CAN

[36] Sustainable Manufacturing Initiative (SMI) US

[37] Statistics Canada. 2002. Environment Industry Survey: Business Sector.

[38] Canadian Pollution Prevention Information Clearinghouse

[39] US EPA P2 Programs

[40] eco labeling organization

[41] Innovation Canada

[42] HANSA|GCR Green TECHpulseTM '08. Business Topline. August 2008.

[43] Ottawa Citizen. Green strategies are paying off for retailers in unexpected ways. Friday, September 12, 2008.

[44] Examples of CSR reporting include: Intel, Staples, and Caterpillar

[45] KPMG International Survey of Corporate Responsibility Reporting 2008

[46] KPMG International Survey of Corporate Responsibility Reporting 2008

[47] CERES-ACCA North American Awards for Sustainability Reporting 2007. Report of the Judges. pp 15.

[48] KPMG International Survey of Corporate Responsibility Reporting 2008

[49] KPMG International Survey of Corporate Responsibility Reporting 2008

[50] KPMG International Survey of Corporate Responsibility Reporting 2008

[51] Aberdeen Group. Green is the New Gold. 2008.

[52] CERES-ACCA North American Awards for Sustainability Reporting 2007. Report of the Judges. pp 15.

[53] Business Alliance for Local Living Economies

[54] Electronic Product Stewardship Canada

[55] Stewardship Ontario (CAN)

[56] Toward a Zero Waste Future: Review of Ontario's *Waste Diversion Act*, 2002. Discussion Paper for Public Consultation October 2008 Ontario Ministry of the Environment.

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[58] Business Network for Research Sustainability (CAN)