



THE GLOBAL GOALS

For Sustainable Development

FRAMEWORK

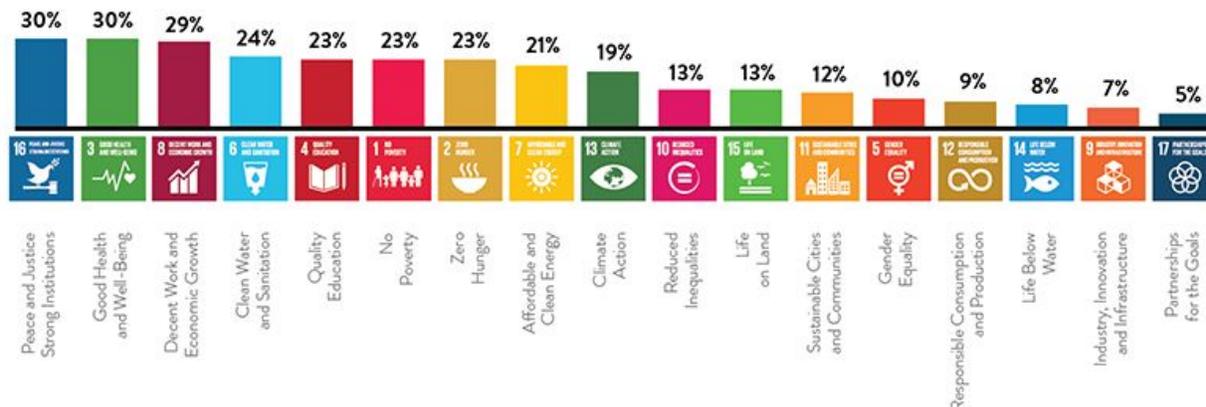
Goals, Objectives and Key Messages from the
Construction Resource Initiatives Council

For Public Review and Comments May 9, 2016

Are you aware of the 17 Global Sustainable Development Goals?
If not, we urge you to visit the United Nation's Knowledge Platform at
<https://sustainabledevelopment.un.org/?menu=1300>

If so, are you engaged to contribute in meeting these goals to the best of your abilities and capacity? Which goal(s) is/are most important to you? How are you maximizing all of the synergies, while minimizing the trade-offs between the goals?

RANK OF ALL GOALS BY RESPONDENT IMPORTANCE



This document is a general overview of the CRI Council's key messages, goals and framework for inclusive sustainable market system development. The aim is to catalyze on proven processes, resulting in competitive, inclusive, resilient and transformative sustainable market systems. As the last fifteen years did, the next ones will bring their share of industry upheavals. Thus, companies that want to lead in 2030 need to understand the facts and concepts of emerging trends. The big question is: Which trend will matter most? Certainly, looking at the growing trends of nexus approaches, we know that water, energy and food will drive change over the consumer landscape by 2030. But there is much more to complex systems than those three interdependent matters. Hence our proposal for a framework that allows for all stakeholders to seize the best opportunities in hundred years through what McKinsey refers to as the Resource Revolution; Meet consumers or clients needs; And strategize to grow inclusive market system solutions. In the 'Solutions Economy', we need to further:

- **Measure what matters** to them respectively, with guidance for the right modern combination.
- **Develop new markets** by identifying gaps and meeting those needs
- **Rally external resources** around common goals and objectives, expanding collective capacity
- **Simplify complexities** with an organic lightweight approach of low intervention but high motivation
- **Ask tough questions** to producers and service providers
- **Think bigger** - think in terms of systems - and focus on the desired far better outcomes



GOALS, OBJECTIVES AND KEY MESSAGES

Open for Public Comments

Ottawa, ON – The CRI Council is seeking responsible development system¹ leaders as key partner

Importance Level: This document is of high importance and value to all leaders working on:

1. **Regional to global system change** management initiatives focused on innovation, sustainability, integration and prosperity matters.
2. **Policy coherence** for the sustainable development goals that will facilitate the work for focused on:
 - 2.1. a. strengthening the middle class; b. An innovative and clean economy; c. Inclusive, fair and sustainable market system development; d. Local to global leadership and management; e. Public and industry openness and transparency
 - 2.2. Under 2^o MOU - Memorandum of Understanding for subnational governments
 - 2.3. United Nation's Sustainable Development Goals towards 'The Future We Want'
 - 2.4. Urban Metabolism and Sustainable Cities
3. **Planning, development, verification and management** of the built, social and natural environments
4. **Responsible sustainable consumption and production**, responsible design and construction
5. **The elimination of planned obsolescence** in favor of multi-level design models and reverse logistics
6. **Integration strategies for sustainable development** or any of the applicable three dimensions: 1) Leave no one behind; 2) Live within our means; 3) Leave something behind

Stakeholders:

- **Public:** Policy Makers, Managers and Directors in Industrial, Commercial and Institutional Organizations in social, environmental, economic and community planning, development, measurements or controls.
- **Private:** Industry leaders in oil and gas, basic materials, industrials, consumer goods, healthcare, consumer services, telecommunications, utilities, financials, technology
- **Others:** Investors, Community Leaders, Unions, Non-Governmental Organizations, Associations, Institutions

Important Participative and Integrative Action Required

Stakeholders are invited to participate in the creation of an international protocol for clear general guidelines/rules in value chain integration and inclusive market system development. This is essential as the organizations and institutions transition from linear to more cyclical/circular, lifecycle-based and systemic solution type economies, by addressing development forces: Governance, substance and environments. As part of our integrative processes, we seek the review and comments of the goals, objectives and key messages for action and provide constructive comments in writing to the CRI Council. The Council will meet with stakeholder group leaders June 8 and 9, 2016 in Toronto to discuss these, the protocol and education. Other roundtable meetings will be posted on the CRI Council and selected websites. The US Fall roundtable meeting will be held in the USA (California location to be determined). The next major milestone will be the international Montebello Quebec Summit, May 15-18, 2017; to ratify the protocol plan among other important matters.

The value to allies, partners and participants, hinges highly on the degree of participation and integration in the planning, development, verification and adjustment or action processes. Canadian, US, First Nations, Indochina and OECD groups, organizations and communities will benefit the most from early engagement. From this, they will gain a better understanding of the urban metabolisms and critical sustainable processes to meet sustainability goals. Thereby, they will optimize their organizational and operational performances.

¹ Sociological Order of Living Systems: Groups, Organizations, Communities, Societies and Supranationals

Equally important, as sustainable development will forever be a moving target, those participating or integrating in our MISSION 2030 flagship, or any related research, education and community advocacy initiatives, have least to lose. For managing methodologies, decision making support and data computation of 11.2 billion people by 2100 will require healthy and safe built, social and natural environments. By approaching resources with a “chaordic and heuristic experimental approach” in diverse large regions, stakeholders can prevent resource waste due to downtime (**D**efects, **O**verproduction, **W**aiting, **N**on-utilized talents, **T**ransportation, **I**nventory, **M**otion and **E**xtra-processing)

Today less than 10% of GDP is based on the purely physical part of the economy...During the last fifty years, environmental protection measures and regulations for resource exploitation had to function as firearms to fight the hottest spots. While they were successful in specific areas (e.g. emissions of sulfur dioxide or carbon monoxide), they could not break the general trend. **The shortcomings of the firearm strategy are: It is a late reaction on actual impacts. It lacks priorities and thus effectiveness. And it does not serve for designing new and better systems. The fundamental drawback of this strategy is that it is not based on a metabolic understanding of the real economy, and that it focuses on reduced partial systems emphasizing output flows and neglecting the dynamics of anthropogenic stocks.”**².

MISSION 2030 on the other hand is more akin to Architecture 2030, which it is aligned with and complementary to. It counts on the ‘butterfly effect’ - The phenomenon in which a small perturbation in the initial condition of a system results in large changes in later conditions. Such phenomena are common in complex dynamical socio-economic and socio-technical development systems, studied in chaos theories and life sciences. Hence our chaordic leadership³, chosen path and recommendations on the need for:

1. **A Public-Private-People-Partnerships (P4) for the creation of an International Resource Council (IRC)**⁴ to govern on built environments to ensure and maintain a sustainable resource management perspective, where restoration, conservation, efficiency, decoupling and regenerative strategies are recognized as critical to long term sustainability. As the US will lead the rocketing construction market growth to 2030 with China and India, and that the Canadian Federal government is committed to the development of a modern infrastructure, the CRI Council is exploring the feasibility of a P4 for a Pilot Project to lead the creation of the IRC with a **MISSION 2050**. This would be developed on lessons learnt from Europe 2020 Architecture 2030, MISSION 2030, Energie 2050 and others. Connecting large size and free-trading regions that have high consumption and waste production rate to regions beyond their metropolis and urban centers, with an integrated development plan is critical to meet the global Sustainable Development Goals (SDGs); Obtain policy coherence; And address intellectual property concerns over development openness and transparency.
2. National and subnational governments should facilitate the review of their federal sustainable development strategy with Public-Private-Partnership programs for **Integrated Development Planning** and discuss the broad adoption of the **Integrational Green Construction Code** for policy coherence and advance on MISSION 2030 change management and Architecture 2030 carbon footprint reduction efforts. In turn these will help SMEs and key actors make more informed decisions to leapfrog towards the UN Sustainable Development Goals.
3. Municipalities should also work towards establishing Integrated Development Planning Committees to **inventory their resources and better understand the stocks and flows of their real economy**; Adopt modern and Genuine Progress Indicators; Research and develop inclusive market development systems; And establish a multilevel design model to support key actors in change management.

² Baccini and Brunner; Do you know the stocks and flow of your real economy?; August 3, 2012; The European Financial Review; Business and Economy; Lifestyle and Sustainability; Politics and Policy; Based on the book “Metabolism of the Anthroposphere. Analysis-Evaluation-Design” by Peter Baccini and Paul H. Brunner (2nded.), MIT Press 2012, Cambridge MA

³ A leadership discipline coined in 1999 by former Visa CEO Dee Hock that is both a management style, and a system of organization that governs the exercise of authority. It is characterized by the harmonious blending of both order and chaos principles where neither is dominant (e.g. competition and cooperation). Chaordic leadership involves four main responsibilities, which are 1) manage self 50% of the time 2) manage those with authority over us 25% of the time 3) manage your peers 20% of the time and 4) manage those we are responsible for 5% of the time.

⁴ The IRC concept is already being investigated with the Institute of Textile Technology at RWTH Aachen University, specializing in fabric innovations, machinery and processes, including machinery.

4. **Real property finance, insurance, investors and community leaders** have a major leadership role to play in maximizing group, organization and community synergies and minimizing tradeoffs.
5. **All industry value/demand and supply chain primary stakeholders should participate** to better understand and consider the value of integrative and iterative processes, leading to
 - a. Broad adoption of the Integrated Design and Project Delivery Processes; Building Information Modeling (BIM); Continuous Improvement/Total Quality Management Processes; Lifecycle Assessments, Costing and Investments; Product Category Rules and Declarations
 - b. At the Concept Stage: Progressive Public and Private Sector Development Policies; Favorable Financing Terms for Alternative Procurement Models towards Sustainable Development;
 - c. At the Design Stage: Green Performance Guarantees; Green Incentives in Permitting Process
 - d. Construction Stage: Green/Sustainable Public and Private Procurement
 - e. In Use: Green Facilities Management; Benchmarking and Follow-up; Green Leases; Green Criteria in Asset Valuation; Integrated Reporting
 - f. Independent third party Commissioning and Decommissioning/Deconstruction

Proposed matrix for a quadruple bottom line considering: People, Planet, Prosperity and Progress.

DEVELOPMENT SYSTEM FORCE / Desired Quality	MISSION 2030 LEADERSHIP TEAMS & FUNCTION	GLOBAL GOAL for SUSTAINABLE DEVELOPMENT and RESOURCE MANAGEMENT OBJECTIVES: Research and Education Advancements to maximize synergies and minimize change tradeoffs and costs; <i>* Numbers refer to UN Global Sustainable Development Goals (SDGs)</i>
GOVERNANCE Integrative	Integrated Governance	For long term internal, shared and external value creation through sustainability, productivity and regeneration
STRUCTURE Organic	Leadership Team: <u>Innovation</u>	Chaordic leadership connecting and controlling organizational and operational functions <ul style="list-style-type: none"> ● 4 - Quality Education: Inclusive, equitable quality education and lifelong learning opportunities for all. ● 16 - Peace, Justice and Strong Institutions Promote peaceful and inclusive societies for sustainable development; Provide access for justice for all; And build effective accountable and inclusive institutions at all levels. ● 17 - Partnerships for the Goals Strengthen the means of implementation and revitalize the global partnership for sustainable development;
PURPOSE Internal, Shared & External Value Creation	7 Generations Team: <u>Sustainability</u>	Sensory input to the integration team <ul style="list-style-type: none"> ● 11 - Sustainable Cities and Communities Make cities and human settlements safe, resilient and sustainable ● 12 - Responsible Consumption and Production Sustainable consumption and production (SCP) patterns ● 13 - Climate Action Take urgent action to combat change and its impacts.
PROCESSES Continuous Improvements & Total Quality Management	Integration Team: <u>Progress</u>	Collection, Processing and Presentation of Data to MISSION 2030 Team <ul style="list-style-type: none"> ● 9 - Industry, Innovation and Infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. ● <i>Interlink at a high level to other SDGs: poverty, hunger, health and well-being, inequalities, life on water and life on land.</i>
PEOPLE Constructive Culture	MISSION 2030 Team <u>Prosperity</u>	Effective output, in terms of resource and waste management <ul style="list-style-type: none"> ● 6 - Clean Water and Sanitation Availability and sustainable management of water and sanitation for all ● 7 - Affordable and Clean Energy Access to affordable, reliable, sustainable and modern energy for all ● 9 - Decent Work and Economic Growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

SUBSTANCE	QUALITY	LEADERSHIP AND MANAGEMENT
<p>MATTER</p> <p>1. Governance⁵ a. Structure b. Purpose c. Process d. People</p> <p>● Controls - System based</p> <p>● Climate Change Mitigation Efforts</p> <p>● Policy Coherence of the Global Sustainable Development Goals</p>	<p>Integrated Organic Sustainability Integrative Constructive Culture</p> <p>Products Product-Service Socio-Technology Whole Societal</p> <p>Climate Mitigation Initiatives Resource-based Policies</p> <p>Transformation</p>	<p><i>Follow the UNEP-International Resource Panel Key Messages on Decoupling, Climate Change and recommendations and Policy Coherence; as well as for Greening the Building Supply Chain</i></p> <ul style="list-style-type: none"> ● Communication; Development Plan; Design Process ● Sustainable Procurement; Public-Private Partnerships ● Education; Research & Development, Business, Jobs, Lifestyles ● Continuous Improvements and Total Quality Management ● Achieving High Standards⁶ for the Planet ● Self-Achieving Protocols for Prosperity ● Humanistic-Encouraging Progress ● Affiliative People - Groups, Organizations, Communities, societies & Supranationals integrating to simplify complexities <ul style="list-style-type: none"> ○ Inclusive Sustainable Market Development Systems ○ Sustainable Organizational and Operational Management ○ Sustainable Resource Management of Capital Resources⁷, Raw Materials⁸, Building Materials⁹, Hazardous Materials, Red List Chemicals, Secondary and Tertiary Resources ○ Multilevel Design Model¹⁰ <i>focused on system improvements</i> ○ System Life-cycle assessments ○ Clear Requirements/Quality Specifications and Documents ○ Cleaner Production and Resource Efficiency ○ System Resource Productivity and Regeneration ○ Sustainable and Integrated Transportation ○ Eco-Labeling/Certifications¹¹ ○ Value/Demand/Supply Chains Integration/Transformation ○ Sustainable Waste Management > Reverse Logistics¹² ● Regulatory and Controlled Mechanisms - i.e.: Building Code¹³ ● Economic or Market Based Instruments - i.e.: Cap & trade ● Fiscal Instruments and Incentives - i.e.: Subsidies ● Support Information and Voluntary Actions - i.e.: MISSION 2030 ● See UNEP - Sustainable Consumption and Production - Division of Technology Industry and Economy International Resource Panel - <u>10 Key Messages on Climate Change</u> aimed at Sustainable Resource Management Key Actors Climate Clean Air Coalition on <u>SLCPs</u> (Short-Lived Climate Pollutants) <u>Initiatives including bricks, HFCs and waste</u>; ● See UN Sustainable Development Knowledge Platform: <u>Transforming Our World: The 2030 Agenda for Sustainable Development</u> - <i>unanimously approved in New York 25-09-2015</i>; <u>Sustainable Development Goals</u> (SDG); See UNEP Sustainable Consumption and Production Branch - Division of Technology Industry and Economy - International Resource Panel - Policy Coherence of the <u>SDGs</u>. <i>At a glance, recommendations are:</i> <ul style="list-style-type: none"> ○ Maintain a systemic resource management perspective; ○ Promote synergies and avoid trade-offs ○ Create coherence and coordinate strategies ○ Adopt sustainable consumption and production policies ○ Build national strategies for integrated efforts

⁵ "the system by which companies are directed and controlled, in which sustainability issues are integrated in a way that ensures value creation for the company and beneficial results for all stakeholders in the long term."

⁶ ISO Popular Standards and Guidelines# addressing processes 9000: Quality Management; 14000: Environmental Management; 22000: Food Security Management; 26000: Social Responsibility; 27001: Information Security Management; 31000 Risk Management; 37001: Anti-bribery Management System; 45001: Occupational Health and Safety; 50000: Energy Management; CSA Group Standards and Guidelines fostering resource management, among others: S-478: Design for Durability; Z782: Guideline for Disassembly and Adaptability; Z783 Deconstruction of Buildings and their Related Parts

⁷ Integrated Reporting accounts for natural, human, intellectual, social/relationships, manufactured and financial capital

⁸ Raw Materials: Mineral resources (non-metallic), metal ores, biomass and fossil energy material carriers

⁹ Asphalt/bitumen cement, concrete cement & reinforced concrete, brick, ferrous and nonferrous metals, wood and composites, plastics, insulation, glass, stone, ceramic, gypsum, textiles, electronics, mechanical/electrical components and packaging, etc.

¹⁰ Going from Product System to Product Service System, to Socio Technical System to Better Cleaner Societal Situation System

¹¹ See Eco Label Index at <http://www.ecolabelindex.com/ecolabels/>

¹² See Reverse Logistics Association for info.

¹³ The Integrational Green Construction Code

<ul style="list-style-type: none"> ● Nexus approaches 	<p>MISSION 2030 Triple Bottom Line: <i>People Planet Profit</i></p> <p>Quad. Bottom Line: <i>People, Planet, Progress & Prosperity</i></p> <p>Water-Energy-Food Systems</p> <p>Whole Developments or Buildings</p> <p>Resource and Waste Management Systems</p>	<ul style="list-style-type: none"> ● GENERAL: <i>balancing development system forces; Governance incl. Structure, purpose, process, people, Substance incl. Matter, energy, information and Environments incl. Built, social and natural.</i> ● LEADERSHIP: <i>reforming whole development systems</i> <u>Integration Purpose</u>: for better societal systems and inclusive productive regenerative market development socio-technical systems - i.e.: BIM (Building Information Modeling c/w GIS Resource/Waste Saver Mobile App Feature to go well beyond energy modeling; <u>Integrative Process</u> - Integrated CI/TQM (i.e. Lean for Continuous Improvements/Total Quality Management System); <u>Integrated People</u> - Ongoing Team-work: IDP (Integrated Development Plan; Integrated Design Process; or IPD (Integrated Project Delivery or Integrated Policy Design) ● See IISD (International Institute for Sustainable Development); <u>The Water-Energy-Food Security Nexus: Towards Practical Planning and Decision Support Framework for Landscape Investment and Risk Management</u>; ● OECD Coherence for Development; <u>Issue 6, 15-12-2015; The Water-Energy Food Nexus</u>; ● International Green Construction Code; Green Building Rating and Certifications Systems ● Integration between trading industries, supersectors, sectors and sub-sectors is imperative to solve the waste issue, as <ul style="list-style-type: none"> ○ The global waste management and resource management systems require further studies and understanding. ○ There is a globalisation footprint in every local waste management system and resource productivity provide the best opportunity in 100 years. ○ Global interconnectivity should be utilised for resource and waste management ○ Waste trafficking is growing; urgent actions required ○ See more from ISWA Globalization and Waste Management Report for more on local to global issues: Global recycling markets and their impact on sustainable waste management; Megacities and Waste Management¹⁴; The informal sector as a formal stakeholder in waste management; International cooperation in waste management. Also reports on resource management, and circular economy by <u>task group</u>
<p>ENERGY</p> <ul style="list-style-type: none"> ● Embodied Energy¹⁵ ● Global 	<p>Efficient & Productive</p> <p>Clean and Safe</p>	<ul style="list-style-type: none"> ● This is a largely neglected opportunity for innovations and reducing the global warming potential ● Macroeconomic and Risks Vulnerabilities: Capital Markets, Climate Framework, Commodity Prices, Corruption, Currency Uncertainty, Energy Poverty, Energy Prices, Energy Water Nexus (<i>others looking at the energy water food nexus</i>) Global Recession, Talent, Energy Affordability, Large Scale Accidents, Cyber Threats, Extreme Weather Risks ● Energy Geopolitics and Regional Issues: Brazil, China/India, EU Cohesion, Middle East Dynamics, Russia, Terrorism, US Policy ● Energy Policy and Business Environment: Innovative Innovation, Regional interconnection, Energy Subsidies, Trade Barriers, Decentralized Systems ● Energy Vision and Technology: Biofuels, CCS (Carbon Capture and Storage), Electric Vehicles, Energy Efficiency/<i>(others speaking of productivity)</i>, Nuclear, Renewable Energies, Smart Grids, Sustainable Cities, Hydrogen Economy, Large Scale Hydro, Unconventionals¹⁷, Coal, Liquid Natural Gas

¹⁴ file:///home/chronos/u-7ea4d9634920ce2e1e5706ae7b3e35bf2fa6165f/Downloads/4016_ISWA_ONLINE_BROCHURE_LR.pdf

¹⁵ Embodied energy in building materials has been studied for the past several decades by researchers interested in the relationship between building materials, construction processes, and their environmental impacts. Read general info [here](#)

Environment	Healthy/Safe	Development/Living System Initiatives
Built	Sustainable Systems	<p>The following is a sample list of initiatives by the CRI Council and other organizations we have engaged in</p> <p>Product-Technical, Product-Service, Social-Technical, Societal</p> <ul style="list-style-type: none"> ● CRI Council MISSION 2030 Pledge and Workshops ● CRI Council Interactor Pledge ● CRI Council Protocol for Value Chain Integration ● Architecture 2030 ● Green Home TV ● UN - Sustainable Development Knowledge Platform; ● UNEP -10YFP (10 Year Framework of Programme); Sustainable Building and Climate Initiative; Global Partnership on Waste Management ● US Army and EPA Zero Waste Program ● North American Precast/Prestressed Concrete Sustainable Plant Program, initiated by the Canadian Precast/Prestressed Concrete Institute ● Automated Learning Corp Lean Courses ● Various local to international public consultations on sustainable development ● Climate Reality Leadership Corps
Social	Sociological	<p>Groups, Organizations, Communities, Societies & Supranationals</p> <ul style="list-style-type: none"> ● www.cricouncil.com ● Construction Resource Initiatives Council LinkedIn Group and other social media ● Declaration for Community Integration ● MISSION 2030 International scrap2ART Contest and web site www.scrap2art.ca ● MISSION 2030 Community Challenge - 1 Goal - 1 Target ● CRI Council - Integrated Learning Program ● National Zero Waste Council ● MIT Centre for Collective Intelligence - Climate CoLab ● Tamarack Institute for Community Engagement ● United Nations Educational, Scientific and Cultural Organization
Natural	Biological	<p>Cells, Organs, Organisms R&D for Biomimicry and Life Sciences</p> <ul style="list-style-type: none"> ● Just Ask Nature

Important Note About Specific Building Materials and Resources

As demonstrated since the turn of the century, policies must evolve as follows:

- **Raw Materials:** *From rapidly renewable, recycled content and wood to sourcing in wood, biobased, concrete, steel, mineral and quarried.*
- **Products:** *Local/Regional and Recycled content to product category rules, product disclosure and optimization through environmental product declarations, material ingredient reporting/health product declarations, raw materials extraction,*
- **Design and Construction:** *Recycling and building reuse, to whole-building lifecycle assessments*

It is not necessary, desirable or even advisable to attempt to map out every step for materials or resource and waste management. Attempting to do this causes further delays and waste; Generates more barriers/interventions than opportunities/motivation; Exposes key actors to liabilities they may not be aware of; And limits communication and innovation. But in order to generate real industry change, what is essential is:

1. **Visionary leadership** to inspire and motivate strategies for resource efficient and productive cities;
2. **Integrated and integrative communication** to overcome inertia to responsible consumption and production, as well as urban flow assessments;
3. Taking the first few steps towards **integrated and integrative education** for SMART¹⁹ goal setting and addressing critical factors for sustainable systems, starting with 'clean cycles' and 'safe final sinks' for sustainable resource.

¹⁹ Specific science/evidence-based, measurable, attainable, relevant and time bound.

This in essence means, that in order to fulfill the objectives of environmental protection, today's focus on quantitative recycling rates must be amended by a more qualitative approach. Because modern products represent a mix of numerous and sometimes hazardous substances, ways must be explored to remove detrimental substances during recycling and to establish "clean cycles". On the one hand, such a "clean cycle" strategy will result in better recycling qualities of secondary products and less dissipation of hazardous substances during further product use. On the other hand, the elimination of hazardous substances during recycling requires sinks for the disposal of the eliminated materials, including all non-recyclable materials.

Last but not least, in respect to the 3Rs (Reduce, Reuse and Recycle), the reduce factor should apply to systemic carbon footprint, and all waste forms generated by planned-obsolescence and poor management..

The CRI Council is a non-profit organization established in 2011, for change management in the research, education and assistance on resource-based issues, for innovation, sustainability, progress and prosperity.

Contact for further information or sending comments to, are the following: Renée Gratton, President CEO; 613-795-4632; renee.gratton@cricouncil.com, Ottawa, Daniel Veniot, Coordinator; daniel.veniot@cricouncil.com

Stay informed by visiting www.cricouncil.com and www.scrap2art.ca

Reference Sampling:

[Integrated Governance: A New Model for Sustainability;](#)

[Integrated Reporting \(IR\) Framework;](#)

[G4 Sustainability Reporting Guideline;](#)

[Organizational Structure, by Kanvas University Work Group for Community Health and Development;](#)

[Sustainable Development Goals;](#)

[Compilation of Metadata for the Proposed Global Indicators for the Review of the 2030 Agenda for Sustainable Development](#)

[Accelerating Building Efficiency: 8 Actions for Urban Leaders](#)

City-Level Decoupling Urban resource flows and the governance of infrastructure transitions; UNEP IRP

Environmental risks and Challenges of anthropogenic metals flows and Cycles; UNEP IRP

International Trade in Resources A biophysical assessment; UNEP IRP

Small Source Sampling:

- Athena Sustainable Materials INstitute
- Countless local to global professional or specialty driven associations and research institutions
- Climate and Clean Air Coalition;
- Deloitte
- ISO (International Organization for Standardization); CSA⁸ (Canadian Standards Association) Group; UL
- International Solid Waste Association
- International Integrated Reporting Council⁵; Global Reporting Initiative;
- Living Cities
- United Nations;
 - United Nations Environment Programme;
 - Sustainable Consumption Production Branch - Division of Technology Industry and Economy; International Resource Panel; Sustainable Buildings and Climate Initiative
 - UNESCO - UN Education, Scientific and Cultural Organization
 - UN Habitat
 - UN Sustainable Development Knowledge Platform
- McKinsey
- OECD (The Organisation for Economic Co-operation and Development (OECD))
- World Business Council for Sustainable Development
- World Energy Council
- World Future Council

