



Image source: Pinterest.com



Construction Resource
Initiatives Council

Conseil d'initiatives des
ressources de construction

2016-2020 STRATEGY

to guide communities worldwide in becoming more resourceful,
to save resources and co-create wasteless societies.



The CRI Council At A Glance

The Problem:

[Illegible text]

Our Unique Value:

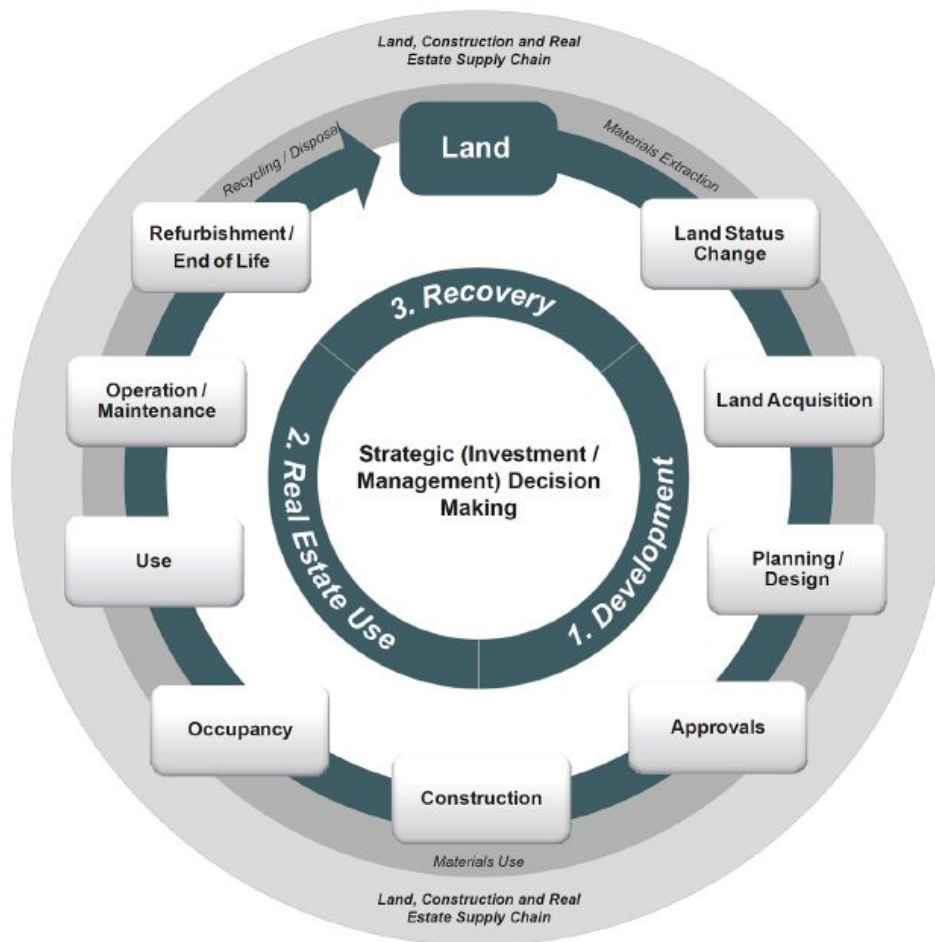
A progressive holistic approach to the problem - ; *gib gZj ai kZidXdalMdgM kZid'ciZdgi kZid\ZcZgi kZO*

No silos - *DcZDg VcXxdbcZXiZYhig Xij gVcYdeZc'hrhizb* °

Focused just as sustainable businesses or developments are - 1. *Dj iei i/ciZdgiZY\dkZgVcXZO #Dj iXdb Z/Fj Van' hj Vii VcXZQ #b eVi \$ZcZ[1//=ZVai] nZck'gcb Zci* °

The Target Audience:

Strategic (Investment/Management) Decision Makers for development, real estate use and recovery - from materials extraction to materials use, to recycling and disposal.



Hj eeanXj Vc'c'alcY'Xdcig Xi tc VcYgVazi VZHZXdj VhYZe-XiZYVii] Z'J C<aMABcb eVi! %& °*

¹ Max Liboiron; Solutions to Waste and the Problem of Scalar Mismatches; Posted on 02/10/2014; Discard Studies of Waste, Pollution and Externalities

Our Value:

The CRI Council assists its partners in taking advantage of new efficiencies, generated by changes in marketplace, while continuously improving their productivity². Unlike other organizations the CRI Council focuses on the building and construction industry as a whole, rather than its discrete stove pipes.

<p>INNOVATION <i>HV Z] dY ZgñK Z] híd[] Z'8G> 8dj cX'á'6hVc'bookM'bc' eal[djb V]áZgíd'dei b' b'z' Xj híd b ZgñVj Z]] áZab' b'V' b'á' egnZhhí VhZh'c'íZgb híd' gñZVjg]! Z]j X] b'c'VeY' egb d' c'ic[d]gñhí Zb Z[[XZcñ' VeY'egñj X] k'ín'</i></p>	<p>High Value as Customer are part of the basis for the main value proposition . <i>6'7' E]V]h'c'Zhhid'eZdezi d' h] VñG'ei'bc'VeY'g'ci VñZgñXZñ' VeegñM] O HZai\ dñVñh'ZgñXZñ'8'8'8'8'8' D[[ZgñVj Z'VWZY'h'ZgñXZñid' dei b' b'z' h'c'Zgñ Zñ'</i></p>	<p>Margin increase driver from organizational learning and adaptation . <i>E' E' teZdezi id'eZdezi < fi! H' Vei'h] VjZ'X'd'i c'gñZai Yj gñM]h' O HñZ'c'Z] k'Vj Z'id'b' b' b'z' igñZ' b[[h''</i></p>	<p>An Integrated Organization for organizational socialization of customers . <i>7ZE V]V]h'c'ZhhVcYeZdezi' Xd'X'ZM' b' c'Z] \ dñVñh'ZgñXZñ' fi V]áV]j'c'Yh] \$Xgñ Yñ O I VeXgñ Yñ] \$'bookM'bc'ic[d]gñ h] VjZ'Y' E' i' gñZ'Zj Zh'VeY'ahñVñ' id' V]áV]b' d]Z' X'cb' ezi Z' X'VeñVñ'</i></p>
<p>UNIVERSALITY & CULTURE <i>á] híd b Zgñ<ZcZgñK Z] híd[] Z' 8G>8dj cX'á' 6hVb] á'áZKZaiZñ'c'h] eedj' h'ZgñXZ' egñk'VZgñ V'ci V'c'á' V' j' c'k'ZgñVñh' b' eá' eZgñeZñ' k'Z'VeY' X'chñZgñ' Y'k'Zgñ' X] áj g''</i></p>	<p>An Integrated Organization for customer learning + added value goods & services . <i>: neal] egñj X] h'ñhí Zb h'c'VeY'ei' id] c'VZgñ VeY' c'i ZgñZñ' b'ch] eñ' id' dei b' b'z'] Z' X] híd b ZgñVj Z'?</i></p>	<p>Margin increase facilitator from offer of specification, production &/or distribution. . <i>6X' c'ol' áVñZ]] V' eZgñeZñ' k'Zñ' e[d]gñ h]] Z] c'VZgñ VeY' c'á' d[] Z' c'i ZgñZñ' b'ch] eñid'b' b' b'z' I VñZ' c'Veñh[d]gñ h'?</i></p>	<p>High Value Proposition for acquisition of new customers . <i>6X'Zei]] V' Vñ] c'Vñgñ] d'XZñ' VjZ' c'ol' dei' b'c'Veñ]] Zñ' gñj' gñ' YZñVñ] b'c'ic[d]gñZ'c'cb' X'ñ' e'edñ' X'ñZ'Z'c'ñ' X'ñ'VeY' X] áj gñ' gñVñch'</i></p>
<p>INTEGRATION <i>Dj gñj h'c'Zhh' EgnZhh'Zñid' b' d' k'VZ] Z' c'bookM'bc' b' Vj Z] "r' Hñb Z' Vñ' c'i Z' gñZ' Y' Zñ' c' EgnZhh'Zñ'</i></p>	<p>Collaborative Research and Development (Int. & Ext.) . <i>8ZñVñVeY' X'c'i' c'j' d' h'áVñZgñ] e' fi' X'cb' b] c'X'ñ' b'c'h] eedj' 8ZñVñZ] Vññ'VeY'Zgñ] eñ'</i></p>	<p>Integrative Education and Lifelong Learning . <i>G'á d]gñ h' VñZ' c'ic' id' h] h'VeñVñZ' YZ'Z'c'eb' Z' c'i YZ' Vñh' B'Vñh' b'z': [[Zñ' k'Z'Zñh''</i></p>	<p>Generative Promotion & Stewardship . <i>6X] k'Z' X'c'ñ' Vñ] b'c' Vb' d'c' Vai b' Zb Vñ] h]] gñj' \] d] i' Vñ'e] VñZñ' d[]] Z' egn] Zñ' \$] V'c'á' Z' egn] gñ b' h' 8d' 8ZñVñZ' = \] Fj Vññ' h' h' Zñ b' h''</i></p>
<p>HUMAN RIGHTS & EQUITY <i>= d'] Z' h] h'Veñ' c'j' gñVññid' áVgñ' VeY' gñ] d] gñZ' c'Zñ] \$Z'Zgñ' X] V'c'á' eá' e'edñ' X'ñ'Veñ' c'Y' á' b'ch'?</i></p>	<p>Engage on Integrated Governance, Corporate Social Responsibility and Integrated Reporting . <i>6Zñj' 1' X'gñ' k'Z' X] Vñ] X'áVñZgñ' fi' X'cb' b] c'X'ñ' d' h' d' Vñ' VñZ' X] V'c'á' eá'] Z' á'ch'Zñ' VeY' i' Vj Z' c'á'] Z' Vñh'?</i></p>	<p>Focus on Quality Substance (Matter, Energy, Information) and Corporate Shared Value . <i>6Zñj' 1' X'c'ch' gñ X] k'Z' gñZñVñ] Zgñ Z] Y] X'ñ' d' h'ñ' egñ b' d] Zgññ' h' Zñ] Vññid' [Vñ'áVñZ' gñ] c' eá' X'c'ch' gñ' c'ih' VeY' Zb Vñ] X'c'á' á'ñ]] Z'] i' h' d] i' b'ch'?</i></p>	<p>Focus on Healthy/Safely Built Environments and Community Wealth Building . <i>L' d]] \$'á'ñ' h'ñ'VeY'Zgññid' gñ' c' V' Vñ'á'Z'Zñid' [Vñ'áVñZ' Vññ' c' Y' [[Z'Z'c'ian' VeY' b' Zñ] h' gñ' c'á']] Vñ' b' Vñ] Zgññ' Z'Z' gñ] i' X'cb' Zñ' e' X] Y' c'á' á'ic'á'] Zgñ' b' e' Vññ' c'á' i' j' h' d] i' e] h' i' h''</i></p>

Testimonial: "Hj Xj Vc'c'ñ' k'Z'ñ' c'Zñh' Vññid' egñk'VZ' áVñZgñ] e' VeY' Vñ' c'X'Z' id' b' Z] Vb Vñ' h' d' Vññ[d]gñk'Zgñ/ai h] h'VeñVññ' c'ic'] Z' V]á' eá' h'Zñid' gñ]] Z' 8G>8dj cX'á] Vñ V]á' Vc' b' egn' h'Zñ' h' gñ Xj gñ [d]gñj' igñVñ]! Vñ' c'ñ' Vññ' VeY' c' h'ñ] i' b'c'Veñ] V'c'á' c'ic'] Z' V]á' eá' h'Zñid' gñ] Vñ] Z' c' h'ñ] Vñ] Z] d' c'Zgñ] Vñ] Z' id' á'c'VeY' [á] gñ b']] Z' h'Zñid' gñ] M' %&##'ñ' d] gñ Vñ'á']] Vñ] Z] d]gñ d' 8G>8dj cX'á' Vc' X'c'ic' gñ] Vñ] Z' id' Vñ' X'cb' egn] Z' c'ñ' k'Z' VeegñM] id' Vñ' k'Veñ' eá' h] h'VeñVñZ' V]á' eá' h'##

Arab Hoballah, Chief of Industry and Economics, United Nations Environment Programme (UNEP), Sustainable Consumption and Production Branch, as part of his letter of support to the CRI Council.

Awards and Recognition: In addition to receiving the Popular Choice Award from the prestigious MIT (Massachusetts Institute of Technology) Centre for Collective Intelligence, Climate CoLab 2013 Contest, Waste Management Category, and the recognition from the CTV Amazing People Gala Group, Canada Green Building Council Ottawa Chapter, the countless consulting and time provided by the growing list of volunteers is a statement to the value of the organization.

Case Studies on leadership, project and change management strengthen our argument that the construction response problem to resource use cannot be solved with small scale solutions like the 3R or extended producer responsibility. To solve this we need less asset builders; we need service providers with good values; we need more holistic technology creators; And a global network orchestrator for the land, construction and real estate supply chain is imperative.

² Efficiency is the ability to do something or produce something without wasting materials, time or energy. It is the quality or degree of being efficient. Productivity is the rate at which goods are produced or the work is completed.



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Why is a council focused on construction resources needed?

Developments are fundamentally different from what they were less than 100 years ago. Perhaps the most impressive is the scale of things. Sustainable development and “waste advocacy often suffer from a constant misalignment of scale. Problems are at one scale, and solutions are at another. Recycling to save the world is akin to changing a lightbulb to change the world—the action and problem just don’t match up.”³

In the last few decades, consumption and production patterns have become so untenable that the global waste output per capita is expected to double the 2000 volume by 2025, grow exponentially until 2050 and not peak until 2100. Most of it being industrial, commercial and institutional, including construction, renovation and demolition waste.

Meanwhile, with good reasons, the land, construction and real estate supply chain, representing roughly 70% of the global wealth and employing 10% of the workforce, consisting mostly of micro, small and medium enterprises are seeing hard interventions imposed upon them and feeling the pain. But still, even as the construction market forecasts the output to grow at a dizzying 85% to reach \$15.5 trillion worldwide by 2030, the connection between facts and concepts is hard for most to make. Thus undercapitalization, bad cash flow, inadequate planning, inflexibility, uncontrolled growth remain their top priorities, while the urgent industry need go largely unaddressed. How to deeply engage this area which account for 40% of global energy use, 30% of energy-related GHG emissions, approximately 12% of water use and 40% of waste.

In change management - ~~ijZezdeZ hYZ d[X] Vc\Zeg\gb hidgeglZih~~ - the current outcome isn’t much better with a 70% failure rate (Re. cost, schedule and/or quality). Hence all the corporate social responsibility, circular economy, design, waste to energy and other debates. But it doesn’t have to be this way. We can change all this by coming together to understand **interrelationships**; Acknowledge that **perspectives** informs that understanding; And accept that **boundary** choices are not optional. They require deliberation and balance for economical, political, ecological and cultural reasons.

³ Max Liboiron; Solutions to Waste and the Problem of Scalar Mismatches; Posted on 02/10/2014; Discard Studies of Waste, Pollution and Externalities



✎_X`5_ΔT^gh^Tggf X`dhT_h`gWh` c`a`&\$%`"āGT\` TābeāXabhZ[āVf j` egXa`a`[Xe[TaWa`fi`_UWf"J` [\X`g`TggbkVYeXj` Tf`XkgaZhV[XW` Tyge(`` baq` fzTabq` XebaX`a`haX`bY&\$%` [V[_V[gXWg` X`heZaM` `befhfg`TaTU`X`Wki`X`bc` XagTaWW[TaZX` TaTZX` XagTVgbaf"

Delivering and diffusing innovative and holistic technologies within the construction value chain (CVC) at the necessary speed and scale is far from obstacle free. As this is a highly fragmented chain characterised by roughly 80-90% of micro-enterprises. Relatively low building demolition and renovation rates mean innovations can take decades to penetrate at scale. Yet, being part of the construction system has taught the founders of the CRI Council key lessons to deep decarbonisation and defragmenting the construction value chain (CVC):

1. Asking people to limit their use of what adds to their income, which is in essence what the old 3R strategy does, is asking for sacrifices. This is hard for anyone to accept without incentives, motivation and inspiration. Interventions or shifting the responsibility up the value chain will always be met with resistance and successes are very limited.
2. Cost-effective governance solutions, especially in developing regions, where budgets are tight and conservation is not a top priority are imperative. Generative thinking, integrated models, public-private partnerships, technology creator, network orchestrator and others offer solutions around such obstacles.
3. Everything is interlinked. Seeing those linkages inspires people to take action on common challenges, such as:
 - Poor leadership and communication within and outside of the CVC, which has a large number of actors;
 - A limited skills base, which is currently not geared towards holistic technologies and business models;
 - Lagging innovation Industry standards and market definition, for the many emerging revolutions - i.e:
 - Resource Revolution, with substitution, optimization and virtualization opportunities; but integration challenges: Recognizing the scope, expanding frontline capabilities, modeling and then testing.
 - Revolutionary socio-economic models disrupting the status quo and connect innovators include autonomous, circular, collaborative, intelligent, network orchestration, resource-based, service, sharing and solution economies to name a few.
 - Overcoming inertia is where most initiatives fail.

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Thus, we're on a mission to provide conditions where people can jointly explore, learn and promote the need to save and sustainably manage resources. As we envision resourceful communities worldwide, guided by the CRI Council and co-creating wasteless societies.

P A R T N E R S H I P S	Integrated governance through a new entity Multi-agency information collection Interagency database for land, construction, real estate and authorities Single point of integration Wide spectrum of evidence-based programs Ongoing coordinated training/technical assistance Sustainability as the urgent matter. Integration as the critical imperative Generative as the innovative way forward Comprehensive, multidisciplinary screening & assessment
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NATIONAL AND SUBNATIONAL GOVERNMENTS

Those signory to the UN Post-2015 Agenda;	
Subnational Global Climate Leadership– <i>JC9: G* BDI HAcVdZn*</i>	\$0.005-0.01/Capita °
Others	\$0.01-0.02/Capita

MUNICIPAL GOVERNMENTS

Adopters of Architecture 2030 Challenge for Planning	\$0.002-0.003/Capita
Others	\$0.003-0.005/Capita

PUBLIC AGENCIES AND INSTITUTIONS

Individual Public agencies	\$150
Public Institutions (Schools, post-secondary, libraries, hospitals and other for public development, health and well-being purpose)	\$100

BUSINESSES AND CORPORATIONS

Large w/more than 500 Full Time Employee (FTE)	\$3,000-5,000
Large w/251-500 FTE	\$2,000–5,000
Small and Medium Enterprises w/51-250 FTE	\$750-2,000
Small w/10-50 FTE	\$300-500
Micro, Social Enterprises w/1-10 FTE AND NFP	\$150-250

OTHERS

Registered Charities and Individuals	\$50
Non-Active students	\$25

<p>ADDITIONAL PARTNERSHIP BENEFITS</p> <ul style="list-style-type: none"> • Low annual cost and money back guarantee on courses • Ongoing support and coaching • Nominate candidate(s) to be a representative on the CRI Council Board of Directors; • Propose and organize a CRI Council recognized initiative; • Nominate persons to serve as Chair or Member of any Internal Group; • Have access to Logo and presentations; • Obtain discounted fees for events, goods, services; • Nominate candidate(s) for Andres Bernal Award;

- Have access to the open work platform;
- Vote on governance matters; participate in program reviews.
- Making a 2-5 year support commitment and advanced payments will result in discounts of 5-10%, on all goods and services during the agreed period.
- Partners investing an additional 1-2%, for 2-5 years, may also join the advisory team.



Learn why the Construction Resource Initiatives Council brings value to individuals, groups, organizations, communities, societies and even supranationals.

Learn how investing, partnering or funding CRI Council initiatives implement integrated solutions that already exist and could enable the achievement of the following targets by 2030:

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Improve overall resource productivity by 30% in 2030 as a stepping stone towards doubling the resource efficiency of production and consumption by 2050; achieve a national average material intensity of consumption per capita (tonnes per capita) of 10.5 tonnes/capita/year in 2030, with the ultimate aim of achieving 8-10 tonnes/capita/year in 2050.

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Doubling the global rate of improvement of energy efficiency from -1.3 per cent for 1990-2010 to -2.6 per cent; doubling the share of renewable energy in the energy mix (from 18 per cent in 2010 to 36 per cent in 2030); reducing premature deaths due to air pollution by 50 per cent.

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Doubling the yearly rate of energy and water productivity increase in food systems; enhancing productivity (by 40 per cent) of food systems by improving ecosystem management and maximizing resource efficiency through sustainable agriculture, fisheries and consumption patterns; reducing by 50 per cent food loss and waste.

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Bringing freshwater withdrawals in line with sustainably available water resources to maintain ecosystem and human well-being; increasing the safe reuse of urban and industrial wastewater flows; reducing contamination from chemicals and waste of ground and surface waters resulting from human activities;





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Achieving a 50 per cent reduction in energy-related CO2 emissions from buildings; achieving a 25 per cent decrease in the rate of raw material extraction for building and construction; renovating all existing social housing to meet energy-efficiency standards, thus reducing costs for the poor and providing healthy environments.

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Natural, financial and human resources related to the above.

CRI COUNCIL STRATEGIC PLANNING LOGIC

	IMPERATIVES	EXPERTISE	INFRASTRUCTURE	RESOURCES
<p>OUR LAND CONSTRUCTION & REAL PROPERTY VALUE CHAIN STAKEHOLDER STRATEGIC PERSPECTIVES ° I J Z'eZgdj VcX' āchid° ZkVj VIZ'cj gZj āh°</p>	<p>PLAN Organizational Context, Leadership, Planning & Support ° I \$EZdeāZ'j V'j V'KZ° [gpci āZ'ZnaZg'ZcXZ°'ē° XgZM KZ Xj Vdby'X° āVWZg] 'ē VcY° ZIJZM KZ° Xdb bj cXM'ēc°</p>	<p>DO Operations ° I \$EZdeāZ'j V'j V'KZ° [j cX' tlcVāZnaZg'j tZ°'ē° XdaM VtjM KZ] dāh' X° iZx] cdaM n'g'zhZVg] ° VcYYZKZaleb Zci°</p>	<p>CHECK Performances & Evaluations ° I \$EZdeāZ'j V'j V'KZ° [j cX' tlcVāZnaZg'j tZ°'ē° 'ēiZā gM KZ ZYj XM'ēc° VcYegk-Y'ē' āZalc' ° āVg'ē' VcY'ēiZā gM'ēc° deedjij c'Zh°</p>	<p>ACT Improvements ° I \$EZdeāZ'j V'j V'KZ° XgZM KZ VcY°'ēcōdM KZ° dgZci V' tchid°'ēglb dīZ° h'j h' VcWāZ' g'hdj gZ° j hZ' VYg'zh' āZ' X' XāZ° 'ē V' h' VcY' [ēY°] dāh' X' h' j' i' tchid° Xdb eāZ'nēgMāZb H°</p>
<p>STRATEGIC INTERLINKED THEMES & RESULTS/FOCUS ° ## 6ācb Zci' 1] ijZ° <āiMāh' h' VcWāZ° 9ZkZaleb Zci' <dVāh° CZi' d'j d'j VgZih° ° x° VāXVgZ'ijZ' g'heZM KZ° 'ēiZgē' ZYh' h' VcWāZ° YZkZaleb Zci' <dVāh° tH- <h' "HZZ'j] Zb Zi' tāh° Vāiā' 'ē' cōdZ°</p>	<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>  <p>INDUSTRY, INNOVATION & INFRASTRUCTURE : Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Aē' ZYid'ē' !)'!-'!ē' ° fī'ē' #</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>  <p>SUSTAINABLE CITIES & COMMUNITIES: Make cities and human settlements inclusive, safe, resilient and sustainable. Aē' ZYid'H- <h'ē' !)'!-'!ē' ° -!'!-'!ē' Tī'ē' °</p>	<p>4 QUALITY EDUCATION</p>  <p>QUALITY EDUCATION: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Aē' ZYid'H- <h'ē' O' Tī' ° & °</p>	<p>17 PARTNERSHIPS FOR THE GOALS</p>  <p>PARTNERSHIPS FOR THE GOALS: Revitalize the global partnership for sustainable development; Aē' ZYid'Vāi'H- <h' °</p>
<p>OBJECTIVES 8dci' ēj d'j h' b' egkZb Zci° Vāi' k' t' Zh' c' ZZYid' V' Zi° g'j āh' c' Xg' XVāi° g'hdj gZ' Vh' ZY' H'j Zh° I 1] VJ C'K: G' H' A° ēZgēZM KZ' O'j' 'ē' t' c' d° d'j g'j XZ' h' Zh' 'ē' 'ē' V' V' V° VcY' j] Z' J' H' b' id' ē' āi°</p>	<p>ORGANIZE a strong capacity building initiative to ensure the expertise, infrastructure and resources; Balancing POLITICAL Issues</p>	<p>SUPPORT constructive competencies building initiatives; Those that are encouraging, affiliative, achieving & self-actualizing; Balancing</p>	<p>CO-CREATE more shared value for communities of place, interest & profession, to become more resourceful as a whole. Balancing ° CULTURAL Issues Engagement & Identity</p>	<p>FOSTER the G'lobal Sustainable Development Goals (SDGs) Balancing ECONOMIC Issues Production & Resourcing Exchange & Transfer</p>

⁴ &/CdEdkZgrO /OZgi=j c'Zg[#<ddY=ZVā] TīL ZāiZ'ē' \O #<ZcYZg' fj VānO' #8ZVc'L VZg'f' H' c' M' t' c' Q #6 [d'j WāZ' Tī' 8ZVc: cZg' nO # 9ZZci L d'j VcY: Xdbcb X' <gll ij] Qē' #GZY XZY' xZfj Vā' Zh' Qē' #GZhedchMāZ' 8dchj b' ē' t' c' Tī' Egl'j X' t' c' Qē' (#8ab VIZ' 6M' t' c' Qē) #A[Z' Zāi' ° L VIZgZ' #A[Z' d' c' A' c' V' Qē' #E' ZVāZ' 'j h' XZ' VcY' H' g' t' c' ā' h' j' i' t' ch' #

<p>egΛgb hVcYegI ZMh# I] Zc'eVjcZgA Tj gj Zg idVWei tA [dg xYd'S] tV'6[gXVcY' d] ZggYeYan\gl tA° g\ tch#° . .</p>	<p>Organization & Governance; Law & Justice Communication & Movement; Representation & Negotiation; Security & Accord; Dialogue & Reconciliation; Ethics & Accountability</p>	<p>ECOLOGICAL Issues Materials & Energy Water & Air Flora & Fauna Habitat & Food Place & Space Construction & Settlements Emissions & Waste</p>	<p>Recreation & Creativity Memory & Projection Belief & Meaning Gender & Generations Enquiry & Learning Health & Well-Being</p>	<p>Accounting & Regulation Consumption & Use Labour & Welfare Technology & Infrastructure Wealth & Distribution</p>
<p>STRATEGY MAP =d I ZYgMZKvZ Z[dj Xj hcb Zgh°</p>	<p>INTEGRATED GOVERNANCE H \$Dg VcXHG Xj gO 6AcZYEj gchZO EgIXZhZhiTIEZdezi° . . Engage Groups to build resilient infrastructure, promoting inclusive sustainable industrialization and foster innovation.</p>	<p>QUALITY SUBSTANCE Matter Energy & Information Enable Organizations to help make cities inclusive, safe, resilient and sustainable</p>	<p>HEALTHY & SAFELY BUILT ENVIRONMENTS and Built Systems Enhance Communities with inclusive and quality education for all and promotion of lifelong learning;</p>	<p>INTEGRATED REPORTING To build trust cooperation & transparency Empower Societies & Supranationals to ensure sustainable consumption and production patterns</p>
<p>PERFORMANCE MEASURES & TARGETS =d I ZI ai cad [I Z° VgVWj ZkA i] Zghj ah° I ZI Vci4° . .</p>	<p>INNOVATIONS Enhance scientific research, upgrade the technological capabilities of industrial sectors, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.</p>	<p>UNIVERSALITY By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>	<p>INTEGRATION 6l '&\$' \$zfhuFgIagT_1° VaVeTfX'g' X'ah° UXebY I bhg' TaWTWh_g'j [b° [Ti X'eX_Xi Tagf^_fz° VaVhWwaz gXV[aVT_TaW i bVTgbaT_f^_fzYbe° X° c_bI° Xag°WkVXag]bUf TaW XagXceXaXhef [°c</p>	<p>GENERATIVITY Focus on Systemic Issue of Data Monitoring and Accountability - By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries</p>

Philanthropic to: Find partners to leverage resources; Lend an expert voice; Stream operations; Help collaborators, integrators, and generators tell their stories; Be recognized as a community leader.	Branding; Resource Efficiency & productivity; Access to Info; Process Optimization; Better Capital Allocation; Greater Collaboration Capabilities	Operational Risk Management I.e.: Extended Producer Responsibility Costs, Responsibilities, Competition and Control	Value Chains; Sustainable Operations F[TeX' _XTea\ aZ' f\p eXf' \X''G[X'J' Tf\gX' < bhfX' http://arts.brighton.ac.uk/ease/wastehouse	Business Portfolio; Innovation & New Products; New Markets
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WIN - WIN - WIN



Who Are The Stakeholders?

First we should say that when it comes to the built environment, everyone is a stakeholder. This noted, to start a long term conversation with the construction value chain we remain focused on the land, construction and real estate actors. Those that can affect, be affected be affected by, or perceive themselves to be affected by the change decisions and activities. Which ranges from raw building materials to renovation or demolition, with endless variances, complexities and actors - often uncoordinated and with conflicting interests including those involved in

Directly Related Industries - Oil & Gas, Basic Materials, Industrials, Consumer Goods (Home Construction & Other Durable Goods), Consumer Services (i.e.: Retail & Media), Telecommunications, Utilities, Financials, Banks, Insurance, Real Estate and Financial Services, Technology

Public Authorities at all levels, involved in Industrial, commercial and institutional (IC&I), with pilot regions in Canada and USA first and countries in rapid development immediately thereafter..

Indirectly Related Sectors - i.e.: Logistics, Cleaning, Healthcare, Research, Education, Communication

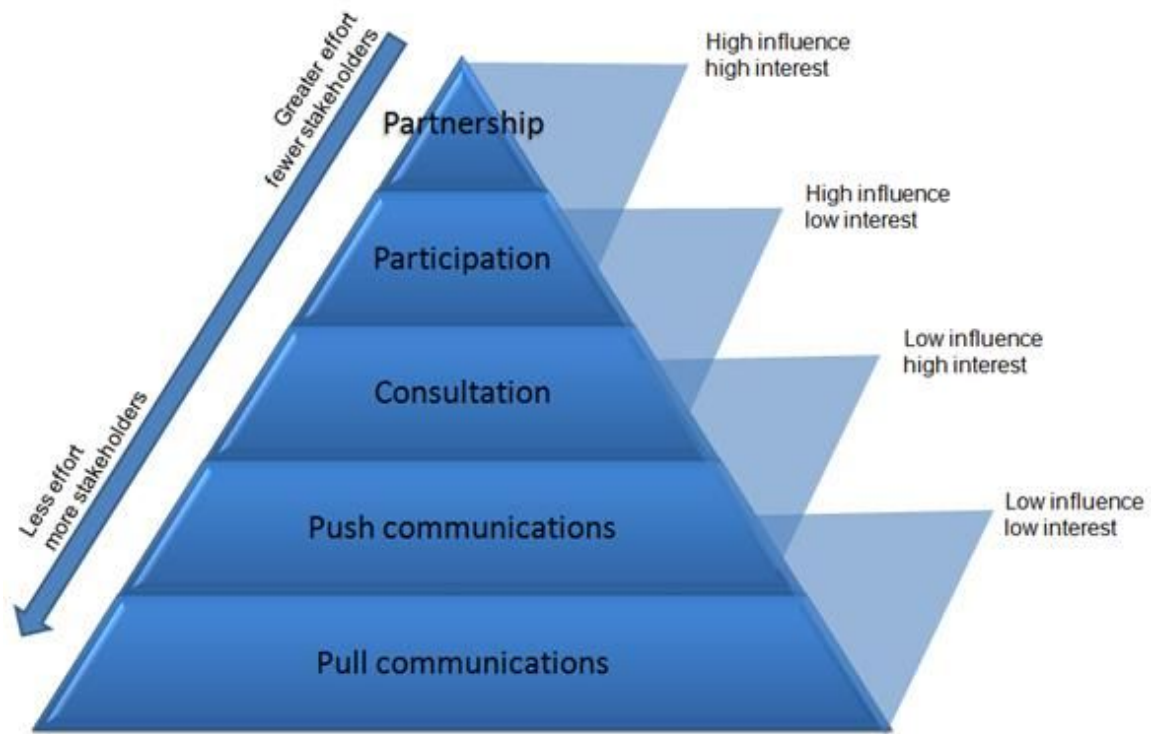
General Services - i.e.: Financial, Legal, Real Estate, Competence and Training, Standardization & Quality

Building Supply - Raw Materials; Building Materials: Manufacturers and Outlets; Installations: Manufacturers & Outlets; Building Equipment & Machinery

Building Services - i.e.: Architectural, Design, Engineering, Energy Services; Building Management Services

Operation and Maintenance/On-Site Providers and Purchasers - Energy, Intelligent Communication Technology, Water & Sewage, Food Services, Disposal & Recycle, .

Thus, for a real chance of making change in how resources and trash are currently defined, designed, created, circulated and finally managed or externalized, efficiently and effectively, stakeholder analysis determine the approach:



Partnership: Two-way engagement joint learning, decision making and actions

Participation: Two-way engagement within limited responsibilities.

Consultation: Limited two-way engagement: organisation asks questions, stakeholders answer.

Push communications: We may broadcast information to all stakeholders or target particular stakeholder groups

Pull communications: Information is made available, and stakeholders choose whether to engage with it ⁷

Why Us?

We've already proven ourselves and have shown the money - over one million dollars in research, education and advocacy since we started to be specific. In addition to collaborating with many local to international organizations, we've delivered workshops, participated in public consultations, organized round table meetings, work retreats and more. We helped establish the National Zero Waste Council and engaged in the UNEP-RONA (United Nations Environment Programme - Regional Office of North America) Major Group Consultation for the 2015 United Nations Sustainable Development General Assembly. Plus we consider the outcomes value, not just outputs.

2011: **IN**itiation of the CRI Council

Outcomes: Engaged Individuals - Leaders and Communicators on the need for change

Benefits: Purpose, process and people alignment.

2012: **IN**spiration Workshop Retreat

Outcomes: Enabled cross disciplinary groups from across Canada and the USA

CRI Council listed as Exemplars and Case Studies in Construction Waste Reduction Around the World,

International Council for Research and Innovation for Building Control (p.20 [here](#))

Bibliography of waste, minimisation, recycling and reuse issues in the construction industry

Benefits: Inter-Relationships, Perspectives and Boundaries

⁷ Source: Stakeholdermap.com



2013: Call INTO Action "MISSION 2030

Outcomes: Enhanced Organization Research and Development

- Video at <https://www.youtube.com/watch?v=kbbF1B6uY4>

Massachusetts Institute of Technology; Centre for Collective Intelligence, People's Choice Award for Waste Management Category; CTV Amazing People Award Finalist

- Waste Saver Beta Messaging App w/GPS Technology

Benefits: Return on Capital - Green Sales/Marketing; Sustainable Value Chains and Operations

2014: Call-to-INTERaction Charrettes/Workshops

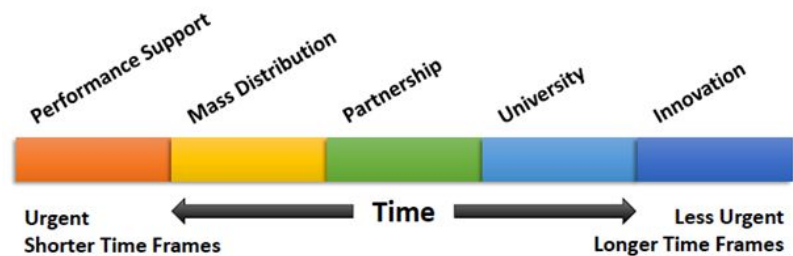
Outcomes: Empowered Community Education and National Zero Waste Council Foundation; Participation in Canada's 1st Public-Private CleanTech Forum; Parliament House of Commons Community Charrettes and Workshops

Benefits: Risk Management - Regulatory, Reputation and Operational Risk Management.

2015-16: INTEGRation Charrettes/Retreat

Outcomes: Engaged Individuals to ensure the success of MISSION 2030 in various ways
International scap2ART Contest Committee and Activities;
Tamarack Institute Community Engagement Program Trial;
MISSION 2030 - 1 Goal / 1 Target Community Challenge;
Introduction of the Integrative Learning Program and MInd Mapping;

Benefits: Growth - Composition of Business Portfolio; Innovation, New Systems and Markets



What NOW?

Now we are working on meeting the most urgent needs for change:

Performance Support - *°L J M ~L Vci id@cd !L J Zc~L Vci id@cd ~i:0*

Mass Distribution - *°DcZ'HoZ', 1H'6aiAZVgc't\ ±id'b V Z'↑ VXXZhVZ VcY VWei WZ0*

Partnership - *°; āmVZ°6aMcXh~chYZ VcYDj i:0*

while connecting with universities and innovators.

University - *"L Z'6g'6'AZVgc't\ VcY: cigēcjZj gj' e=j W'*

Innovation - *"EgM'XZ'BV ZhEZgZi " °*

⁸ Image Source: SaltBox <http://blog.saltbox.com/blog/2015/02/04/primary-patterns-and-models-in-l-and-d/>

Next Rendez-Vous?



International MISSION 2030 Summit, May 15-18, 2017 Le Chateau Montebello, A Fairmont Hotel in Montebello, Quebec, Canada

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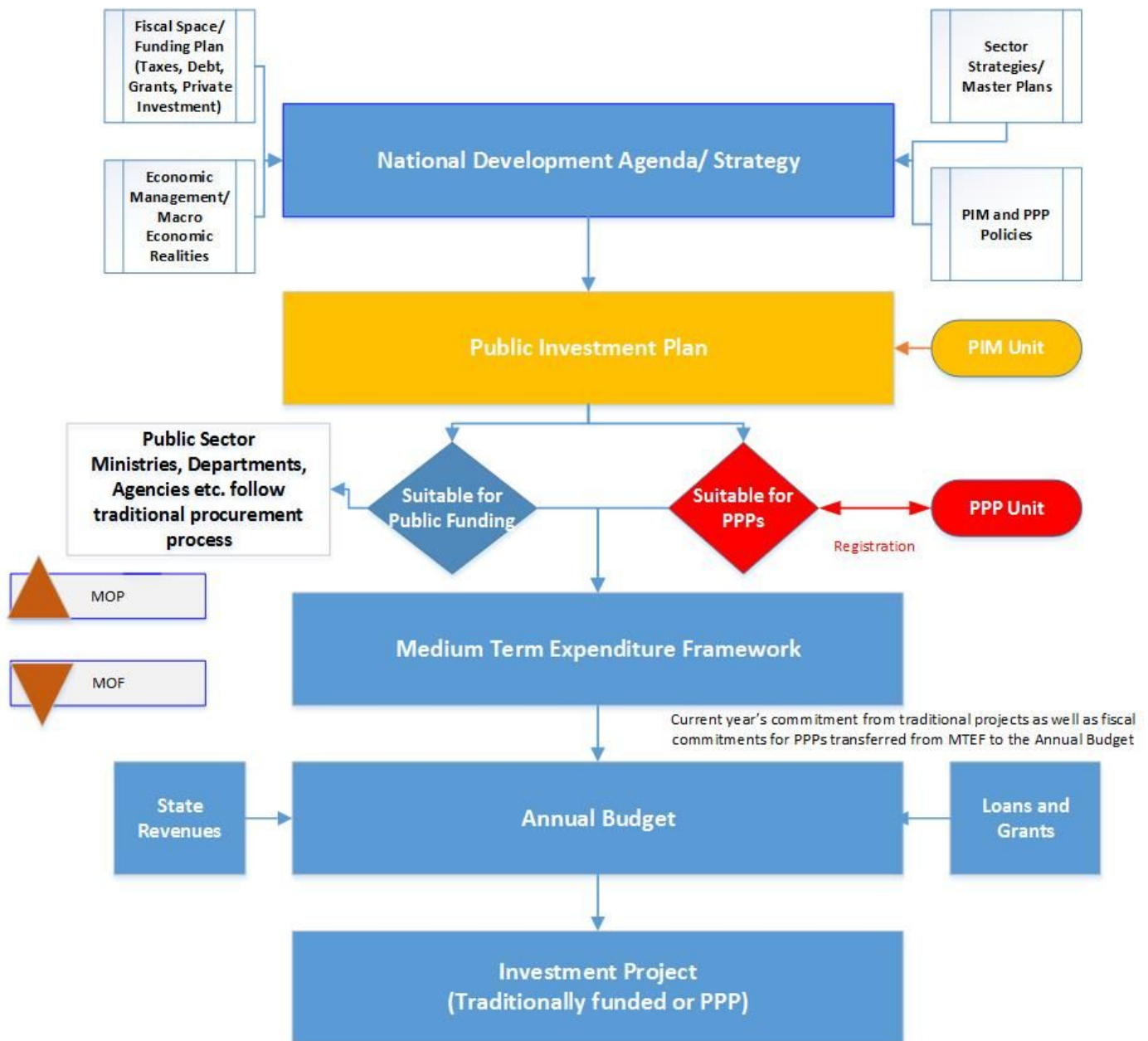
Passionate land, construction and real estate value and supply chain stakeholders. Those with high stakes in the Canadian and American land, construction and real estate supply chain leaders are especially urged to attend.

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Leveraging the Link: Public Investment Management (PIM) and Public-Private-partnership (PPP) ⁹

Increasingly governments are encouraged by development partners to set up proper PIMs. Now integrating PPPs in PIMs makes it possible for governments to expedite the process of building a robust and credible pipeline of potential PPP projects. Also to , avoid randomness in the selection of PPPs, such as politically motivated projects, or "low-hanging fruits". But, as PPP as a form of public investment, there should be a unified approach to assessing suitability of projects: first as a worthy public investment, and second as a potential PPP. Diagram 1 (below) illustrates how the decision-making process could unfold, and potential roles for the planning and finance ministries. As while some of the proposed initiatives require little funding, the hard reality is that roughly 30 Million USD must be leveraged for an infrastructure capable of supporting the land, construction and real estate supply chain transition to the required scale.

⁹ FbheX :5\Tm5[` TWJ beW6Ta^6_bZ!`ChU_VCe\ Tg`CTegaXef[\c/ \$+!&\$!% /?Xi XeTZ`aZ`g`X`?a^`ChU`W`ai Xfg` Xag@TaTZX` Xag` TaWChU_VlCe\ Tg`!cTegaXef[\c`



Therefore, as expressed in the March 2016 paper “From Global Savings Glut to Financing Infrastructure: The Advent of Investment Platforms” sponsored by De Nederlandsche Bank, we need to explore how governments and multilateral (and regional) development banks (MDBs) can ramp up the early prototypes of infrastructure platforms to improve the technical capabilities of host governments and enable them to better cooperate with MDBs. This is critical in the preparation and financing of new PPPs, so that the flow of origination of infrastructure assets reaches a critical mass large enough to be a material alternative for most large, long-term, institutional investors.

Finally, without the provision of guarantees to address construction, demand, exchange rate risks, even viable long term infrastructure projects like a construction value chain policy and communication, program operation, corporate services, audit and evaluation infrastructures are not likely to be funded anytime soon. Because governments which are the best placed to hold the political, regulatory and governance risks have yet to assume those. Similarly, the private sector developers and operators of infrastructures have yet to see the obvious incentive reasons to take on

most of the construction risks. Which is why demand risks still remain with a small groups of sustainable development stewards rather than shared, based on the sector and type of project.

Accordingly, an important complement to the development of infrastructure platforms around MDBs is the creation of multilateral guarantee funds that can take on political, regulatory and exchange rate risk, and thus make infrastructure investments more attractive to private long-term investors. This could be a way for the land, construction and real estate supply chain to take part in important academic study on the dramatic evolution of the global architecture of infrastructure finance, which so far has only received the attention of development finance policy circles.

Actively engaging on more systematic and formal research to build new financial models is the only way to properly identify the optimal contract features of infrastructure platforms, Public-Investment Management and multilateral Public-Private-Partnerships for change programs and ensure quality on the three most common and significant project constraints: schedule, cost and scope.¹⁰ As in the words of R. Buckminster Fuller,¹¹ **“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”**



Buckminster Fuller's geodesic dome of the Montreal Biosphere on Sainte Helene Island in Montreal- Philippe Renault/Corbis(Bing US)

Who Are Our Founding Benefactors?

The following have either contributed financially, helped and/or influenced the CRI Council strategy and key messages: ACTT Installations, Alternatives Journal, Algonquin College Interior Design, Architecture 2030, Architecture Canada, Automated Learning Corporation, B+H, BBPM (Bernard Benoit Project Management), BEC Green, B.J. Millaire Builders, BOMA Toronto, Bentall Kennedy, Better Building Breakfast, Brookfield Global Integrated Solutions (formerly BLJC), CBC Radio/Radio Canada, CSV Architects, Canada Green Building Council-Ottawa and Toronto Chapters, Canadian Construction Association, Capital Office Interiors, Canadian Precast/Prestressed Concrete Institute, Canadian Wood Council, Carillion Canada, Carleton University @1125, Climate Reality Leadership Corps, China Association of Urban Environmental Sanitation, Colliers International, Co-Creation, Cole + Associates Architects, Consortech, Construction Specifications Canada-Ottawa Chapter, Corflex, Creative Friction, DIRTT (Do it Right This Time), Ellis Don, EPSA (Electronic Product Stewardship Canada), EPRA (Electronic Product Recycling Association), Environment Canada, Erskine Dredge

¹⁰ A project's **scope** involves the specific goals, deliverables and tasks that define the boundaries of the project.

¹¹ Bukminster's mission was to make the world work for 100% of humanity in the shortest possible time through spontaneous cooperation without ecological damage or disadvantage to anyone. Something we should all aspire to.

