Global Innovation Outlook 2.0
Notes from IBM's Global Innovation Outlook Conference
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IBM New Zealand Ltd
Agenda

• Why innovation matters
• What is GIO?
• What came out of GIO?
  – The overall approach
  – Focus areas
Enterprise pressures and opportunities

- commoditization pressures
- new/increased competition
- global market opportunities
- adjacent market opportunities
- global volatility & disruption
- competing business models

CEOs: Extent of fundamental change needed over next two years

- A lot: 65%
- Moderate: 22%
- Little or no: 13%
New Forms of Collaboration

CEOs: Sources of new ideas and innovation

- Business partners
- Customers
- Consultants
- Competitors
- Associations, trade groups, conference boards
- Academia
- Internet, blogs, bulletin boards
- Employees (general population)
- Sales or service units
- R&D (internal)
- Other
- Think tanks

45% 35% 25% 15% 5% 5% 15% 25% 35% 45%

“We have...today a lot more capability and innovation in the [competitive] marketplace...than we [could] try to create on our own.”

IBM Institute for Business Value, CEO Study 2006
**What is GIO?**

- A cultural innovation for IBM
  - A more consultative approach to determine emerging trends in business and technology:

<table>
<thead>
<tr>
<th>Before GIO:</th>
<th>After GIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-house forecasting</td>
<td>Plus dialogues with…</td>
</tr>
<tr>
<td>Some client dialogues</td>
<td>- Academics and university leaders</td>
</tr>
<tr>
<td>Formal market research</td>
<td>- Business partners</td>
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<td></td>
<td>- Clients</td>
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<td>- Government officials</td>
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<td></td>
<td>- Independent thought leaders</td>
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<td></td>
<td>- Industry analysts and consultants</td>
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<td>- NGOs and citizen interest groups</td>
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<td>- Venture capitalists</td>
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What is GIO?

• A worldwide conversation about the changing nature of innovation
• Examines the opportunities emerging at the intersection of technology, business and society
• uses an open, multidisciplinary approach
What is GIO?

- GIO 1.0 (2004)
  - 10 meetings across 3 continents,
  - more than 100 leaders, from business, academia, government, and other organisations
  - joined with IBM's top researchers and consultants
  - to examine three areas:
    - The future of healthcare
    - The relationship between government and its citizens
    - The intersection of work and life.
What is GIO?

For GIO 2.0 (2005/06):
• 248 thought leaders
• from nearly three dozen countries and regions
• representing 178 organisations
• gathered on four continents
• for 15 “deep dive” sessions
• to discuss three focus areas
• and the emerging trends, challenges and opportunities that affect business and society.
What makes IBM special?
Rob Fenwick
Founder, Living Earth Ltd
About me

• Founder of Living Earth Limited
• Chairman of Landcare Research
• Deputy chairman of TVNZ
• A trustee of Zero Waste Trust
• Founding member and executive councillor of the NZ Business Council for Sustainable Development.
• Founding chairman of Mai FM Ltd
• Chairman of the Antarctic Heritage Trust
• A trustee of Worldwide Fund for Nature
• Director of Environmental Defence Society
• A trustee of Motutapu Island Restoration Trust

• And… IBM NZ’s guest at GIO 2.0 in Delhi
About Living Earth Ltd…

- New Zealand's principal provider of biowaste processing services
- Diverts more than 70,000 tonnes of waste from landfills every year
- Sells more than 100,000 cubic metres of compost a year
- Has a strong environmental ethic
  - has played a lead role in a number of national waste reduction initiatives
  - was a founding member of the NZ Business Council for Sustainable Development
A Deep Dive in Delhi
An extra-ordinary invitation

• IBM’s Global Innovation Outlook
  – New paradigm in search for innovation
  – Incubating ideas with a group of strangers
  – 15 events in Zurich, New York, San Paolo, San Francisco, Delhi and Beijing
A Rapidly Shrinking Globe
GIO 2.0 focus

• The Future of the Enterprise
• Transportation and Mobility
• Environment and Energy
Global Innovation Outlook

- New paradigm of business and forecasting
  - Pursuit of Innovation
    - Multi discipline v specialisation
    - Local v global
    - Open collaboration v competition
    - Self interest v corporate responsibility society & environment
The power of networks

- Leveraging global relationships
- Recombining existing ideas to find new solutions
- People in leadership ready to share
- Better information
The Delhi agenda

- Participants include:
  - Top university professor from Indonesia
  - Head of India’s largest steel mill
  - Head of the Philippine's Water Company
  - Secretary of USAID and other NGOs
  - Senior IBM executives
The global environment

- Sustainable development
- Keepers of the longer view
- Public health
- Impact on business
  - Costs and reputations
  - Perceptions of stakeholders
Some bubbles from the dive

• What is the iPod equivalent for eco efficient business?

• Natural resources – why are they getting scarce? Have we valued things wrongly?
  – Minerals
  – Water
  – Energy
  – Waste
  – a new interest in landfills
Homes and buildings self sufficient and detached from infrastructure by 2050.
20% of the population consume 86% resources

3 more planets would be needed for everyone to live as most New Zealanders do
National trends 1981 -2001

- Population: +19%
- GDP: +55%
- Energy: +61%
- Cars: +67%
- Waste: +131%
# Productivity, great gains....

<table>
<thead>
<tr>
<th>Production of venison</th>
<th>Tonnes of wine grapes</th>
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<tbody>
<tr>
<td><img src="image" alt="INCREASING" /></td>
<td><img src="image" alt="INCREASING" /></td>
</tr>
<tr>
<td>Up 38%</td>
<td>Up 66%</td>
</tr>
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<table>
<thead>
<tr>
<th>Milk solids production volume</th>
<th>Lambing rates on intensive farms</th>
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<tbody>
<tr>
<td><img src="image" alt="INCREASING" /></td>
<td><img src="image" alt="INCREASING" /></td>
</tr>
<tr>
<td>Up 50%</td>
<td>Up between 11-19%</td>
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But costs; declining fresh water quality…..

<table>
<thead>
<tr>
<th>Surface water quality</th>
<th>Ground water quality</th>
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<tbody>
<tr>
<td>DECREASING</td>
<td>UNCERTAIN</td>
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Most rivers in farming areas, fail to meet recommended guidelines. Contamination from increased nutrients, turbidity & animal faecal matter

Many shallow aquifers beneath dairying or horticultural land have elevated nitrate levels
Observations from the GIO Process

• Tremendous value in bringing together diverse perspectives and expertise around common issues
  Understanding regional differences and global commonalities essential for lasting innovation
  “The GIO has shown me how profitable it is to bring minds from different cultures together and think holistically about mega-challenges that we face.”
  Uma Chowdry, VP, Research and Development, DuPont

• Near-term pressures cloud long-term thinking
  Even in the most free-form setting, participants found it difficult to think beyond the next 12-18 months
  General consensus: “quarter-to-quarter” mentalities are the single greatest inhibitor of innovation

• Solving the toughest problems will require greater collaboration across business, government and academia
  Right now, there’s the will but entrenched barriers to the way