



The Millennium Project

*As a Global Horizon
Scanning System*



The Millennium Project

... is a truly unique think tank

Founded in 1996 after a 3-year feasibility study



... May become a *TransInstitution*

TransInstitutions

1. Board/Committee/Council: self-selected governments, corporations, NGOs, Universities but not a majority from any one institutional category
2. People who work in it or with it come from all these institutional categories, but not a majority of any one
3. Results affect all these institutional categories
4. Income from all these institutional categories except university (then take not give money)

Millennium Project Nodes...

are groups of individuals and institutions that connect global and local views in:



Nodes identify participants, translate questionnaires and reports, and conduct interviews, special research, workshops, symposiums, and advanced training.

MOU's between Nodes and the Millennium Project:

Government Institutions

Russian Academy of Natural Sciences
Chinese Academy of Natural Sciences
Chinese Academy of Social Sciences
Slovakian Academy of Sciences
Azerbaijan Ministry of Communications
Dubai Knowledge & Human Dev. Authority
Kuwait Office of the Deputy Prime Minister

Private Companies in

Tokyo (aerospace)
Berlin (futures planning)
Buenos Aires (futures planning)
Silicon Valley (USA) (venture capital)
New Delhi (futures, strategy planning)

Universities in

Prague	Rome/Pescara
São Paulo	Cairo
Helsinki	Santa Cruz/La Paz
Tel Aviv	Tehran
Maduri (India)	

NGOs in

Venezuela (WFS chapter)
Mexico (new NGO as Node)
Kuwait (non-profit research institute)
France (futurist network)
So. Korea (Korea 2050 futurist org)
U.K. (RSA – professional org)
Azerbaijan (futurist association)
Turkey – (futurists association)
Slovenia – (Bled Forum on Europe)

What is a Node?

- It is the intersection of two or more networks
- In the Millennium Project, it is a group of individuals and institutions that connect global and local views – the local element of the global system
- Ideally about ten people – two each from government, business, universities, NGOs, UN and/or other international bodies
- It is experimental; no one knows the right way to be a Node

What do Nodes do?

- Identify leading minds to participate in the Project's research
 - Adapt research to the cultural setting (group discussions, vs. individual questionnaires, and interviews)
- Initiate research (e.g., European Nodes with EU)
- Design and conduct
 - Workshops, Symposiums, Advanced Training
- Something none of us have thought of before

What makes a Node a Node?

- Selection of a chair and co-chairs who provide leadership, manage communications, attends MP planning committee meetings once a year.
- Signed Memorandum of Understanding by one or more organizations with the Millennium Project
- Can be with existing institution or created as a new Millennium Project NGO
- Each should function as a transinstitution – an intersection of networks

Creating, Motivating & Managing Nodes

- **Creating Nodes**

- Mutual self-selection – no rush, one year average from first contact
- Self-organization, but with guidelines
- Lead institution considers the activates as part of their mission; hence, it is mostly internally funded and motivated

- **Motivating Nodes**

- Newness – concepts (SIMAD, GENIS), methods (SOFI, RT Delphi),
- Connection to a global system and “family”
- Improves their professional position
- Synergy between Node’s institutions and MP work (Russia – nanotech)
- Ability to initiate global studies (Middle East Peace Scenarios)
- Respect that everyone is very busy and this is a voluntary system; hence, keep requests to only those that matter

- **Managing Nodes**

- Participation in setting priorities (Planning Committee RT Delphi)
- Reinforce initiatives - Nodes can be “headquarters” for activities with the other Nodes as “staff” (Mexico - Global Millennium Prize)
- Node listserv (mutual assistance)
- MP Situation Chart

Millennium Project Global Challenges Assessment

1996-97
182 Developments
15 Issues
with
131 Actions

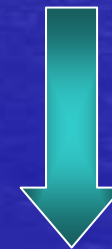
&

1998-99
Distilled Into
15 Challenges
with
213 Actions



1999-2008
Global Challenges

- General description
- Regional views
- Actions
- Indicators



2000-2008

State of the Future Index (SOFI)
National SOFIs
SOFI Real Time Delphi

1997-98
180 Developments
15 Opportunities
with
213 Actions

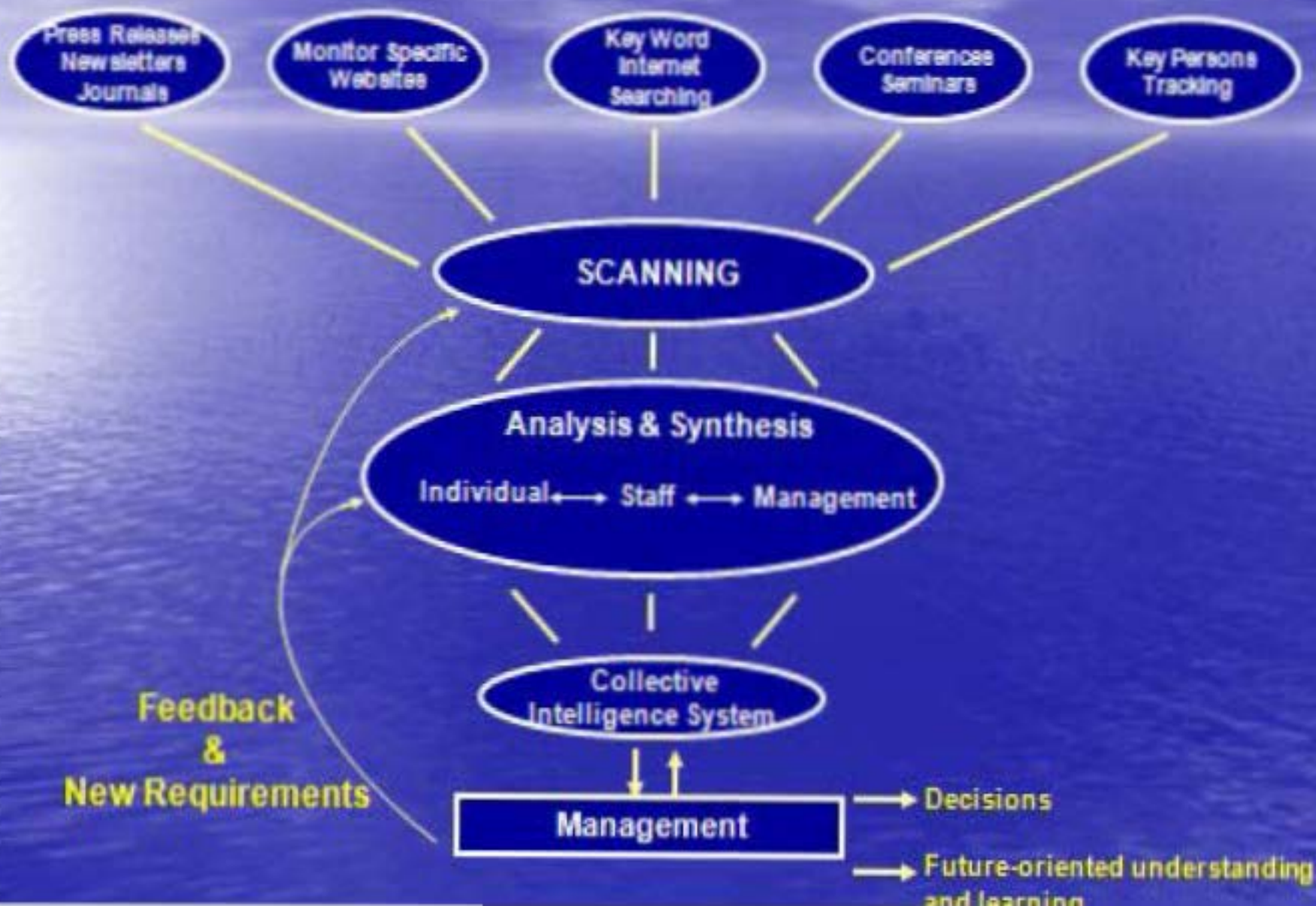
Updating the 15 Global Challenges via:

1. Millennium Project global assessments (e.g., education, energy, S&T, collective intelligence, etc.)
2. Staff and Interns scanning the Internet
3. Ask experts to review last year's text
4. Public input via the MP website with the 15 Global Challenges
5. Regional input from Node Chairs and those they select
6. Invite feedback via MP email lists
7. Monitor conferences, seminars, publications
8. Daily news reports from Interns – the review for patterns
9. International travel (60% time – 10 to 15 countries per year), conversions, audience feedback
10. Then distill for patterns and double check data, sources, references

Each of the 15 Global Challenges Gets:

- One page overview and one page regional considerations
- Hence, total 30 pages in the print section of the *2008 State of the Future*
- The CD section of *2008 State of the Future* the 15 Global Challenges gets over 1,100 pages with
 - Longer overview
 - Additional comments on the overview from participants
- Actions to address the challenge with a range of comments on the actions
 - Additional actions suggested from feedback each year
 - Indicators of change for the challenge
 - Websites

Generic Futures Scanning System



Collective Intelligence (CI)

- CI is an emergent property from synergies among data/information/intelligence, software/hardware, and experts, that continually learns from feedback to produce just in time knowledge for better decisions than these elements acting alone.
- Wikipedia is an early example. GENIS is another.

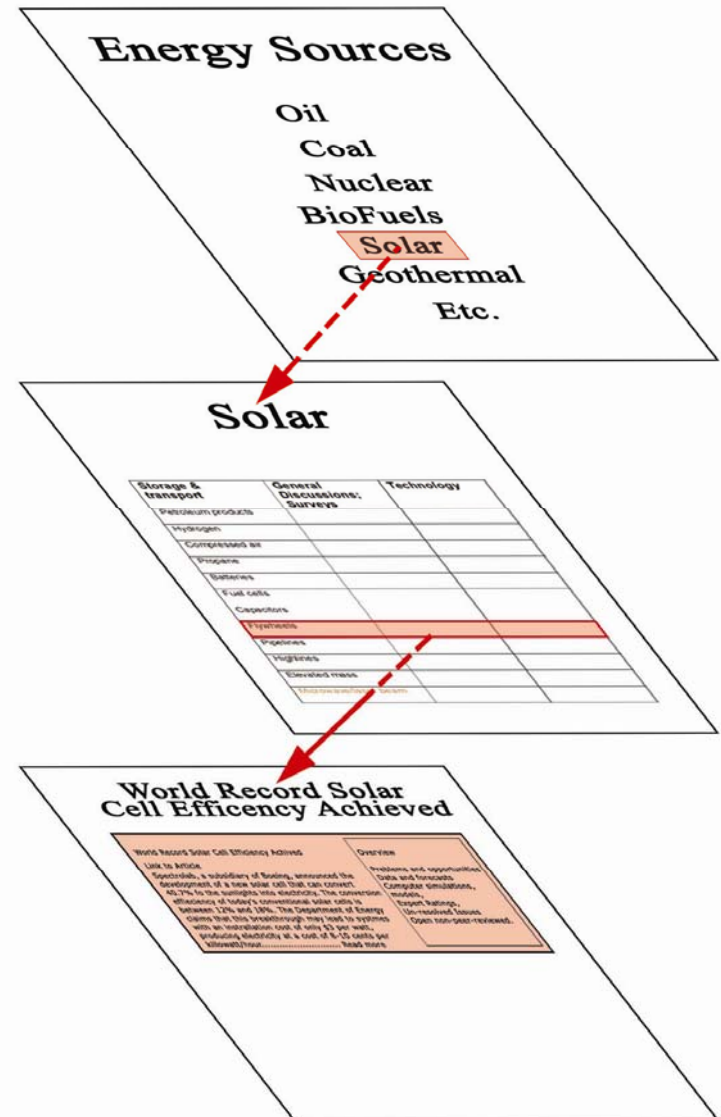
GENIS (Global Energy Network and Information System)

- The Global Energy Network (GEN), providing communications and collaboration capabilities for a worldwide community of experts and others working on, or concerned with, energy issues;
- The Global Energy Information System (GEIS), a repository (knowledge base) and associated interactive access facility for as much of the world's total knowledge (actual content, pointers to external systems, and ability to mashup from other databases into one integrated set of outputs) about energy as can be accumulated.

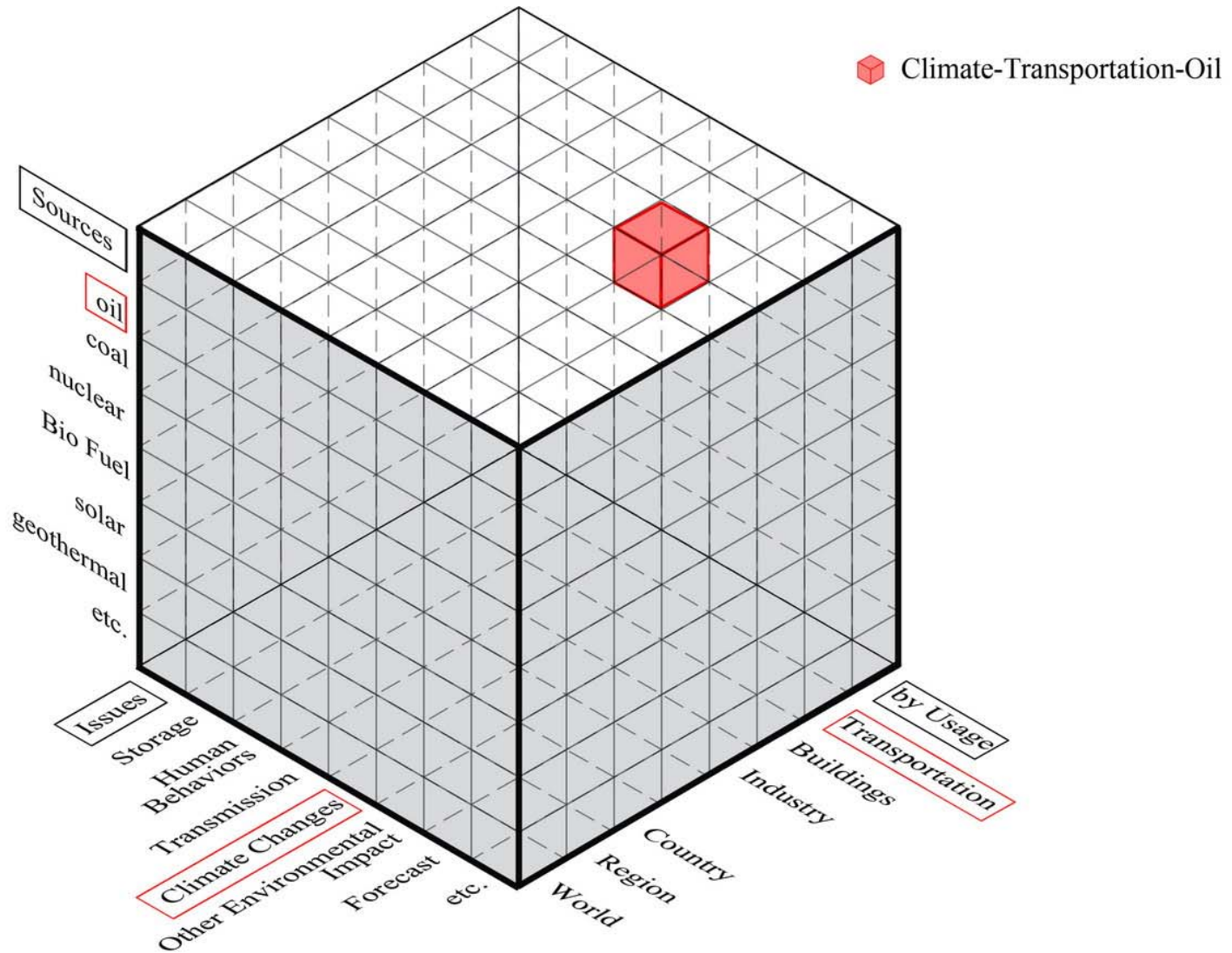
Conventional
user interface

will be offered

as well as
alternatives



User interfaces should show relation of parts and the whole



An Information unit can be:

World Record solar cell efficiency achieved

[Link to Article](#)

Spectrolab, a subsidiary of Boeing, announced the development of a new solar cell that can convert 40.7% of the sunlight into electricity. The conversion efficiency of today's conventional solar cells is between 12% and 18%. The Department of Energy claims that 'this breakthrough may lead to systems with an installation cost of only \$3 per watt, producing electricity at a cost of 8-10 cents per kilowatt/hour, making solar electricity a more cost-competitive and integral part of our nation's energy mix.

[Read More](#)

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Overview ▾

Problems and opportunities

Data and forecasts

Computer simulations, models

Expert Ratings

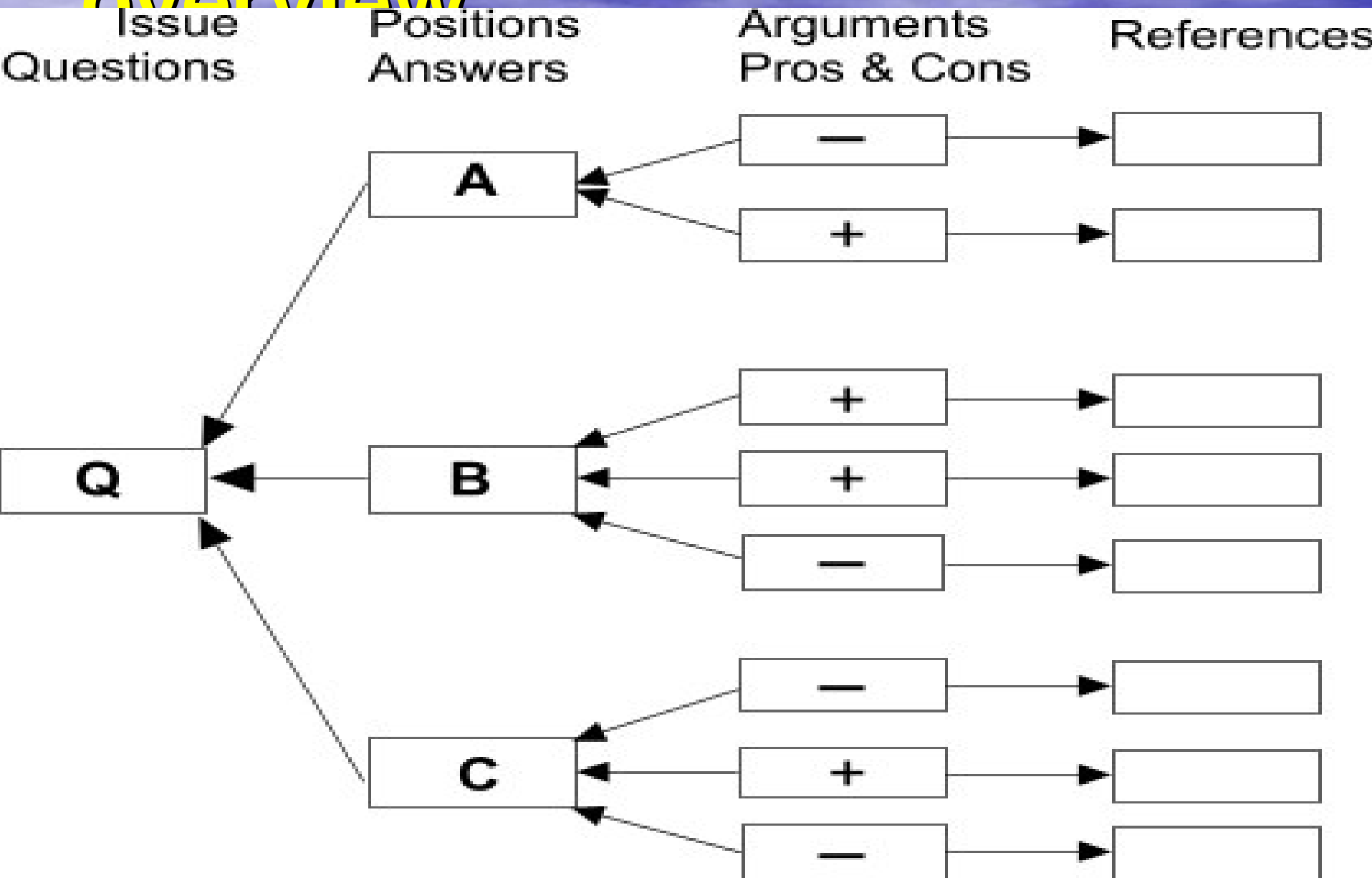
Un-resolved Issues

Open non-peer-reviewed

- **linked with 'attributes' in the column at the right**
- **edited wikipedia-like by GEN**
- **Receive additional inputs to be added to**

Example of an Issue

overview



Energy Dashboard

Definition

1. Space solar power satellites convert sunshine, microwave to electric grids on earth;
2. SSP variations - manufactured on earth, orbit, or moon

Current Status

1. Nagoya Robotics software to support orbital manufacturing
2. NSF research results
3. Japan's national goal

Legislation

1. Pending energy bill S-123 allocates \$10 billion for SSP R&D
2. Current NSF/NASA/IPRI provide \$5 million for university research

Advantages

1. Unlimited energy source
2. No GHGs or nuclear waste
3. Managing day/night base load on global basis

Disadvantages

1. Public fear of health effects from beam
2. Large-scale dependency, space junk

Unresolved Issues

1. Health impact research
2. Protection from space junk
3. Earth to orbit launch costs
4. Design options

Forecasts

1. NASA Fresh Look study estimates that...
2. Nagoya University study estimates that...

Staff/GEN Misc.

Why hasn't this been done already?
When could this provide 1/2 the world's electricity?

Next Steps

1. Demonstration of wireless transmission from Space Shuttle
2. Health and environmental impact studies

Real-Time Delphi (example)

	<i>Variables and Developments</i>	<i>Question 1</i>	<i>Question 2</i>	<i>Question 3</i>
1	<p>VARIABLE: Korean export volume (billion euros) 164.6 bn euros (2002) 251.6 bn euros (2006) Click here to see references</p>	<p>What is the best plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 12</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>	<p>What is the worst plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 12</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>	<p>How important is this variable to the future of Korea over the next 10 years (10=essential) <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 14</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>
2	<p>VARIABLE: Days Lost per Year Due to Labor Strikes (days per 1,000 workers) S Korea lost 111 days per 1,000 workers (2000-2002) Germany lost 3 days per 1,000 workers (2000-2002) Click here to see references</p>	<p>What is the best plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 13</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>	<p>What is the worst plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 13</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>	<p>How important is this variable to the future of Korea over the next 10 years (10=essential) <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 14</p> <p>Reasons click here</p> <p><input type="button" value="Go"/></p>
3	<p>VARIABLE: GDP per capita (ppp current int'l dollars) United States (2005)= \$34,142 S. Korea (2005)= \$17,380 Click here to see references</p>	<p>What is the best plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after 10 or more responses are received and you have entered an answer above.</p> <p>Respondents: 6</p>	<p>What is the worst plausible value this variable can achieve in 2017? <input type="text"/></p> <p>The average group answer: will be shown after 10 or more responses are received and you have entered an answer above.</p> <p>Respondents: 7</p>	<p>How important is this variable to the future of Korea over the next 10 years (10=essential) <input type="text"/></p> <p>The average group answer: will be shown after you have entered an answer above:</p> <p>Respondents: 14</p>

Potential UN Global Climate Change Strategic Development & Management

- Connect government and UN agency future strategy units via Web/intranet with the Offices of the SG and President of the GA
- Create an interoperable global futures scanning system in the SG's Office and in each major UN organ
- Design a global situation room for the SG that might initially focus on global climate change
- Develop a UN integrated or collective intelligence system for just in time knowledge to support the Secretariat's management
- Use Real-time Delphi to rapidly collect best judgments world-wide to support decisionmaking
- Support the UN situation room the UN-Gov Strategic Intranet, collective intelligence system, and RT Delphi

Previous and Current Sponsors

Corporations

- Applied Materials
- Deloitte & Touche LLP
- Ford Motor Company
- General Motors
- Hershey
- Hughes Space and Communications
- Monsanto Company
- Motorola Corporation
- Pioneer Hi-Bred International
- Shell International

Foundations/NGOs

- Alan F. Kay & Hazel Henderson Foundation for Social Innovation
- Amana-Kay (Brazil)
- Foundation for the Future (USA)
- Rockefeller Foundation

Government Organizations

- Azerbaijan – Min. of Communications
- South Korea – Ministry of Education
- South Korea – Ministry of Budget
- Kuwait Oil Company
- Kuwait Petroleum Corporation
- U.S. Env. Protection Agency
- U.S. Army Environmental Policy Inst.
- U.S. Department of Energy
- U.S. Woodrow Wilson Center

United Nations & Affiliated

- United Nations University
- UNESCO
- UNDP
- World Bank



The Millennium Project
World Federation of UN Associations

2008

STATE OF THE FUTURE



JEROME C. GLENN, THEODORE J. GORDON,
and ELIZABETH FLORESCU

- Executive Summary
 1. 15 Global Challenges
 2. State of the Future Index
 3. Real-Time Delphi
 4. Gov Future Strategy Unite
 5. Global Energy Collective Intelligence
 6. Environmental Security
- Plus 6,300-page CD of 12 years' collective research from the Millennium Project

For further information

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WEB 2.0 www.mpcollab.org

Current Sponsors

1. Applied Materials (overhead)
2. Azerbaijan Ministry of Communications (Government training)
3. Deloitte & Touche, LLP (overhead)
4. Foundation for the Future (Energy Collective Intelligence design)
5. Government of the Republic of Korea (Korean SOFI & Gov Strategy units)
6. The Hershey Company (overhead and RT Delphi)
7. Rockefeller Foundation (Futures Research Methodology 3.0 and capacity for Developing countries)
8. U.S. Army Environmental Policy Institute (Environmental Security reports)
9. UNESCO (use of RT Delphi for World Water Scenarios)
10. World Bank (via World Perspectives, Inc. use of RT Delphi to evaluation of Global Environment Facility)