

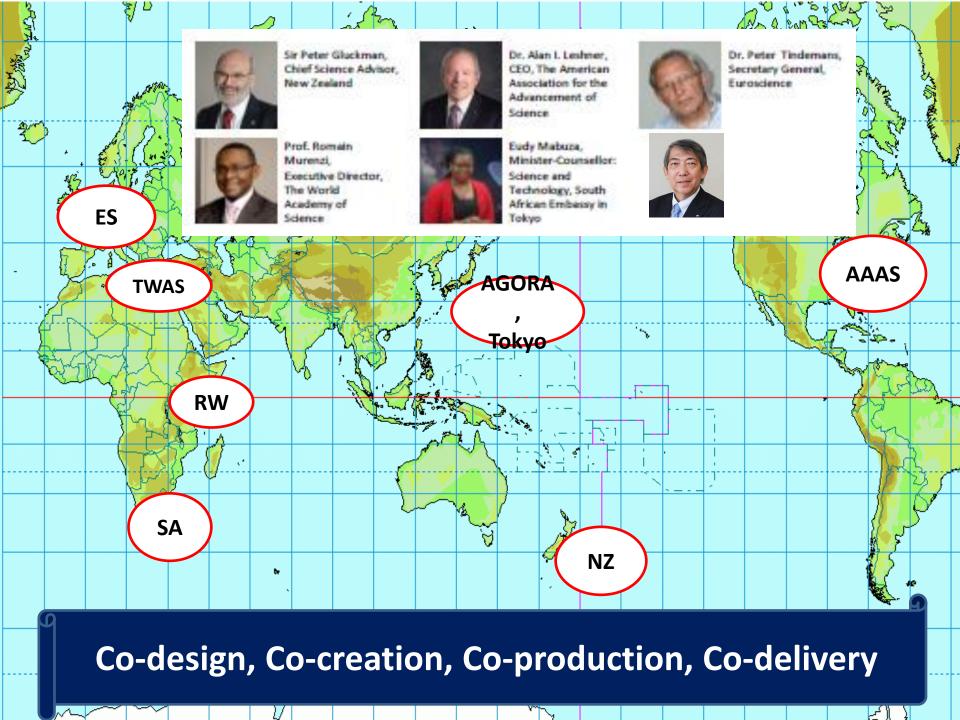
# Science in Transition - Bridging Science, Society and Politics -

November 7, 2014 Tateo ARIMOTO

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### Since 1989

**Great Transformation** 

Economist

World on the edge

**Economic** 

Crises

### Now 2014

End of the Cold-War ICT revolution

mplexity & Uncertainty

- Sustainable development
- Climate change, Energy & Natural resources
- Water, Health, Food, Biodivers
- Natural/Artificial Disasters
- Knowledge & Aging society





**Disasters** 

Climate Change

The day the world



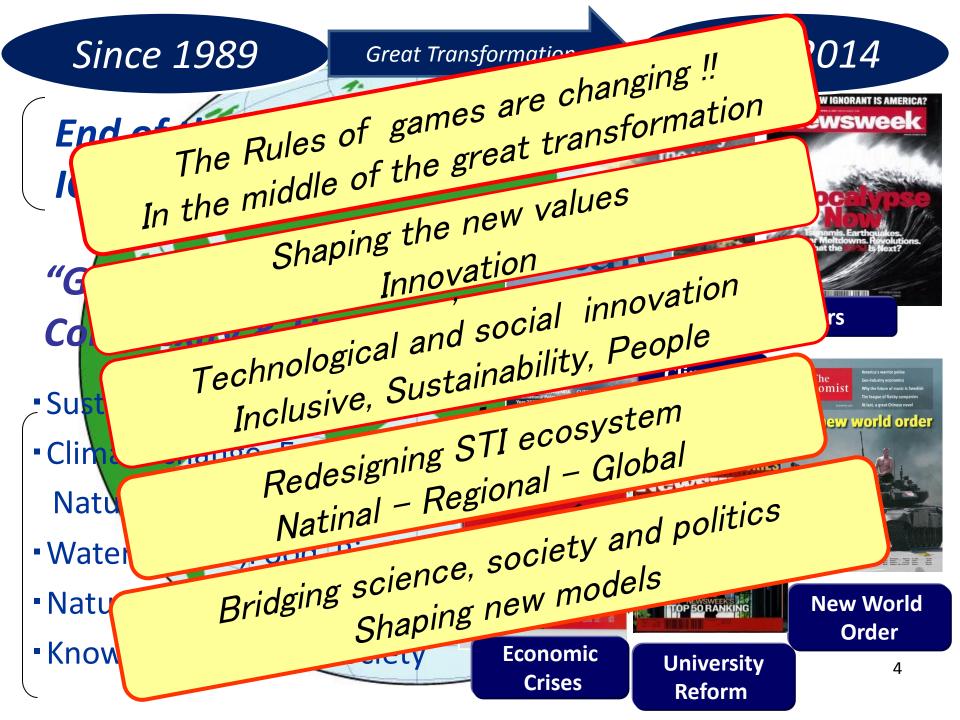
Reform

Economist The new world order

**New World** 

University

Order



## World Science Conference (UNESCO/ICSU)

'Declaration on Science and the Use of Scientific Knowledge'

- Science for the 21st Century

A New Commitment and Social Cotract



### 20th Century

☆ Science for knowledge Knowledge for progress



### 21st Century

- ☆ Science for knowledge
- ☆ Science for peace
- ☆ Science for Development
- ☆ Science in society & Science for society

"Budapest Declaration"
World Science Forum,
Every 2 years

### S & T and Innovation in the 21st century

O STI for knowledge
O STI for profit
O STI for competitiveness
O STI for growth
O STI for employment
O STI for wellbeing & quality of life
O STI for safety, security & social cohesion

Reshaping STI policy and Innovation ecosystem,

Policy for science and Science for policy

Global – Regional – National – Local

O STI for sustainability & resilience

Politics (normative, value)

Public sphere,
Boundary functions

Science (objective, value free)

**Science - Policy Continuum** 

**Code of conduct** 

**Politics** 

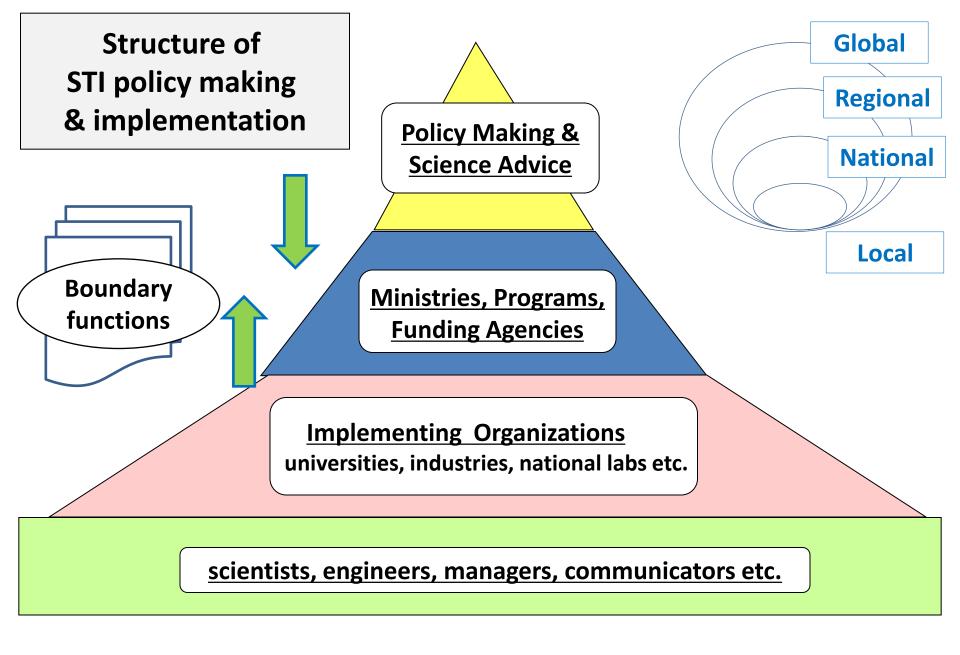
Problems to be solved;
Economy, Environment, Energy, Resources, Health, Aging, Disaster, Food etc.

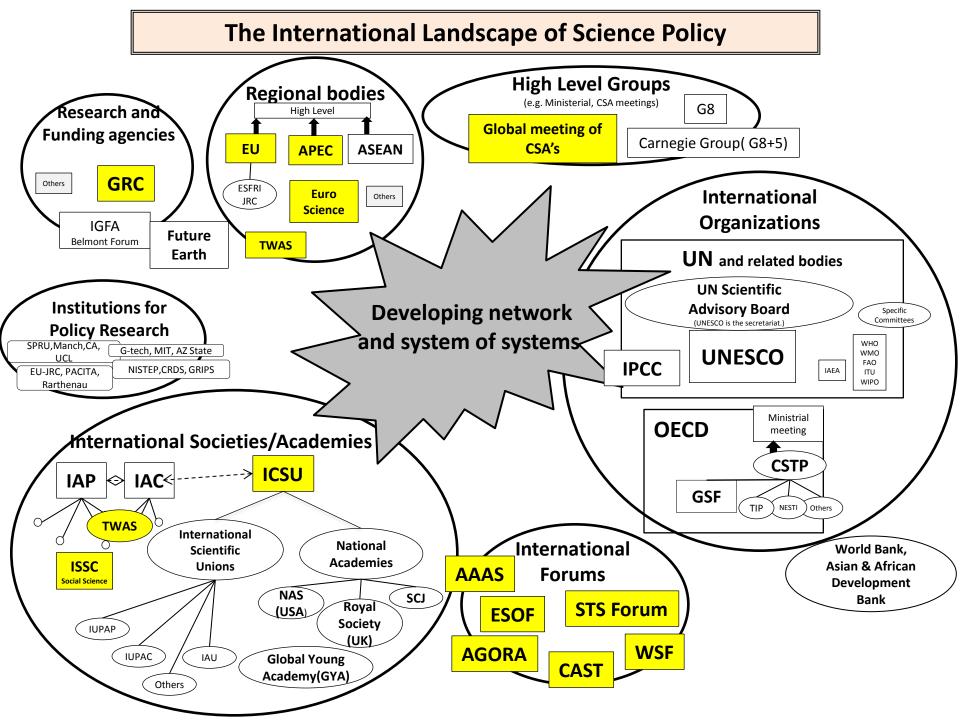
Science

"Trans-Science Age"

Society

- O"Bridging Science and Policy" evidence-based policy formation
- O"Bridging Science and Society"
  Science & Risk Communication





#### **AAAS International Lunch Roundtable**

"New Frontiers in Global and Regional Support for Evidence-Based Policy Making" Friday, February 14, 2014 12:00 noon – 2:00pm ,AAAS Annual Meeting

Leaders of the five major associations for the advancement of science ("bottom-up" science organizations) from the United States (AAAS), Brazil (Brazilian Association for the Advancement of Science -- SBPC), China (China Association for Science and Technology -- CAST), Europe (EuroScience), and India (Indian Science Congress Association -- ISCA) met during the 2013 AAAS Annual Meeting in Boston to discuss multilateral cooperation among the associations to address global issues at the interface of science and society. Although every challenge has unique local characteristics, there are sufficient implications across a region, or even globally, that they can only be successfully addressed by regionally and globally coordinated efforts. The associations agreed to initiate a series of co-sponsored activities at each respective association meeting to address a single theme of mutual interest and concern.

Science Agora 2014,7-9 Nov, Tokyo, Japan



**AAAS 2015, 12-16 Feb , San Jose, CA, USA** 



Euroscience Open Forum 2016, Manchester, UK and Global Conf of CSA's 2016



Science Agora 2016 and Global Conf of CSA's 2018 in Tokyo

### **Discussion Points**

1. What are new roles and responsibilities of science in the 21<sup>st</sup> century?

2. How can stakeholders of science(scientists, engineers, policy makers, practitioners, business people, media people and the public) work together in order to play the roles and have the responsibilities?

3. How can global communities work together for the common issues?

# Thank you very much for your attention!!

**Questions:** 

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### **OECD/GLOBAL SCIENCE FORUM (GSF)**

### "SCIENTIFIC ADVICE FOR POLICYMAKING AND CONSEQUENCES FOR THE ROLE AND RESPONSIBILITY OF SCIENTISTS"

- \* Project approved (Apr 2013); Co-chair (JPN, NLD, DE, ITA)
- \* Interviews with over 40 advisory experts, legal experts and decision-makers from 22 countries and inter. org.
- \* Review of literature and existing frameworks
- \* Tokyo and Berlin workshops (Oct 2013 and Feb 2014)
- \* Final report expected early 2015
- \* OECD-CSTP ministerial meeting (Oct 2015) ⇒ Potential further work

### Findings / Highlights

- \* Current landscape of advisory systems
- \* Advisory processes (①Framing of question, ②Who gives advice, ③Production of advice, ④Delivery & implementation of advice)
- \* Advice in emergency situations
- \* Responsibility and potential liabilities
- \* International dimension (better coordination, concerted global effort)
- \* Growing involvement of civil society

### "The Age of Transformation"

### **Policy for science and Science for policy**

WSC 1999: Budapest Declaration-Science for the 21st century-

"Science for Knowledge" and

"Science in Society and Science for Society"

**OECD 2010: "The OECD Innovation Strategy"** 

**WSF 2011**: "The Changing Landscape of Science

- Challenges & Opportunities "

WSF 2013 : "Science for Global Sustainable Development "

AAAS 2012: "Flattening the World -

**Building a Global Knowledge Society**"

**AAAS 2013: "The Beauty and Benefits of Science"** 

**AAAS 2014: "Meeting Global Challenges-Discovery and Innovation"** 

**Davos 2012: "The Great Transformation-Shaping New Models"** 

Davos 2013: "Resilient Dynamism"

**Davos 2014: "The Reshaping of the world-Consequences for Society,** 

**Politics and Business**"

### Rethinking S&T system

**Global Research Council: 2012-**

Science, Nov 2011: "Rethinking the Science System"

**Nature, Oct 2012: "The Changing Map of Science** 

Science on the move, Global Research"

IAC 2012: "Responsible Conduct in the Global Research Enterprise"

ICSU: "Future Earth" 2013-

**EU, Vilnius Declaration 2013: The Value and Benefits of Integrating** 

Social Science and Humanities into Horizons 2020"

**World Social Science Report 2013: "Changing Global Environments"** 

### **Building Science Advice System**

**OECD 2013-14: "The Quality of Science for Policy Reports"** 

United Nations Science Adv Board, 2013 ~

Global meeting of Chief Science Advisers, 2014 ~