

Future Work



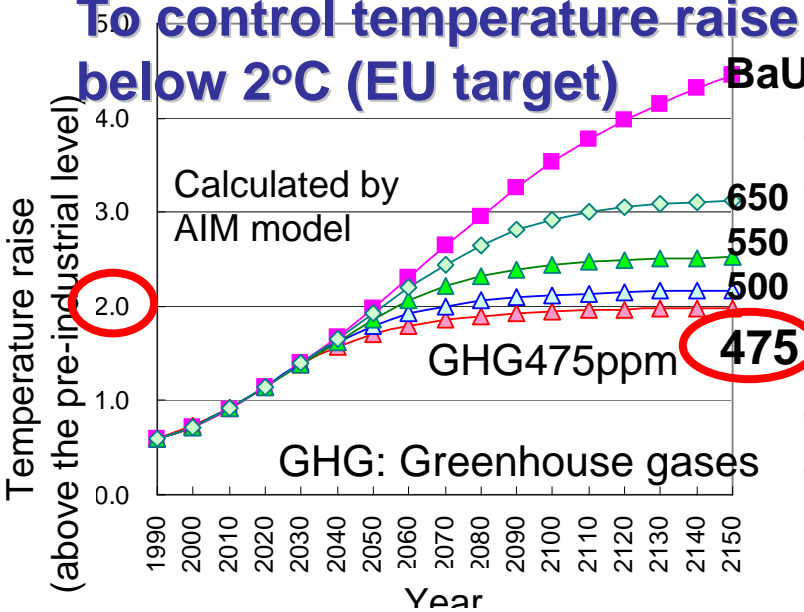
Designed by Hajime Sakai

Session X

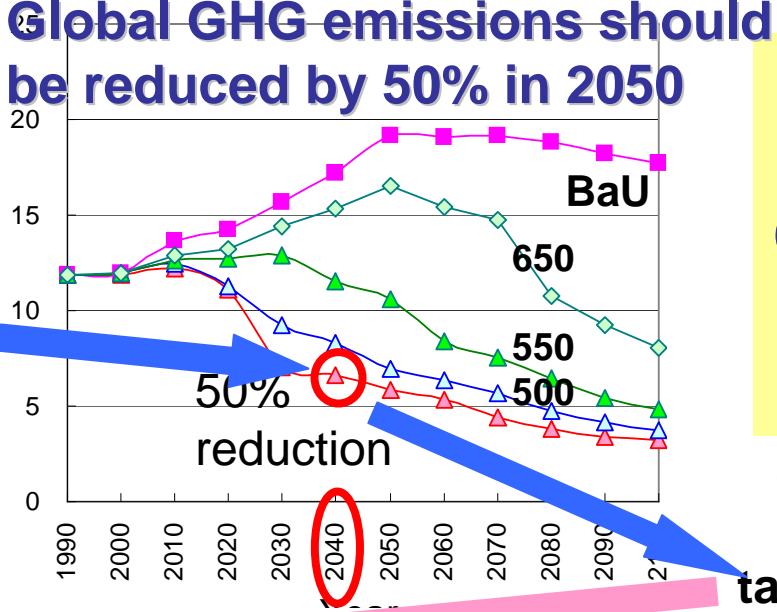
Junichi Fujino

The 12th AIM International Workshop
19-21, February 2007, NIES/Tsukuba/Japan

To control temperature raise below 2°C (EU target)



Global GHG emissions should be reduced by 50% in 2050



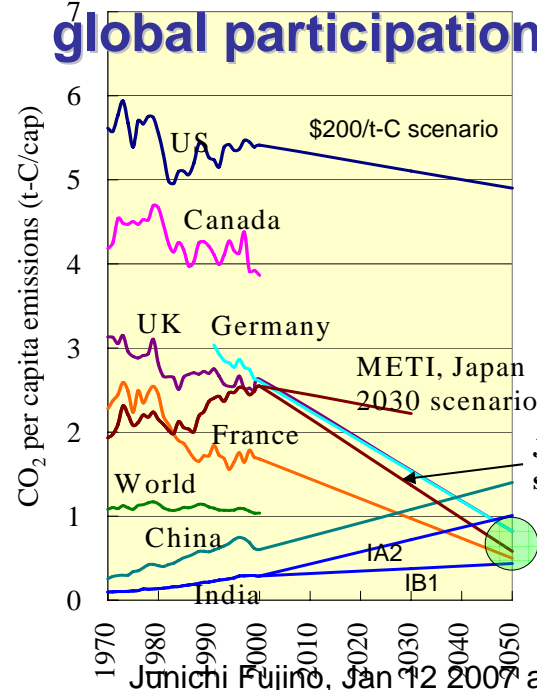
Japan Low-Carbon Society Project
Japanese reduction target in 2050 **60-80%.**

Possible trend-breaking options to achieve 70% reductions toward 2050 in Japan

	Main driving forces to reduce CO2 emissions	Category	amount	amount	
Society	<ul style="list-style-type: none"> reduce raw material production decrease numbers of population/household 	Activity	23MtC	Demand side	
		Industry	27MtC		
Residential	<ul style="list-style-type: none"> Use of high insulation system Control of home energy system 	SD	16MtC		
		EE	21MtC		
	<ul style="list-style-type: none"> High efficiency hair-conditioner, hot water heater, lighting system Fuel cell system, Photovoltaics on the roof 	CI	11MtC		
		SD	9MtC		
Transportation	<ul style="list-style-type: none"> Replacement of working/living place Public transportation 	SD	30MtC		
		EE	11MtC		
Energy supply	<ul style="list-style-type: none"> Motor-driven mobiles: Electric Battery Vehicles, Fuel Cell Battery Vehicles Nuclear energy Use of electricity in night time, Electric storage CO2-free hydrogen supply 	CI	41MtC		
		CCS	30MtC		
			CCS	30	Supply side
			Energy Efficiency (EE)	78	
			Carbon Intensity (CI)	79	
			Service Demand (SD)	40	

* CO2 reduction amount compared with the emissions in 2000
CCS: Carbon Capture Storage

How to structure global participation



Current per capita CO₂ emissions and Target

US: delay for tech development, global warming business
EU: Initiatives toward LCS
Japan: Need long-term vision
Developing countries: earlier guidance toward LCS is key

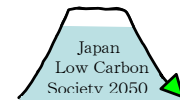
Japan 2050 scenario
Target for Low Carbon Society

Shuzo Nishioka, Junichi Fujino
NIES COP11 and COP/MOP1 side event
Global Challenges Toward
Low Carbon Society
Junichi Fujino, Jan 12 2007 at Idd, Paris, fujino@nies.go.jp

Large GHG cut is possible in Japan



We support country-wise LCS modeling through SD for Asia-Pacific and the world



- We have continued AIM Training Workshops since 1997 -

Oct 16-20, 2006 at NIES



India



China



Thailand



Korea



Malaysia



Indonesia



Brazil



Russia



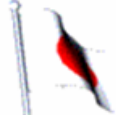
South Africa



Taiwan, China



USA



Japan

Japan Low-Carbon Society (LCS) Through Sustainable Development

**Japan-UK LCS study
invite all countries to
structure global LCS**

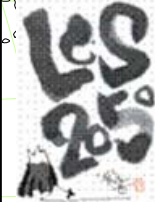
Organized by MOEJ, Defra
Facilitated by NIES, UKERC, Tyndall Centre
First workshop in Tokyo, June 2006
Second workshop in London, June 2007

Japan
Low Carbon
Society 2050
<http://2050.nies.go.jp>

**Scientific
background
for G8 2008
in Japan**

1st WS
Executive
Summary

**Design
Japan
toward
Japan LCS**



**Collaborative
LCS research
in Asia and
further**



AIM Training Workshop since 1997
Oct 16-20, 2006 @ Tsukuba
(Asia-Pacific Integrated Model)



COP12 side event
Nov 8, 2006 @ Nairobi

Japan LCS study (FY2004-2008)
Global Environment Research Fund of MOEJ
60 research experts from NIES, Kyoto Univ.,
TIT, Univ. of Tokyo, and others

**Global Launch of
Scientific, Technological,
and Social Innovation
to Develop LCS**

All information is available on <http://2050.nies.go.jp>

Japan-UK 2nd LCS workshop in London, UK

Workshop details

- **Date:** Wednesday 13 – Friday 15 June 2007
- **Venue:** The Mermaid Conference & Events Centre,
Puddle Dock, Blackfriars, **London**, EC4V 3DB. <http://www.the-mermaid.co.uk/>

	Wednesday 13 June	Thursday 14 June	Friday 15 June
am	Open / high level	Analytical / model output	Practicalities – how to achieve LCS (2)
pm	LCS scene setting / context	Practicalities – how to achieve LCS (1)	Wrap up

- Raising awareness of potential benefits of transitioning to a LCS.
- Suggesting how to close the gap between the business as usual and LCS scenarios.
- Developing the framework for a map of LCS activities.

Japan-UK Joint Research Project

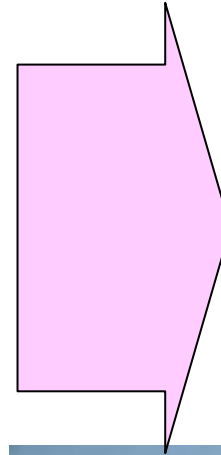
LCS (Low-Carbon Society)

for Global Participation

A **First** workshop was held in Tokyo, June 14-16, **2006**.

A **Second** workshop will be held in London, June 13-15, **2007**.

A **Third** workshop may be held in Japan, Feb, **2008**.



G8 Japan
June 2008



Things to do by Feb 2008

Japan

- Develop Roadmaps using Advanced and Classical Models including cost analysis
- Mapping of LCS related activities
- Translate our research activities for public

China, India, Thailand, Brazil

- Develop 2050 visions
- Develop roadmaps (research based)

UK, Germany, France, and other LCS-positive countries

- Develop good roadmaps

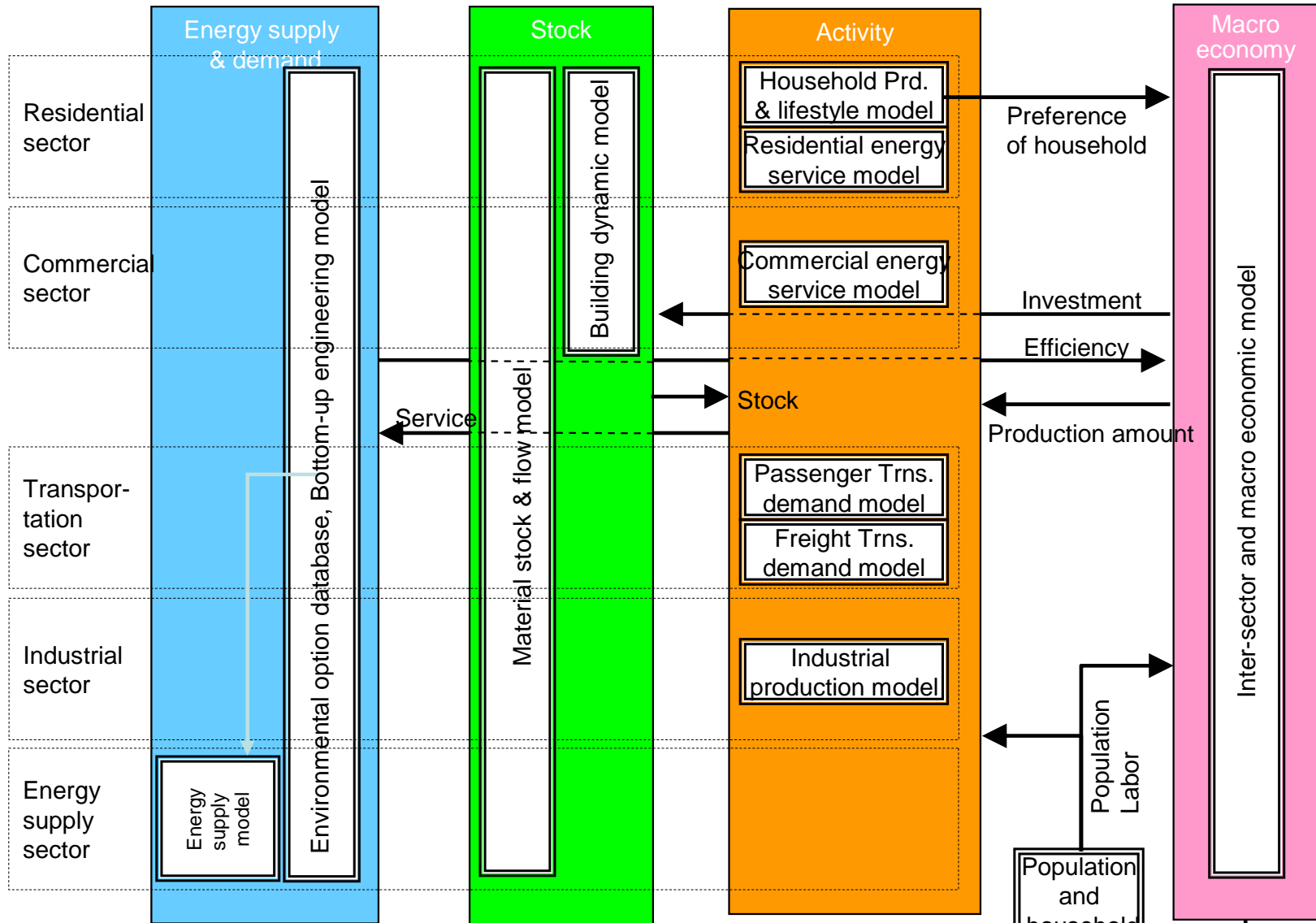
Other countries

- Ask to join our activities!

Schedule

- The middle of May, 2007: CSD in New York, USA
- May 2007: SBSTA in Bonn, Germany
- May 2007: Workshop on Climate Change for G8 Germany
- June 2007: G8 Germany
- June 13-15, 2007: **Japan-UK 2nd LCS workshop in London, UK**
- the end of June, 2007
 - IEW (International Energy Workshop) in Stanford, USA
 - EMF22 in Stanford, USA (+ IPCC consortium?)
- Oct/Nov 2007: AIM Training Workshop
- Nov/Dec, 2007: COP13 in Bali, Indonesia
- Jan 2008: World Economic Forum in Davos, Switzerland
- Feb 2008 : **Japan-UK 3rd LCS workshop in London, UK**
- Feb 2008 : **The 13th AIM International Workshop in Tsukuba**
- March 2008 : G20 Energy & Environment Ministerial Roundtable in Japan
- **June 2008 : G8 Japan**

What we will do and
where we can go for
LCS
through
Sustainable
Development



- : Model
- : Output of model
- ➔ : Data flow

Extended Snapshot

Backcast Model

Check consistency!

AIM (Asia-Pacific Integrated Modeling) for Japan LCS scenarios

July 7th 2006, Tanabata "Seven Evenings" LCS Festival

Chai



**Sachiko
Tsukahara**



**Maho
Miyashita**



Discussions!

