

ICT Strategy and Solutions to Overcome the Climate Change

April 16, 2008

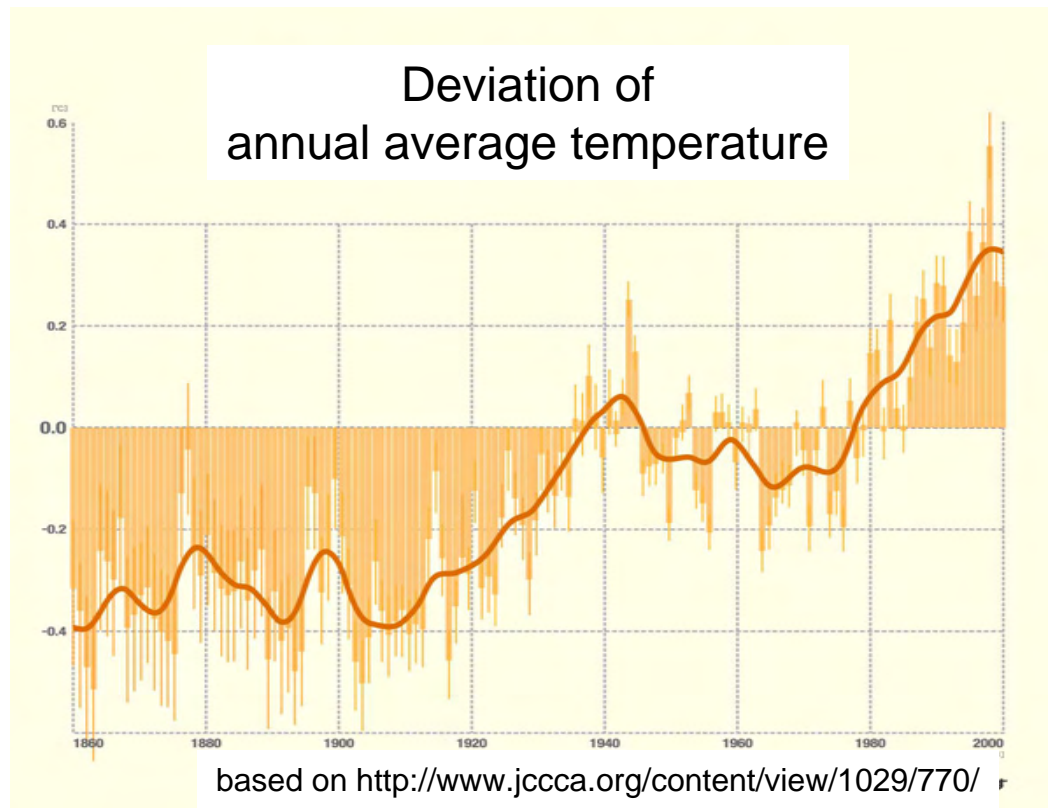
Akira Arutaki
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Outline

- **Background**
- **Expectation to ICT**
- **Overall strategy and system model**
- **ICT solutions to cope with the climate change**

Background

The climate change is not a science fiction.
ICT can/should be taken advantage of to cope with it.



NCOS Confidential and Proprietary



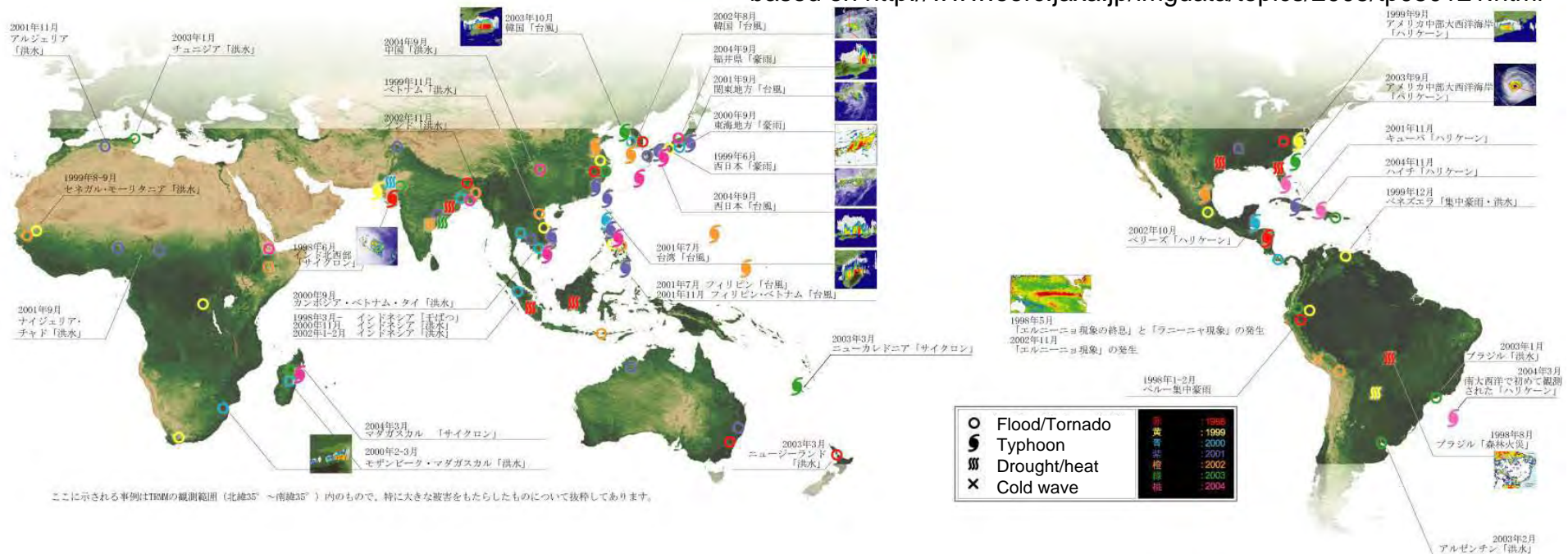
www.physics.uiowa.edu

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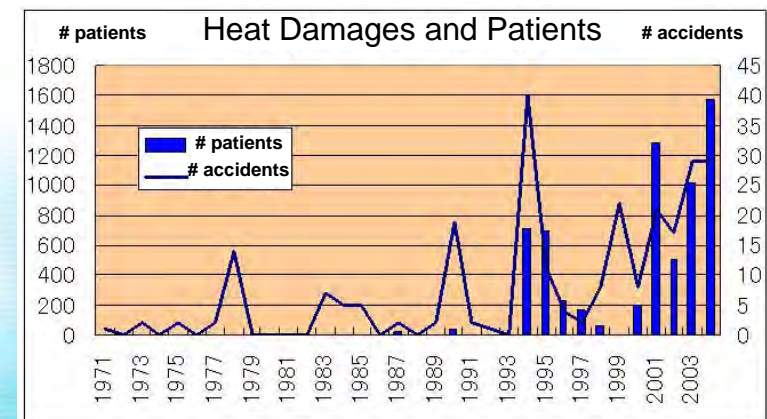
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Damages of the Clime Change

based on <http://www.eorc.jaxa.jp/imgdata/topics/2005/tp050121.html>

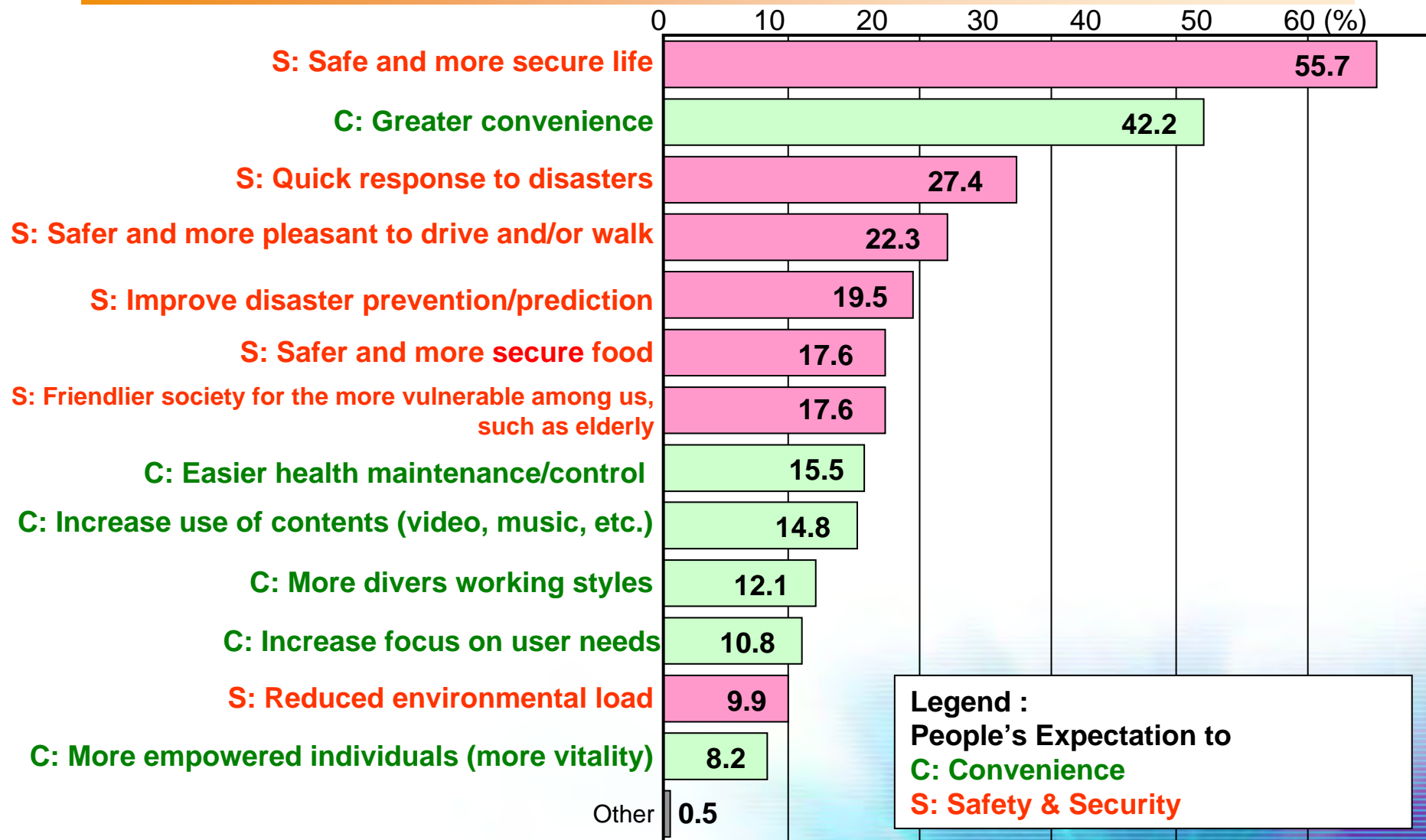


- ◆ Disasters threaten daily life.
- ◆ May cause hidden panicky atmosphere in the world.
- ◆ ICT can be a white knight?



based on Japan Meteorological Agency (2005)

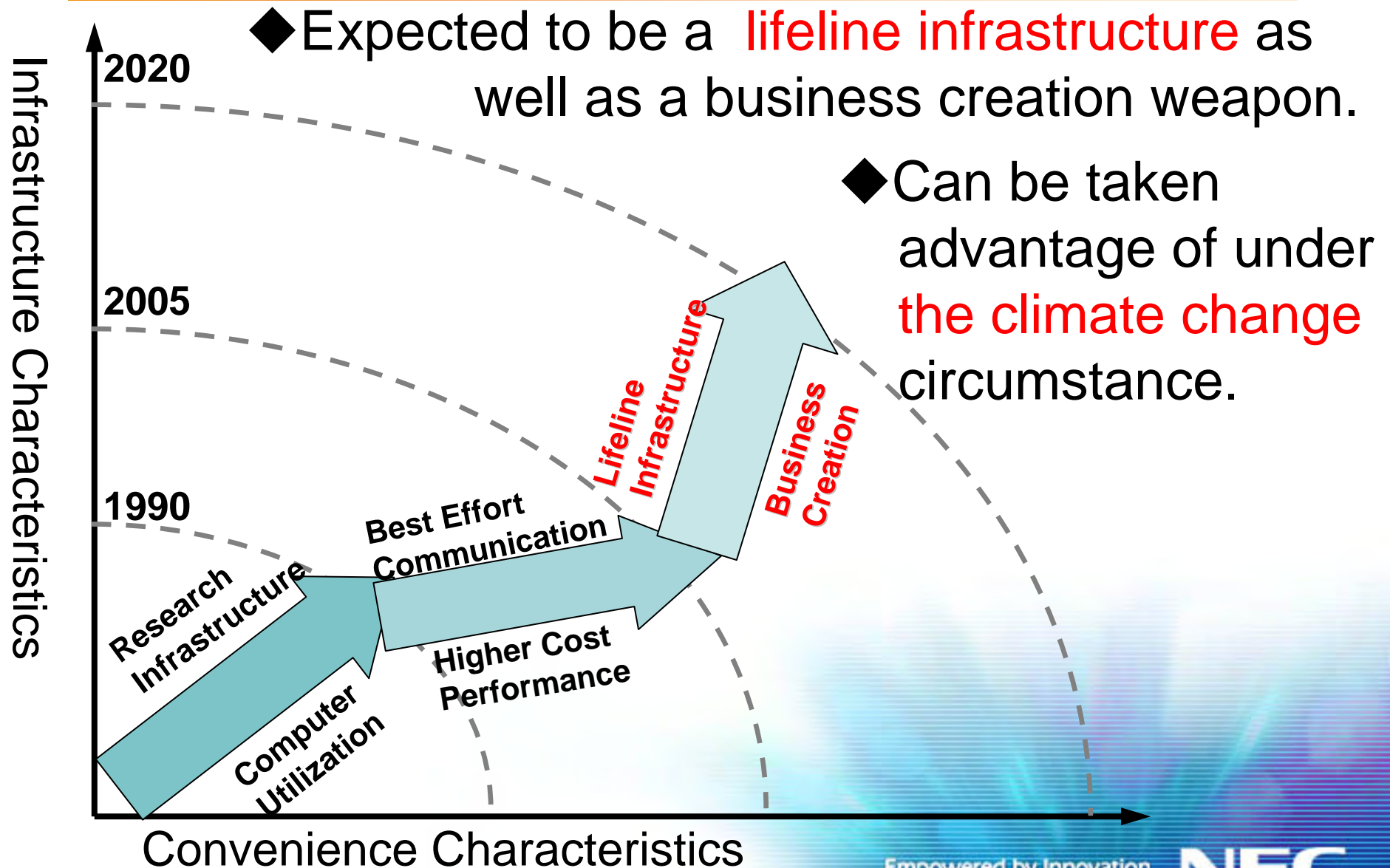
Opinion Survey in Japan



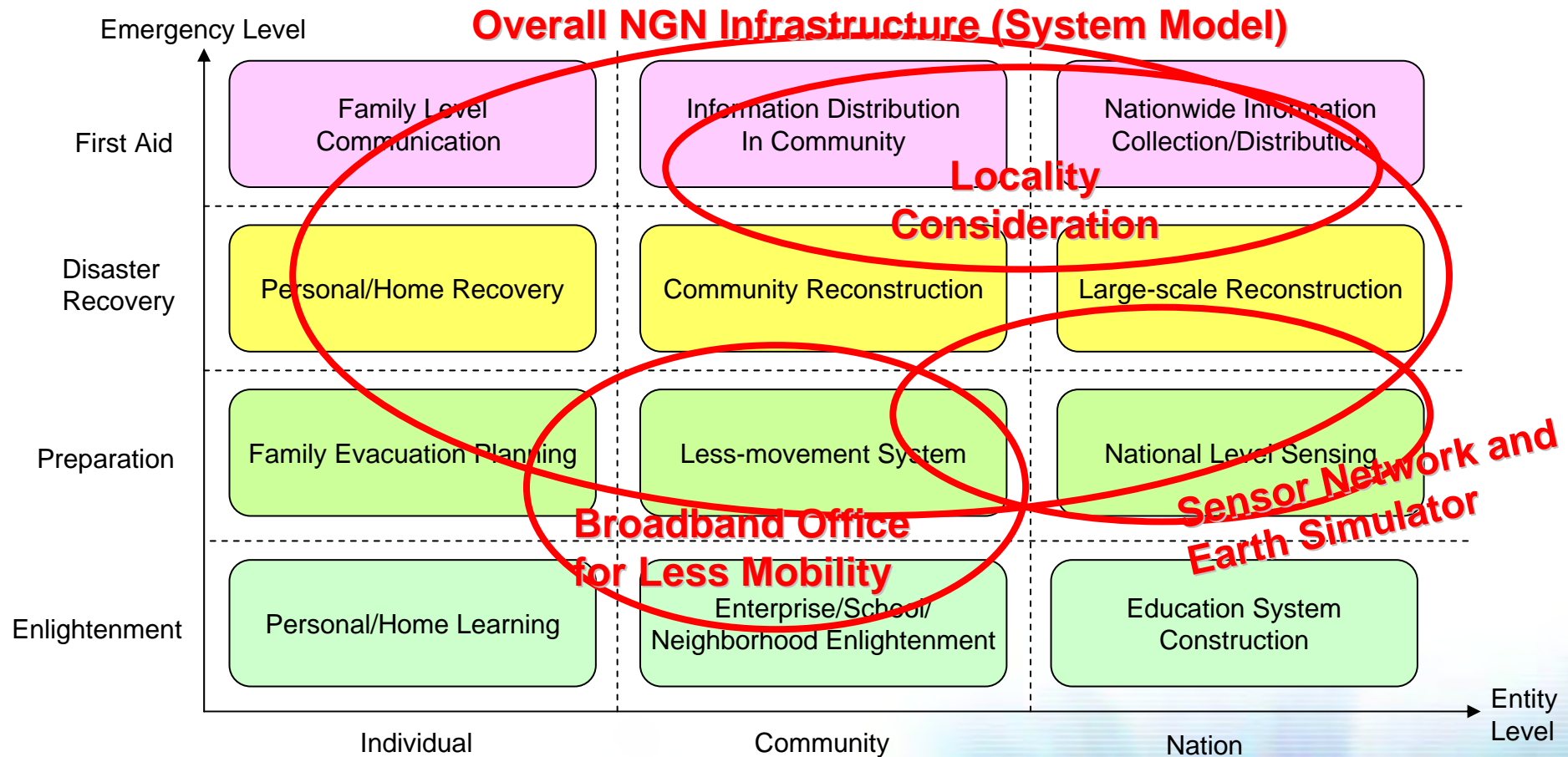
Source: Survey on Trends Concerning a Ubiquitous Network Society, MIC

http://www.soumu.go.jp/joho_tsusin/policyreports/chousa/yubi_pla/pdf/050407_2_03.pdf

The Internet Growth and its Direction



Overall Strategy



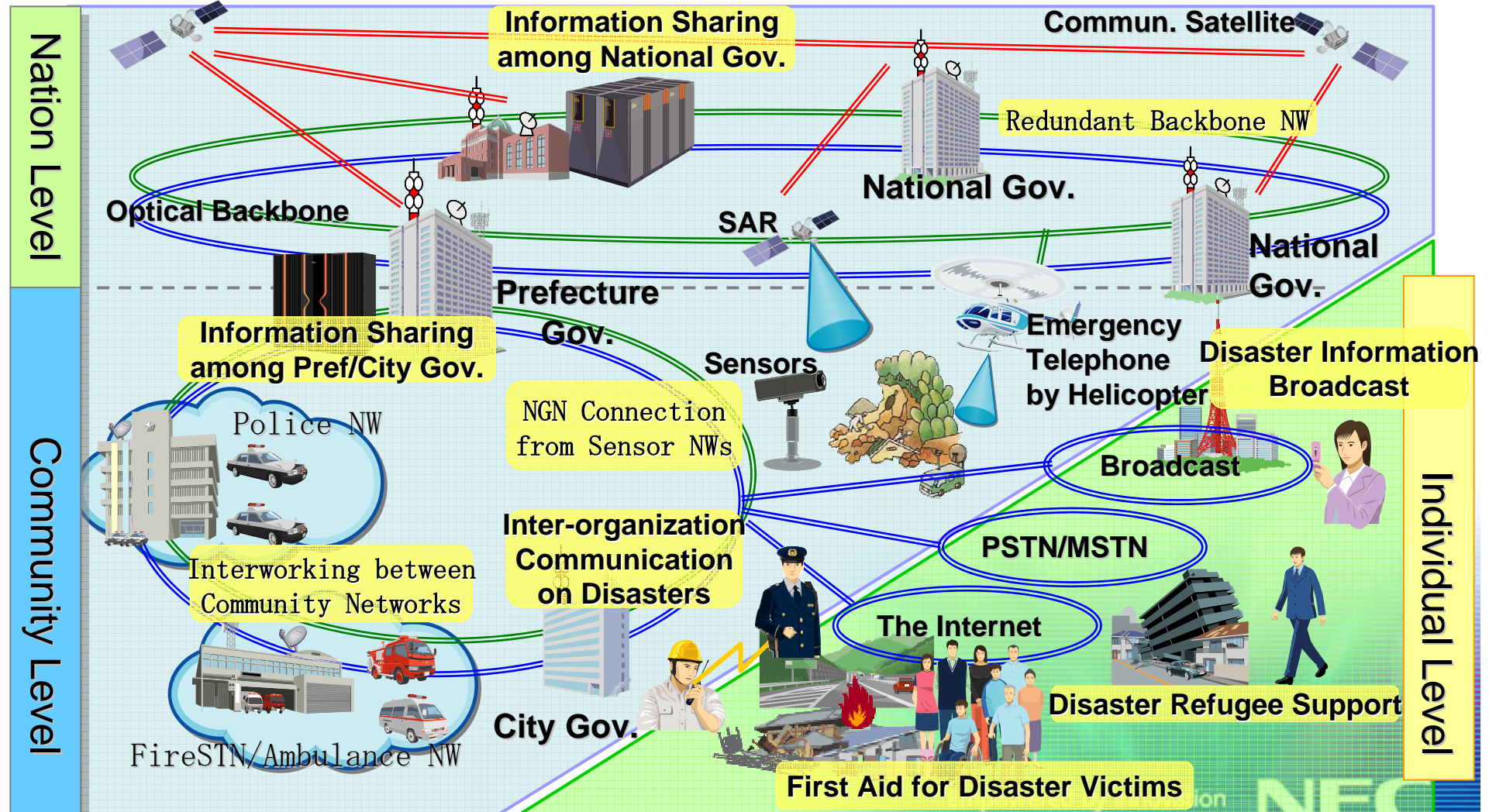
Combination of activities is the key to cope with the climate change

Examples

System Model

SAR; Synthetic Aperture Radar
PSTN; Public Switch Telephone NW
MSTN; Mobile Switch Telephone NW
FireSTN; Fire Station

Combination of Dependable ICT among Organization



Sensing the World

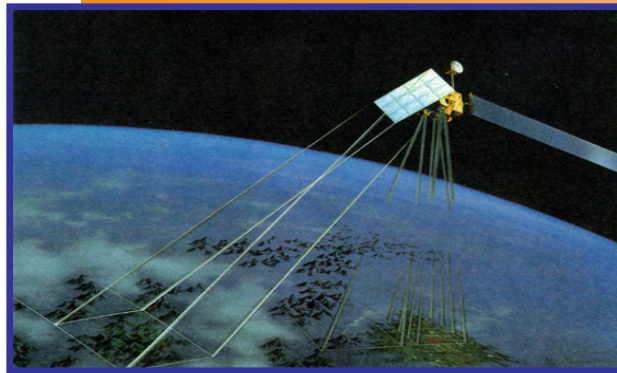


Photo by JAXA

Satellite SAR



Environment Sensor Unit with Solar Panel

**Disaster
Prediction**

**Disaster
Observation**

**Damage
Estimation**

Airborne SAR



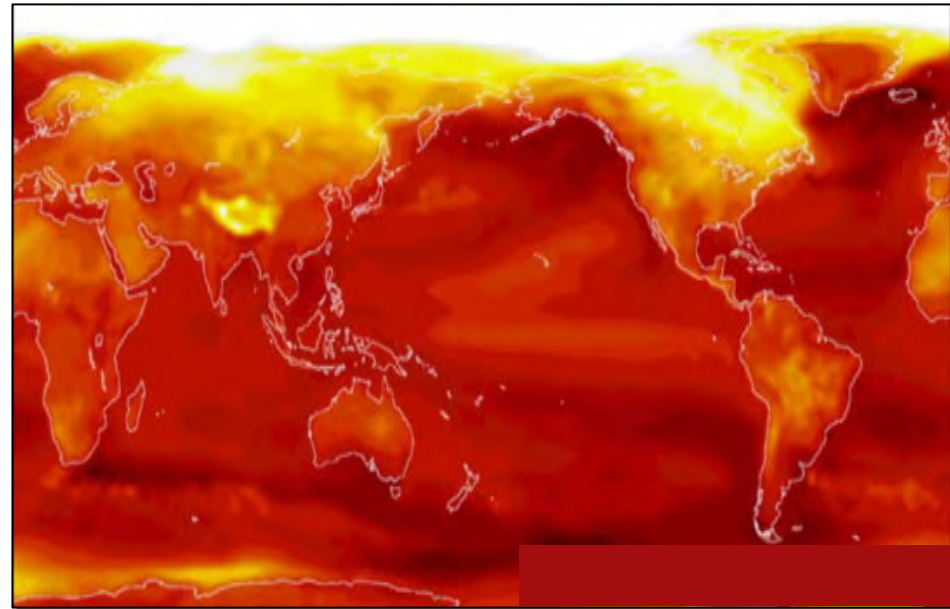
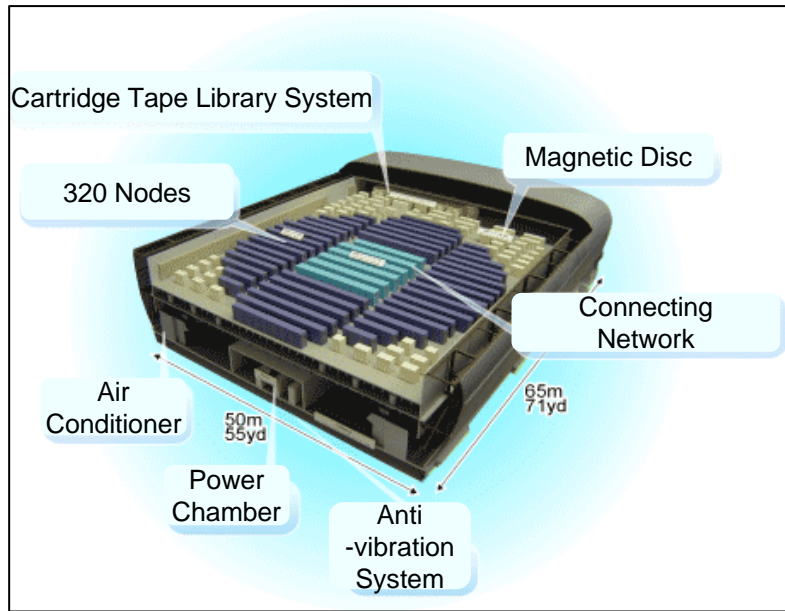
SAR; Synthetic Aperture Radar
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Earth Simulator

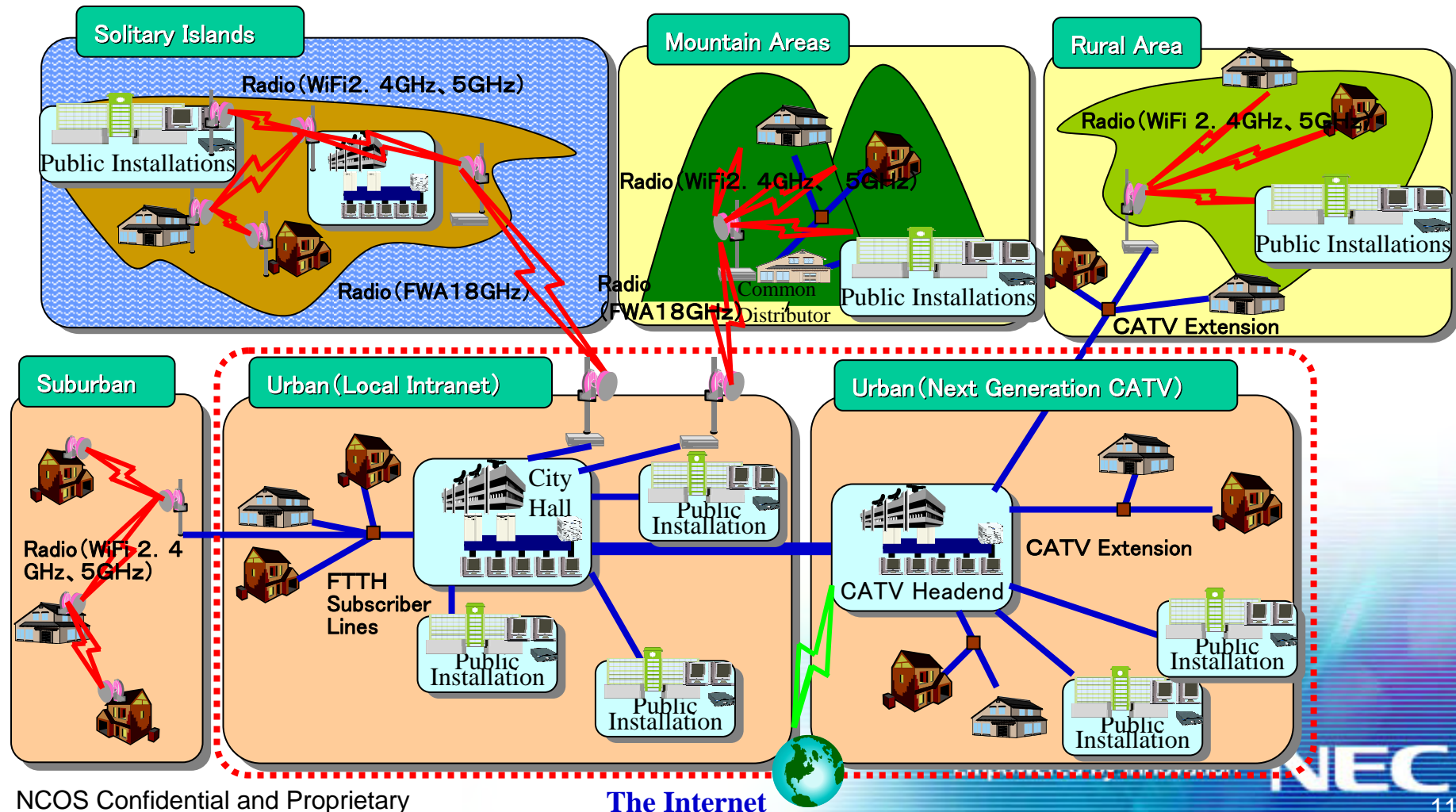
- ◆ Was the fastest super-computer.
- ◆ Simulates global-level climates.
- ◆ Taken advantage of by meteorology, agriculture, etc.



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Locality Consideration

- ◆ **No digital divide** in case of disaster/preparation
- ◆ **Standardization** required for world level connection/collaboration



Broadband Office for Less Mobility

**Less Mobility for Less CO2/Heatdisease.
Green-evaluation Standard Required.**

Web-based Conference



My Office Anywhere



Combination of
Cellular/WiFi/Wired

Broadband Office



Broadband Display Solution

Video Broadcasting
by Intranet

Virtual
Cabinet

StarOffice21
Business Cabinet

Information Sharing

UNIVERGE

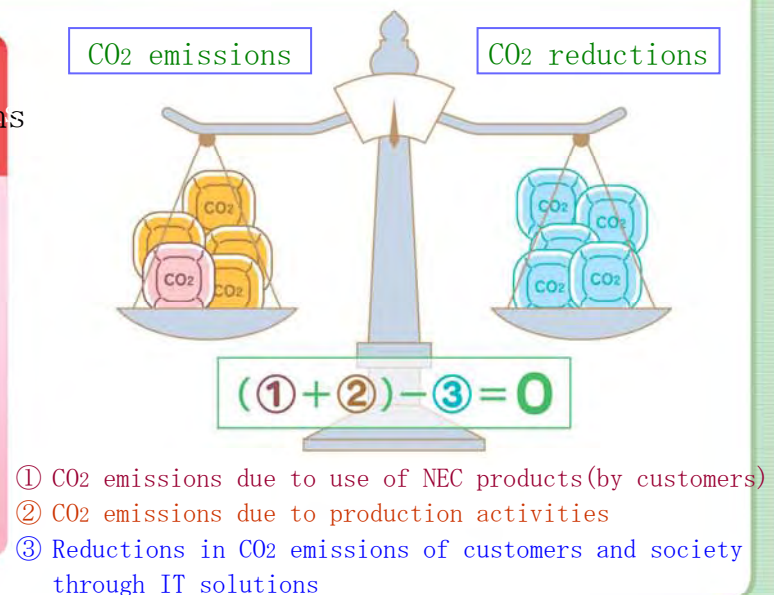
Empowering Innovation

NEC's Vision

NEC Environmental Management Vision 2010

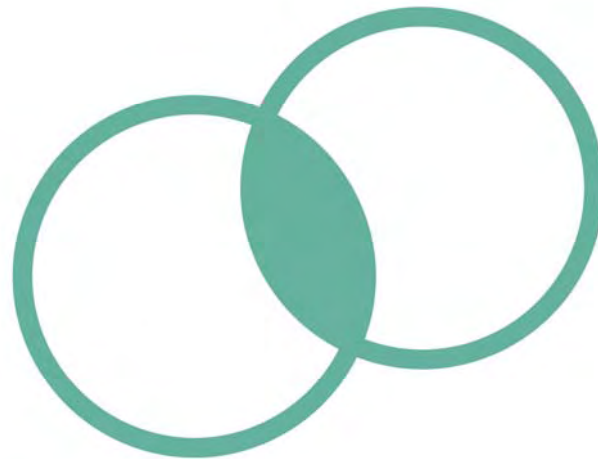
Prevent global warming by reducing NEC's overall net impact on CO₂ emissions to zero by 2010.

The NEC Group aims to be a truly excellent organization, one that promotes the development of social systems, business practices, and lifestyles and that contributes to achieving a sustainable society by providing IT solutions.



Conclusion

- "The Climate Change" is **not a science fiction** anymore.
- **ICT** must be a **white knight** for preparation/recovery.
- Strategic combination is necessary for **Nation/Community/Individual** level activities.
- **Standardization** by **ITU-T** is expected for global cooperation to cope with the climate change.



IT、で、エコ

NEC launched the concept of “Ecology through IT**” in FY 2002, and we are accelerating the proliferation of specific actions toward environmental management both within and outside NEC.**



Thank you!