

## How Can ICT\*<sup>1</sup> Contribute to the Earth and Society's Future toward 2020?

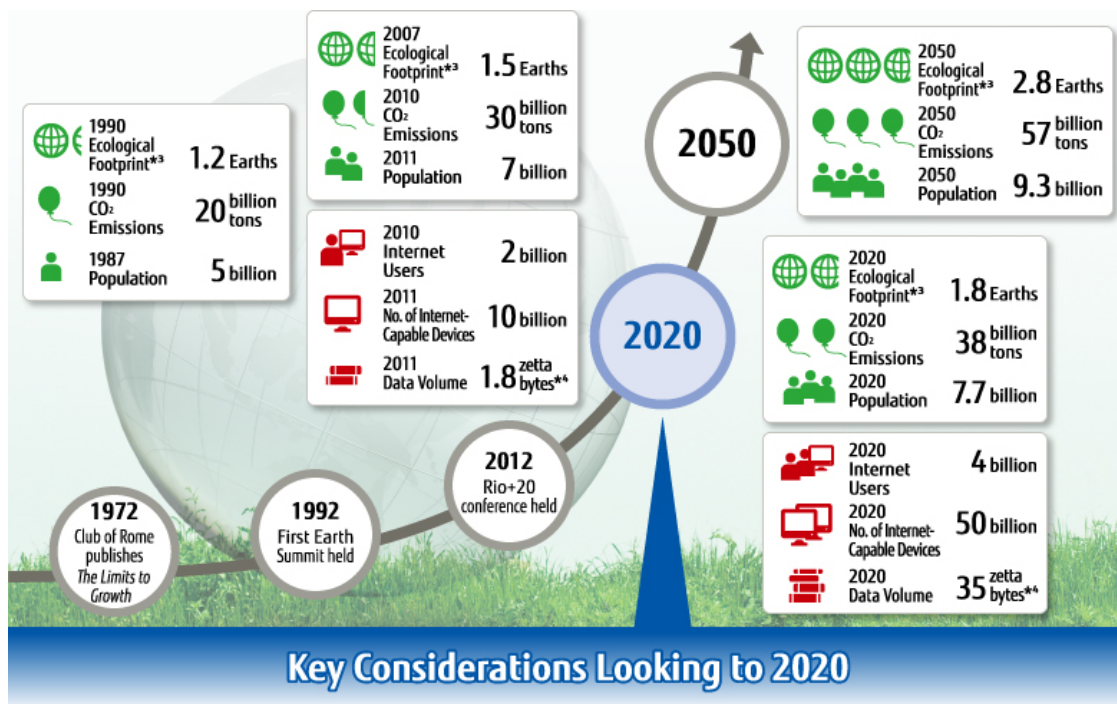


Forty years have passed since the Club of Rome sounded an alarm about population growth and environmental pollution in its report *The Limits to Growth*. <sup>2</sup>

Twenty years have passed since the first Earth Summit focused on the environment and sustainable development was held in Rio de Janeiro.

The global financial crisis, heightened concerns about climate change, and other developments have put us at a crossroads.

The time has come to search for a new paradigm, to move away from the age of striving to maximize profit and growth at any cost.



### Increasingly Complex Issues

With the population having grown to 7.7 billion in 2020, will the human race be able to balance securing food and energy with reducing greenhouse gas emissions? Can ICT help solve problems in emerging nations like starvation and poverty and issues in industrialized nations such as demographic aging?

A flatter world with increasingly overpopulated countries will tie in to a host of issues. Population growth, for example, will exacerbate the problems of climate change, poverty and starvation. A number of other issues must be resolved in an integrated manner to control this effect, such as improving primary education and sanitation, and lowering the infant mortality rate. With the world's population rising to 7.7 billion in 2020, CO<sub>2</sub> emissions need to have peaked out by then for any hope of avoiding a potentially disastrous 2C or more rise in temperature (source: UNEP). At the same time, a growing elderly population in industrialized nations and other rapid demographic changes are emerging, triggering new social problems.

### Super-Connected World

Having doubled to 4 billion, will Internet users have even greater opportunities than now? Will ICT be used to bring about a society with a level playing field for all to pursue possibilities?

Globalization and the ICT revolution have ushered in the era of the super -connected world. In 2020, the economic scale of emerging markets such as the BRICs, Mexico, Indonesia and Turkey is projected to overtake that of the G7 industrialized nations (source: PwC). While the global economy led by emerging nations will grow, the situation will spawn a new economic environment in advanced nations as the outflow of employment for mid-career and young hires causes disparities to widen. Mobile phones, SNS and other innovations,

meanwhile, are enhancing the ability to send information, allowing people to form deeper connections. While this ICT-driven empowerment is making individuals freer, the world is facing new governance challenges as demonstrations and violent opposition become more frequent.

## **Dramatically Changing Cyber Society**

Amid a surge in Internet-capable devices to some 50 billion units, will ICT infrastructure run stably? Will ICT stay a step ahead of cyber-attack threats, supporting safe and secure living?

Cyber society will continue growing at a dramatic pace. The estimated number of Internet users worldwide will top 4 billion in 2020 (source: BCG data), while the number of Internet-enabled devices is projected to reach 50 billion units (sources: Cisco, Ericsson). ICT will deliver a host of opportunities, among them enhanced productivity and the creation of new jobs. However, the gaps between those who have these benefits and those who do not will widen. Damages caused by cyber-attacks will reach \30 trillion, and the burden associated with them will grow. Constant effort is needed to maintain the safety and security of this cyber society to ensure that the benefits of ICT reach the greatest number of people possible.

\*1 ICT:

Information and Communications Technology

\*2 The Club of Rome's The Limits to Growth:

A report on research conducted by Dennis L. Meadows, PhD and others from the Massachusetts Institute of Technology using computer simulations. The report warns that growth of the human race will reach its limit within 100 years if population growth and industrialization trends continue unchanged.

\*3 Ecological footprint:

An index showing how much impact our daily lives have on the environment. We show the ecological footprint here in number of planets, assuming people worldwide maintain living standards on par with advanced nations. Our figures are based on the WWF's Living Planet Report 2012.

\*4 Zettabyte:

A unit of information storage.  $10$  to the power of  $21$  (one trillion gigabytes).

## The Fujitsu Group Will Contribute to the Sustainable Development of Society and the Planet through Its Business Activities



"Deliver opportunities and security to as many people as possible worldwide through ICT" That is our social responsibility.

The Fujitsu Group believes ICT is all about "realizing sustainable human advancement."

One thing that stands out about the Fujitsu Group is our ability to tie world-leading, user-friendly technology to global and social sustainability.

### Human Centric Intelligent Society: Realizing Societies Where People Can Live with Peace of Mind

## Embracing the Challenge of Transforming Society through the **Three Powers of ICT** in the Run-up to 2020

The Fujitsu Group has identified fields to focus on in the run-up to 2020. These were chosen with an eye to "Addressing Society's Challenges through Corporate Activities," one of the priorities of the Group's [CSR Policy](#), and [through discussions with outside experts](#).

1 | The Power to Shape the Future

2 | The Power to Provide Equal Opportunities to All People

3 | The Power to Support Safe and Secure Living

### 1. The Power to Shape the Future

#### Solving difficult global challenges and social issues through computing

We will use global cutting-edge computing to generate simulations of tough problems facing humankind such as climate change, resource shortages, and disaster damage, and employing them to help find solutions. In addition, we will create ICT-enabled solutions for various issues affecting cities, food, medicine, education, and more.

- Demonstrate world-class technology leadership to step as far as possible into the future
- Expand the provision of solutions designed to address priorities (food, healthcare, education, etc.)
- Achieve our environmental vision, a low-carbon, prosperous society

### 2. The Power to Provide Equal Opportunities to All People

#### Develop user-friendly terminals and interfaces, along with frameworks for promoting ICT implementation in developing countries

In order to enable as many people worldwide as possible to leverage ICT in pursuing their potential, we will open the doors to cyber society, providing interfaces that are easy to use, and offering systems and schemes to support the deployment of ICT in developing countries.

- Develop terminals and devices targeting 4 billion Internet users
- Execute businesses that provide opportunities on a global basis
- Conduct field surveys in developing countries and develop partnerships

### **3. The Power to Support Safe and Secure Living**

#### **Ensure stable operation of social ICT infrastructure and cyber security**

We will help to protect people's secure living environments through the stable operation of ICT systems that serve as the infrastructure underpinning economic and social activity. Furthermore, we will provide ICT solutions and strengthen our ties with relevant organizations to cope with rapidly expanding cyber-attacks and other security issues.

- Help to build a value-creation platform, eyeing an era when virtually everything is connected to the Internet
- Achieve stable operation of world-class ICT systems
- Develop and strengthen cyber security solutions