The Power of ICT to Reduce GHG Emission and Green ICT Activities of Fujitsu Group

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Impacts of Global Warming

Increases in drought
Changes in the ecosystem
Decreases in staple grain productivity
Increases in damage by floods and rainstorms
Increases in communicable diseases

Source: Seminar Materials for Fujitsu Forum 2007 (Yoichi Kaya)
Reducing GHG Emission by 50% by 2050

What to do against Global Warming

We need innovation. (Technology/ institution/ market)

- Change life style
- Change work style
- Change transfer style
- Change resources
- Change manufacturing
- Change Business-style

And, globally

Contribution of ICT
### Essence of ICT

- Efficiency improvement
- Downsizing
- Reduction of paper
- Reduction of movement of the materials
- Dematerialization
- Transcendence of time and space

Further progress of ICT is necessary for energy saving and the low carbon society.

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### “Green by ICT” CO2 reduction effect in 2020

<table>
<thead>
<tr>
<th>Sector</th>
<th>Major solutions</th>
<th>2020 CO2 reduction effect (Japan)</th>
<th>2020 CO2 reduction effect (Worldwide)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>High-performance boiler, energy efficient facilities, Energy management, energy conservation business, etc.</td>
<td>7〜14</td>
<td>140〜276</td>
</tr>
<tr>
<td>Business</td>
<td>BEMS: Tele-work, TV conference, paperless office</td>
<td>9〜18 (including other sectors)</td>
<td>122〜239</td>
</tr>
<tr>
<td>Home</td>
<td>HEMS: On-line shopping, electronic contents, Renewable energy, Smart Grid</td>
<td>16〜32 (including other sectors)</td>
<td>200〜393</td>
</tr>
<tr>
<td>Transportation</td>
<td>Improvement of fuel efficiency for automobiles, ITS (ETC, VICS), Eco-drive, Improvement of efficiency of distribution, SCM Improvement of loading ratio, etc.</td>
<td>36〜73 (including other sectors)</td>
<td>1,578〜3,101</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td><strong>68〜137</strong></td>
<td><strong>2,041〜4,009</strong></td>
</tr>
</tbody>
</table>
Reduce Environmental Load BY ICT

ICT Contribution in Traffic and Transportation
CO2:-19%

ICT Contribution on Farms
CO2:-50%

ICT Contribution in Hospitals
CO2:-30%

ICT Contribution in Fishing Ground
CO2:-20%