

# Green will go beyond legal requirements

## Innovative products protect our environment



On a voluntary basis Fujitsu Siemens Computers implemented a company guideline and the Green concept for building computers that exceeds the legal requirements by setting an even higher, own defined standard to protect the environment and to treat natural resources with respect.



### Objectives

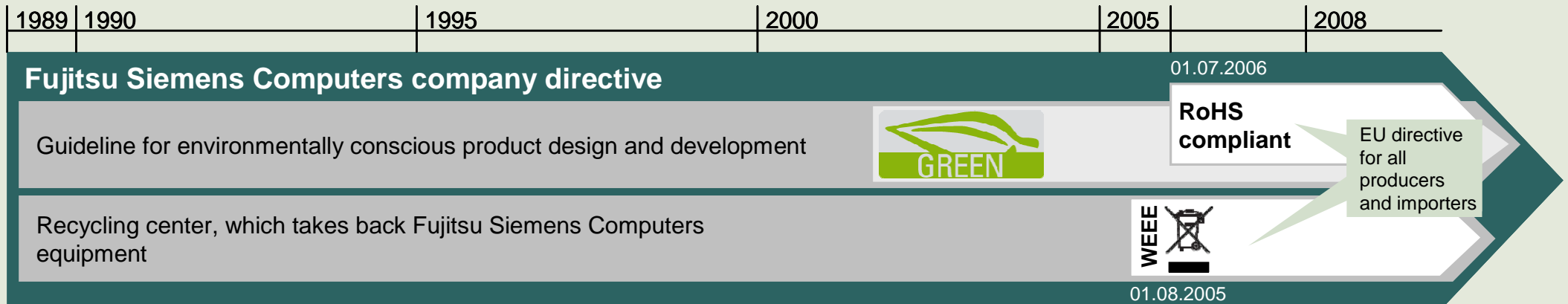
- Environmental technology as an engine for innovation
- Integrated environmental protection along the whole product lifecycle
- Systematic environmental management according to ISO 14001
- Integrate all environmentally relevant aspects into R&D, production and sales
- Harmonize economy and ecology

### Examples

- Design target: environmentally conscious product
- Self imposed restriction of hazardous substances
- Some products are already RoHS compliant
- Taking old IT equipment back since years
- Halogen-free printed circuit board of mainboard and power supply
- Reduced consumption of electricity
- Use water-based solder flux in mainboard production
- Design silent systems (chassis and thermal management)
- Switched monitor outlet in ESPRIMO E and CELSIUS Workstations

### Achievements


- Reduced lead on green mainboards to 1/10<sup>th</sup> saved already 5 t of lead in 2 years
- Reduced water consumption in our system board production supported by use of nitrogen gas
- Reusable packaging, recycling-friendly boxes and batch shipments saving 30 t per year
- The switched monitor outlet energy saving potential: 1000 units save 35 MWh at customer per year (>4.000€!)
- Awarded with several certificates like Blue Angel, Nordic Swan, Energy Star
- Our re-marketing and recycling center is able to recover 98% of our products





# Effects of the new European Directives

## Fujitsu Siemens Computers is prepared

The European Directives			
	WEEE (Waste Electrical and Electronic Equipment)		RoHS (Restriction of the use of certain Hazardous Substances)
<b>Objectives</b>	Prevention of waste electrical and electronic equipment <ul style="list-style-type: none"> <li>Reuse, recycling and recovery of old IT equipment to reduce disposal volume</li> <li>The recovery rate shall be increased to a minimum of 75%</li> <li>The reuse and recycling rate shall be increased to a minimum of 65%</li> <li>WEEE of min. 4 kg per year per inhabitant shall be collected from private households by end of 2006</li> </ul>		Protect human health and the environment <ul style="list-style-type: none"> <li>Avoid differences in laws or administrative that could create barriers to trade and distort competition in the European Union</li> <li>Benefit of limiting the presence of such substances in products and in production processes and reduce the content of hazardous substances in waste</li> <li>Reduce the waste management problems linked to heavy metals and flame retardants concerned</li> </ul>
<b>Requirements</b>	<ul style="list-style-type: none"> <li>From August 2005               <ul style="list-style-type: none"> <li>Marking of electric / electronic equipment with crossed-out wheel bin</li> <li>Separate collection of old IT equipment (WEEE)</li> </ul> </li> <li>Private households:               <ul style="list-style-type: none"> <li>EU member States ensure return of waste free of charge</li> </ul> </li> <li>Corporations:               <ul style="list-style-type: none"> <li>Producers and customers may arrange methods in respect of WEEE collection</li> <li>Customer is responsible for WEEE in case of non-replacement</li> <li>Producer is responsible for WEEE in case of replacement</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>From July 2006: new IT equipment put on the market must not contain certain hazardous substances</li> <li>Avoided hazardous materials in products: Lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl), PBDE (polybrominated diphenyl ether)</li> <li>All components of a system have to fulfill these requirements: E.g. mainboard, hard disk, optical drives, cables, power supply, memory and chassis</li> </ul>

	WEEE obligations		RoHS obligations	
<b>Producer</b>	Design and produce environmentally conscious products Take back WEEE from corporations on contract base	Fujitsu Siemens Computers takes used IT equipment back from corporations already since years	Obligated to put only fully RoHS compliant products in circulation Stop shipping non-compliant systems after June 30, 2006	Some products from Fujitsu Siemens Computers are RoHS compliant already since January 2006 or earlier.
<b>Channel</b>	Country specific		Legally obliged only to put RoHS compliant products on the market	
<b>End user</b>	Households: can be sure to return old electrical equipment free of charge Corporations: Fujitsu Siemens Computers has frame agreements with partners for European wide solutions to take WEEE back		-	