

The knowledge economy, sustainable development and corporate responsibility

Trends in Information Society and sustainable development – A European Perspective

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The “Lisbon Strategy” March 2000

- ◆ **To become the most competitive and dynamic knowledge-based economy in the world**
- ◆ **capable of sustained economic growth**
- ◆ **with more and better jobs and**
- ◆ **greater social cohesion**

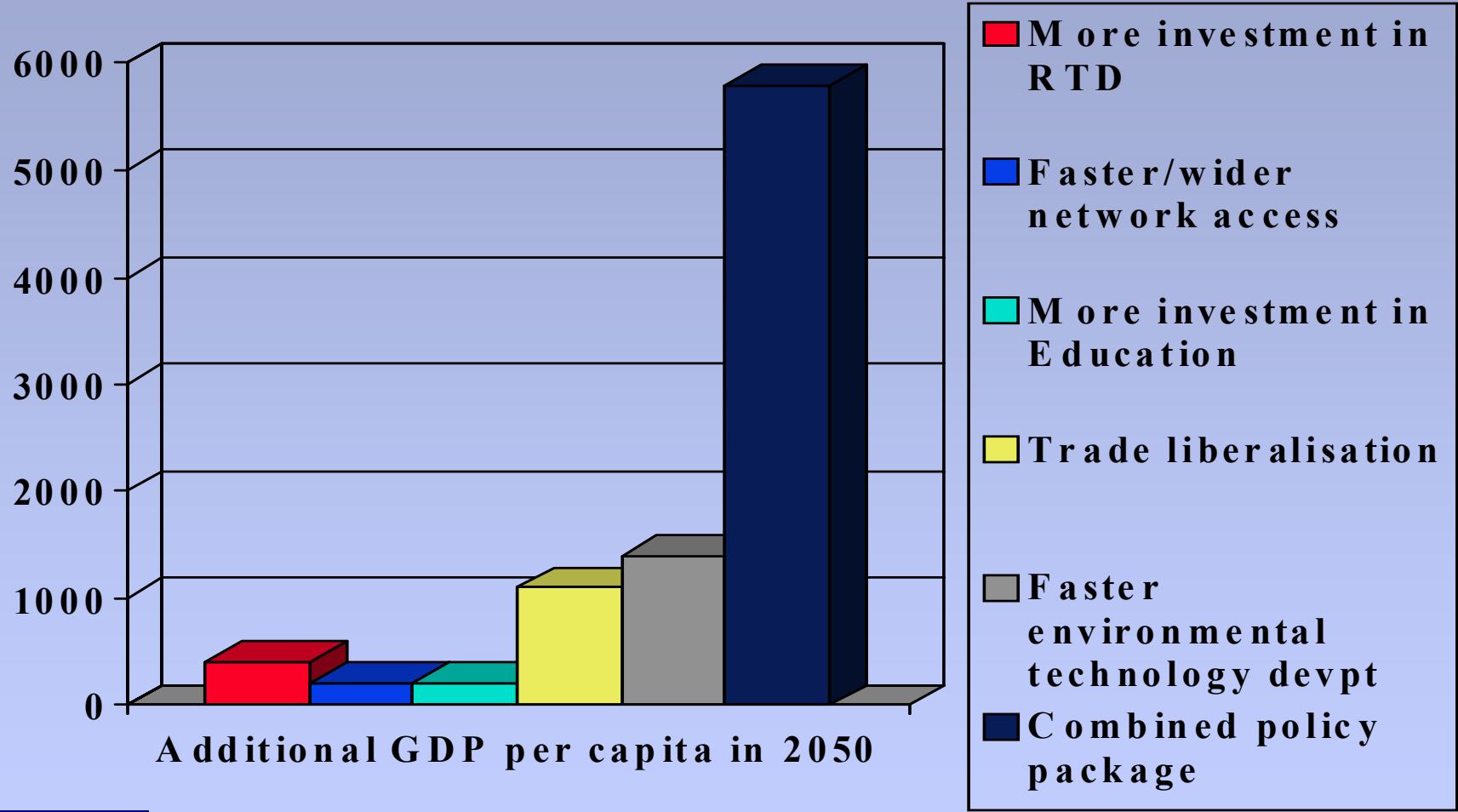
The “Kok report” November 2004

◆ The Lisbon strategy is more urgent today....better implementation is needed... more delivery from the European institutions and Member States.

Five priorities

- ◆ The knowledge society
- ◆ The Internal market
- ◆ The business climate
- ◆ The Labour market
- ◆ Environmental sustainability

Additional EU GDP per capita in 2050 from separate and combined policy measures: Simulations compared with a base case 45,400 Euros at PPP



Progress towards an Information Society : Europe November 2004

- ◆ Strong growth in ICT markets;
- ◆ Falling costs of Internet use : -9.5% for PSTN use; -60% for DSL access since 2003
- ◆ Increased connectivity : 45% of Households; 93% of schools; 78% of doctors ...
- ◆ Widespread broadband deployment – 30 million connections in July 2004 ; 75% DSL
- ◆ Ubiquitous GSM use (90%) and accelerating 3G deployment : 1.5 million subscribers in 2004 and 50% of territorial coverage by 2005



The EU Sustainable development Strategy : Goteborg 2001

Six key issues:

- ◆ Climate change
- ◆ Public health
- ◆ Ageing society
- ◆ Management of natural resources
- ◆ Poverty and social exclusion
- ◆ Mobility, transport and regional development

The environmental dimension : Limits to growth?

**The main obstacles are not on the supply-side :
the stone age didn't end for a lack of stone**

The limits are on the usage and impact side

- ◆ **The capacity of the atmosphere to absorb green-house gases without unacceptable climate change;**
- ◆ **Land resources for expansion of the built environment**
- ◆ **Waste and chemicals assimilation capacities**
- ◆ **Road space and transport system capacities**



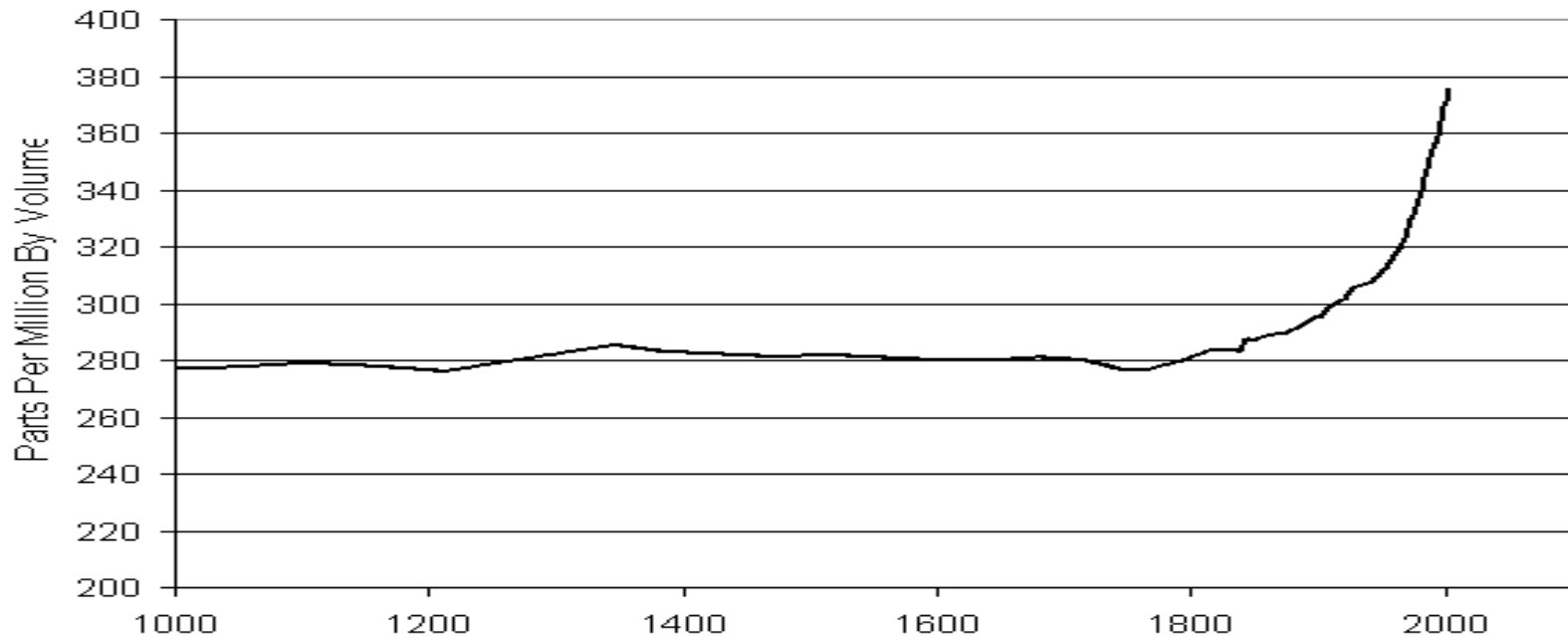
The EU Sustainable development Strategy : Goteborg 2001

Horizontal measures

- ◆ **Improving policy coherence**
- ◆ **Getting prices right**
- ◆ **Investing in science and technology**
- ◆ **Mobilising citizens and business**
- ◆ **Enlargement and the global dimension**

Atmospheric Carbon Dioxide levels have increased by 31% since 1750

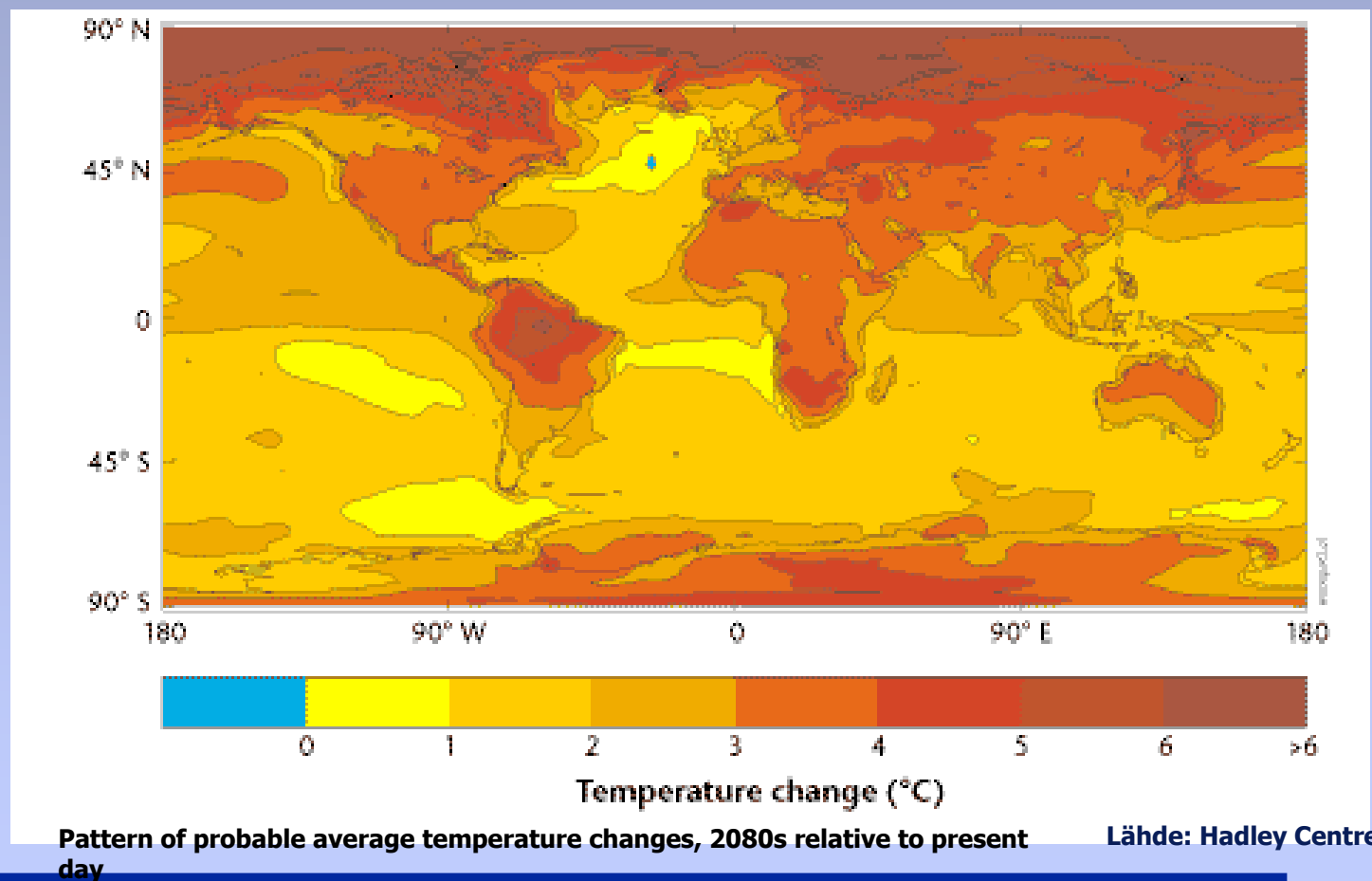
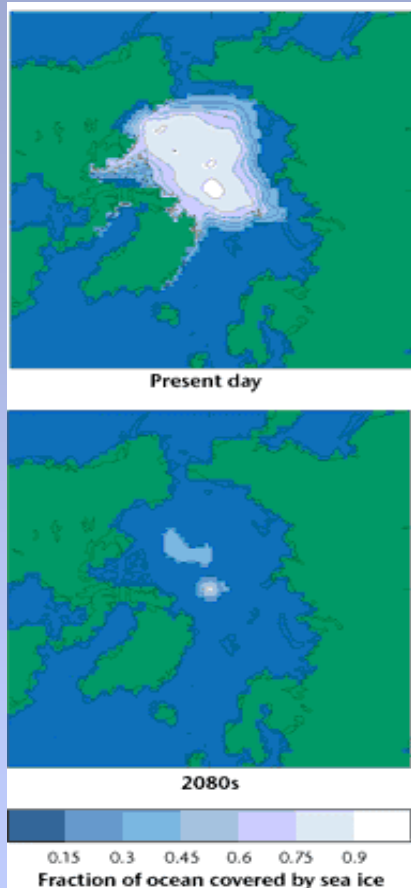
Atmospheric Concentrations of Carbon Dioxide, 1000-2003



Source: Scripps, ORNL, and IPCC



Climate Change is real...



European Commission: Information Society DG

Congestion costs \$20 billion per year



European Commission: Information Society DG

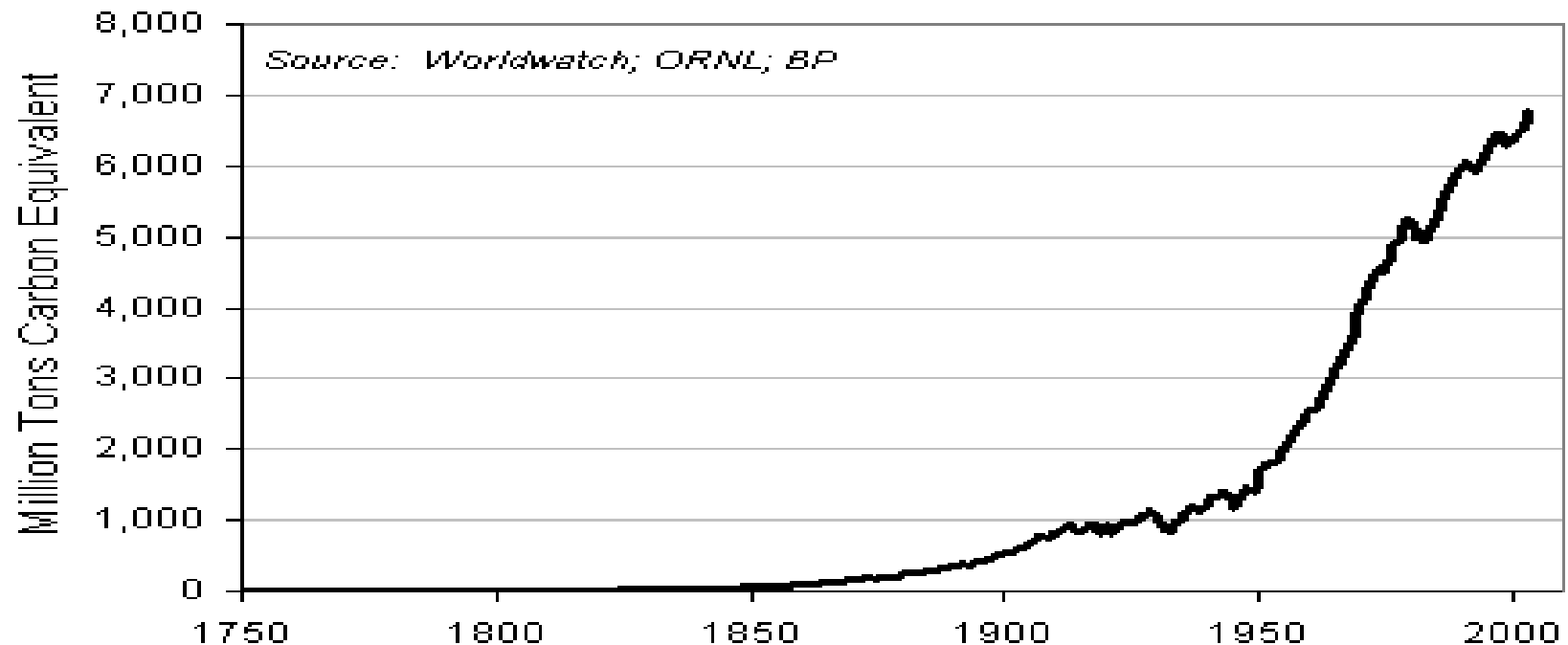
Progress on the Sustainable development Strategy – Nov 2004

- ◆ **Climate change** : 2.9% reduction from 1990- 2002 – Not on course to meet the -8% target by 2010;
- ◆ **Public Health** : REACH – of chemicals used to over 1000 tonnes per year, 3% are comprehensively tested, and 11 % have the minimum information;
- ◆ **Poverty and social exclusion** : Old age dependency ration to increase from 24% in 2000 to 47% in 2050;
- ◆ **Management of natural resources** : Farmland birds 32% below 1980 levels; 40% of fish catches outside safe biological limits;
- ◆ **Transport and regional devpt**: Enlargement increases to 123 million the number of people living in regions with less than 75% of avg GDP.



Carbon emissions rose by a record 4% in 2003

Global Carbon Emissions from Fossil Fuel Burning,
1751-2003



Vehicle-Kms are rising faster than road-Kms

Since 1980:

100% more cars;

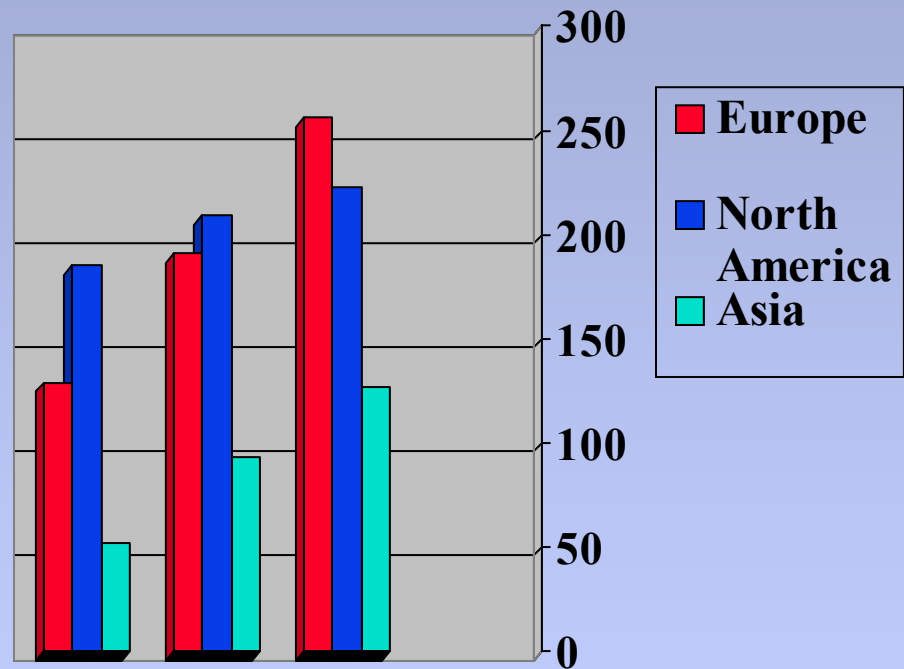
60% more car-miles;

75% more freight traffic

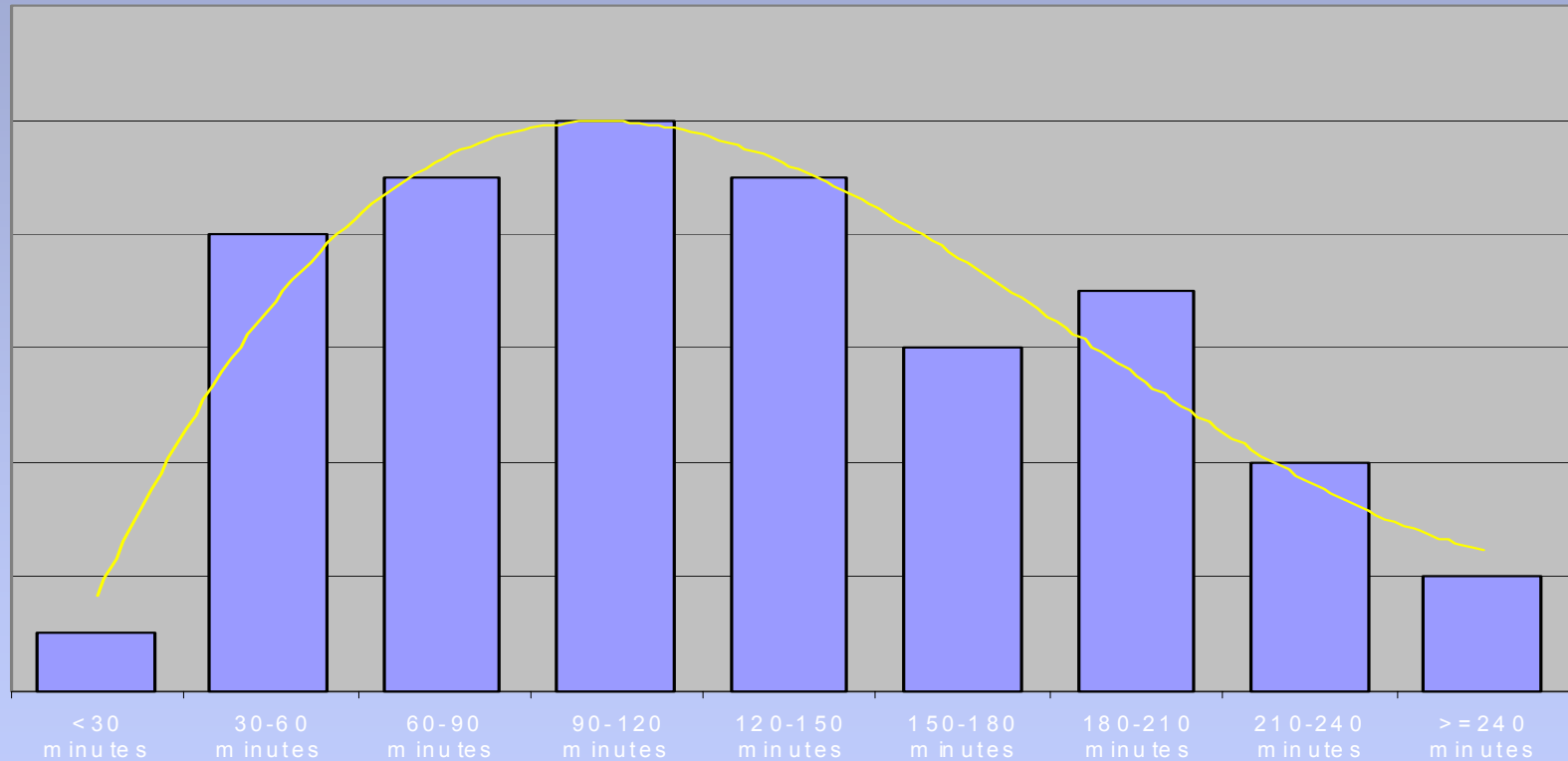
In 2003:

531 million cars

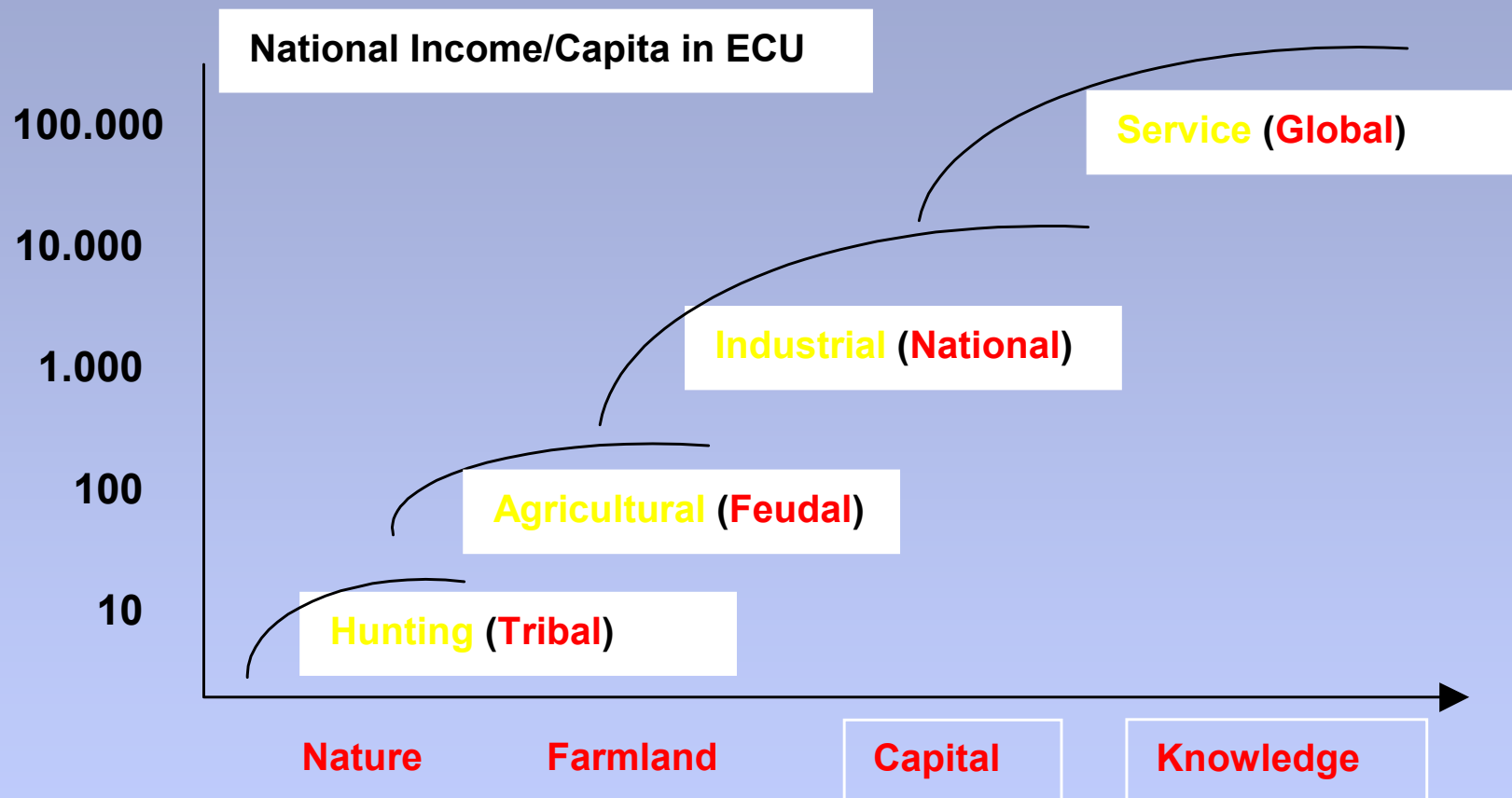
Millions of vehicles



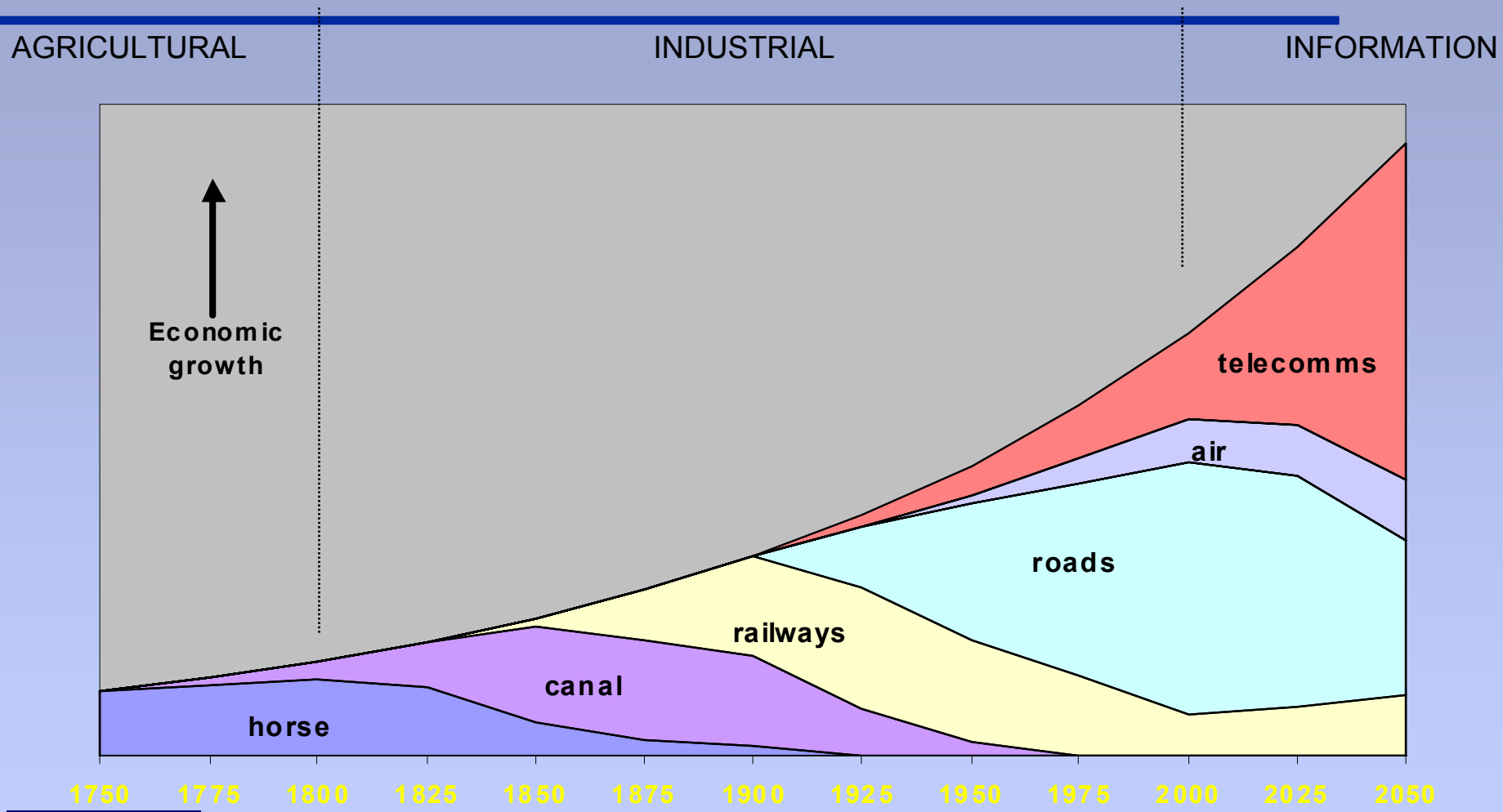
Commuting in 2000: 2 Hours a day!



New paradigms of growth



Mobility for the Information Age?



European Commission: Information Society DG

Sustainability in a knowledge economy : Win-win opportunities?

Improved economic growth and increased employment provide the means for sustaining social cohesion and environmental sustainabilitySocial cohesion and environmental sustainability can contribute to a higher level of growth and employment Kok report Nov 2004

- ◆ Higher added-value in all products;
- ◆ Some products become immaterial services;
- ◆ More efficient supply-chains and transport logistics;
- ◆ Improved energy efficiency in intelligent buildings and vehicles;
- ◆ More efficient use of buildings : Shared work-spaces;
- ◆ A better “life-work balance” - more work in local communities, and better land-use planning (eWork)

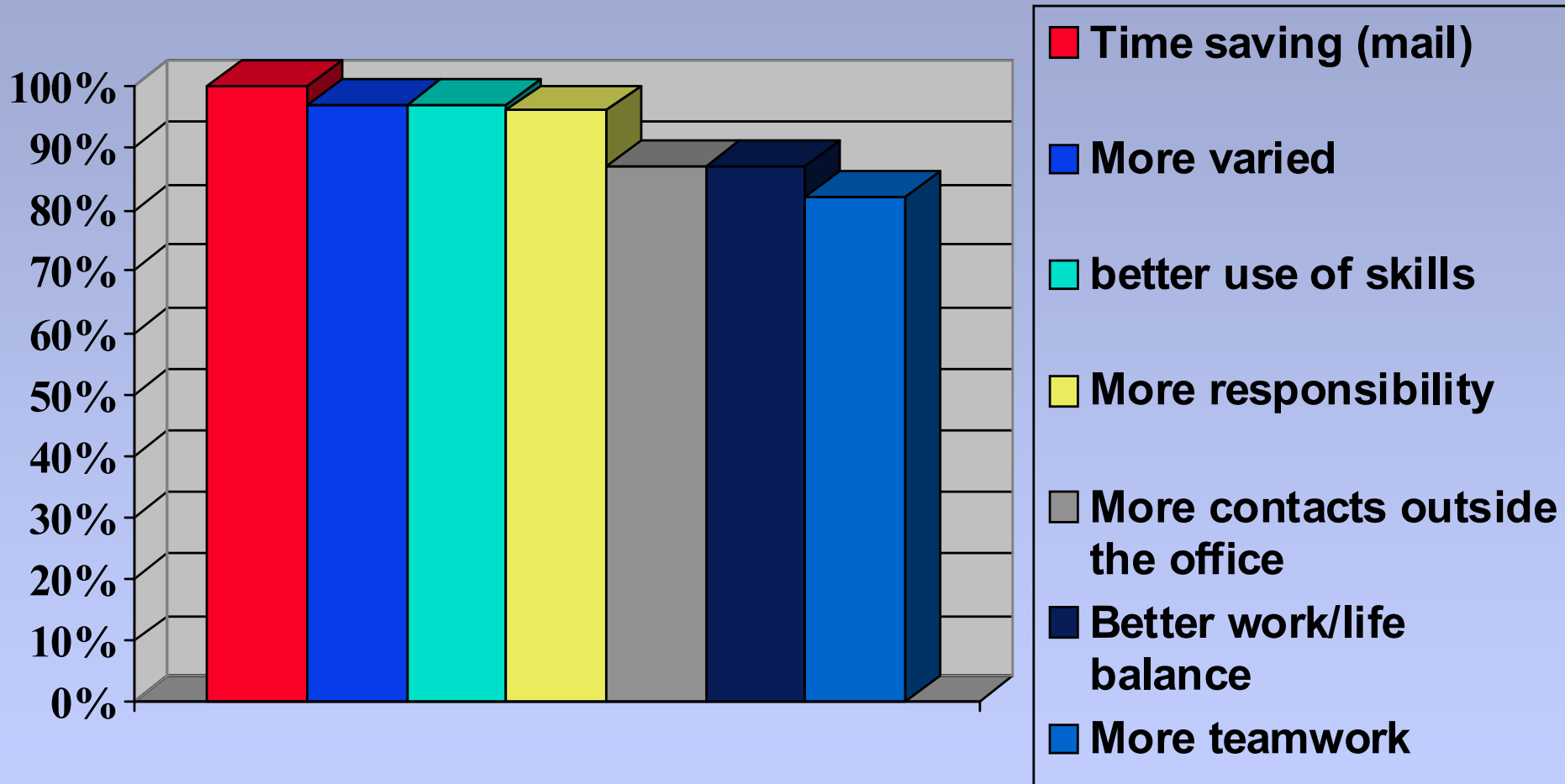


ICT – a tool to implement EU policy priorities

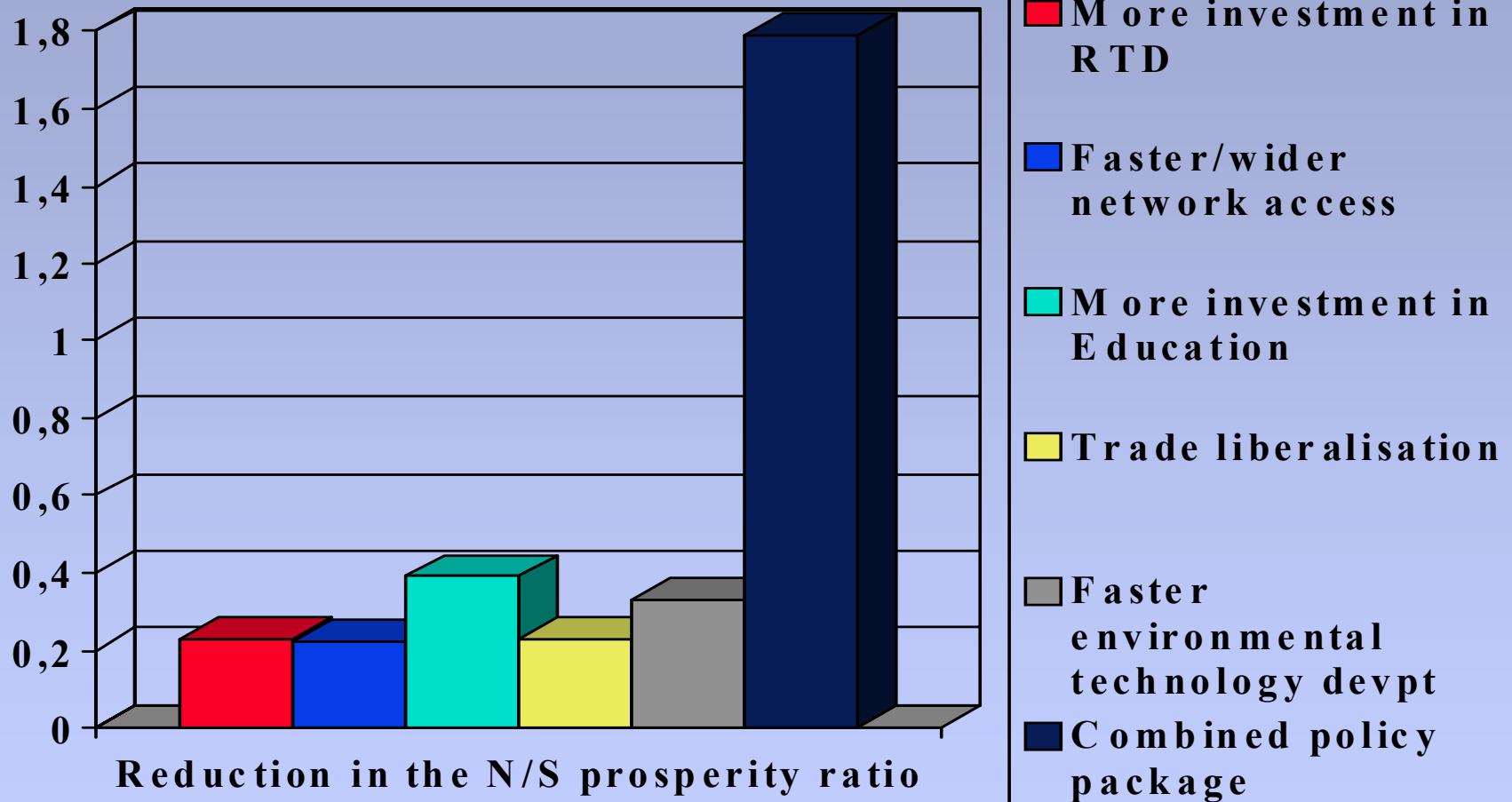
- ◆ **An important sector in its own right : From 4% of EU GDP in early 90s to 8% today;**
- ◆ **A key enabler for productivity growth & competitiveness: ICT investments contribute half of Europe's productivity gains**
- ◆ **ICT is a key facilitator for more efficient public services, and allows more participation in democracy and public life;**
- ◆ **ICT provides tools for addressing the societal challenges of an ageing population, greater healthcare and security etc.**
- ◆ **ICT underpins progress in all science & technology fields:**



Better jobs for Internet users

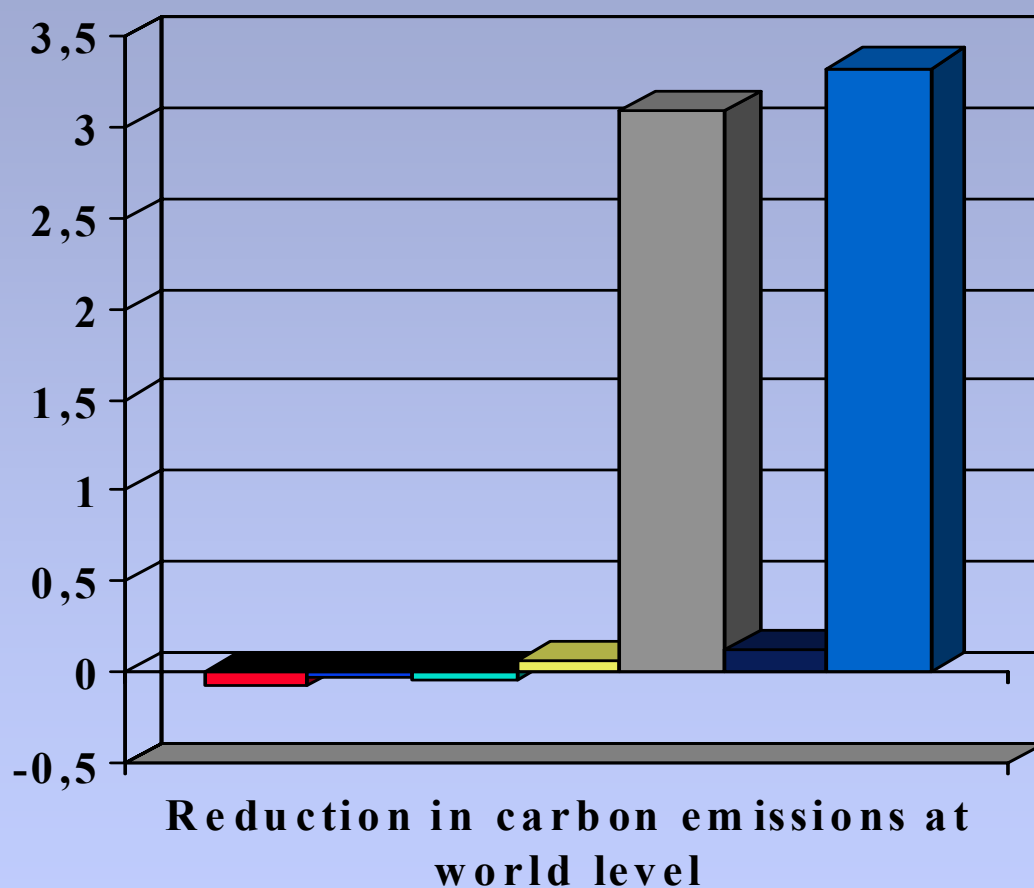


Contributions to greater social equity in 2050 from separate and combined policy measures: Simulations compared with a base case of a N/S ratio of 7.74 (GDP per capita)



Contributions to reducing world carbon emissions in 2050 from separate and combined policy measures:

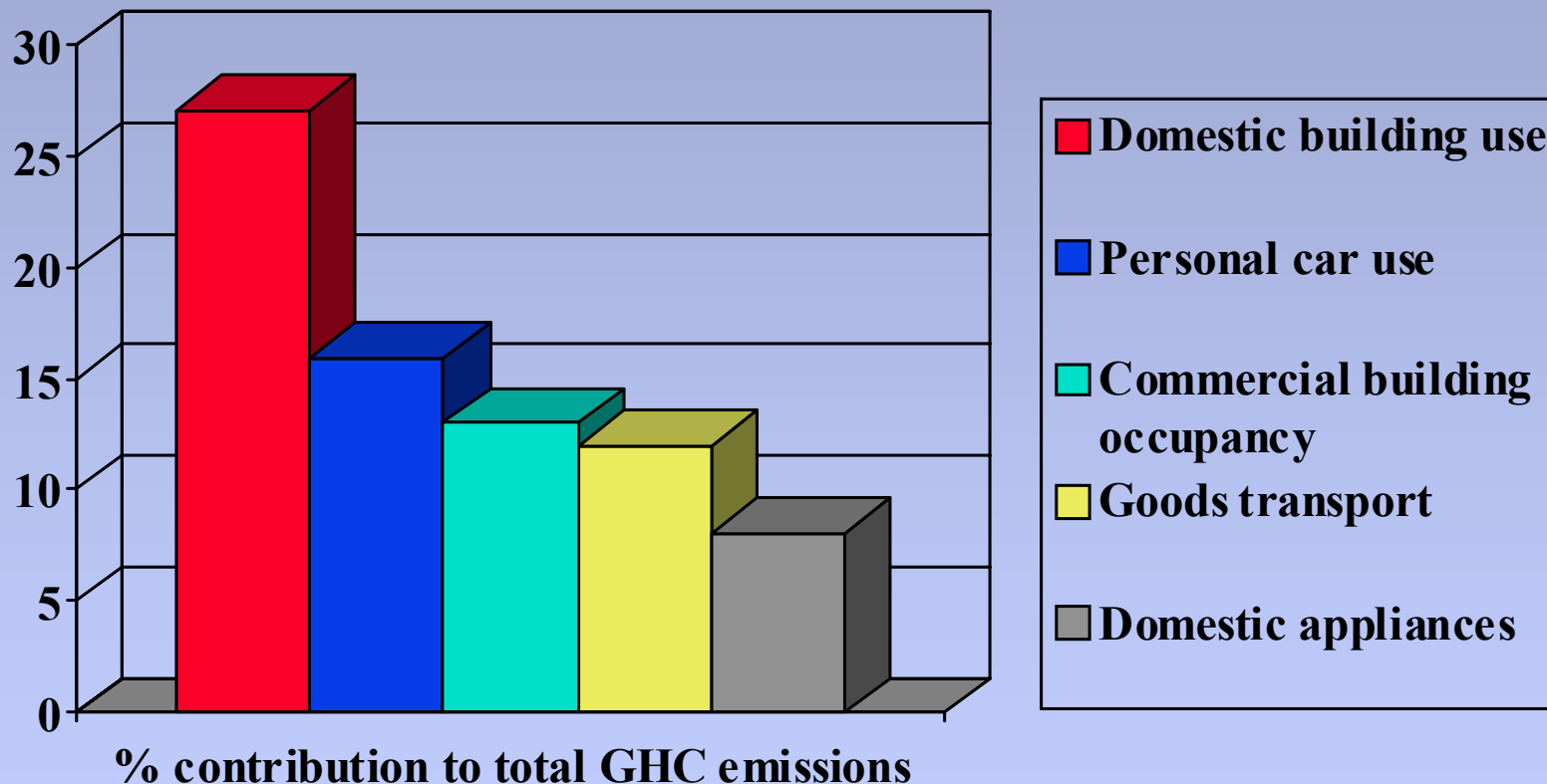
Simulations compared with a base case of 10.73 billion tonnes



- More investment in RTD
- Faster/wider network access
- More investment in Education
- Trade liberalisation
- Faster environmental technology devpt
- Carbon cap and trade



Greenhouse gas emissions from key economic and social activities



Buildings and construction

100% increase since 1980;

Construction, heating and lighting now represents:

- ◆ **40% of energy consumption;**
- ◆ **40% of CO₂ emissions; (1 tonne of concrete = 1 tonne of CO₂ emissions)**
- ◆ **40% of raw material use**

BUT! Usage rates of less than 10% for most office space



Leadership by the ICT sector

- ◆ **The developers and suppliers of ICT must be the first to master their sustainable use;**
- ◆ **The use of ICT for sustainable business development can be a major “selling point”;**
- ◆ **The ICT sector can provide world-wide coherence in sustainable development.**



Social sustainability: Investment in skills, creativity and social capital

- ◆ *Life-long learning in work;*
- ◆ *Workplace design and work-organization to stimulate innovation and creativity;*
- ◆ *Trusted relations with suppliers, partners, customers and local communities.*



A holistic approach to resource productivity

- ◆ ***“Pay-per-use”**: Product rental, “take-back” and recycling – WEEE targets - 65% recycling and 75% recovery by end 2006*
- ◆ ***Increased efficiencies** for use of energy, space/land, and travel/transport in knowledge work;*
- ◆ *Attention to **external and internal impacts**: Supply-chain; marketing/retail, and employee commuting;*



Strengthening frameworks for “Triple-bottom-line” reporting

- ◆ *“Profit/loss”,*
- ◆ *“Human resource Management”*
- ◆ *“Environment, Health and Safety”*
- ◆ *Profit, productivity and Investments in RTD*
- ◆ *Human capital - qualifications, retention and training; health, safety and creativity;*
- ◆ *Resource productivity : Transport, land and energy.*



A pro-growth, innovation-based, business-led strategy for sustainable development

- ◆ **Mapping incremental business improvements to long-term societal goals;**
- ◆ **Developing information systems for “triple-bottom-line” reporting applicable to all businesses;**
- ◆ **Accelerating organizational and structural change for sustainable development.**

