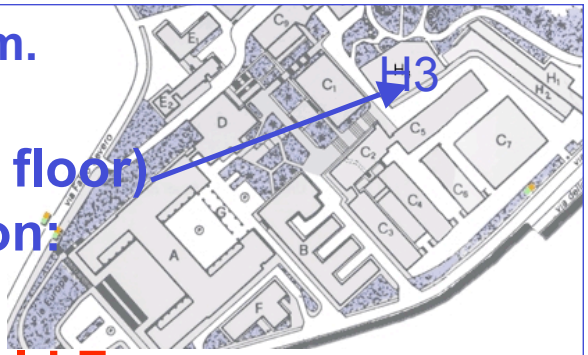
Monday 28 May 2007, 4.00- 6.00 p.m.
University of Trieste
Building H3, Lecture Room 1A (first floor)
Special International Presentation:



HIGHLIGHTS of the G8-UNESCO World Forum on 'Education, Research and Innovation: New Partnership for Sustainable Development', held in Trieste, May 2007

(In English) All students, researchers, lecturers are cordially invited

Program

16,00 Introduction: Education-Research-Innovation **- Gianrossano GIANNINI (TS/Italy)** (10')
16,10 Why UNESCO? Why Africa? Why Trieste?**- Paolo ALESSI (TS/Italy+UNESCO)** (10')
16,20 Education in the Knowledge-Based Society **- Gabriele GARBIN (TS/Italy+UNESCO)**(10')
16,30 Environment: Global Challenges **- Gianrossano GIANNINI (TS/Italy)** (10')
16,40 Innovation and Society **- Rachel OBED (Nigeria+ICTP)** (10')
16,50 Sustainable Development and Health **- Omer A. Ali (Sudan+ICTP)** (10')
17,00 Sustainable Development and Energy **- Gabriele GARBIN (TS/Italy+UNESCO)** (10')
& Anna Maria Novello (TS/Italy) (5')
17,15 Research and Innovation: Role of Governments**-Patrizia TIBERI VIPRAIO (UD/Italy))**(5')
& Rachel OBED (Nigeria+ICTP))(5')
17,25 Knowledge and Sustainable Development **Gianrossano GIANNINI (TS/Italy)** (10')
17,35 Science/Technology/Innovation: Perspectives for Africa**-Elie SIMO (Cameroon+ICTP)** (15')
17,50 Knowledge for Sustainable Development:The future **Patrizia TIBERI VIPRAIO(UD/Italy)**(10
18,00 End

Closing session
Knowledge for sustainable development
The future

Patrizia Tiberi Vipraio
Università di Udine

Knowledge to ease up the trade-off between population growth and environment

Brèzin
Science & Society

We can talk about sustainability because the population bomb did not explode (we shall reach a maximum of 9 billion)

The *knowledge based economy* means that the « golden triangle » is relevant to the whole planet

Importance of "leap-frogging" advances such as cell-phone, internet

Energy double challenge : exhaustion of fossil fuels (coming 'oil peak'), greenhouse gases, solar, wind , biomass, nuclear (gen IV)

Megapoles require concentrated forms of energy

Sci & Tech will be very important to reduce energy needs: examples

Lack of agreements among Governments and among people

We need social sciences to help science to address society's needs

Education before innovation; Basic science training is essential

***SESAME:* Proposed in 1997. 2.5 GeV synchroton light source of 3rd generation, sponsored by UNESCO, to be installed near Aman.**

Schjerva
Policies for sustainable development

Definition of SD: to maximize wealth in the long run (FK, HK, EK)

Policies

International cooperation to promote sustainable development and combat poverty
Address climate change, the ozone layer and long-range air pollution
Biological diversity and the cultural heritage
Sustainable economic and social development
Sami perspectives on environmental and natural resource management

Ethical Investments

Shares in close to 3 500 companies
Long term perspective
Petroleum wealth should benefit future generations
A sound return in the long term
Investments should not contribute to unethical acts including severe environmental damages

Targets

Limit the increase in global temperature to 2 degrees
Work for a broader more ambitious agreement
Exceed Kyoto obligation by 10 pst
Reduce emissions with 30 pst by 2020
Curbe emissions both "at home" and abroad
Achieve carbon neutrality by 2050
Develop technology for capture and storage of CO2&CCS

Oil for development

Oil revenues do not always improve people's lives
Norway has 40 years of experience with oil income
Revenues benefit the whole people
Norway wants to share the experiences to help reduce poverty and improve living conditions for the population

King
Technologies for sustainable development

Help demographic transition from high birth rate to low death rate up to 9 billion people

Technologies to impact on food, health, water, climate change

But we are to re-gear our efforts towards future needs

Global agreement on climate is necessary but difficult: free riders, huge country differences, fairness first, time mismatch

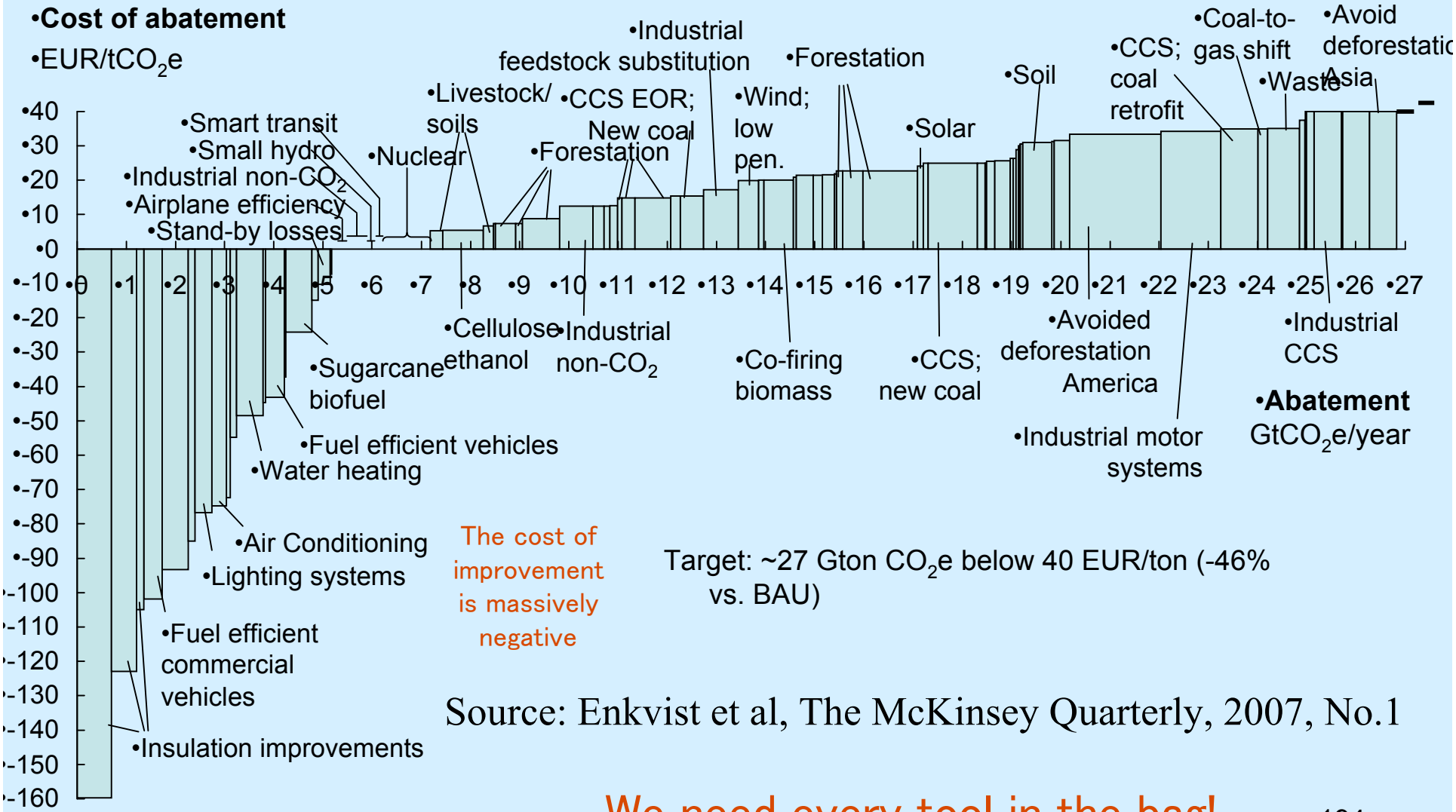
The obstacles are not economical but political and cultural

Science, modern medicine and technology have, since the industrial revolution, provided us with societies in which we can live longer healthier lives than in the pre–industrial period…

…. now we need to use our wealth and technology not only to manage our economies within finite natural resources but also to adapt to a warming planet while reducing the extent of that warming by drastically reducing CO2 emissions

Global cost curve of GHG abatement opportunities beyond business as usual

up to 2030



The cost of improvement is massively negative

Target: ~27 Gton CO_2e below 40 EUR/ton (-46% vs. BAU)

Source: Enkvist et al, The McKinsey Quarterly, 2007, No.1

We need every tool in the bag!