Some technical data

- Eurobarometer 55.2 (since 1973)
- **16,029** people interviewed, aged 15+, between 10 May and 15 June
- On average ca 1,000 people per MS
- Same survey should has just been carried out in **candidate** countries

**General trends**

- Overall **positive** perception of science and technology
- Scientific **literacy** stable compared to 1992 (with 2 exceptions)
- High **expectations** but...
- Science and technology are no longer the « ultimate solution »
- Relative interest in science slightly **lower** than in 1992
Are you interested in ...

- Sports
- Politics
- Economics & Finance
- Science & Technology
- Culture

Interest levels:
- Fairly interested
- Fairly not interested
- DK

Groups:
- Managers,
- Students,
- Educ < 15 yrs,
- Houseperson,
- Women,
- S, DK, GR, NL,
- D, IRL
Are you interested in ...

- Sports
- Politics
- Economics & Finance
- Science & Technology
- Culture

- Fairly interested
- Fairly not interested
- DK
- Students
A gap between Science & Society?

- 45% of Europeans are *neither interested nor informed* about science and technology.
- *Two thirds* say they are badly informed.
What are the S&T developments in which you are most interested?

- Medicine
- Environment
- Internet
- Genetics
- Socio-economics
- Astronomy & space
- None of them
- Nanotechnologies

Options:
- Nanotechnologies
- None of them
- Astronomy & space
- Genetics
- Internet
- Environment
- Medicine

Selected topics:
- Nanotechnologies
- None of them
- Astronomy & space
- Genetics
- Internet
- Environment
- Medicine

Selected locations:
- IRL
- P
- GR
- DK
- NL
- L
- Students
- P, GR
- IRL, P, UK
- IRL
- IRL, P
- S, UK, NL
- S, DK
- F

Survey results.
Main sources of scientific information

- TV
- Press
- Radio
- School/university
- Scientific magazines
- Internet

Students
Science and the medias

- Scientific and technological developments are often presented too **negatively** (36.5%)
- Most **journalists** dealing with scientific topics do not have the appropriate background or training to do so (53.3%)
- I rarely **read** articles related to science and technology (60.6%)
Which of the following have you visited in the last 12 months?

- Zoo/aquarium
- S&T museum
- Public library
- Art museum
- None of these

Students
The scientificness of sciences ...

- Medicine
- Physics
- Biology
- Astronomy
- Mathematics
- Psychology
- Astrology
- Economics
- History

Percentage of respondents who agreed that these disciplines are fairly scientific.
A scientific quiz ...

The centre of the Earth is very hot
Radioactive milk can be made safe by boiling it
Electrons are smaller than atoms
Antibiotics kill viruses and bacteria
Earlier humans lived at the same time as dinosaurs

Percentage of good answers
Do you agree?

- S&T will help eliminate poverty and hunger around the world
- Thanks to S&T there will be more opportunities for future generations
- Science makes our way of life change too fast
- In my daily it is not important to know about science
- Application of S&T will make work more interesting

Percentage of people who tend to agree
Opinions on science

Knowledge index

- Curing diseases \( r=0.244 \)
- More opportunities for the future \( r=0.237 \)
- Healthier lives \( r=0.222 \)
- More interesting work \( r=0.211 \)
- Improving the environment \( r=0.287 \)
- More important benefits \( r=0.136 \)
- New inventions neutralise \( r=0.081 \)
- Eradicating poverty \( r=0.078 \)
- Automation, more jobs \( r=0.04 \)
- Inexhaustible resources \( r=-0.082 \)
- Solving all problems \( r=-0.019 \)
About research ...

- New inventions will counteract harmful consequences of S&T
- S&T are important for industrial development
- Research should be supported by governments
- Computers will create more jobs
- Fundamental research is essential for new technologies

Percentage of people who tend to agree
Scientists’ responsibilities

- Scientists should be free to carry out the research they wish S&T will improve farming and food production.
- Scientists should be obliged to respect ethical standards.
- Scientists share responsibility for misuse of their discoveries.
- A discovery is neither good nor bad.
- Scientists are responsible for the misuse of their discoveries.

Percentage of people who tend to agree.
Which professions do you respect most?

- Medical doctors
- Scientists
- Engineers
- Judges
- Businessmen/women

Students
The public and the scientists

- Strong but **ambiguous** image. « Scientists are responsible for the misuse of their discoveries by other people» (42.8% agree, 42.3% disagree)
- Knowledge is **power**
- Reinforced **control**: 80.3% say « The authorities should formally oblige scientists to respect ethical standards »
- BSE: errors made by **industry**. 74.3% say the agro-food industry is the main responsible
- **Crises** can strengthen science and its **image**, as well as the image of public research
A specific case: GMOs

Genetically modified food (GMO) is dangerous
A specific case: GMOs

- With regards to genetically modified food, 94.6% want to have the right to choose
- 59.4% say «GMOs may have negative effects on the environment»
- No “knowledge/education effect”
- Information is not enough and could even be counter-productive
Science and the young people

- Science's image is no better or worse among young people than among the public as a whole.
- Causes for declining interest in scientific studies and careers:
  - Science classes at school not sufficiently appealing (59.5%)
  - Scientific subjects are too difficult (55.0%)
  - Young people less interested in scientific subjects (49.6%)
  - career prospects not sufficiently appealing (42.4%)
- «The authorities should try to resolve this situation» (60.3% - 64.2% for students)
- «The EU should become more open to foreign scientists» (63.1% - 69.5% for students)
Science and the young people

- Science lessons not appealing
- Science too difficult
- Not interested in science
- Salaries not attractive
- Negative image of science

EU15 vs. Students
Support to European research

- How to improve European research:
  - Improve co-operation between researchers (84.1%/87.8%)
  - Better co-ordinate research (80.4%/84.6%)
  - Improve co-operation between public research and industry (78.7%/80.6%)
- Strong support to ERA
- Enlargement positive for both candidate countries and current Member States
About enlargement

- Enlargement will improve S&T potential of current MS
- Enlargement will improve S&T potential of new MS

Students
National trends

A - Most critical about schools/ universities: 33.1% think they are the least important source of information about scientific developments (EU15: 20.6%)

B - Lowest opposition to GMOs: 19.0% feel there is no particular danger from this type of food (EU15: 14.6%)

D - Lowest interest in science and technology (66.6% fairly not interested; EU15: 52.2%)

DK - Best informed on science and technology (51% feel well informed; EU15: 33.4%); high expectations: scientific and technological progress will help to cure illnesses such as aids, cancer, etc (94.1% agree; EU15: 80.5%)

E - Positive attitude about enlargement: 61.0% feel it will enhance the scientific and technological potential of the current Member States (EU15: 53.3%)
National trends

F - Low confidence in scientists: only 56.0% would trust them to explain the reasons for a disaster (EU15: 62.7%); 75.4% feel that because of their knowledge scientists have a power that makes them dangerous (EU15: 63.2%)

FIN - Low awareness of EU research policy: only 18.4% know EU is active in science, research and technology (EU15: 38.2%)

GR - Highest concern with ethics; strongest opposition to GMOs: 93.3% do not want this type of food (EU15: 70.9%)

I - Lowest concern about women and science: only 59.4% agree that more girls and young women should be encouraged to take up studies and careers in science (EU15: 70.8%)

IRL - Lowest number of visits to science and technology museums (4.1%; EU15: 11.3%); lowest regards for scientists (22.9%; EU15: 44.9%)
National trends

L - Highest interest in environment (65.8% are most interested; EU15: 51.6%)

NL - Highest interest in the Internet (47.9% are most interested; EU15: 27.9%); lowest opposition to GMOs: only 52.6% feel they do not want this type of food (EU15: 70.9%)

P - Least informed about science and technology (73.2% feel not well informed; EU15: 61.4%)

S - Highest interest in science and technology (64.3% are fairly interested; EU15: 45.3%); technophobia? 72.5% say that many high-tech products are just gadgets (EU15: 51.5%)

UK - Critical about EU role: only 66.8% think the EU should be active in science, research and technology (EU15: 80.2%)
Communication: science and/or ideology?

"Ce que je vous montre est vrai parce que c’est technologique"

I. Ramonet, La Tyrannie de la communication, Galilée, 1999

"Didn’t you get my e-mail?"
Actions at EU level

- Exchange of good practices
- Experts
- MS officials
- Open coordination of MS activities
- Statistics
- Eurobarometers
- Direct actions
- Research DG
- FP6
- EAC DG
- Targets
  - Young people
  - Public
  - Improving teaching
  - Contests
  - Web-magazine
  - Videos, publications
  - Networks
  - Projects
  - AAAS-type events
  - Prizes

- Projects
- Networks
- Prizes
Actions at EU level

- Eurobarometers
- Action plan « Science and society »
- Sixth Framework Programme 2002-2006
- Science TV channel
- European science news agency
- Web site; publications

Information

- General information on research: http://europa.eu.int/comm/research
- General information on the Sixth Framework Programme: http://europa.eu.int/comm/research/nfp.html
- Information on research programmes and projects: http://www.cordis.lu
- Information requests: research@cec.eu.int
The End

Thank you for your attention!

Directorate-General for Research
Information and Communication Unit
michel.claessens@cec.eu.int
Phone +32-2-295 99 71
Fax +32-2-295 82 20