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Research Universities

a chance for Europe

25th Conference of Rectors and Presidents of
European Technical Universities, Vienna, 14-15 Sept 2006

Easiest way to lose money
is to sink it into stocks, women
or scientific research

*ascribed to Georges
Pompidou*

However, if you know what are you doing,
good return is more likely



Warren
Buffet



Alfred Nobel



But skill, trust and devotion are also required



POLITICAL MILESTONES FOR KNOWLEDGE-BASED EUROPE

- Declaration of creating ERA – European Research Area - Phillipe Busquin
- Lisbon Strategy
- Barcelona target – 3% spending for R&D until 2010
- Bologna declaration
- Framework Program 7 – Janez Potočnik
 - 40% higher budget
 - 7 years timescale
 - New instruments (ERC!)



CLEAR AND PRESENT DANGER, dawn of the Roman Empire again?

- Demography
 - *Ageing society vs. social security – who will pay?*
 - *Outflow of young and talented*
- Lack of a common goal and „team” spirit, fragmentation, nationalisms, xenophobia, protectionism
- EU obsolete targets and spending (e.g. EU agri-policy)
- Unfriendly neighbourhood, but are we without sin?
- Nuisances in relationships with the USA – natural European best partner
- Do we have any sensible common policy vis a vis Asia?



Putting R&D and innovation as a pillar of Lisbon Strategy is correct, but...

...accelerating the transition from a resource-based society to a knowledge-based society requires mobilisation of a broad range of actions beyond R&D and innovation



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A NEW ROLE OF TECHNICAL UNIVERSITIES

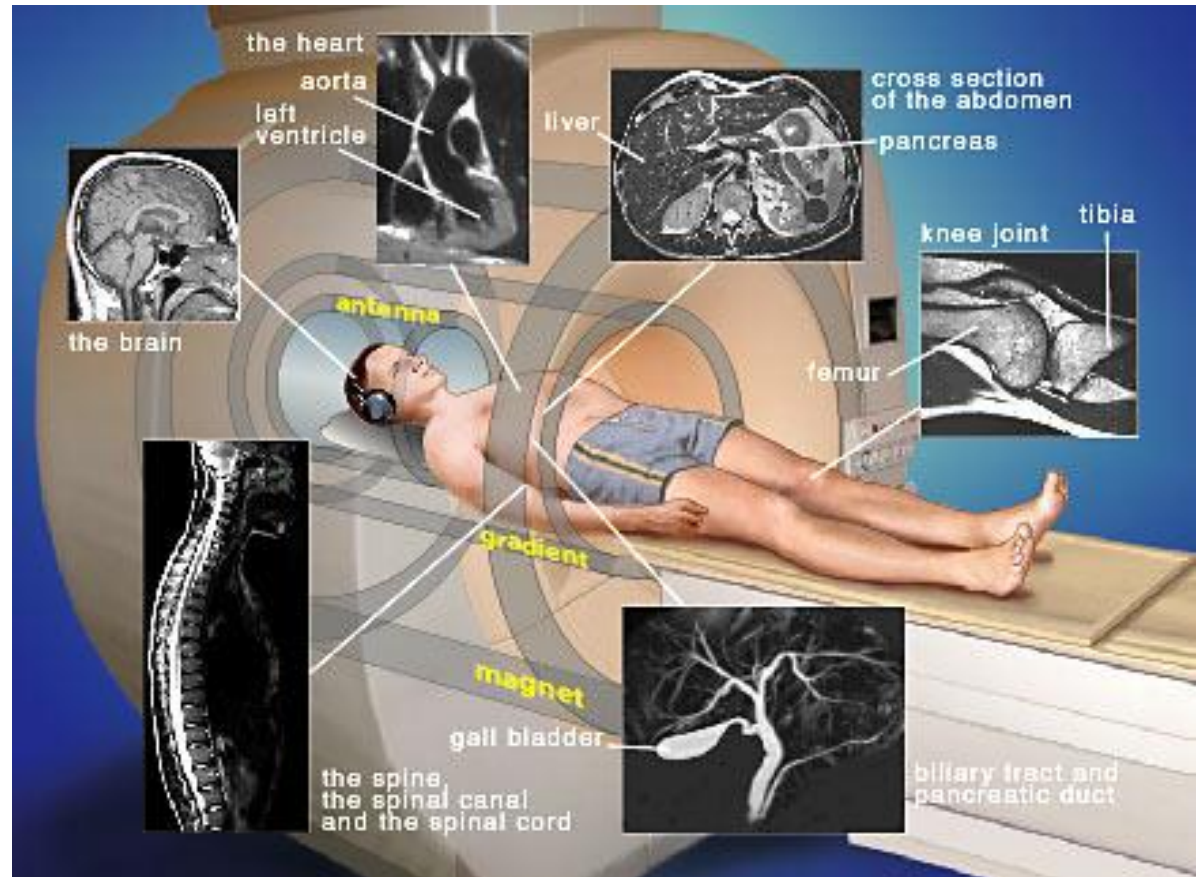
- TU's leaders in teaching future engineers, but first of all creators who wake up, motivate and stimulate entrepreneurship among young Europeans in a socially conscious way.
- Technical Universities must enter territories until recently dominated by classic Universities (frontier research)

Felix Bloch and Edward Purcell first demonstration of nuclear magnetic resonance in 1946.

Physics in 1952



Medicine in 2003



Paul Lauterbur and Peter Mansfield demonstration of NMR imaging in early 70ties

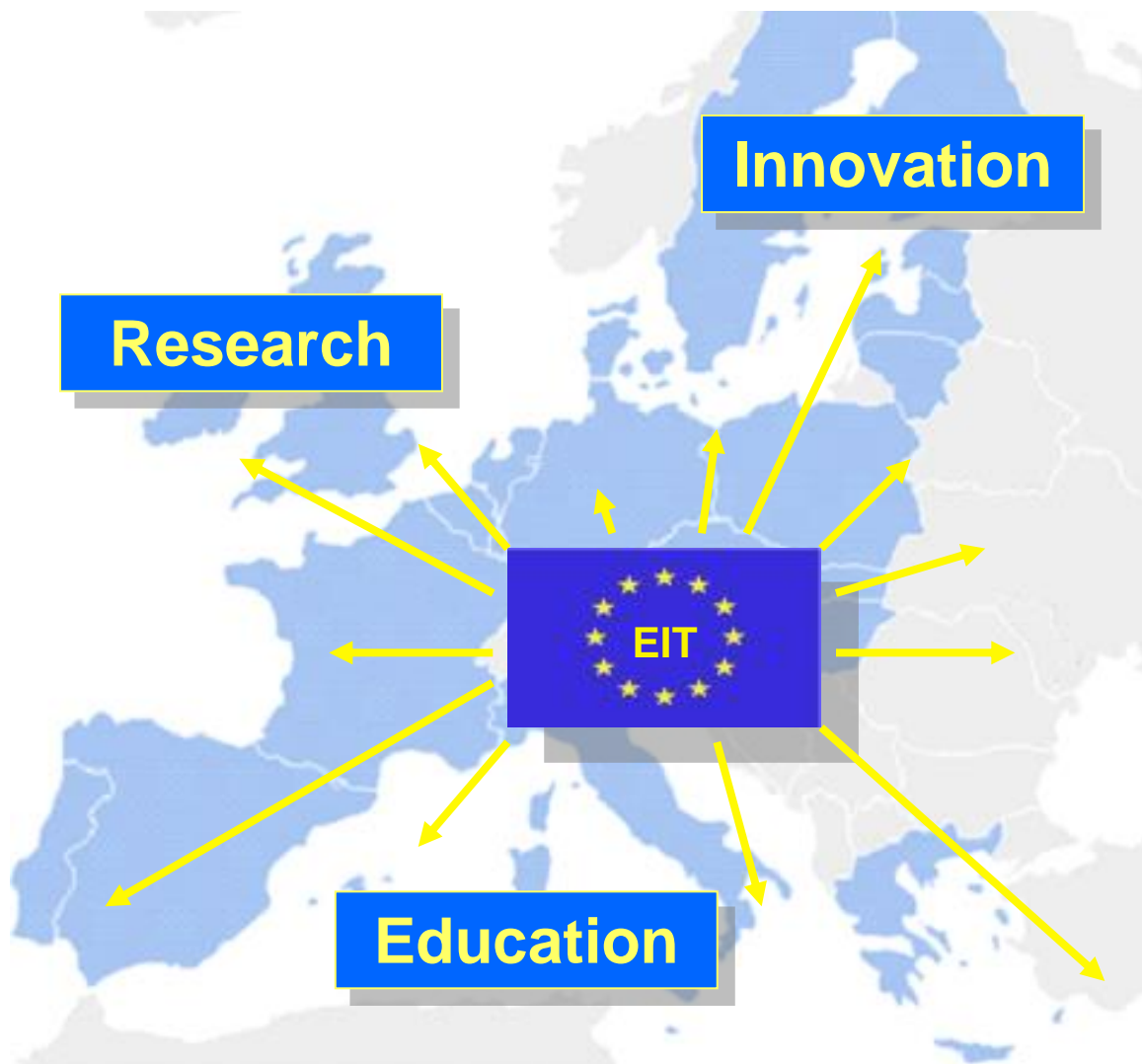


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UNIVERSITIES FOT THE FUTURE

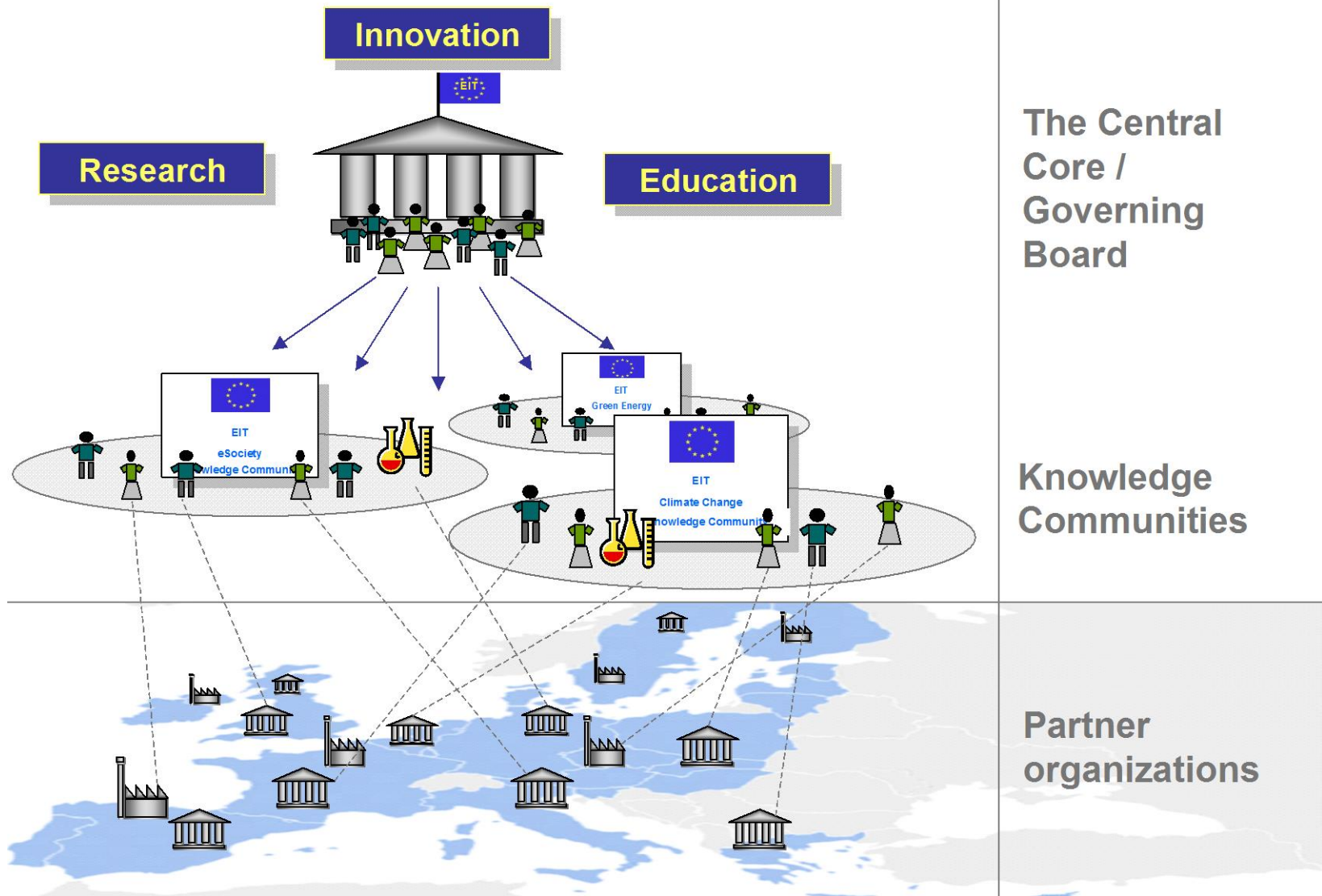
- Universities may transform into more interdisciplinary entities, with less rigid discipline structure and more open and mobile arrangement for students and staff.
- **Values and scientific methodology must be kept untouched**

EIT MISSION AND GOALS



- To perform postgraduate education and research and convert them into commercial opportunity
- To develop research and innovation management skills
- To attract researchers and students world wide
- To show that new organizational and governance models can work

EIT – STRUCTURE



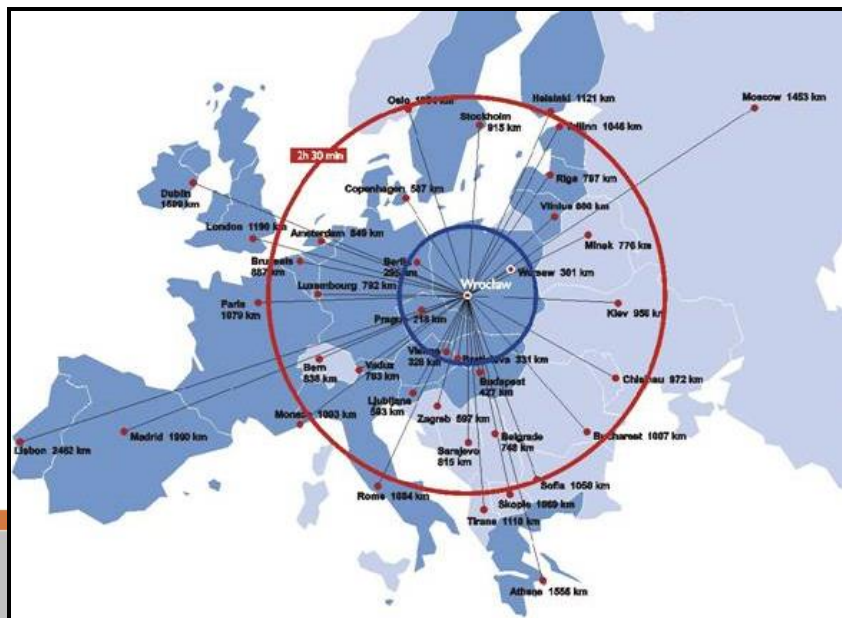


- an opportunity to boost both higher education and innovativeness in Europe
- to build appropriate training and entrepreneurship spirit in EU HE
- a new instrument and tool – an operator and facilitator
- Close decision making partnership between academia and business
- **Joint work on common goal first, “bricks and mortar” later.**
- an umbrella-type arrangement under the EIT label
- the EIT must mobilize new funding to establish and support KC



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WROCLAW – AN ACADEMIC TOWN

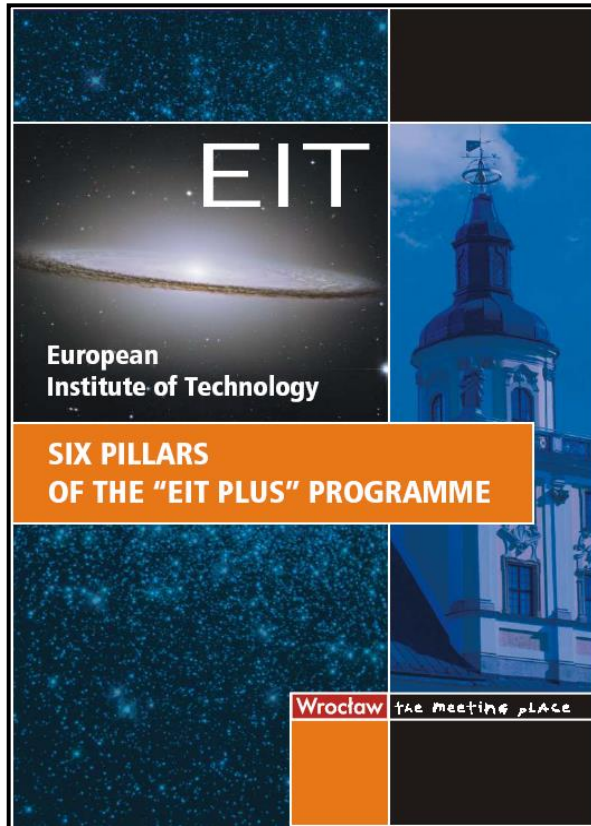


- 10 Nobel Prize winners (Breslau)
- World-renowned Polish School of Applied Mathematics
- 27 higher education institutions
- 130 000 university students



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THE EIT PLUS PROGRAMME



EDUCATION PILLAR

RESEARCH PILLAR

BUSINESS PILLAR

GOVERNANCE PILLAR

REGIONAL PILLAR

GROWTH PILLAR

Resources > 1bn Euro



EIT+

...living up to our dreams



There are many to queue up for little money and very few to stand up for big money.

*Who aims low,
reach near.*

FOLK WISDOM



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EUROPE NEEDS GRAND VISION FOR XXI CENTURY

From ERA to REI

European **R**esearch Area

- New FP7 & increased budget
- European funding of basic research
 - *European Research Council*

European Higher **E**ducation – Bologna Process; EIT?

European promotion of **I**nnovativeness

- *European Innovation Council*



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HISTORY TEACHES



*I tell you, Sirs, that I judge no land
in England better bestowed than
that which is given to our
Universities.*

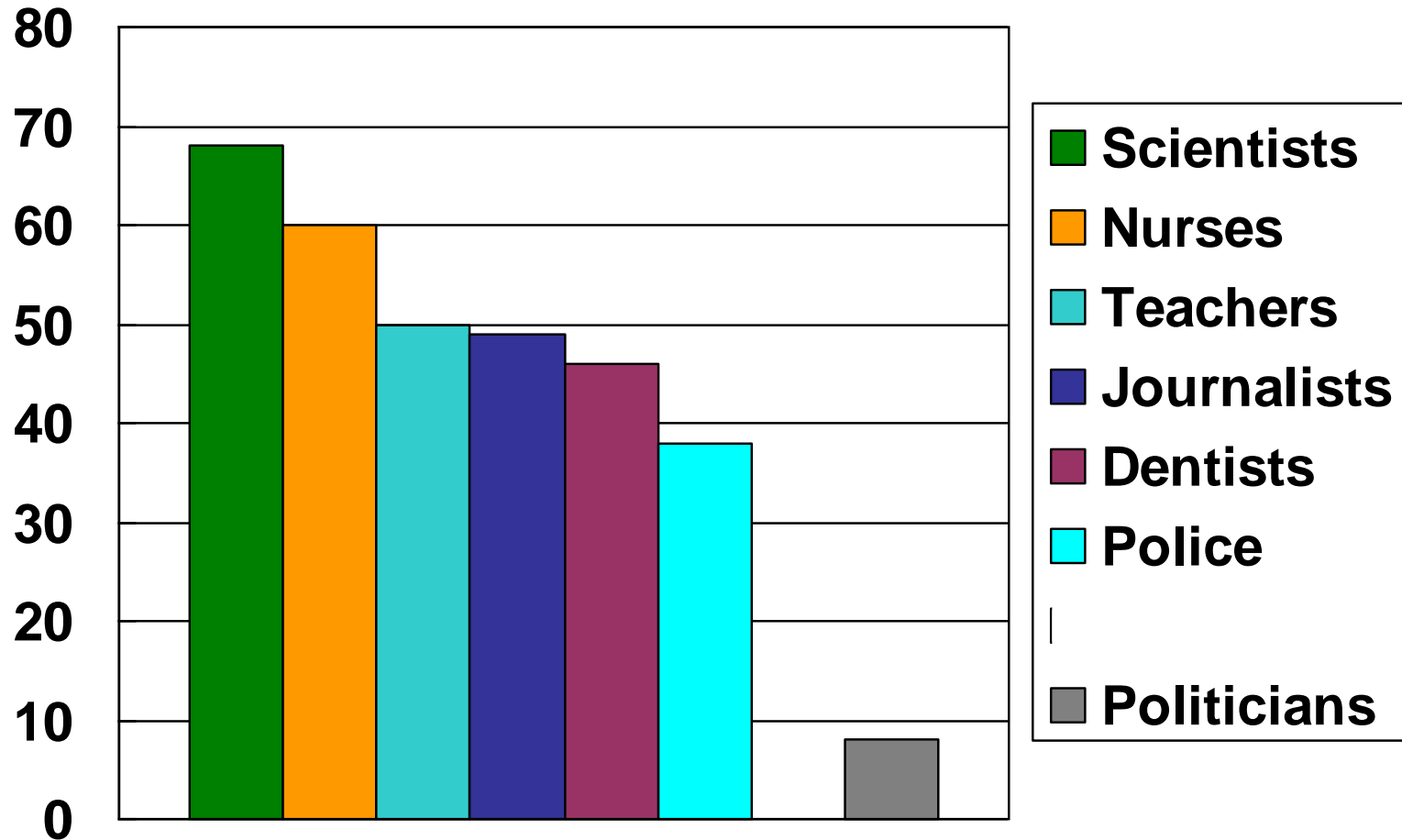
*For by their maintenance our Realm
shall be well governed when we be
dead and rotten*

Henry VIII



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RANKING OF MOST TRUSTED PROFESSIONALS





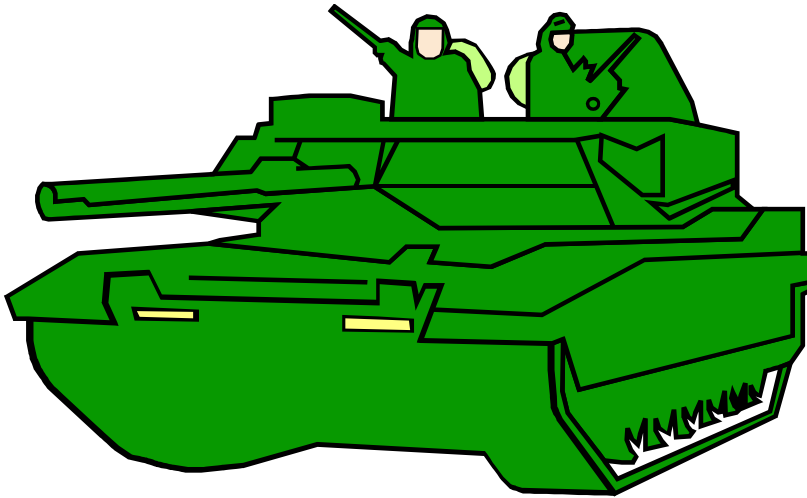
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WHERE IS REAL POWER?

130 000 soldiers

POLAND

2 000 000 students



Argument of power



Power of arguments