Scientific Research and Development in the U.S. and Around the World

By Global Research News
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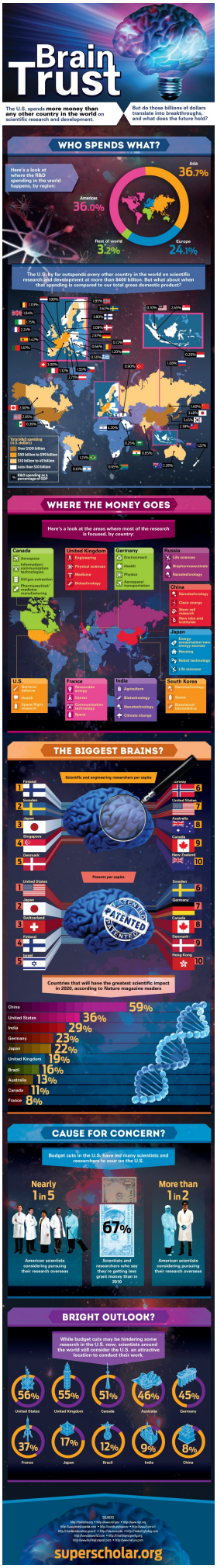
SuperScholar.org

Region: USA
Theme: Science and Medicine

The U.S. spends more money than any other country in the world on scientific research and development.

But do those billions of dollars translate into breakthroughs, and what does the future hold?


Brain Trust
The U.S. spends more money than any other country in the world on scientific research and development.
But do those billions of dollars translate into breakthroughs, and what does the future hold?
WHO SPENDS WHAT?
Here's a look at where the R&D spending in the world happens, by region:
Asia 36.7%
America 36.0%
Rest of world 3.2%
Europe 24.1%
The U.S. by far outspends every other country in the world on scientific research and development at more than $400 billion. But what about when that spending is compared to our total gross domestic product?
WHERE THE MONEY GOES
Here's a look at the areas where most of the research is focused, by country:
Canada
United Kingdom
Germany
Russia
China
Japan
U.S.
France
India
South Korea
THE BIGGEST BRAINS?
Scientific and engineering researchers per capita
Patents per capita
Countries that will have the greatest scientific impact in 2020, according to Nature magazine readers
China 59%
United States 36%
India 29%
Germany 23%
Japan 22%
United Kingdom 19%
Brazil 16%
Australia 13%
Canada 11%
France 8%
CAUSE FOR CONCERN?
Budget cuts in the U.S. have led many scientists and researchers to soar on the U.S.
Nearly 1 in 5
American scientists considering pursuing their research overseas
67%
Scientists and researchers who say they're getting less grant money than in 2010
More than 1 in 2
American scientists considering pursuing their research overseas
BRIGHT OUTLOOK?
While budget cuts may be hindering some research in the U.S. now, scientists around the world still consider the U.S. an attractive location to conduct their work.
56% United States
55% United Kingdom
51% Canada
46% Australia
45% Germany
37% France
17% Japan
12% Brazil
9% India
8% China
SOURCES
superscholar.org

Source: SuperScholar.org

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Who Spends What?

Here's a look at where the R&D spending in the world happens, by region:

Americas 36.0%

Asia 36.7%

Europe 24.1%

Rest of world 3.2%

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Country Total R&D spending (U.S. dollars)

United States $436 billion

China $198.9 billion

Japan $157.6 billion

Germany $90.6 billion

South Korea $56.4 billion

France $51.1 billion

United Kingdom $42.4 billion

India $41.3 billion

Brazil $30 billion

Canada $28.6 billion

Russia $26.9 billion

Italy $24.4 billion

Taiwan $22.3 billion

Australia $21.8 billion

Spain $20.4 billion

Sweden $14.4 billion

Netherlands $13.7 billion

Switzerland $10.4 billion

Israel $10.3 billion

Austria $9.9 billion

Turkey $9.7 billion

Singapore $8.8 billion

Belgium $8.6 billion

Finland $7.7 billion

Mexico $6.8 billion

Denmark $6.6 billion

Poland $5.7 billion

South Africa $5.5 billion

Norway $5.1 billion

Czech Republic $4.3 billion

Argentina $4.2 billion

Portugal $4.1 billion

Malaysia $3.3 billion

Ireland $3.2 billion

Hungary $2.4 billion

Indonesia $2.4 billion

Romania $1.8 billion

Saudi Arabia $1.8 billion

New Zealand $1.6 billion

Greece $1.6 billion

Country R&D spending as a percentage of GDP

Israel 4.20%

Finland 3.80%

Sweden 3.62%

Japan 3.48%

South Korea 3.45%

Denmark 3.08%

Switzerland 3.00%

Germany 2.87%

United States 2.85%

Austria 2.75%

Singapore 2.65%

Taiwan 2.38%

Australia 2.28%

France 2.24%

Belgium 2.03%

Canada 2.00%

Netherlands 1.90%

Norway 1.85%

United Kingdom 1.84%

Ireland 1.75%

Portugal 1.67%

China 1.60%

Czech Republic 1.55%

Spain 1.42%

Italy 1.32%

Brazil 1.25%

New Zealand 1.22%

Hungary 1.20%

Russia 1.08%

South Africa 0.95%

Turkey 0.90%

India 0.85%

Poland 0.72%

Malaysia 0.70%

Romania 0.66%

Argentina 0.61%

Greece 0.50%

Mexico 0.39%

Saudi Arabia 0.25%

Indonesia 0.20%

Where the Money Goes

Here’s a look at the areas where most of the research is focused, by country:

U.S.

National defense

Health

Space/flight research

China

Nanotechnology

Clean energy

Stem cell research

New labs and institutes

Japan

Energy conservation/new energy sources

Housing

Robot technology

Life sciences

Germany

Environment

Health

Physics

Aerospace/ transportation.

South Korea

Nanotechnology

Space

Bioscience/biomedicine

France

Renewable energy

Cancer

Communication technology

Space

United Kingdom

Engineering

Physical sciences

Medicine

Biotechnology

India

Agriculture

Biotechnology

Nanotechnology

Climate change

Canada

Aerospace

Information/communication technologies

Oil/gas extraction

Pharmaceutical/medicine manufacturing

Russia

Life sciences

Biopharmaceuticals

Nanotechnology

The Biggest Brains?

Which countries are poised for the biggest and best breakthroughs over the next decade?

Scientific and engineering researchers per capita

- Finland
- Sweden
- Japan
- Singapore
- Denmark
- Norway
- United States
- Australia
- Canada
- New Zealand

Patents per capita

- United States
- Japan
- Switzerland
- Finland
- Israel
- Sweden
- Germany
- Canada
- Denmark
- Hong Kong

Countries that will have the greatest scientific impact in 2020, according to Nature magazine readers

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Germany 23%

Japan 22%

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Cause for Concern?

Budget cuts in the U.S. have led many scientists and researchers to sour on the U.S.

Nearly 1 in 5

American scientists considering pursuing their research overseas

67%

Scientists and researchers who say they're getting less grant money than in 2010

More than 1 in 2

Researchers with colleagues who've lost a job or expect to soon

Bright Outlook?

While budget cuts may be hindering some research in the U.S. now, scientists around the world still consider the U.S. an attractive location to conduct their work.

To which countries would you consider relocating?

United States 56%

United Kingdom 55%

Canada 51%

Australia 46%

Germany 45%

France 37%

Japan 17%

Brazil 12%

India 9%

China 8%

Sources:

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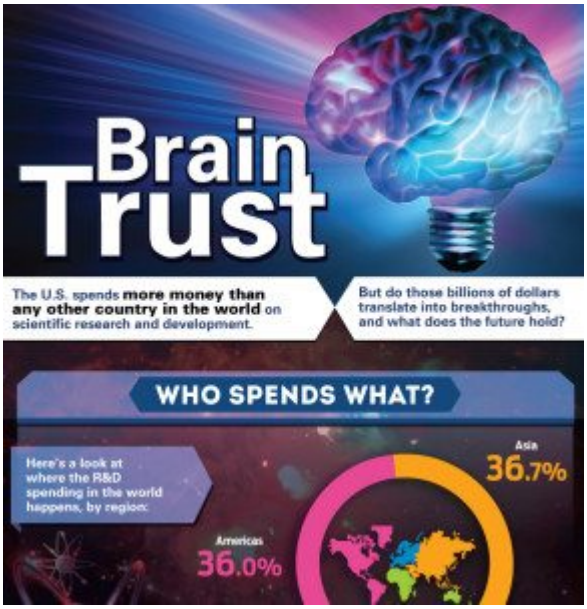

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