

# **GLOBAL INVESTMENTS IN R&D**

**UIS FACT SHEET** 

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This fact sheet presents the latest UIS R&D data available as of October 2015.

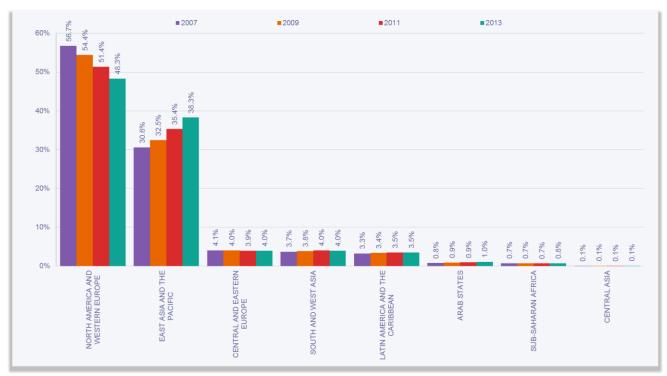
### A SNAPSHOT OF R&D EXPENDITURE

This fact sheet illustrates global and regional trends in the allocation of R&D resources. The UIS releases data on resources devoted to R&D once every year – in August. For developing countries, however, data are collected on a biennial basis.

The most commonly used indicators to monitor resources devoted to R&D worldwide are gross domestic expenditure on R&D (GERD) expressed in purchasing power parity (PPP\$) and R&D intensity (percentage of gross domestic product (GDP) devoted to R&D activities). **Figure 1** presents the distribution of R&D expenditure by region .

FIGURE 1. WHERE ARE R&D INVESTMENTS MADE?

Shares of world R&D expenditure (GERD) by region, 2007, 2009, 2011 and 2013

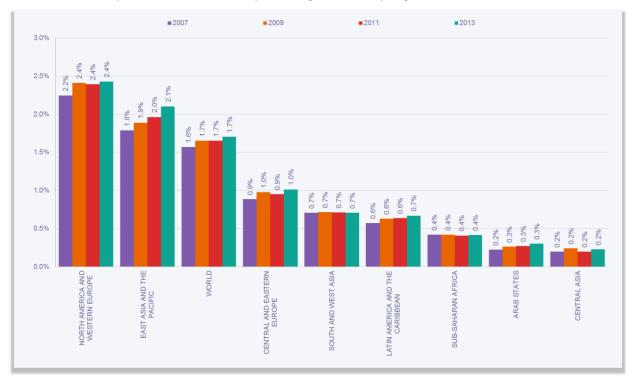


Source: UNESCO Institute for Statistics estimates, August 2015

**Figure 2** and **3** illustrate the distribution of R&D intensity by region. This indicator presents R&D expenditure relative to the size of the regional or national economy.

FIGURE 2. WHICH REGIONS ARE MOST R&D INTENSIVE?

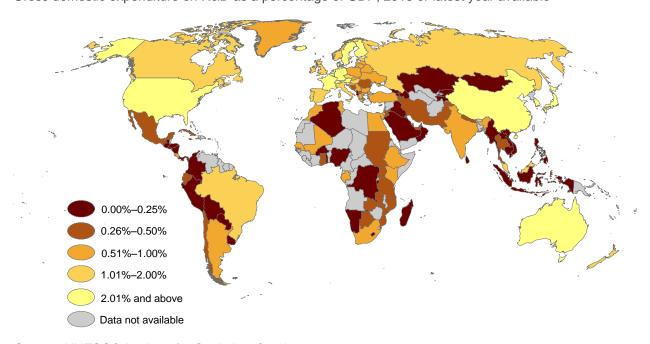
Gross domestic expenditure on R&D as a percentage of GDP by region, 2007, 2009, 2011 and 2013



Source: UNESCO Institute for Statistics estimates, August 2015

FIGURE 3. A SNAPSHOT OF R&D INTENSITY

Gross domestic expenditure on R&D as a percentage of GDP, 2013 or latest year available

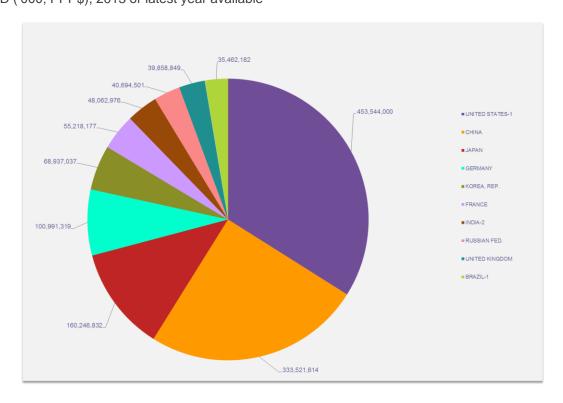


The 2013 regional averages for the share of GDP devoted to R&D activities are:

- 1.7% for World
- 0.3% for Arab States
- 1.0% for Central and Eastern Europe
- 0.2% for Central Asia
- 2.1% for East Asia and the Pacific
- 0.7% for Latin America and the Caribbean
- 2.4% for North America and Western Europe
- 0.7% for South and West Asia
- 0.4% for Sub-Saharan Africa

**Figure 4** illustrates the world's top leaders in R&D expenditure, measured in PPP\$ for the latest year available. PPP\$ better reflects the real value of investments and allows for more comparability by eliminating differences in price levels among countries. Essentially, this means that a sum of money converted into US dollars at PPP rates will buy the same basket of goods and services in all countries.

**FIGURE 4. WORLD'S TOP 10 LEADERS IN R&D INVESTMENT** GERD ('000, PPP\$), 2013 or latest year available



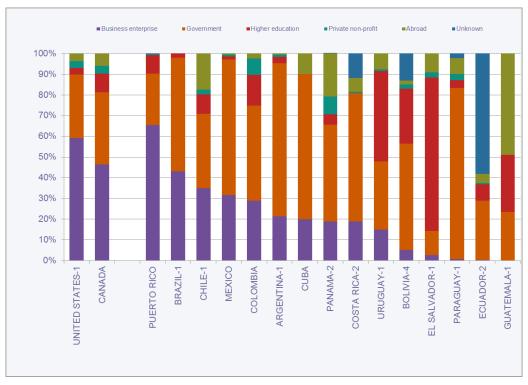
**Notes**: -1 = 2012, -2 = 2011.

### WHICH SECTORS INVEST THE MOST IN R&D?

**Figures 5, 6** and **7** illustrate R&D expenditure broken down by source of funds. This refers to total gross intramural expenditure on R&D during a given period, financed by different sectors of the economy (business enterprise, government, higher education or private non-profit organizations) or from abroad, and expressed as a percentage.

FIGURE 5. FUNDING IN THE AMERICAS

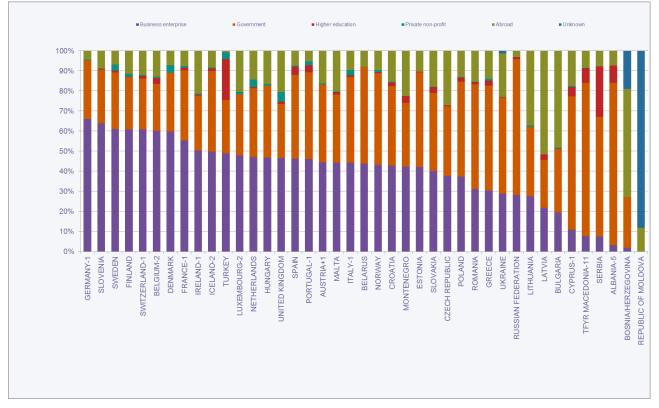
GERD by source of funds, 2013 or latest year available



**Notes**: -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005, -9 = 2004, -11 = 2002, -12 = 2001.

### FIGURE 6. FUNDING IN EUROPE

GERD by source of funds, 2013 or latest year available

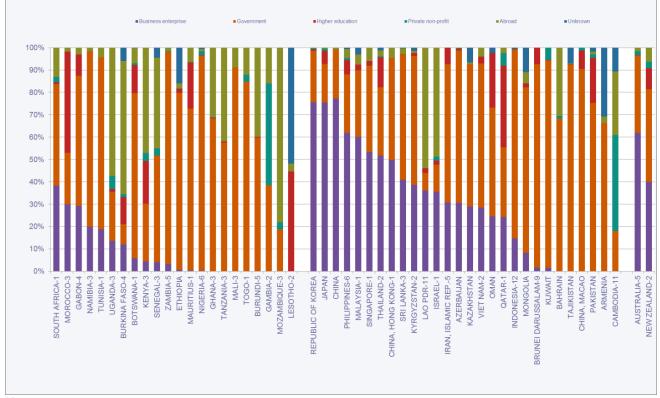


**Notes**: -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005, -9 = 2004,

-11 = 2002, -12 = 2001.

# FIGURE 7. FUNDING IN AFRICA, ASIA AND THE PACIFIC

GERD by source of funds, 2013 or latest year available



**Notes**: -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005, -9 = 2004, -11 = 2002, -12 = 2001.

### WHICH SECTORS RECEIVE THE MOST INVESTMENT?

**Figures 8, 9** and **10** depict R&D expenditure broken down by sector of performance. This refers to total gross intramural expenditure on R&D during a given period by institutions corresponding to each sector (business enterprise, government, higher education and private non-profit organizations), independent of the source of funds and expressed as a percentage.

FIGURE 8. A BREAKDOWN OF R&D INVESTMENT IN THE AMERICAS

GERD by sector of performance, 2013 or latest year available



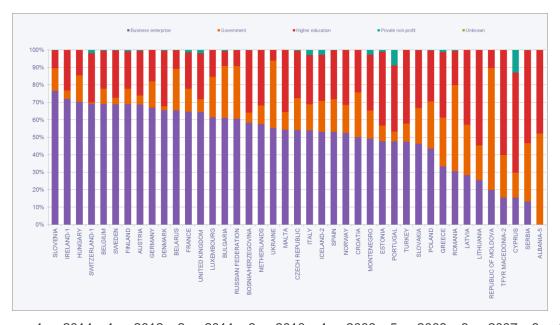
**Notes**: +1 = 2014, -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005,

-9 = 2004, -11 = 2002.

Source: UNESCO Institute for Statistics, October 2015

# FIGURE 9. A BREAKDOWN OF R&D INVESTMENT IN EUROPE

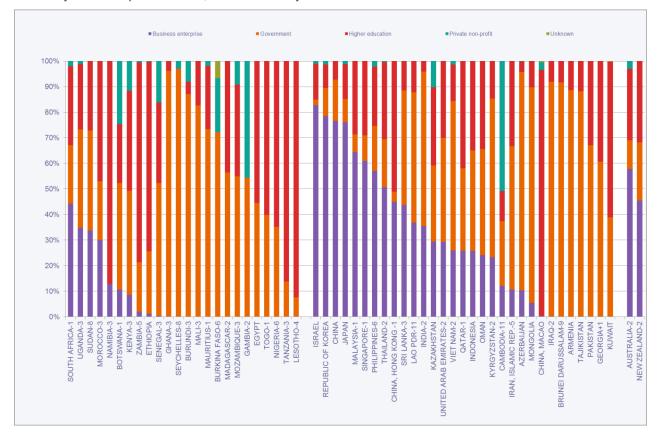
GERD by sector of performance, 2013 or latest year available



**Notes**: +1 = 2014, -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005,

-9 = 2004, -11 = 2002.

FIGURE 10. A BREAKDOWN OF R&D INVESTMENT IN AFRICA, ASIA AND THE PACIFIC GERD by sector of performance, 2013 or latest year available



**Notes**: +1 = 2014, -1 = 2012, -2 = 2011, -3 = 2010, -4 = 2009, -5 = 2008, -6 = 2007, -8 = 2005,

-9 = 2004, -11 = 2002.

Source: UNESCO Institute for Statistics, October 2015

Please consult the UIS website <a href="www.uis.unesco.org">www.uis.unesco.org</a> to access the UIS Data Centre and subscribe to eAlerts on the Institute's latest publications and data releases.

For more information on R&D data, please consult the <u>UNESCO eAtlas of Research and Experimental Development</u> at <a href="http://on.unesco.org/RD-map">http://on.unesco.org/RD-map</a>