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UNESCO Office in Venice

The Regional Bureau of Science and Culture in Europe (BRESCE)

UNESCO

S&T Regional Networks

Mathematics and Physics (SEE-MTP-Net) Summer Balkan Institute Phytochemistry,
Launching event – Workshop (Sofia, September)

Summer schools

Renewable Energy and Energy Efficiency (August, BIH)

Mathematics and Physics (August 11, Serbia)

Economic aspects of Natural Disaster (September, Italy)

S&T Diaspora → Workshop in Sarajevo (October)

R&D Statistics → UN Project in Albania (next meeting in December)

Risk Preparedness → Training for risk preparedness and management of Cultural
Heritage, Project in Albania (training in November)

General Conference → new bi-annual programme (Paris, October)

MAB Programme → Biosphere reserve management

Fresh Water initiatives → Project DIKTAS, groundwater shared systems



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UNESCO Scientific Co-operation Bureau for Europe was established in 1972 as a separate unit attached to the office of the Assistant Director General for Sciences of UNESCO in Paris

ROSTE (Regional Office for Science and Technology for Europe) moved to Venice in 1988

Agreement with the Italian National Research Council (CNR)

1995 - Agreement between Italy and UNESCO concerning ROSTE

2002 - Memorandum of Understanding between UNESCO and the Government of Italy concerning ROSTE

2006 – DG Decision: BRESCE, Regional Bureau of Science and Culture in Europe

A single UNESCO Office in Venice



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UVO Mission

**Fosters cooperation, to contribute to capacity building
and to provide specialized expertise
in science and culture
with special emphasize to SEE and the Mediterranean**





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UNESCO Programme 2012 - 2013

Major Programme II - Natural sciences

36 C/5 Biennial sectoral priorities (BSPs)	BSP 1: Strengthening science, technology and innovation (STI) systems and policies for sustainable development, poverty eradication and a culture of peace and non-violence		BSP 2: Mobilizing science for the sustainable use of natural resources, the renewable energies and energy efficiency, and for natural disaster reduction and mitigation				
Main lines of action (MLAs)	MLA 1: Promoting STI policies and access to knowledge	MLA 2: Building capacities in the basic sciences, including through IBSP, engineering and for the use of renewable energy	MLA 3: Mobilizing broad-based societal participation in STI	MLA 4: UNESCO Intergovernmental Oceanographic Commission (IOC): strengthening IOC with a view to improving governance and fostering intergovernmental cooperation in managing and protecting oceans and coastal zones for the benefit of Member States	MLA 5: Freshwater systems under stress and societal responses, incorporating the work of the International Hydrological Programme (IHP) and the World Water Assessment Programme (WWAP)	MLA 6: Enabling the application of ecological and earth sciences for sustainability, including through the Man and the Biosphere (MAB) Programme and the International Geoscience Programme (IGCP)	MLA 7: Natural disaster risk reduction and mitigation



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Statistics in SEE

WBC-INCO.NET D4.23 Visit and assessment of the current situation in S&T statistics and recommendations

→ A group of countries with rather improved situation (Croatia, Serbia, FYROM, Montenegro)

→ All WBC needs a strong international support in order to develop statistical system fully compatible with EU/international standards.

IPA Project on the regional strategy for R&D in the Western Balkan

→ Planned action for the assessment of the quality of R&D data and the elaboration of a strategy to strengthen the statistical system in the Region



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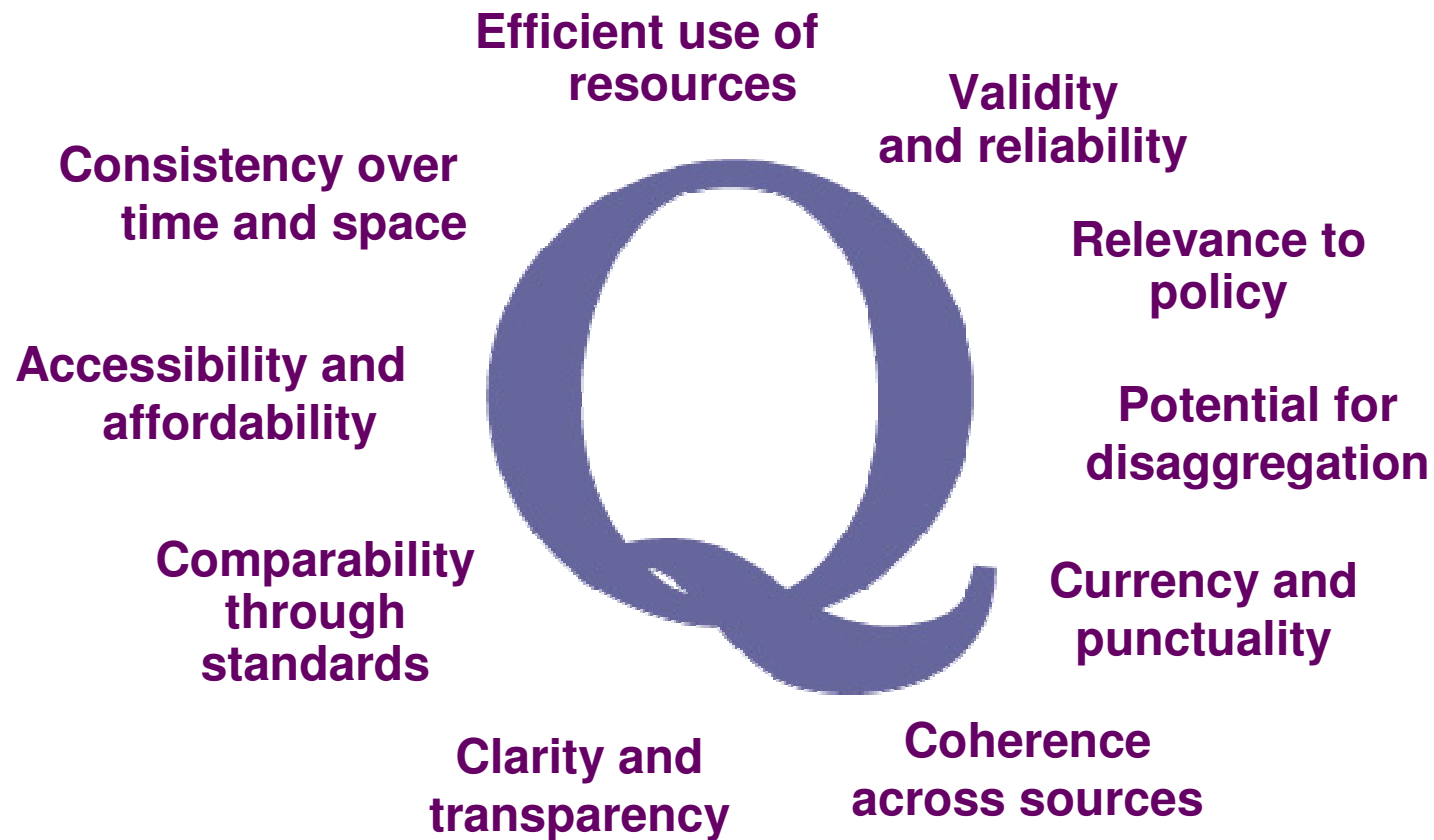
Statistics in SEE

Good quality of statistical data as precondition to:

→ **elaborate / implement STI strategies at national or regional level in order to improve the research systems**

→ **integrate WBC STI systems into the European Research Area**

Quality of data





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UNESCO activity in STI statistics Soth East Europe

1. One-UN Albania project for STI governance and statistics
2. Assessment of STI Data quality in the WBC within the EU-IPA project on the regional R&D strategy
3. Elaboration of project proposal(s) addressed to the strengthening of STI statistical systems
4. Expert Meeting in Belgrade (14-15 March 2012) back-to.back to the STI Ministerial Round Table for SEE



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One-UN Albania Project

Improving Science and Research Governance

Main Objective → contribute to the modernisation of the higher education, science and research national system, allowing Albania to become, in the long run, a knowledge based economy, fully integrated into the European Research Area (ERA);

Results

1. Sectoral Strategy on Science, Technology and Innovation (STI) being elaborated and adopted by the Albanian Parliament in 2009
2. Two training sessions for officials of the Ministry of Education and Science and of INSTAT on the collection of STI statistics and indicators have been organized
3. The 1st survey on STI statistics and indicators of the public sector has been completed in June 2009. Questionnaires have been elaborated and sent to some 171 public institutions in Albania. A report summarising the findings of this survey has been prepared.



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One-UN Albania Project

Improving Science and Research Governance

- ❖ important issues remain to be solved before the data obtained from the 1^o survey on public research will be publishable
- ❖ of the 171 questionnaires sent only 57 were received. Of those, 20 were not completed, as the respondents considered that they had no research expenditures to declare.
- ❖ the second survey for business STI indicators was not done also because the internal rules of competence

The project has been extended to June 2012.

Future activities (in line with the expert's recommendations)

- hold a working session between the MoES-ARTI, INSTAT and UNESCO experts to discuss and approve a final action plan (14 Dec 11)
- launch, possibly, a new survey early in 2012
- elaborate and publish the obtained data on R&D in Albania



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**UIS activities in the collection and analysis
of STI indicators and overview of data
for South Eastern Europe**



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UNESCO Institute for Statistics (UIS)

Formerly UNESCO Division of Statistics

Established in 1999

September 2001 - the UIS moved from Paris to the University of Montreal, Quebec, Canada

30 November 2001 – UNESCO Director-General inaugurates the UNESCO Institute for Statistics in Montreal

Director: Mr. Hendrik van der Pol



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UIS presence around the world





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UIS mandate

United Nations data repository for:

Education

Science, Technology & Innovation

Culture

Communication



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UIS is the UN lead agency for STI statistics

Official STI data source for:

UN Statistical Division: UN Statistical Year Book

UNDP: Human Development Report

World Bank: World Development Indicators

Data publicly available at: <http://www.uis.unesco.org>

UIS Publications (can be downloaded from the UIS website):
S&T Bulletins; Fact sheet on R&D statistics

UNESCO Reports:

UNESCO Science Report

UNESCO World Report - Towards Knowledge Societies

International Report on S&T and Gender

History of Science Statistics at UNESCO



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Areas of work

→ R&D data

R&D personnel & expenditure

Human resources devoted to S&T

Gender

→ International mobility of highly skilled people

→ Innovation data

Since 2010

→ Longer term: Output & Impact



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Lines of action

- S&T survey operation and data guardianship
- Training in S&T statistics: workshops & other training activities
- Standard setting and methodological developments
- Analysis and publications



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Survey on Statistics of Science & Technology: R&D Survey

- Biennially.
- 2004, 2006, 2008 and 2010 R&D surveys completed.
- Results released on UIS website (<http://stats.uis.unesco.org>).
- OECD and Eurostat provide data for their Member States.
- RICYT provides data for Latin America and for a few Caribbean countries.
- UIS keeps direct contact with national statisticians.



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Data collection: R&D Survey

R&D Personnel

By sector of
employment,
occupation,
qualification, and field
of science


In headcount and FTE

By gender

R&D Expenditure

By sector of
performance and
source of funds

By type of activity and
field of science



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UIS/ST/2010
Montreal, May 2010

Country:

QUESTIONNAIRE ON STATISTICS OF SCIENCE AND TECHNOLOGY (S&T)

Data for the year 2009 and prior

This questionnaire is designed to collect the most recent statistics on science and technology (S&T), specifically resources devoted to research and experimental development (R&D), in order to update the UIS database on S&T indicators. The data can be accessed on the UIS website and will be published in reports prepared by UNESCO, other UN agencies, and public and private institutions or individuals worldwide.

Please return **one** completed questionnaire before **31 August 2010**. The UNESCO Institute for Statistics (UIS) strongly encourages the use of the electronic form available at <http://survey.uis.unesco.org>. The electronic form can be submitted directly to the UIS by clicking on the [Submit] button at the end of the questionnaire or emailed to survey@uis.unesco.org. Questionnaires completed using the printed forms should be sent to:

UNESCO Institute for Statistics
Data Processing and Standards Unit
P.O. Box 6128, Succursale Centre-Ville
Montreal, Quebec H3C 3J7
Canada

For any queries, please contact the UIS by email: survey@uis.unesco.org, fax: (1 514) 343-5740 or telephone: (1 514) 343-6880.

*Please refer to the **Instruction Manual for Completing the Questionnaire on Statistics of Science and Technology** and **Data Entry Manual** before completing the questionnaire.*

Only **one questionnaire per country** should be completed by the institution responsible for S&T policy or S&T statistics (e.g. Ministry of Science and Technology, Ministry of Research and Higher Education, National S&T Council or a similar organization) or by the National Statistical Office.

Data reported in this questionnaire should cover all institutions carrying out R&D activities in your country. If this is not the case, please provide a detailed explanation using a comment in the electronic form or footnote in the printed form. To enter comments in the electronic form, please press on the [Shift] key and the left mouse button simultaneously.

Please do not leave any cell blank. The following codes should be used wherever figures are not available:

- a = category not applicable
- m = data missing (or not available)
- n = quantity nil
- x = data included in another category (please specify where, using a comment or footnote)

Estimated or provisional data should be marked with an asterisk (*).

The electronic form contains automatic error checks. A list of these checks is available in the *Data Entry Manual* for reference when using the printed forms. Kindly correct or explain failed checks using a comment or footnote.



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Организация

Respondents to the UIS 2008 and 2010 questionnaires: South Eastern Europe

	Country	2008Q	2010Q
1	Albania	Data not provided	Data provided
2	Bulgaria	Data obtained through Eurostat	Data obtained through Eurostat
3	Croatia	Data obtained through Eurostat	Data obtained through Eurostat
4	Greece	Data obtained through OECD	Data obtained through OECD
5	Montenegro	Data provided	Data not provided
6	Republic of Moldova	Data provided	Data provided
7	Romania	Data obtained through OECD	Data obtained through OECD
8	Serbia	Data provided	Data provided
9	Slovenia	Data obtained through OECD	Data obtained through OECD



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Researchers, South Eastern Europe, 2009 or last available year

Country	Year	Researchers (FTE)	Researchers per million inhabitants (FTE)
Albania	2008	467	147
Bulgaria	2009	11,968	1,587
Croatia	2009	6,931	1,571
Greece	2007	20,817	1,849
Montenegro	2007	671 (HC)	1,069 (HC)
Republic of Moldova	2009	2,861	794
Romania	2009	19,271	895
Serbia	2009	10,444	1,060
Slovenia	2009	7,446	3,679
The former Yugoslav Republic of Macedonia	2008	968	472
Turkey	2009	57,759	804

FTE: Full-time equivalent; HC: Headcount; * Based on partial data

Source: UIS S&T Database, October 2011

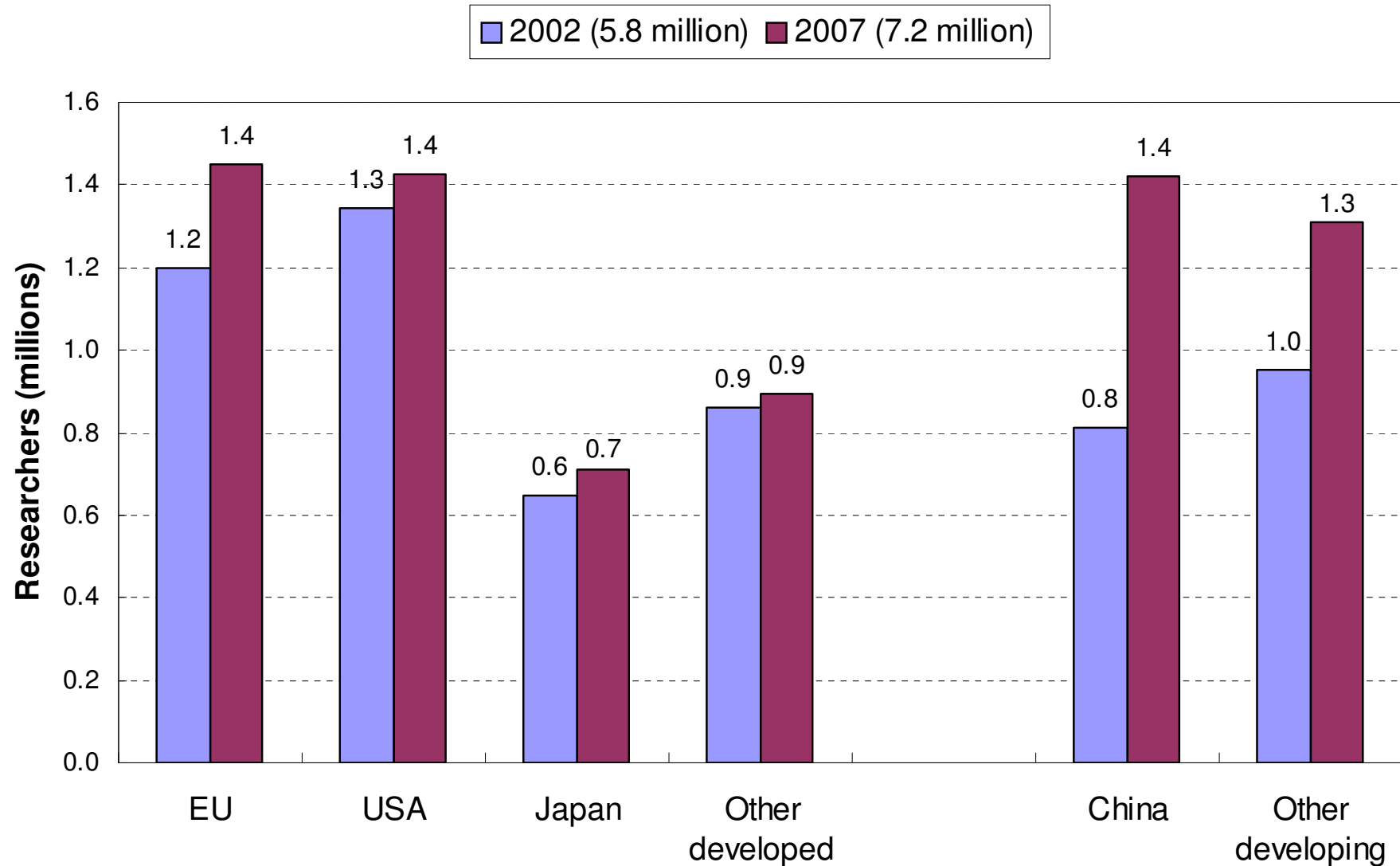
Gross Domestic Expenditure on R&D (GERD) in SEE 2009 or last available year

Country	Year	GERD ('000) – Local currency	GERD - PPP\$ ('000)	GERD – as % of GDP
Albania	2008	1,665,500	40,217	0.15%
Bulgaria	2009	361,060	551,740	0.53%
Croatia	2009	2,794,170	739,796	0.83%
Greece	2007	1,311,400	1,826,141	0.58%
Montenegro	2007	30,796	88,395	1.15%
Republic of Moldova	2009	317,600	53,524	0.53%
Romania	2009	2,356,907	1,464,958	0.48%
Serbia	2009	24,944,966	744,213	0.89%
Slovenia	2009	656,882	1,043,416	1.86%
The former Yugoslav Republic of Macedonia	2008	927,623	50,443	0.23%
Turkey	2009	8,087,453	8,679,247	0.85%



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Number of researchers worldwide



Source: UIS, August 2010 (www.uis.unesco.org)

Note: Data for the USA are for 2006 instead of 2007



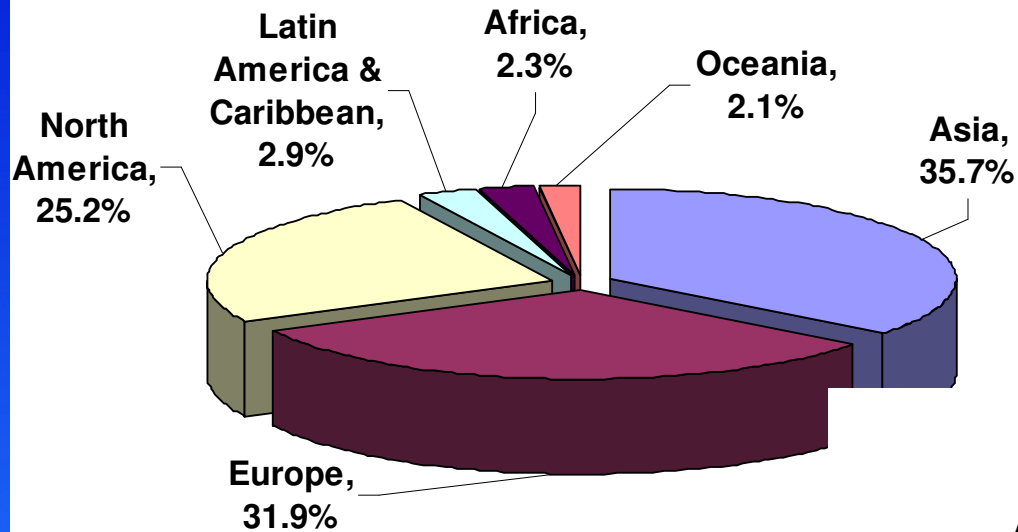
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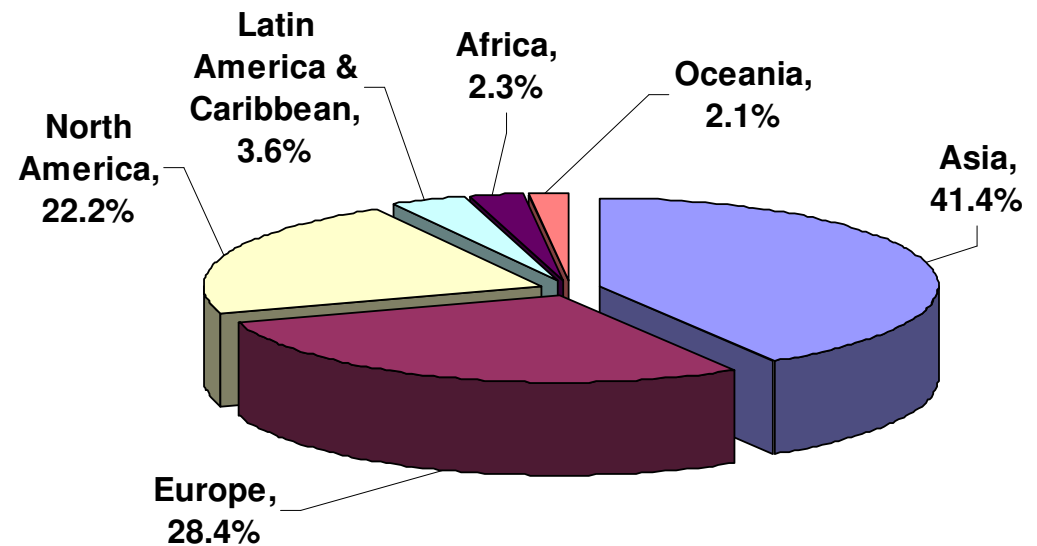
Where are researchers located?

Shares of world researchers by principal regions, 2002 and 2007 (%)

2002 (5.8 million)

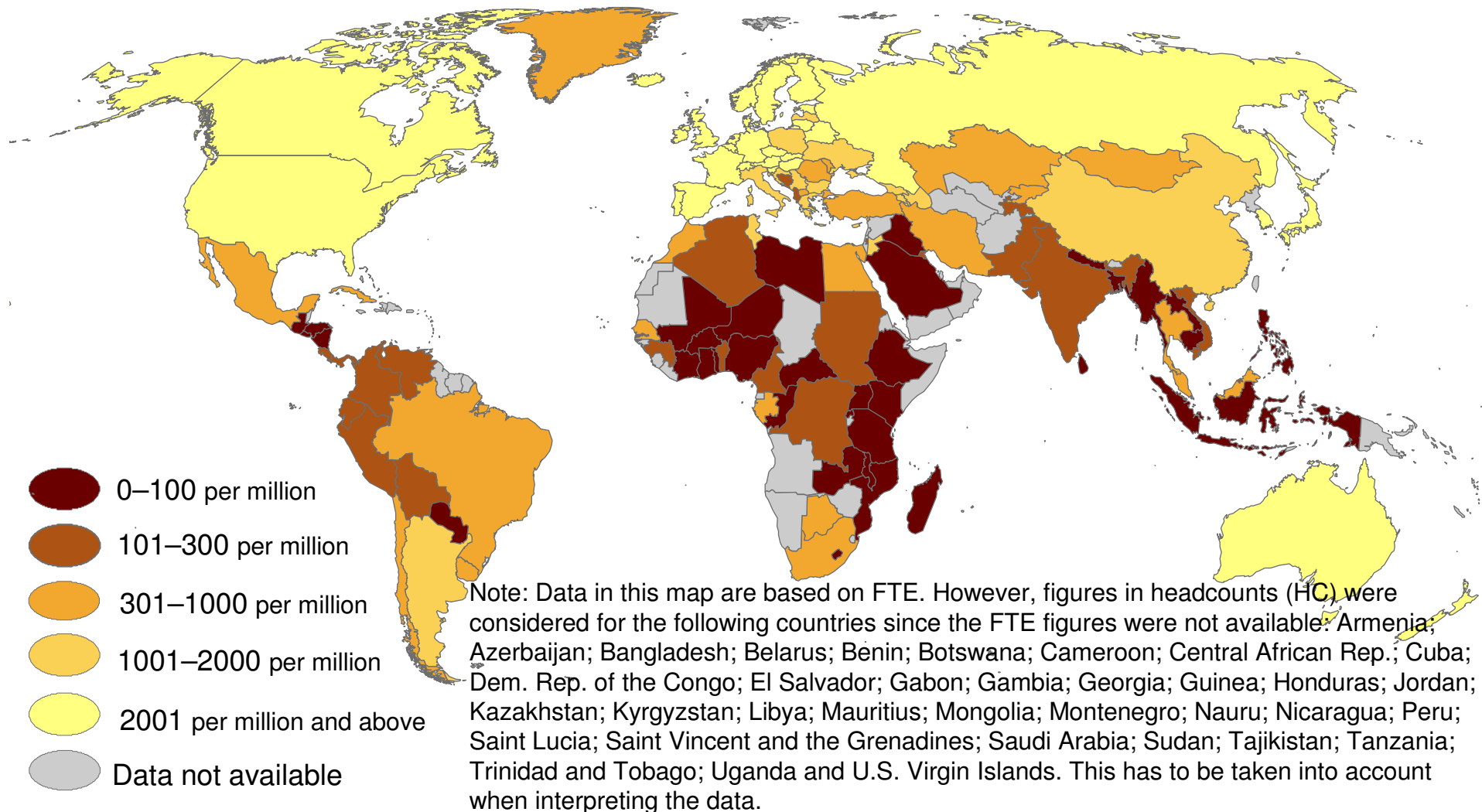


2007 (7.1 million)



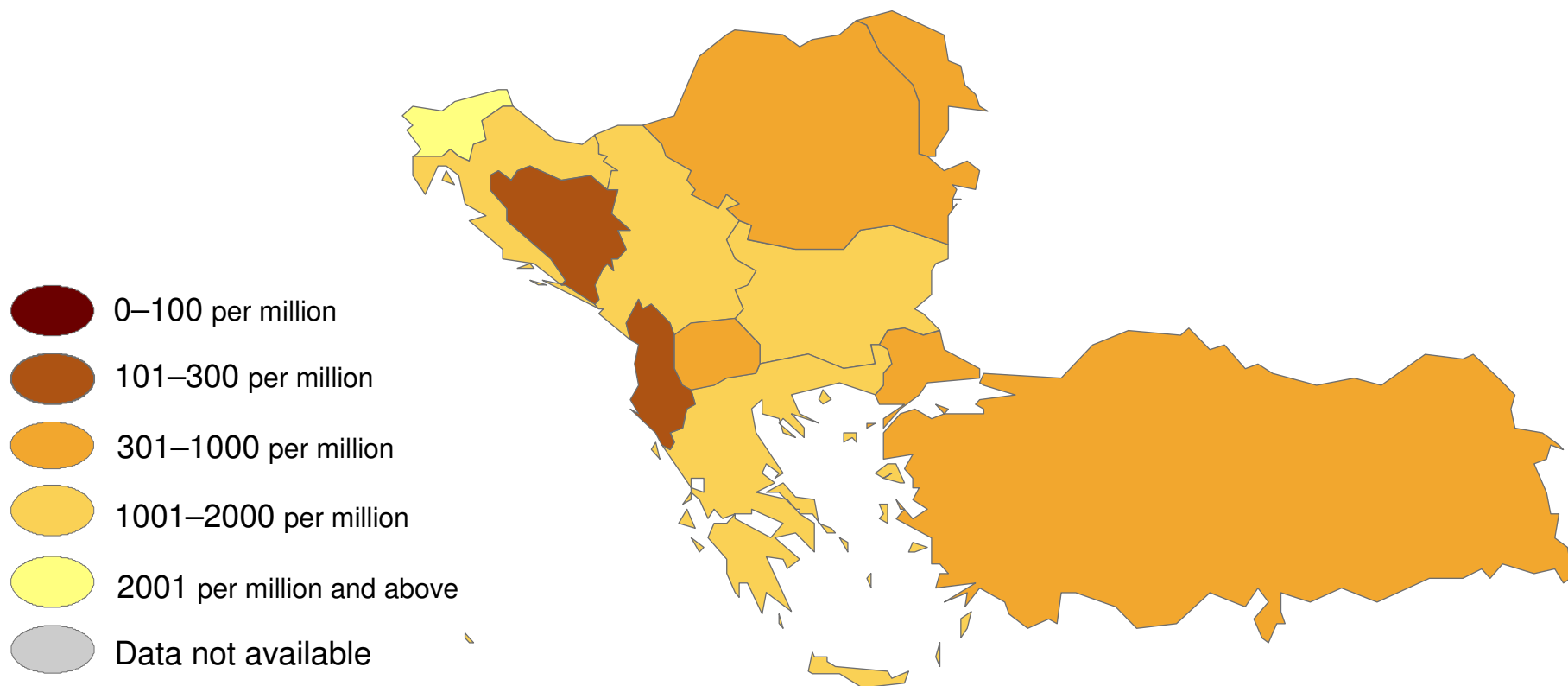
national research densities

Researchers per million inhabitants,
2009 or latest available year



the national research densities in SEE

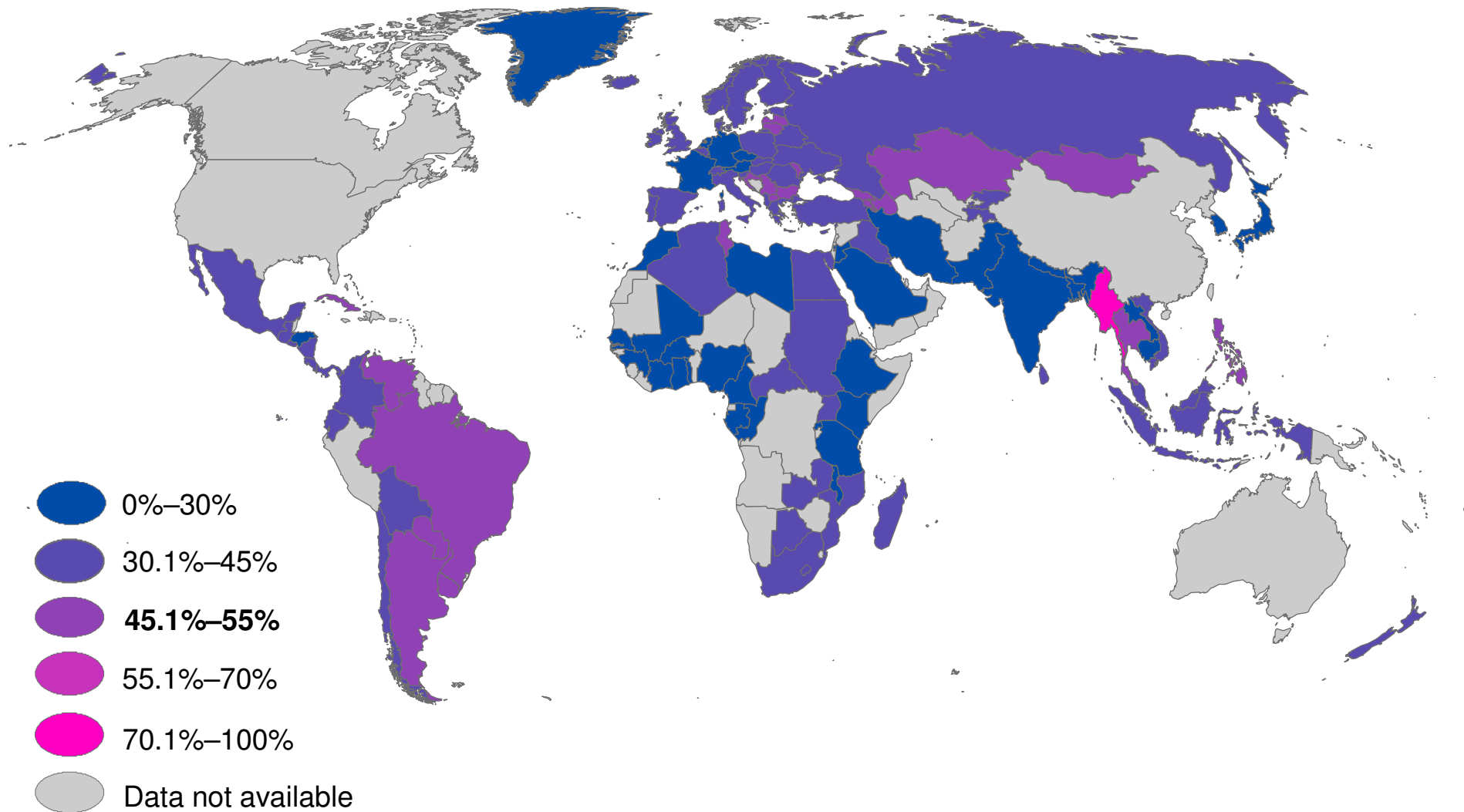
Researchers per million inhabitants, 2009 or latest available year



Source: UIS, July 2011

The gender gap in science

Women as a share of total researchers, 2009 or latest available year



Source: UIS, July 2011

Note: Data in this map are based on HC, except for Congo and India (based on FTE).

The gender gap in science - SEE

Women as a share of total researchers, 2009 or latest available year



Note: Data in this map are based on HC, except for Congo and India (based on FTE).



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