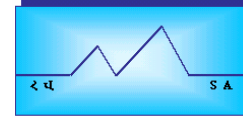


**SC/PSD DIVISION  
UIS  
MOSCOW OFFICE**



**REPUBLIC OF ARMENIA  
NATIONAL STATISTICAL SERVICE**

**UNESCO Seminar-Workshop on  
Science, Technology and Innovation Indicators – Trends and Challenges**

**18-20 September, 2007  
Moscow, Russian Federation**

**SCIENCE, TECHNOLOGY AND INNOVATION  
POLICY REVIEW**

**Prepared by  
Armine KARAPETYAN**

**National Statistical Service of the Republic of Armenia**



# Institutional Framework

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Legislative and normative legal field of the sphere of science is regulated through:

- RA Law “On Scientific and Technological Activity” adopted by the National Assembly of RA,
- “Concept for Science Development in the Republic of Armenia” approved by the RA Government,
- S&T cooperation, intergovernmental agreements had been signed and business programs had been implemented with numerous countries.



# Positive Factors in the Scientific Sphere

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- Scientific capacity (which comprises about 20 000 persons), scientific organizations and schools have certainly been kept,
- Some scientific directions gradually take their place in the international scientific market,
- Availability of authorised public administration bodies,



# Positive Factors in the Scientific Sphere

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- Regulation of the legislative field of the sphere of science,
- Certain regulation of science financing from the state budget: implementation of different financing ways from the state budget,
- Increasing role of the scientist as a science subject.



## Factors preventing the science development

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- Slow process of formation of the effective management system and incomplete formation of the universal public administration system,
- Financial restriction,
- Slow formation of the effective system for creation of appropriate conditions and implementation of scientific findings for innovation activity,
- Scientific sphere marketability low level,



## Factors Preventing the Science Development

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- Incompleteness of target policy for scientific capacity reproduction,
- Lack of scientific and pedagogical staff in scientific and higher educational institutions,
- Outflow of qualified scientific personnel, especially young people,
- Absence of comprehensive universal scientific information system,
- Lack of modern and up-to-date scientific and technological basis in the sphere of science



# Science, Technology and Innovation Strategic Plan

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- Formation of universal public administration system of science,
- Increase of efficiency of scientific institutions' activity,
- Ensuring reproduction of scientific capacity,
- Necessity of modernization of infrastructure, material and technical basis in scientific sphere,
- Clarification of funding and ways, increase of efficiency,



# Science, Technology and Innovation Strategic Plan

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- Creation of independent experimental scientific system,
- Clarification of priorities in science,
- Integration of science and education,
- Marketability of scientific findings bringing them into domestic market and external market.





# Priority Areas for Science and Technology Development in Armenia

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- Armenology,
- Basic researches promoting development of most important applied researches,
- Researches of most importance,
- Information technologies,
- Leading technologies (biotechnologies, nanotechnologies)
- New energy sources,
- Risk factors and human health,
- New materials.



# Funding Instruments

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- state budget of the Republic of Armenia,
- funds from the contracts,
- funds, including from allocations of foreign and international organizations,
- grants,
- credits,
- funds from scientific, publishing, consultative other activities not prohibited by law,
- funds from introduction and sale of scientific findings.



# General

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- The Statistical System of the Republic of Armenia is centralized and financed from the state budget.
- Mission: to compile and publish statistics for public use.
- Statistics Armenia is comprised of the Central Statistical Office and 11 Marz (regional) Agencies of Statistics.
- The Supreme Body of Governance: State Council on Statistics consisting of 7 members and authorized to accept normative legal acts on statistics.
- Head: President of the National Statistical Service of RA, who at the same time holds the post of the Chairman of the State Council on Statistics.
- The Head and 6 members of the Council are appointed for 6 year terms by the RA President`s Decree.



# Main Functions

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- to collect, process, summarize, analyze and publish statistical data,
- to cooperate with state and local self-government bodies in collection of statistical information.
- to develop and improve statistical methodologies,
- to coordinate data collection according to international standards and classifications,
- to organize statistical surveys,
- to carry out population census every 10 years,
- to establish, maintain and update the business-register,
- to provide users with statistical information,
- to ensure the transparency and access to aggregated statistical information,
- to cooperate with international organizations and national statistical offices.



## Position within the Public Administration

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- Administrative position: the National Statistical Service of RA is a specialized state management body implementing functions aimed at the public interest that is independent from other state and local self-government bodies.
- The Staff is united administrative institution consisting of functional and territorial units. Staff members are civil servants.
- The activity is based on the state statistical work programs. Three-year state statistical work program is approved by the Parliament of RA as a Law, while the annual program – by the State Council on Statistics.



# Legal Basis

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- RA Law "On State Statistics" adopted 04.04.2000.
- RA Law "On Population Census" adopted on 12.10.1999.
- State Statistical Work Programs:
  - three-year state statistical work program (Law)
  - annual state statistical work program
- Resolutions of the State Council on Statistics and other national and above-national normative acts.
- RA Law "On Civil Service", adopted on 4 December 2001, entered into force 9 January 2002. Provisions of the mentioned law have completely been acted for the NSS staff since 1 December 2002.



# International Classifications and Standards

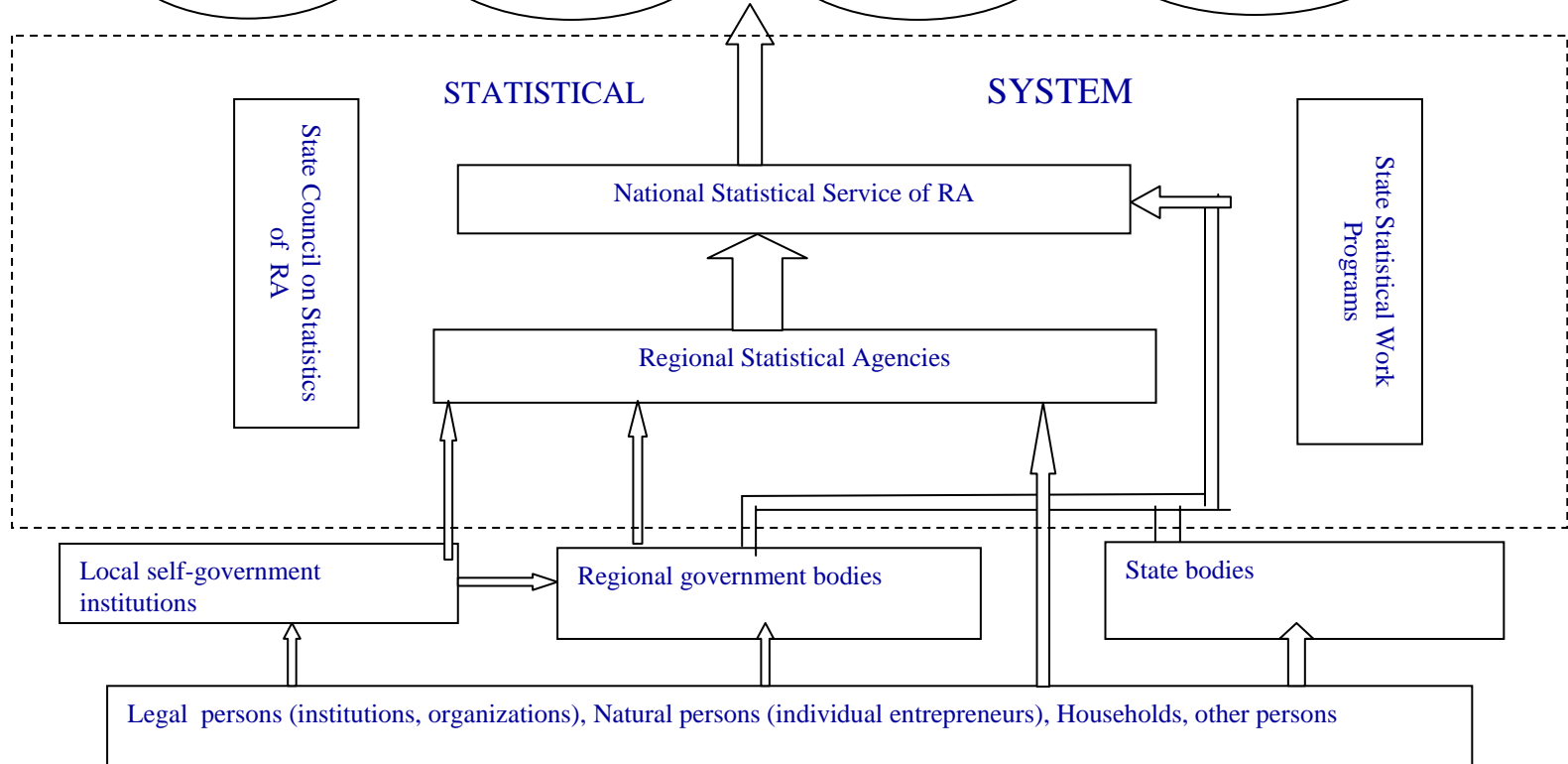
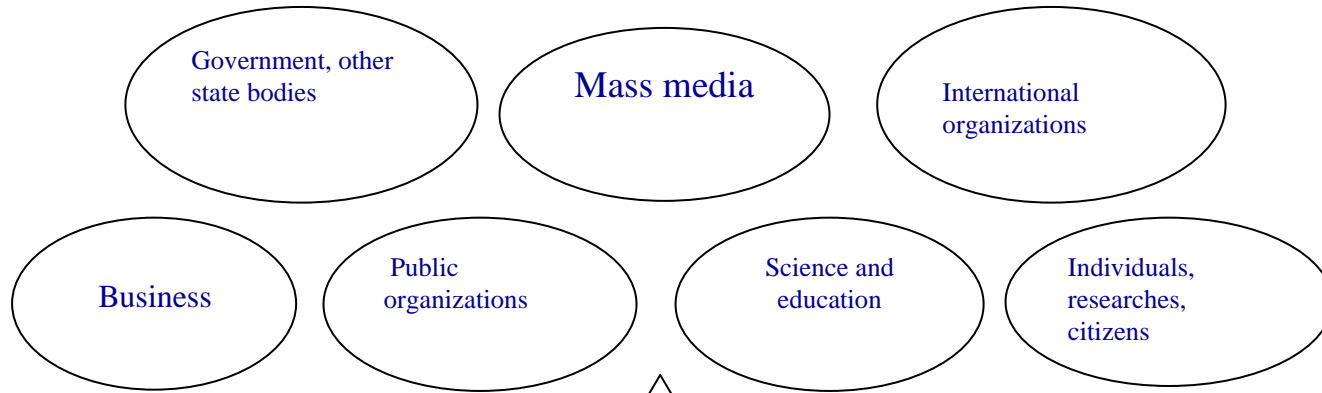
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- NACE Rev.1
- CPA,PRODCOM
- ISCO-88
- ISCED
- HS/CN
- ICD-10
- Armenia has become a subscriber to the IMF General Data Dissemination System (GDDS) since 29 March 2001.

On November 7, 2003 the Republic of Armenia became the 54<sup>th</sup> subscriber to the IMF Special Data Dissemination Standard (SDDS).

# Information flows in the Armenian Statistical System and its actors

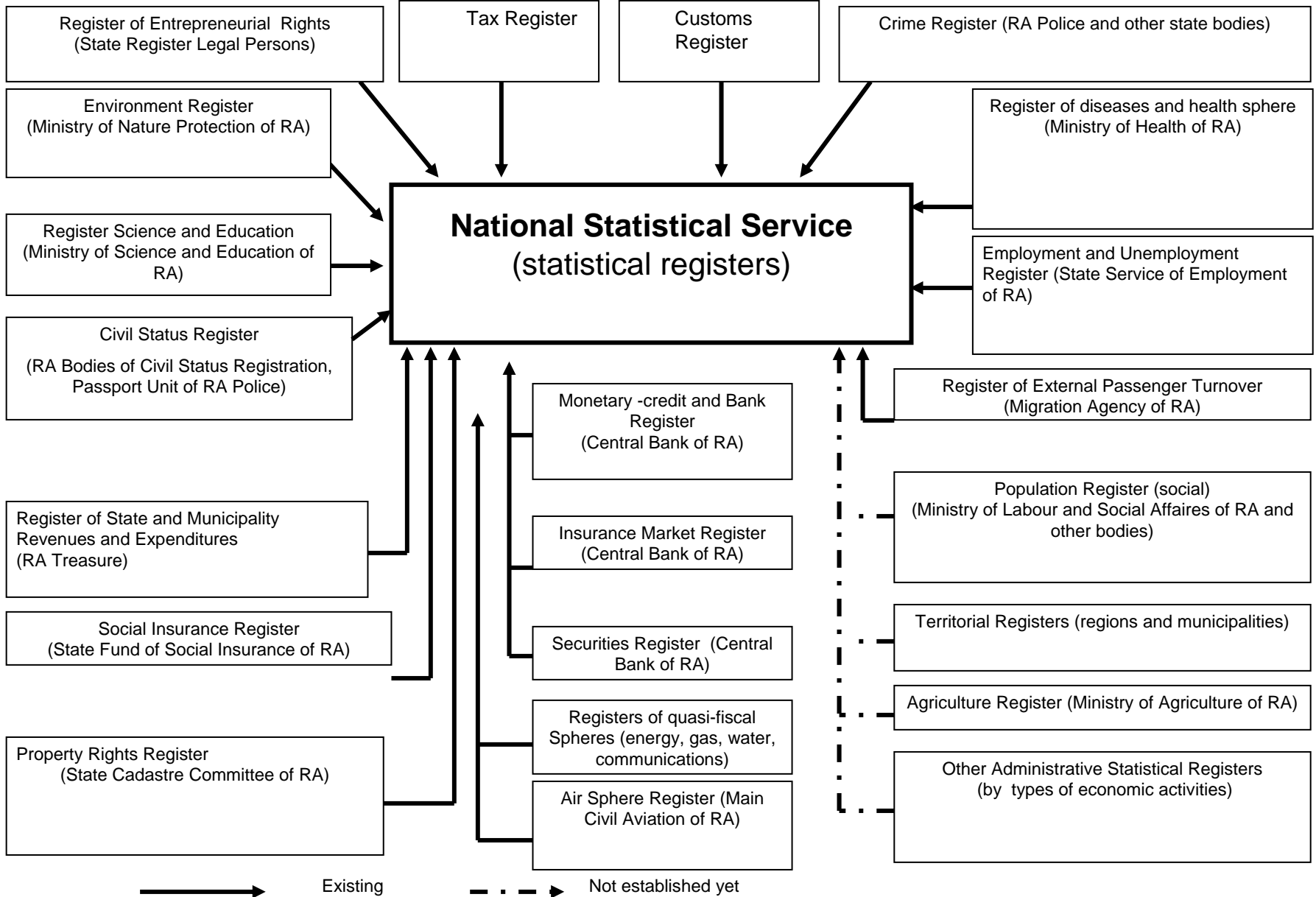
## USERS



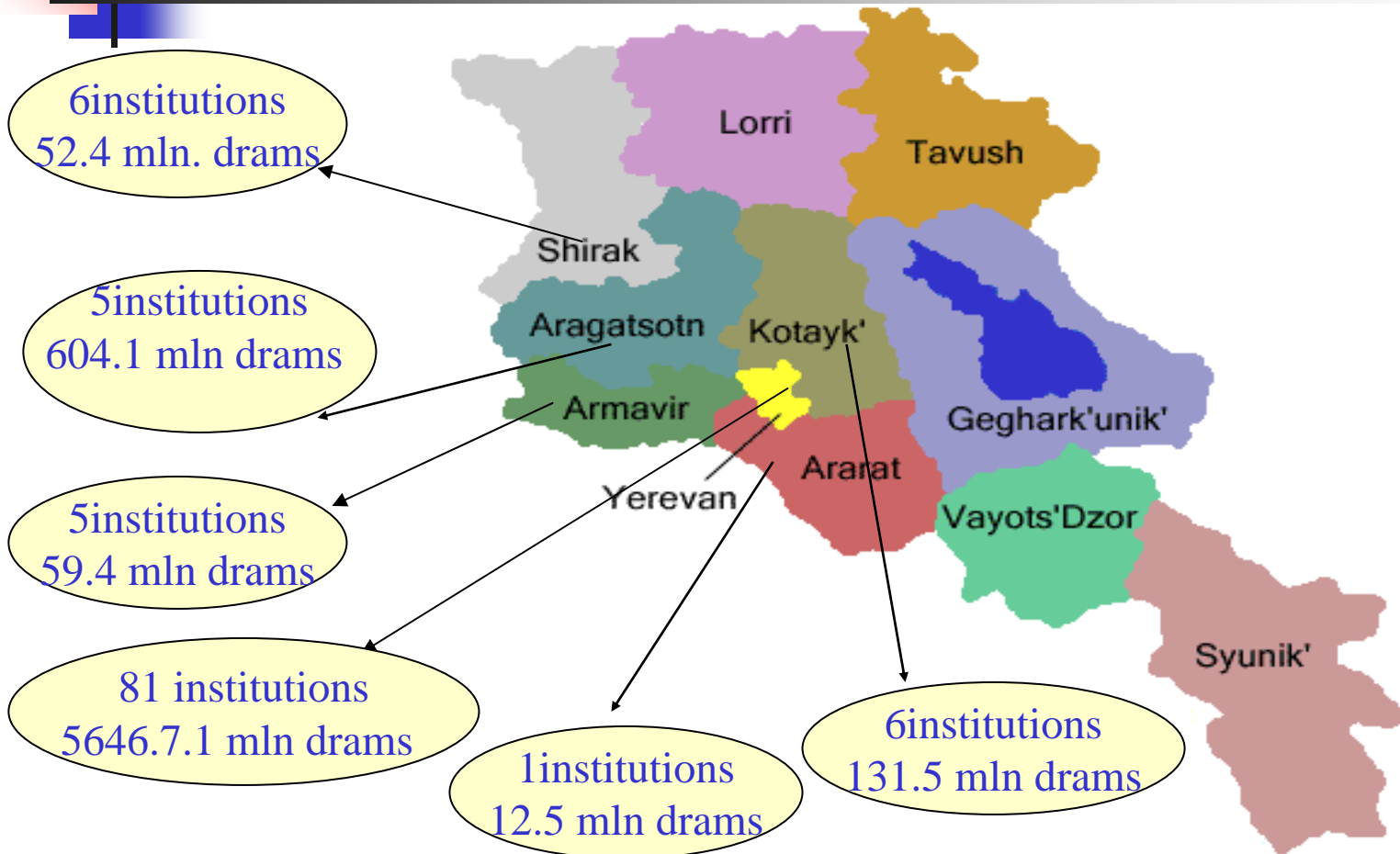
Preliminary data providers (Respondents)



# Links with Administrative Registers



# Scientific and Technological Work & Institutions by Marzes



In 2006, 101 R&D units submitted statistical reports on Scientific and technological work. 80.2% of organizations were located in Yerevan.

# Institutions Engaged in Scientific and Technological Work by Ministries and Departments, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Ministry of Trade and Economic Development	20	17	20	19	16	18	17
Ministry of Health	12	11	12	12	11	11	11
Ministry of Energy	3	5	4	5	5	5	5
Ministry of Agriculture	8	11	11	12	10	10	10
Ministry of Science and Education	-	-	1	2	3	7	7
National Academy of Sciences	38	37	40	41	41	42	41
Other	7	10	8	8	7	9	10
<b>Total</b>	<b>88</b>	<b>91</b>	<b>96</b>	<b>99</b>	<b>93</b>	<b>102</b>	<b>101</b>



# Producer of STI indicators

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The National Statistical Service of the Republic of Armenia is recording statistical information on science and technology through the state statistical reporting form:

1-science " *On Implementation of Scientific and Technological Work*"



# STI indicators

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1. data on volume of scientific and technological work by types and factually acting prices and cost.
2. actual expenditures on researches and development, irrespective of financing sources.
3. domestic current expenditures on scientific research and development by types of work and science branches.
4. domestic expenditures on research and development by financing sources.
5. number of R&D personnel by scientific level and degree.
6. scientific research and development employees' qualification age structure and movement.
7. specialist-researchers by science branches and scientific degree.
8. receiving and use of funds.



# Problems

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1. Lack of administrative registers
2. There is no separated accounting to provide data on receiving and use of organizations' funds in terms of scientific and technological work by research and development units functioning in the organizations and higher educational institutions.
3. Statistical observation field doesn't include private sector, which brings to underestimation of the volume of scientific and technological work.
4. Lack of sample surveys



# Challenges

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- To form information sources ( in particular, formation of administrative registers)
- To estimate and improve data quality
- To strengthen statistical capacity building
- To improve methodologies, definitions and methods for calculating STI indicators
- To improve coverage and reporting on all indicators
- To intensify international cooperation towards unification of the STI indicators methodology, data compilation and dissemination.



# Publications on STI

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- monthly report on “Social and Economic Situation of the Republic of Armenia” (latest one “Social and Economic Situation of the Republic of Armenia for January-July 2007”),
- statistical yearbook (latest one Statistical Yearbook of Armenia for 2006),
- statistical handbook “Social Situation of the Republic of Armenia” (latest one “Social Situation of the Republic of Armenia for 2006”).





# Library and Internet

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- The library is rich with all the statistical products of the NSS, statistical publications of other countries and international organizations, methodological handbooks, text-books, legal documents, etc.
- The statistics library is open to the general public.
- Library's electronic catalogue is accessible from the Internet.
- Internet: <http://www.armstat.am>



# Thank you

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