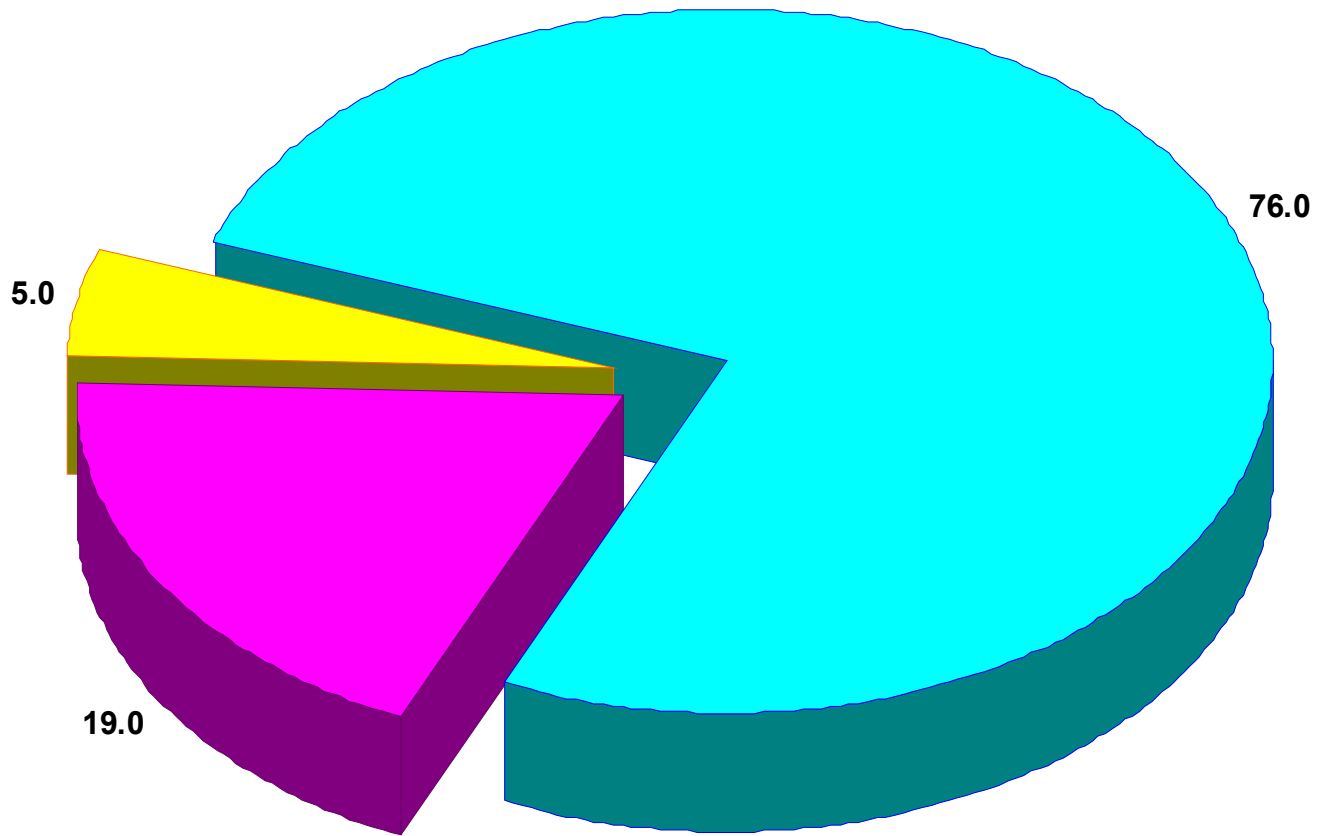


Estimation of Scholars Activity Quality in Azerbaijan.

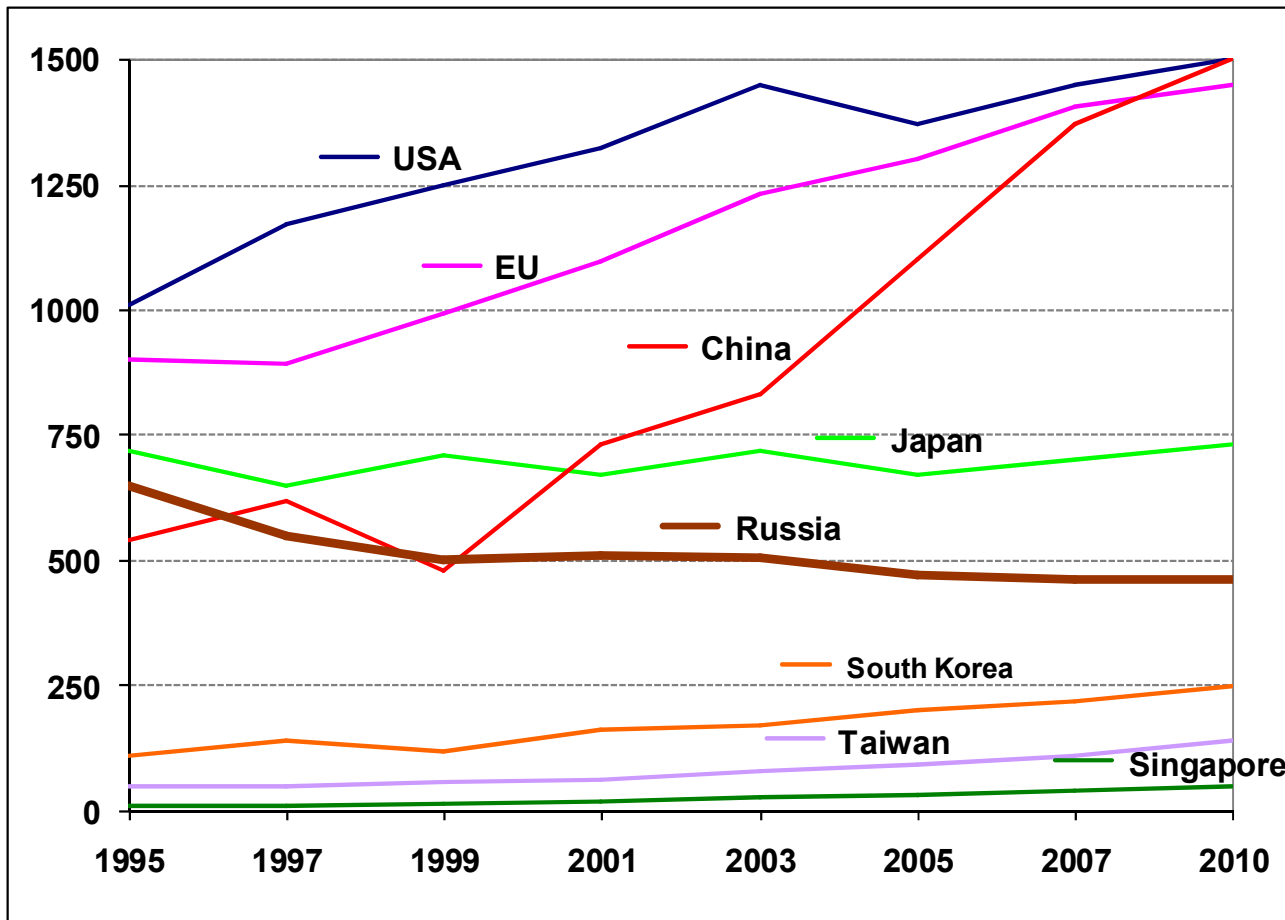
ASAF HAJIYEV
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■ human factor

■ industry factor

■ natural resources



2010

China, USA – 1.500.000

EU – 1.400.000

Russia: - 450.000

Azerbaijan - 28.000

(1.800Dr.Sci., 8.700Ph.D
+17.500 scholars without
degree)

China – growth every year 9%

Russia – decreasing 2%

Number of Scholars

2001

2010

USA – 1.250.000

1.500.000

EU – 1.100.000

1.350.000

CHINA - 750.000

1.500.000

RUSSIA – 500.000

450.000

AZERBAIJAN – 30.000

28.000

Number of Scholars per 10.000 population

- Israel -145
- USA - 85
- Japan - 70
- Germany – 60
- Azerbaijan- 30

Number of Students in Engineering Branches

Israel – 135 for 1.000

USA - 85

Sector of IT is increasing 2 times every 5 years. Today expenses for IT – 3.5trln.\$

It is expected in future IT 80% of the world GNP

Azerbaijan – State Program.5.000 students for abroad study.

The Main Scientific Point
(not number of scholars)

The scientific fraction
of science is
measured by finance.

Finance for Science

All World Science Expenses (2010)

1.2trln.\$

Leader - USA - 34% of world expenses -
406bln\$ per year, per scholar - **260.000\$**

EU- 24% - 290bln.\$ per scholar **210.000\$**

Japan-13%- 156bln.\$ p.s.-**210.000\$**

Russia 2.2% -26bln.\$ p.s.- **15.000\$**

Azerbaijan 0.01% - 150mln.\$ p.s. - **5.300\$**

Expenses for Science (from GDP, 2010)

Israel - 3.23%

USA (406mlrd.\$) – 3.20%

China (157mlrd.\$) – 1.40%

(growth -10% each year)

Japan (144mlrd.\$) – 3.30%

Russia (22mlrd.\$) - 1.0%

Azerbaijan(150mln.\$) - 0.25% of GDP

Number of the Papers in SCI etc.

2010

1. EU - 33.0% of all world SCI papers
2. USA - 29.0%
3. Japan - 7.8%
3. China - 5.9%
4. Russia - 2.0%

Research Papers Published in Scientific Journals (2010)

In Azerb. Rep.	Abroad	SCI	Total	Institute
693	331	198	1232	Phys.,Math. & Eng.Dep.ANAS
182	104	92	378	Physics
183	19	74	276	Mathematics & Mechanics
113	133	12	258	Cybernetics
127	41	8	186	Radiation Problems
34	8	8	50	Astrophysical Observatory
54	26	4	84	Information Technol.

How We Can Increase Finance for Science?

May be Immediately to Increase Salary?

Very Wrong Way!

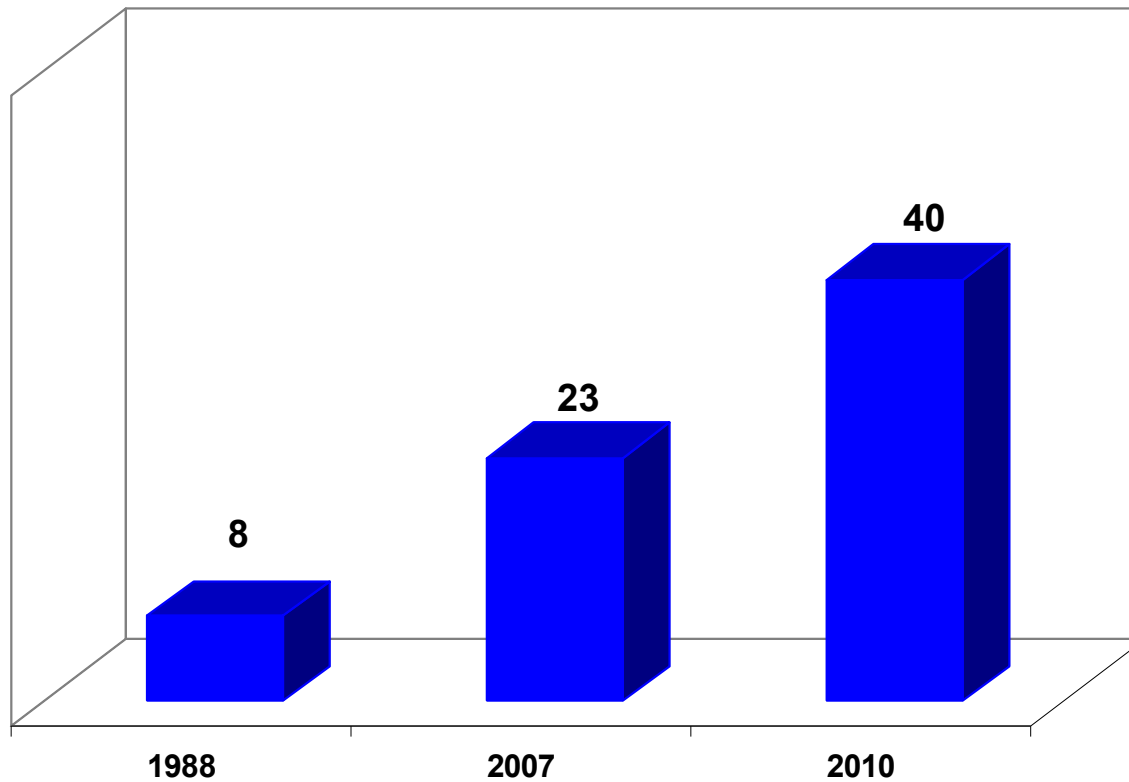
The Main Problem:

Where (which field) and How we must invest money for science?

What we have to do for investment?

1. Estimate a Quality of Scientific Research
 - a) Number of the Papers in SCI, SCIE, SSCI
 - b) Number of Highly Cited Papers
 - c) Number of the books published by known publishers (Springer, Kluwer,.....).
2. International Collaboration

International Collaboration



1988 – only 8% of all scientific papers have been published by international groups of scholars

2007 – 23%, 2010 – 40%

Grants

1. Jointed Grants with leading countries (scholars) of the world (ICTP must (can) help here).

a) CRDF (USA), b) EU

2. State Grants for Science.

Azerbaijan - STATE SCIENCE FOUNDATION

2011 – 9mln.\$, 6% of all scientific expenses

3. International Scientific Conferences

(ICTP has made and still making a big contribution in that, thank you on behalf all of us)

4. Jointed researches and papers

Shanghai Model

1. Quality. a) Alumni, winning Nobel, Abel and others prestige Prizes
b) Staffs, winning prestige Prizes
2. Research Quality. a) Papers, published in journals “Nature” and “Science”,
b) Papers in SCI, SCIE, SSCI
3. Number of highly cited researchers
4. Academic Performance – number of researchers with respect to the size of institution

INDICATORS

1. PRIZES (NOBEL, ABEL, FILDS, TRIEST SCIENCE etc.)	5000
2. STATE SCIENTIFIC PRICE OF THE COUNTRY	1000
3. INVITED PAPERS PUBLISHED IN THE JOURNAL WITH IMPACT FACTOR	250
4. PAPERS IN THE JOURNAL WITH IMPACT FACTOR	50
5. PLENARY TALK (INVITED PAPERS) IN WORLD CONGRESS	250
6. TALK IN WORLD CONGRESS	50

7. PAPERS PUBLISHED IN WESTERN JOURNALS (not included into the SCI, SCOPUS)	15
8. PAPERS PUBLISHED IN THE ACADEMIC JOURNALS OF THE COUNTRY (not included into the SCI, SCOPUS)	5
9. INTERNATIONAL PATENT	50
10. EURASIAN PATENT	5
11. COUNTRY PATENT	2
12. MONOGRAPHS PUBLISHED IN THE KNOWN PUBLISHING HOUSES (SPRINGER, KLUWER, etc.)	250

13. MEMBER OF THE NATIONAL ACADEMY OF SCIENCES (USA, CHINA, RUSSIA, TWAS etc.)	300
14. MEMBER OF THE NATIONAL ACADEMY OF SCIENCES OF OTHERS COUNTRIES	100
15. MEMBER OF THE INTERNATIONAL SCIENCE SOCIETY (WITH VOITING)	100
16. MEMBER OF THE INTERNATIONAL SCIENCE SOCIETY (NO VOITING)	20
17. ADVISER FOR DOCTOR OF SCIENCES DEGREE	100
18. ADVISER FOR PH.D.	50

19. PAPER AT THE INTERNATIONAL CONFERENCE	20
20. SCI JOURNAL BOARD MEMBER	150
21. VISITING PROFESSOR	100
24. NUMBER OF JOINTED (INTERNATIONAL) PAPERS IN SCI	40
25. JOINTED GRANTS (DEPENDING ON AMOUNT AND ETC.)	

NAME	SURNAME	MIDDLE NAME	DEPARTMENT	SCORE
Telman	Əliyev	Abbas	İdentifikasiya texnologiyaları	1816,15
Asəf	Hacıyev	Hacı	İdarə olunan kütləvi xidmət sistemləri	1533,56
Ağası	Məlikov	Zərbəli	Teletrafik nəzəriyyəsi	1214,74
Kamil	Ayda-zadə	Rəcəb	Diskret optimallaşdırma modelləri və üsulları	723,41
Qoxmaz	İmanov	Cahangir	Fazi iqtisadiyyat	690,16
Akif	Musayev	Fərhad	Fiskal strategiyasının modelləşdirilməsi	651,37
Kamil	Mənsimov	Bayraməli	Mürəkkəb dinamik sistemlərdə idarəetmə	524,56
Nailə	Musayeva	Fuad	Stoxastik proseslərin analizi texnologiyaları	504,56
Oqtay	Nüsrətov	Qüdrət	Siqnalların analizi üsulları və informasiya sistem	441,93
Yədulla	Həsənov	Həmdulla	Sosial-iqtisadi proseslərin modelləşdirilməsi	278,68
Knyaz	Məmmədov	Şiraslan	Diskret optimallaşdırma modelləri və üsulları	251,85
Robert	Qarayev	Əsədulla	Ekoloji proseslərin modelləşdirilməsi	209,39
Məzahir	İsayev	Məhəmməd	Neft-qaz obyektlərinin informasiya ölçmə sistemlər	185,57
Cəlal	Allahverdiyev	Eyvaz	İdarəetmənin riyazi məsələləri	173,73
Tamilla	Nəsirova	Hilal	İdarəetmənin ehtimal üsulları	167,00
Allahverdi	Həsənov	Biyakir	Texniki obyektlərin modelləşdirilməsi	152,79

THANK YOU!