

# 2008 CHEA International Commission

Jan. 31, 2008

Washington

## The Israeli Higher Education System: Development, Accreditation and Evaluation



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# *Israel: Some Basic Data*

- Area 22,145 sq. km.
- Population ('07) 7.2 million
- GNP ('07) 678 billion NIS
- State Budget ('06) 270 billion NIS
- Education Budget ('06)\* 26 billion NIS
- Higher Ed. Budget ('06) 6 billion NIS

\* Not including Higher Ed. Budget

# *Higher Education in Israel*

## *Some historical benchmarks*

- Modern higher education in Israel preceded the modern State of Israel (1948)
- Two Humboldtian type institutions served as the basis for the current Israeli Higher Ed. system
  - 1924 The Technion – Israel Inst. of Technology
  - 1925 – Hebrew University of Jerusalem
- 1990's surge of colleges. Transition to mass higher ed.
- 2003/4 Quality Assessment.

# *Higher Education in Israel*

## *A Quick Glance: Facts & Figures*

INSTITUTIONS	61
• Universities	7
• Open University	1
• Art Academies	2
• Comprehensive Colleges	8
• Engineering Colleges	7
• Teacher's Colleges	27
• Non-Budgeted Colleges	9

## *Comparative Data - Institutions of Higher Education per sq. km.*

	Ireland	Switzerland	Germany 2004	Austria	United Kingdom	Israel	Sweden
<b>Third level institutions</b>	<b>60</b>	<b>20</b>	<b>365</b>	<b>40</b>	<b>168</b>	<b>61</b>	<b>54</b>
<b>Universities</b>	<b>7</b>	<b>12</b>	<b>100</b>	<b>30</b>	<b>89</b>	<b>8</b>	<b>13</b>
<b>Total area (sq km)</b>	<b>84,412</b>	<b>41,285</b>	<b>357,050</b>	<b>84,000</b>	<b>244,820</b>	<b>22,145</b>	<b>449,964</b>
<b>sq km per third level institution</b>	<b>1,407</b>	<b>2,064</b>	<b>978</b>	<b>2,100</b>	<b>1,457</b>	<b>363</b>	<b>8,333</b>
<b>sq km per university</b>	<b>12,059</b>	<b>3,440</b>	<b>3,570</b>	<b>2,800</b>	<b>2,751</b>	<b>2,768</b>	<b>34,613</b>

# *Higher Education in Israel*

## *A Quick Glance: Facts & Figures*

Students	~250,000
Bachelor	198,000
Master	42,000
Ph.D.	10,000
Faculty	12,000
Tech. & Admin.	10,500
BUDGET (est. all sources)	~\$2 billion

## *Higher Education in Israel is International in Character*

- Approximately 10,000 Israeli students study in higher education institutions abroad. Of these, about 6,000 in Europe and 3,500 in the U.S.
- Most university faculty members have done Ph.D work or Post Doc. studies abroad
- Significant research cooperation between Israeli scholars and colleagues abroad.

## *Institution-based Cooperation*

- Many Israeli institutions have cooperation agreements with universities / colleges throughout the world.  
These agreements usually stipulate area of cooperation ; mode of cooperation ; financial arrangements.
- Some Universities have special programs for foreign students. Such programs may offer: individual courses ; full semesters ; full years.  
Students may negotiate credit transfer on their own and/or through bilateral institutional agreements.

## *Current Modes of Cooperation*

- Significant cooperation developed over the years between Israeli scholars and colleagues abroad. This lead to:
  - Joint research efforts
  - Joint publications \*
  - Exchange of post-docs
  - Collaboration on doc. dissertation guidance
  - Exchange of students (grad., undergrad.)
  - Joint utilization of facilities (labs., eqpt., etc.)
  - Joint seminars; workshops; conferences

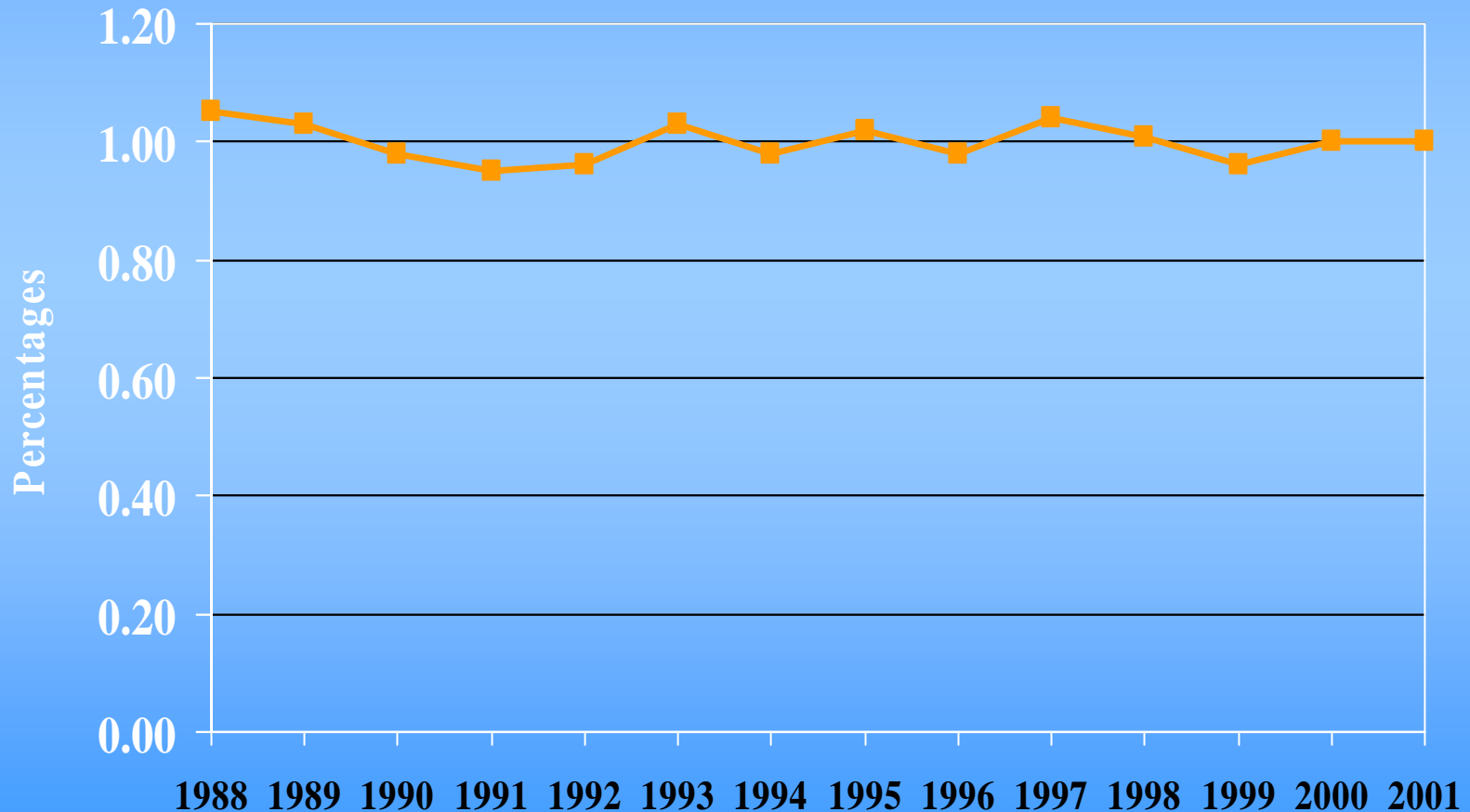
\* Comparative data is presented at the next slide

# *International Cooperation in Publications of Selected Countries, 1986 and 2001*

	1986		2001	
	% of Internationally Co-Authored Articles	US Share of Co-Authored Articles	% of Internationally Co-Authored Articles	US Share of Co-Authored Articles
<b>Israel</b>	<b>27.3</b>	<b>67.7</b>	<b>41.9</b>	<b>52.2</b>
<b>United States</b>	<b>9.2</b>	<b>-</b>	<b>23.2</b>	<b>-</b>
<b>Finland</b>	<b>18.7</b>	<b>34.3</b>	<b>42.9</b>	<b>28.6</b>
<b>France</b>	<b>21.0</b>	<b>29.0</b>	<b>43.3</b>	<b>25.6</b>
<b>Germany</b>	<b>20.1</b>	<b>34.7</b>	<b>41.7</b>	<b>29.9</b>
<b>Netherlands</b>	<b>19.8</b>	<b>29.6</b>	<b>44.9</b>	<b>29.9</b>
<b>Sweden</b>	<b>22.2</b>	<b>35.7</b>	<b>46.3</b>	<b>27.5</b>
<b>Switzerland</b>	<b>32.2</b>	<b>32.4</b>	<b>53.5</b>	<b>31.2</b>
<b>United Kingdom</b>	<b>15.7</b>	<b>34.8</b>	<b>36.9</b>	<b>30.6</b>
<b>Japan</b>	<b>7.5</b>	<b>55.5</b>	<b>19.8</b>	<b>42.8</b>
<b>Korea</b>	<b>..</b>	<b>..</b>	<b>25.7</b>	<b>57.2</b>
<b>Taiwan</b>	<b>20.8</b>	<b>66.5</b>	<b>20.8</b>	<b>58.2</b>
<b>Australia</b>	<b>15.3</b>	<b>40.0</b>	<b>36.3</b>	<b>37.2</b>

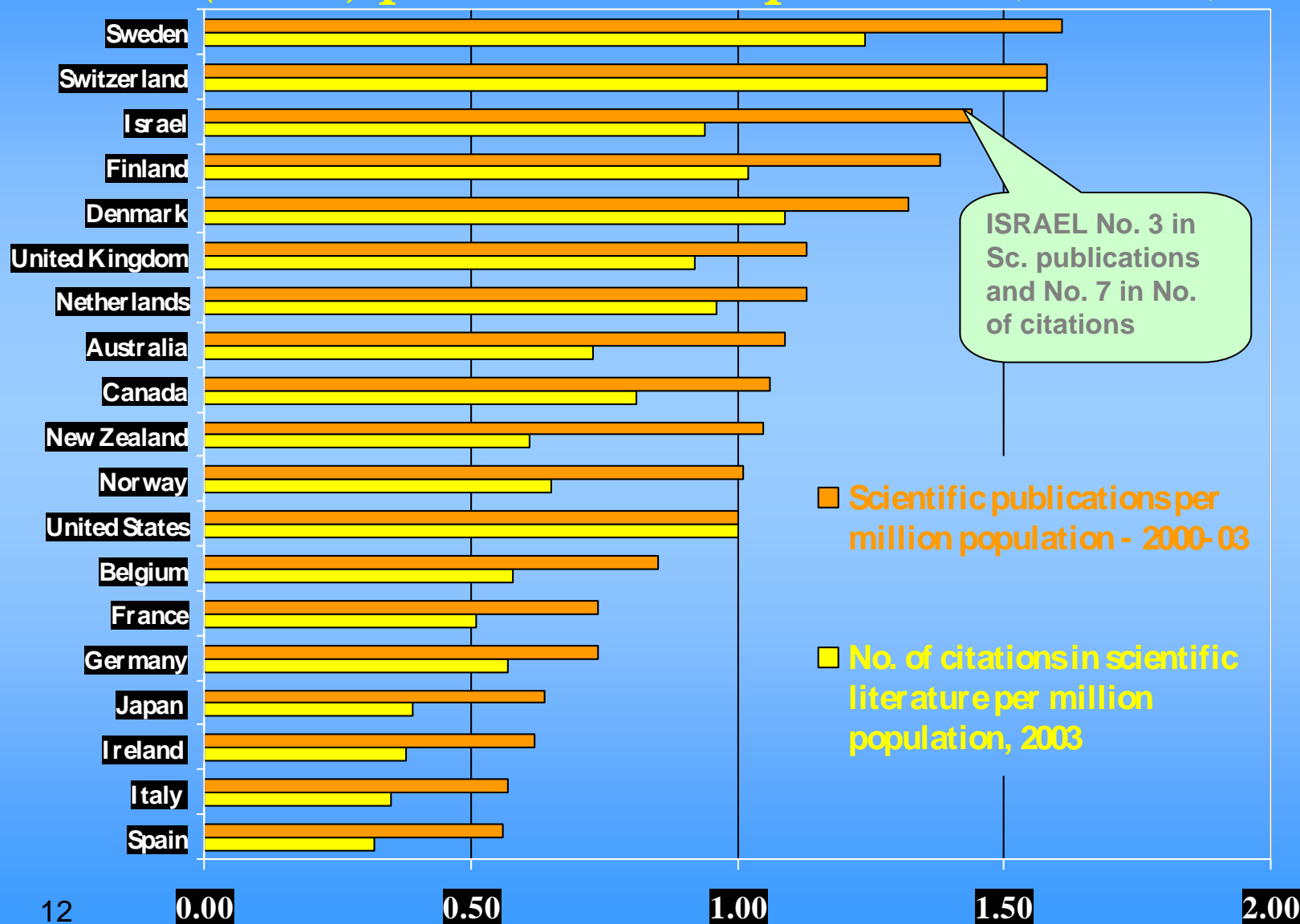
# *Higher Education in Israel*

*A Quick Glance: Research  
Israeli scientific publications  
as % of world publications*



**Source: Science & Engineering Indicators 2004, US NSF**

# Scientific Publications (1999-2001) & No. of Citations (2001) per Million Population (US=1.00)



## *Israel's place in the world rank of relative impact of scientific literature in selected fields – 1994, 2001, 2003*

	<b>1994</b>	<b>2001</b>	<b>2003</b>
<b>All Fields</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Medicine</b>	<b>19</b>	<b>18</b>	<b>20</b>
<b>Bio-Medical research</b>	<b>5</b>	<b>3</b>	<b>4</b>
<b>Biology</b>	<b>8</b>	<b>16</b>	<b>7</b>
<b>Chemistry</b>	<b>7</b>	<b>5</b>	<b>6</b>
<b>Physics</b>	<b>9</b>	<b>8</b>	<b>9</b>
<b>Earth &amp; Space Sciences</b>	<b>14</b>	<b>6</b>	<b>9</b>
<b>Engineering &amp; Technology</b>	<b>13</b>	<b>13</b>	<b>16</b>
<b>Mathematics</b>	<b>16</b>	<b>16</b>	<b>12</b>

**Note:** Relative impact is calculated as follows: the country's share of total citations in a certain year divided by its share of all world scientific publications in that year

# *Higher Education in Israel*

## *A Quick Glance: Governance*

### *The Council for Higher Education*

## The Law

- The framework of the system of higher education in Israel is defined in the Council for Higher Education Law – 1958, with 11 amendments enacted over a period of 40 years
- This law established the Council for Higher Education as the statutory body responsible for all Higher Ed. matters including procedures for the accreditation of institutions of Higher Ed.

# *The Council's Responsibilities*

## *Accreditation*

- To grant a permit for the opening and maintenance of an institution of higher education
- To accredit an institution as an institution of higher education
- To revoke the accreditation of an accredited institution.

# *Approval of New Degrees & Programs*

- To authorize an accredited institution to confer an academic degree
- To approve new programs of study in existing institutions
- To license the branches and extensions of foreign institutions of higher education which operate in Israel.

# *Academic Freedom*

Article 15 of the Law guarantees that the institutions of higher education are autonomous in the conduct of their academic and administrative affairs within the framework of their budgets and their terms of accreditation.

# *The Planning and Budgeting Committee*

The Council delegated to the Planning and Budgeting Committee (PBC) its responsibilities of planning and budgeting.

The PBC is therefore the executive arm of the Council.

# *The PBC as a Buffer*

- To be an independent intermediary body between the Government and the institutions of higher education, in all matters relating to **allocations** for higher education
- To negotiate with the Ministry of Finance the share of higher education in the state budget.

# *Recommendations to the Council*

To submit its recommendations to the Council for Higher Education concerning requests to open new institutions or new units in existing institutions, after examination from the planning and budgetary points of view.

# *Accountability*

To ensure that institutional budgets are balanced and executed according to plan.

# *Planning and Coordination*

To draw up plans for coordinated and efficient development of higher education on the national level.

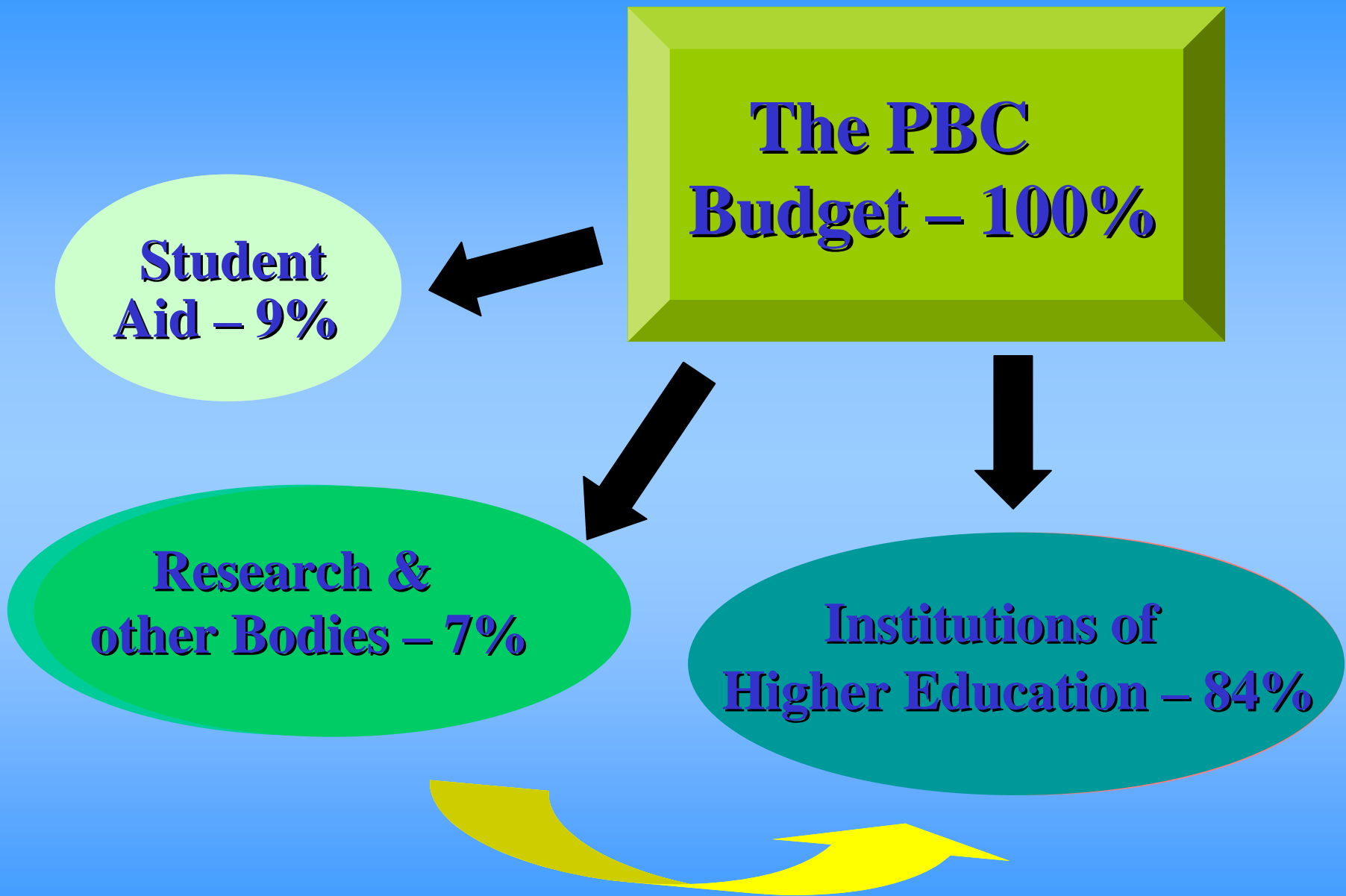
# *Allocation of Funds*

To exclusively allocate the budget to institutions of higher education, taking into account the needs of society and the state, while safeguarding academic freedom and assuring advancement of research and teaching.

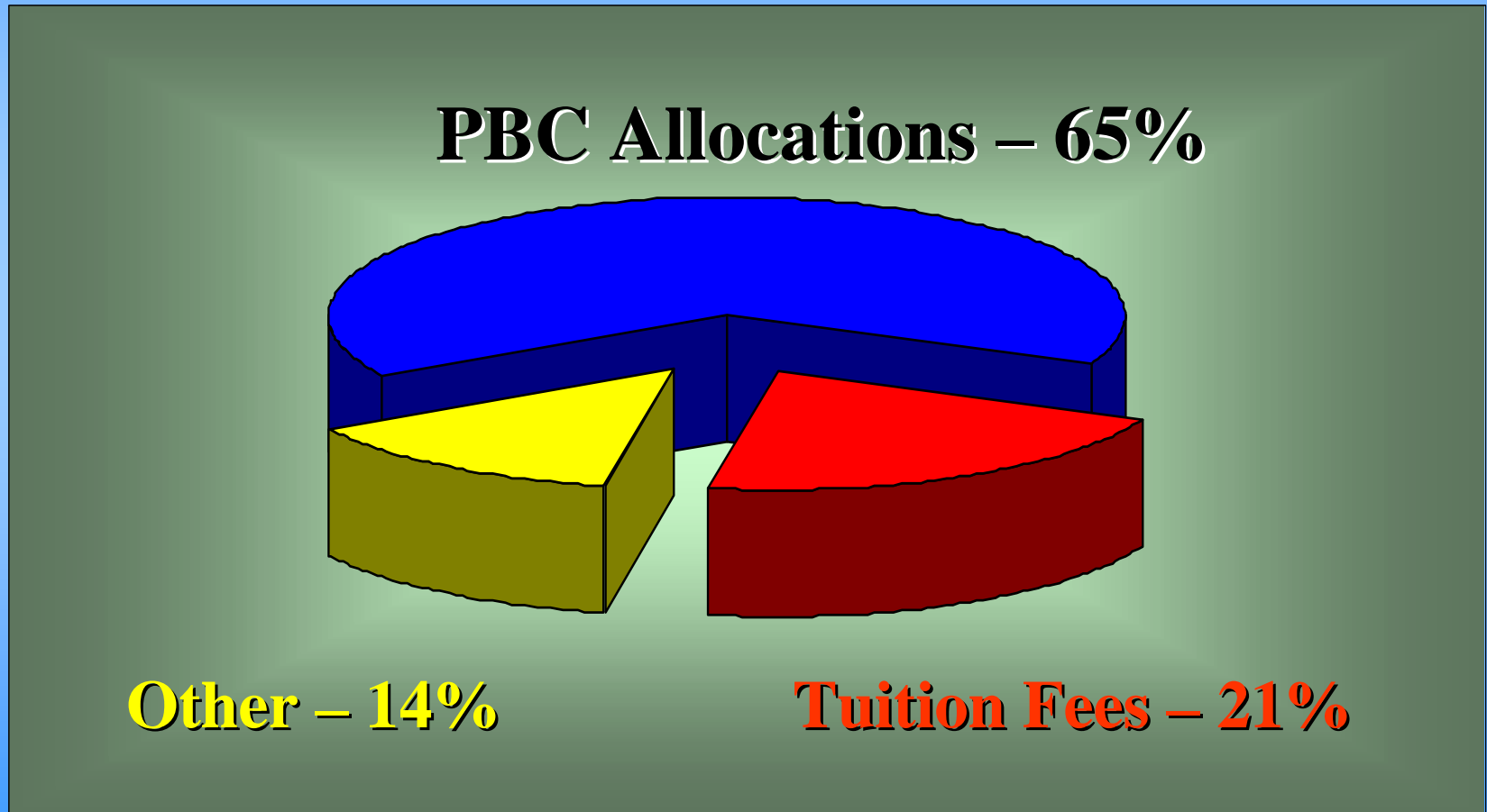
# *Higher Education in Israel*

## *A Quick Glance: Budgeting*

- Some 60% - 70% of the higher education budget comes from the Government
- It is usually based on a 5-year plan through ...
  - Negotiations between the Finance Ministry and the Planning and Budgeting Committee (PBC) of the Council for Higher Education (CHE).
- 2006 PBC Budget \$1.4 billion (about 2% out of the total state budget).



# *Breakdown of the Income of the Institutions of Higher Education*



# *The CHE Mandate: Summary*

## TERMS MENTIONED

- Securing funds
- Planning
- Licensing
- Accreditation
- Allocation of funds
- Accountability

## TERMS ABSENT

- Review
- Re-accreditation
- Quality assurance
- Evaluation
- Assessment

# *CHANGE...*

## **June 2003**

The CHE adopts the recommendation of a National Committee to institute Quality Assessment and Assurance throughout the entire Higher Education System

## **2004**

CHE establishes a QA unit and the first two disciplines are chosen for a pilot evaluation

## **2004/05 and thereafter...**

The Process is underway...

# *What prompted this change?*

## *Some major reasons*

- Transition to mass higher education
- Internationalization of higher education
- Economic/budgetary pressure
- Pressure from stakeholders
- An inducive / ripe environment
- *Perhaps* . . . a realization by CHE that as part of the expanded accreditation some control may have been lost and another look may be beneficial.

# *Transition to mass higher education*

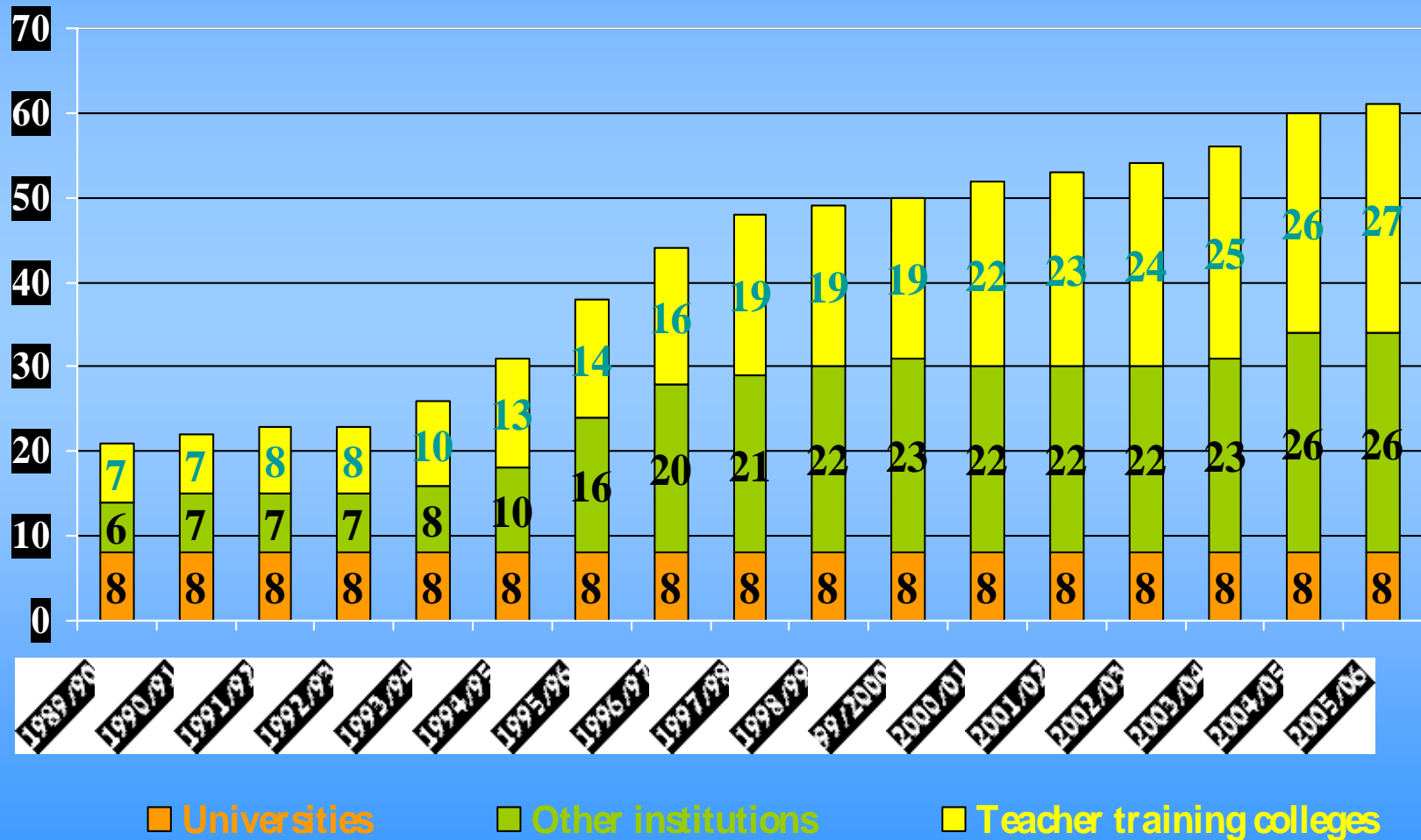
Institutions	1990/91	2005/06
Universities	7	7
Open University	1	1
Art Academies	2	2
Comprehensive Colleges	0	8
Engineering Colleges	2	7
Teachers' Colleges	7	27
Non-Budgeted Colleges	2	9
<b>Total</b>	<b>21</b>	<b>61</b>

**\*Students**

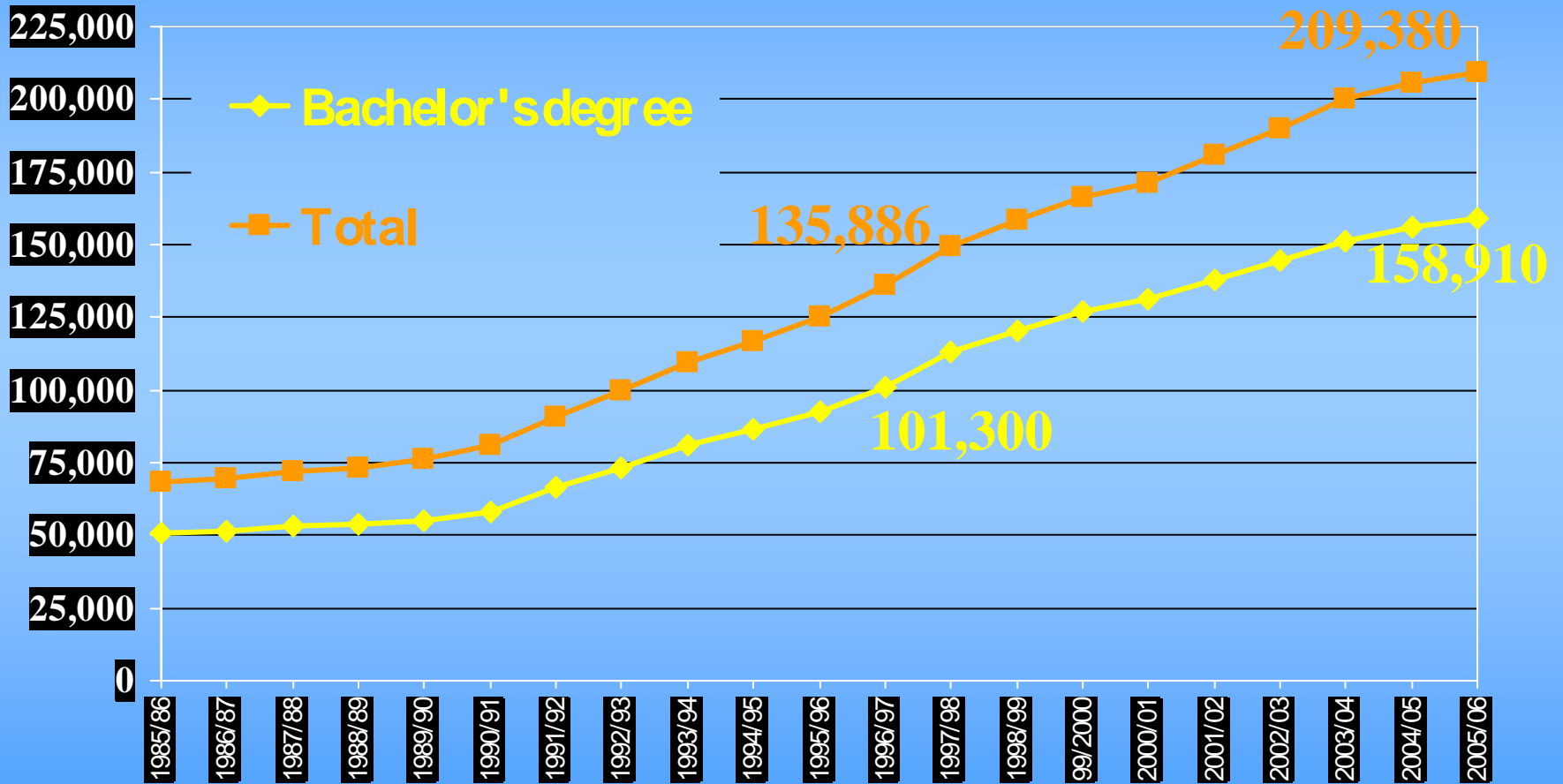
**89,000**

**~250,000**

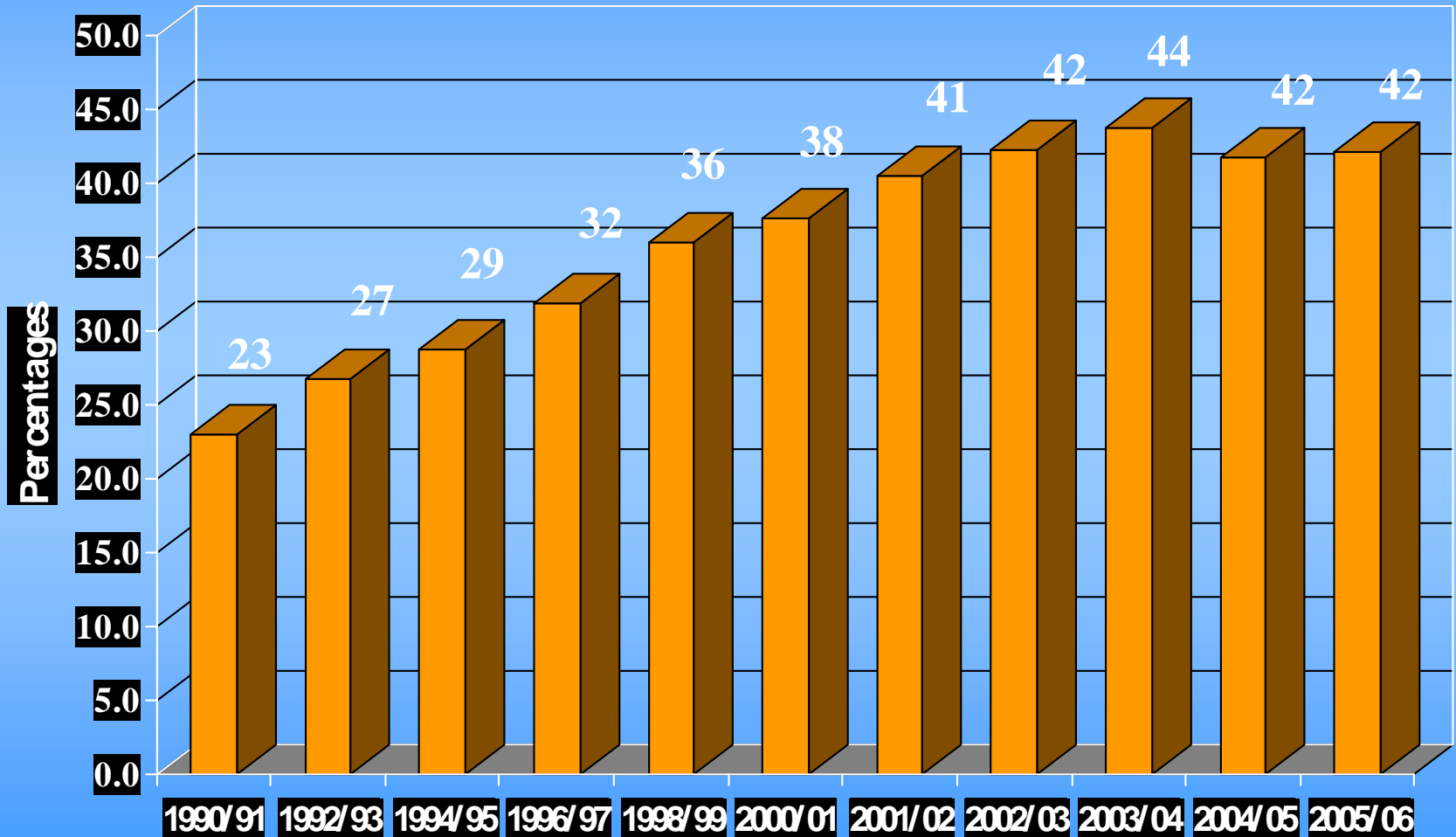
# The Growth in the Number of Institutions of Higher Education



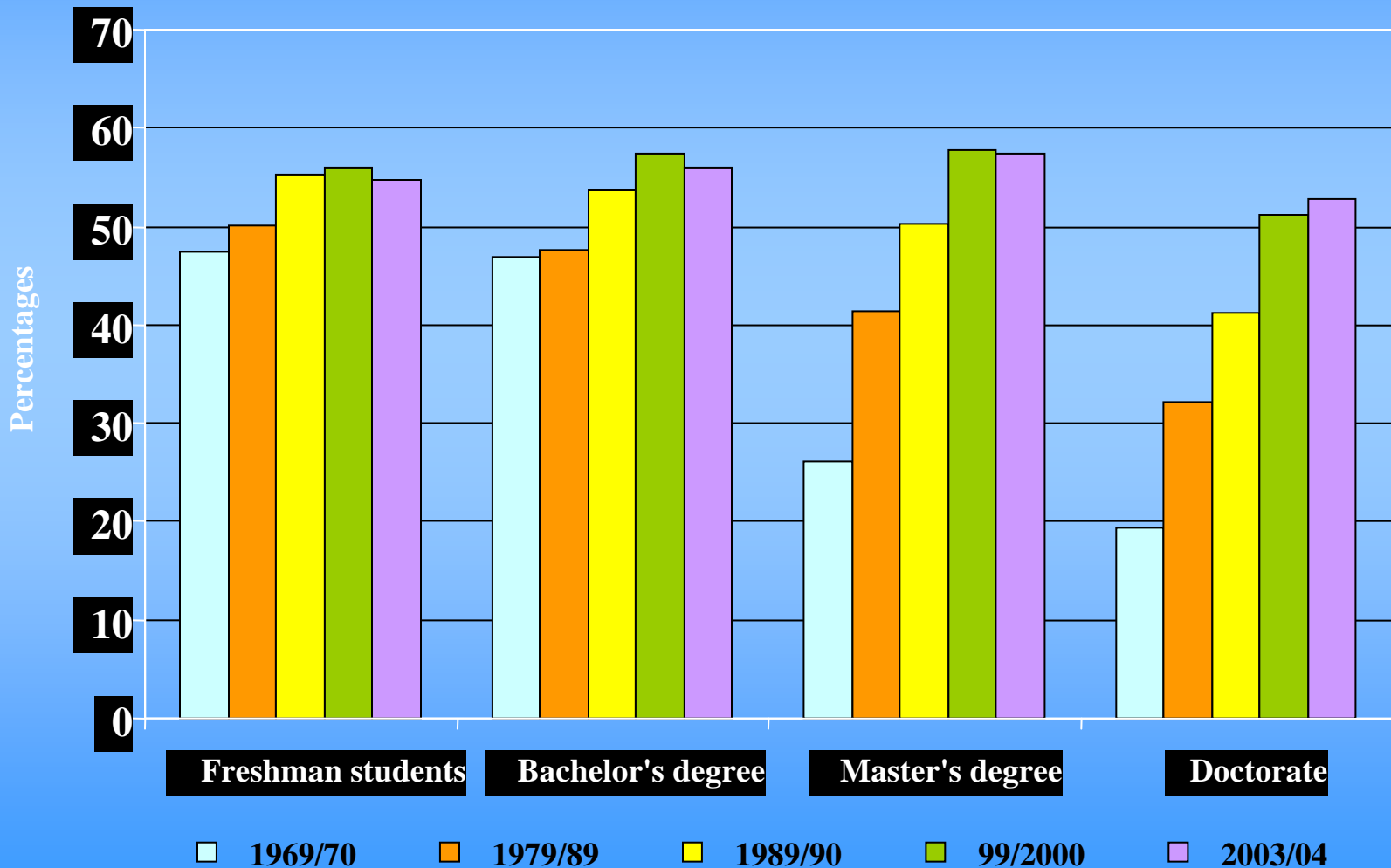
# Students in Institutions of Higher Ed.



# *Proportion of Entering Students in Higher Education in the Average Age Cohort*



# *Women in Institutions of Higher Education by Level of Degree*



# *Women in Institutions of Higher Education 2006*

## **Percent of Women among Students:**

Bachelor's degree – 56%

Master's degree – 57.5%

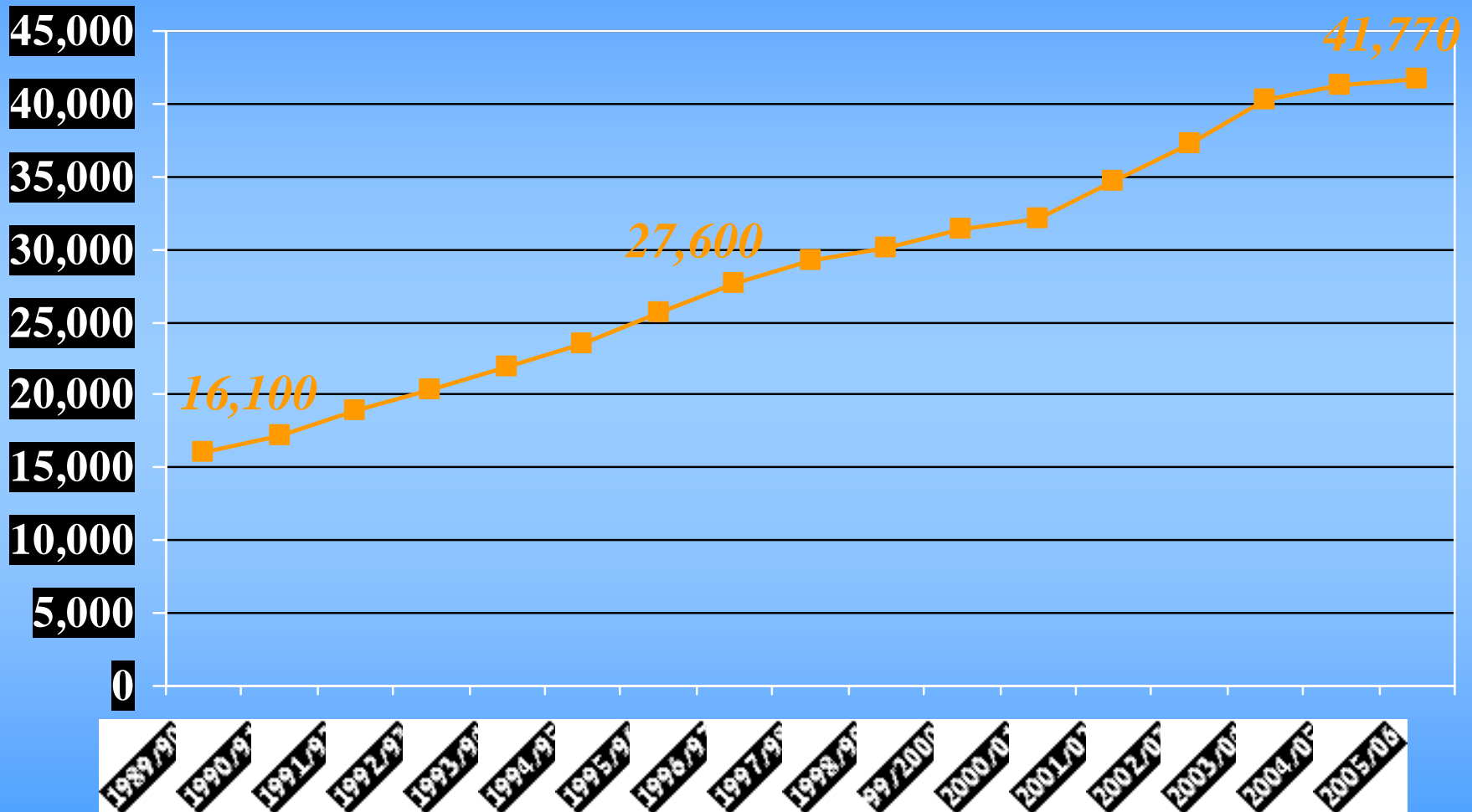
Doctorate – 53%

**\* The data include Bachelor's degree students in the Open University**

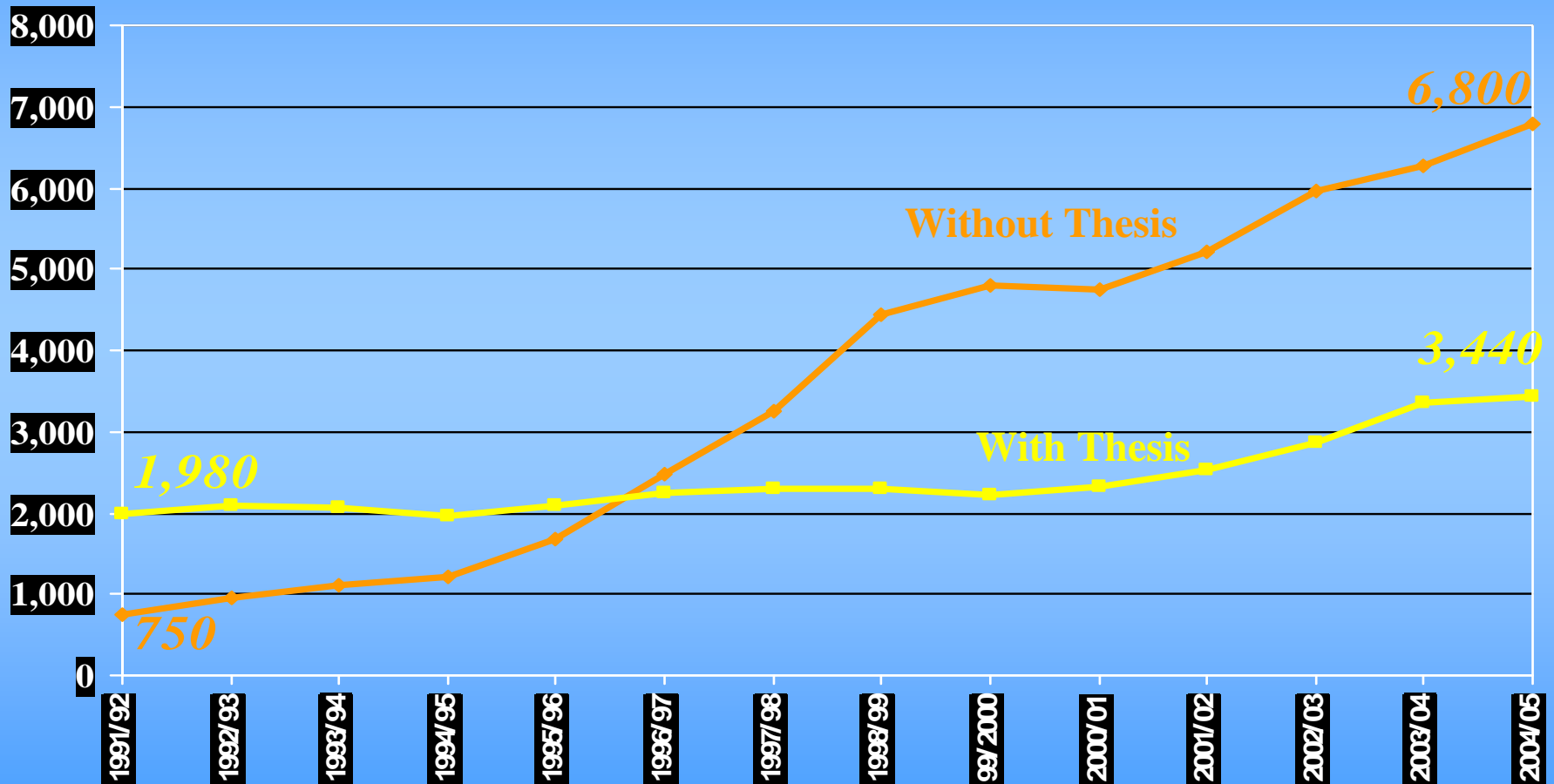
## *Minority Education Graduates (1990/91-2001/02) Entering Higher Ed.\**

<b>Grad. year</b>	<b>Total</b>	<b>University</b>	<b>Academic college</b>	<b>Teachers' college</b>	<b>Open University</b>
1990/91	<b>10.7</b>	<b>6.2</b>	<b>0.0</b>	<b>3.5</b>	<b>1.0</b>
1992/93	<b>13.2</b>	<b>7.9</b>	<b>0.1</b>	<b>4.6</b>	<b>0.6</b>
1994/95	<b>15.1</b>	<b>9.0</b>	<b>0.8</b>	<b>4.9</b>	<b>0.4</b>
1996/97	<b>14.1</b>	<b>7.7</b>	<b>1.1</b>	<b>5.0</b>	<b>0.8</b>
1998/99	<b>17.9</b>	<b>9.0</b>	<b>1.3</b>	<b>6.7</b>	<b>0.9</b>
2000/01	<b>19.2</b>	<b>9.3</b>	<b>1.9</b>	<b>7.3</b>	<b>0.7</b>
2001/02	<b>18.8</b>	<b>9.6</b>	<b>2.5</b>	<b>6.1</b>	<b>0.6</b>

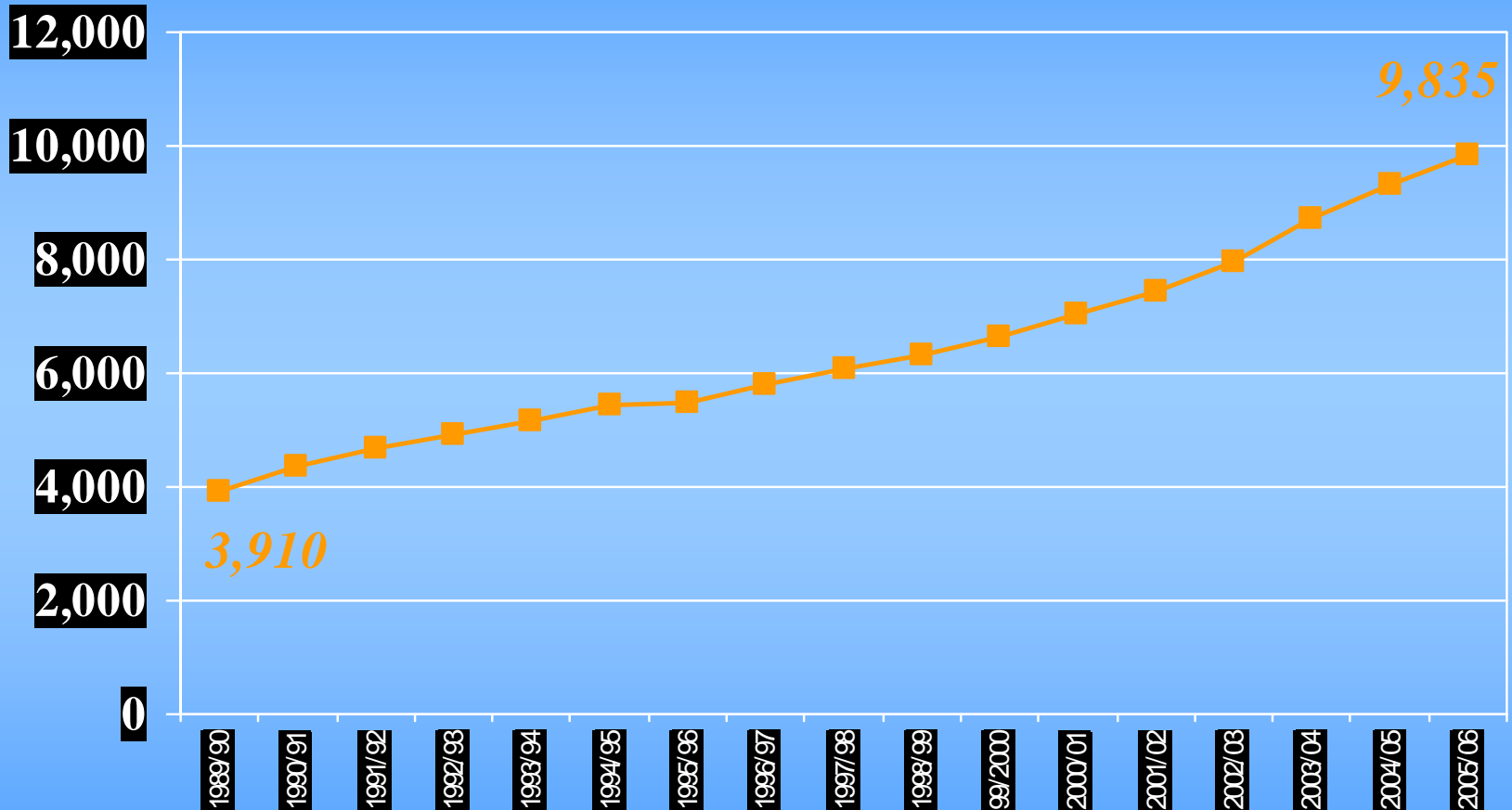
# *Master's Students, 1989/90 – 2005/06*



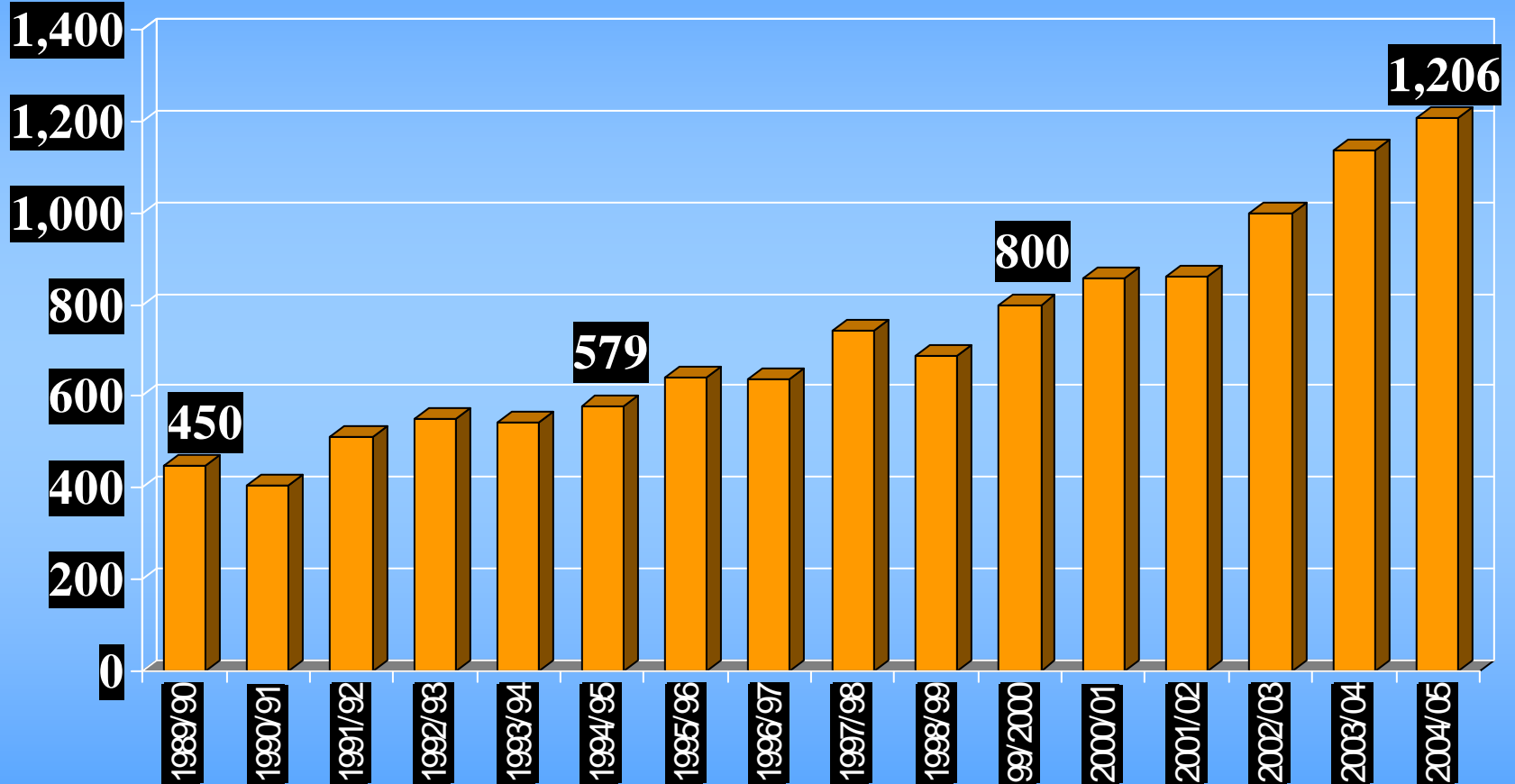
# *Master's Degree Recipients with & without Thesis, 1990/91 – 2004/05*



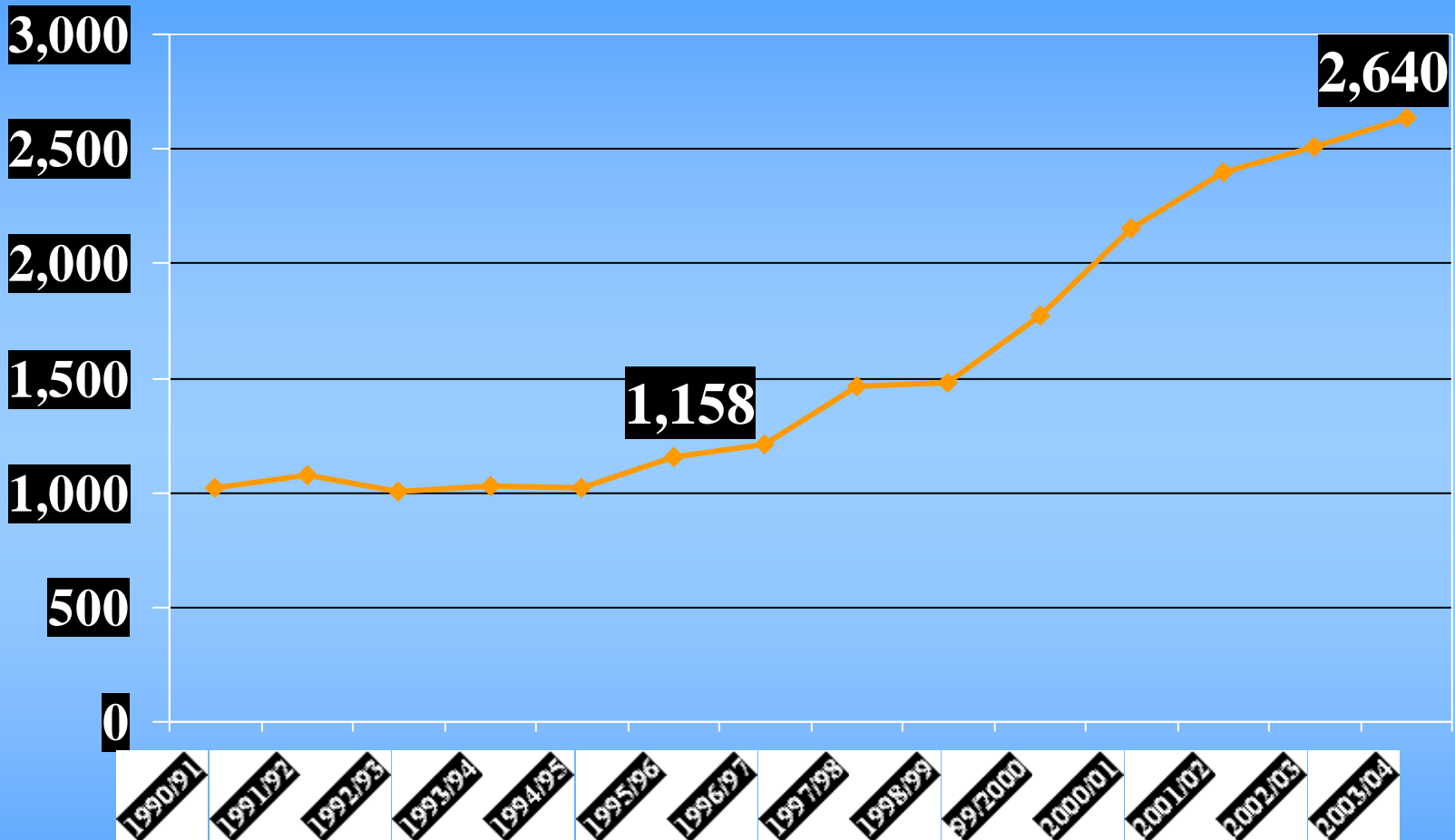
# *Doctoral Students, 1989/90 – 2005/06*



# *Ph.D. Recipients, 1989/90 – 2004/05*



# *1<sup>st</sup> Yr. Students in Biotechnology Fields*



Data includes students in the biological sciences, the agricultural sciences, biotechnology engineering and clinical lab sciences.

# *Bachelor's Degree Students by District of Study*

	<b>1989/90</b>	<b>1994/95</b>	<b>99/2000</b>	<b>2005/06</b>
<b>Grand total</b>	<b>55,250</b>	<b>86,320</b>	<b>126,900</b>	<b>158,910</b>
<b>Percent</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Jerusalem District</b>	<b>22.7</b>	<b>17.5</b>	<b>15.5</b>	<b>12.9</b>
<b>Northern District</b>	<b>..</b>	<b>2.5</b>	<b>5.3</b>	<b>7.7</b>
<b>Haifa District</b>	<b>21.7</b>	<b>22.0</b>	<b>17.9</b>	<b>15.8</b>
<b>Central District</b>	<b>4.1</b>	<b>4.3</b>	<b>15.9</b>	<b>16.6</b>
<b>Tel Aviv District</b>	<b>42.8</b>	<b>42.7</b>	<b>31.5</b>	<b>32.0</b>
<b>Southern District</b>	<b>8.7</b>	<b>10.9</b>	<b>13.9</b>	<b>14.9</b>

# *Internationalization*

- The increasing demand for Higher Education was answered by increased accessibility – more colleges but also through the:
  - Opening of the Higher Education market to international entrepreneurs.
- Thus in the 90s we experienced growing penetration of branches of foreign institutions, some not even accredited in their own countries
  - Clients, Customers seek verification, approval etc.

# *Economic Budgetary Pressure*

- Government budgetary cuts
- Higher education institutions find themselves in the **red**

Some blame:

- Lack of managerial-*ism*
- Lack of prioritization
- Lack of control and accountability.

# *Pressure from Stakeholders*

- Government/ Politicians
- Boards of Trustees
- International Academic Advisory Committees
- Students
- Donors
- International Environment – General  
– Academic
- Industry (“*Clients*”)

# *Inducive/Ripe Environment*

- The 80s and 90s brought
  - “In Search of Excellence”
  - Deming et al.
  - “Quality is Free”
  - TQM
- All Sectors – Industry, Public, Defense – become heavily involved with Quality
- ...Finally Higher Education joins in!

# *CHE - Realization*

Accreditation ↓

Re-accreditation ↑

# *From other countries...*

In developing our quality assessment process we “borrowed” from the experience of many countries- Europe, USA, Canada, Australia, etc.....

# *Main Features of Adopted QA Process*

- All Institutions every 8 years (Not yet implemented)
- All programs every 6 years
- External Review Committee (top in discipline)
  - Appointed by & Reports to CHE
  - On-Site visits by Committee
- Self-evaluation process as basis for review.

# *Unique Features...*

- All programs within a discipline are reviewed at the same time by the same committee
- Committee asked to assess “fitness for purpose”. No comparisons. No ranking
- Committee asked to provide:
  - Individual reports for each program to serve as guideline for improvement
  - General overview of discipline to serve as guideline for CHE & PBC policy decisions
  - Set of standards.

# *Issues evaluated*

- Mission, goals
- Study programs – all degrees
- Faculty – achievement, promotion criteria, etc.
- Students – admissions, grading, services, etc.
- Organization – committees; decision process
- Infrastructure – labs, library, IT, etc.
- Community involvement and cooperation
- Self evaluation process.

# *External Review Committee Composition*

- Heavy reliance on foreign academics
- Chair- senior academic figure (from abroad)
- Members – senior faculty from abroad (majority) and from Israel. In special cases also a leading (non-academic) professional figure
- Number – depending on no. of programs and nature of discipline.

# *Timetable*

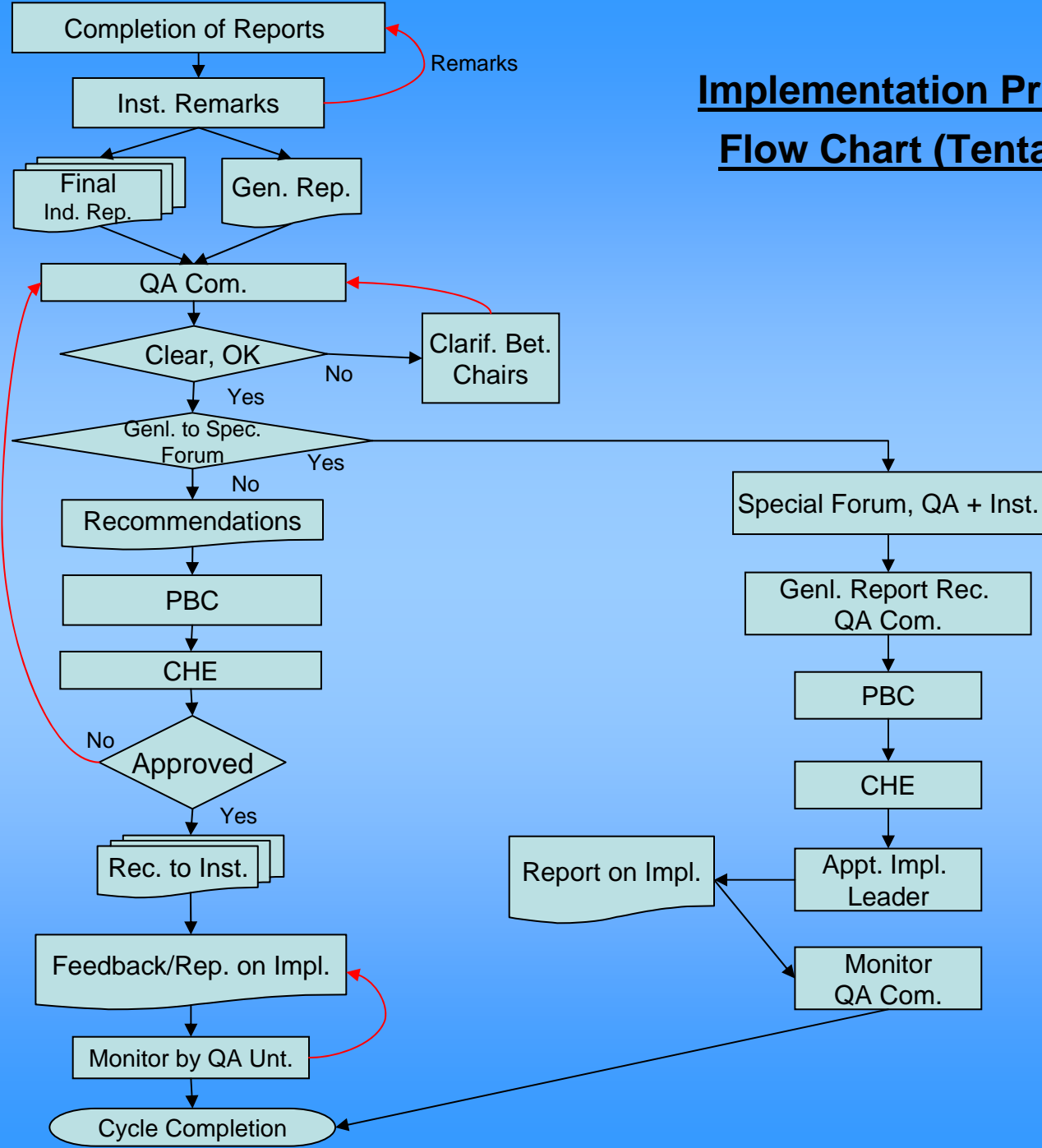
• Self-Assessment	10 months
• External review committee	8 - 10 months
• CHE deliberations	2 months
Entire process	20 - 22 months

# *Review Process Results*

- Recommendations
- Implementation
  - Stick & Carrot / Timetable
    - Congratulations – minimal changes
    - Desirable changes - 5-6 years (by next evaluation)
    - Important changes - 1-3 years
    - Essential change - immediately, up to 1 year!

*We are struggling with how to monitor implementation!*

# Implementation Process Flow Chart (Tentative)



# *Major Objections*

- Older Institutions – We know what we're doing!
- Younger Institutions – We're not yet ready for comparison!
- Top-down – Big brother watching!
- Benchmarking / Standards – What to compare to!
- Paperwork – is this the best way to utilize resources?
- Bureaucratization – More forms to fill out!
- Ranking of institutions with different missions
- Potential abuse – Resource allocation
- *Another report for the drawer...*

*The most convincing argument in  
favor of ...*

If nothing else ...

**The Self Evaluation Study** itself:

**Looking honestly into the mirror is worthwhile!**

## *Present Status*

- About 10 disciplines are currently under various stages of the evaluation process
- Some of the completed reviews have already brought change in individual institutions as well as in the policy of the CHE and PBC.

## *Concluding Remark*

Israel is striving to position itself as an active participant in the global developments of higher education, by continuously enhancing the quality of its institutions.

**We aim at quality  
while maintaining uniqueness!**

***THANKS!!!***