

2006 IEET Annual Meeting
June 6, Taipei

Accreditation and Professional
Development of Engineers in Japan

Hideo Ohashi

President

Japan Accreditation Board for Engineering Education



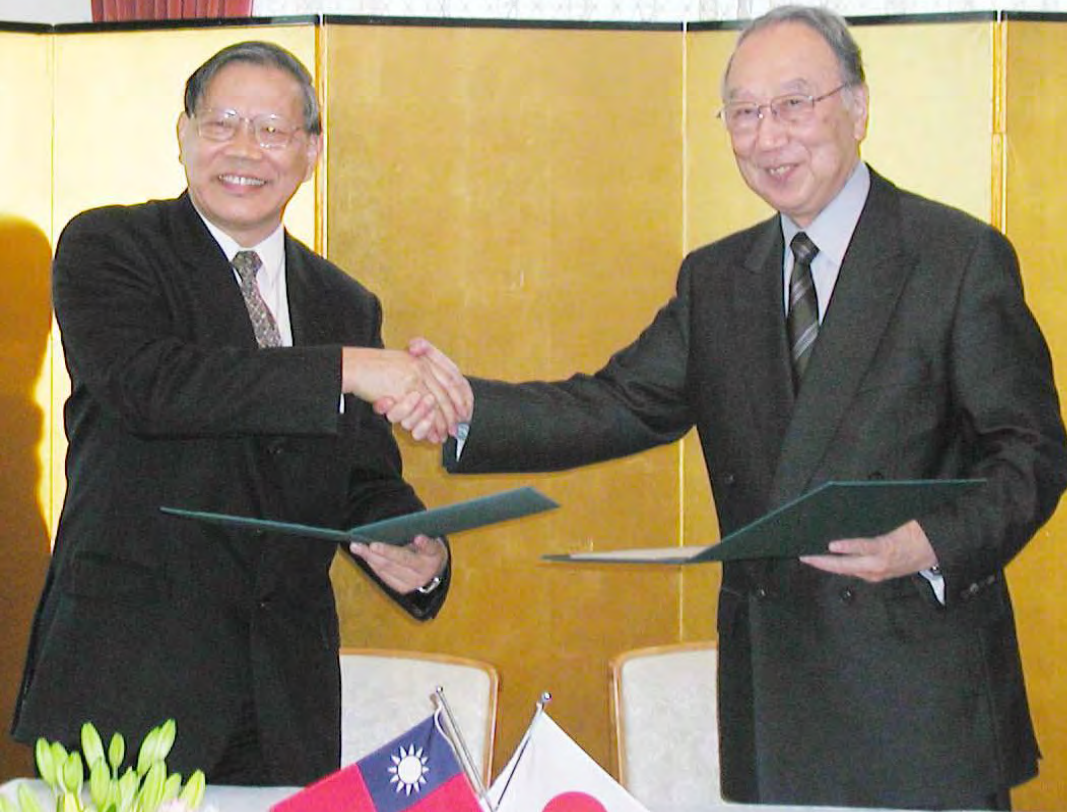
MEMORANDUM OF UNDERSTANDING



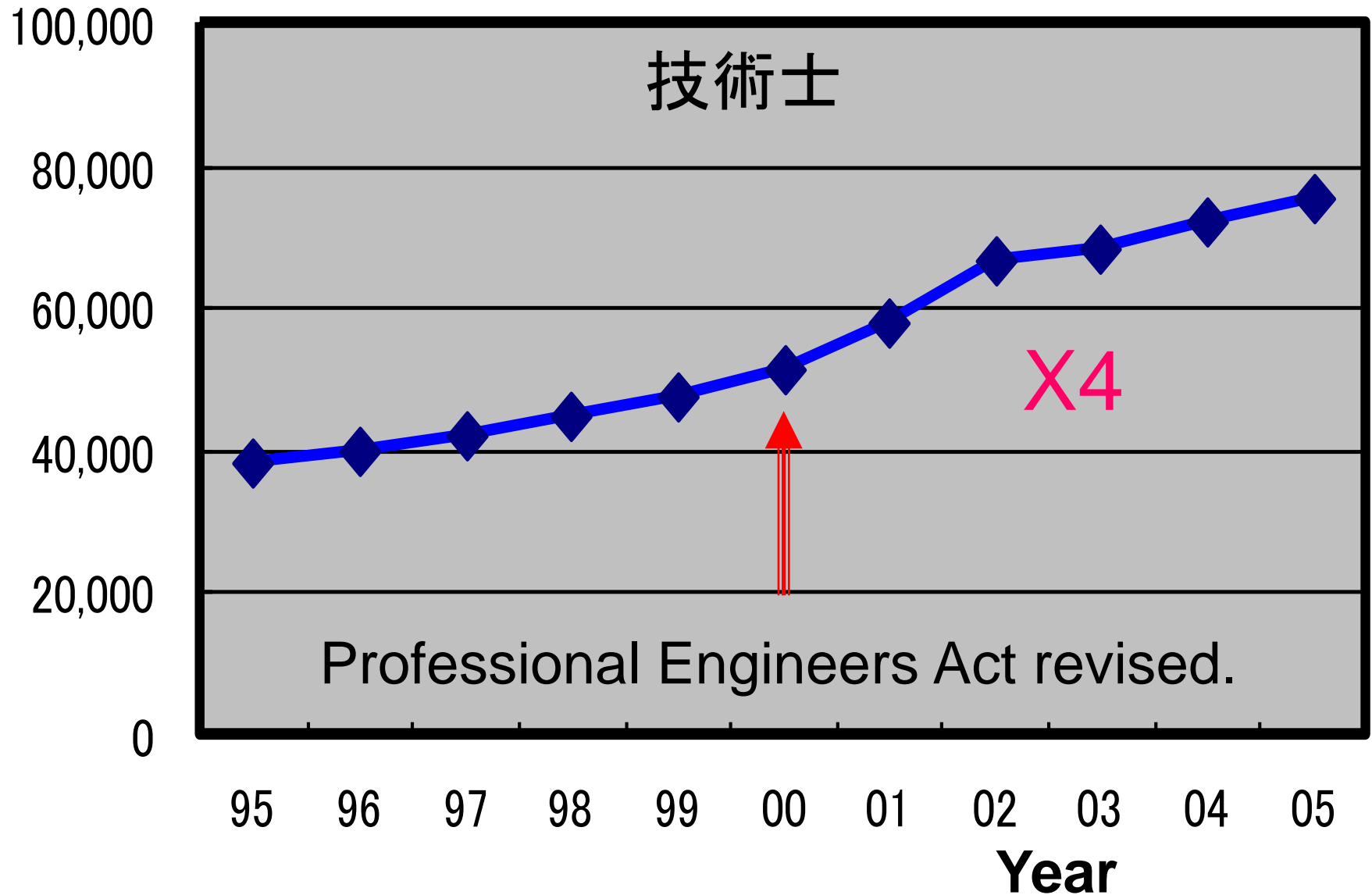
IEET and JABEE



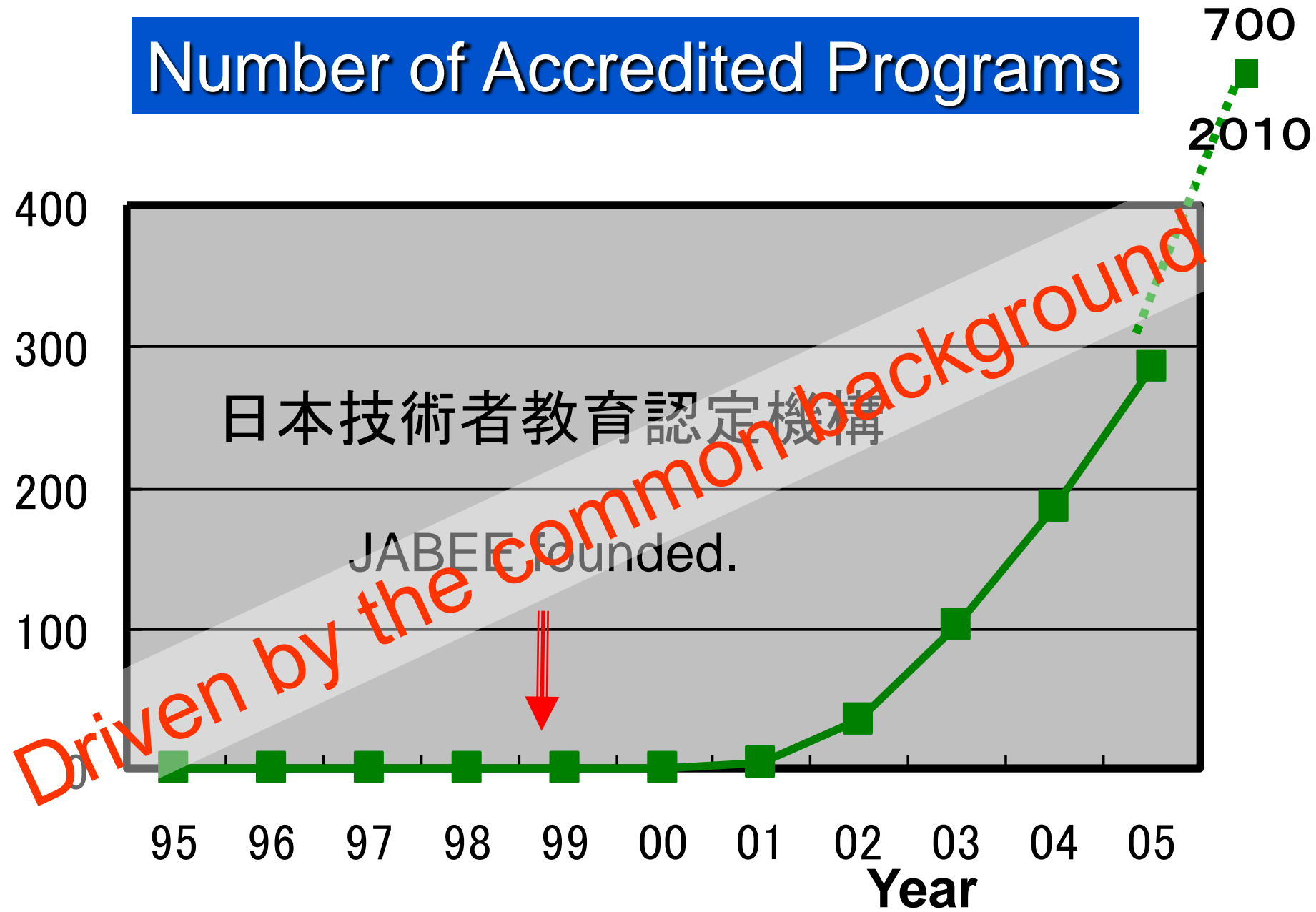
December 3, 2005



Number of Registered Engineers, PE.jp



Number of Accredited Programs



Impact of Globalization

1991: **Termination of Cold War Regime**

Globalization started to accelerate!

1995: /1 WTO founded > Free trade of services

/11 APEC Summit Meeting > Mobility of engineers

1996: /3 Coordination of APEC Engr by HRD-WG started

/5 Preparation for revision of PE Act

/7 Study of accreditation of eng. education

1997: /11 Final agreement on requirements for APEC Engr

1999: /11 Foundation of JABEE

2000: /4 Revision of Professional Engineers Act

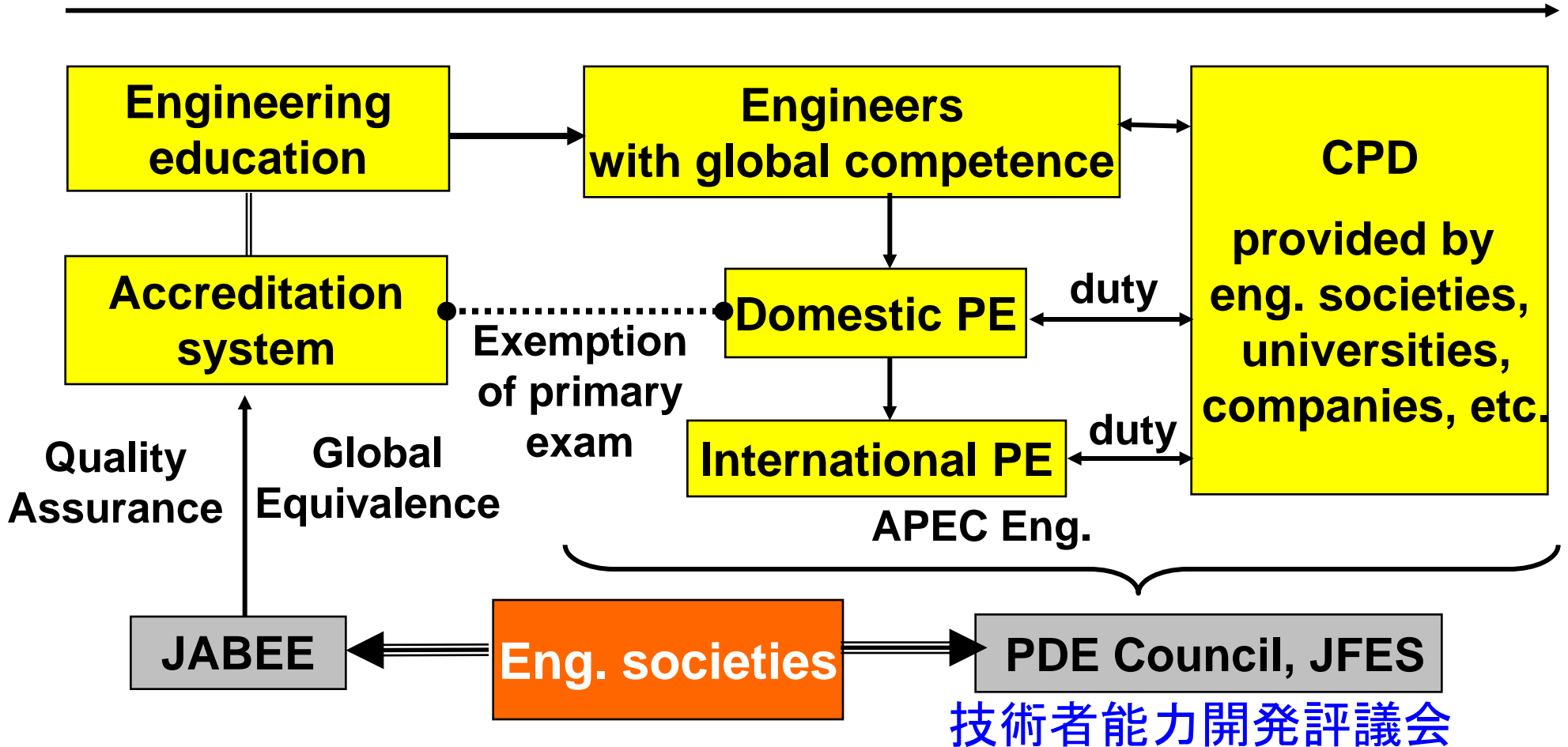
2001: /3 First registration of APEC Engineer

2005: /6 Signatory to the Washington Accord

**Integrated System to Support
Life-Long
Professional Development of
Engineers (PDE)**

Life-long Professional Development of Engineers

Fundamental Education Training & Practicing Professional Qualification Continuing Prof. Development (CPD)



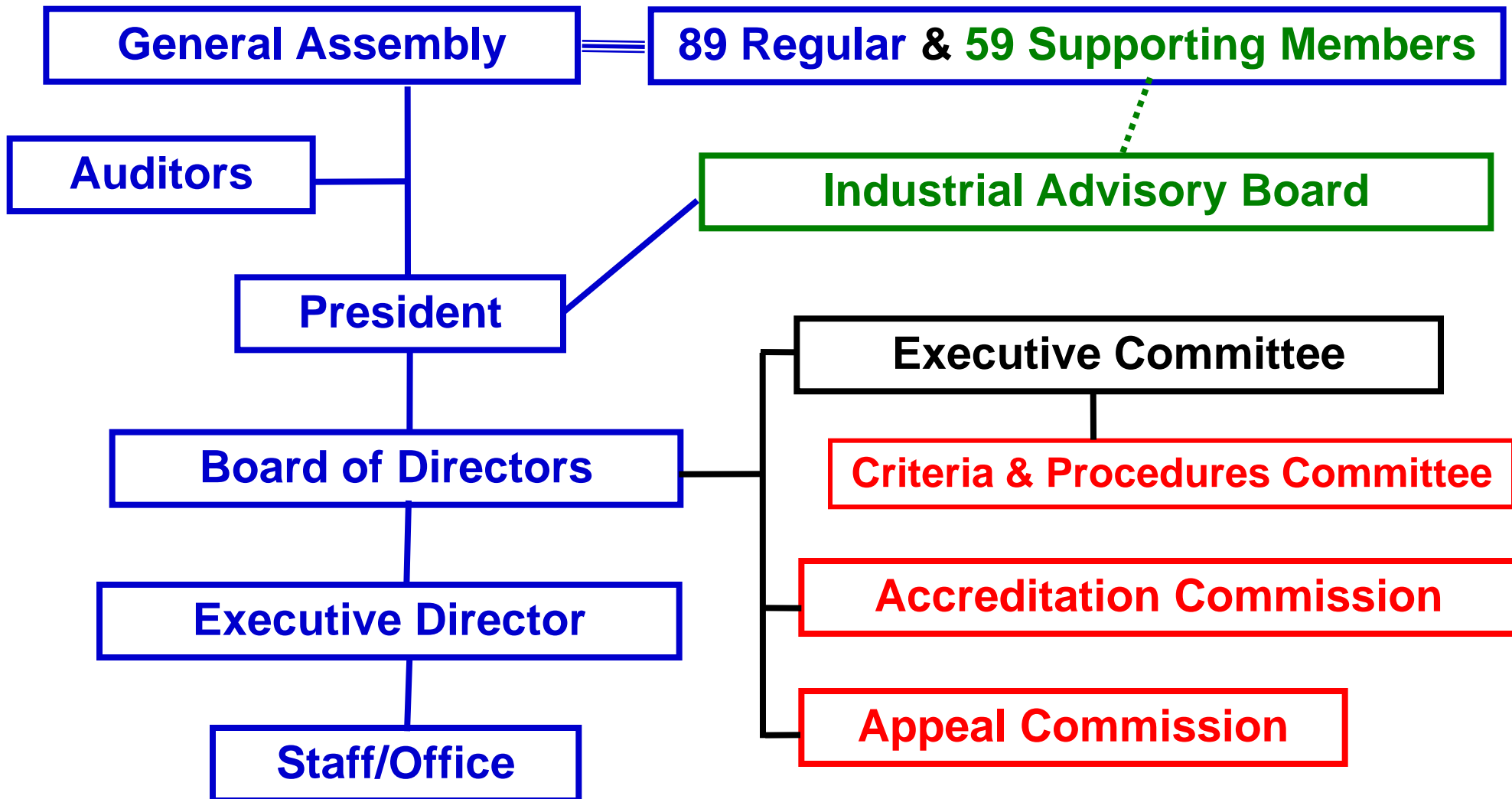
JABEE

Founded in November 1999

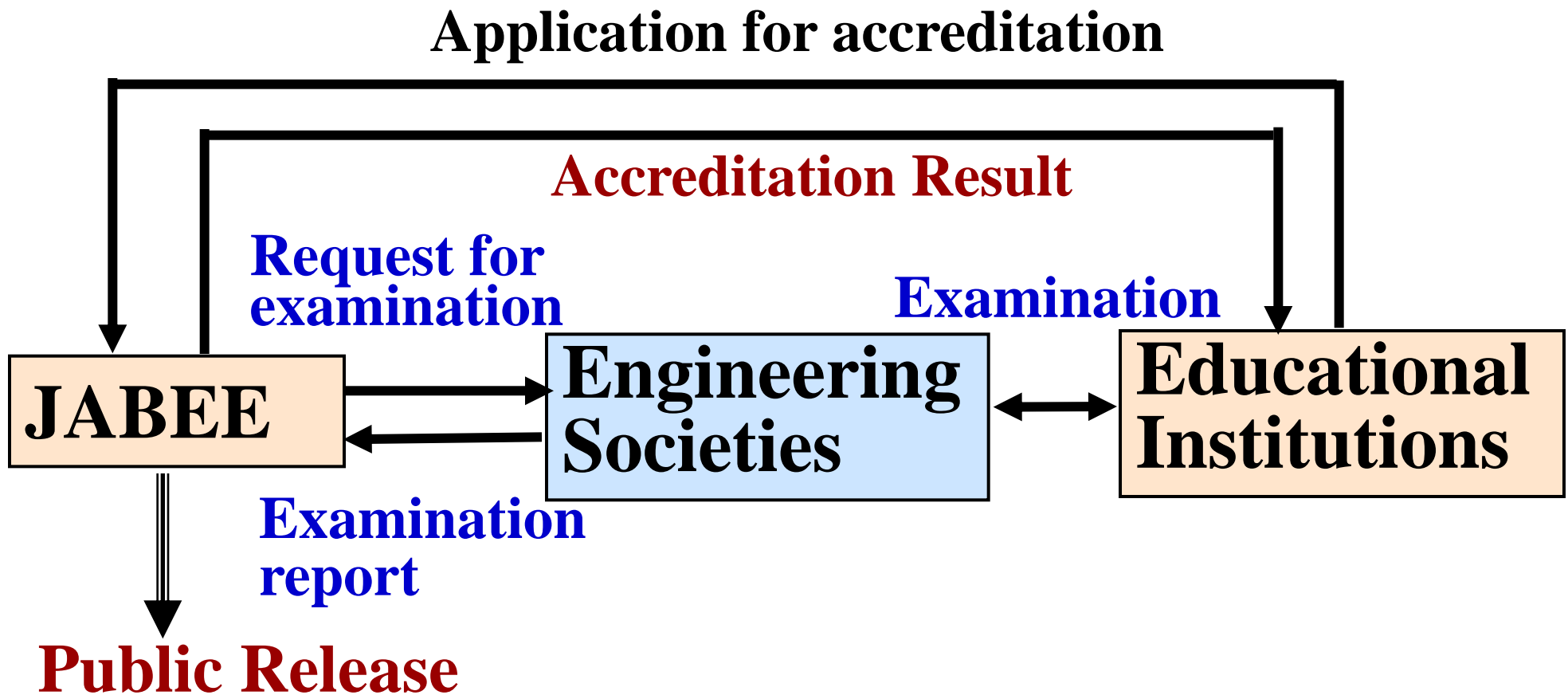
Objectives:

- **Conduct program accreditation for engineering education**
- **Assure global equivalence of the quality**

Organization of JABEE



Role Sharing among JABEE and Engineering Societies

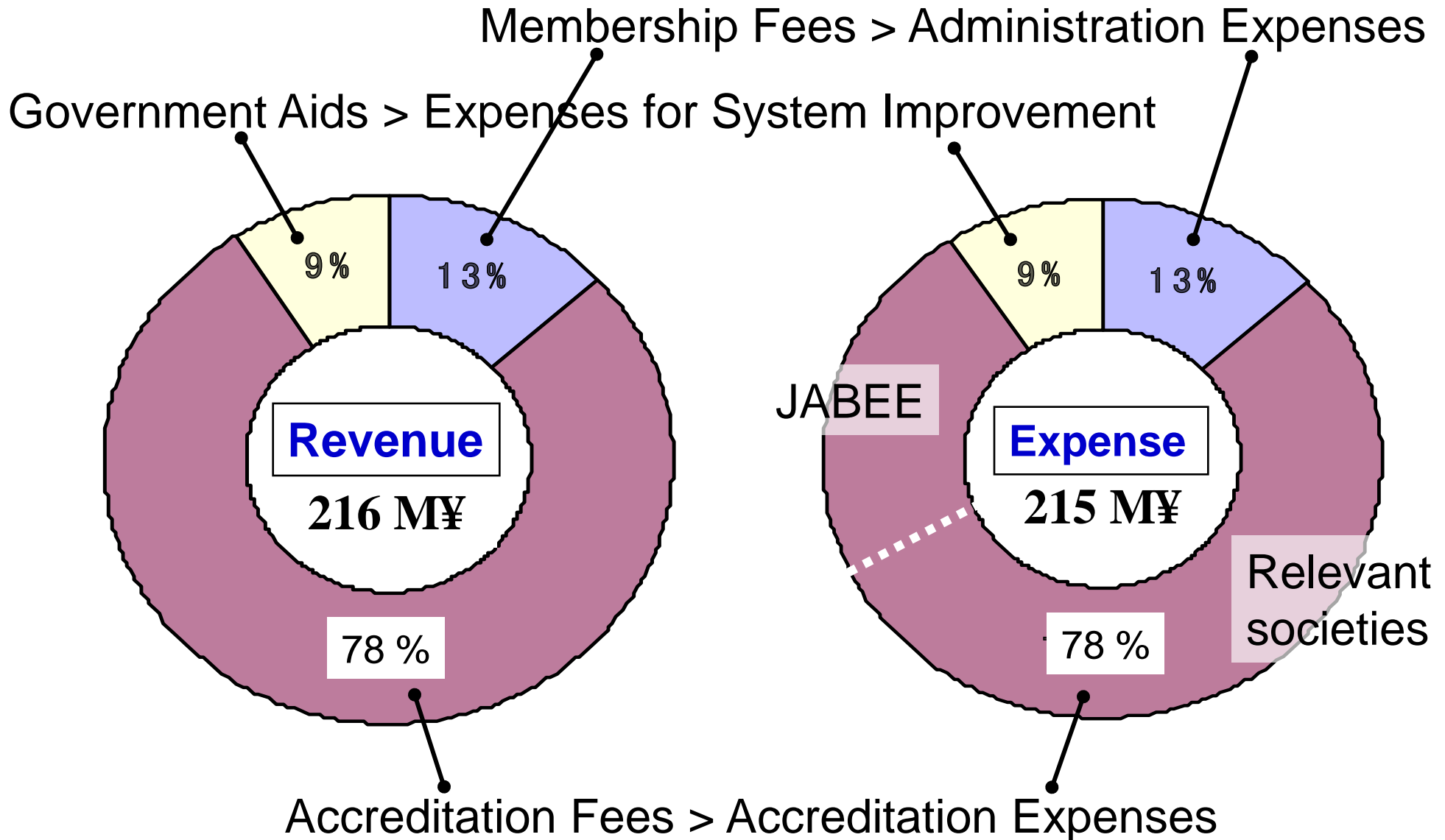


JABEE Activities

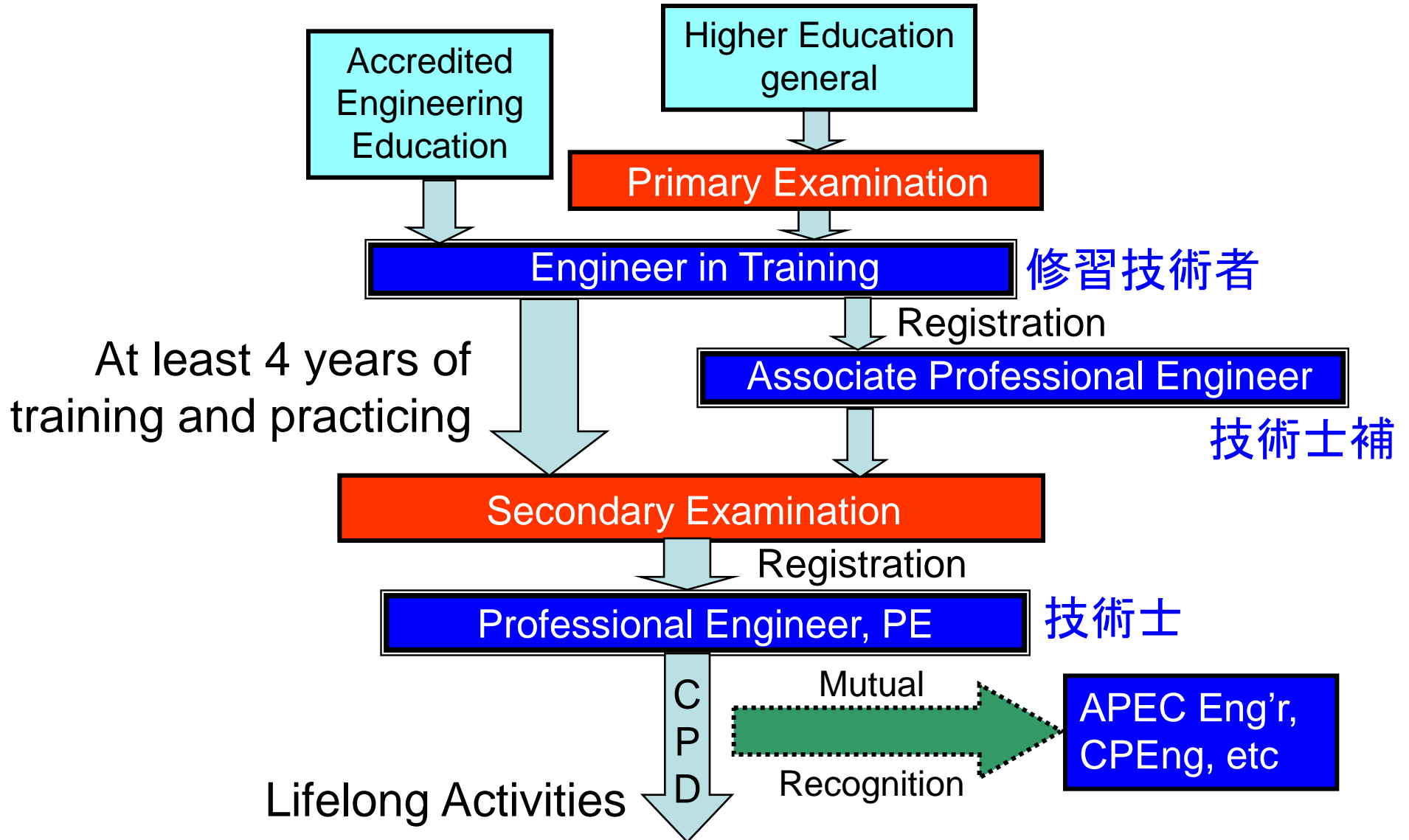
Year	2000	2001	2002	2003	2004	2005
Pilot Acc.	20	51	35	7	4	0
Formal Accreditation		3	32	67	84	95
	total	3	35	102	186	281
Examiners	102	335	529	796	1043	1450
Sent Observers	13	12	15	13	9	6
Invited advisors*	4	3	11	3	13	6
International Affairs		5 th WA Provi.		6 th WA		7 th WA Signat.
International Symposia					Eng. Design	Master Education

* Including invited speakers at symposia organized by JABEE

Financial Independence; 2005 Budget

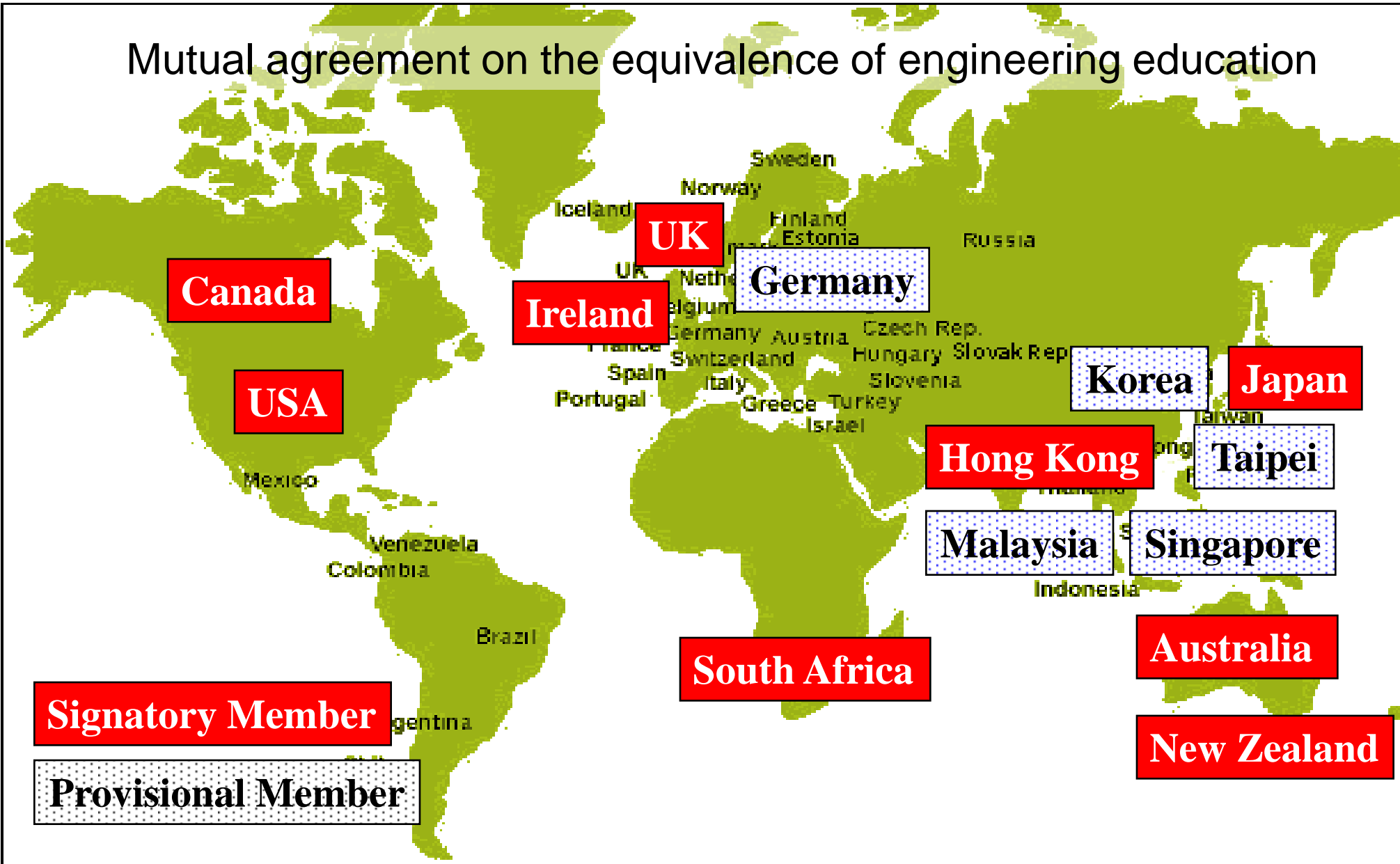


Steps toward Professional Engineers



Signatories to the Washington Accord, 2005-2007

Mutual agreement on the equivalence of engineering education



JABEE successfully completed its take-off period!

But still flying in thick clouds.

Reluctance to accreditation among traditional research universities.

Strong demand from industries to introduce accreditation of Master's programs

JABEE? What's that? Dissemination of JABEE's mission to general public, especially to personnel managers of companies.

Barriers to overcome

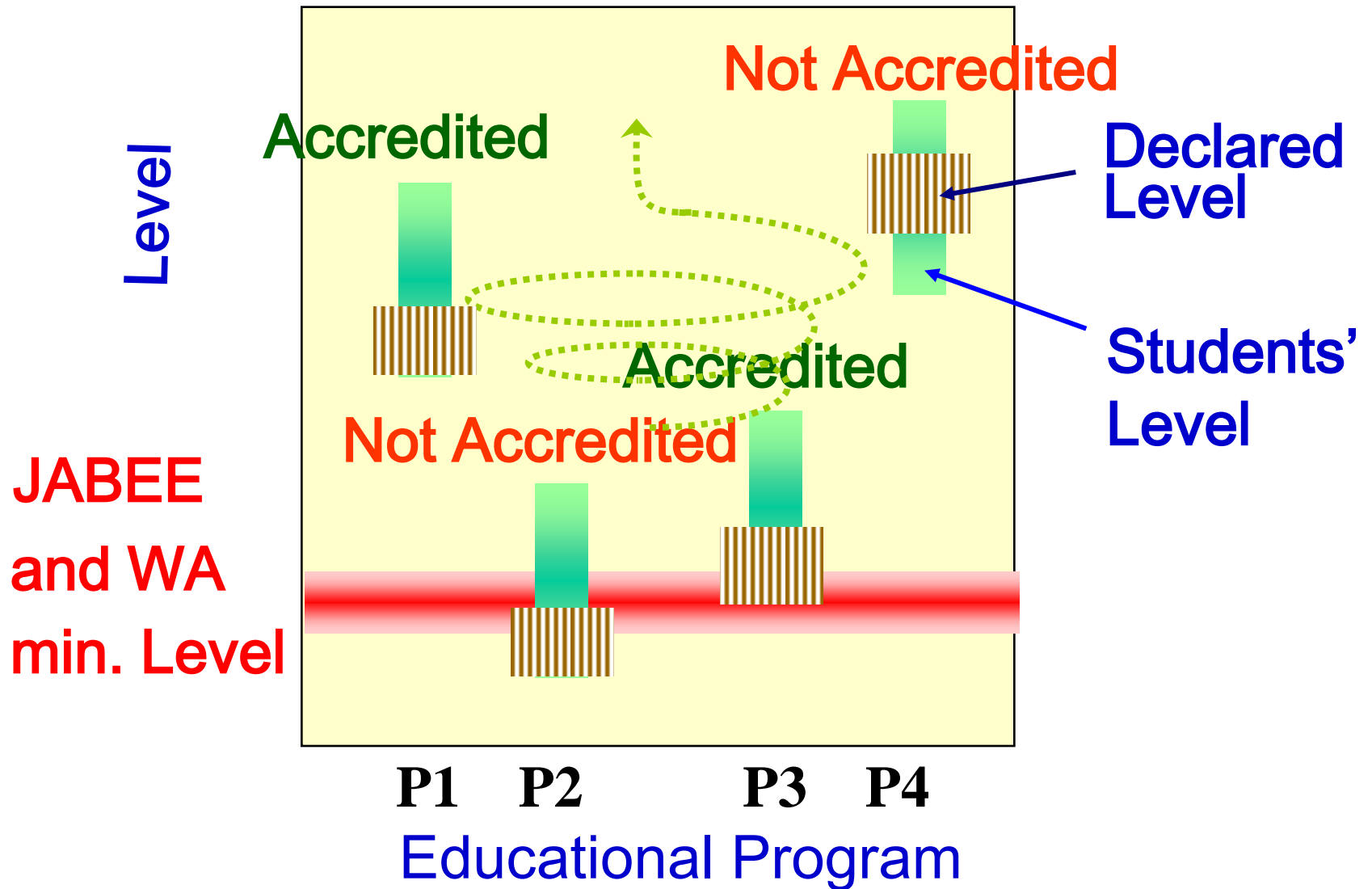
Followings are examples of the prejudice JABEE has been fighting against:

- Universities are the holy place where sublime truth is taught. “学尊”
- Universities are not a popular place where preparation for a career is made. “業卑”
- Engineering is a part of sciences. “工學”

- Engineering is a profession. What does it mean?
“專門職業”
- Institutional accreditation is sufficient enough. Why is program accreditation necessary?
- Accreditation hinders progress because of stiff regulation and control.
- Our quality is high enough.
- We don't care about quality assurance for the minimum level.

PDCA cycle; Plan → Do → Check → Action
and again.

Threshold Level of Accreditation



Future tasks

- Continuing Improvement of Accreditation System
- Enhancing Collaboration with Industries
- Introduction of Accreditation for Master's Programs
- Promotion of International Collaboration
- Conducting Self-Inspection and External Evaluation of JABEE for Further Improvement

Concluding Remarks

Public confidence on technology and subsequently on engineers is gradually deteriorating. Short-term remedies are not sufficient to improve this situation. The endeavors for establishing engineering profession will be a sure step forward to recovering the public confidence.

Accreditation of engineering education is definitely useful to improve and assure the quality of education. But its most important task is to implant the awareness in our students -future engineers- that they are responsible to the consequences of their activities.

