

KSME Annual Fall Conference  
November 4, 2004, Daejeon

**ROLE OF ENGINEERING SOCIETIES  
IN ENHANCING  
PROFESSIONAL DEVELOPMENT**

**– ACCREDITATION, PROFESSIONAL  
QUALIFICATION AND CPD –**

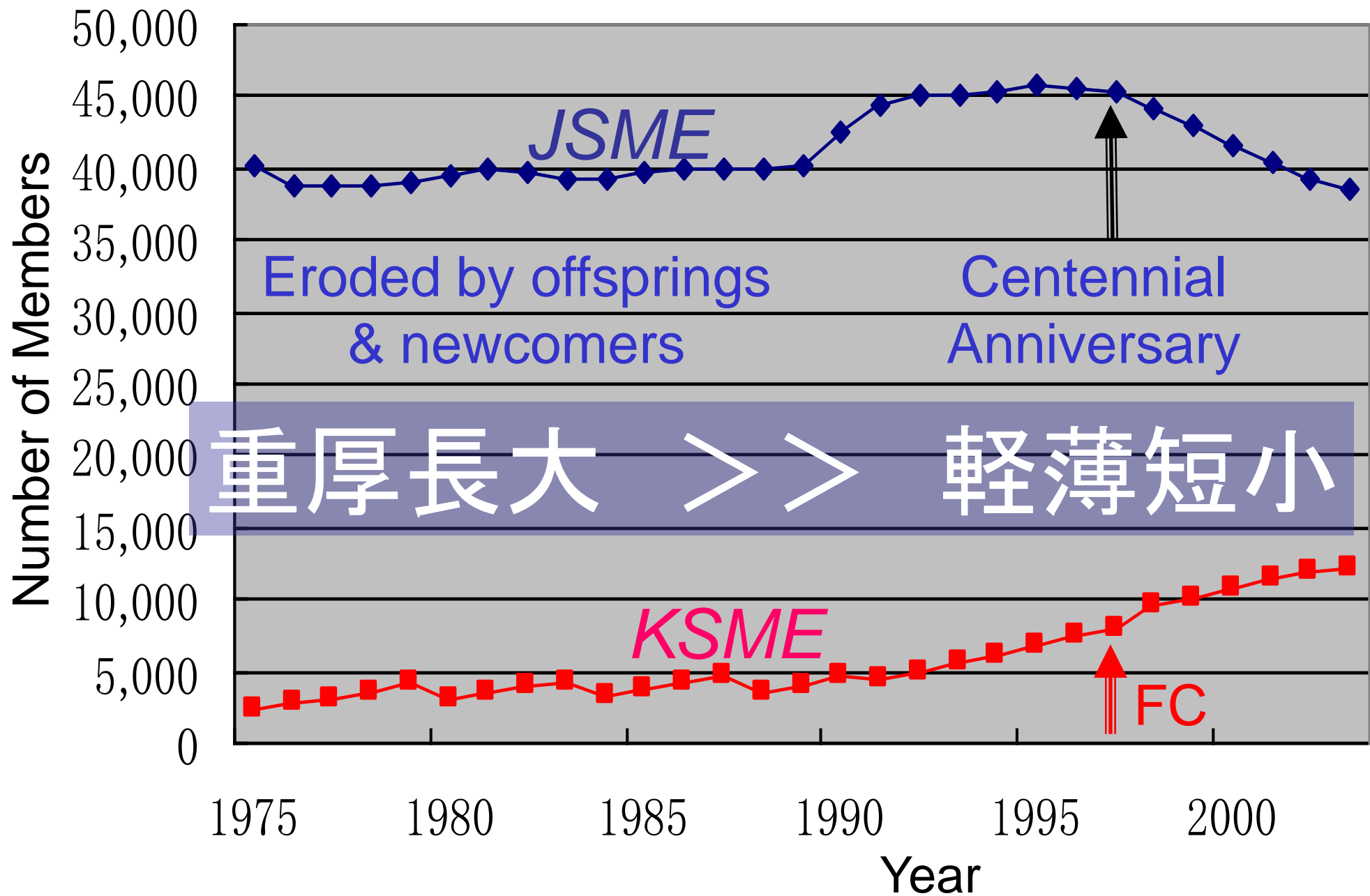
Hideo Ohashi

Vice President, Japan Accreditation Board for Engineering Education  
Chairman, Kogakuin University, Tokyo, Japan



KOGAKUIN UNIVERSITY





# Impact of Globalization

- 1991: Collapse 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
- 1997: /11 Final agreement on requirements
- 1998:
- 1999: /11 Establishment of JABEE
- 2000: /4 Amendment of Prof. Engineers Law
- 2001: /3 First registration of APEC Engr
- 2002: /4 First accreditation by JABEE

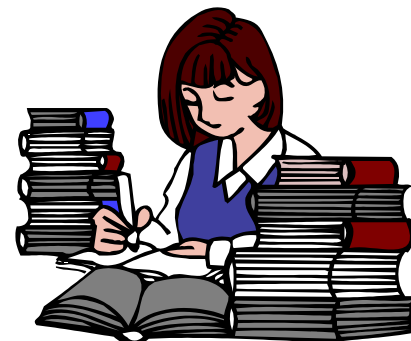
International events

Japanese domestic events

Confucius said ?



Socrates said ?

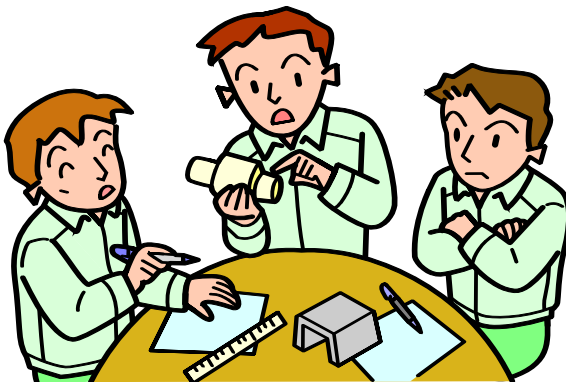
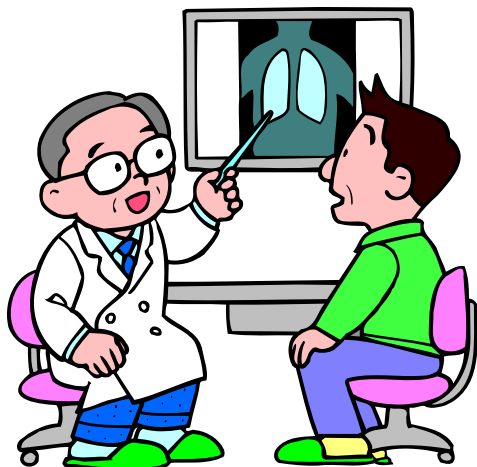


Learning for Truth

Oriental subconsciousness

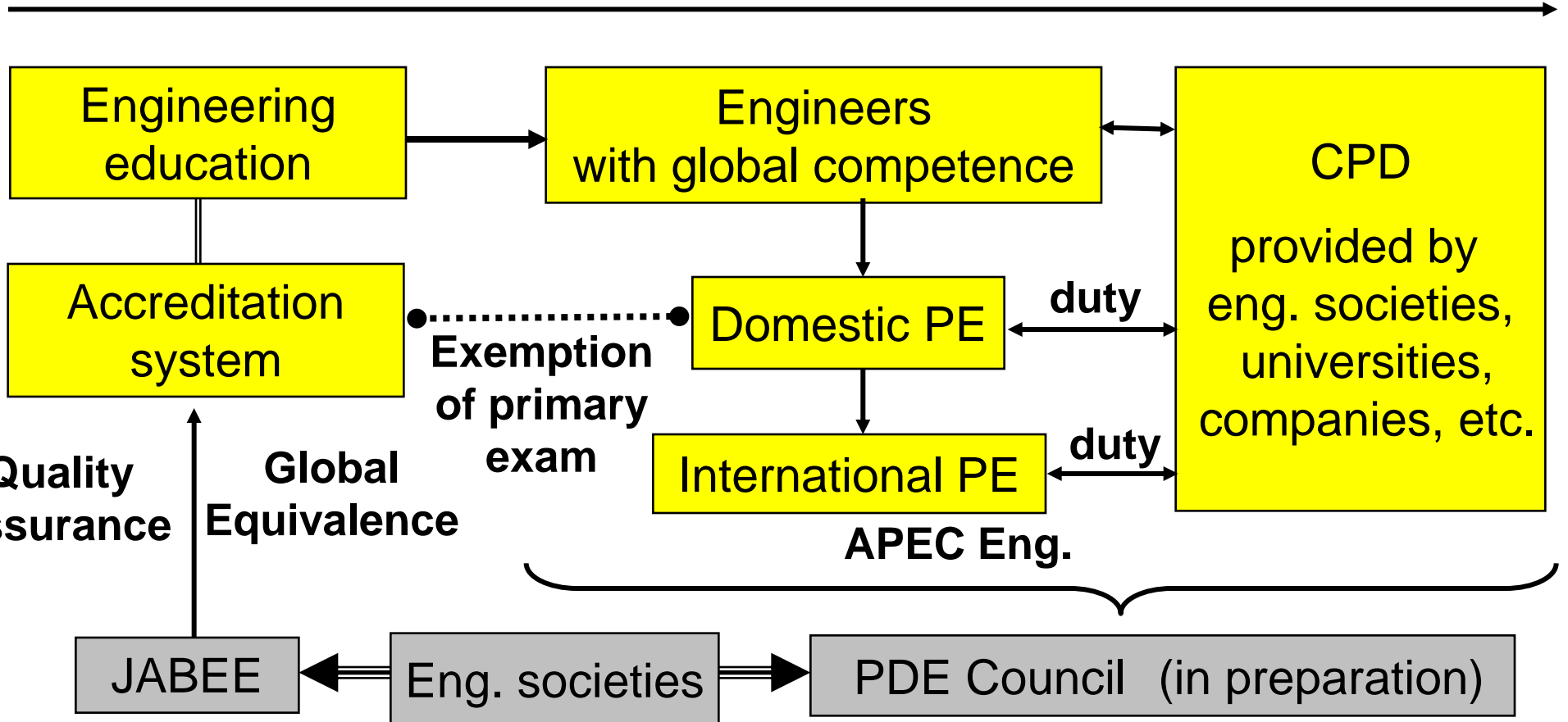
Working for Bread

Metaphysical means higher !



# Life-long Professional Development of Engineers (PDE)

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



# Membership of JABEE

**NGO and independent of any educational institutions**

**Regular Members: 90 major engineering societies**

**IPEJ, JSME, JSCE, IEEJ, AIJ, SCEJ,  
IPJS, MMIJ, ISIJ, FASJ, JSAP, JIMA,,,,,**

**Supporting Members: 52 major industrial firms**

**Canon, Denso, Fuji Film, Fujitsu, Hitachi, IHI,  
Kajima, Matsushita, MHI, NEC, TDK, Toshiba,,**

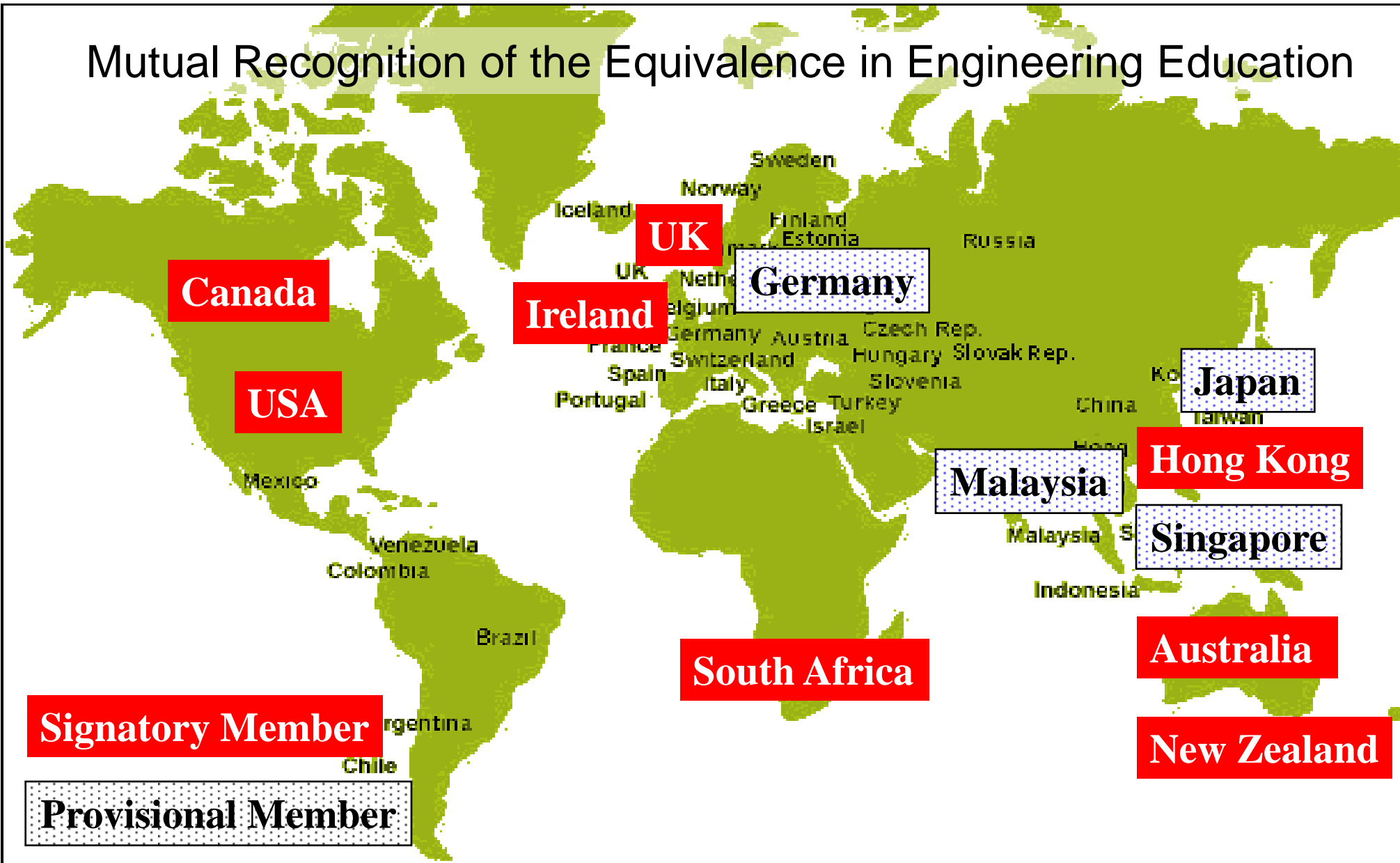
**The government** (MEXT and METI) has been supporting JABEE by Grant-in-Aid for developing criteria, training examiners, conducting pilot accreditation, promoting international exchange, etc.

## Progress of JABEE Activities

Fiscal Year	2000	2001	2002	2003	2010 / Target
<b>No. of Pilot Acc.</b>	<b>20</b>	<b>51</b>	<b>35</b>	<b>4</b>	<b>0</b>
<b>No. of Acc. Programs Sum Total</b>		<b>3 3</b>	<b>32 35</b>	<b>67 102</b>	<b>100 + 500 +</b>
<b>No. of Acc. Graduates Annual Sum Total</b>		<b>200 200</b>	<b>2300 2500</b>	<b>4700 7200</b>	<b>30,000 +</b>
<b>No. of Certified Reviewers</b>	<b>102</b>	<b>335</b>	<b>529</b>	<b>744</b>	<b>1200 +</b>
<b>Version of Documents; Criteria, Procedures, etc.</b>	<b>Ver.1</b>	<b>Ver. 2</b>	<b>Ver. 3</b>	<b>Ver. 4</b>	

# Membership in Washington Accord, 2003-2005

Mutual Recognition of the Equivalence in Engineering Education





# Amendment of Professional Engineers Law

## Composition of Engineers in Japan

300 thousand 1<sup>st</sup> Class Architect/Engineers

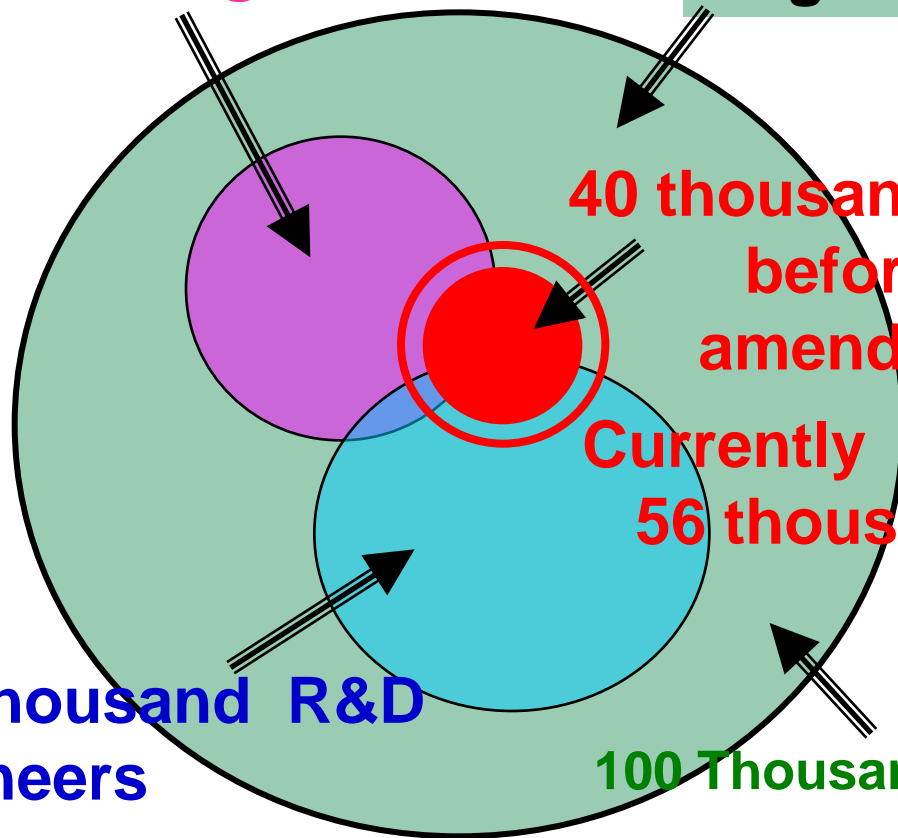
2.5 Million Engineers

40 thousand PEs before amendment

Currently 56 thousand !

400 thousand R&D Engineers

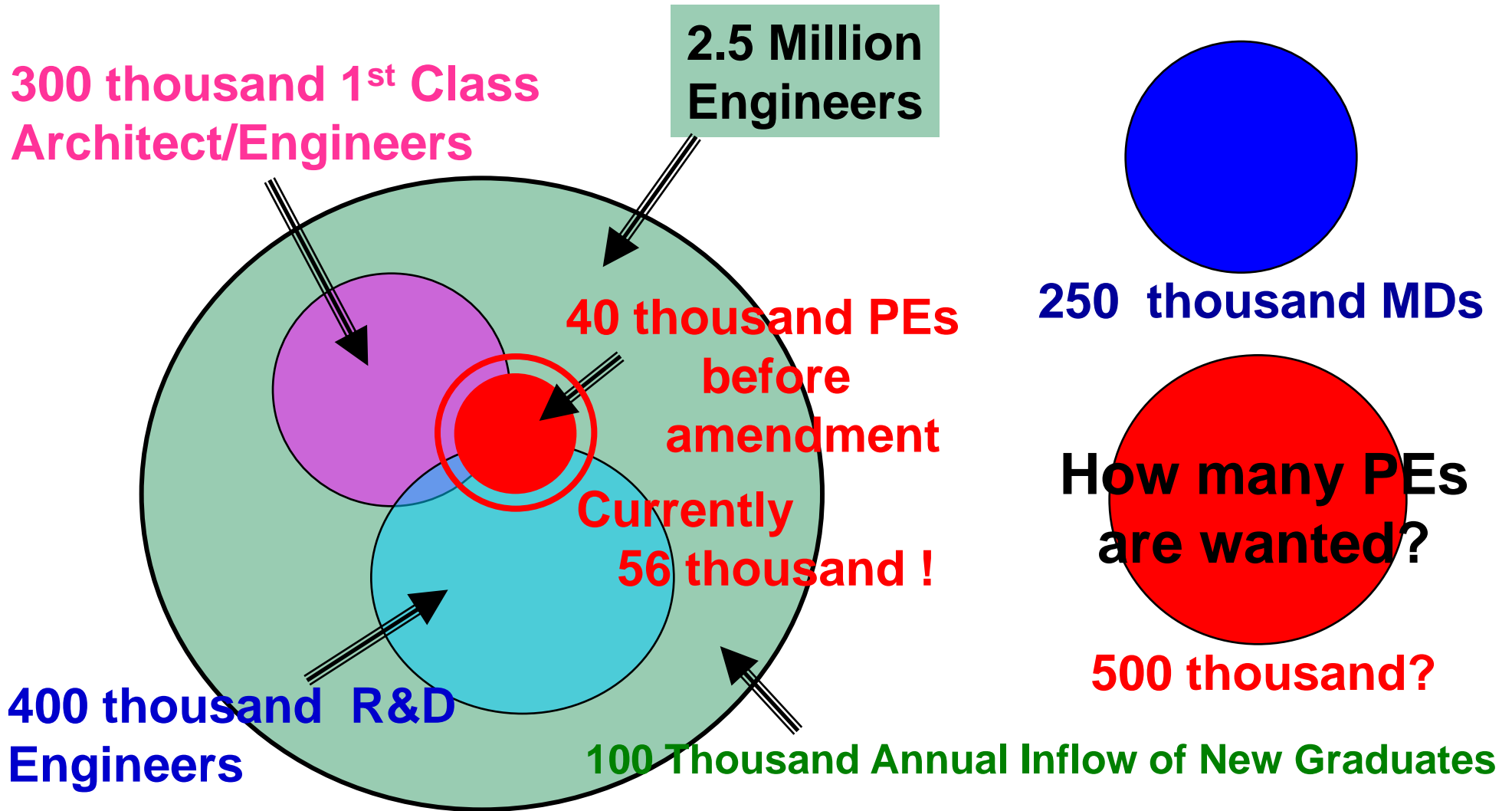
100 Thousand Annual Inflow of New Graduates



## Target of Amendment

1. Increase number of PEs by enhancing value and merit of the title.  
(quantity)
2. Improve compatibility with foreign PEs by modifying rules.  
(quality)

How many PEs are wanted in the future who are legally responsible for the safety and reliability of modern society filled with human-made structures and systems?



# Infrastructure of Supporting CPD for Engineers



## Size of Company

- S, M, L

## Sort of Business

- Manufact.
- Sales
- Operation
- R&D etc.

## Kind of Job

- R&D
- Design
- Manufact.
- Management

## Disciplines

- Mechanical,etc

## Level

- Introductive
- Advanced

## Duration & time

- Days, weeks
- Day or evening

## Method

- Face to face
- Correspond.
- E-Learning

## Engineering Society

- Advanced

## University

- Systematic

## Training Center

## of Industrial Comp.

- Needs oriented

## Industrial Associat.

- Practice oriented

## Education Company

- Commercial

# Conclusions

- Establishment of engineering profession is indispensable to improve the public confidence on engineering and engineers.
- Globalization requested us to reform tradition-based perception, value and culture.
- Mutual communication and understanding within Asian region are needed for the future cooperation.

The End