

9<sup>th</sup> WCCEE, May 17-19, Tokyo, JAPAN

# **ENGINEERING EDUCATION IN JAPAN**

**- PAST AND PRESENT -**

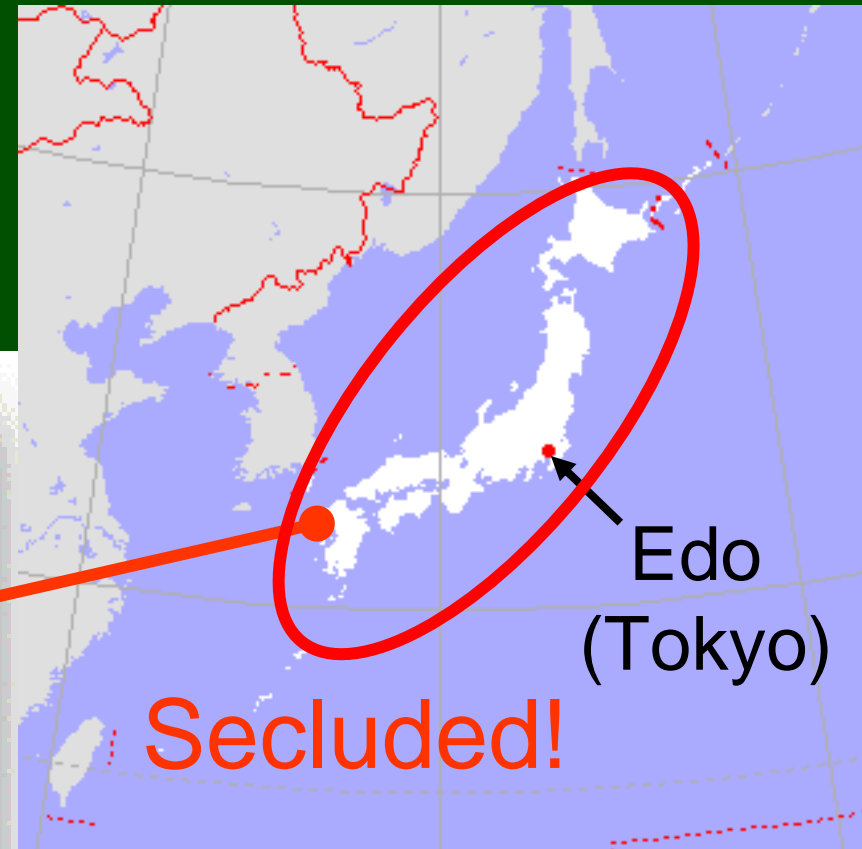
Hideo Ohashi

# 260 years long Edo Period, 1603-1867

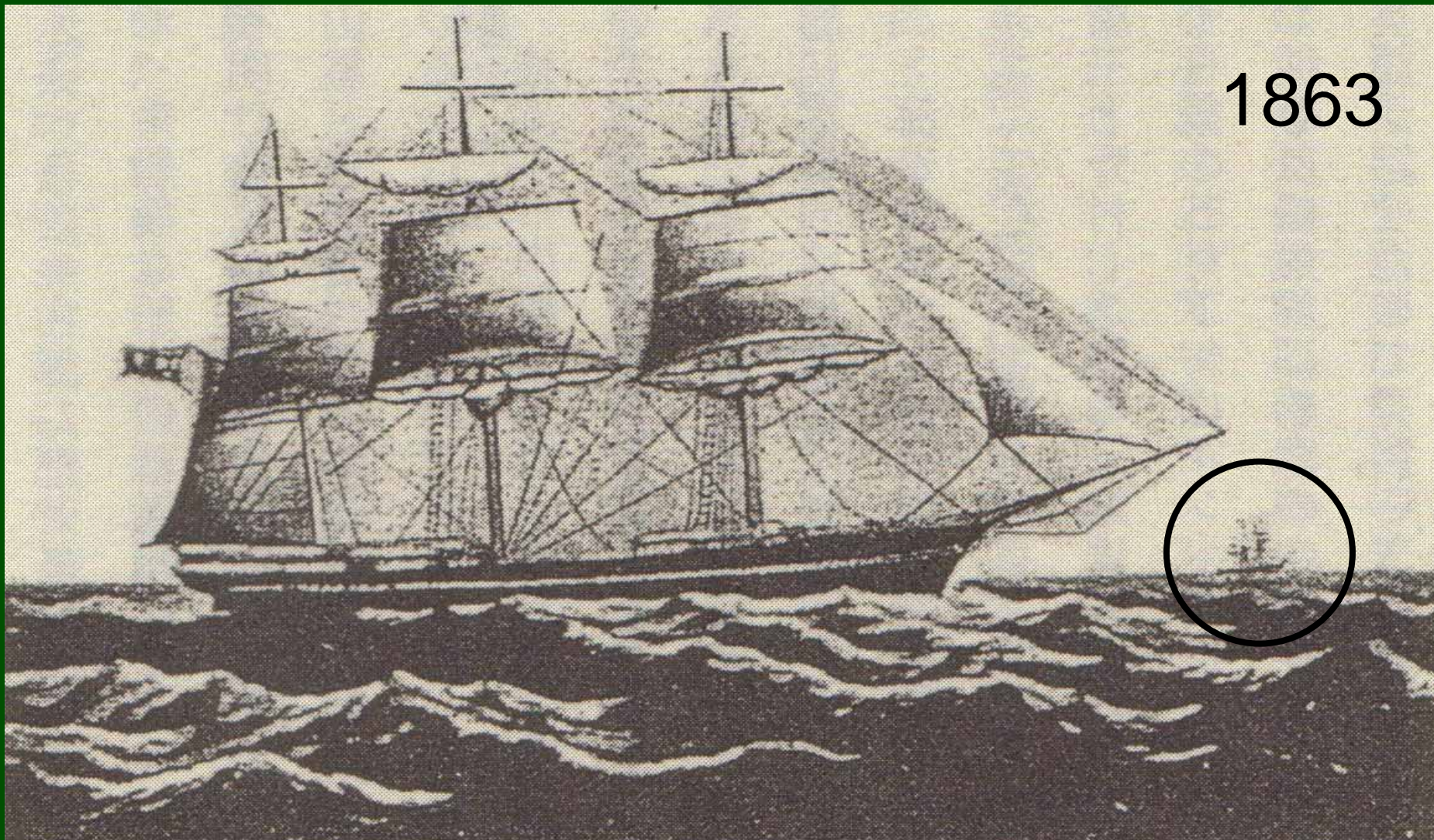
## Port of Nagasaki



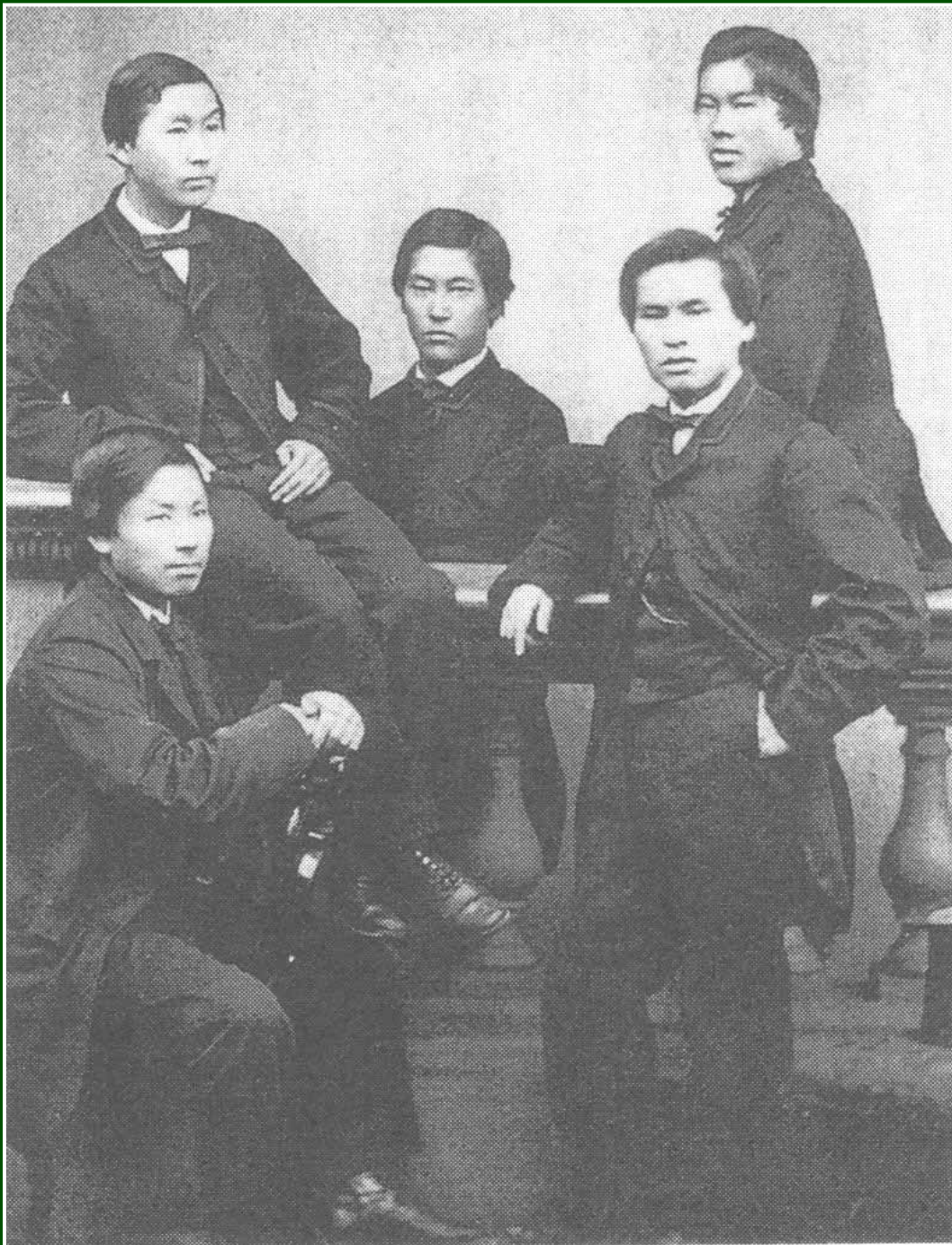
Gate Island



1863



Two ships bound for London  
carrying five smugglers as sailors



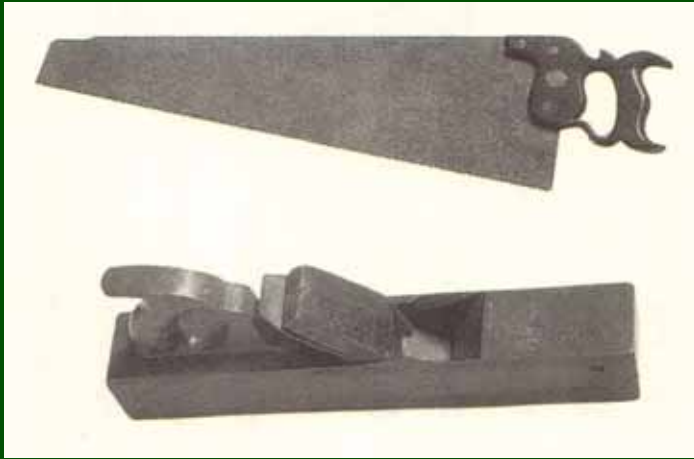
H. Ito

K. Inoue

Y. Yamao

M. Inoue

K. Endo



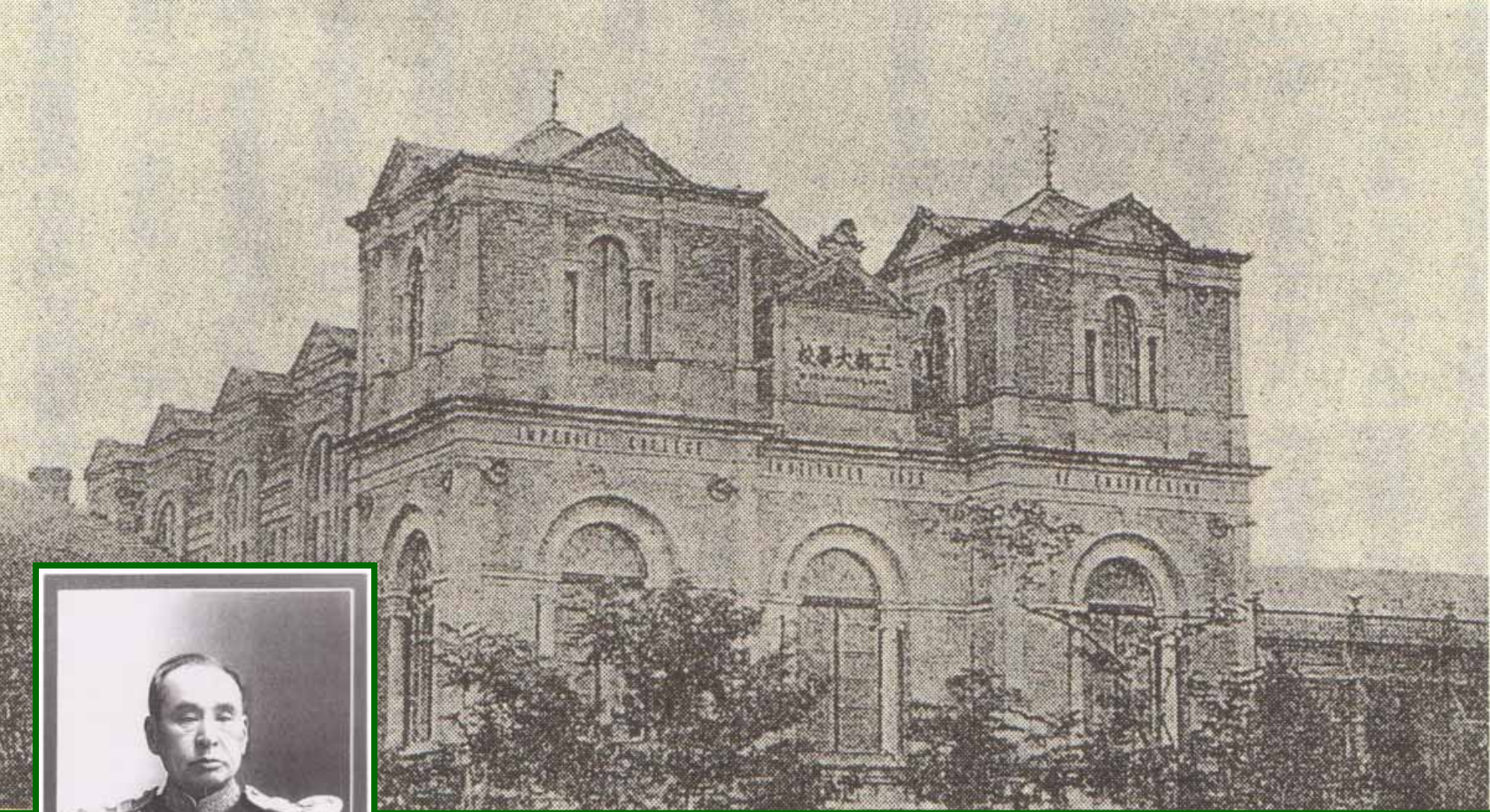
Saw and plane  
Yamao brought home.



Napier's Shipyard in Glasgow around 1860

“Even if there is no industry  
at present in Japan,  
if we train a man,  
he will cultivate an industry.”

Y. Yamao



Y. Yamao

Imperial College of Engineering  
opened in 1873

Anderson's College  
in the late 19 C.,  
presently  
University of Strathclyde



Henry Dyer  
(1848-1918)





Emperor Akihito and Empress Michiko  
at the Centennial Anniversary of JFES in 1979

# “Lost Decade”

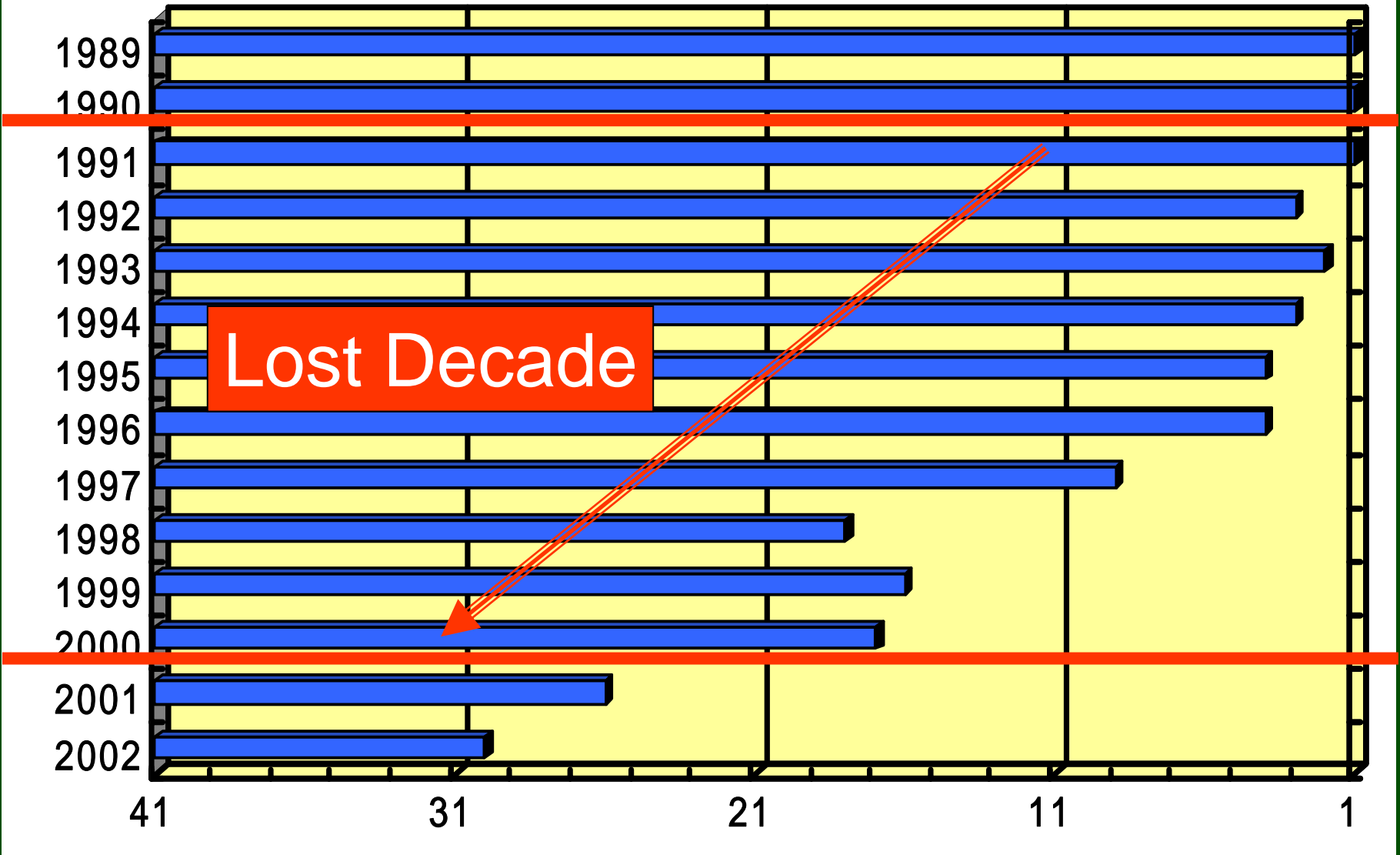
## What happened in 1991

### International:

- Extinction of the Cold War

### Domestic:

- Collapse of Decade-Long Booming Economy (Bubble Economy)
- Start of Commercial Utilization of Internet
- Rapid Proliferation of I&C Technologies
- Deregulation of Governmental Control on the Curriculum of Universities



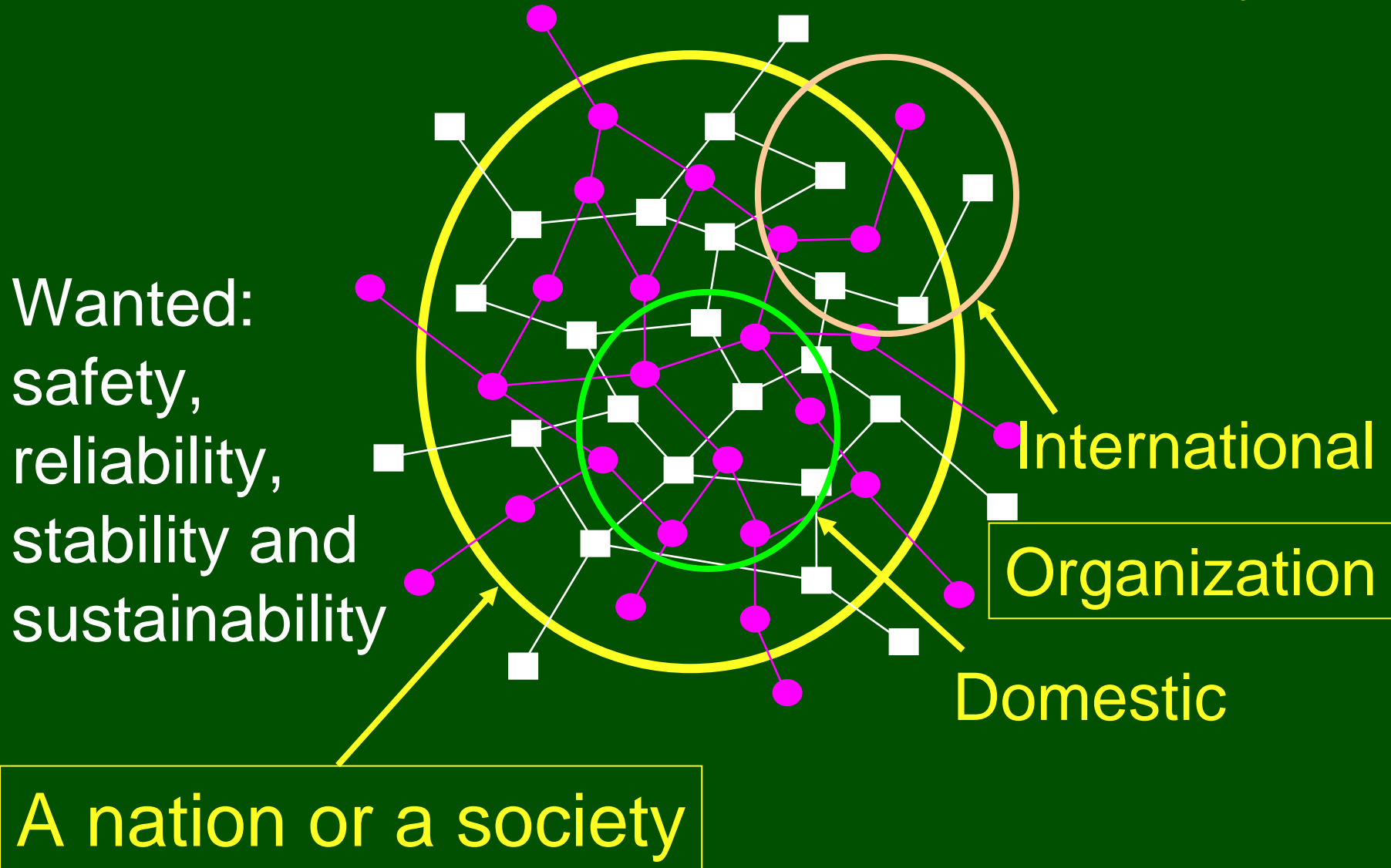
Overall Ranking

World Competitiveness Yearbook by IMD

# Core of the Reform

Transformation  
from Organization-Based  
to  
Individual-Based Society

- Network of professionals A, Prof. society A
- Network of professionals B, Prof. society B



# Statement by Prof. Yoshikawa (1998)

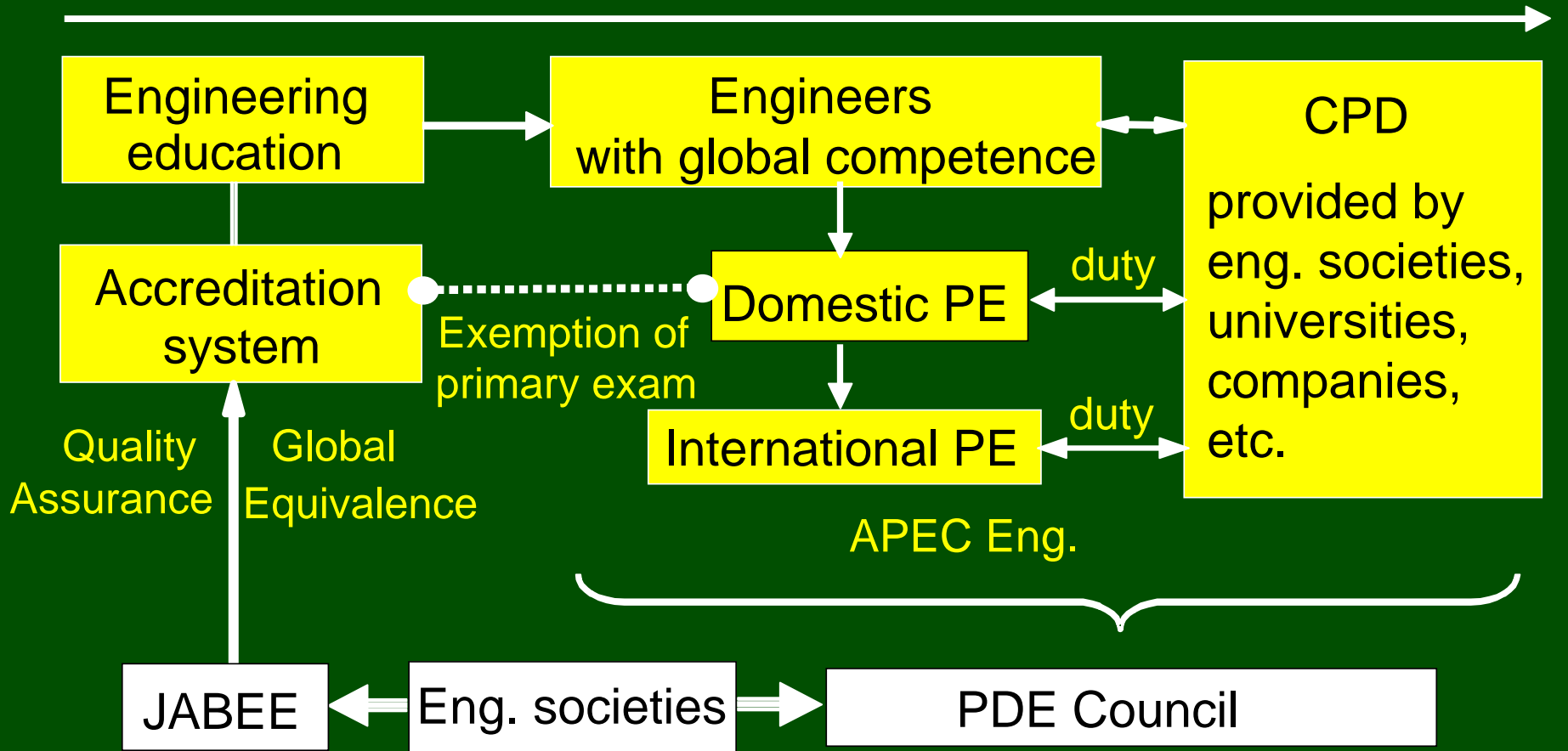
1. The safety and reliability of modern society depend on human-made products and systems.
2. Engineers are thoroughly responsible for such products and systems.
3. There must be a publicly acceptable system that assures the professional qualification of engineers.
4. Introduction of Japanese version of Professional Engineer is urgent.
5. Introduction of accreditation system for engineering education at university level is urgent.
6. To maintain life-long expertise of engineers, the importance of CPD must be recognized.

Fundamental Education

Training & Practice

Professional Qualification

Continuing Prof. Development



End