



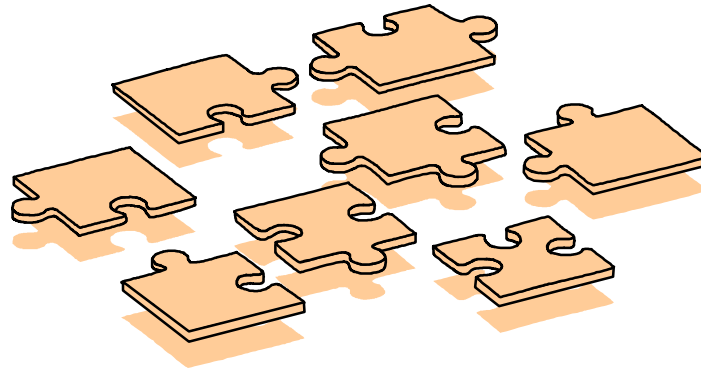
TQM in Higher Education



Prof. Worsak

Kanok-Nukulcha

TOWARDS TQM IN HIGHER EDUCATION: THE EXPERIENCE OF ASIAN INSTITUTE OF TECHNOLOGY



Presented by:

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AIT Profile

- ❑ **AIT** was established originally by SEATO in 1959 in water engineering to improve the well being of rural people as a way to fight communism.
- ❑ After 42 years, AIT has produced **11,452 alumni** from **66 countries**.
- ❑ Currently, AIT is fully autonomous under international Board of Trustees, sustains itself as **service provider** to donors and direct patrons of students.



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Mission

"to develop highly qualified and committed professionals who will play a leading role in the sustainable development of the region and its integration into the global economy".



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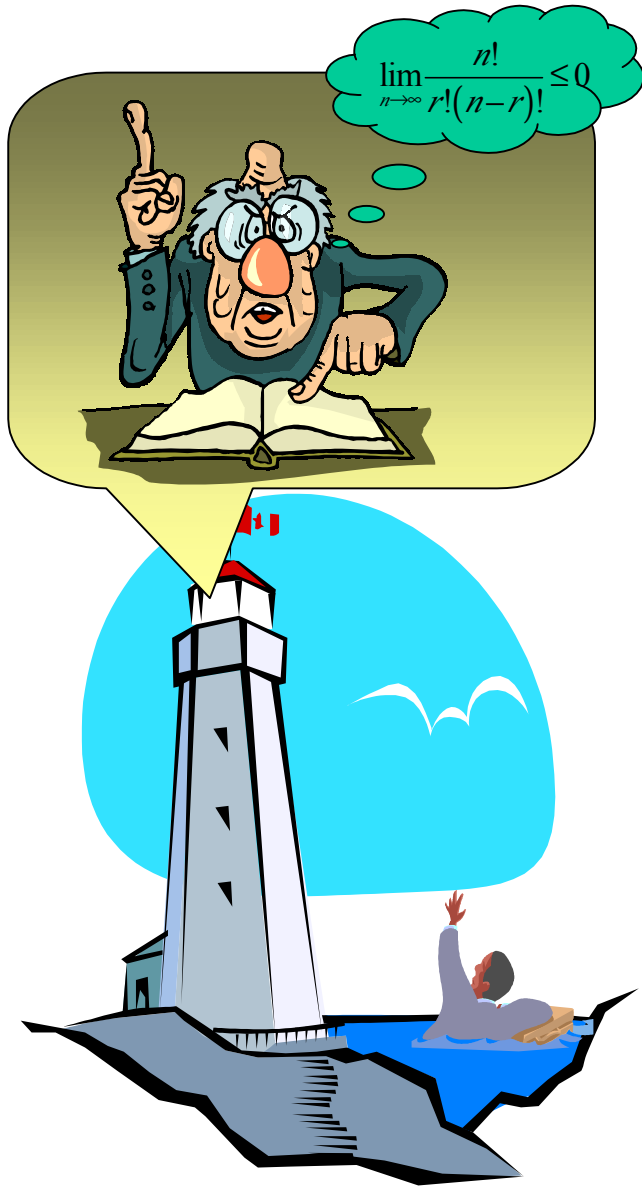


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Vision

“to become a leading and a unique regional multicultural institution of higher learning, offering state of the art education, research and training in technology, societal development and management”.



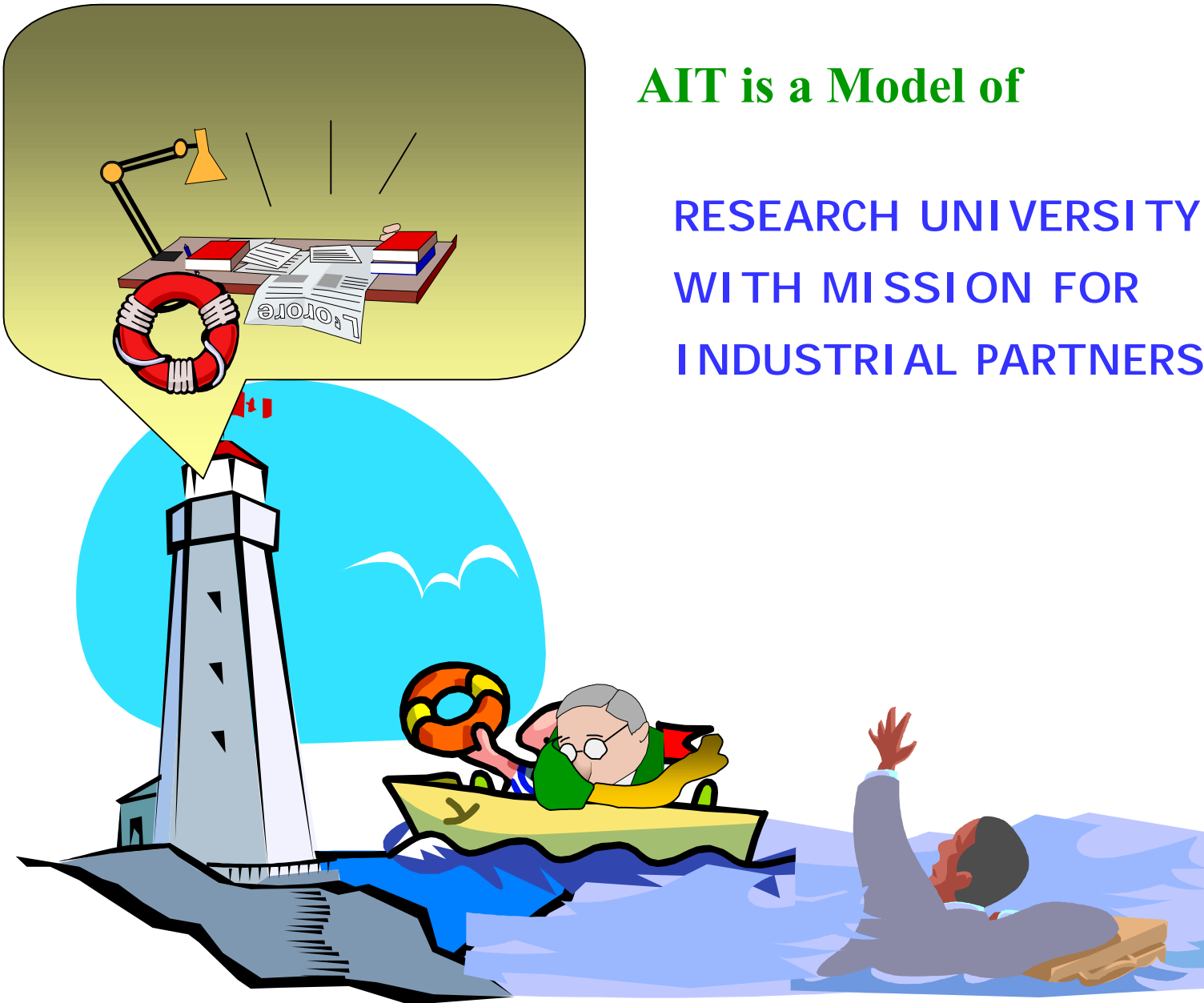
TEACHING UNIVERSITY



RESEARCH UNIVERSITY

AIT is a Model of

RESEARCH UNIVERSITY
WITH MISSION FOR
INDUSTRIAL PARTNERSHIP





Key Numbers (2002)

- 1561 Students from 42 Countries
- 11452 Alumni from 66 Countries
- 121 Faculty from 30 Countries
- 859 Staff from 25 Countries
- 33 Board of Trustee members from 25 Countries
- Revenue: 1.4 B Baht
- Disposition of Revenue: 1.2 B Baht



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Academic Portfolio

SCHOOL OF ADVANCED TECHNOLOGIES

Computer Science and Information Management, Industrial Systems Engineering, Mechatronics, Microelectronics, Space Technology Applications and Research, Telecommunications

SCHOOL OF CIVIL ENGINEERING

Geotechnical Engineering, Structural Engineering and Construction, Transportation & Infrastructure Engineering, Water Engineering and Management

SCHOOL OF ENVIRONMENT, RESOURCES & DEVELOPMENT

Agricultural and Aquatic Systems and Engineering, Energy, Processing Technology, Rural Development, Gender and Resources, Urban Environmental Engineering & Management

SCHOOL OF MANAGEMENT

International Business, Management of Technology



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QUALITY ISSUES IN INDUSTRIES & ACADEMICS

Factory	Academic Institute	
Product	Graduates	Research output
Raw material	Student intake	Ideas
Production process	Teaching and research training	Research
Mould	Faculty	Faculty
Impact - customer satisfaction	Successful careers & roles in the society	Innovative technology stakeholders satisfaction
Return-market share	Reputation, more better applicants	Reputation, more research grants
Management	Administration	Administration
Income	Tuition and fees	Research grants
Expenses	Payrolls + Operations	Research Expenses
Profit (reinvestment)	Surplus (reinvestment)	Overheads

Quality Control – Industry vs Academic

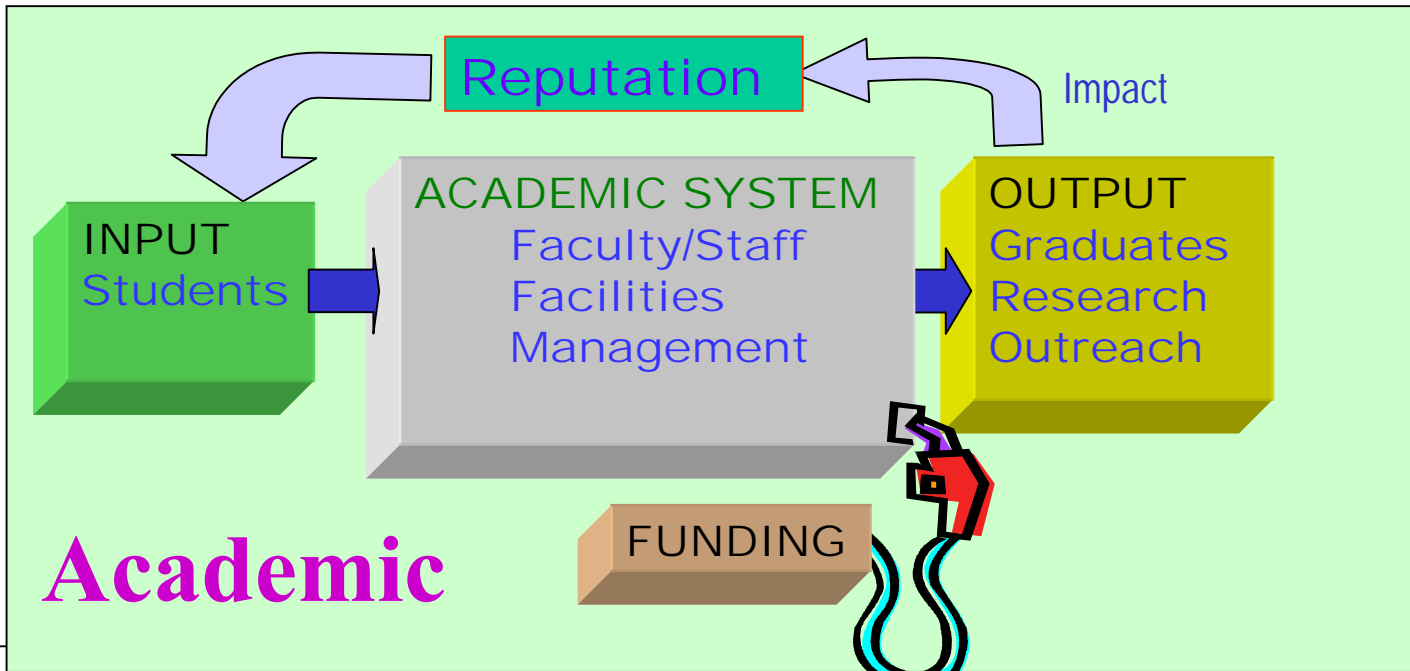
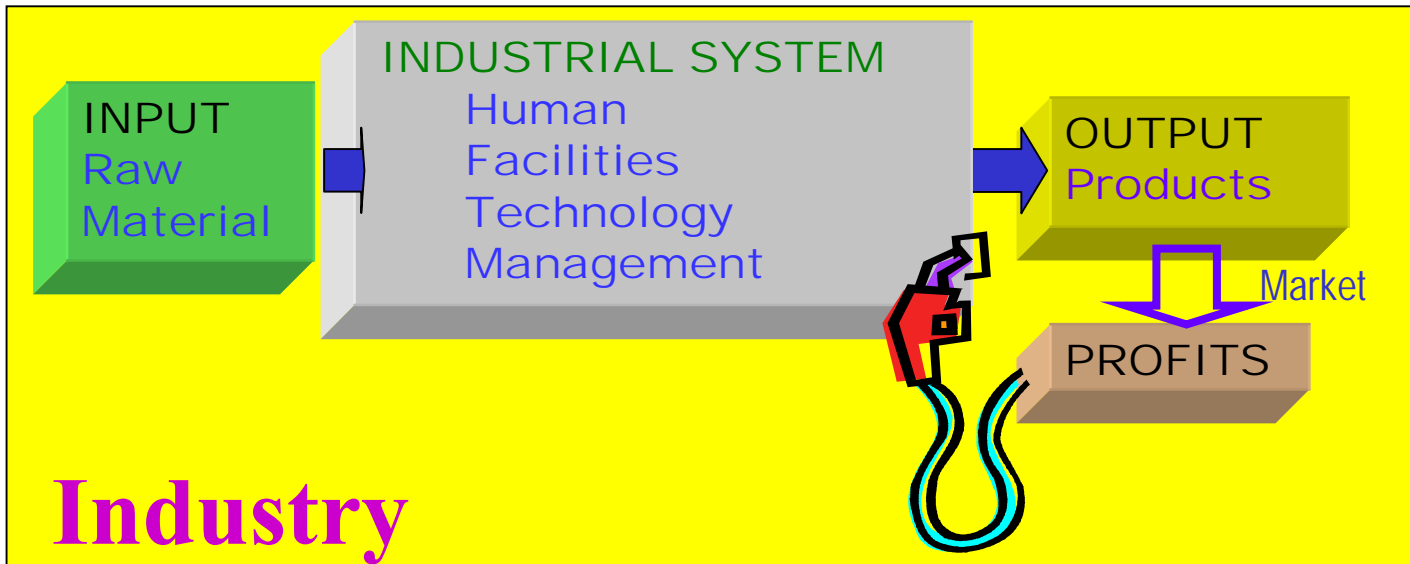


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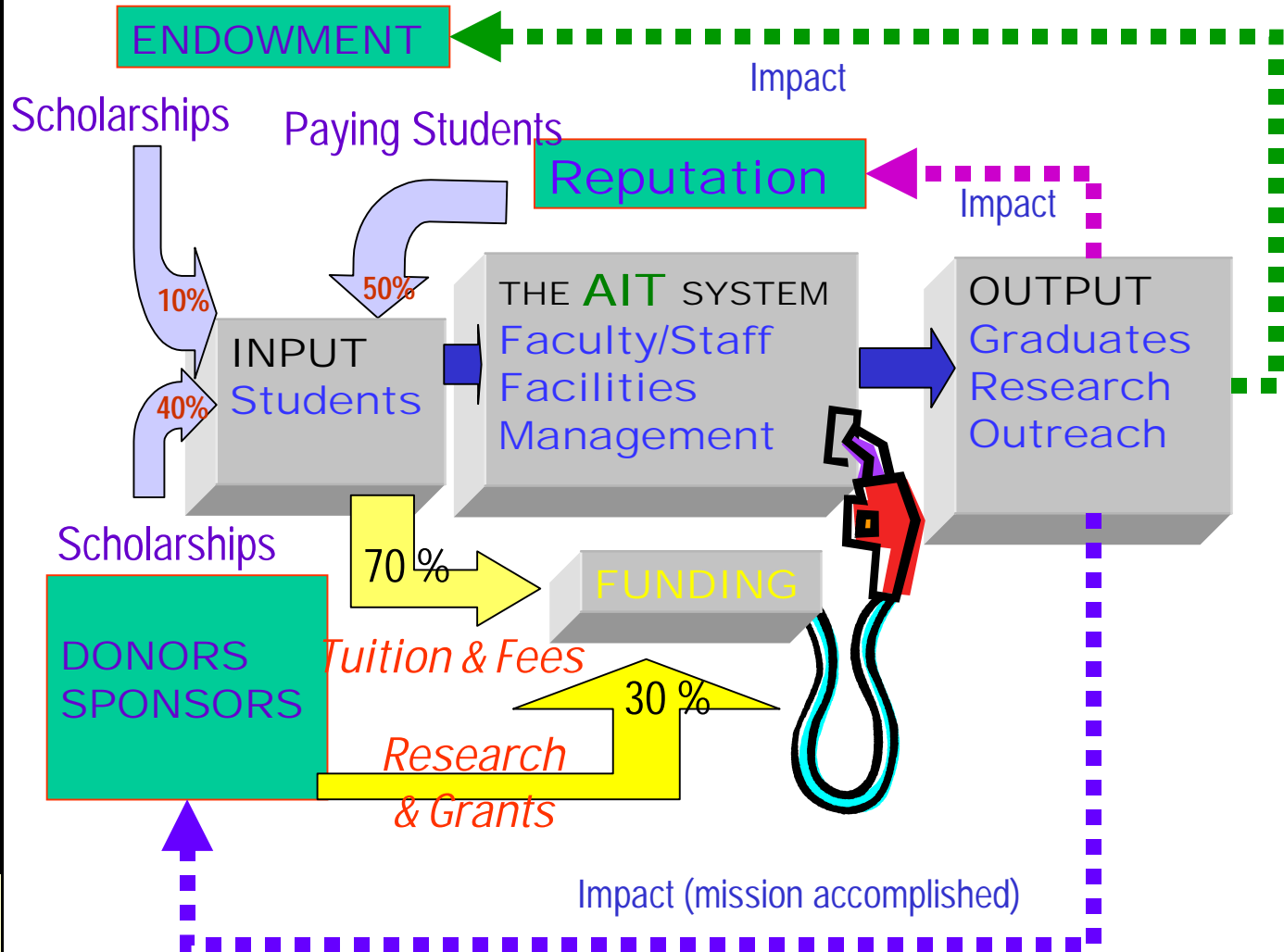
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AIT SUSTAINABILITY CYCLE





AIT's Sustainable Cycle.

- ❑ To carry its mission effectively, AIT must be financially healthy.
- ❑ To be financially healthy, AIT must carry its mission effectively.

Under **AIT's control** is the quality of fulfilling its mission, i.e.,

“the quality of AIT system to produce consistently high quality graduates and other output”.



WHAT IS ULTIMATE QUALITY OF AN ORGANIZATION ?

□ Focuses on fitness of purpose – the quality of a product/service depends on its ability to meet its stated purpose (work order).



TQM is more appropriate to AIT

“TQM fosters **continuous improvement** in an organization through systematic, integrated, consistent organization-wide effort **involving everyone and everything**, focusing primarily on **total satisfaction** for both internal and external customers, where the employees work together in teams with process ownership, with the full consent (commitment) of top management”



TQM ensures satisfaction of all AIT's Stakeholders, without sacrificing sustainability

- AIT Top Administration
- AIT Faculty
- AIT Staff
- Students
- Governmental and Institutional Donors
- Direct Patrons of Students
- Research Sponsors
- Alumni
- Future Employers
- Country
- The Region



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SERVICES AVAILABLE AT AIT AND THE CUSTOMERS

Service	Service Provider	Customer	Type
Human Resources Development	AIT Administration Faculty & Staff	Donors & Patrons Countries	External
Vision & Mission	AIT Administration	All Stakeholders	External
Research	AIT Faculty	Sponsors	External
Education	AIT Faculty	Students	Internal
Lifelong Learning	AIT Faculty	Alumni	External
Academic Supports	AIT Administration	AIT Faculty, AIT Students	Internal
Curriculum Development and Reform	AIT Faculty AIT Staff	AIT Administration	Internal



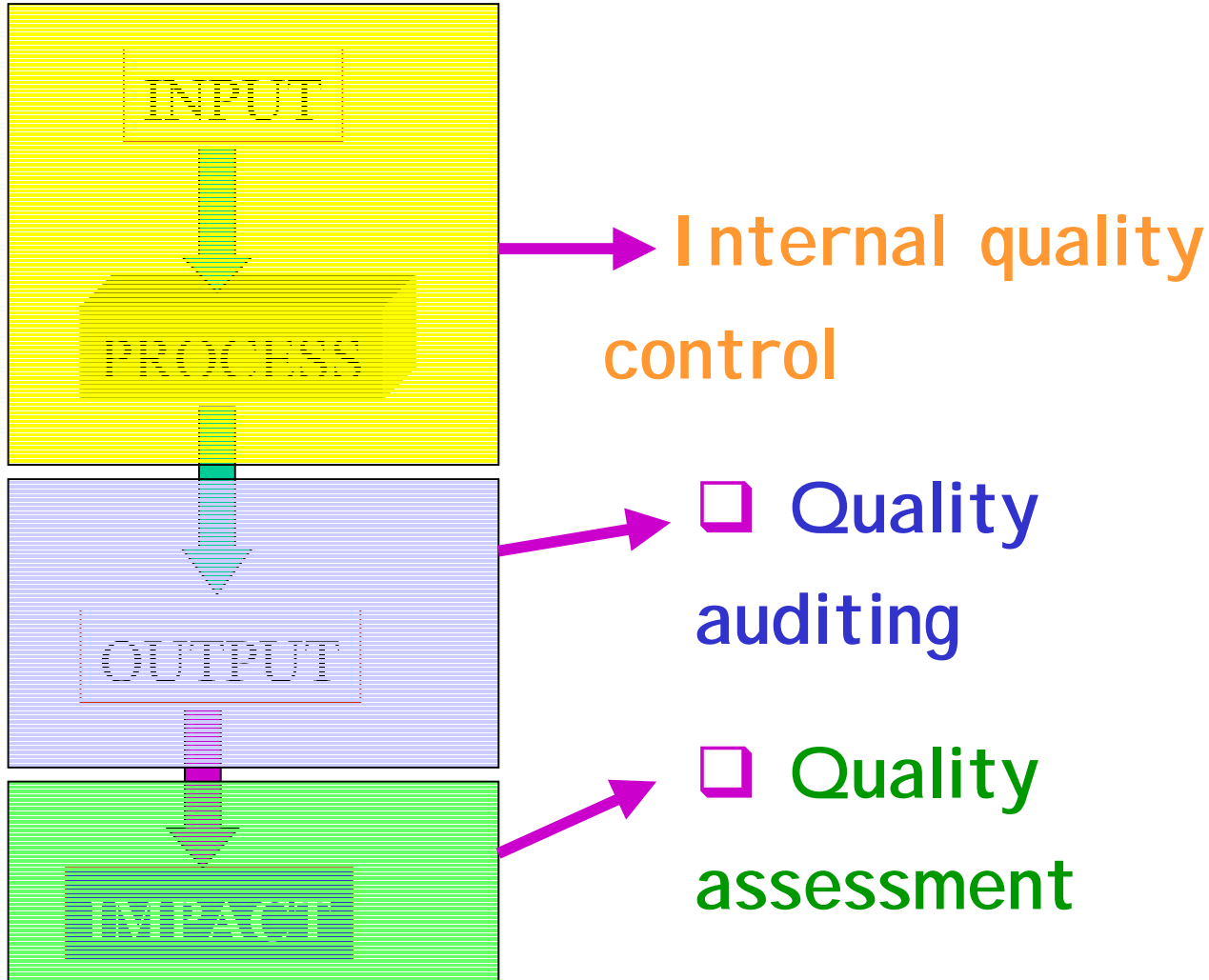
TOTAL QUALITY MANAGEMENT: AIT STYLE

TQM can be assured by :

- ❑ Internal quality control
- ❑ Quality auditing
- ❑ Quality assessment



At AIT, TQM is assured by.



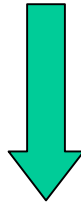


TQM encourages continuous improvement of all components – people and processes.

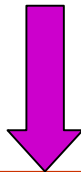
INPUT



PROCESS



OUTPUT



IMPACT

Rigorous Admission Procedure

- STUDENTS

Quality Manual (make process transparent)

- CURRICULUM DEVELOPMENT
- TEACHING
- RESEARCH
- MANAGEMENT

Annual Performance Audit

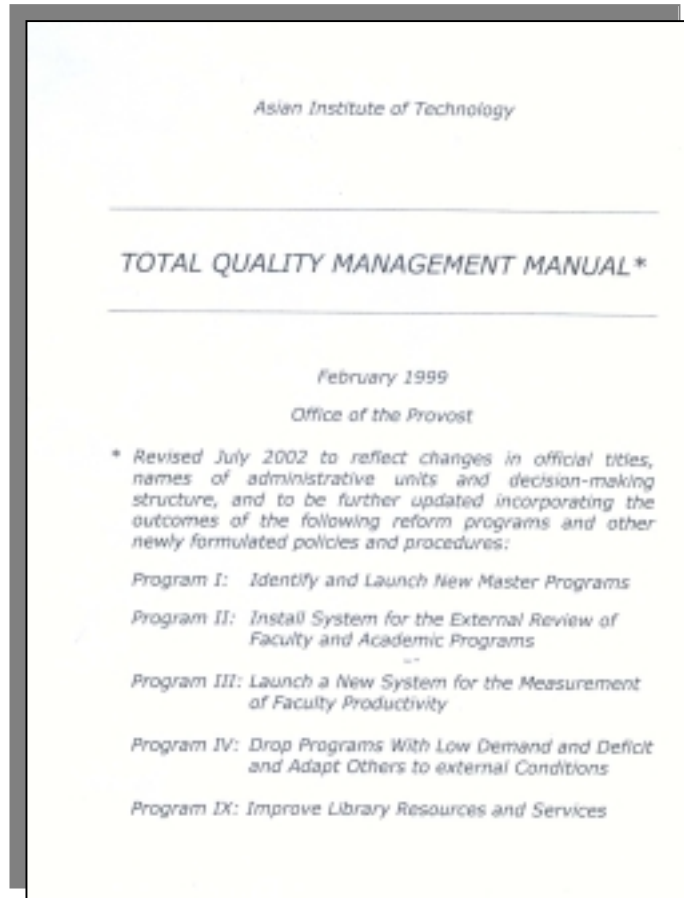
- NO. OF GRADUATES / YEAR
- NO. OF RESEARCH PUBLICATION
- NO. OF PATENTS, COPYRIGHTS

Exit Survey, Alumni Trace, Employer Survey

- HOW GRADUATES CONTRIBUTE TO SOCIETY
- HOW RESEARCH BEING USED IN INDUSTRIES



INTERNAL QUALITY CONTROL

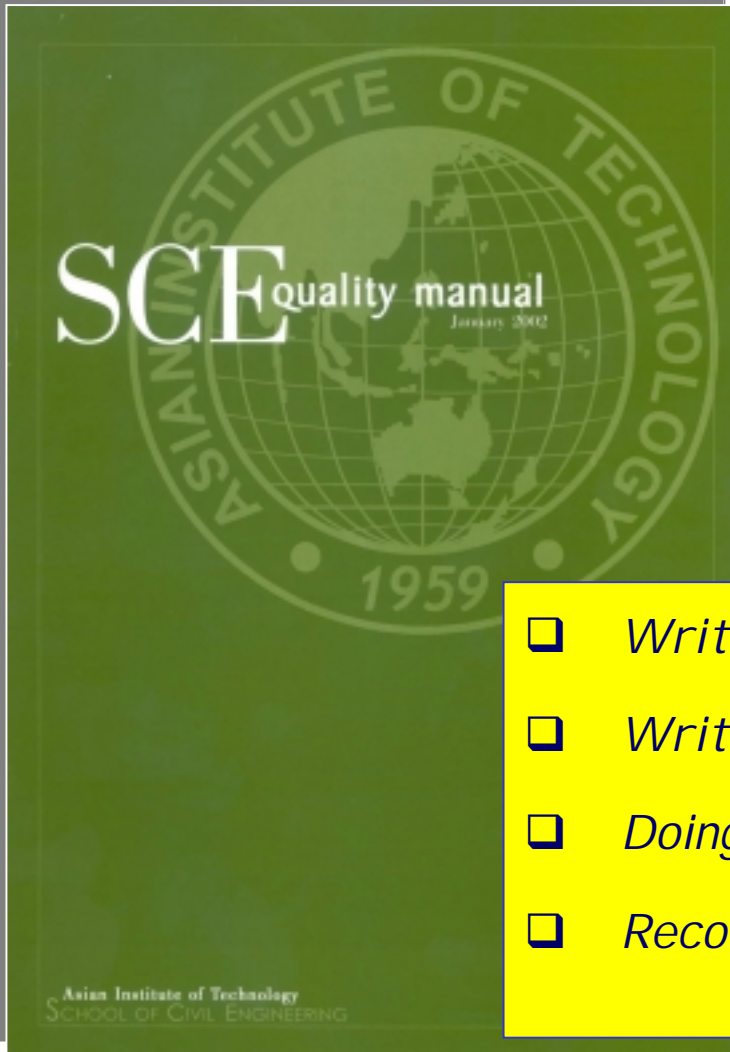


□ AIT “Total Quality Management Manual”

an attempt to ensure that quality is present in all processes of the institute.



INTERNAL QUALITY CONTROL



The School of Civil Engineering issued a School-level Quality Manual

- Writing what we have been doing,*
- Writing what we should do,*
- Doing what we write, and*
- Recording what we do.*



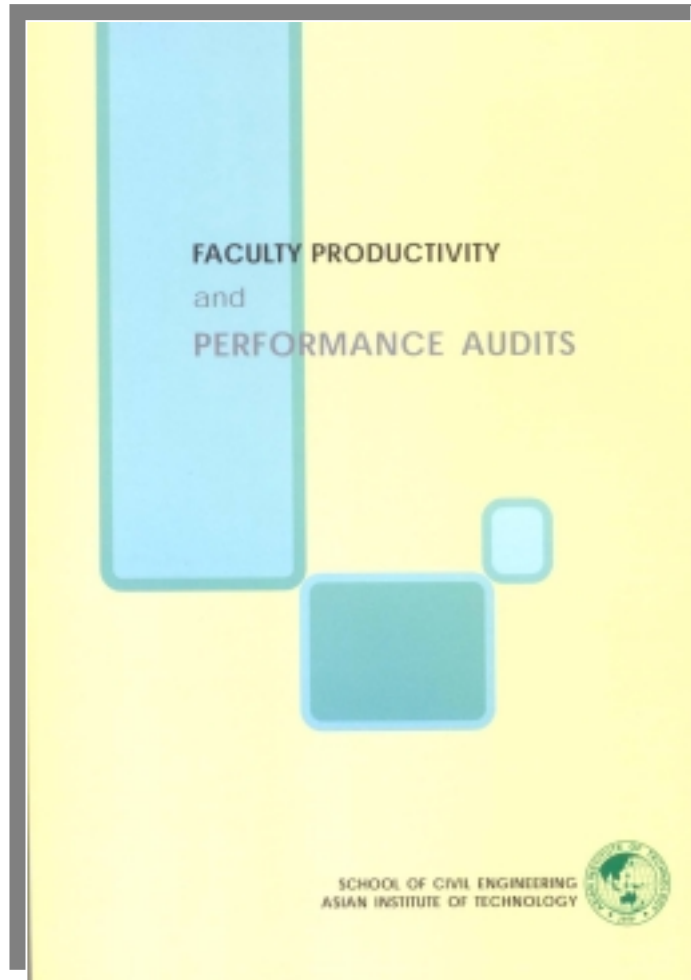
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INTERNAL QUALITY AUDITING



The School of Civil Engineering issued a 3-Year Rolling Report on Faculty Productivity and Performance Audits

The report compiles factual data of outputs of academic programs and individual faculty members.



Next Task ✍️ **QUALITY ASSESSMENT**

Reflected from the **IMPACT** of the output.

- ❑ **In industries** - impact of a product is measured in terms of its increasing market share
- ❑ **In academics** – impact of academic output is measured in relation to its declared mission by
 - ✍️ the important roles played by its alumni in the society.
 - ✍️ the significant of research output.
 - ✍️ the appreciation of services to the society.



CONCLUSION

- ❑ TQM is an integral part of the AI T professionalism.
- ❑ Quality control in AI T covers programs, instruction, graduates, library, laboratories, services, and administration.
- ❑ Quality audit in AI T measures the quality of output, objectively and transparently and make the audit report public.
- ❑ Quality assessment surveys the impacts of AI T output in relation to the mission of AI T.