



International
Professional
Practice
Partnership

Transforming IT Professional Practice



Information Processing Society of Japan

CITP 認定情報技術者
Certified IT Professional

The IPSJ Model of IT Professional Certification

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Chair

Committee of the Certification of Individuals,
Information Processing Society of Japan

- q Foundation
 - m Year 1960
- q President
 - m Tatsuo Tomita (Chairman Fujitsu Laboratories Ltd.)
- q Members (as of March 2015)
 - m 19,540 individuals (including students) and 223 corporates

q Vision Statement

- m Be the most Trusted ICT Professional Society in Japan
- m Establish Digital Eco System among members and IPSJ
- m Family Friendly Policy for women members

q Strategy

- m Enhance Research Activity (40 SIGs in 3 Domains)
- m Strengthen relationship with Practitioners
 - ∅ IT Forum: Creating Practitioner's Community
 - ∅ Digital Practice: Industrial Paper
 - ∅ **CITP*: Certification of High-level IT professionals**
- m Provide Services for Public
 - ∅ JABEE*: Accreditation of University Engineering Education
 - ∅ Digital Libraries Including "Computer Museum on the Web"
- m Continue Collaboration to ICT Standardization

*CITP: Certified IT Professional

*JABEE: Japan Accreditation Board for Engineering Education

- q Certified IT Professional
- q Certified by IPSJ
- q High level IT human resource having competence of ITSS* level 4 or above
- q Equivalent to SFIA* level 5 or above
- q Expire in 3 years

*ITSS: Skill Standards for IT Professionals developed by the Ministry of Economy, Trade and Industry (Japan)

*SFIA: Skills Framework for the Information Age

Levels in ITSS

		Level Description
Level 7	High level IT human resource	Domestic high-end player and world class player
Level 6		Domestic high-end player
Level 5	High	High-end player within a company
Level 4		High level knowledge and skill
Level 3	Middle	Applied knowledge and skill
Level 2		Fundamental knowledge and skill
Level 1	Entry	Required minimum basic knowledge

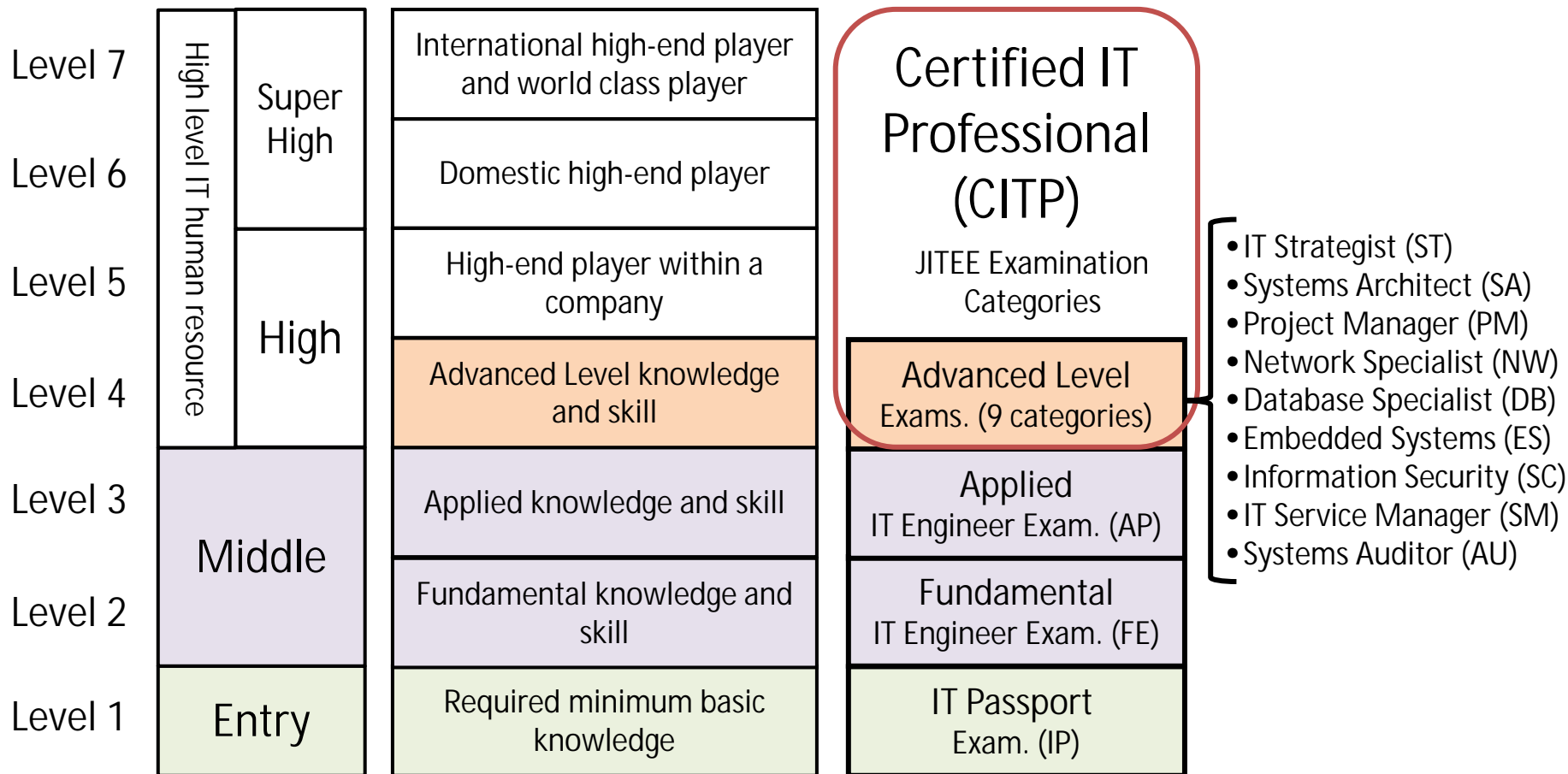
- q Visualization of high level IT professionals and raise their social position
 - m CITP provides objectives for IT professionals to encourage skill development
 - m CITP provides measure to evaluate ability of IT professionals to develop their social position
 - m CITP can be utilized for IT human resource development and IT education
 - m CITP provides conformity to global standard for IT professional
 - m IPSJ contributes to the development of international rules for evaluating high level IT professionals

- q Development of IT professional community
 - m Autonomous quality improvement through mutual learning among IT professionals
 - m Social contribution
 - ∅ submitting opinions to the government
 - ∅ participating various activities related to IT
 - ∅ IT education and professional development in IT domain
 - m Evaluation of high level IT professionals through peer review

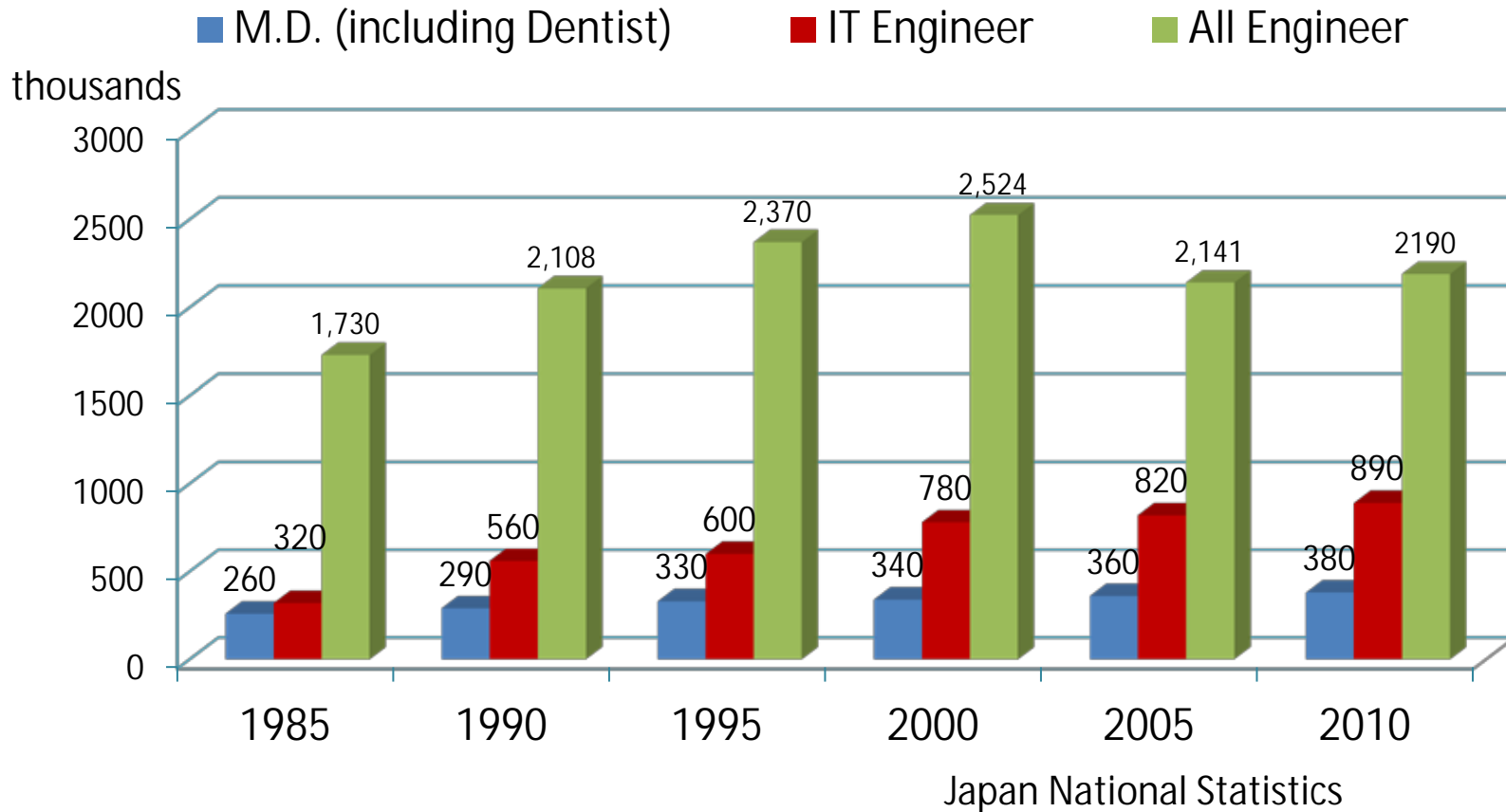
- q Promote contribution to the society and industry
- q Raise the social position of IT professionals as a result

Stakeholders	Benefits
IT Users	<ul style="list-style-type: none">• Measure to evaluate IT professionals for recruiting and job assignment• Measure to evaluate ability of IT Vendors• Objectives to develop IT section staff• Evidence for various stakeholders such as share holders and residents• Provide business chance for small companies with high competency
IT Vendors	<ul style="list-style-type: none">• Tool for proving ability of the company• Measure to evaluate joint venture including offshore vendors.• Proof to perform duty of diligence• Indicator to promote IT human resource development within company
IT Professionals	<ul style="list-style-type: none">• Tool to prove ability to promote career progression• Objectives for skill development
Others (including IPSJ)	<ul style="list-style-type: none">• Raising global competitiveness of Japanese industry• Development of IT professional community and maximization of social contribution• Raising social position and quality of IT professionals• Global contribution for IT certification and qualification system

- q Make full use of Japanese standards and existing systems
 - m Skill Standards for IT Professionals (ITSS)
 - ∅ 65% of IT companies which have more than 1000 employees, and 50% of IT companies which have 100 to 1000 employees uses ITSS.
 - ∅ Some large companies have their own certification systems which conform to ITSS.
 - m Japan Information-Technology Engineers Examination (JITEE)
 - ∅ 70% of IT companies which have more than 1000 employees, and 60% of IT companies which have 100 to 1000 employees uses JITEE.
- q Accepted internationally
 - m ISO/IEC 24773 compliance
 - m IP3 accreditation

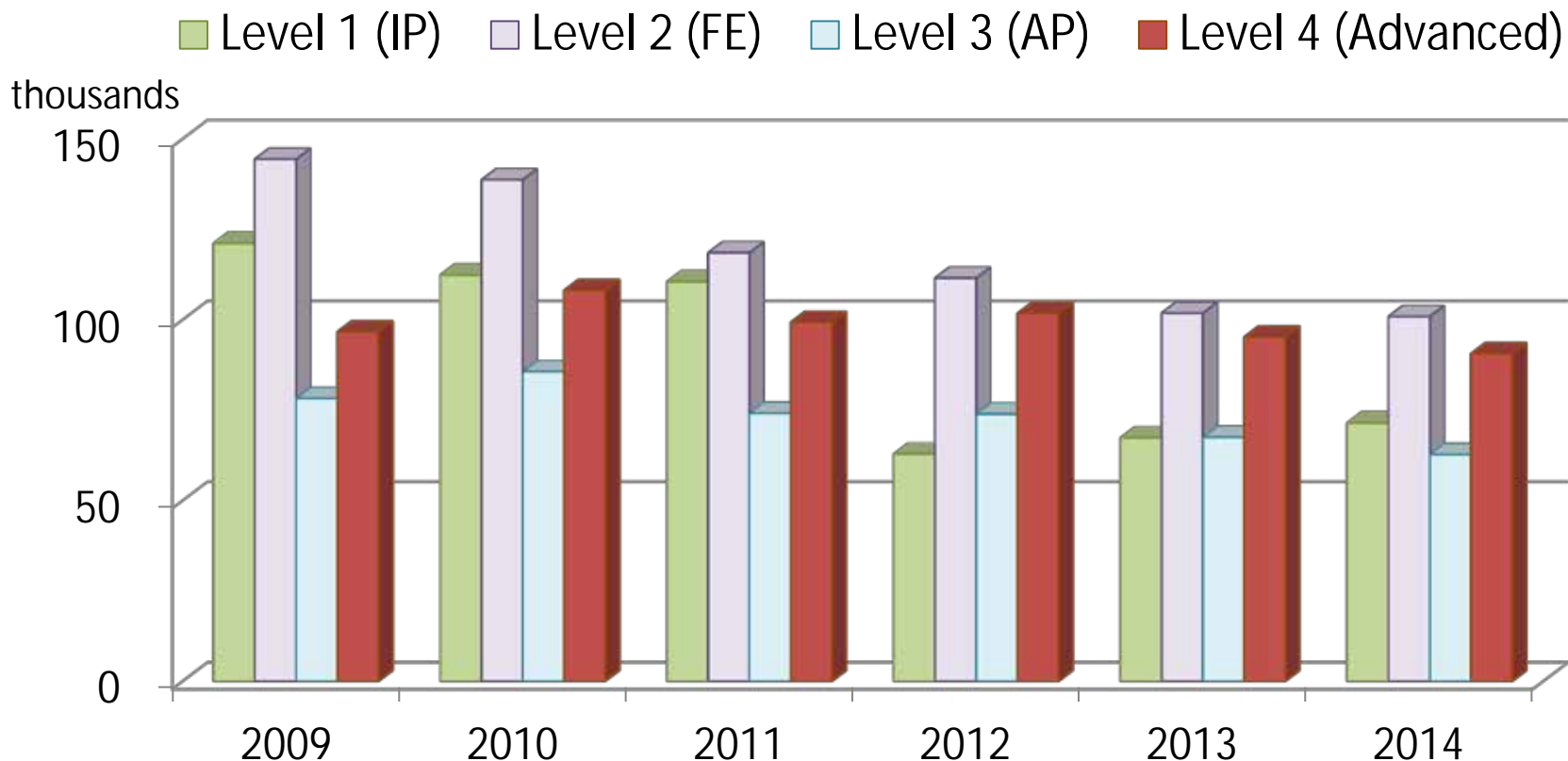


of IT Engineers in Japan



40% of Engineers are working as IT Engineers

of high level IT Engineers
~ # of Medical Doctor



- q Levels 1 ~ 3 → *decreasing*
- q Level 4 → constantly collecting applicants
- q Total # of Successful Examinees (Level 4) ~ 150,000

q Software engineering - Certification of software engineering professionals

m Developed as a **Comparison Framework**

q Major Requirements for Certification

m Knowledge and skill

m Evaluation of competence



Requirements for Qualification

m Code of ethics and professional practice

m CPD (Continuing Professional Development)

m Renewal of Certification

CITP is designed to comply with ISO/IEC 24773

- q ISO/IEC JTC1/SC7/WG20 is working to revise 24773
 - m From Comparison Framework to **Conformity Standard**
 - m Add Systems Engineering to Software Engineering
- q IPSJ participate the activity as co-editor & convenor
- q **IP3 has an opportunity to join standard development**

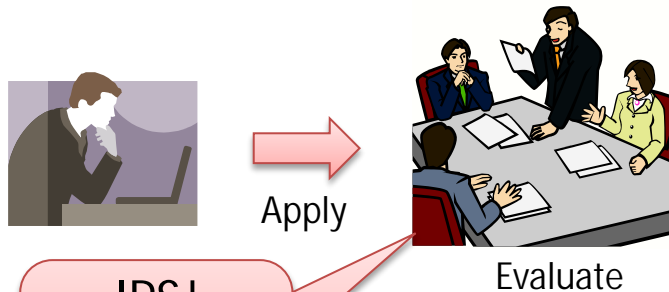
ISO/IEC 24773 Requirements	JITEE	Professional Engineer (IT)	Private certification of IT industry
Knowledge and Skill			
Competence			
Code of ethics			
CPD			
Renewal of certification			

Current Status

satisfy 24773 by combining CITP

Direct Method

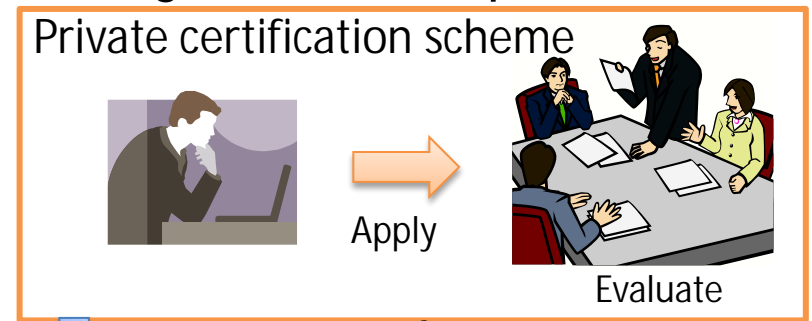
- q IPSJ evaluates individuals' ability of IT Profession
- q Applicants must have passed JITEE level 4 exam
- q Main target: IT professionals in small and medium-sized companies



IPSJ evaluate ability

Indirect Method

- q IPSJ accredits private certification scheme operated by companies
- q Main target: Large-scale companies



IPSJ accredit certification scheme

Equivalence

- q Same evaluation criteria
- q Mutual feedback between two methods

q Applicant

m Knowledge

- ∅ Result of Japan IT Engineers Examination (Advanced level examination)

Pass Cert.

m Business contributions

- ∅ Recent two projects or services
- ∅ Key Performance Indicators achieved
- ∅ Skill Proficiencies demonstrated

m Professional contributions

- ∅ Publication of a paper, Publication of a book, Instructor, Activities in a professional community, Filing of a patent application, or Development of subordinates

Appl. doc.

q Referee

m Recommendation

m Attestation of the application

Ref. doc.

q Evaluation

m Three examiners

m Review application documents

m Interview selected applicants

m Use ITSS as the evaluation criteria

- ∅ Key Performance Indicators
- ∅ Skill Proficiencies



- q Certification system
 - m Governance system
 - m Organization of certification
 - m Management system of certification
 - m Record keeping system of certified professionals
 - m Maintaining confidentiality
- q Certification requirements for professionals
 - m Knowledge and skill
 - m Competency
 - m Code of ethics and code of practice
 - m Renewal requirements
 - m Continuing professional development (CPD)

Appl.
doc.

q Evaluation

- m Three or more examiners
- m Initial review of application documents at IPSJ site
- m Detail review of certification system at applicant's site with more detailed documents and interviews
- m Evaluation viewpoints
 - ∅ The certification system is appropriate
 - ∅ The certification system is operated appropriately



q Direct Method

- m Piloting in 2013

- m Public operation started in 2014

- m 52 CITPs were certified so far

q Indirect Method

- m Piloting in 2014

- m Public operation started in 2015

- m 5 companies were accredited in 2014

- q Attention to be paid
 - m Application documents may contain personal information or business secrets.
- q Measures by IPSJ
 - m Evaluate under NDA.
 - m Separate personal information from application documents to hide it from examiners.
 - m Instruct applicants not to mention business secrets.
 - m Substitute confirmation by referees for the submission of evidence from which business secrets cannot be removed.

- q Attention to be paid
 - m Documents to be examined may contain business secrets especially those against competitors, and sensitive information that violates Competition Law.
- q Measures by IPSJ
 - m Select examiners from outside of IT industry, such as professors.
 - m Evaluate under NDA.
 - m Not to mention business secrets and sensitive information in examiners' evaluation reports.

q Category

m Skill Development

- ∅ Attending conferences ,seminars, symposia,, professional communities, etc.

m Professional Contribution

- ∅ Technical Presentations, Writing books, Patent applications, Development of subordinates, Member of public committee, Peer review of a paper, Speaker at symposium, etc.

q CPD points

m CPD hours X Weight

- ∅ CPD hours: Hours spent on CPD activities
- ∅ Weight: Difficulty or complexity of CPD activities

q CITP Renewal Requirements

m At least 150 CPD points in recent three years

m At least 50 professional contribution points are included

- q A professional community is established by CITPs.
- q Community meetings are held every two months.
- q Preparing a session of CITP forum at the next Software Japan event of IPSJ.

- q Develop a renewal process of CITP (2015-2016)
 - m CPD requirements has been developed.
 - m Application process is under development.
- q Get an accreditation from IP3 (2016-2017)
 - m Public operation has started in 2015.
 - m Documents for application have to be prepared.
- q Develop a certification system for higher level (ITSS level 5 and above) (2016-)

Thank you very much.