

How to introduce international
cooperation for education
about standardization
into national education programs

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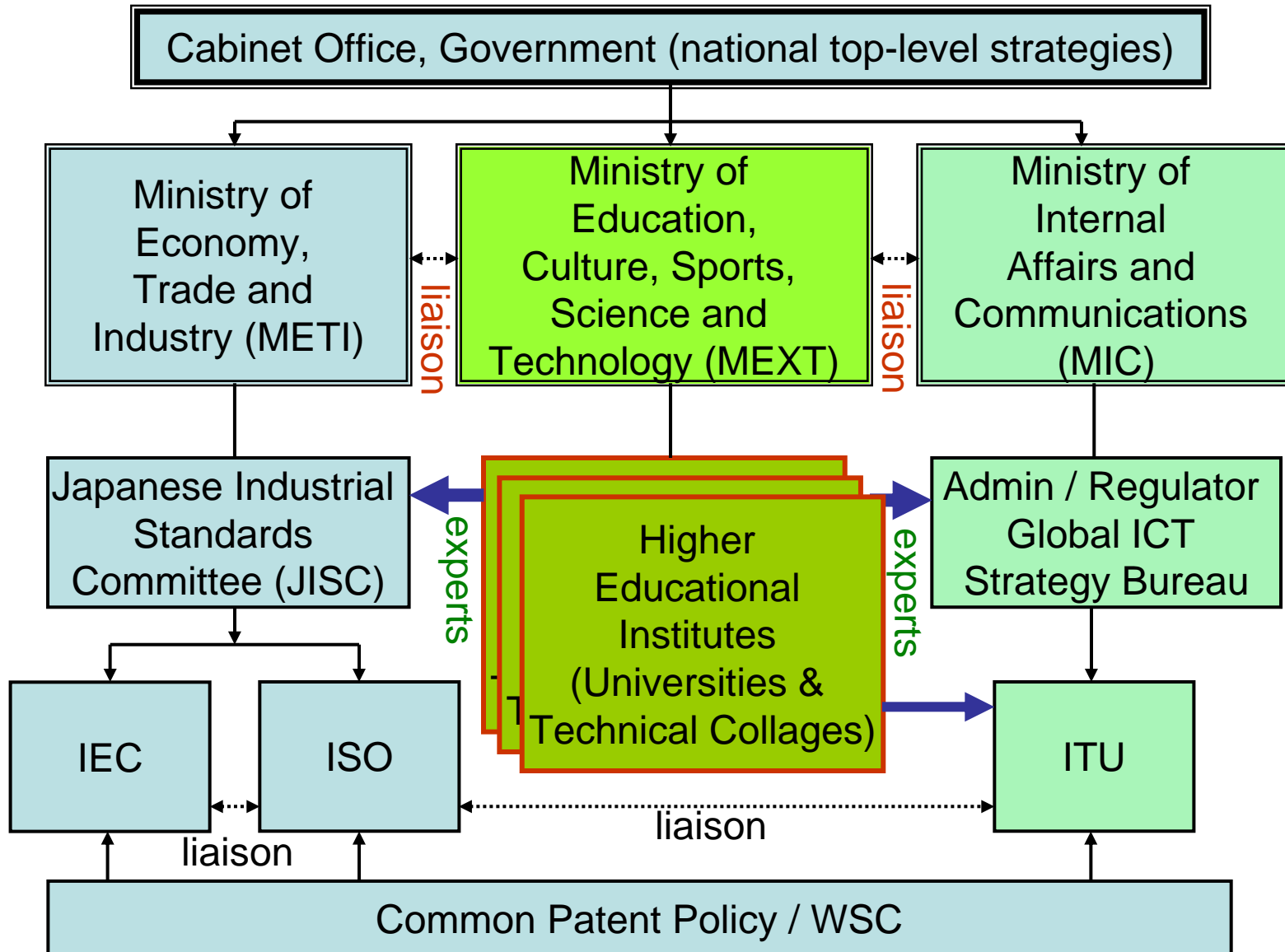
Breakdown of discussion points

- Theme: How to introduce
 - international cooperation for education about standardization into national education programs
- 1) National education programs
- 2) Education about standardization
- 3) International cooperation

1) National education programs

- They are normally voluntary, but with governmental supervision
 - Ministry of education, culture, sports, science and technology (MEXT, Japan)
- Common courses in national education programs (in Japan)
 - Intellectual property rights
 - Safety engineering and technology
 - Ethics in engineering, **but a few for**
 - **International standardization**
- Close liaison between MEXT and METI (JP)
 - Now started according to White Paper 2008 of MEXT

Preferable relationship of higher educational institutes with IEC-ISO-ITU



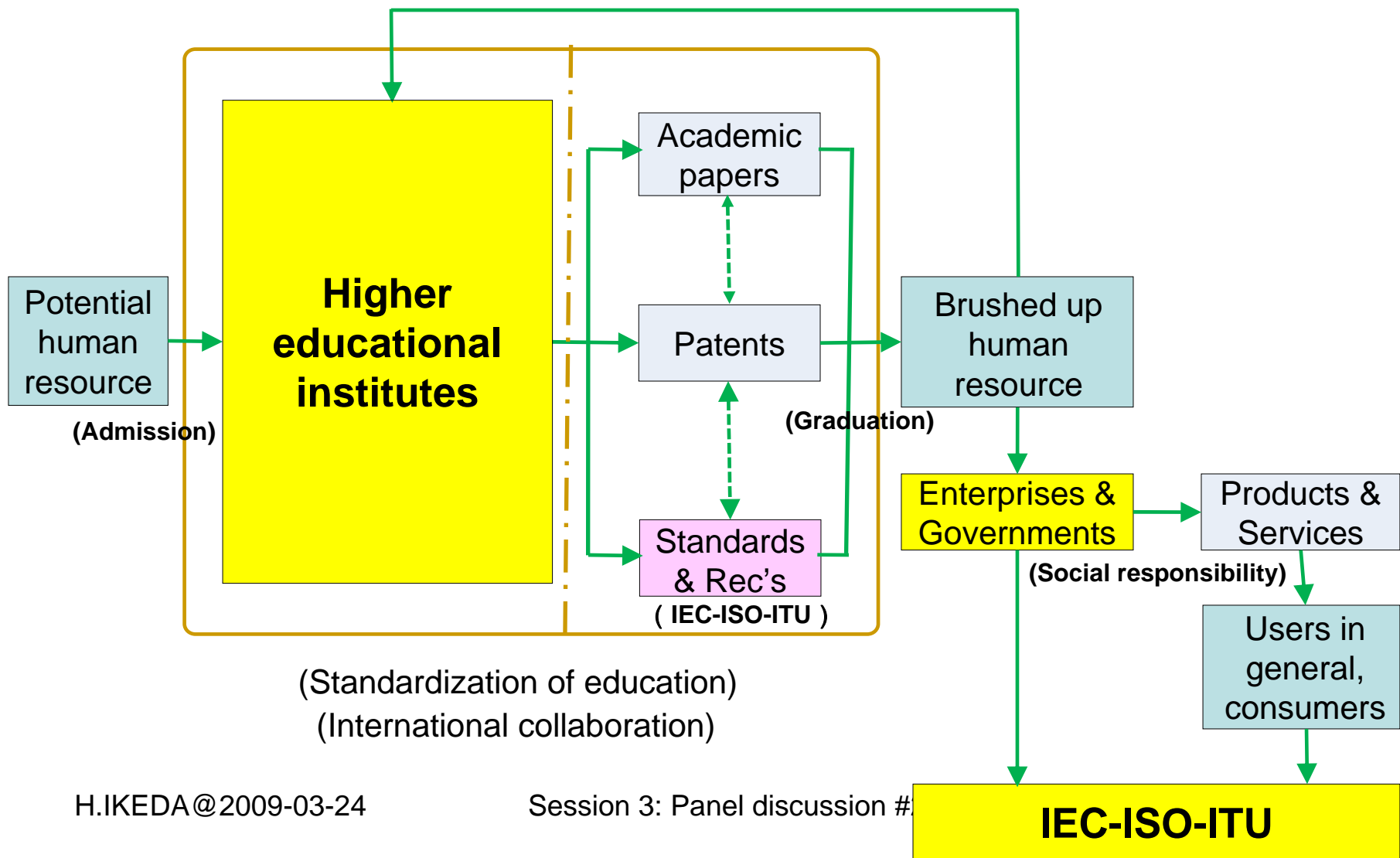
2) Education about international standardization

- Continuous promotion and campaign of Ministries of Economy, Trade and Industry (METI, JP)
 - The number of programs on international standardization has been increasing
 - The number of educational institutes that incorporate the program is increasing

3) International cooperation

- International cooperation
 - Popular, in general, **but very few in international standardization**
 - Use of on-going frameworks such as in WTO, UNESCO, OECD/CERI
 - For quality assurance of education beyond the borders
 - Examples from technical work in IEC TC 100/TA 2 (Colour measurement and management)
 - MoU between Chiba University (JP) and University of Derby (GB)
 - Collaboration between Chiba University (JP) and NIST (US)

Relationship between educational institutions and standardization bodies



Courses on International Standardization, example

- In 2000, Chiba University opened the course, continued to date
 - “International Standardization,” 14-15 lectures for undergraduates (as well as graduates) from MoU universities and colleges worldwide, who are invited as exchange students with tuitions and credits (subject to exam) granted in the framework of “Study-in-Japan” program
- In 2007, a summer course for general public on various aspects in 16 lectures
 - Supported by METI and JSA

Statistics

- In what degree the course has been penetrated in education in Japan:
 - 64 courses in 37 / 765 universities and colleges in Japan, as of March 2008
- In what extent professors have involved themselves in technical works:
 - IEC: $\approx 90 / 1221 = 7,3 \%$ (JP as of March 2009)
 - ISO: $377 / 3430 = 10,9 \%$ (JP as of March 2009)
 - ITU: ??

Key points to answer “how to”

- What are the benefits for
 - Students under education
 - How to motivate them to attend the class?
 - What kind of carrier path after graduation is expected?
 - Teachers, lecturers and professors
 - Are they recognized? Rewarded?
 - Educational institutes
 - Is it requirement; in high priority to provide the program?

Thank you for your attention.