Cooperation on Converging Technologies

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2007-04-25

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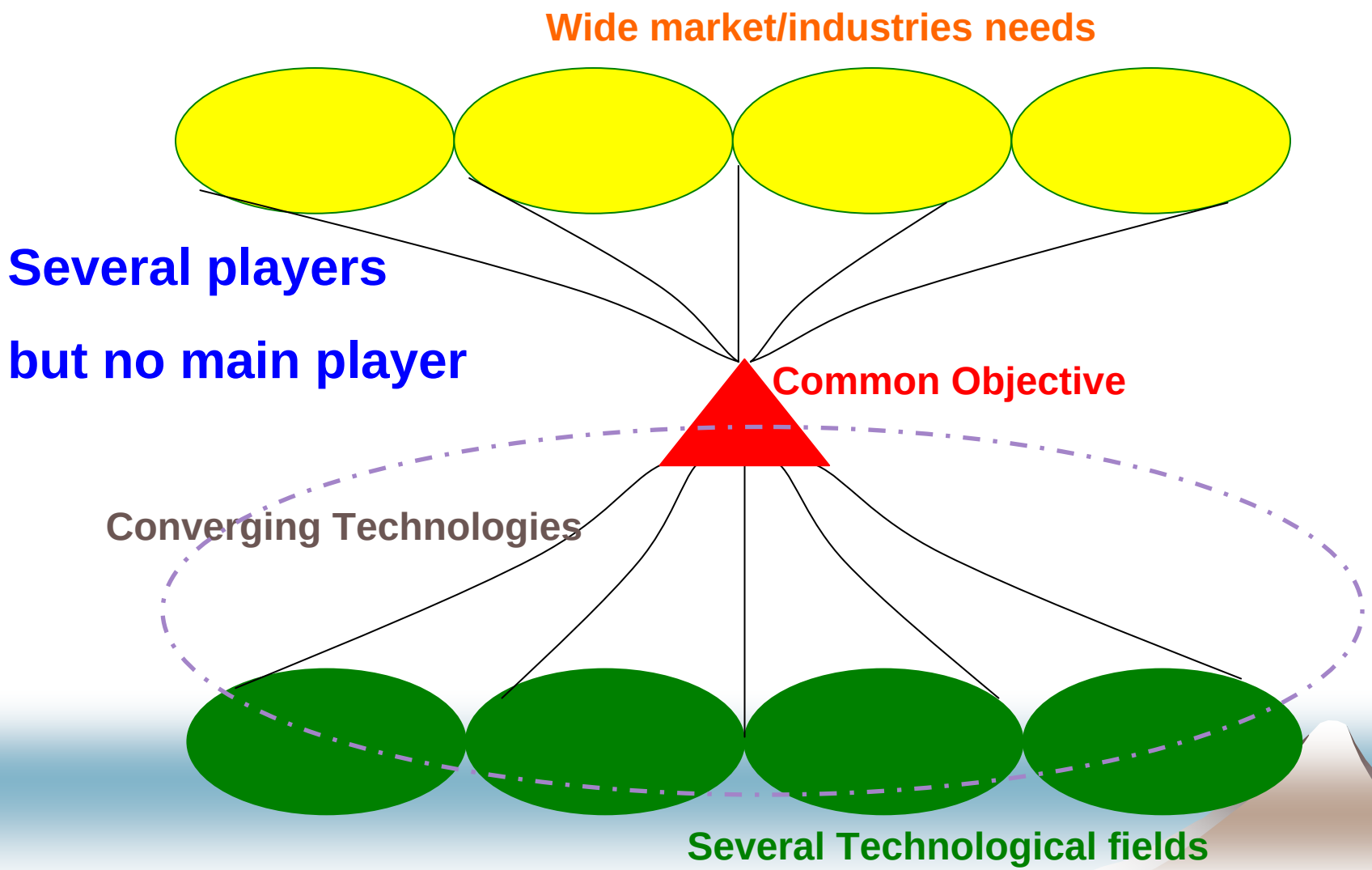
1. Converging Technologies

What are converging technologies?

Emerging technologies and converging technologies are terms used interchangeably to cover the emergence and convergence of new and potentially disruptive technologies such as nanotechnology, biotechnology, information technology, cognitive science, robotics, and artificial intelligence.

(Source: Wikipedia)

1. Converging Technologies



2. Importance of International Standardization in Converging Technologies

Feature of Converging Technologies

- Convergence of several technological fields
- Different technological-background

The international standards can play the important role for interchange among people with different technological-background.

Challenge: how to involve relevant stakeholders in international standardization in converging technologies

2. Importance of International Standardization in Converging Technologies

Important Fields of Standardization

- Terminology
- Evaluation method

} **Common Language** / **Common Measure**

Then

- Product Standards — **Performance > Specification**

How to develop the standards

- Develop them in existing TCs
- Develop them in new TC

Case-by-case

3.International Standardization in Nanotechnologies

ISO TC 229: Nanotechnologies

- Established in May 2005
- Chair: UK
- Secretariat: BSI
- Structure:

  JWG1: Terminology and nomenclature (SCC)

  JWG2: Measurement and characterization (JISC)

  WG3: Health, safety and environment (ANSI)

3.International Standardization in Nanotechnologies

IEC TC 113: Nanotechnologies for electrical and electronic products and systems

- Established in May 2006
- Chair: Germany
- Secretariat: DKE
- Structure:

  JWG1: Terminology and nomenclature (SCC)

  JWG2: Measurement and characterization (JISC)

  WG3: Performance (DKE, tentative)

3.International Standardization in Nanotechnologies

Cooperation between ISO TC229 & IEC TC113

- Meeting of TC officers in Seoul in 2006 at the occasion of the 3rd ISO TC 229 plenary meeting
- Establishment of Joint Working Groups (JWG 1&2)
- MoU for Cooperation to be signed
- Back to back plenary meeting from 2007 December

4.Future Cooperation of Standardization on Converging Technologies

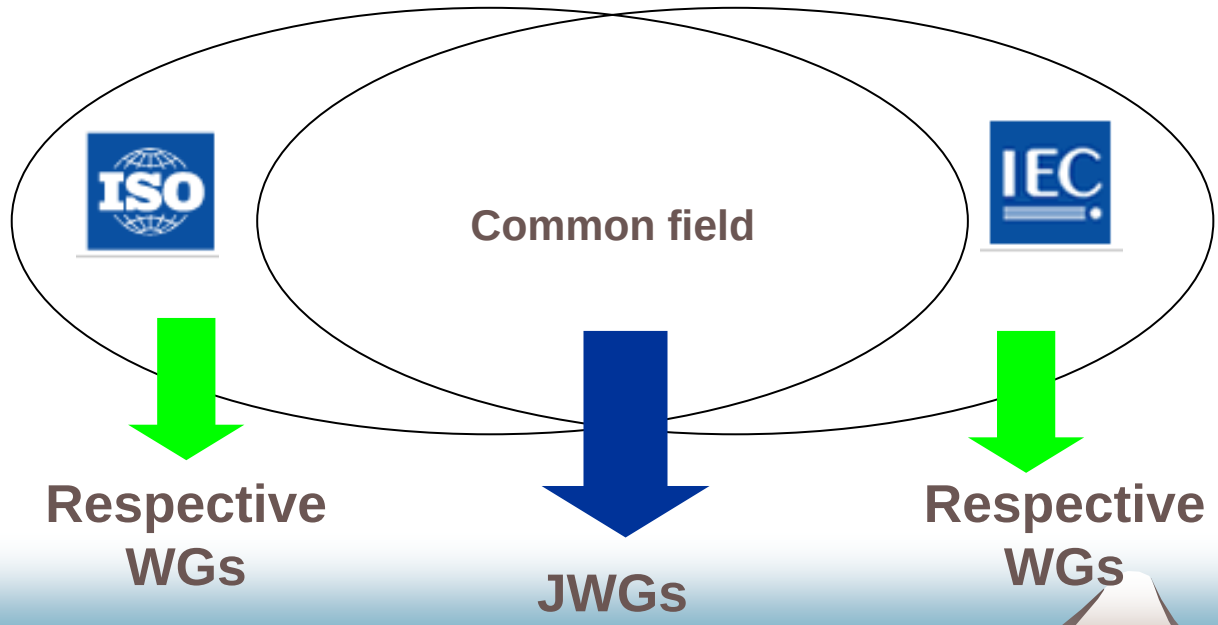
Other Areas for Future Standardization in Converging Technologies

- Biotechnology
- Bioinformatics
- Robotics
- Home healthcare
- Renewable energy

4.Future Cooperation of Standardization on Converging Technologies

- Based on the experience of Nanotechnologies,
- in the case which both ISO and IEC have common interest for the standardization, such as converging technologies,
- the following relationship may be a solution for the cooperative standardization

Mapping of Standardization interest



4.Future Cooperation of Standardization on Converging Technologies

For Future Standardization

- Provide appealing framework for customers
  - Avoid overlapping works
  - Correspond with the needs from industries
- Ensure the participation of relevant stakeholders
  - Dialogue with industries
  - Role of academia and public organization
- Cooperation at domestic level
  - Liaison
  - Information exchange

Thank you!

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