Session 1: How Can We Establish and Utilize Information and Knowledge Infrastructure for Collaboration and Innovation?

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Background

- Increased intensity of scientific data and information in innovation and diversity of knowledge base required for innovation

- Intensification of intellectual property rights regimes and increased privatization of data, information, and knowledge

- Character of data, information and knowledge: Public goods (non-rivalry and non-excludability), cumulativity, additivity, expandability

Goal of This Workshop

- To provide an international and interdisciplinary forum to promote a deeper understanding of technical, economic, legal, and institutional conditions for establishing and maintaining information and knowledge infrastructure and to discuss how to utilize it for stimulating collaboration and innovation, in a way that contributes to global sustainability

Examination of Information and Knowledge Infrastructure

- Technical ("hard") aspects
  - Networking of databases for data sharing
  - Data mining from diverse databases
  - Utilization of metadata based on ontology
  - Standardization of platforms for integration
- Economic, legal, and institutional ("soft") aspects
  - Incentive structure of relevant actors
  - Organizational forms and structures
  - Intellectual property rights – open vs. proprietary
  - Roles of universities, private companies, and public research institutes
- Practices in different fields
  - Open source software
  - "Scientists without Borders"

What we have agreed

- Important to keep an appropriate balance between open and private spheres of information and knowledge
- Information commons is emerging in diverse fields – genetic code in molecular biology, open source software in ICT, public health in "Scientists without Borders"
- Necessary to identify and examine characteristics of information commons in different areas and sectors
  - Mechanisms of creating and maintaining information commons
  - Incentive structures of relevant actors
  - Speed of information and knowledge creation
  - Fragmentation of information and knowledge
  - Scope and opportunities for combination of information
- Towards sectoral systems of information commons