



# International Telecommunication Union

## *Session Seven*

### **Session One Chair's Report: RFID: Visions and Implications**



#### *Visions of Ubiquity: Things in Cyberspace*

L. Srivastava, Strategy and Policy Unit

#### *RFID: A European Perspective*

F. Frederix, European Commission

#### *Visions and strategy in Japan*

T. Tandai, MIC Japan

#### *Vision & trends in US RFID markets: A start-up perspective*

Y. Maguire, ThingMagic

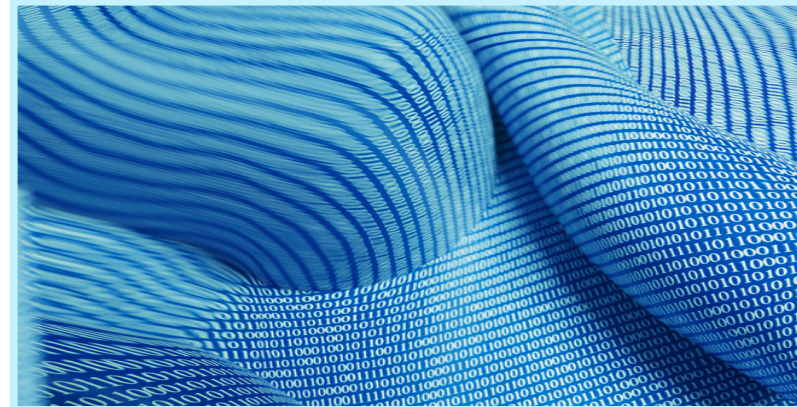
*Session chair: Lara Srivastava, Strategy & Policy Unit, ITU*



# The larger context of “ubiquity”

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- o RFID is part of a larger vision of future technological ubiquity
  - combined with sensors & developments in nanotechnology, creating an “Internet of Things”
- o The future will be ubiquitous, meaning “universal, user-oriented, and unique”, but also “alive”!
- o It will be deployed by end-users and not necessarily centrally managed (“paintable”)
- o The pervasive nature of RFID comes with key challenges:
  - standardization
  - governance of resources
  - consumer protection, namely privacy and data protection



# Key Players, Key Issues

- o The European Commission has set up an Inter-service working group, for the horizontal coordination of EC activities, and for co-operation with national authorities and standards-setting bodies
- o Many areas of discussion in Europe, include:
  - standards, spectrum, governance, data protection/privacy, ethics, IPRs, trade, health, environment etc...
- o In Japan, R&D focuses on:
  - 1) cheaper and smaller devices;
  - 2) convenience;
  - 3) international cooperation





# The way forward for ITU

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- For efficient use of radio spectrum, data prioritization will be key
- Challenges for item-level tagging:
  - cost of tags, tag power limit, protocol
  - Interference between readers
- Role for ITU in standardization of communications
  - between tags and readers
  - for obtaining information through networks by the reading of tags on individual things
  - for reliable authentication and privacy protocols



# Concluding Remarks



- o RFID holds great promise for the future “ubiquitous network society”
- o However, standardization remains fragmented, interoperability and interference key hurdles
- o In addition, user acceptance suffers from concerns over consumer privacy, data protection and security
- o ITU can play an important role in furthering international standardization efforts in addition to raising awareness about the challenges and opportunities of this exciting technology