

# **International ICT Standardization for a Sound Ubiquitous Society**

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# 1. Dreaming of a Ubiquitous Society

● **Ubiquitous is like the rainbow**

- ✓ Ubiquitous is like touching air and water.
- ✓ It is everywhere but it is invisible.
- ✓ It disappears when you try to grasp it.
- ✓ It is beautiful and fantastic.



Source : [http://imagebingo.naver.com/album/image\\_view.htm?user\\_id=ubk1531&board\\_no=19572&nid=1697](http://imagebingo.naver.com/album/image_view.htm?user_id=ubk1531&board_no=19572&nid=1697)

## 2. Ubiquitous Society

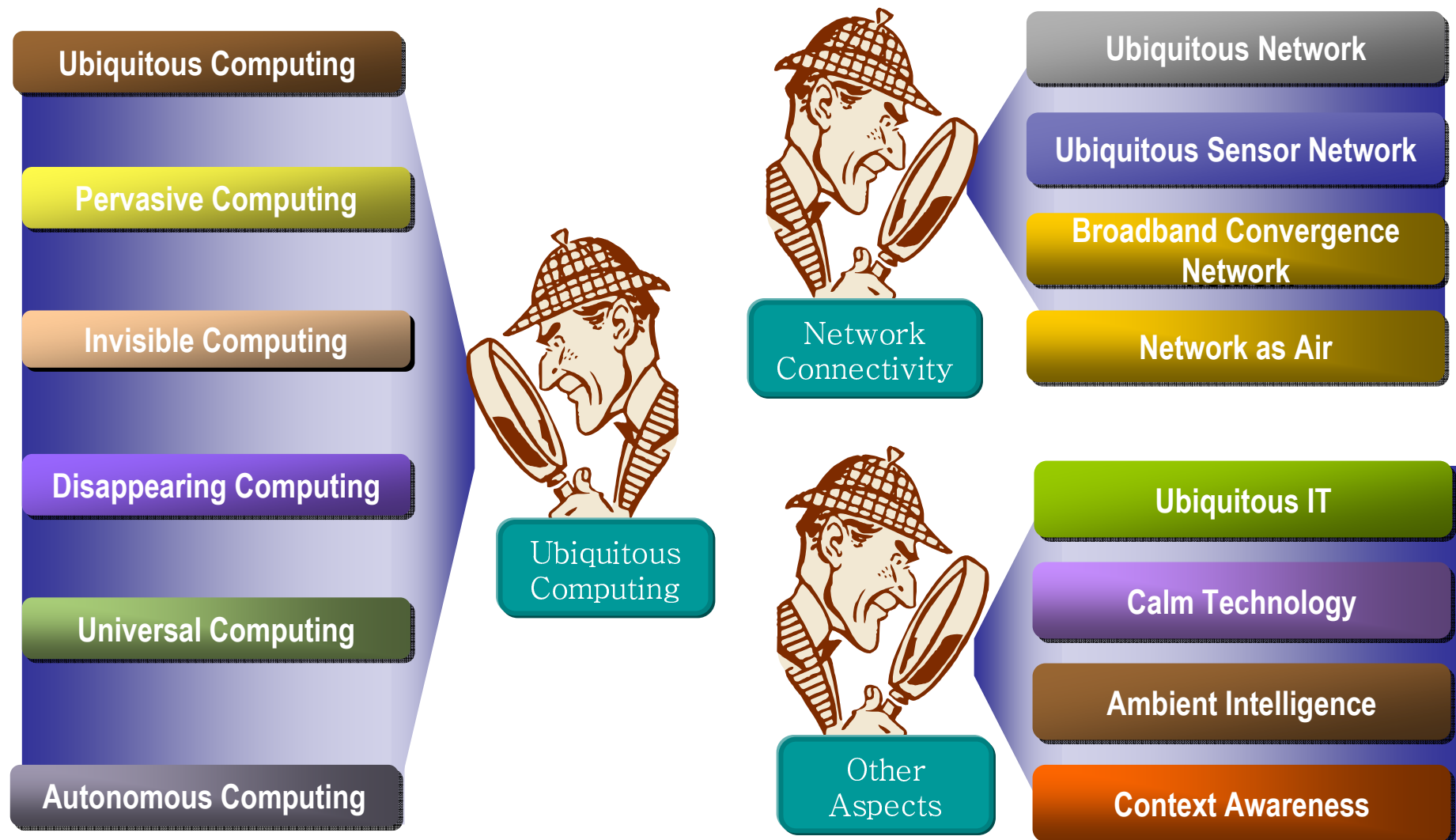
The Ubiquitous Society is the Society where computing is available at any time and in every place



Source : [http://imagebingo.naver.com/album/image\\_view.htm?user\\_id=1004jyjh&board\\_no=12612&nid=2450](http://imagebingo.naver.com/album/image_view.htm?user_id=1004jyjh&board_no=12612&nid=2450)

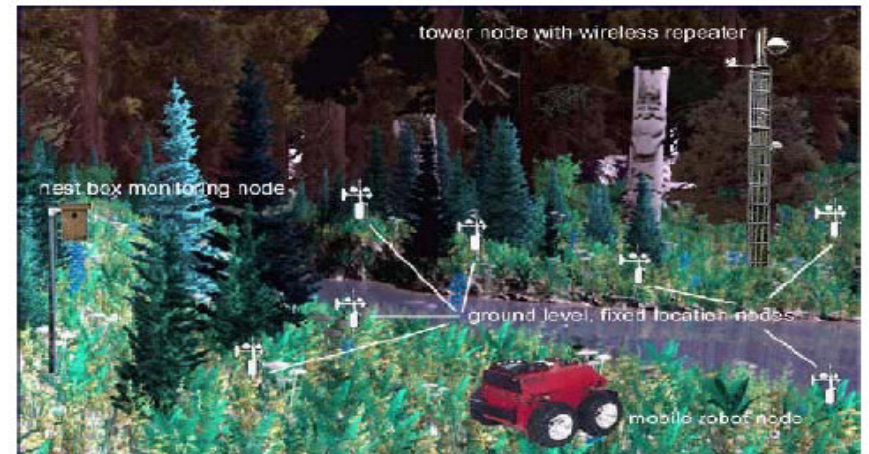


### 3. What is Ubiquitous?



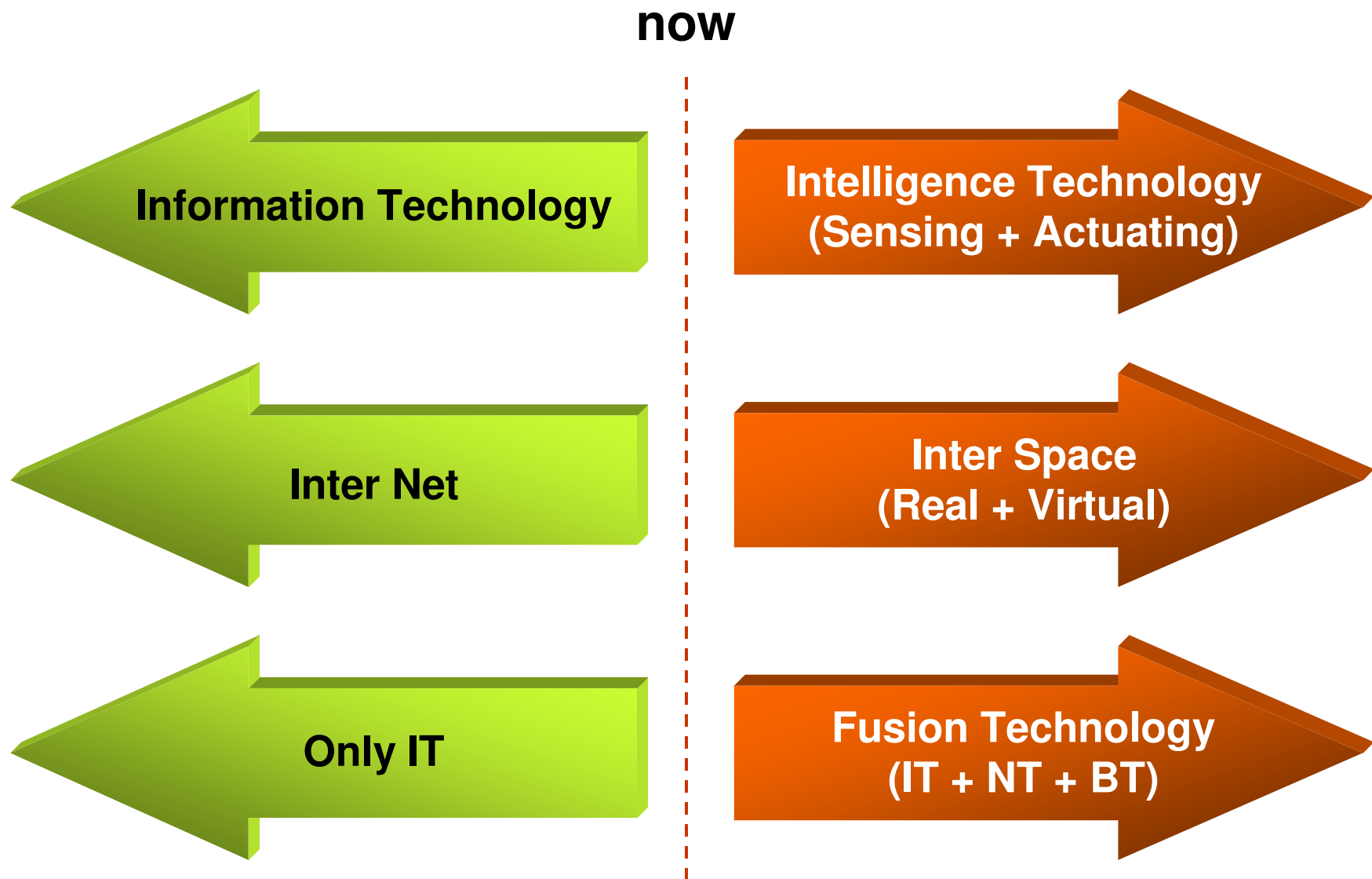
## 4. Ubiquitous Networks

- **Human to Human Communications**
  - Connectivity
  - Seamlessness
  - Security
  - Services
- **Human to Nature Communications**
  - Sensor Networks
  - Biotechnology
  - Nanotechnology



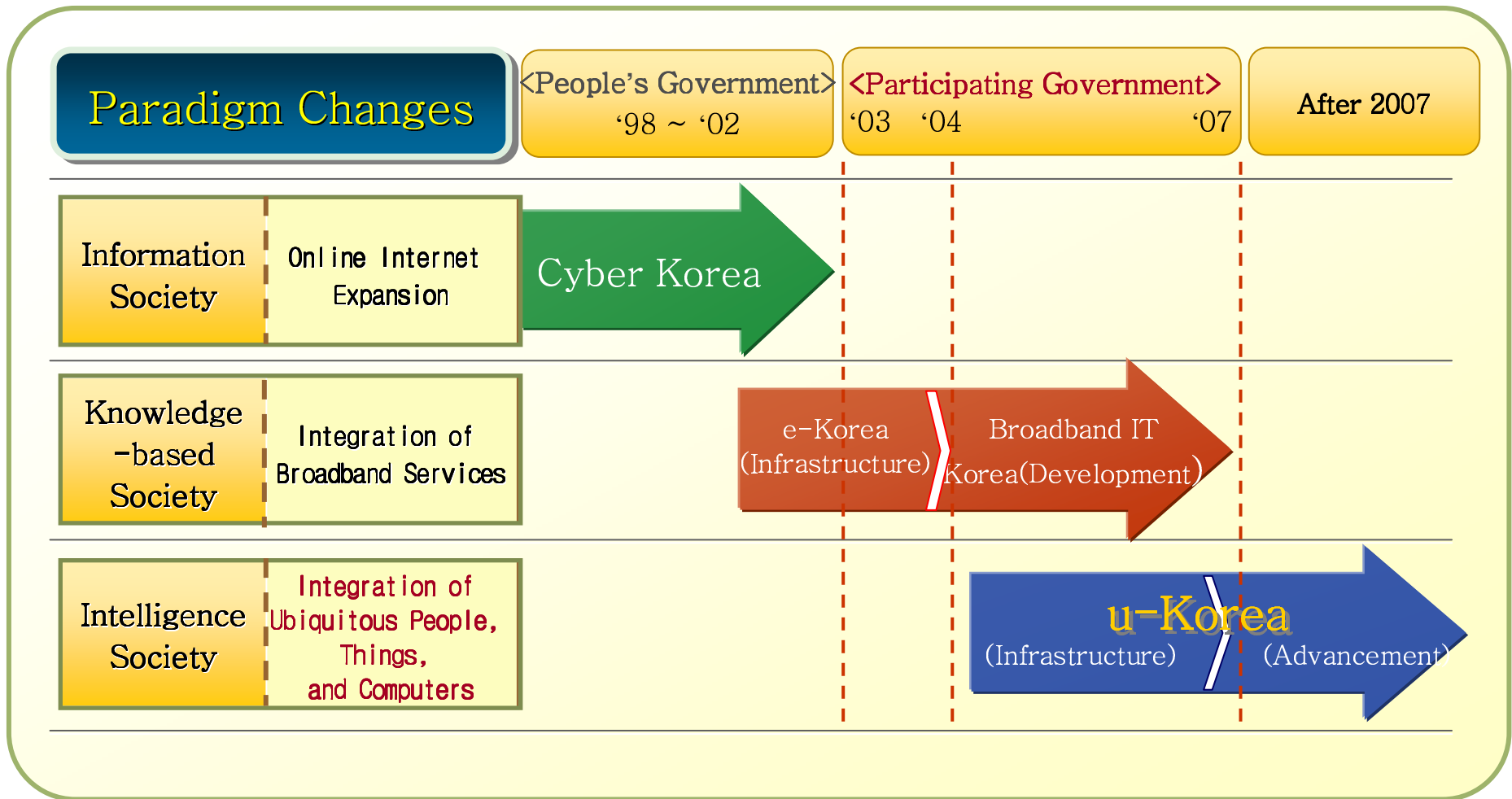
Source : Athens Information Technology, Communication Paradigms, Life, the Universe and Everything for 2020, 2003

## 5. Make Better Society with ubiquitous Technologies







## 6. Trends and Status in Korea



### Changes in Korean Info-communication Policies



## 7. Some Issues to Consider

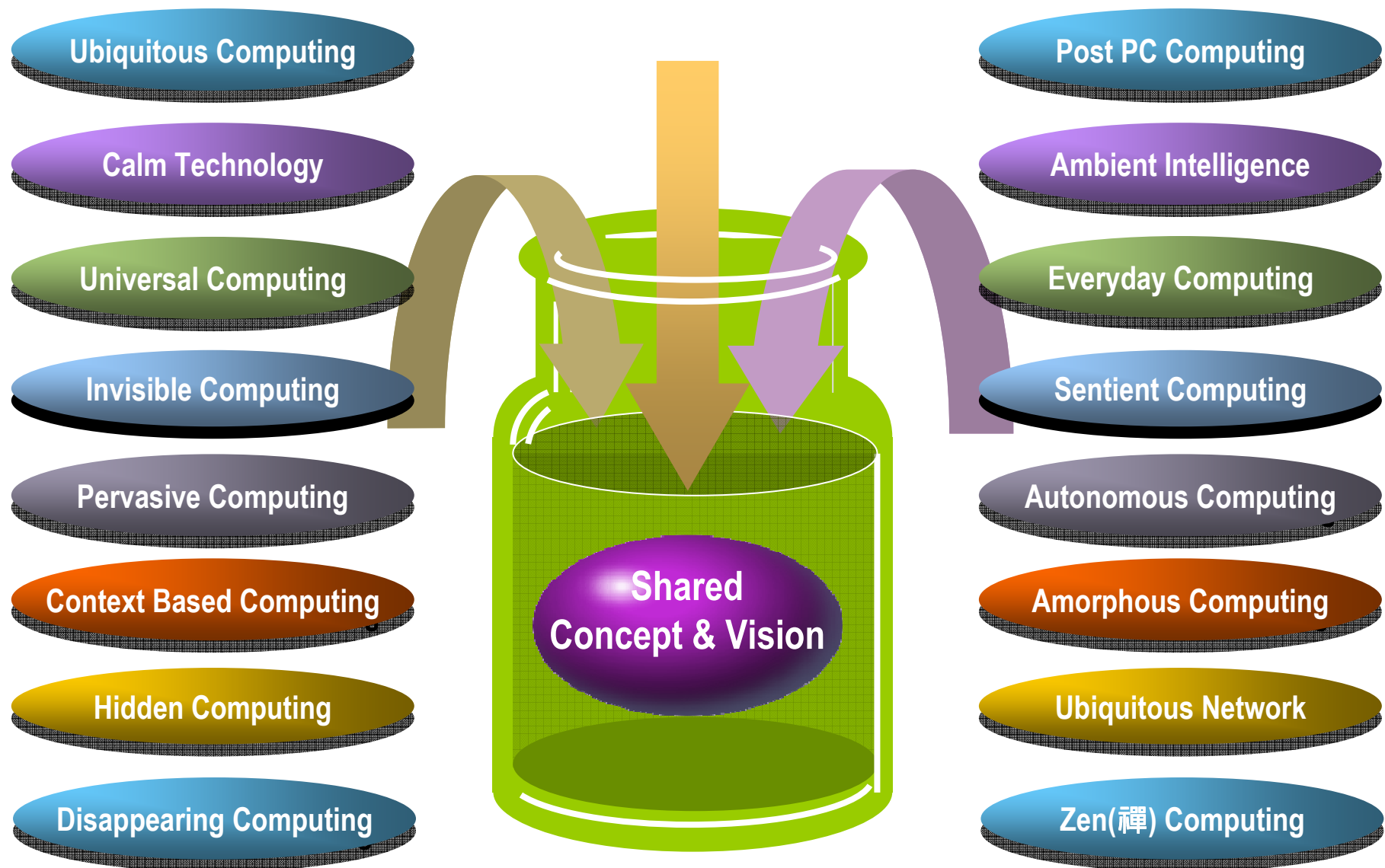
-  We need to promote international agreement on the vision, value, and concept of a ubiquitous society.
-  We need to create a globally integrated network and necessary standards taking into account various cultural backgrounds and identities.

-  The digital divide may continue to grow in a ubiquitous society, creating a wider gap between countries.
-  It is important to ensure free and mutual data exchange between countries and provide an opportunity for developing countries to work together.

-  While most people believe that a ubiquitous society will lead us to a rosier future, there is also the worry that it will lead to a gray, surveillance society.
-  To foster the healthy development of a ubiquitous society, strong measures are required to prevent some of the negative influences including security and privacy problems.



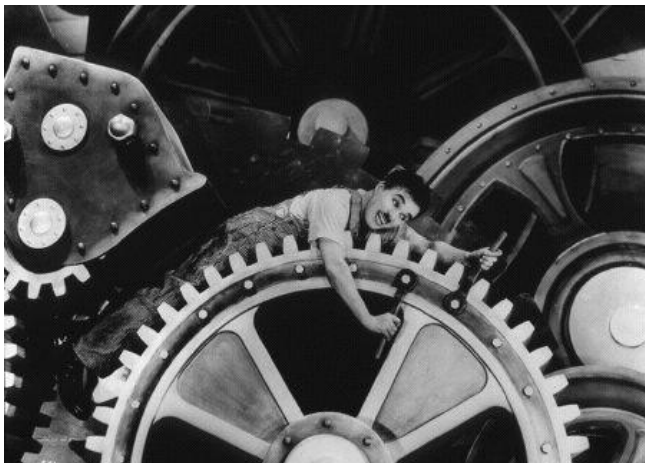
## 8. Need for a Shared Concept & Vision



## 9. Ubiquitous Society for Human beings

- U-society may also be an highly monitored society, where anyone can be spied on anytime, anywhere without knowing it, and where the privacy of the unsuspecting can be invaded. Therefore, it is important to create a human-oriented ubiquitous society based on safety and trust.

The Shadow of Industrial Society



Source : modern times, Charlie Chaplin

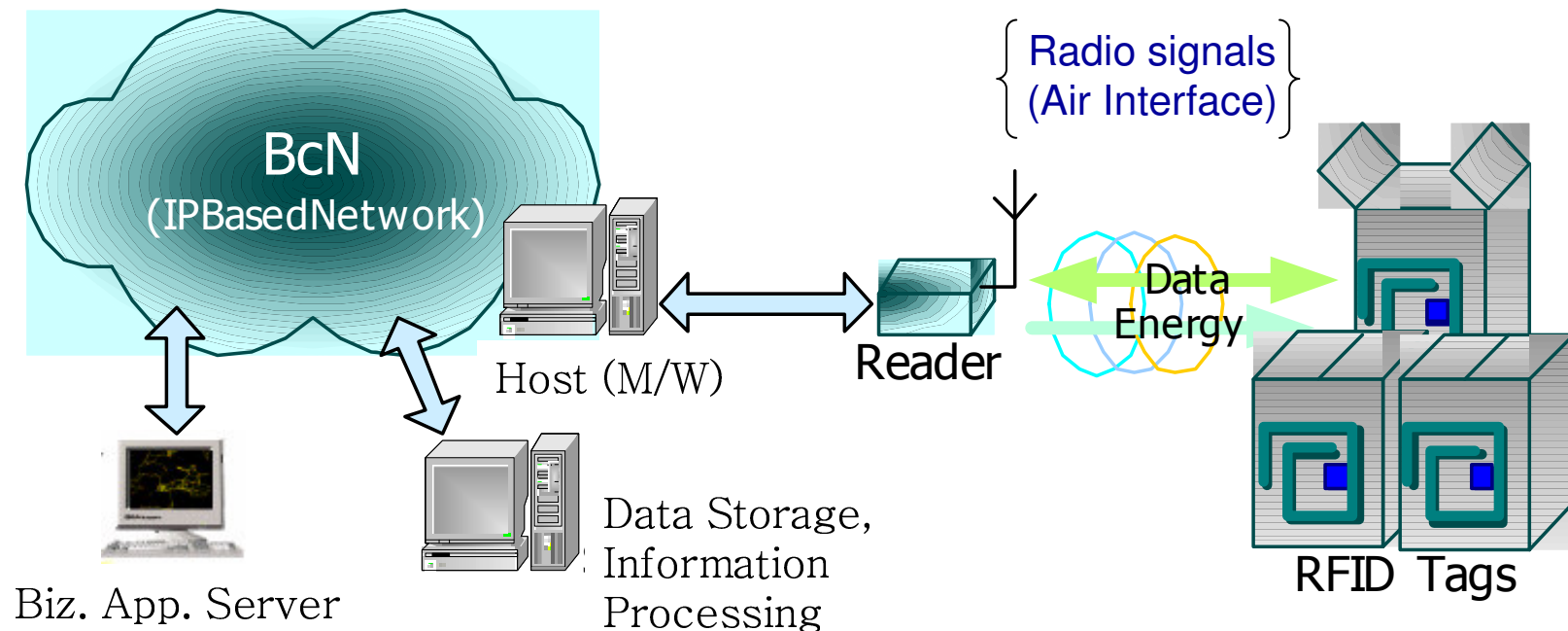
The Shadow of Ubiquitous Society



Source : <http://media.jinbo.net/news/view.php?board=news&id=31537&page=1&category2=24>

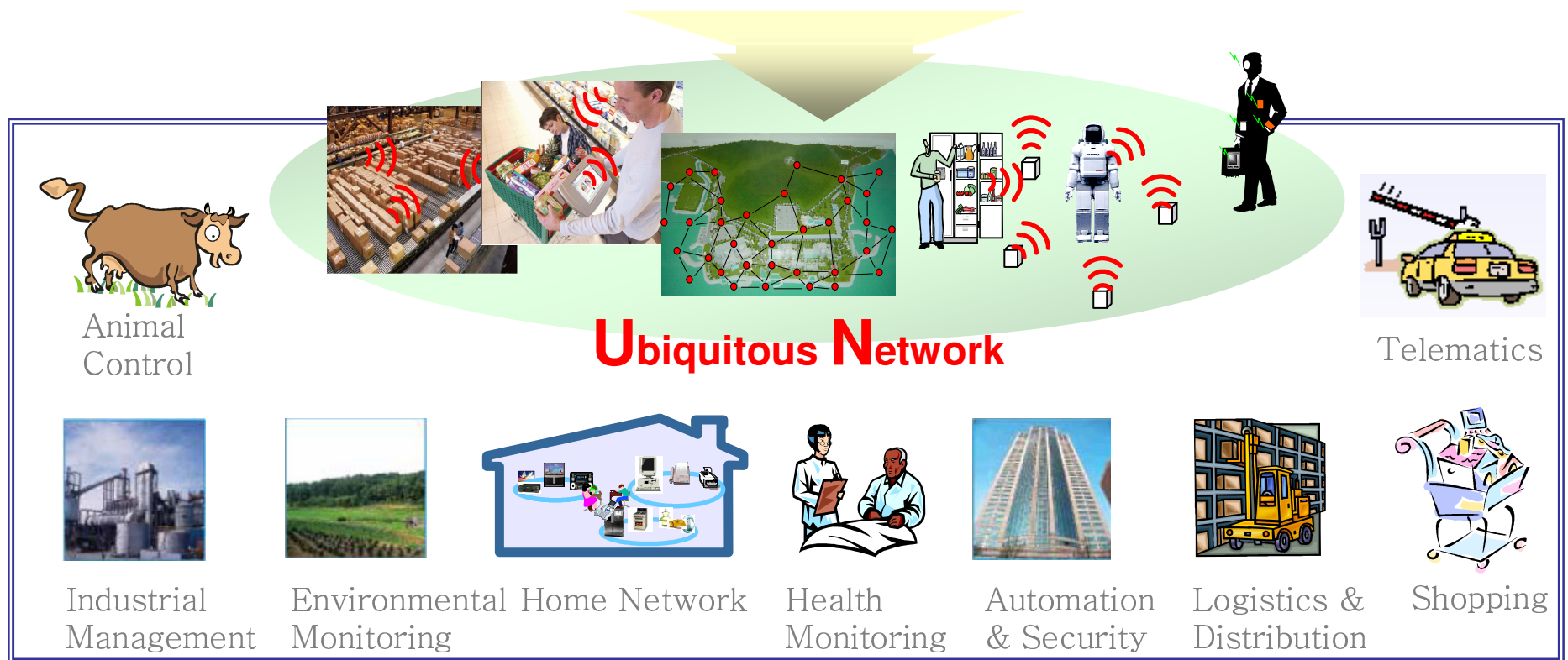
# 10. RFID (Radio Frequency IDentification)

- Transferring of data and power, using contact-less technology
- Complementing limitations of barcode and other AIDC devices



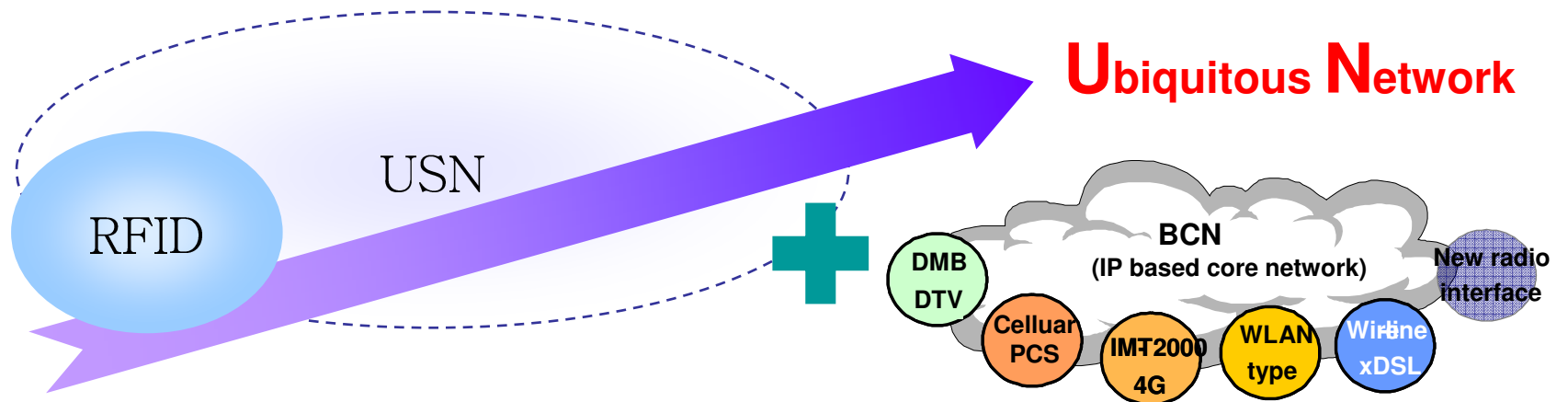
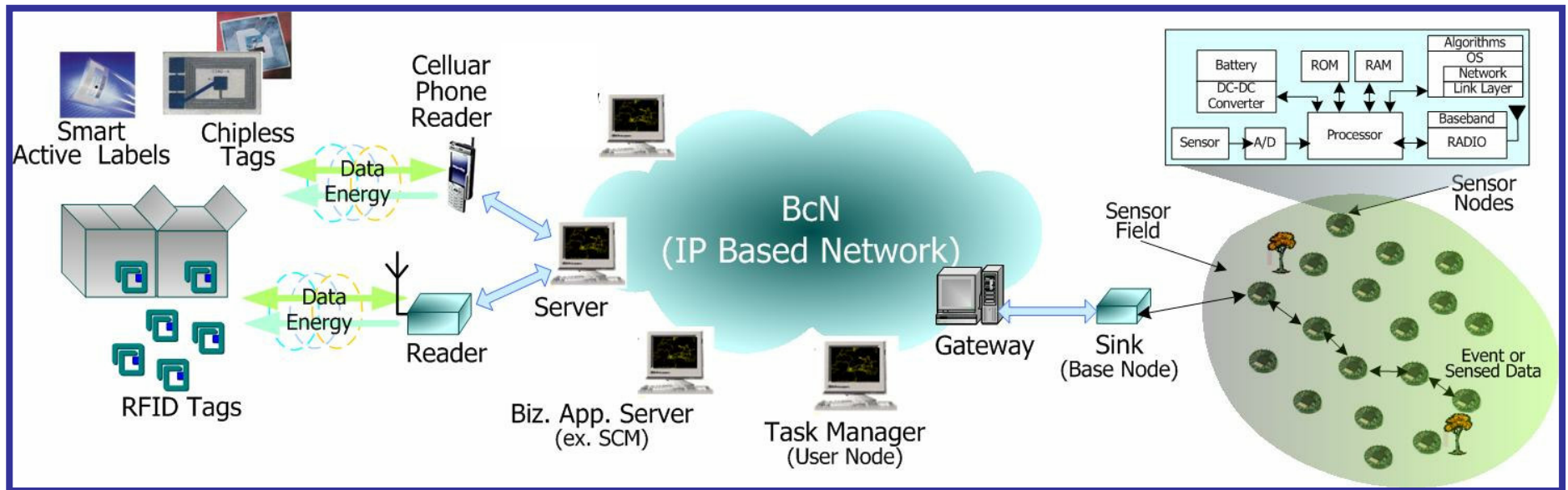
# 11. USN (Ubiquitous Sensor Network)

- **U**BIQUITOUS – Objects combined with Tags and Sensors
- **S**ENSOR – Identify Object and Sense Circumstance
- **N**ETWORK – Connect Each Other or Access to Services



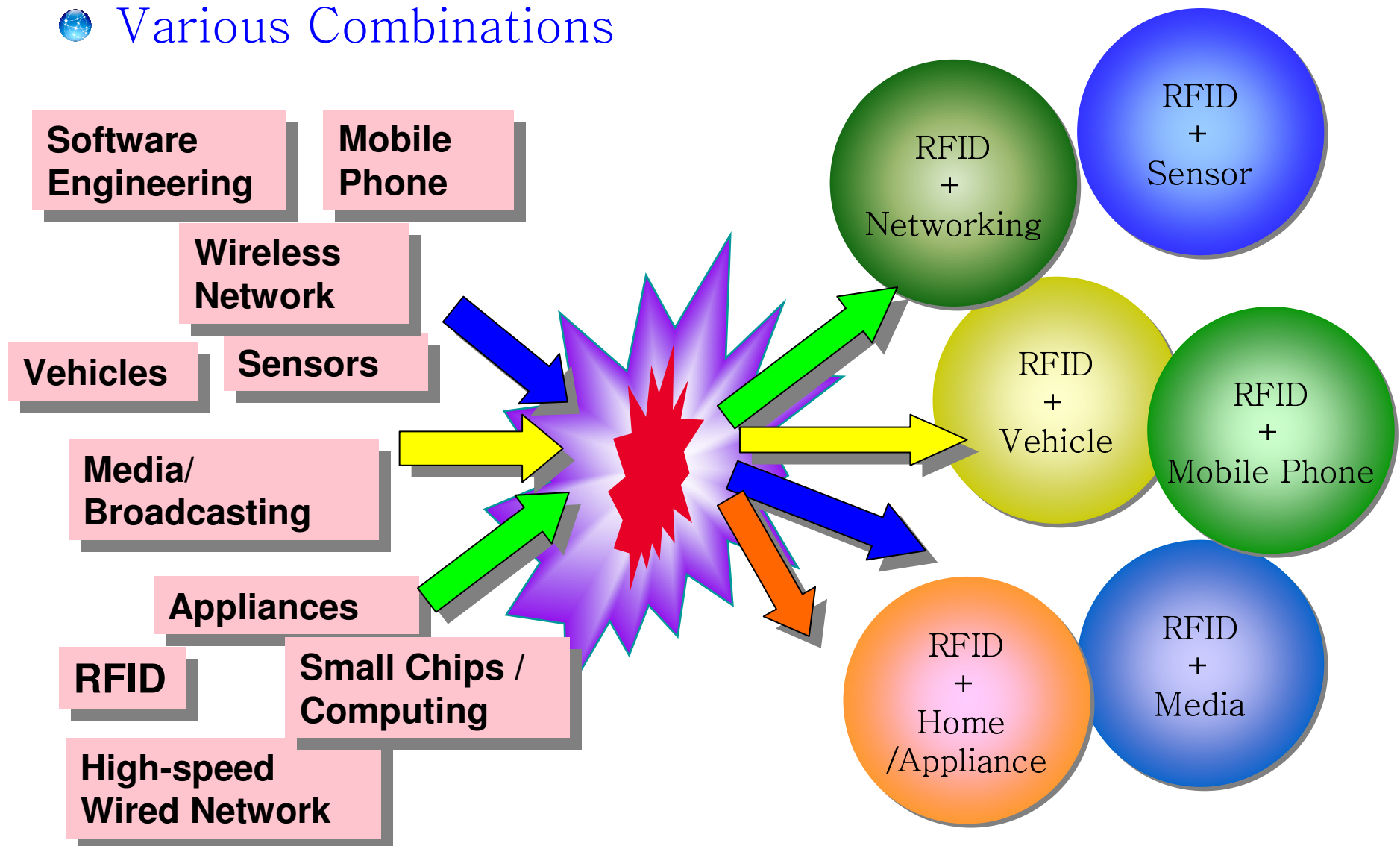


# 12. RFID/USN



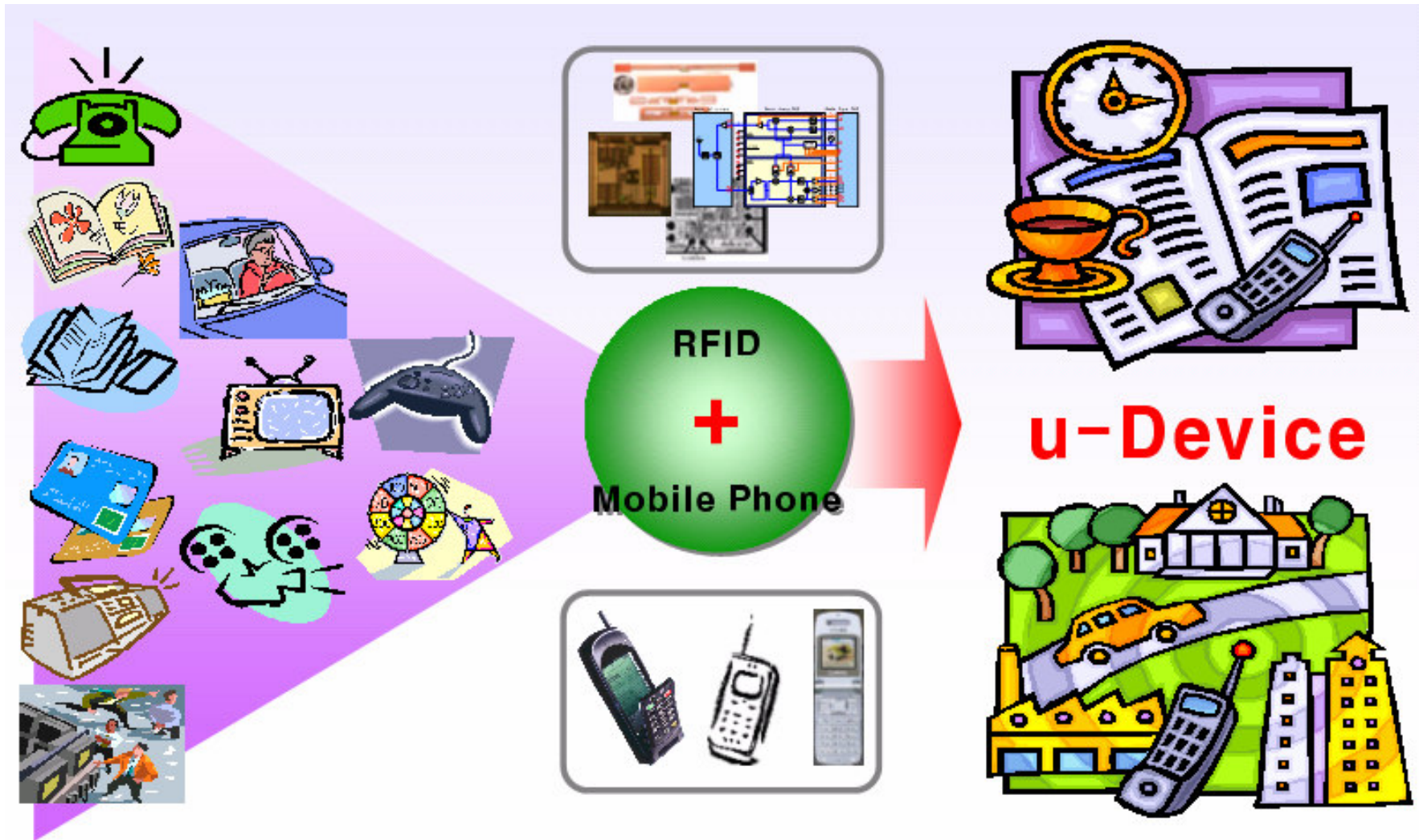
# 13. Technology Convergence

## Various Combinations



# 14. Mobile RFID

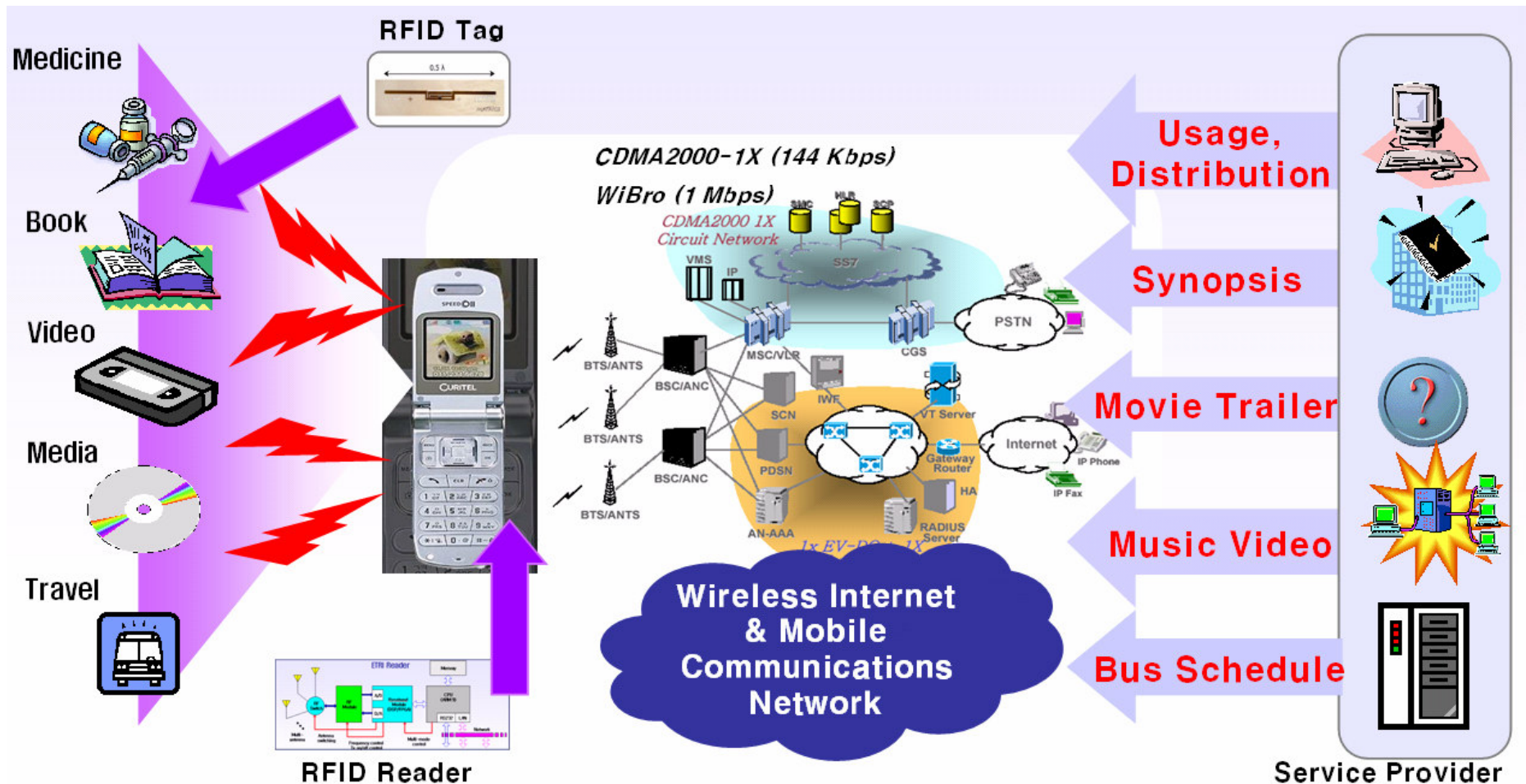
## ● Evolution of Mobile Phone





# 15. Mobile RFID Service

## ● Ex) Information Providing Services





# 16. Challenges

## **Challenges in International ICT Standardization for a Sound Ubiquitous Society**

**Target-oriented working structure**

**Service-driven vertical standardization mechanism**

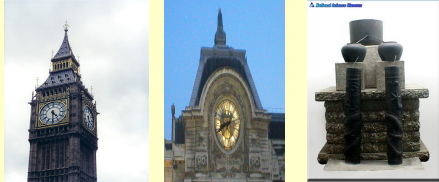








**Closer relationship with SDOs, forums and consortia in terms of work sharing and collaboration**

**Tighter internal cooperation with ITU-R and ITU-D**

# Appendix 1. Ubiquitous Things such as ...

**What is Ubiquitous?**

“From the scarcity of goods to the richness of goods”

	1 : N	1 : 1	N : 1
Watch			
Motor			
Light			

# Appendix 2. IT839 Strategy

**u-Korea  
for Ubiquitous Society**

## 8 New Services

WiBro  
(2.3GHz Portable Internet)  
DMB  
  
Home Network  
  
Telematics  
  
RFID-based Service  
  
W-CDMA  
  
Terrestrial DTV  
  
IP Telephony (VoIP)

## 3 Infrastructures

Broadband Convergence  
Network (BcN)  
  
U-Sensor Network  
(USN)  
  
IPv6

## 9 Growth Engines

NG Mobile Comm.  
  
Digital TV  
  
Home Network  
  
IT SoC  
  
NG PC  
  
Embedded SW  
  
Digital Contents  
& SW Solutions  
  
Telematics  
  
Intelligent Service Robot