

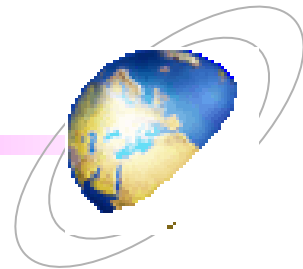
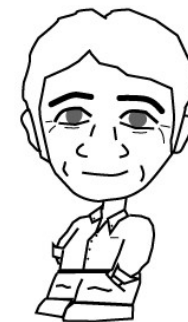
New Energy Vehicles and ICT

-An Entrance to the Future Smart Communication World-



ICT for Sustainable World Human Happiness

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The Fully Networked Car Geneva, 2-3 March 2011



The mobile phone expansion around 2005 could be expected in 1985 ?



Basic
Research

Applied
Research

New
Business



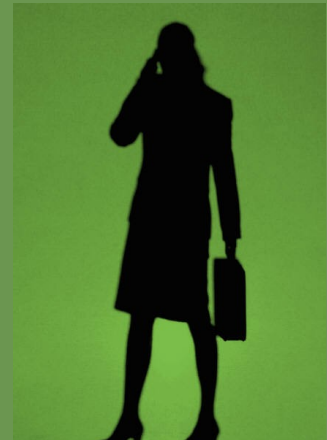
Mobile Phone
2005



Shoulder Phone
1985



Mobile Phone in Science
Fiction
~1965



Fully networked and semi-autonomous NEV business cannot be expected in 2011



Applied Research

New Business

Basic Research



Autonomous Driverless cars in Science Fiction
~1990



SIM-Drive
2010



...
2030



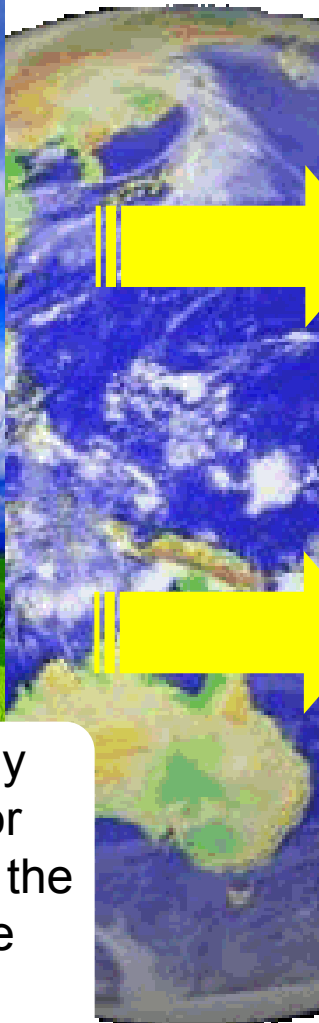
NEV: New Energy Vehicle such as EV, PHV with battery + motor or mobile electronics

World Human Happiness and ICT



Human happiness will be partially achieved by the Doko-demo-Door
“A Door that opens up to anywhere the user wishes.” Famous Japanese Doraemon tool.

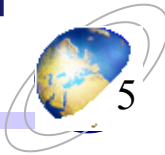
Doraemon is a cat-like robot from the future.



Virtual but Realistic Communications



Networked & semi-autonomous NEV
and Infrastructures



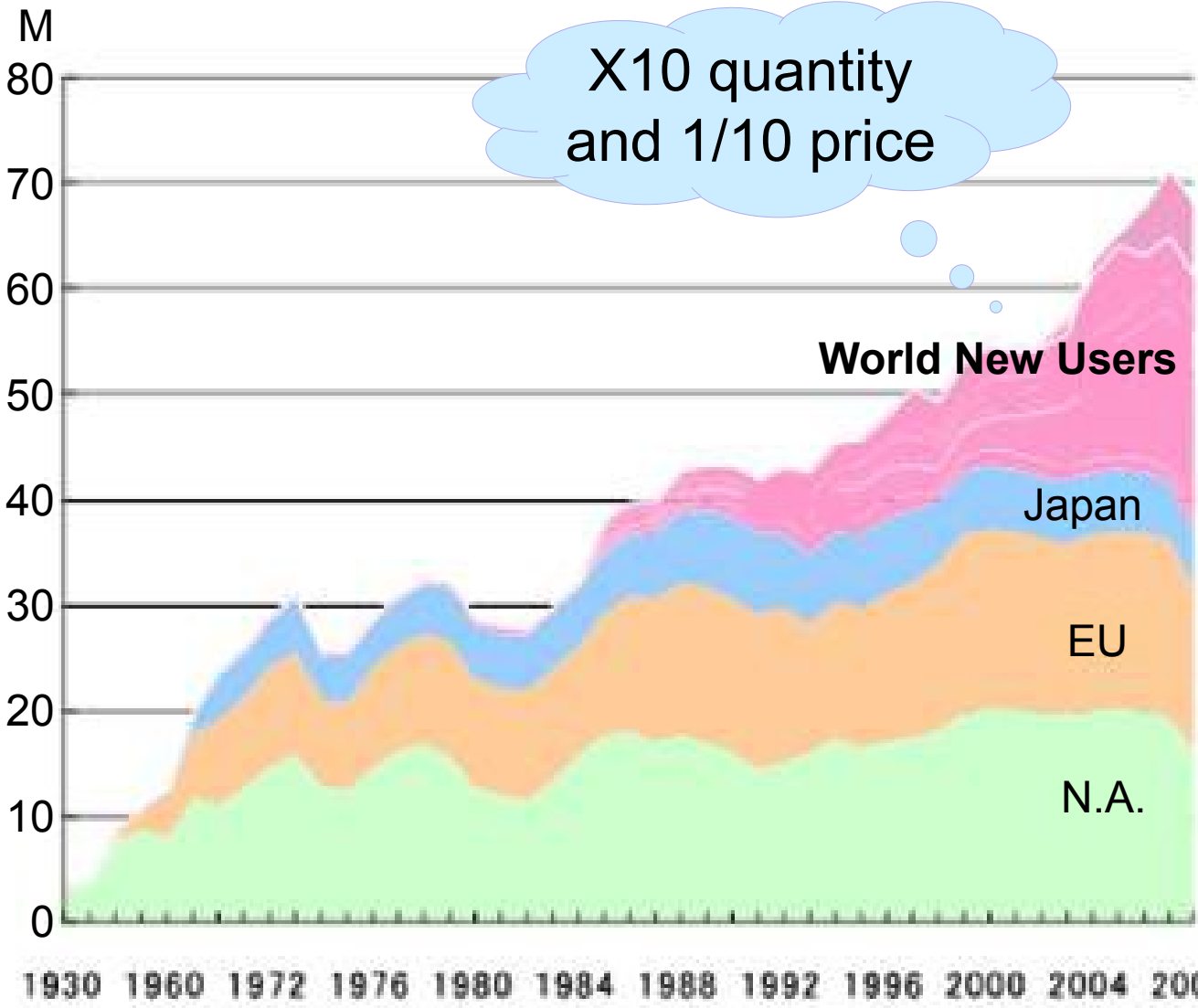
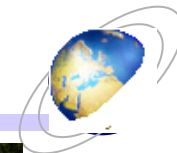
Business

- Settled ⇒ Re-shuffled
- Cost ⇒ GHG-Oriented
- Competitive ⇒ Interdependent
- Developed Country ⇒ World New Users
- Primitive Agriculture ⇒ Productive Primary Industry

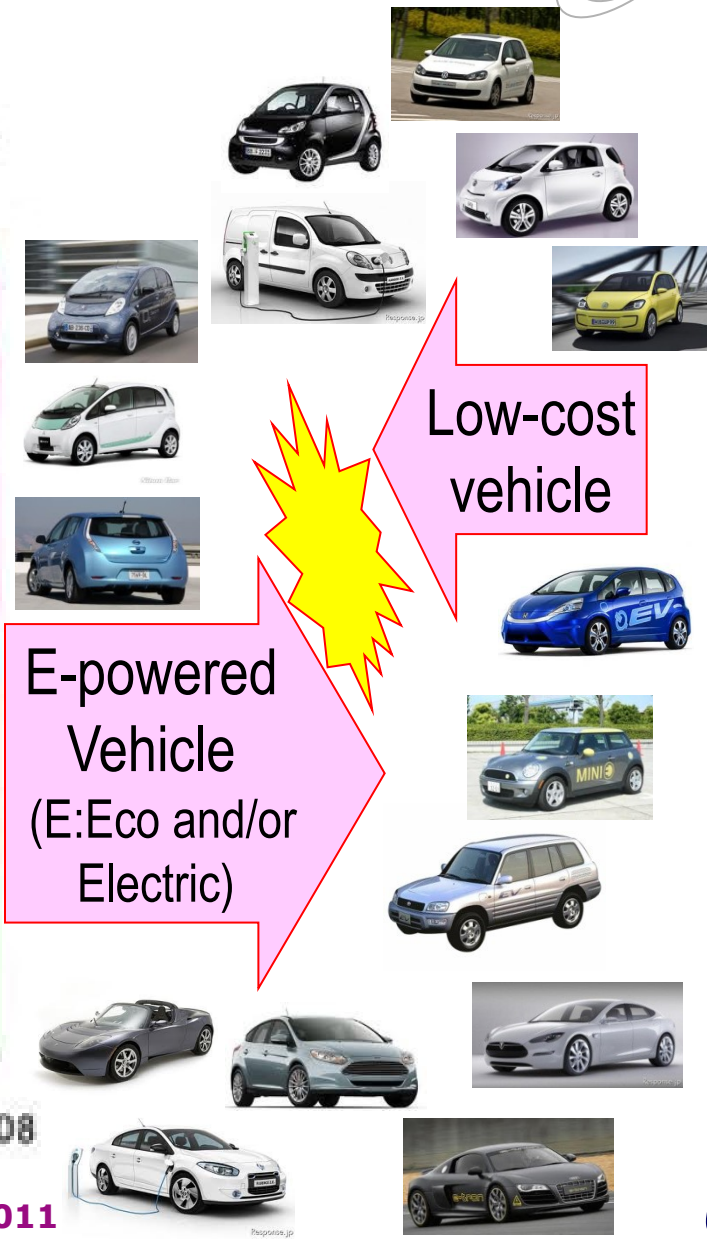
Standards

- Intra ⇒ Cross-Industry, Cooperation
- Technology ⇒ User-Oriented
- Global ⇒ Regional

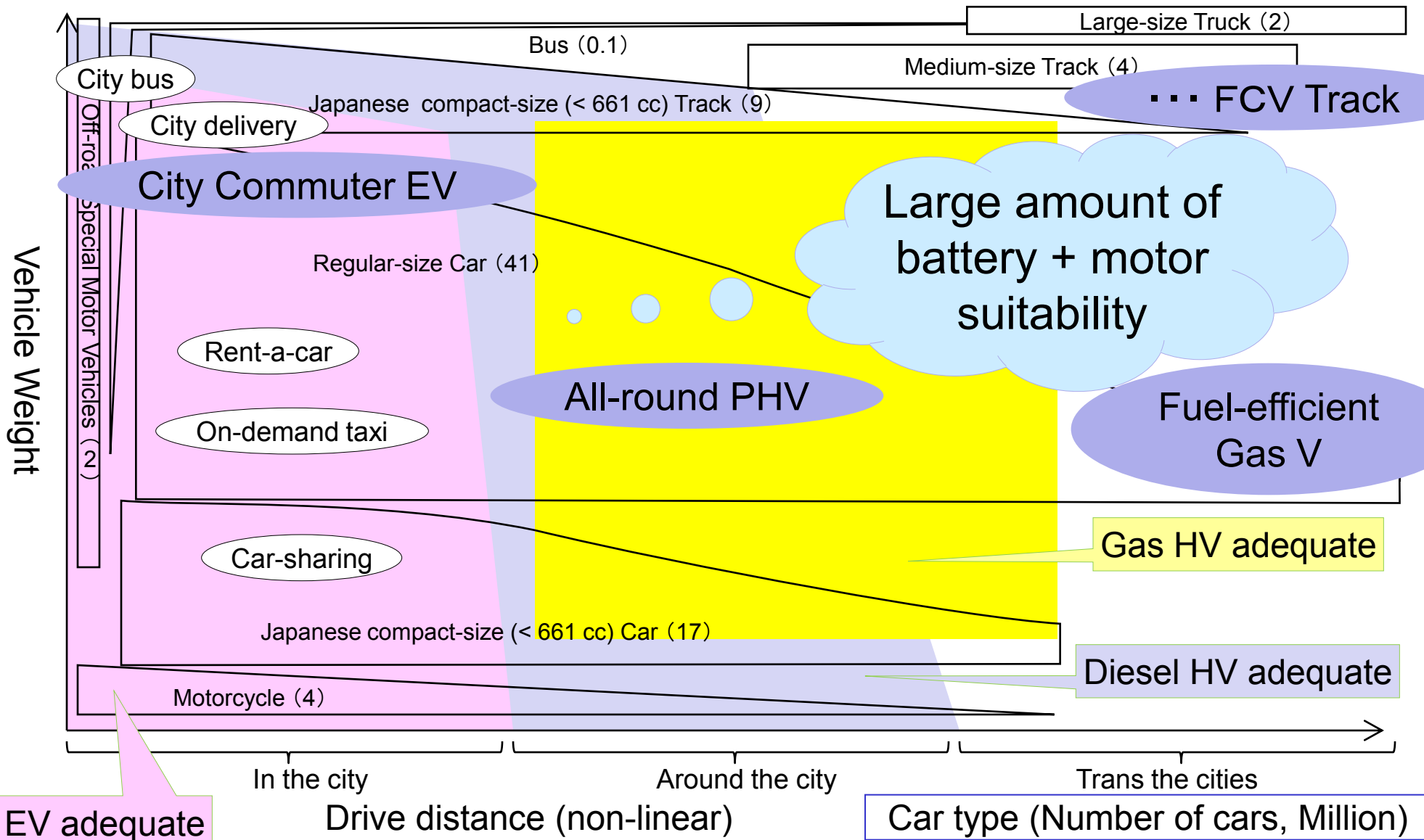
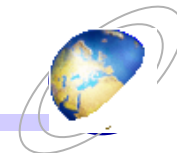
World New Users



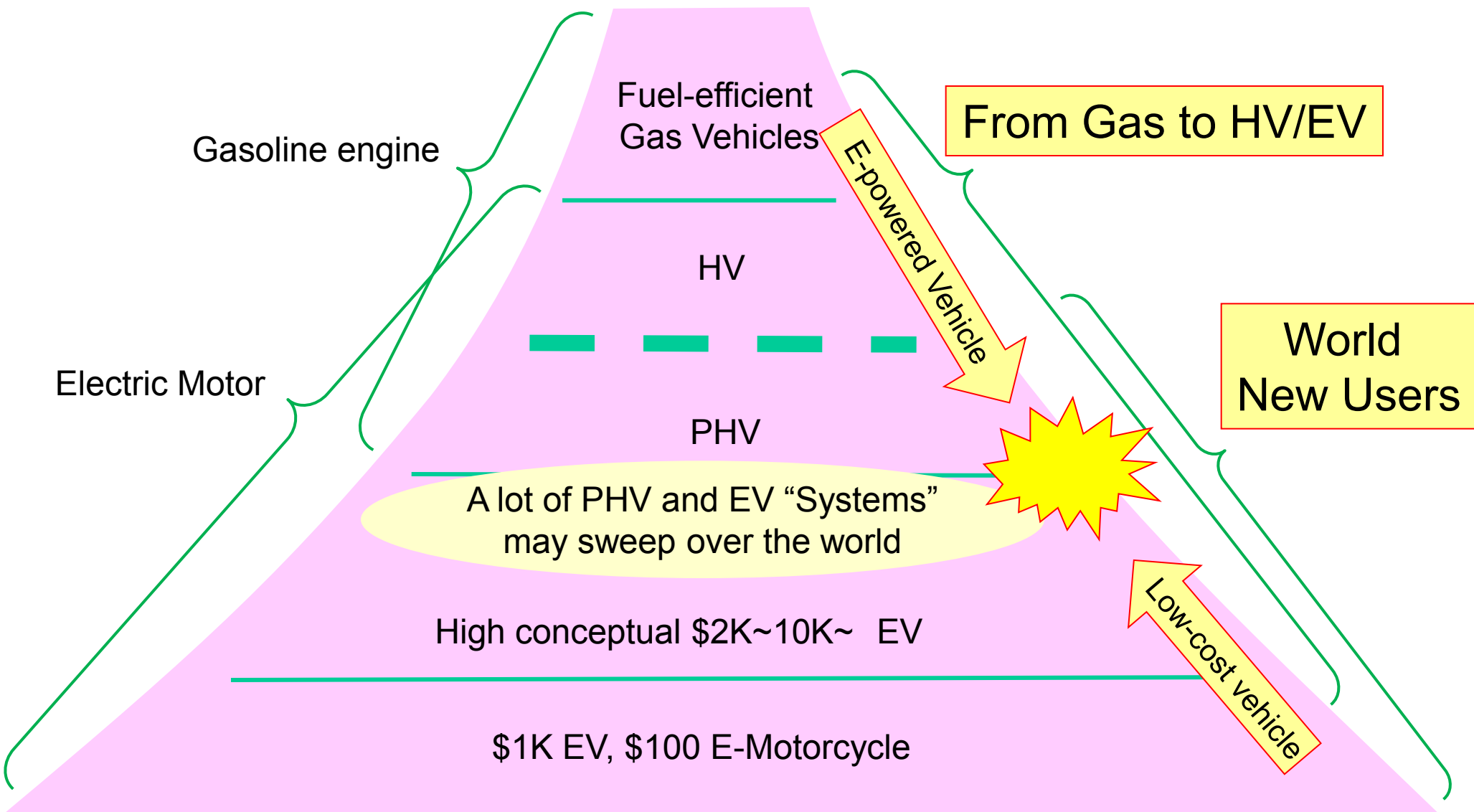
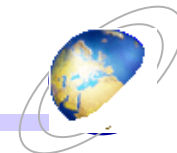
X10 quantity
and 1/10 price



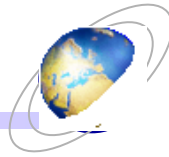
EV / HV suitability in Japan (Schematic Overview)



World NEV in 2020 (Mt. Fuji-shape assumption)



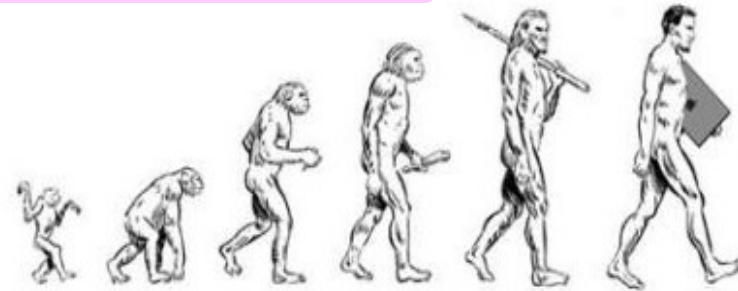
Prosperity of High-performance GV. How long? NEV exceed GV. When?



Prosperity of
High-performance GV & HV



Evolution of New Species



GV, HV

PHV, EV

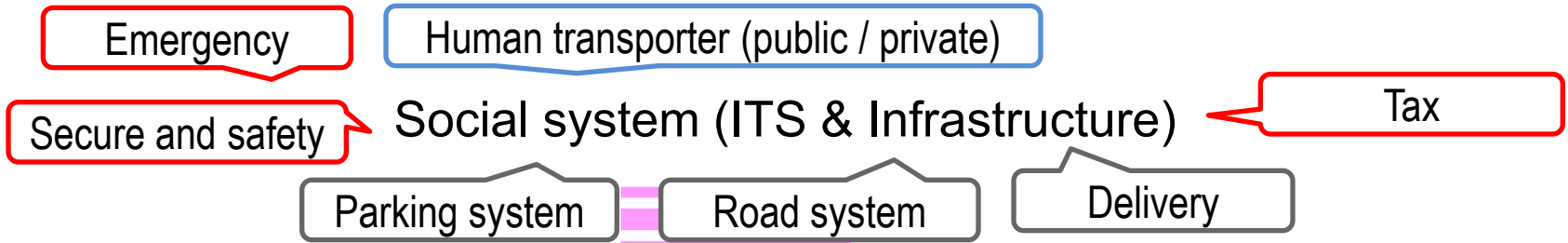
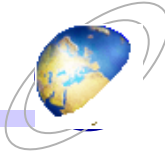
GV, HV

PHV, EV

EV (Mobile Electronics): Trigger of the huge shift in the industrial structure

Paradigm Shift: Camera ⇒ Digital, CRT ⇒ LCD, CD/MD ⇒ MP3 player,
Lamp ⇒ LED, Landline ⇒ Mobile-phone, Newspapers ⇒ Tablet PC...

New Species: NWed NEV and Pad Beyond the ITS



NEV must be networked!

NEV and Add-on-board Pad open up a different genre

Mobile battery of the smart / home grid

Mobile Electronics

Add-on-board Pad

Mobile private room, sickroom



NEV

Location-free Energy

Mobile robot

Mobile network hub

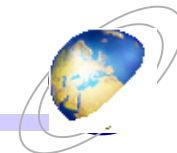
Mobile (security) sensor

Mobile consumer electronics

New Service Tool:

Tourism, City commuter, Medical and Information service, agriculture, etc.

From a view-point of our consumer family



NEV, “Mobile Electronics /Location-free Energy” and Add-on-board “Pad” become the most familiar key players in the Smart, Secure, and Sustainable world.

M2M, IoT, Ubiquitous, 感知中国...

Smart Grid

NWed Car(EV)

NWed Residence

NWed City/Community



NW Middleware

Cloud Computing, Cloud NWing

Next IP Non IP LTE & B3G

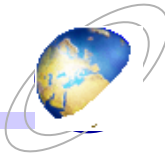
NWed Hospital

NWed ...Things

Future NW

ICT & Climate Change, ECO, LIFE

Cross-Industry Cooperation



Industries' cooperative services will meet with future world human happiness !

Power

Automobile

Consumer Electronics

Agriculture

M2M, IoT, Ubiquitous, 感知中国...

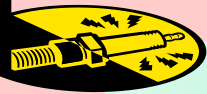
Smart Grid

NWed
Car(EV)

NWed
Residence

NWed City/Community

IGNITER



New Applications !



NW Middleware

Cloud Computing, Cloud NWing

NWed Hospital

NWed ...Things

Next IP

Non IP

LTE & B3G

Future NW

ICT & Climate Change,
ECO, LIFE

Information
Service ...

Medical

Insurance

Government



Networked Van as a tele-center,
e-education, e-health, etc.



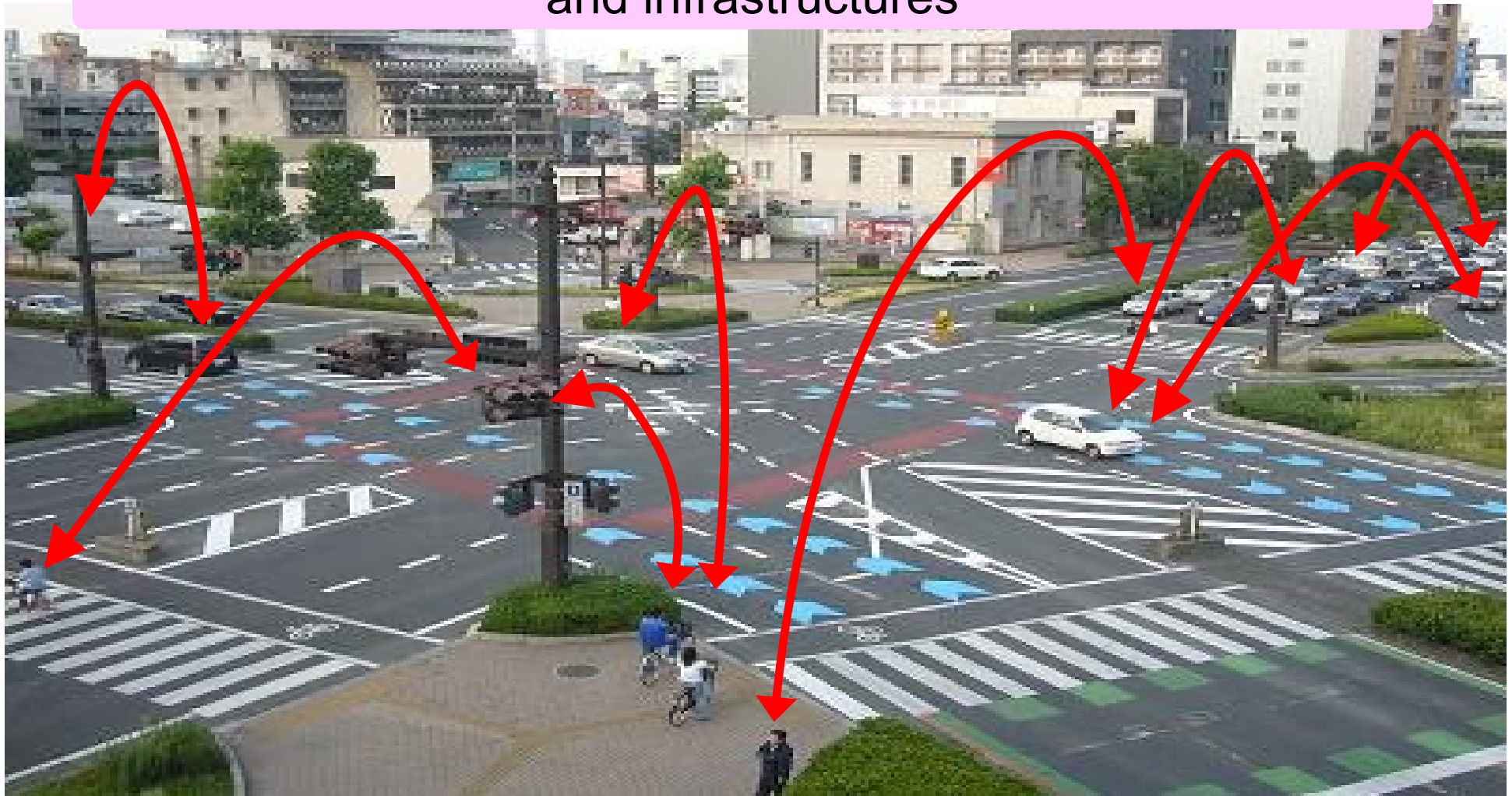
ICT application for e-fishery



Contact : otoiawase@ttc.or.jp
or yuji@ttc.or.jp

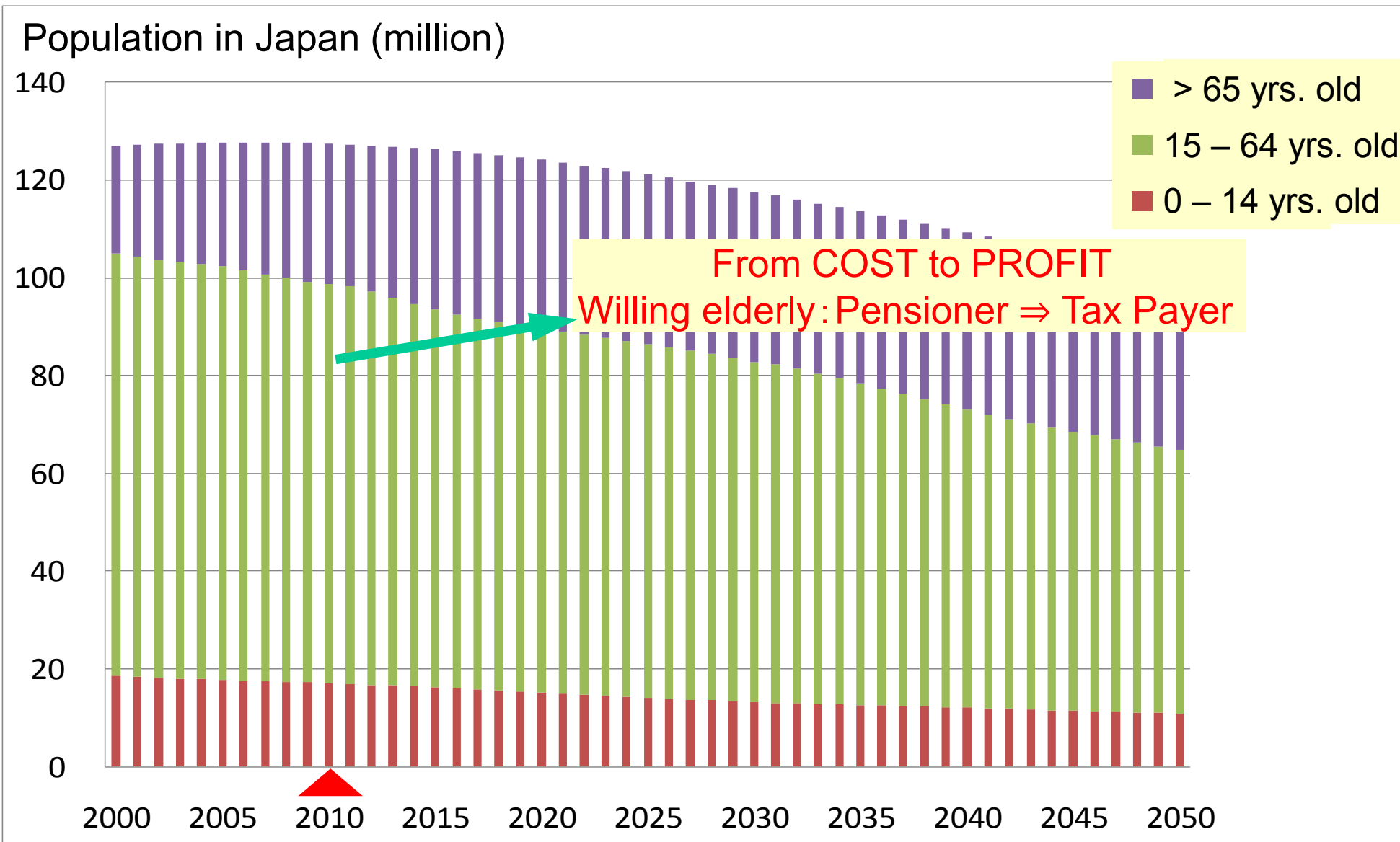
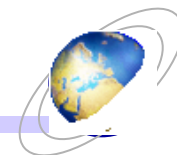


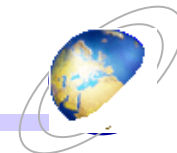
Cross communication among vehicles, pedestrians, bikes, and infrastructures



The Fully Networked Car Geneva, 2-3 March 2011

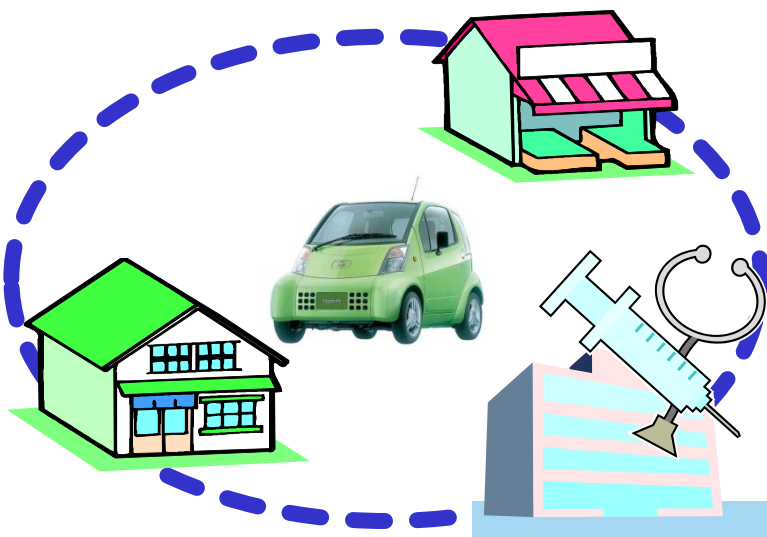
EV-ICT for aging society





ICT Managing Semi ~ Full Autonomous Driving EV System

- 100-year-old person can drive
- Semi-Full Autonomous drive depending on the drivers ability
- Speed and driving range is limited
- Full-autonomous drive around the medical center
- Two-seater, and on-board health care system
- Price: ~ \$5000 with rental battery



Local Gov.: Willing elderly can work

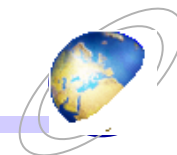
Car Co. : Prevent accident

ICT Co. : Fully networking for safety

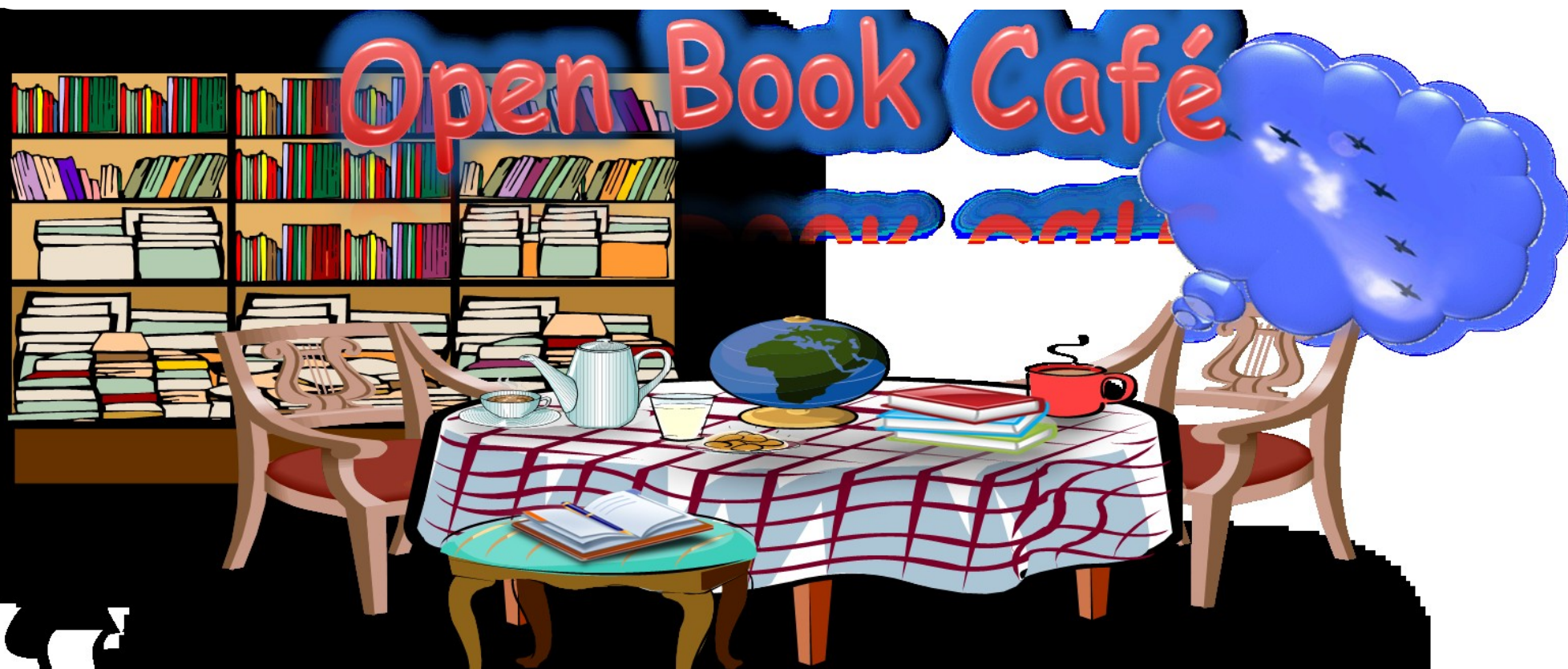
➔ User: All around the world

➔ Doko-demo-Door





AG as an “Open Book Café” is providing customers’ favorite books (information about the standardization, etc.) and a discussion table for the future cooperative innovation



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For World Human Happiness

Let's start

***Cross-Industry Communication for
Cooperative Innovation***



Thank you very much

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