Global Standardization for Green ITS and Sustainable Mobility

Expert Group Meeting on Harnessing Innovative Technologies to Advance Green Transformation for Sustainable Development in North and Central Asia
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KAIST
## ISO Strategy 2030

### Drivers of change

| Economy: trade and uncertainty |
| Technology: the impact of digital |
| Society: changing expectations and behaviour |
| Environment: the urgency for sustainability |

### ISO’s vision

Why we do what we do

Making lives **easier, safer and better**

### ISO’s mission

What we do and how we do it

Through our members and their stakeholders, we bring people together to agree on International Standards that respond to global challenges. ISO standards support global trade, drive inclusive and equitable economic growth, advance innovation and promote health and safety to achieve a sustainable future.

### Goals

What we need to achieve to realize our mission and vision

- ISO standards used everywhere
- Meeting global needs
- All voices heard

### Priorities

Where we need to focus our resources to achieve our goals

- Demonstrate the benefits of standards
- Deliver ISO standards when the market needs them
- Strengthen ISO members through capacity building
- Innovate to meet users’ needs
- Capture future opportunities for international standardization
- Advance inclusivity and diversity in the ISO system

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**Source:** ISO Strategy 2030, ISO
Questions in Mobility

Is our transportation good enough for sustainable society?

- Safe?
- Mobility Accessible and/or Affordable?
- Efficient and/or Effective? (time & cost)
- Sustainable? (Environmental friendly)
Global Challenges in Mobility Future

Smart City in Korea
- ISO/TC204 (ITS) & ISO/TC268 (Smart City)

City as a sustainable platform to enhance civic happiness and provide creative opportunities

Source: Smart City MP, KAIST

1. Mobility
2. Healthcare
3. Education
4. Energy and Environment
5. Governance
6. Culture and Shopping
7. Jobs
ISO London Declaration for Climate Changes

The London Declaration
https://www.iso.org/ClimateAction/LondonDeclaration.html

ISO will:

Foster the active consideration of climate science and associated transitions in the development of all new and revised International Standards and publications

Facilitate the involvement of civil society and those most vulnerable to climate change in the development of International Standards and publications
Digitalization & Electrification

- **Green ITS and Sustainable Mobility**
Digitalization & Electrification

- Connected & Automated Driving Systems (CADS)
  - Passenger Car: High Speed & Designated Motorways
    - Level 3 being in the Market around mid-2020 by OEM
  - Public & Shared: Low Speed & Urban Mobility
    - Level 4 (Driverless) being in the Market in 2020 by SME
    - Urban Connected Automated Shuttle System (UCASS) in Sejong City
      - "LIMO" Shuttle by KOTI + Ohmio + Lotte from 2019

- Digitalization & Electrification
Digitalization & Electrification

- Green ITS and Sustainable Mobility Services

Carbon-free City

Digital Infrastructure (V2X)

Human-centered Spaces

Electric & Automated Vehicles

Source: The Korea Transport Institute (KOTI, 2016)
Global Standardization for Green ITS

“Green ITS Services” based on Digitalization & Electrification
- ISO 20529-1 & ISO 20529-2 : ISO/TC204
- ISO 18561-1 & ISO 18561-2 : ISO/TC204

- Clean energy
- Enhanced integration
- Partnership between public and private
- Mobile payment & reservation

Eco-driving
Eco-traffic management
Eco-mobility service

Eco-information & guidance
Eco-demand & access management
Eco-freight & logistics
Global Standardization for Green ITS

The need to switch to future mobility

In Smartcity

Decarbonization & Energy distribution

Eco-driving

Time
Cost

Energy optimization

Login
Means settings

Efficient route search
Discount on energy bills
Energy allocation
Global Standardization for Green ITS

☞ Nomadic & Mobile Devices for Green ITS in Global Society

➢ Providing safety guidance on roadsides with all moving subjects including vulnerable road users (VRU) on nomadic & mobile devices
  ☞ To save the peoples on roadside through nomadic & mobile devices

➢ Promoting eco and/or green mobility services on nomadic & mobile devices, for both city operators and peoples living in the city for managing carbon-free and energy related mobility
  ☞ To save the planet in global warming through nomadic & mobile devices

☞ Future Domains of International Standardization as a New Technical Committee
Thank you very much!

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