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Sustainable Transport Solutions

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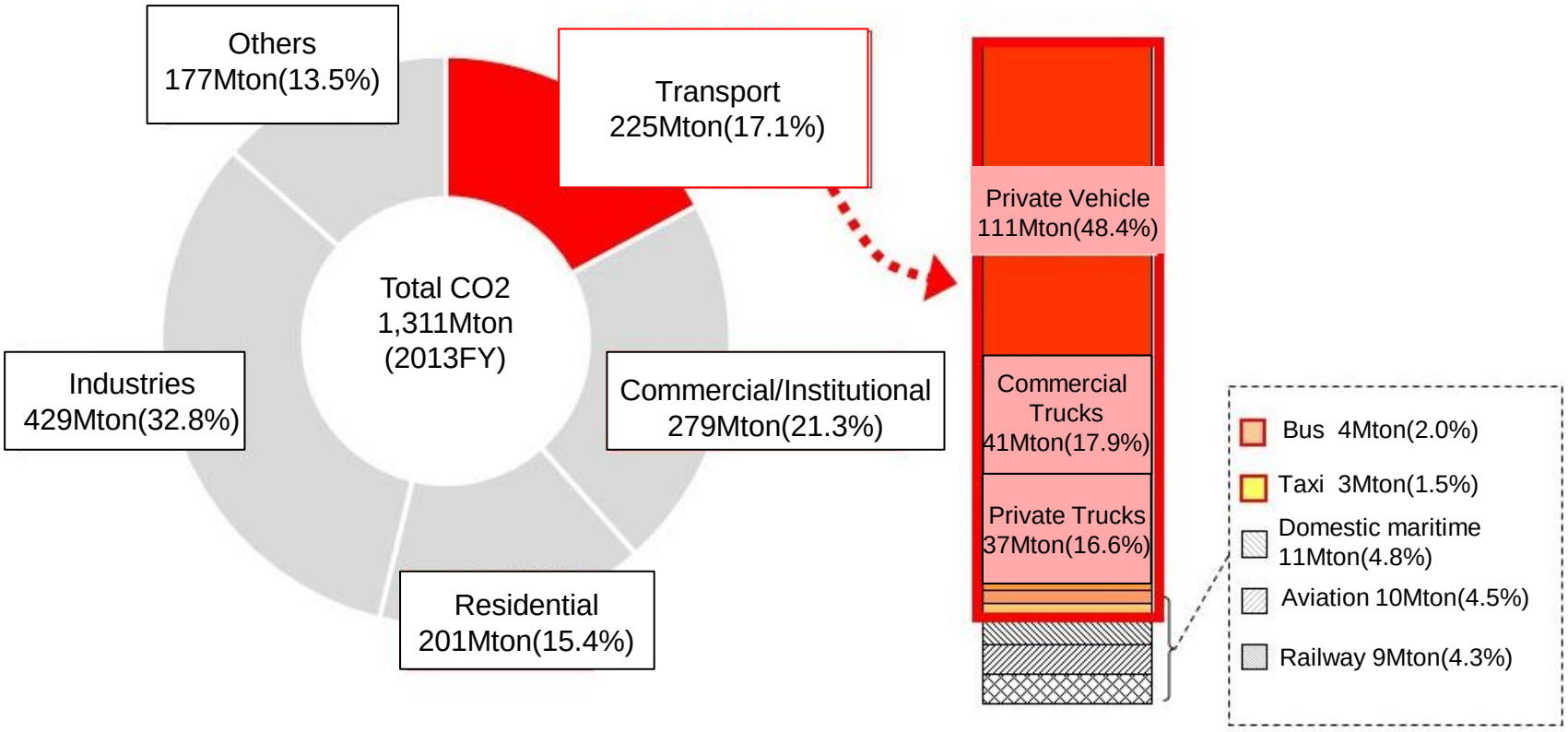
Outline

- **Introduction**
- **Sustainable Transport**
- **Technology Trends**
- **Focusing measurements to the specific issues**
- **As Concluding Remarks**

Introduction : Universal Concerns

Impact on Environment from Transport Sector

CO_2 : Automotive covers 86.4% in Transport sector
14.8% in entire sectors

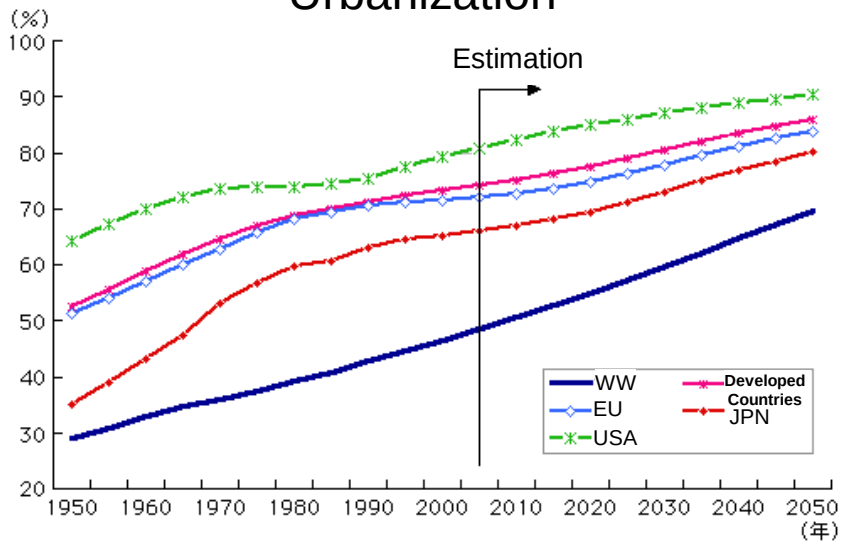


Created by editing the “Co2 emission at transport sector” (Ministry of Land, Infrastructure, Transport and Tourism) (www.mlit.go.jp/sogoseisaku/environment/sosei_environment_tk_000007.html)

Introduction : Universal Concerns

The other two trends

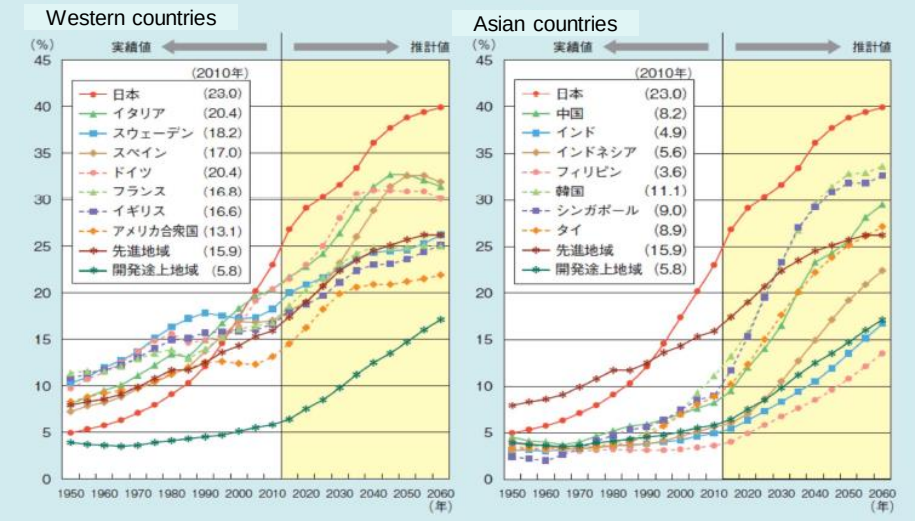
Urbanization



Huge traffic congestion at emerging economies

Created by editing the economist eyes on "Urbanization stimulates economics "(Mizuho Research Institute home page)(http://www.mizuho-ri.co.jp/publication/opinion/eyes/20100803.html)

Aging Society



Few appropriate mobility to the aged

Creating by editing the figures on "Fig 5 Trends on aging society" (Ministry of Health, Labour and Welfare home page) (http://www.mhlw.go.jp/file/05-Shingikai-10901000-Kenkoukyoku-Soumuka/0000083878.pdf)

Sustainable Transport

Universal Concerns

- **Environment conscious**
- **Urbanization /Traffic Congestion**
- **Aging Society**

What should be realized

Fundamental desire for mobility

Mobility for people

- *Anyone*
- *Anywhere*
- *Comfortable*

(w/ little anxiety of health)

Mobility for goods

- *Anything*
- *Anywhere*
- *Convenient*

(w/ little environ. impact)

Solutions & services

Five viewpoints to be considered

Traffic flow

・Flow control（Inter-/Inner-city）

Mobility Modality

・Efficiency among modality

Environment

・Electrified/electric vehicles

Energy

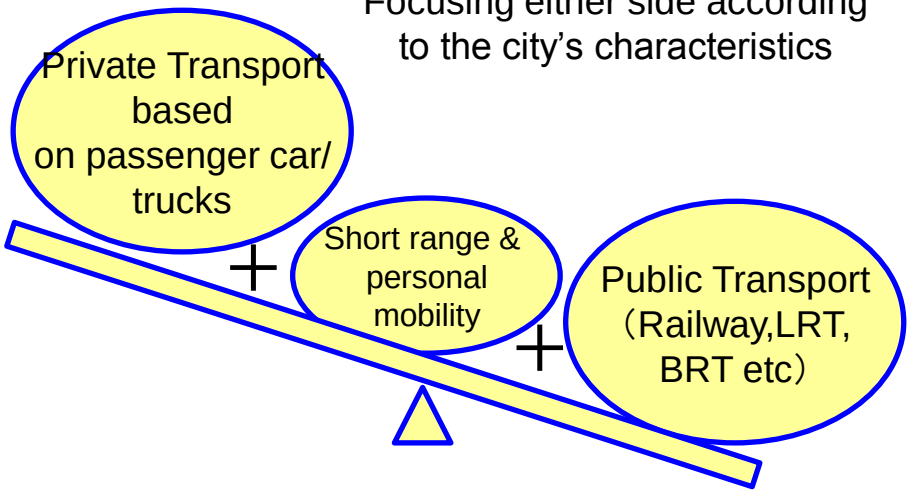
・ EMS with collaboration with vehicles

Health care

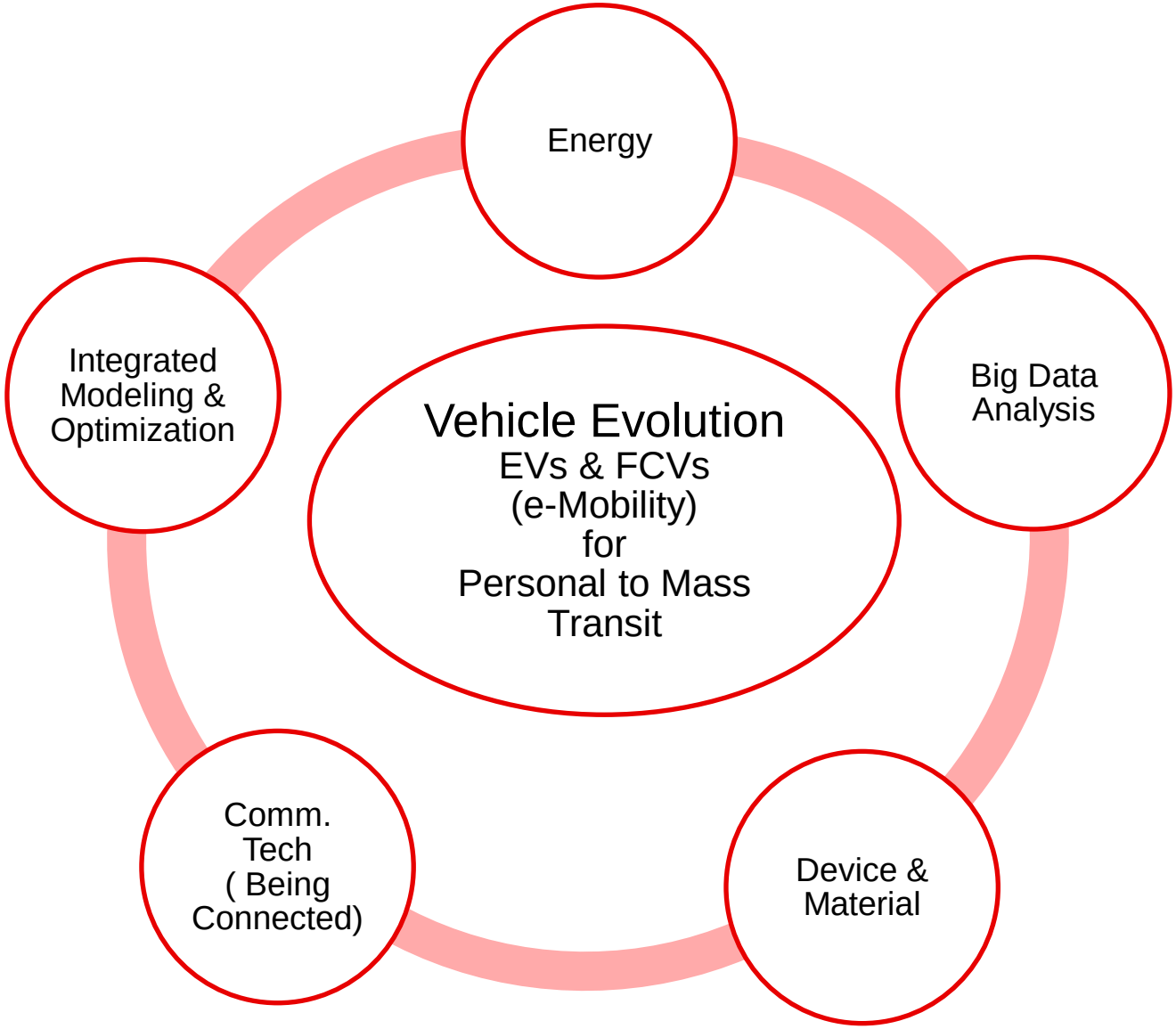
・Health monitoring during movements

+

Focusing either side according to the city's characteristics



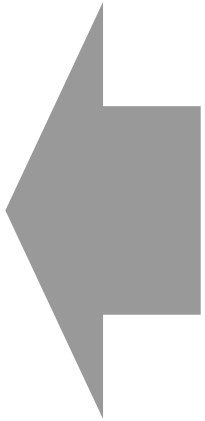
Technology Trends



Focusing measurements to the specific issues

Specific issues
(Universal concerns)

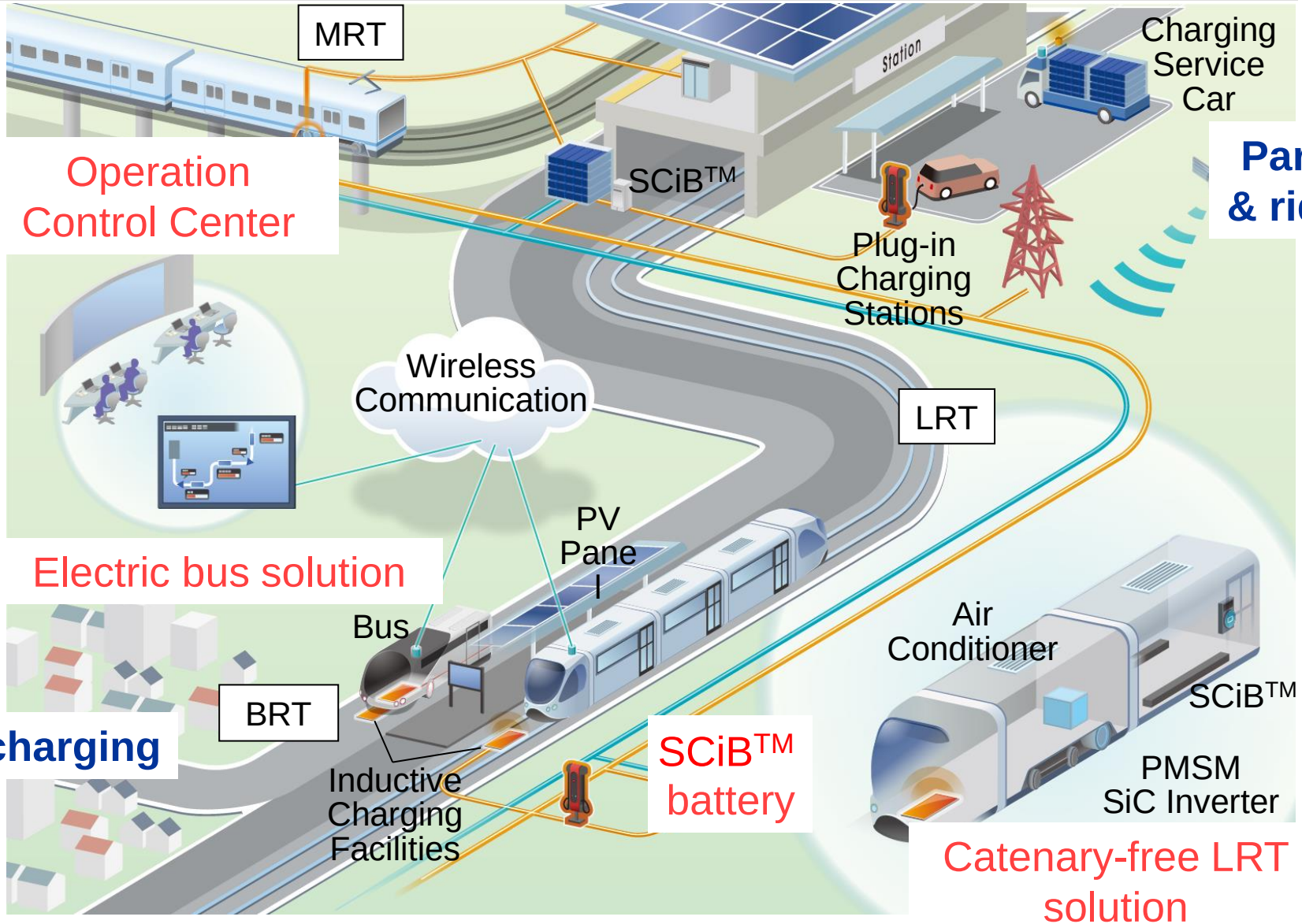
- **Reduce CO2 emission**
  (Environment conscious)
- **Reduce traffic congestion**
  (Urbanization)
- **Secure transport modes for all ages**
  (Aging Society)



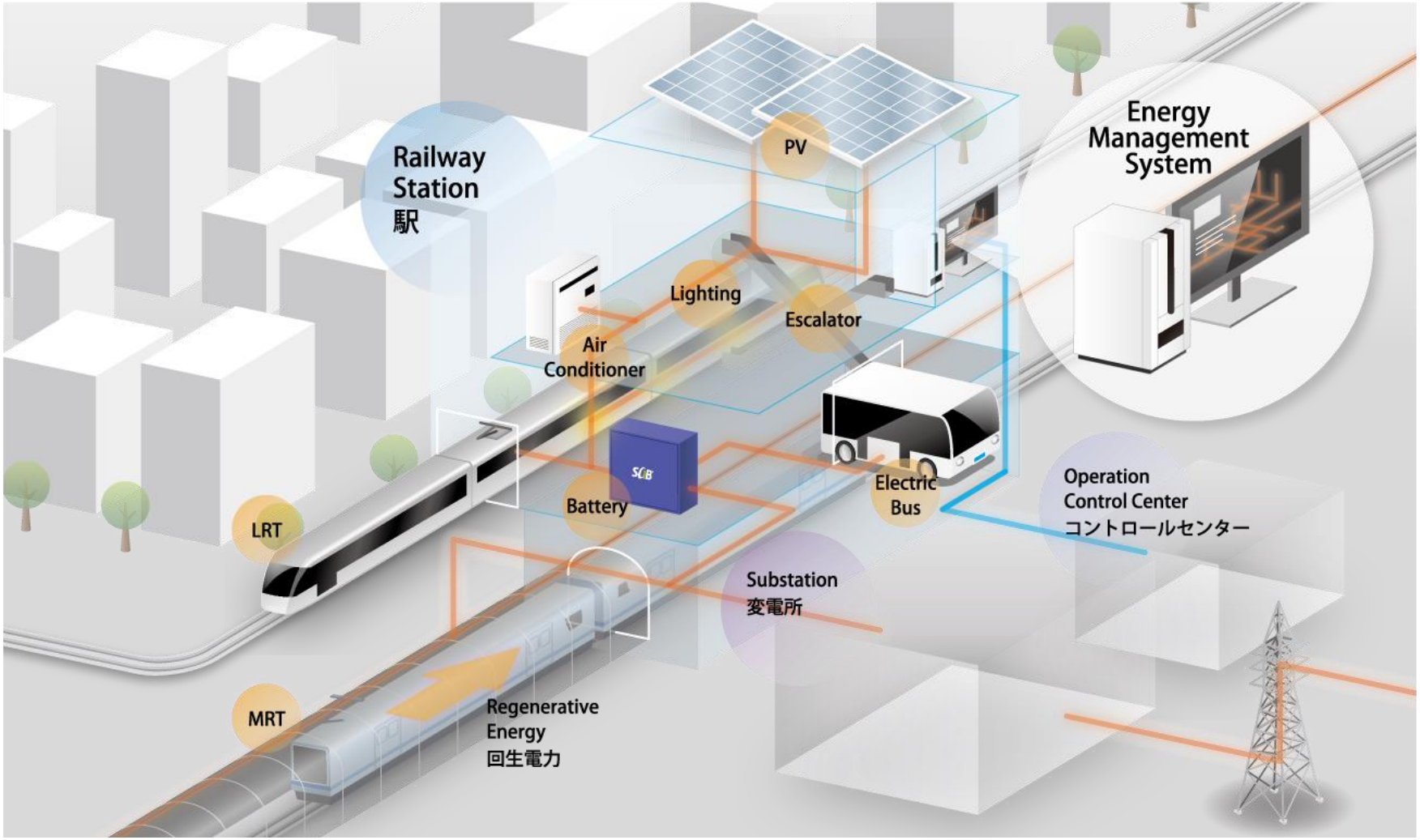
Focusing measurements

- **Shift to public transports**
- **Shift to electrified vehicles**
  - Energy management
- **Visualize & control traffic flow with asset light approach**

Shift to public transports

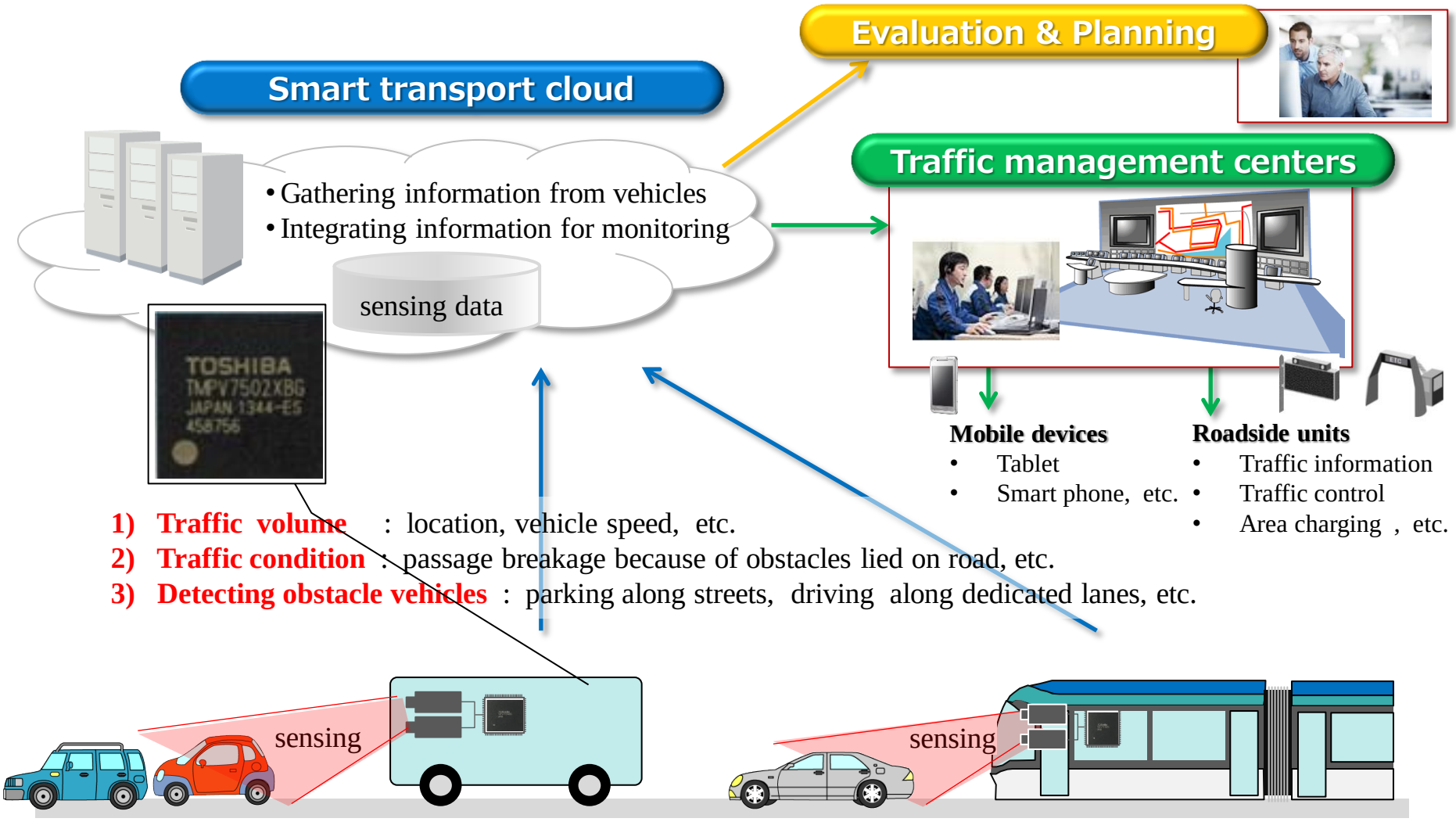


Transport related energy management



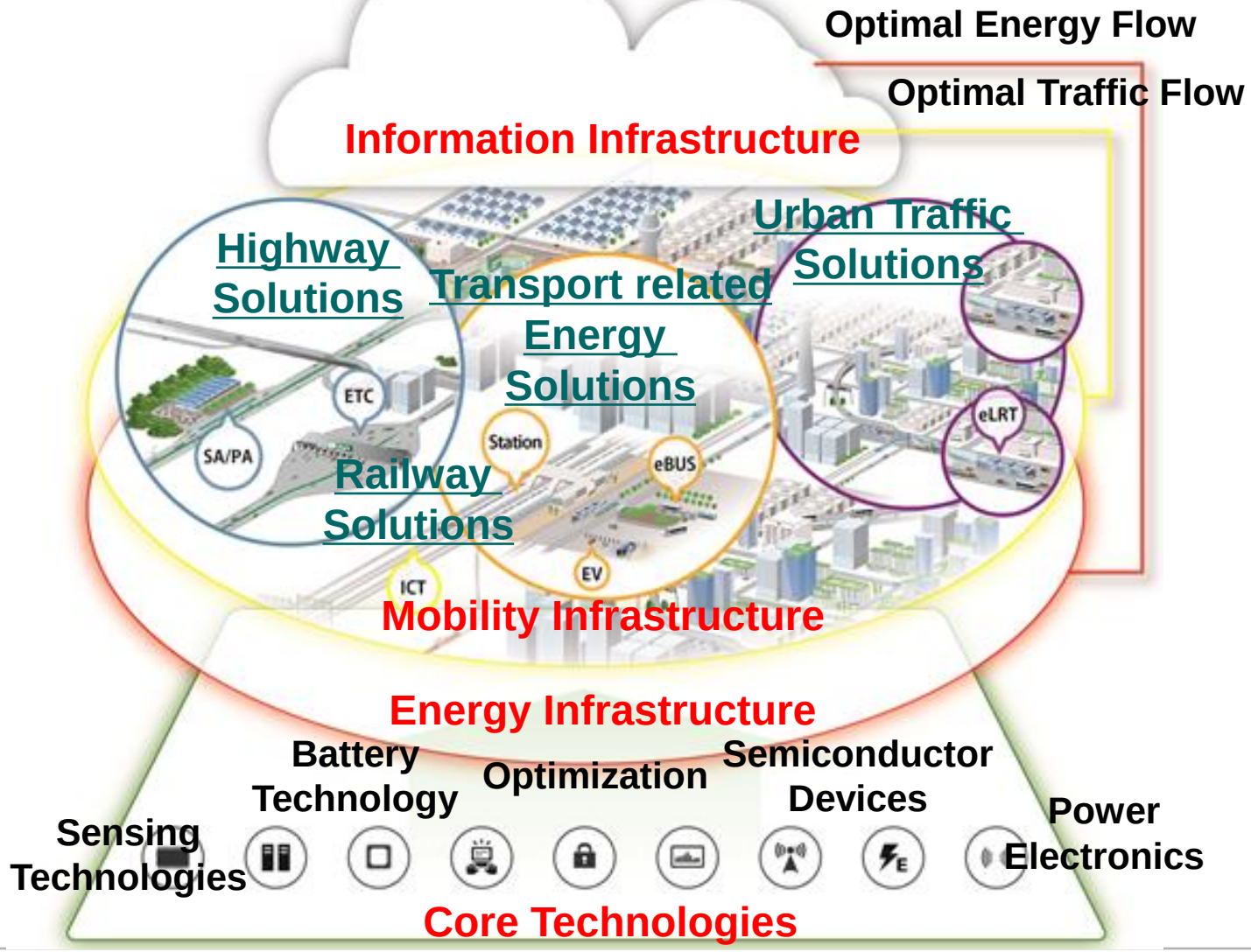
Visualize & control traffic flow with asset light approach

Concept of Smart Transport Cloud



As Concluding Remarks
Vision : Integrated Transport Solutions

Enabling Efficient, Optimal Traffic and Energy Flow

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