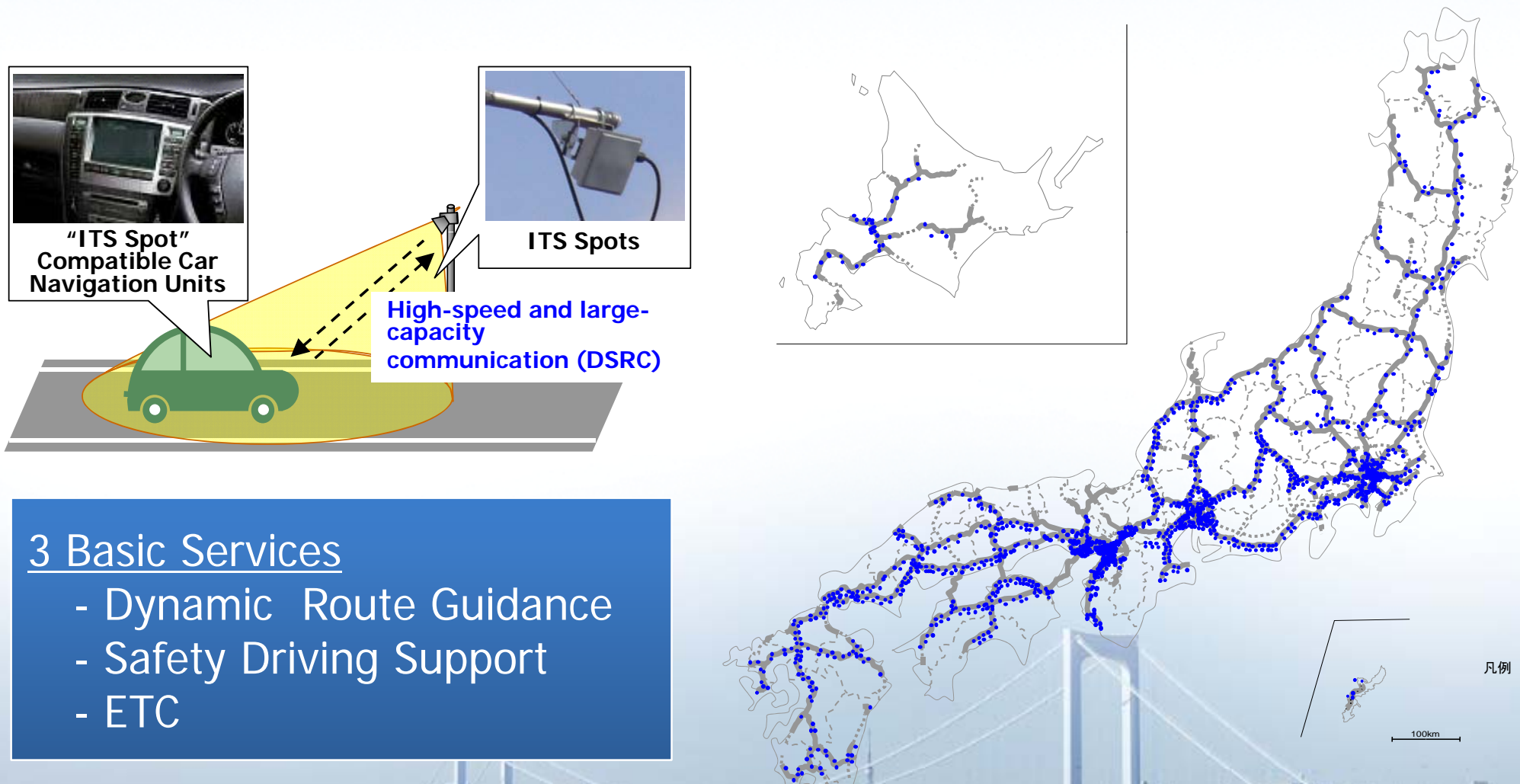


Deployment of 'ITS Spots'

- Car navigation systems for ITS Spots released in 2009.
- 1,600 ITS Spots installed mainly on expressways.



3 Basic Services

- Dynamic Route Guidance
- Safety Driving Support
- ETC

Car Navigation Systems and OBU for 'ITS Spots'

- 16 automobile manufactures, navigation systems and OBU manufactures for ITS Spot.
- 10M OBU units to be sold over 5 years.

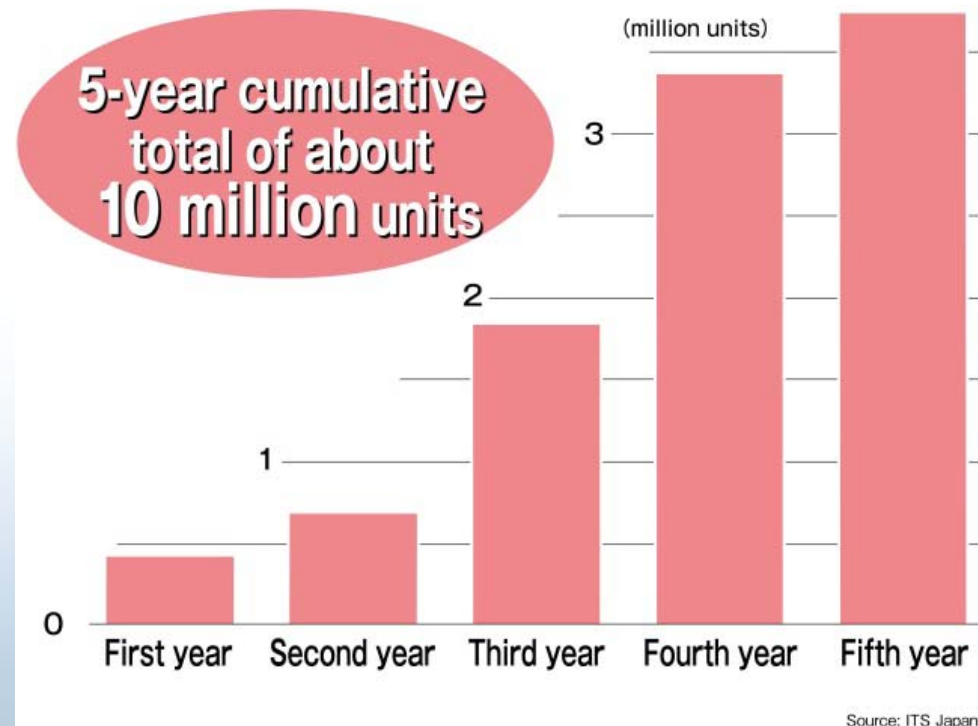
Automobile manufacturers



Manufacturers of navigation systems and on-board units

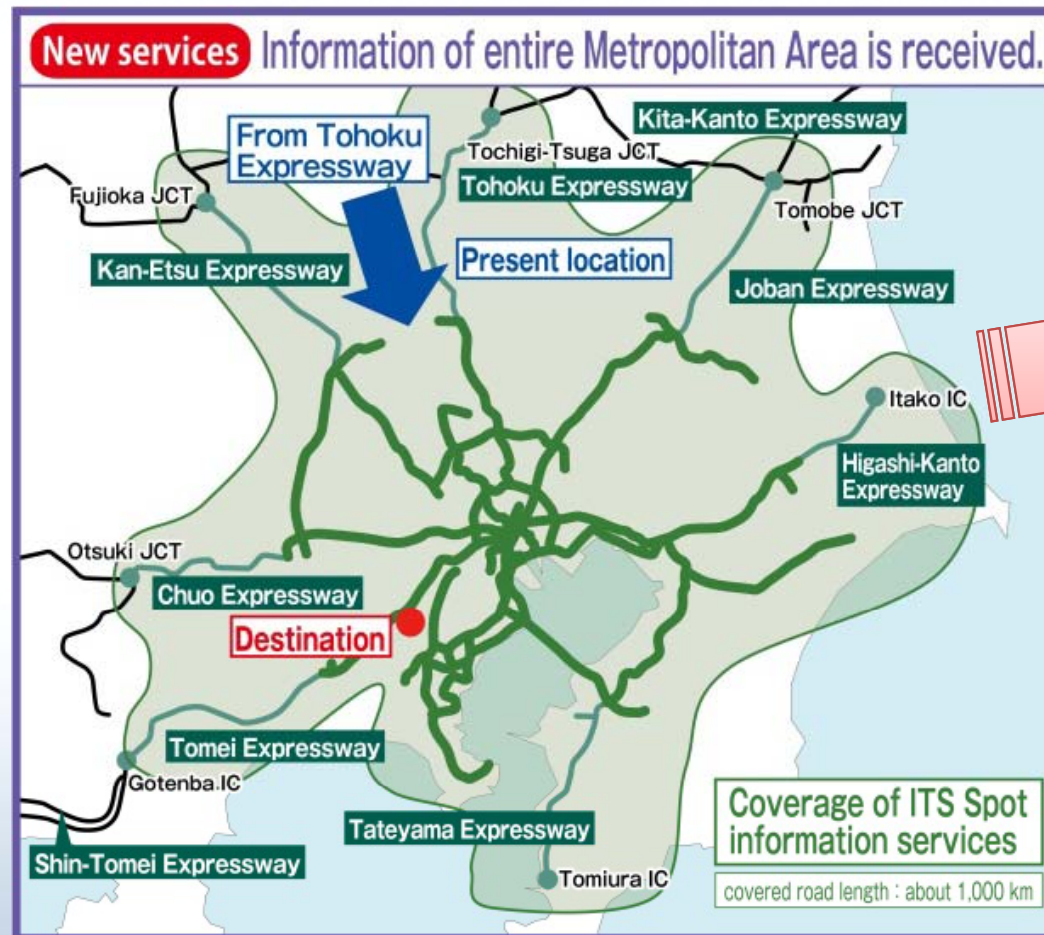


Projected number of ITS Spot-compatible navigation systems



Service1 : Dynamic Route Guidance

- In the case of travel between metropolitan areas, wide-area information as well as metropolitan area information can be received from ITS Spot.



Travel time data for all road segments in the metropolitan area are received from ITS Spot.



The car navigation system smartly selects an optimum route.



The whole road network can be used effectively.

Service2 : Safety Driving Support

- 'ITS Spots' supports safe driving.

Obstructions Warning



(Displayed about 1 kilometer before the obstruction.)

Congestion Warning (Invisible beyond a curve etc. at an accident hot spot)



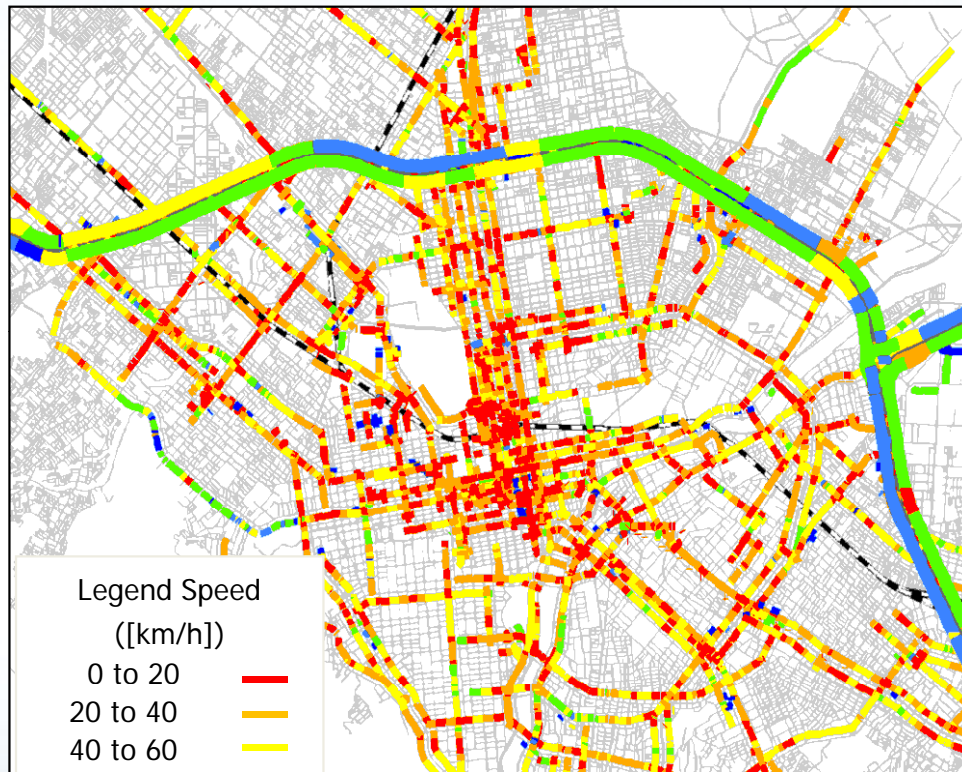
Images inform drivers of snow, fog, and other weather conditions, and of congestion inside tunnels.



Utilizing probe data

- Probe information used for efficient and advanced road management.

Probe information in Sapporo



Legend Speed
([km/h])

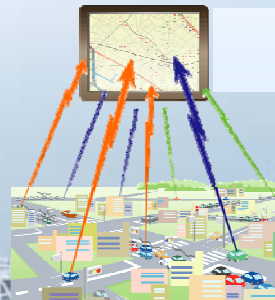
- 0 to 20
- 20 to 40
- 40 to 60
- 60 to 80
- 80 to 100
- 100 or more

Legend (Others)

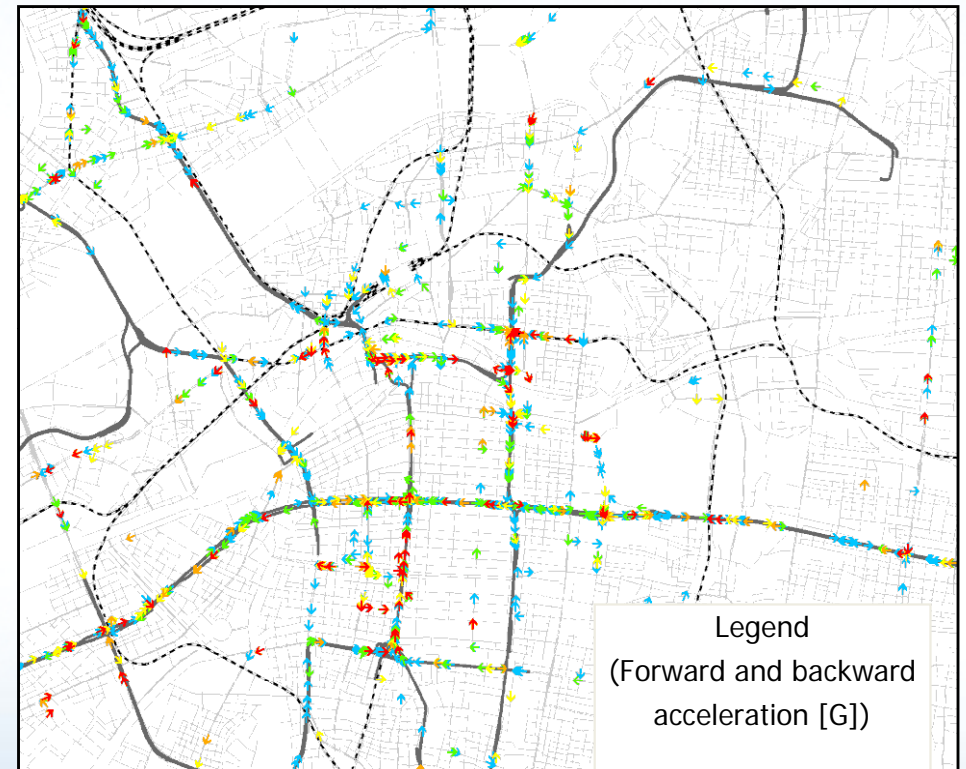
- Expressway
- Ordinary roads
- Railway (JR)

Gathering of travel speed data (average 12 hours/day) in Central Sapporo (Sep - Nov 2011 (3 months))

*The bold line is the speed of expressway.



Probe information in Central Osaka



Legend
(Forward and backward acceleration [G])

- 0.25 to -0.30
- 0.30 to -0.35
- 0.35 to -0.40
- 0.40 to -0.45
- 0.45 to -0.50

Legend (Others)

- Expressway
- Ordinary roads
- Railway(JR)

Gathering historical behavior data (forward and backward) acceleration Jun - Nov 2011 (6 months) in Central Osaka.

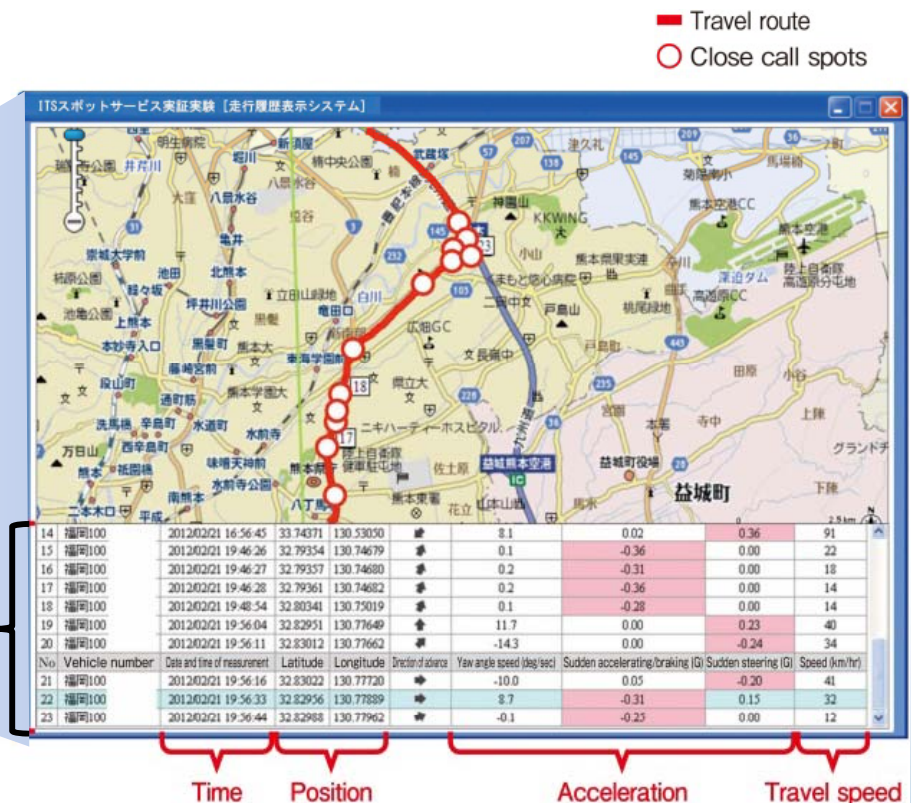
Distribution Support Services

- Probe data of each logistic vehicle is collected at ITS Spots free of communications charges, and provided to the logistic center real-time.
- Physical distributors use the probe data for controlling vehicular operation and cargo delivery.

Travel route, position and close call spots for each individual vehicle are grasped.



List of close call spots



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The Study Group of Consumer Electronics Logistics
(Organizer : MITSUI-SOKO-LOGISTICS Co., Ltd.)

Cashless Transactions

- Demonstration using test vehicles were implemented at the Tsukuba-kenkyugakuen branch of McDonald's on Mar. 5 through 16, 2012.



Orders are registered by car navigation system.

Receiving merchandise

Messages on the screen of car navigation systems are actually displayed in Japanese.



Cashless payment using credit cards