Be the Right ONE

The advanced route guidance system

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NEXT mobility electronics business dept.
Connected group

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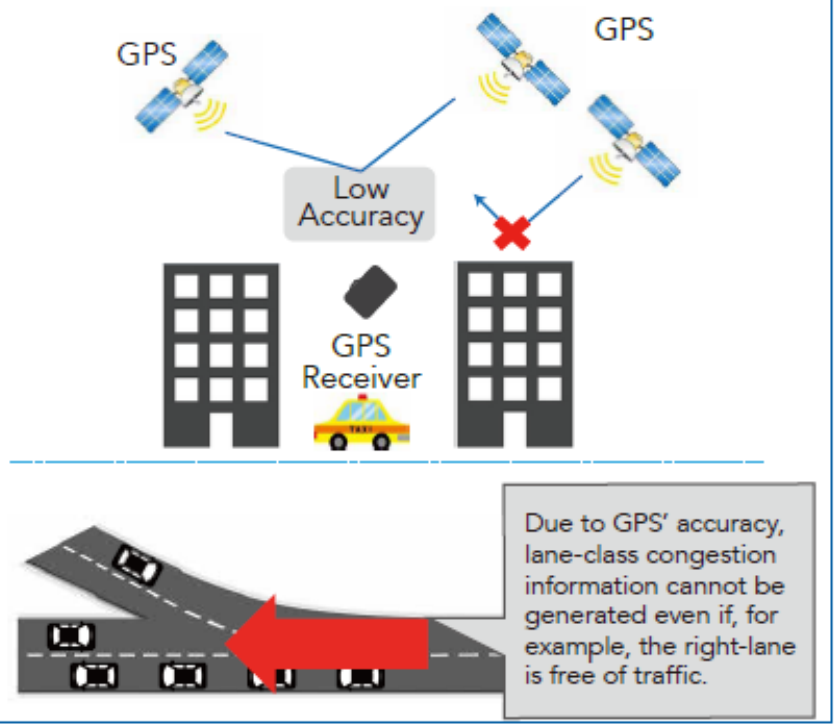
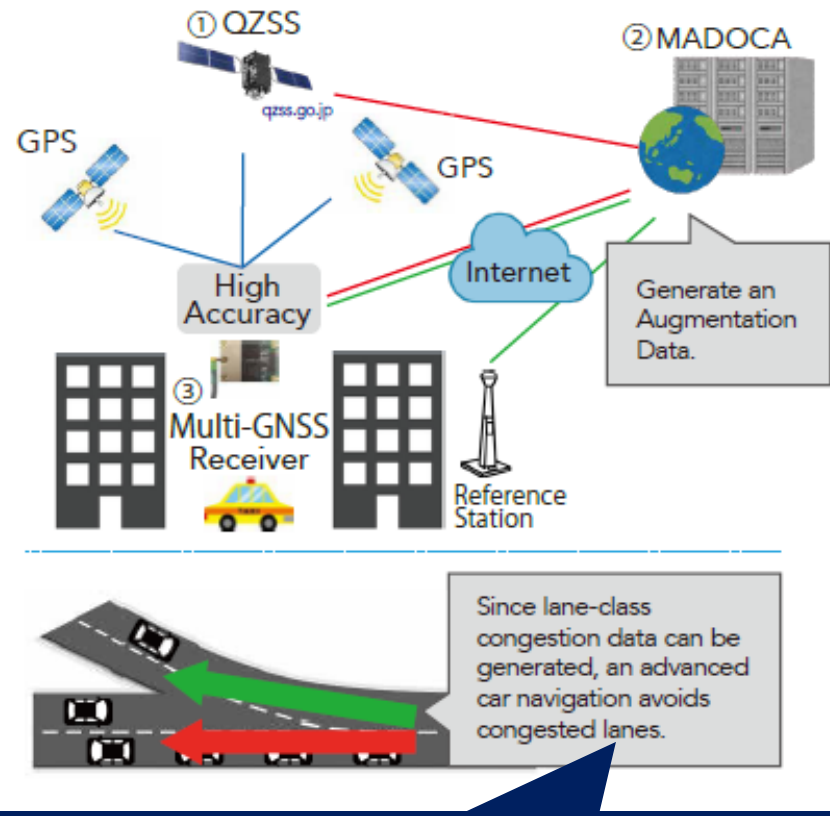
Project Outline -System

Lane-class congestion data cannot be generated due to low accuracy (5 to 10m) of position data by utilizing only GPS.

Conventional System



The Advanced Route Guidance System

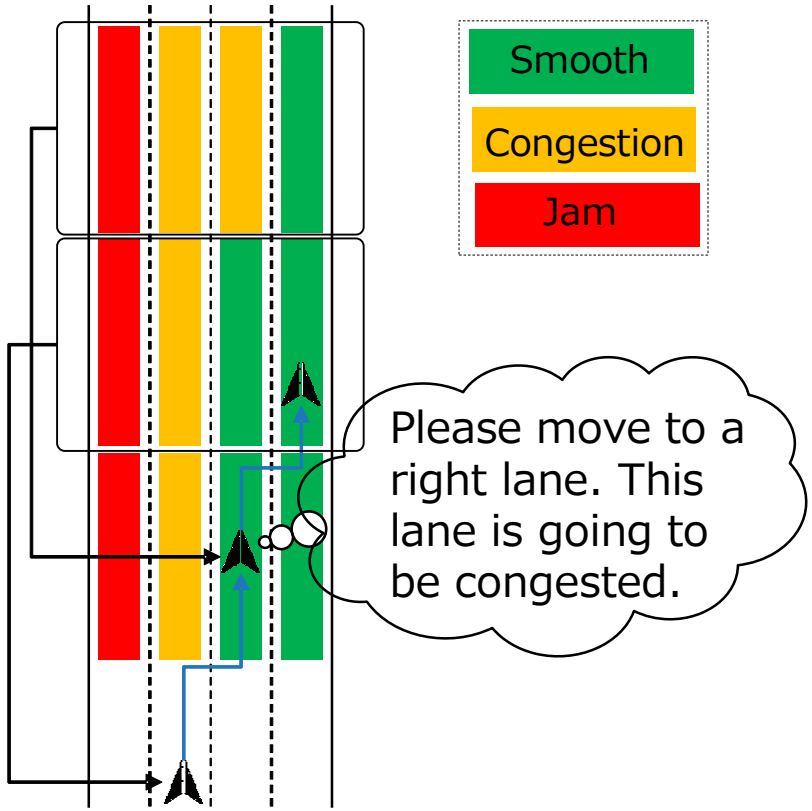


Lane-class congestion data can be generated by utilizing QZSS, MADOCA and Multi-GNSS Receiver

Project Outline –Navigation Image

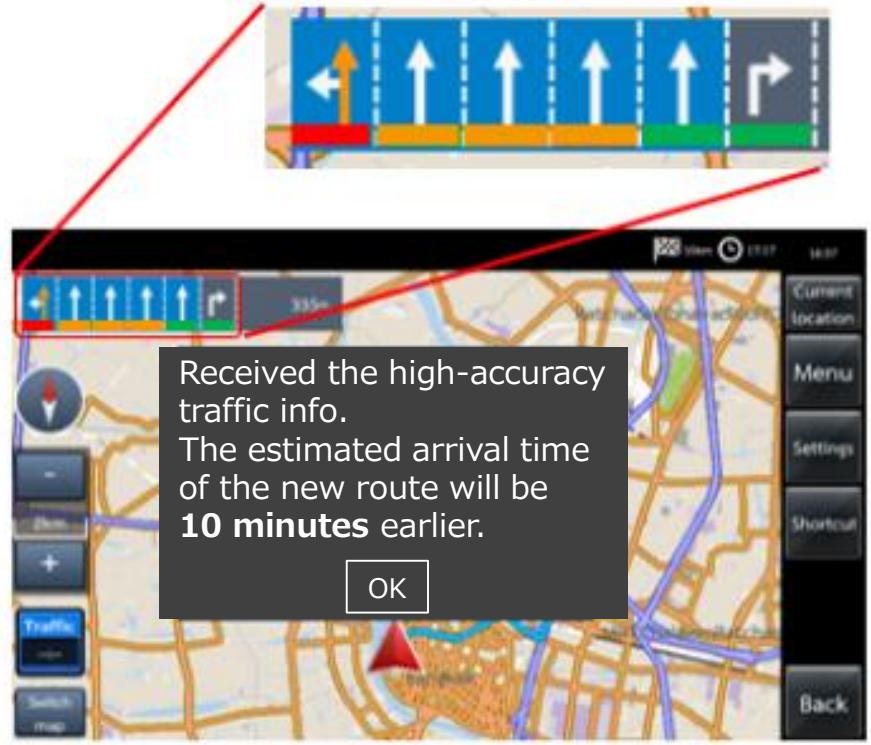
Voice Guidance Image

Providing “A lane level” route guidance by using “A lane level” traffic information

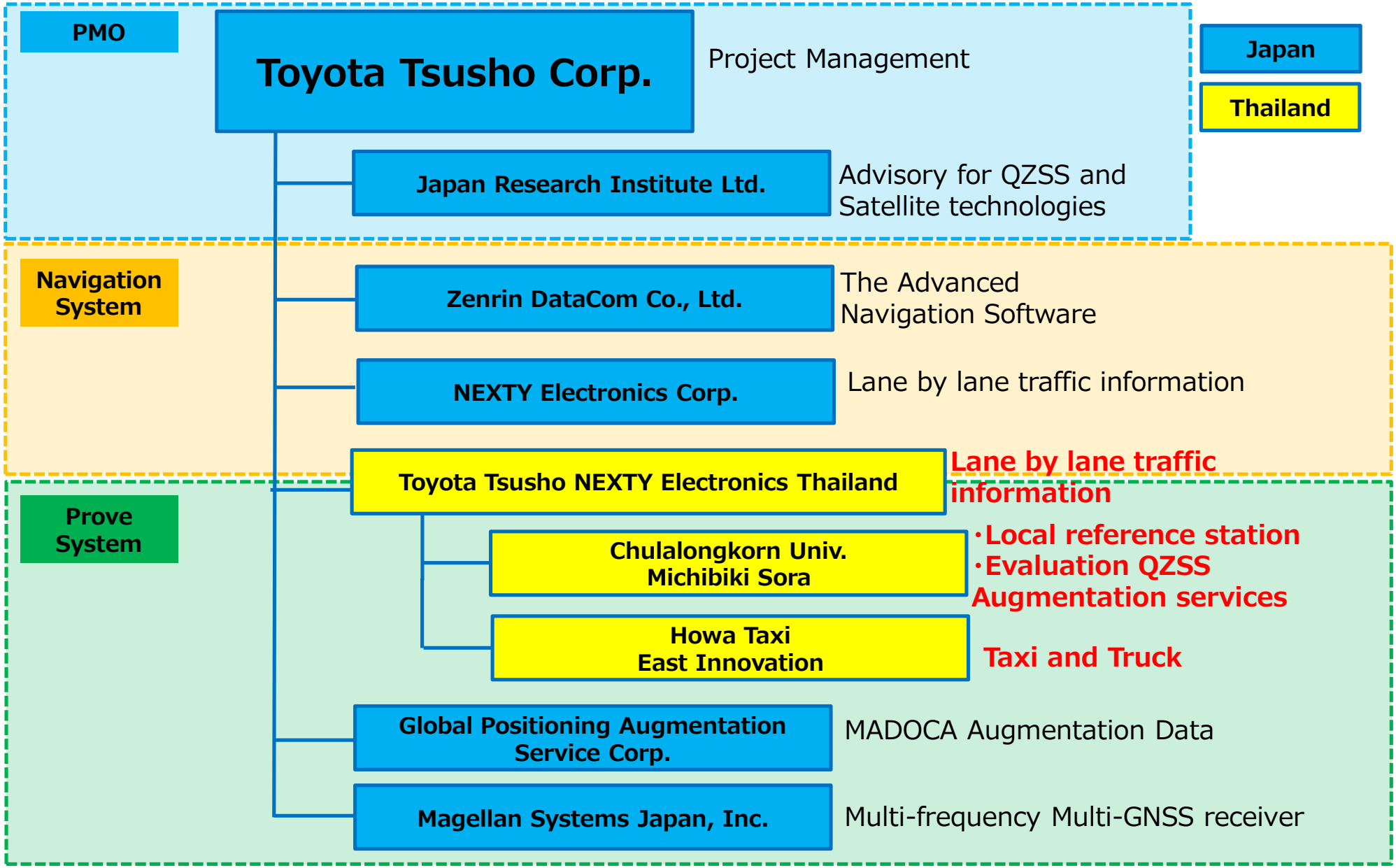


User interface Image

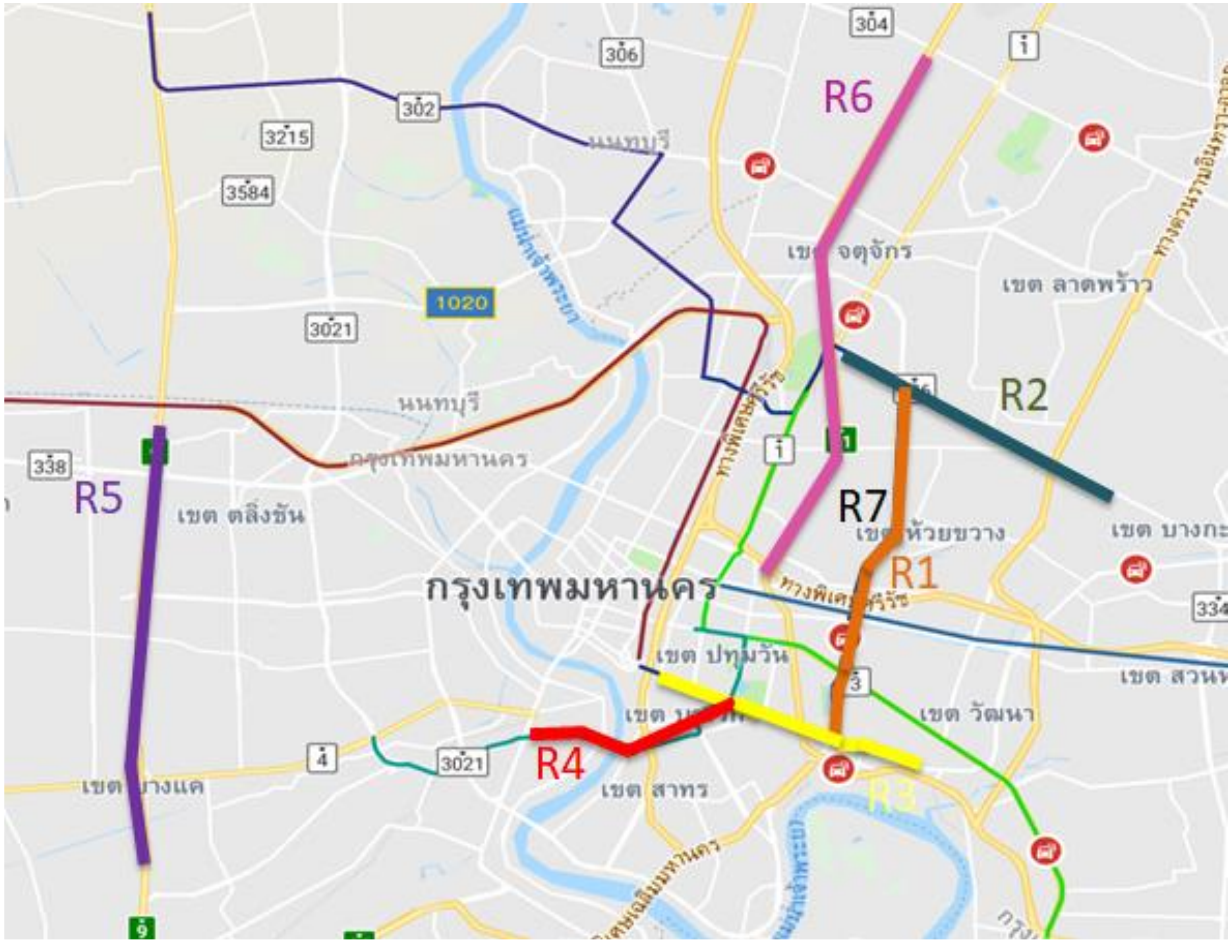
Pop-up display and Voice Guidance corresponding to high accuracy traffic information



Project organizations



Demonstration -Location



7 Routes in Bangkok

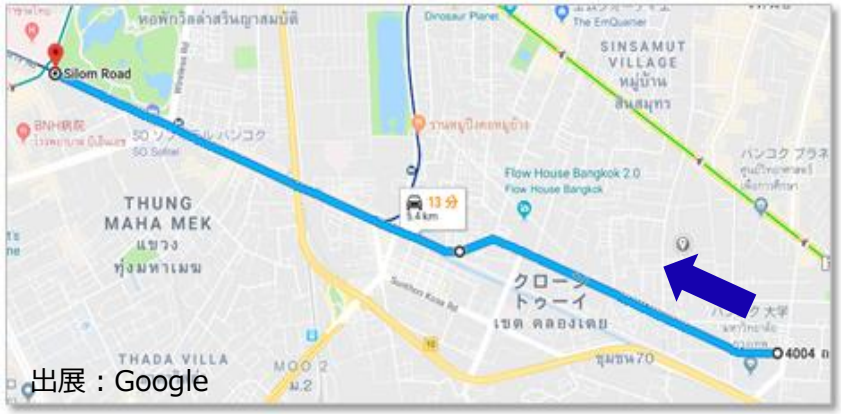
Route1 Ratchadapisek
Route2 Lat Phrao
Route3 Rama 4
Route4 Sathorn
Route5 Kanchanapisek
Route6 Don Muang Tollway
Route7 Long Route

※Bangkok is the second worst traffic jam cities in the world

Select multiple routes such as ‘heavy traffic’, ‘’local road’ and ‘highway’ to evaluate feasibility of this project correctly

Demonstration -Result

Conventional Navi



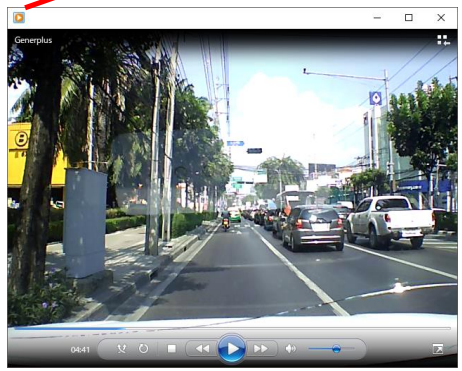
出展：Google

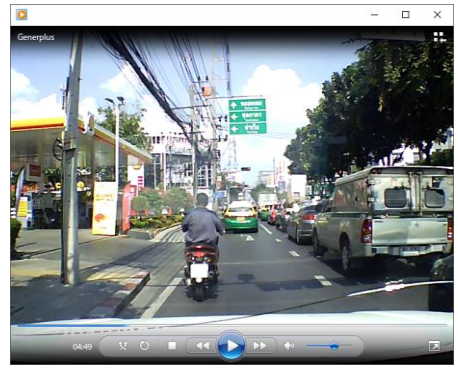
Demonstrate Navi

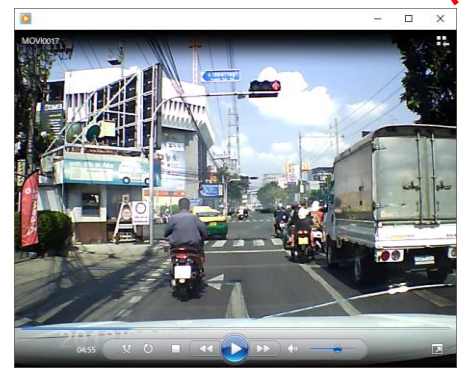
出展：Google

Demo Navi truck chose ‘turn left only’ lane because it was smooth, then detour. Finally Demo Navi truck **arrived earlier** than Conv Navi truck.

Drive Recorder Video







Problems and Requirements

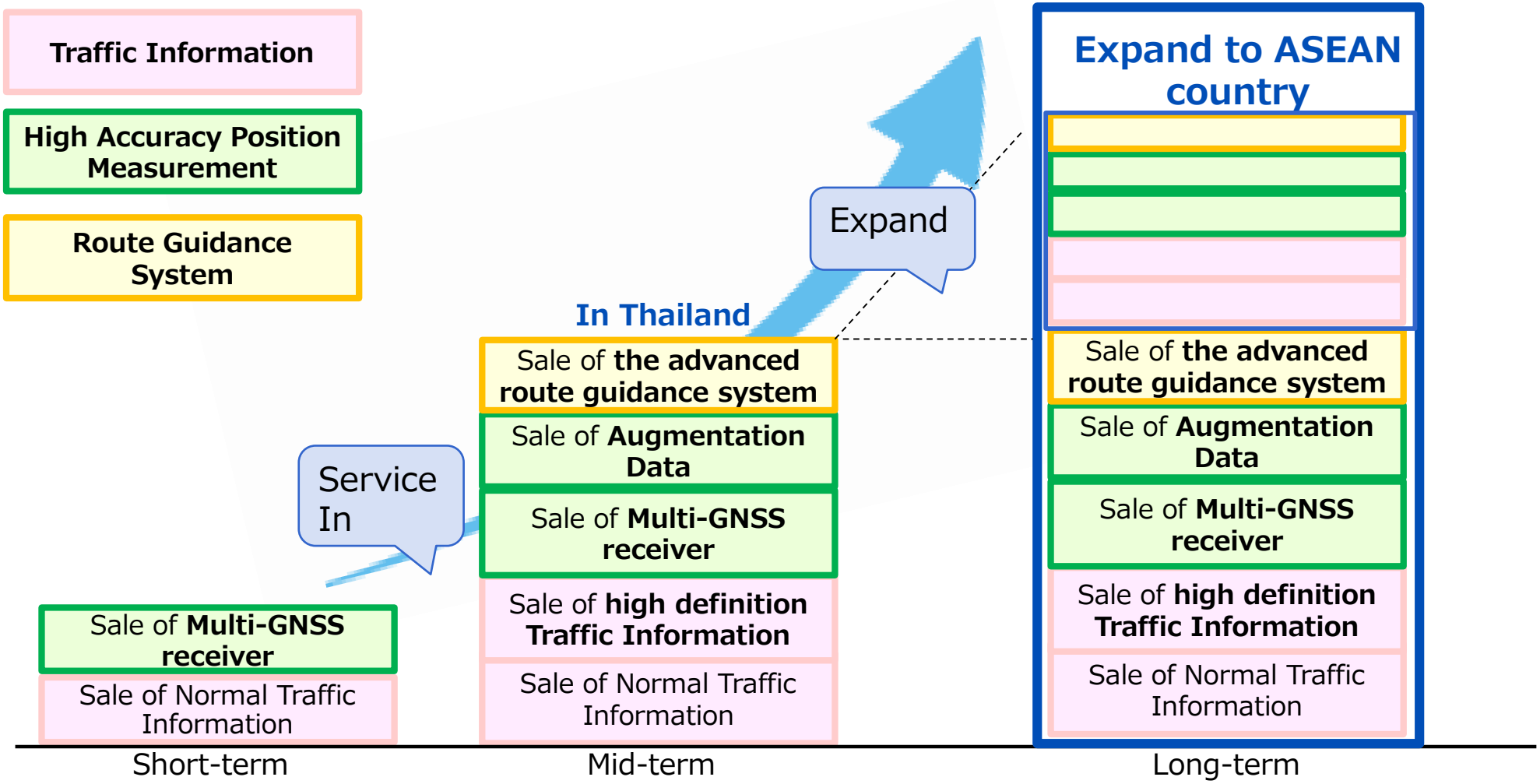
Problems

- Taking long ‘Time to First Fix’(TTFF) (20 to 30mins)
  Solution : Improvement of MADOCA data
- Cost reduction/Miniaturization of a multi-GNSS receiver
  Solution : Implement on 1 chip
- Non-optimization UI of guidance system
  Solution : Conduct user tests and reflect their feedback
- Undeveloped high definition map (lane-class)
  Solution : Prepare maps by map vendor

Requirements

- Immediate official Service-In of MADOCA distribution
- Making ‘free of charge’ for MADOCA distribution both within and outside Japan

Business Plan in Thailand/ASEAN



Launch the advanced route guidance system in Thailand then expand the system to ASEAN country