

Telecoms Infrastructure and Connectivity Underpin MaaS: The Singapore Project

Natasha Walls

Business Development

E-Call



Vehicle to Vehicle Communication





Wireless Networks for MaaS

- Mobile networks are available nearly everywhere
 - Coverage holes and roaming costs bring some problems
 - Utilizing also WLAN/WiFi hotspots, low-power long-range IoT networks, satellite, and HF radio allow communications practically anywhere anytime
- Current 3G and 4G networks provide sufficient performance for current MaaS services
 - Data rates, delays, reliability and availability are on a satisfactory level
- 5G will bring many new possibilities for MaaS as well
 - Enables creating connected systems more extensively
 - Enables creating more personalised and location-based services
 - Enables creating data-intensive solutions

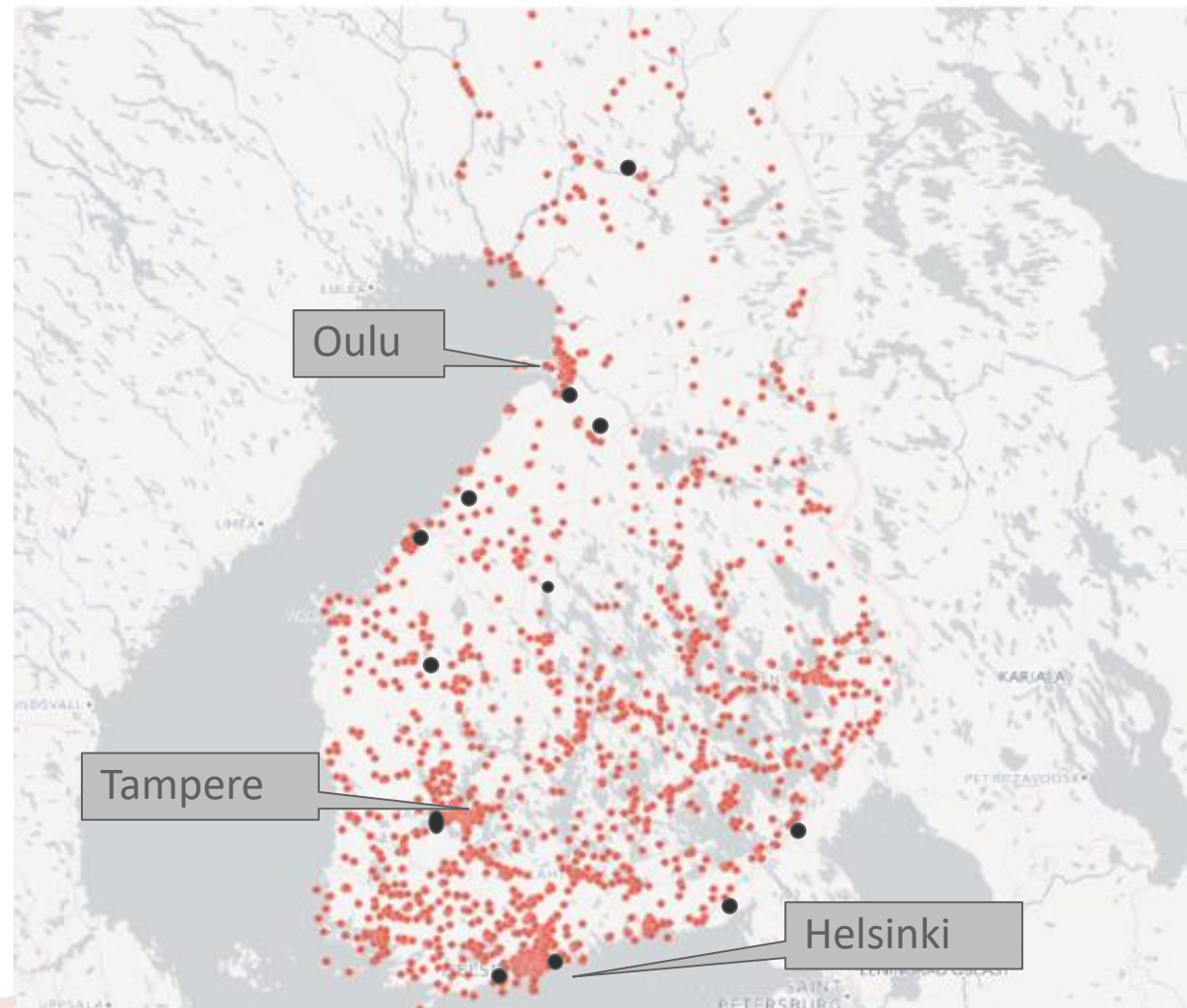
Finnish Mobile Connectivity

ONE mobile operator

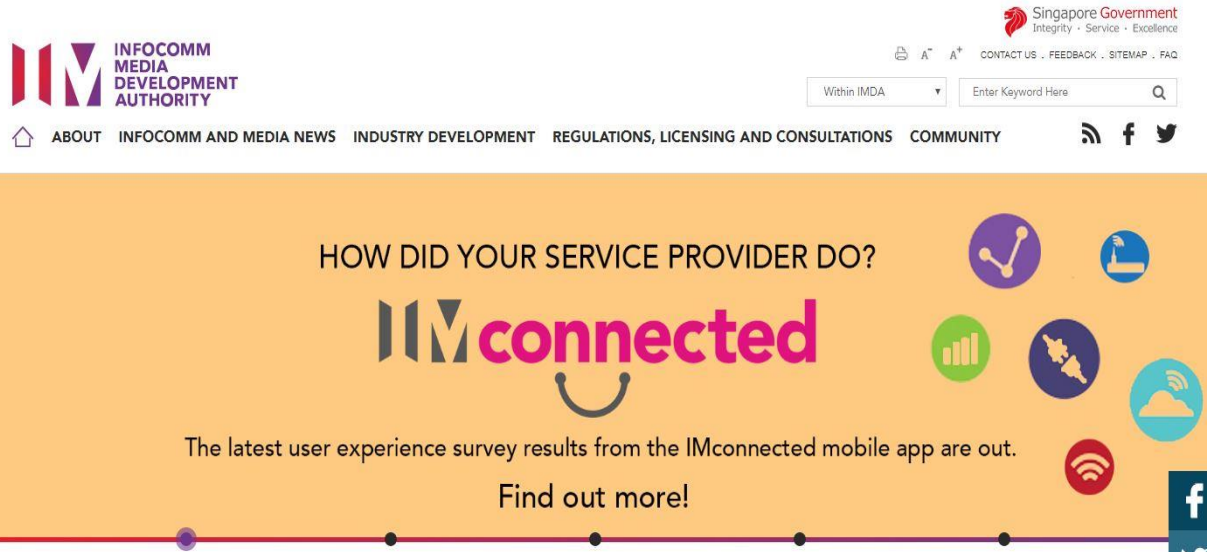
2G/3G/4G network

3 000 active users

15 minute time window



IMDA – Smart Nation



The screenshot shows the top navigation bar of the IMDA website, including the logo, menu items like 'ABOUT', 'INFOCOMM AND MEDIA NEWS', and 'REGULATIONS, LICENSING AND CONSULTATIONS', and social media icons. Below the navigation is a large orange banner with the text 'HOW DID YOUR SERVICE PROVIDER DO?' and the 'IMconnected' logo. The banner also features several circular icons representing different services and a Facebook share button. Below the banner, there are three mobile app screenshots showing survey results.

- Singaporean Telecoms Regulator
- Live from October 2015.
- Measure and provide insights to ensure consistent, ubiquitous and reliable connectivity across Singapore.
- Data analysis and value discovery enable:
 - Financial penalties
 - SLAs
 - Monitoring of new technology
- Measure all mobile and wireless technology sessions.
- Provide pro-active information to aid citizens to get online and stay online.

IMDA – Smart Nation

Jurong Innovation District

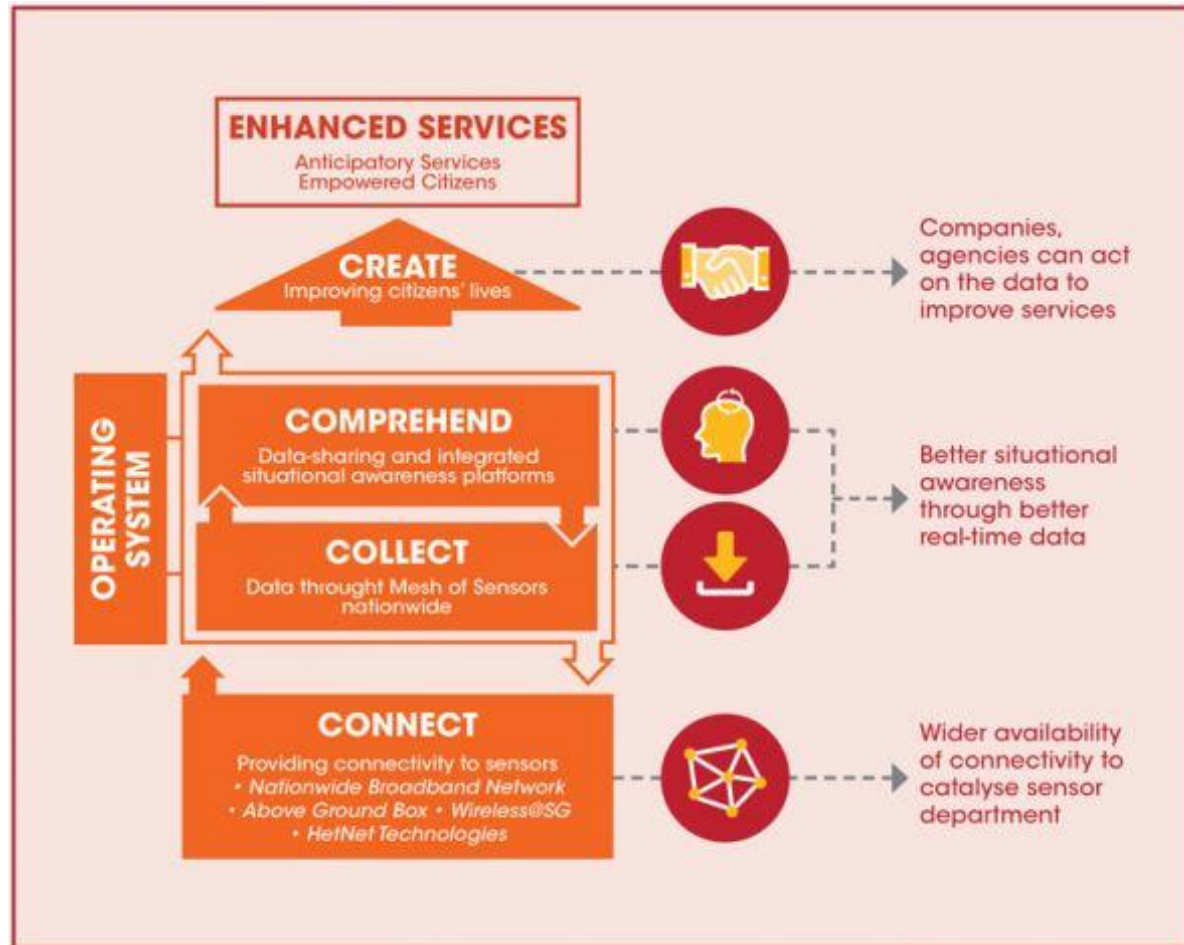
- Measuring HetNet infrastructure for seamless connectivity
- Understanding performance of new mobile and Wi-Fi networks
- Launch of driverless vehicles in 2022
- 5G launch

GovTech Services

- Providing data to ensure Transport.SG app can be accessed



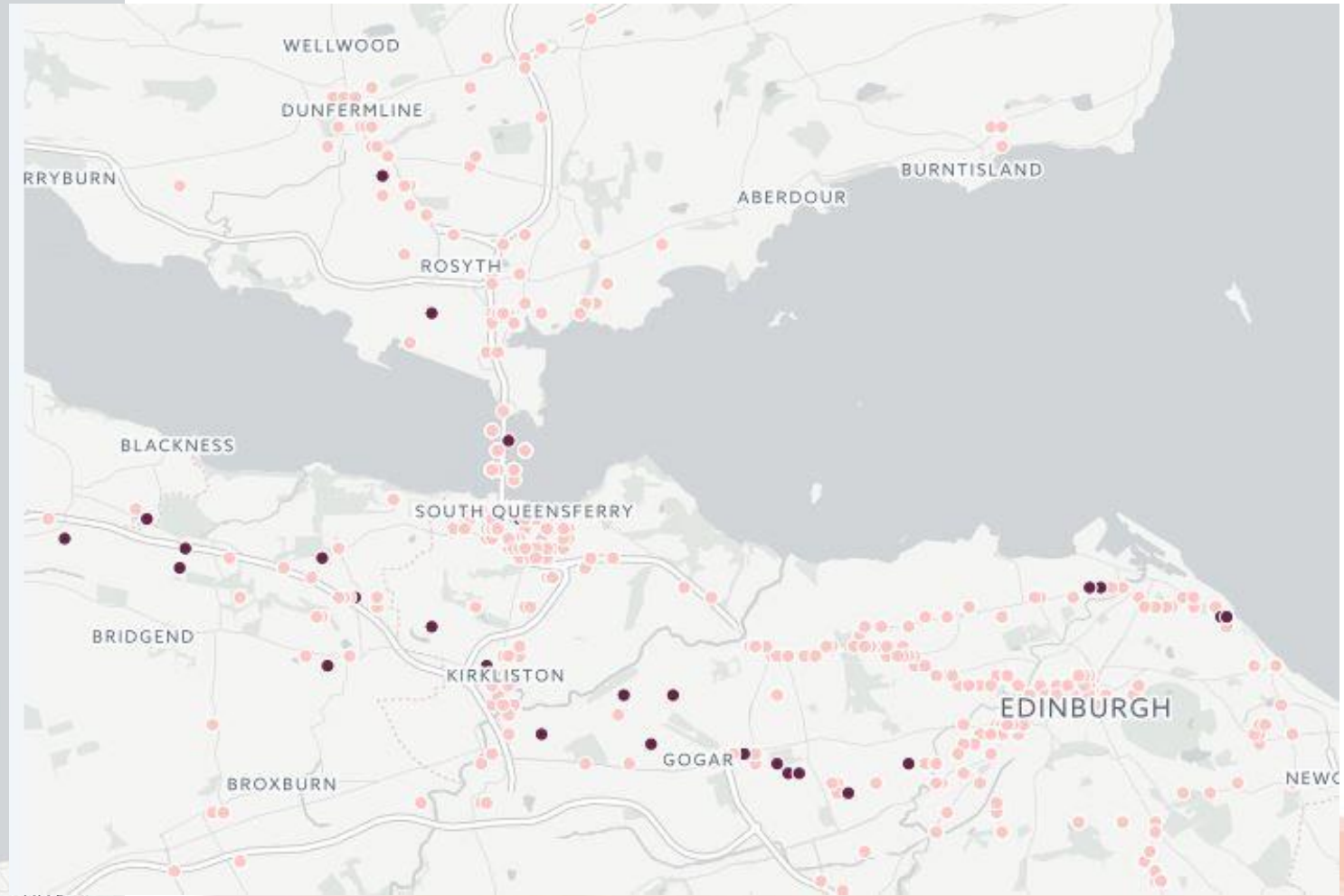
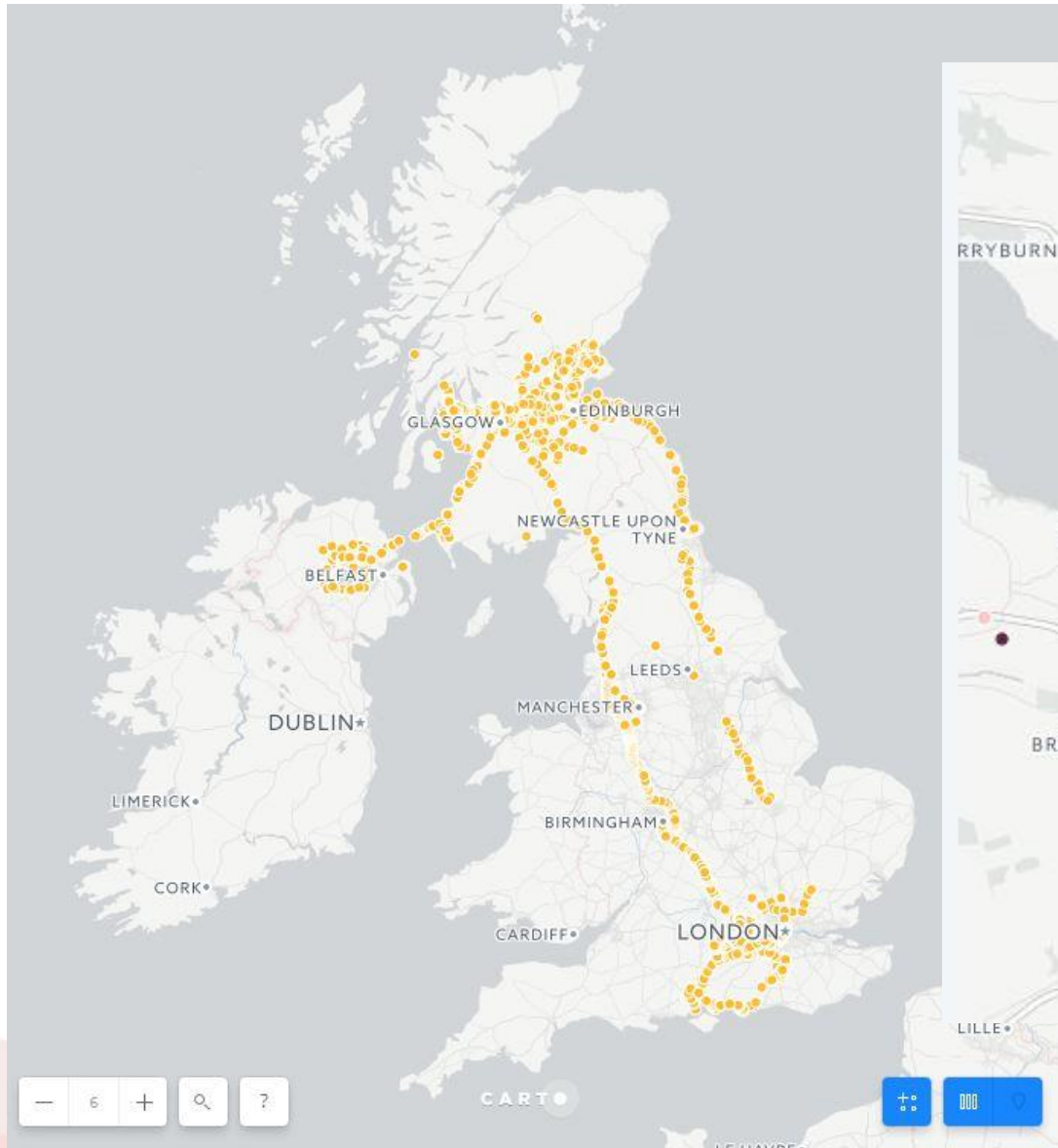
IMDA - Smart Nation



Key Success Factors:

- Investment
- Support for SMEs
- SLAs and Regulation
- Open data for insights and value discovery

UK Connectivity



Thank you

Natasha Walls

Natasha_walls@ciqual.com

+44 7598 334 880