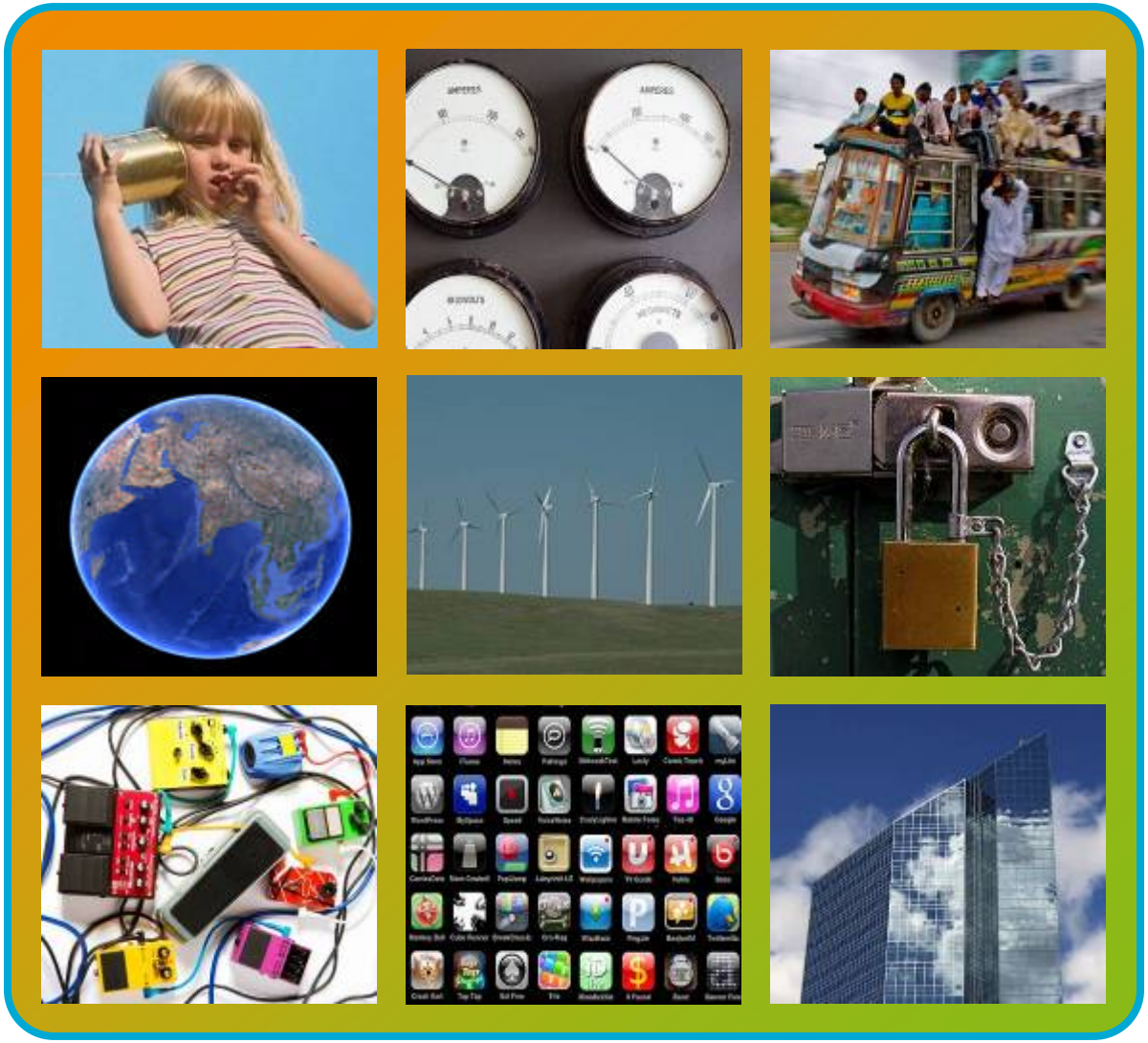
CONNECTED THINGS

THE WORLD GETTING WIRELESS

MARTIN KÖRLING
ERICSSON RESEARCH

THE WORLD IN 2020



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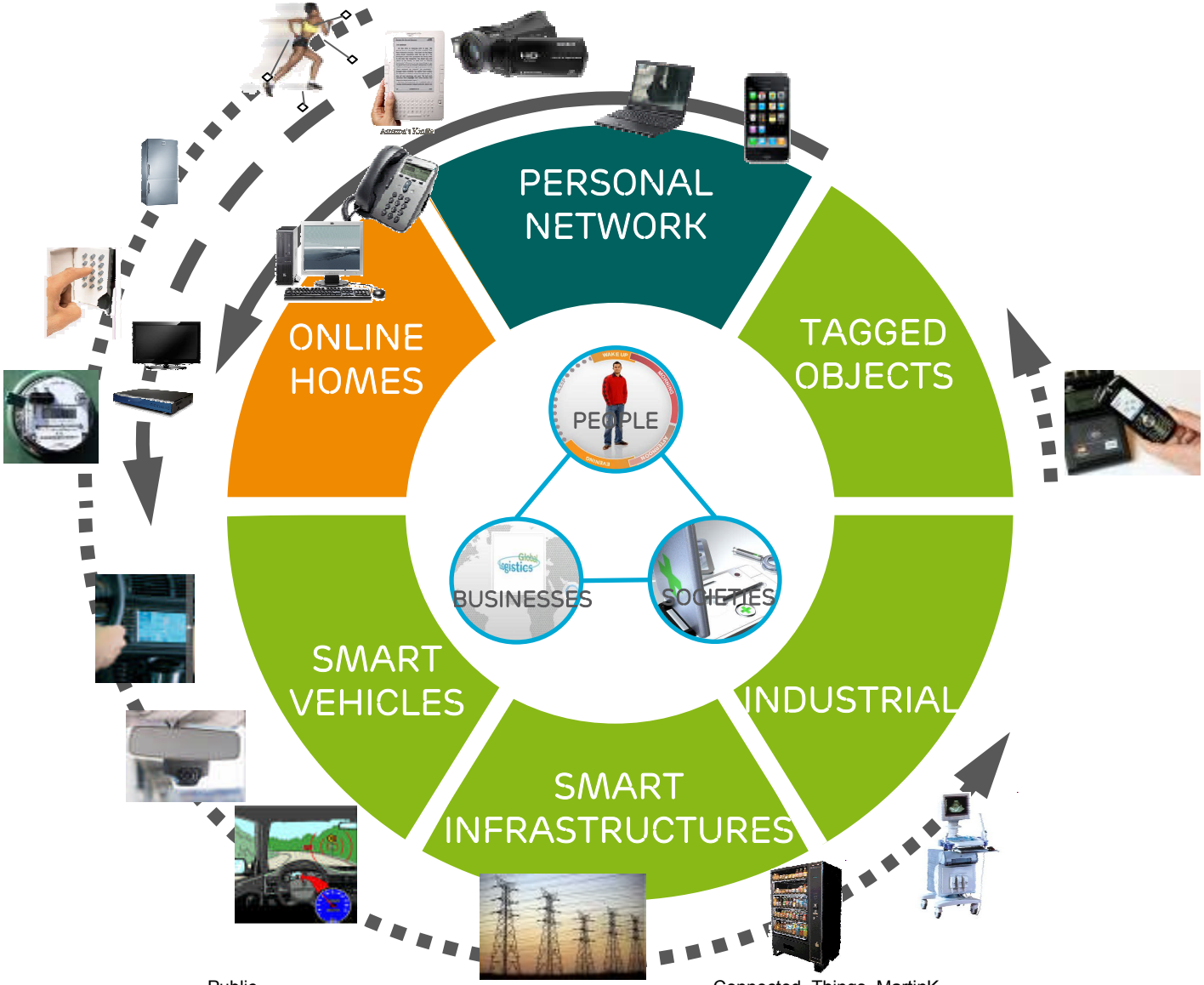
CONNECTED THINGS



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DRIVERS FOR CONNECTED THINGS

PEOPLE

Lifestyle
Health
Convenience
Safety

BUSINESSES

Productivity
Cost efficiency
Regulations
Assets

SOCIETIES

Sustainability
Safety
Security
Social cost

TECHNOLOGY

Broadband ubiquity Cost of connected device

[Everything that benefits from a network connection will have one]

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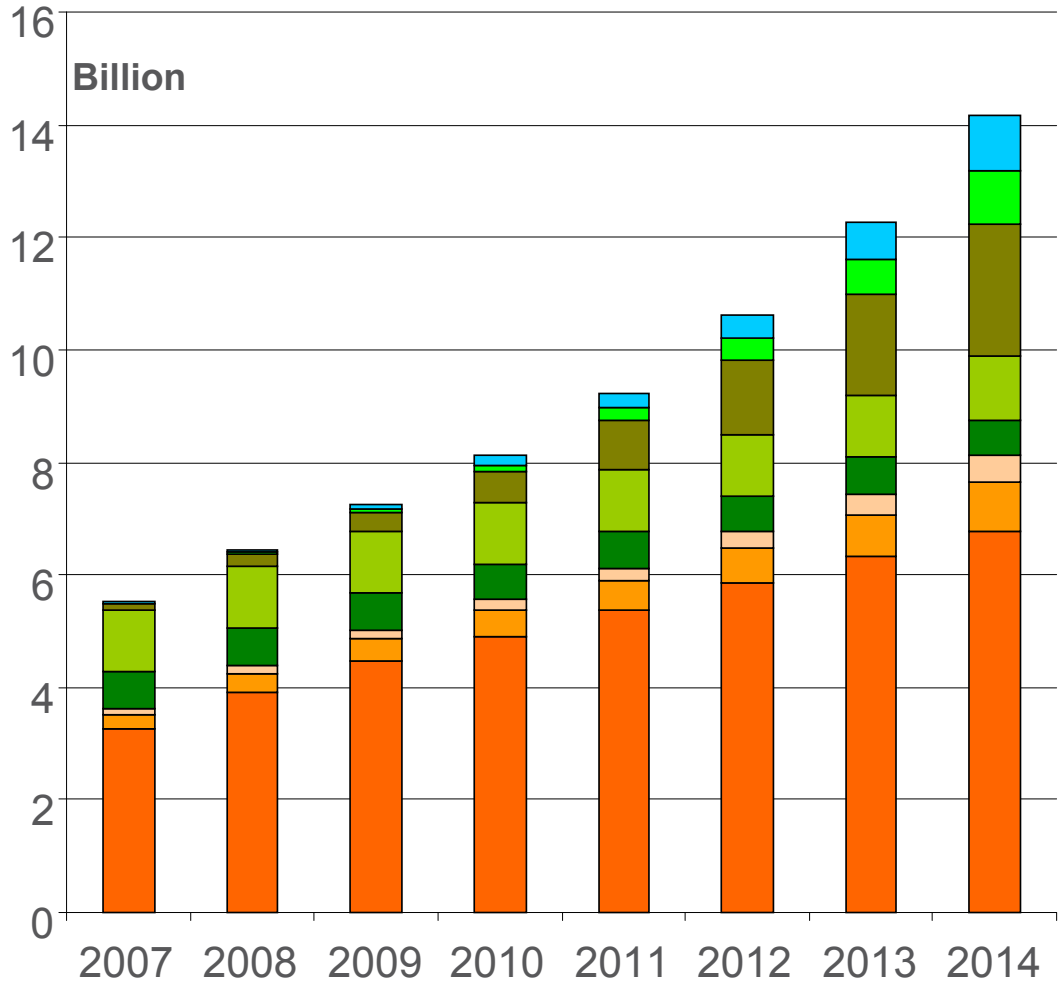
FORECASTS SUMMARY

Connected devices worldwide



	CAGR% 2008-2014
SMART VEHICLES AND INFRASTRUCTURES	
Smart Vehicles and Infrastructures	59%
SMART HOMES/OFFICES/BUILDINGS	
M2M (Meters, Security etc.)	69%
Home CE (IP connected)	52%
Phones / IP phones	-1%
Desktops	-1%
PERSONAL COMMUNICATION AND INFOTAINMENT	
Connected CE – handheld	25%
Laptops	17%
Mobile phones	10%

Sources: Strategy Analytics, ABI, Gartner, Ericsson

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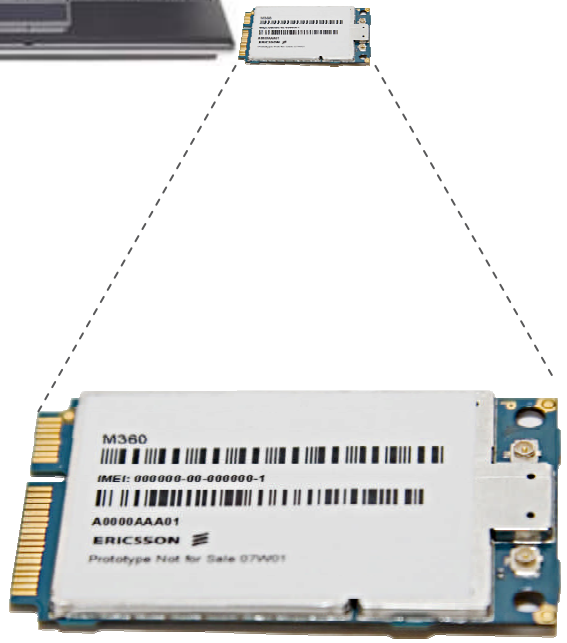
MODULES FOR DEVICES
SCALE ADVANTAGE OF 3G/HSPA/LTE

Modules getting smaller,
volumes getting larger,
cost getting lower



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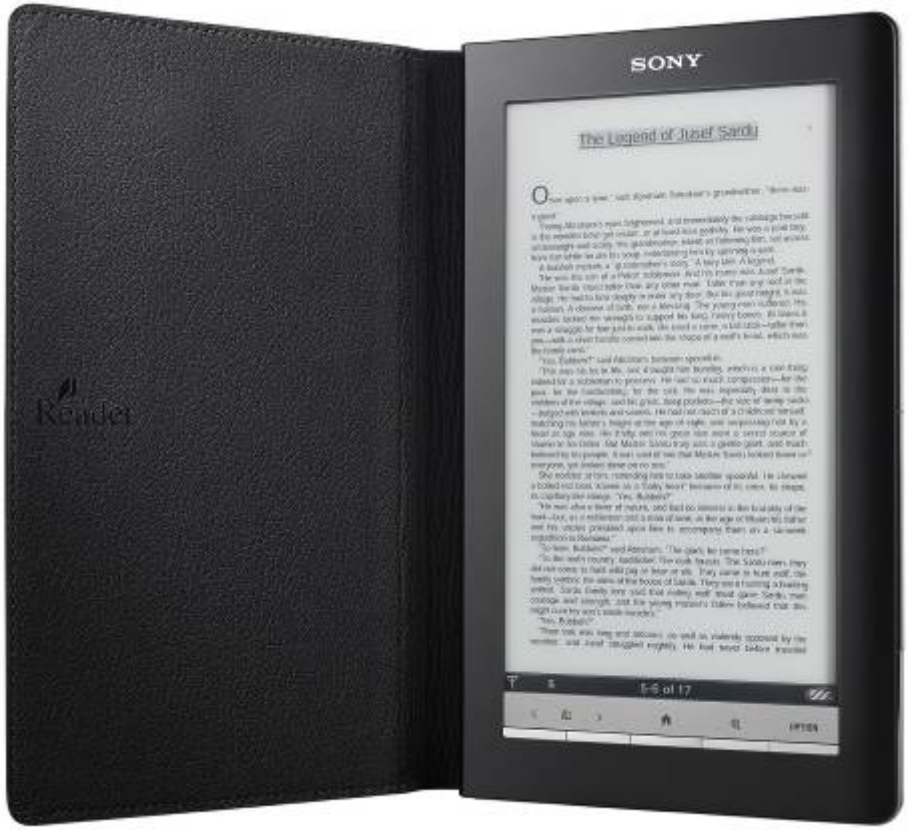
SONY READER DAILY EDITION

- Connected with 3G/HSPA
- Connectivity by AT&T
- No charge to consumer



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CONNECTED CARS

Vehicle integration

Navigation

Real Time Traffic Information Server

Mobile phone

Traffic Mgmt Center

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China Agricultural University

Multi-parameter water quality collection node on-site installation

© Ericsson AB 2009

China Agricultural University

Wireless Valve Control Terminal

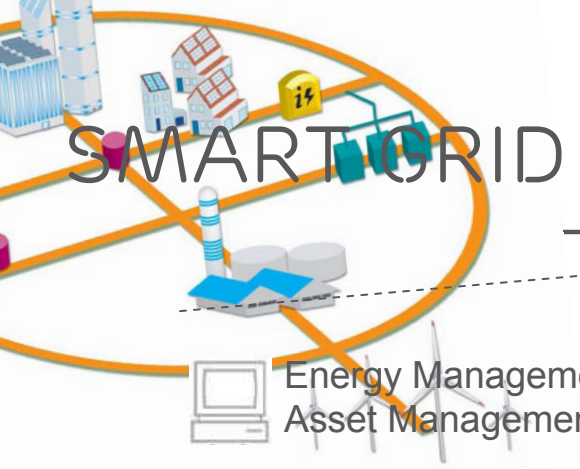
© Ericsson AB 2009

China Agricultural University

Mobile system for fish disease diagnosis

© Ericsson AB 2009

SMART GRID



Communication Networks

Energy Management
Asset Management

Building Automation

Off-shore wind turbines

Micro-grids

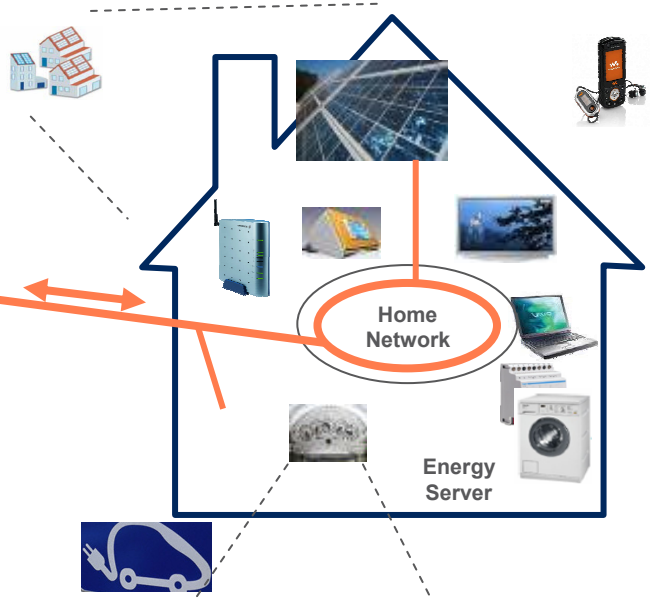
Central Power plant

Office parks

Transmission:
HVDC / FACTS

Grid-friendly
• Consumption
• Micro-generation

Substation Automation



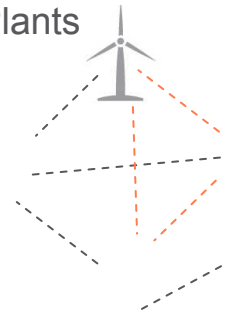
Storage

CHP

Micro-turbines

Fuel cells

Virtual Power Plants (VPP)



Industrial plant

Electric cars

Wind turbines

Solar plants

Smart Metering

HVDC: High Voltage Direct Current
FACTS: Flexible AC Transmission Systems

Source: European Smart Grid Platform, Ericsson

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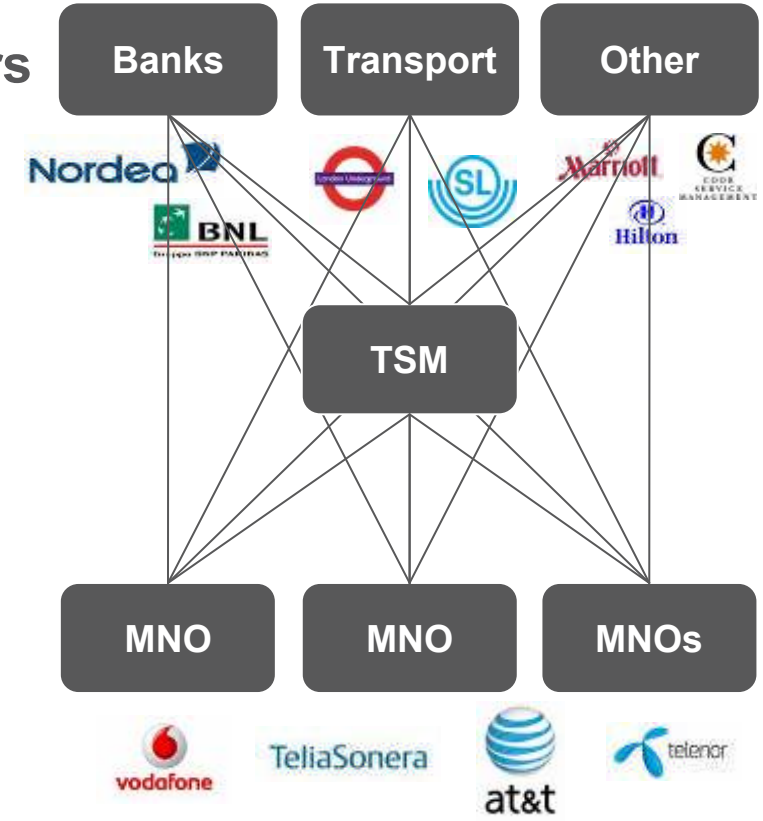
TRUSTED SERVICE MANAGER (TSM)

NFC BROKER

Service Providers

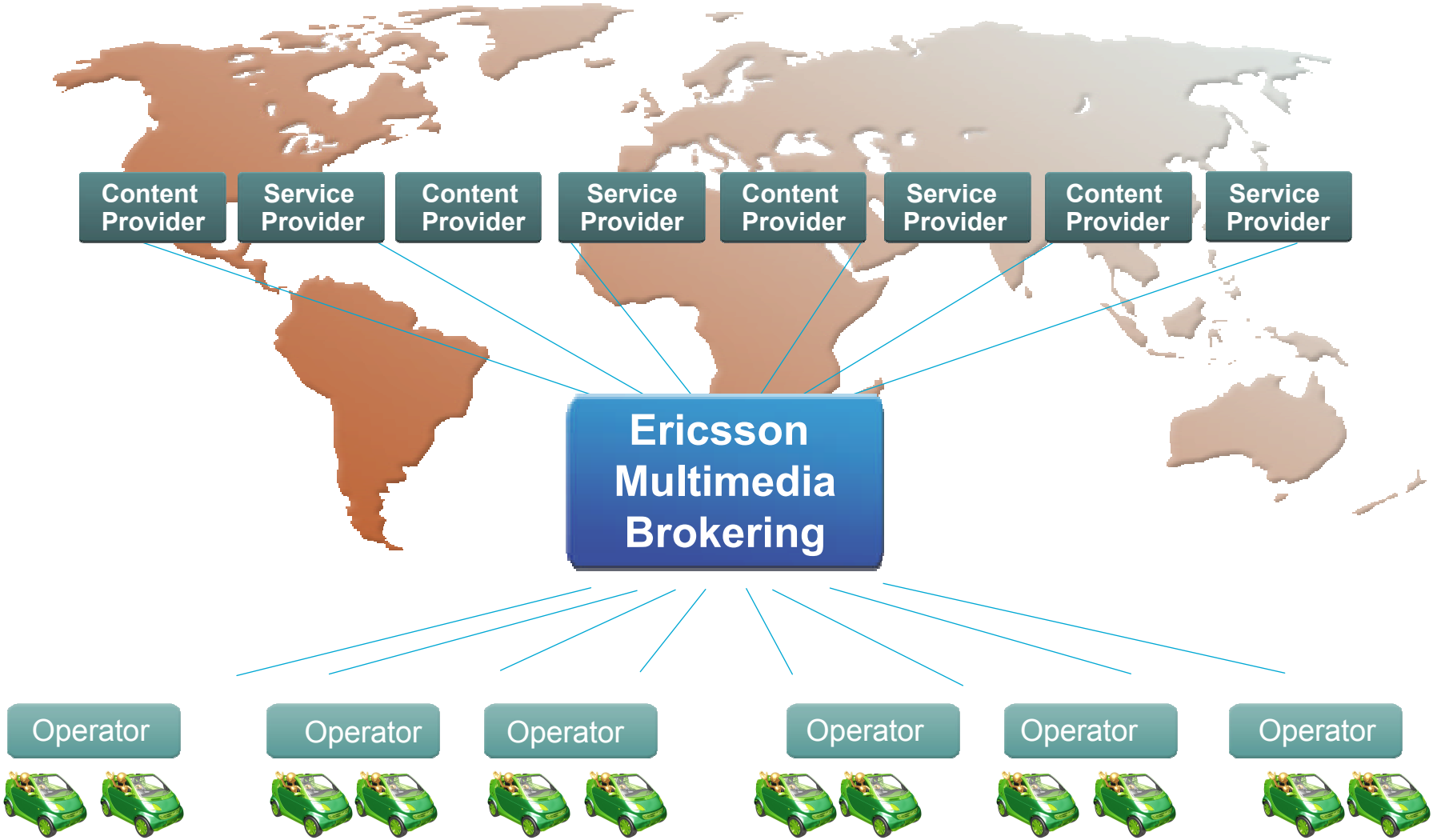


Operators

NFC-enabled mobile phone

BUSINESS MODELS

GLOBAL CONNECTIVITY AND SERVICE ENABLERS



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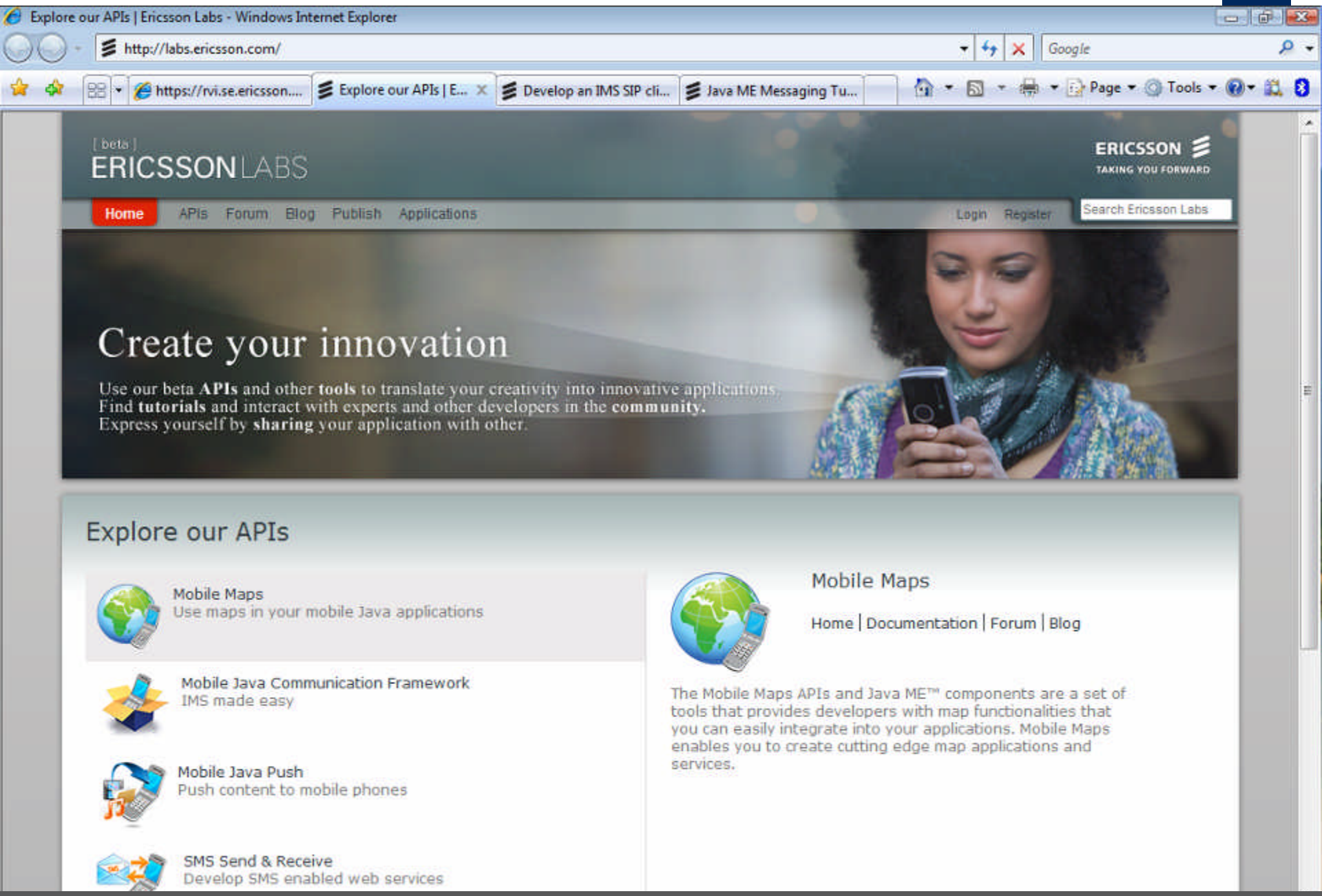

Ericsson Labs: Beta versions of enabler APIs and applications

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SUMMARY

- Device modules; volumes and cost is key; 3G/HSPA/LTE
- Mobile non-phone devices closing up on mobile phones in numbers
- Consumer gadgets, cars, emerging markets, smart grid, NFC
- New business models; embedded connectivity, brokering
- Ericsson innovation; labs.ericsson.com

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