



NTT Docomo

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# NTT Docomo

- Di CommunicAsia, NTT Docomo menampilkan pengembangan yang mereka lakukan pada teknologi Long Term Evolution (LTE) atau Super 3G yang merupakan batu loncatan ke teknologi 4G (IMT-Advance)
- Docomo memiliki visi teknologi yang jelas untuk masa depan: fourth generation mobile telephony technology
- Dalam wawancara dengan Sadayuki Abeta (Manager of Radio System Group – NTT Docomo), ditegaskan bahwa Docomo secara pasti memilih teknologi LTE dan meninggalkan teknologi WiMax.



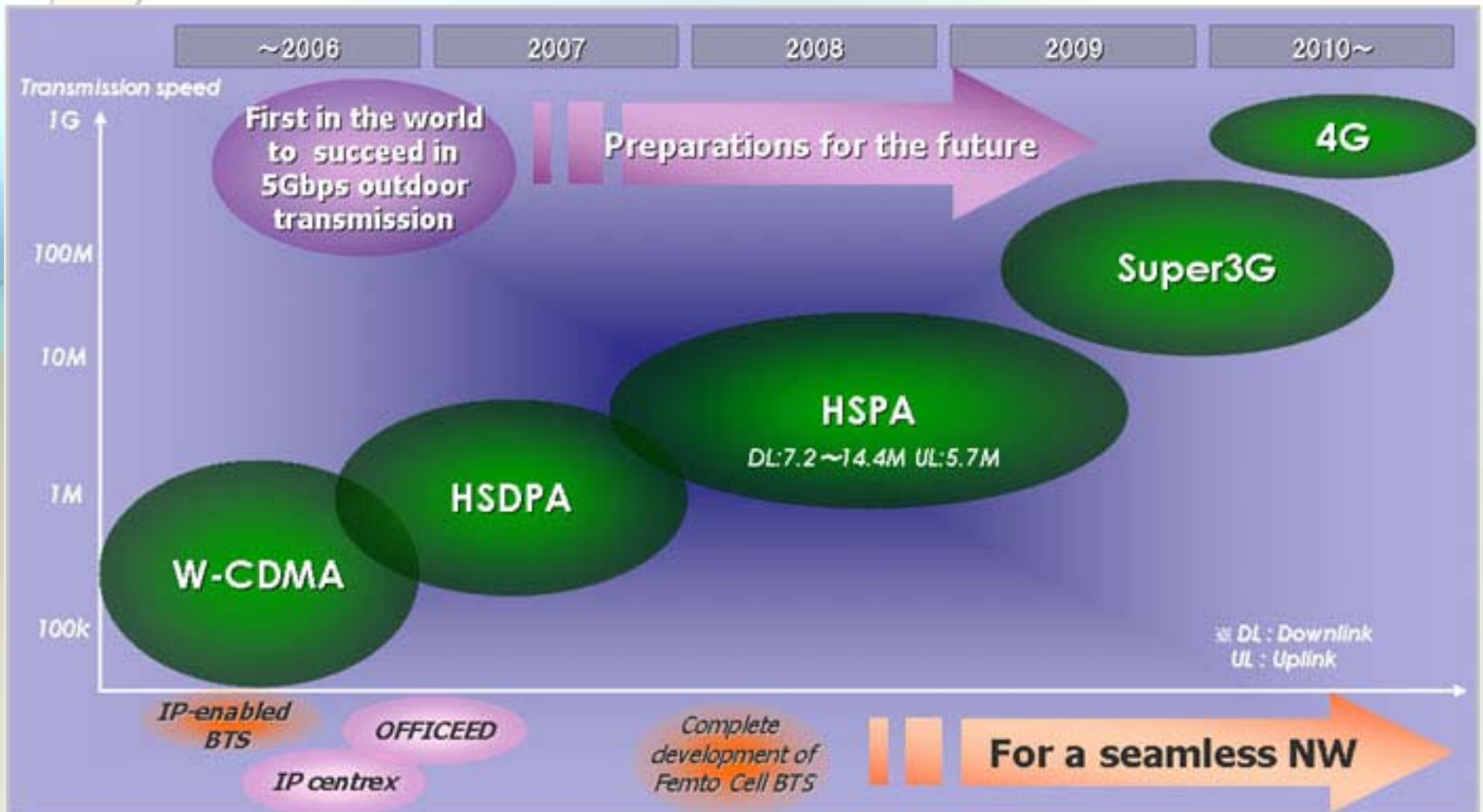
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## Docomo's Milestone to 4G



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## Why LTE ?

### LTE Provides Ultra High Speeds

#### Peak Data Rates

- Download a file from the network: 300 Mbps
- Upload a file to the network: 75 Mbps



#### e.g. Music album download (e.g. 70Mbyte)

- W-CDMA (384 kbps) : 24 min
- HSDPA (14 Mbps): 40 sec
- LTE (300 Mbps): 2 sec

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## Why LTE ?

### LTE Provides very high capacity

#### Spectrum efficiency

- 2-3 times higher capacity than 3G



#### For customers:

- Less stress even in high traffic

#### For content providers:

- Can provide rich contents!

#### For operators:

- Reduce CAPEX and OPEX!

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## Why LTE ?

### LTE realizes ultra short latency

#### Response time for network connection

- Current system: ~ a few seconds
- LTE (Super 3G): 0.1 second

#### Short end-to-end delay:

- Reduce the delay within the network



#### Can provide delay sensitive service:

- High quality video phone
- Gaming
- Machine-to-machine communication
- Remote operation

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## Why LTE ?

### World trends

- Standardization and promotion activity outside 3GPP
- NGMN (Next Generation Mobile Network)
  - Provides a set of operator's view, drive the standardization
  - 19 operators, 28 vendors and 3 universities
  - LTE is a main stream
- LSTI (LTE/SAE Trail Initiative)
  - Accelerate LTE/SAE commercial service
  - Ensures the interoperability
  - Target for development of commercial equipment is 2009/2010

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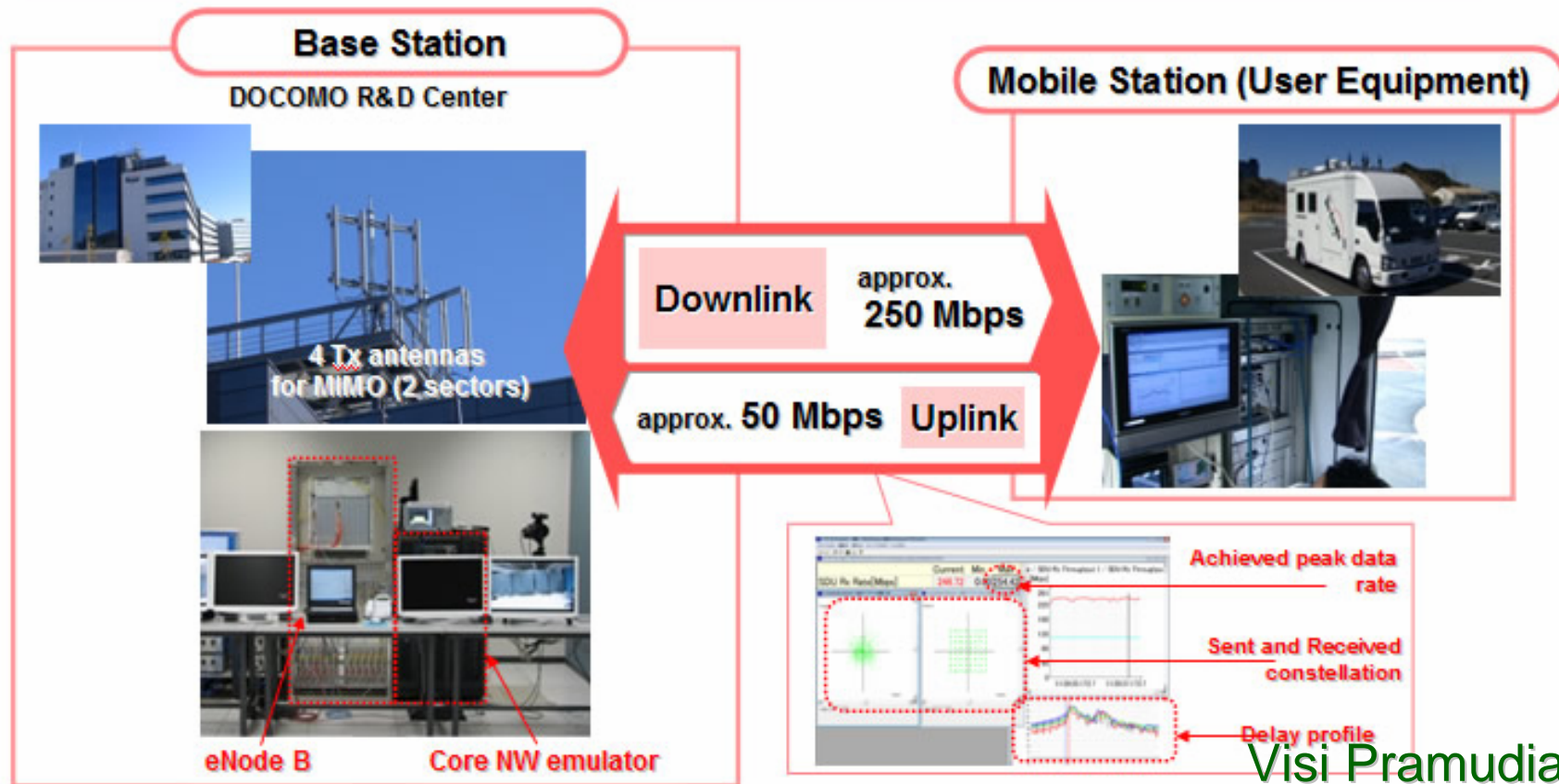
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## DOCOMO's Super3G(LTE) Experiments

Field Trials started from February 2008.

- Using 4X4 MIMO
- Approx. 250 Mbps in the downlink and approx. 50 Mbps in the uplink

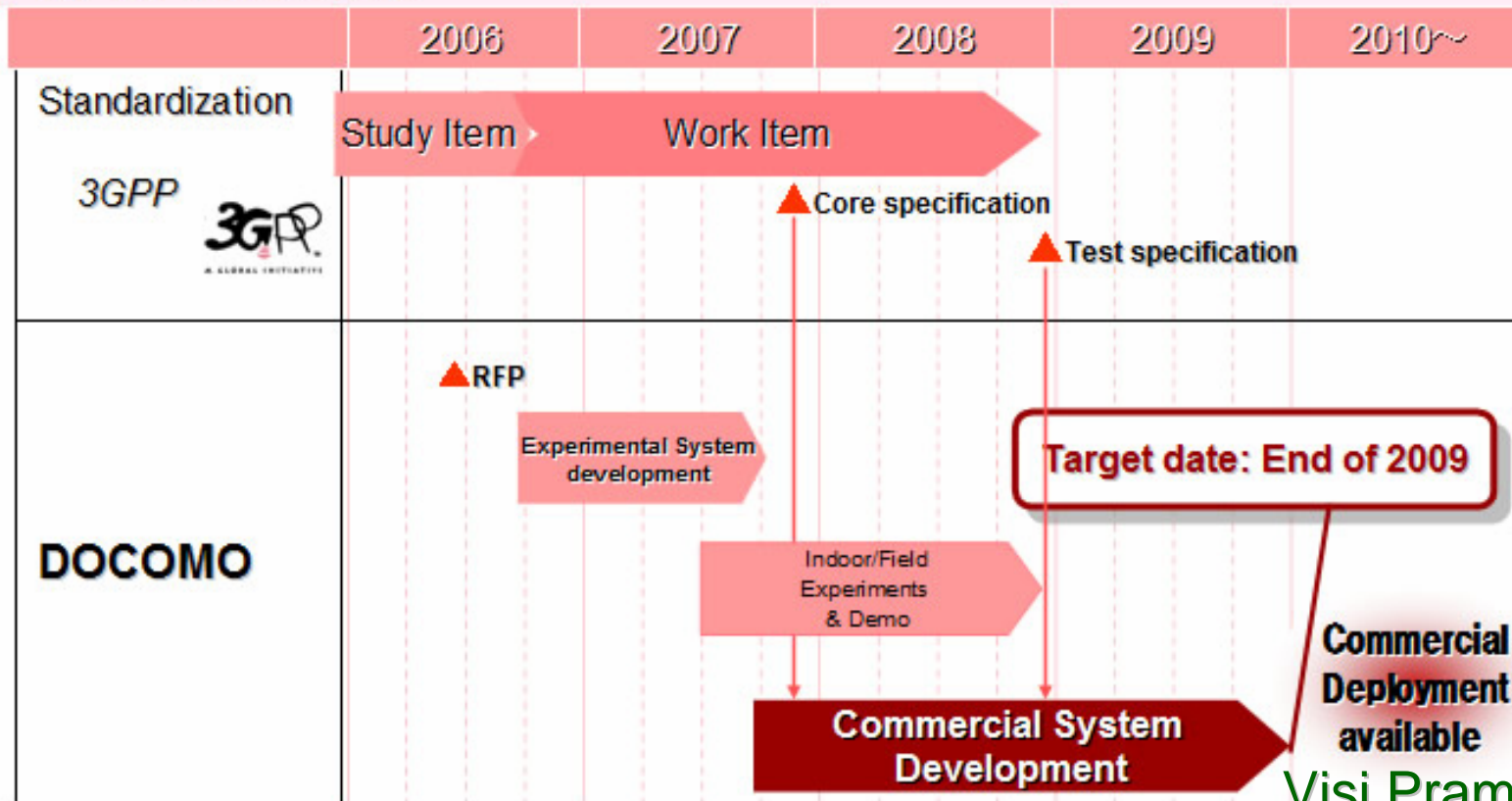




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## Schedule of Super3G

- DOCOMO's contributions have driven 3GPP forward toward end-2008 standard completion.
- DOCOMO will develop a fully 3GPP-compliant commercial system by the end of 2009.



# NTT Docomo

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# Thank You