

At the threshold of next generation

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Towards a common standard of mobile communications

1G

discontinuity

2G

evolution

3G

- NMT



- start early '80s
- analogue
- speech, (data)
- roaming in Scandinavia and some European markets

- GSM



- start early '90s
- speech, high-speed data, packet-switched (GPRS)
- encryption
- SMS and MMS
- global roaming

- WCDMA for new frequencies
- EDGE for existing ones



- start early '00s
- speech
- very high-speed data
- mobile Internet
- MMS multi-call
- video streaming

Learnings from second generation markets

Wanted: mobile services with a global reach!

CWTS

ARIB



- Open technology – open interfaces, open service platform
- Multivendor interoperability, seamless 2G-3G interworking
- Global roaming for all services (voice, data, messaging)



Learnings from second generation markets

Wanted: mobile services with a global reach!

CWTS

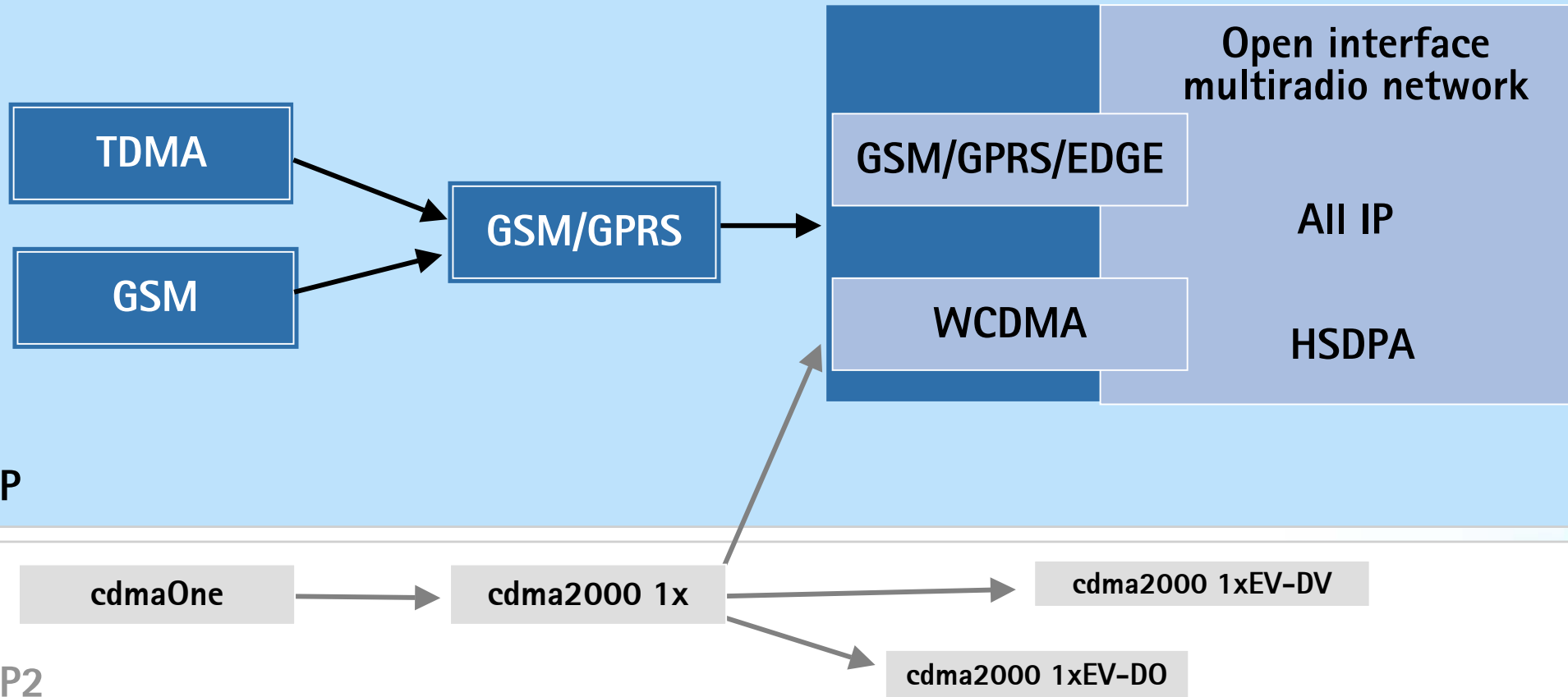
ARIB



3G Partnership Project (3GPP) founded in 1998 to bring local standardisation bodies under one global framework



Global Evolution to 3G Mobile Technologies



2G

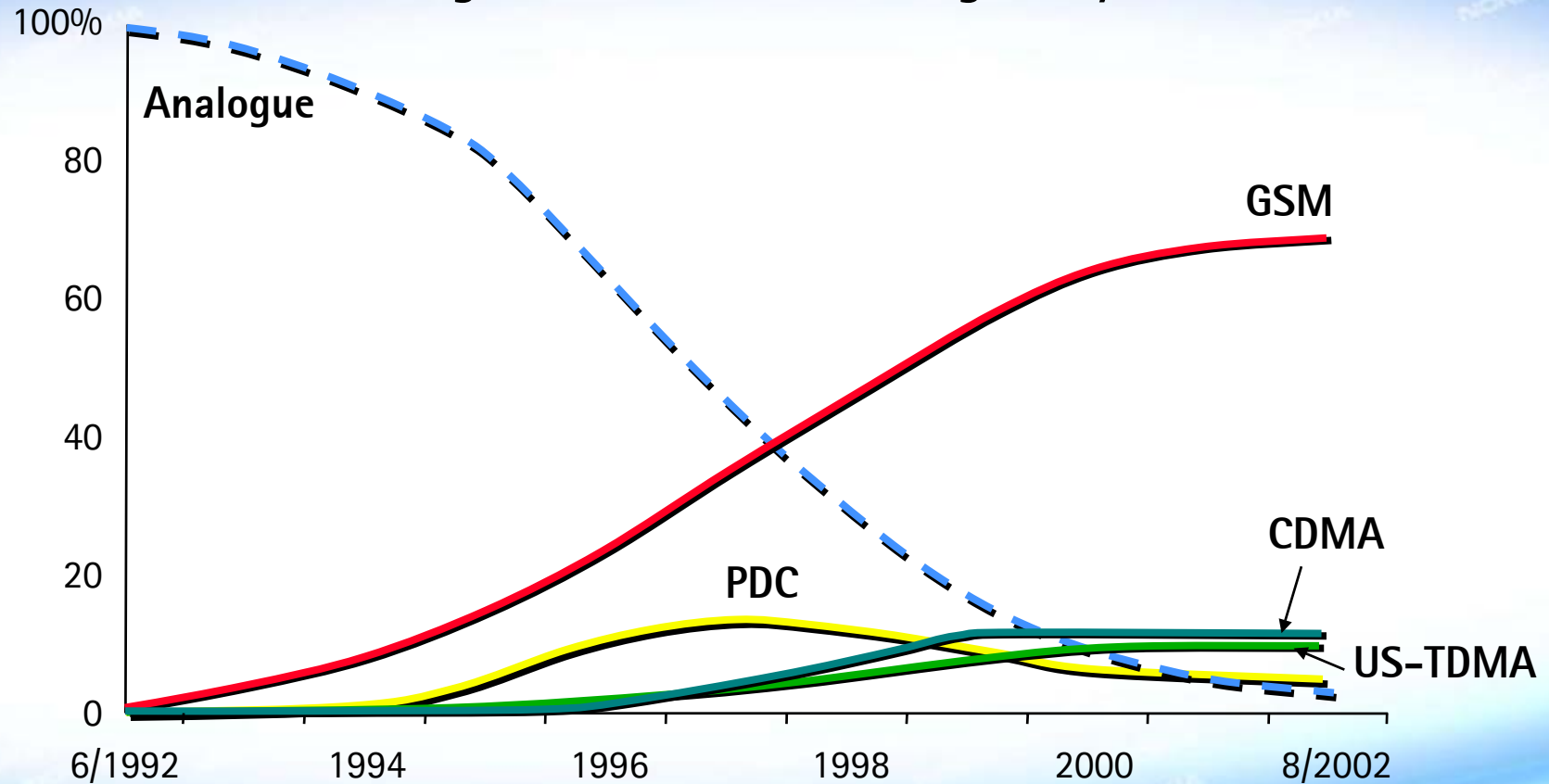
First Steps to 3G

3G Phase 1 Networks

Evolved 3G Networks

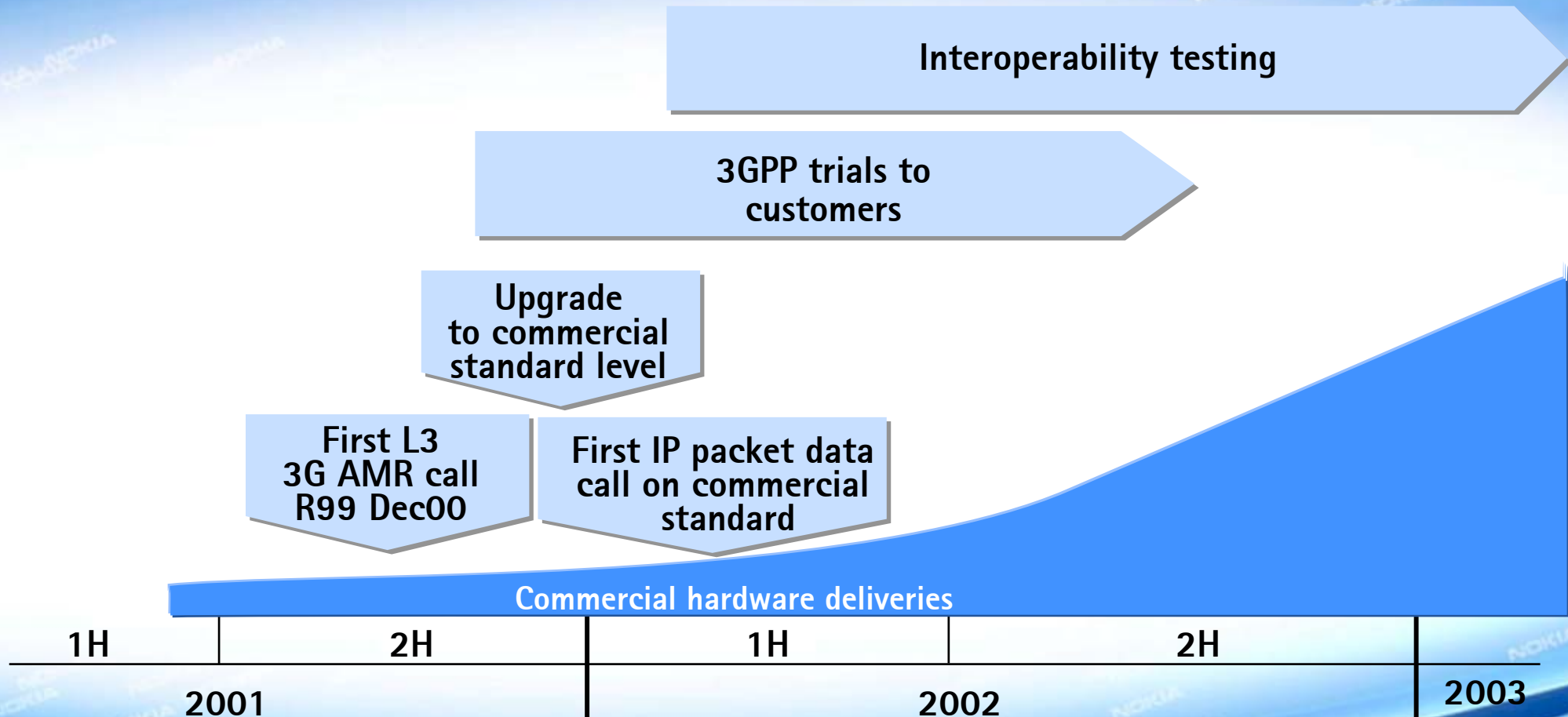
WCDMA will inherit GSM economies of scale

Percentage of mobile subscribers globally



source: EMC

WCDMA 3G standard and technology are ready to go



September 26, 2002 marks a new phase

Phone availability

GSM/WCDMA phone deliveries
to operator controlled live networks

Launch phases

Commercial pilots with friendly users
and commercial launches

Application integration and field optimisation

Network tuning and optimisation

Commercial software release deliveries
to operator controlled live networks

Network roll-outs continue

6 7 8 9 10 11 12

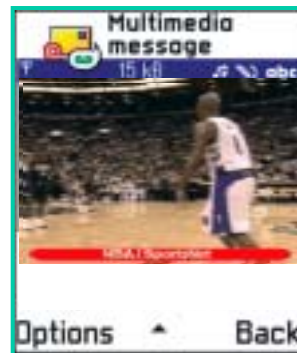
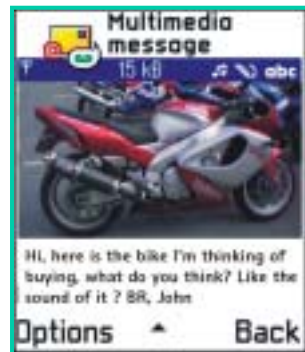
2002

1H/2003

Interoperability testing continues

At the threshold of next generation

- Advanced mobile services
- First WCDMA commercial pilots
- Seamless GSM/GPRS/EDGE/WCDMA services



3G is ready for take-off!





NOKIA

CONNECTING PEOPLE