Leading the way in 3G – 3GPP – *the 3rd Generation Partnership Project*

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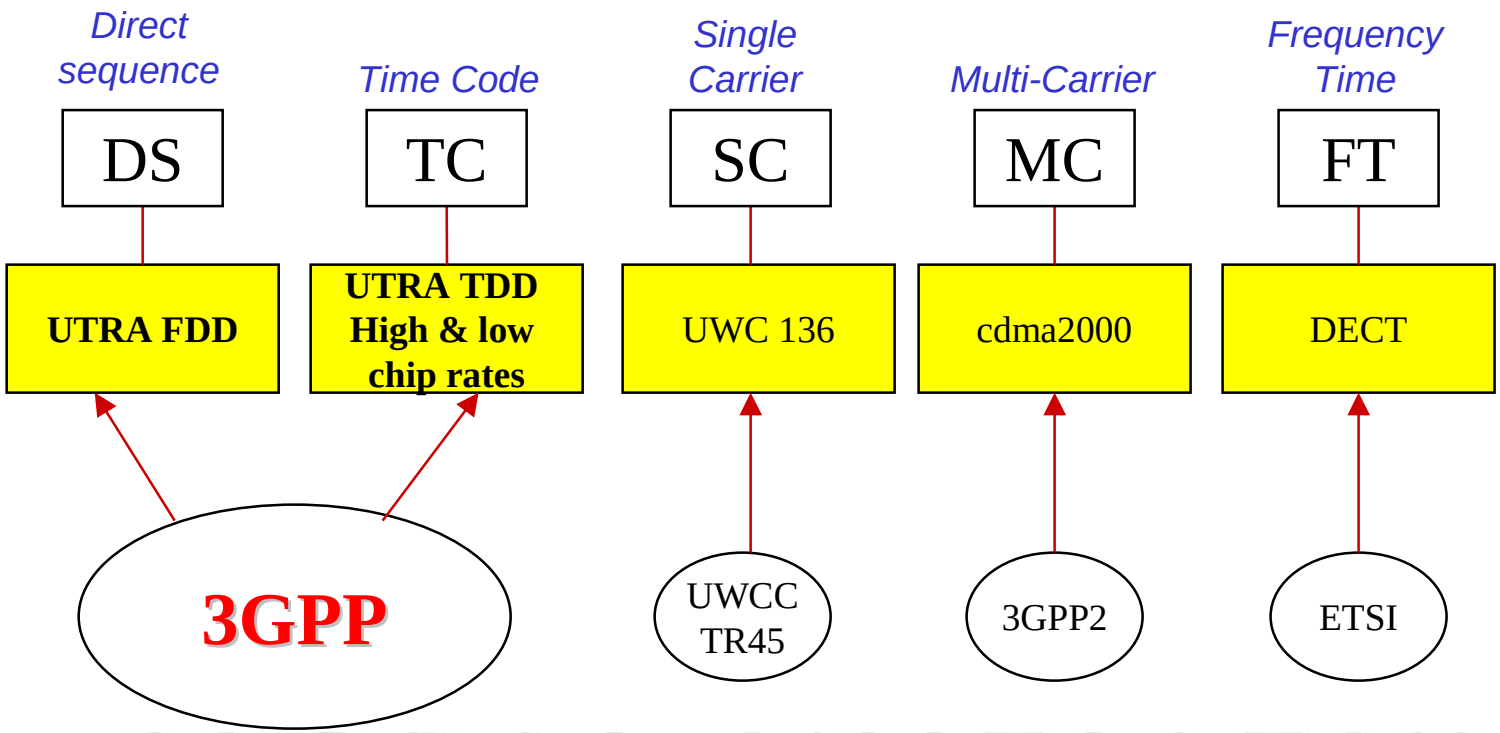
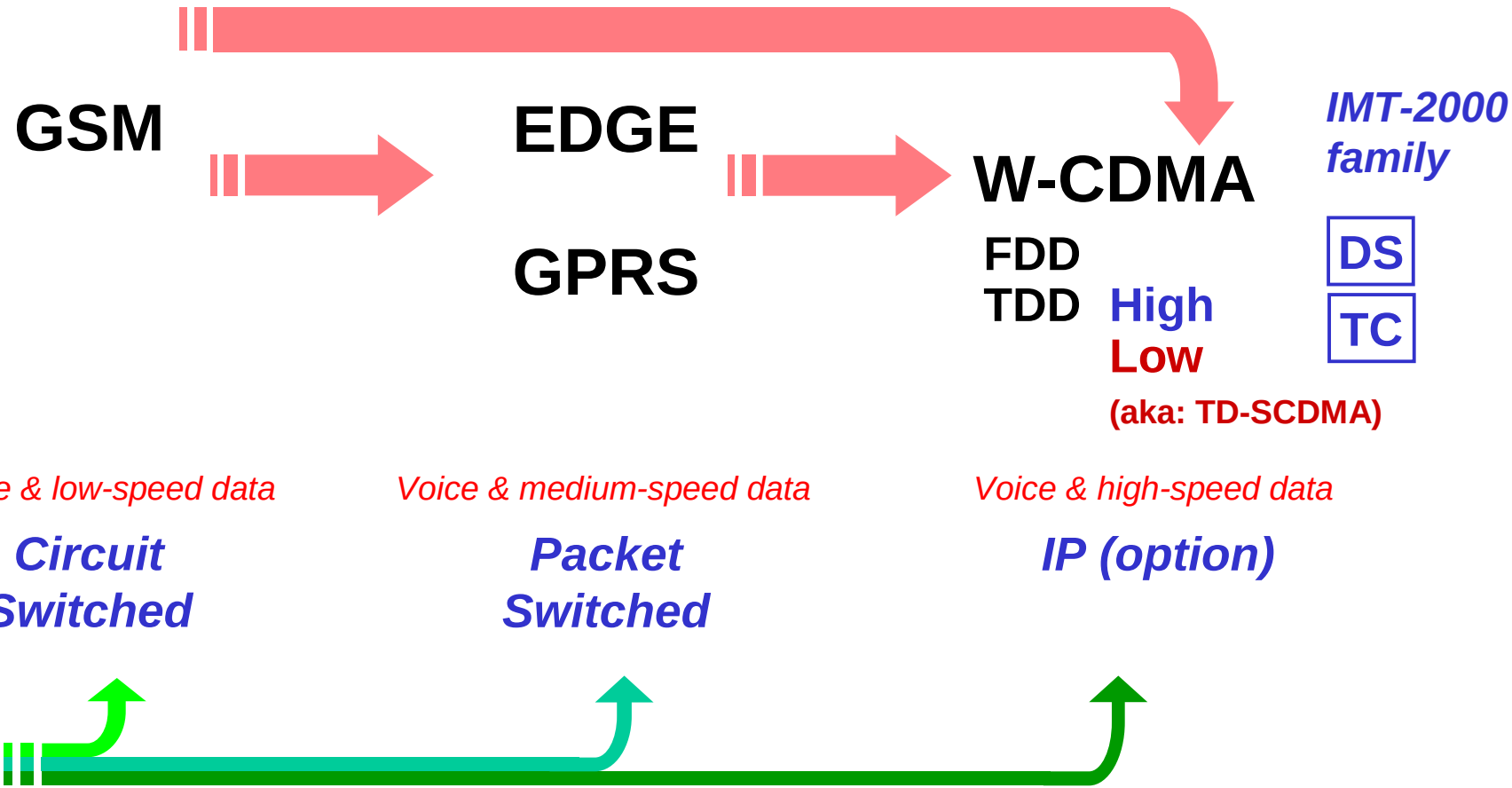
Ericsson Radio Systems AB
Core Networks Mobile Systems

IMT-2000

The 5 IMT 2000 terrestrial interfaces agreed by ITU-R



The paths to W-CDMA



What is 3GPP ?

3GPP is:

A collaborative agreement between Standards Development Organizations (SDOs) and other related bodies for the production of a complete set of globally applicable Technical Specifications and Reports for:

- a 3G System based on the evolved GSM core network and the Universal Terrestrial Radio Access (UTRA), FDD and TDD modes;
- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies

Organizational Partners

3GPP is:

- Open to all national/regional Standards Development Organizations irrespective of their geographical location *(Organizational Partners)*

CWTS

ETSI

ARIB

T1
Standards Committee T1
Telecommunications

TTC Telecommunication Technology Committee

TTA

A GLOBAL INITIATIVE

Market Representation Partners

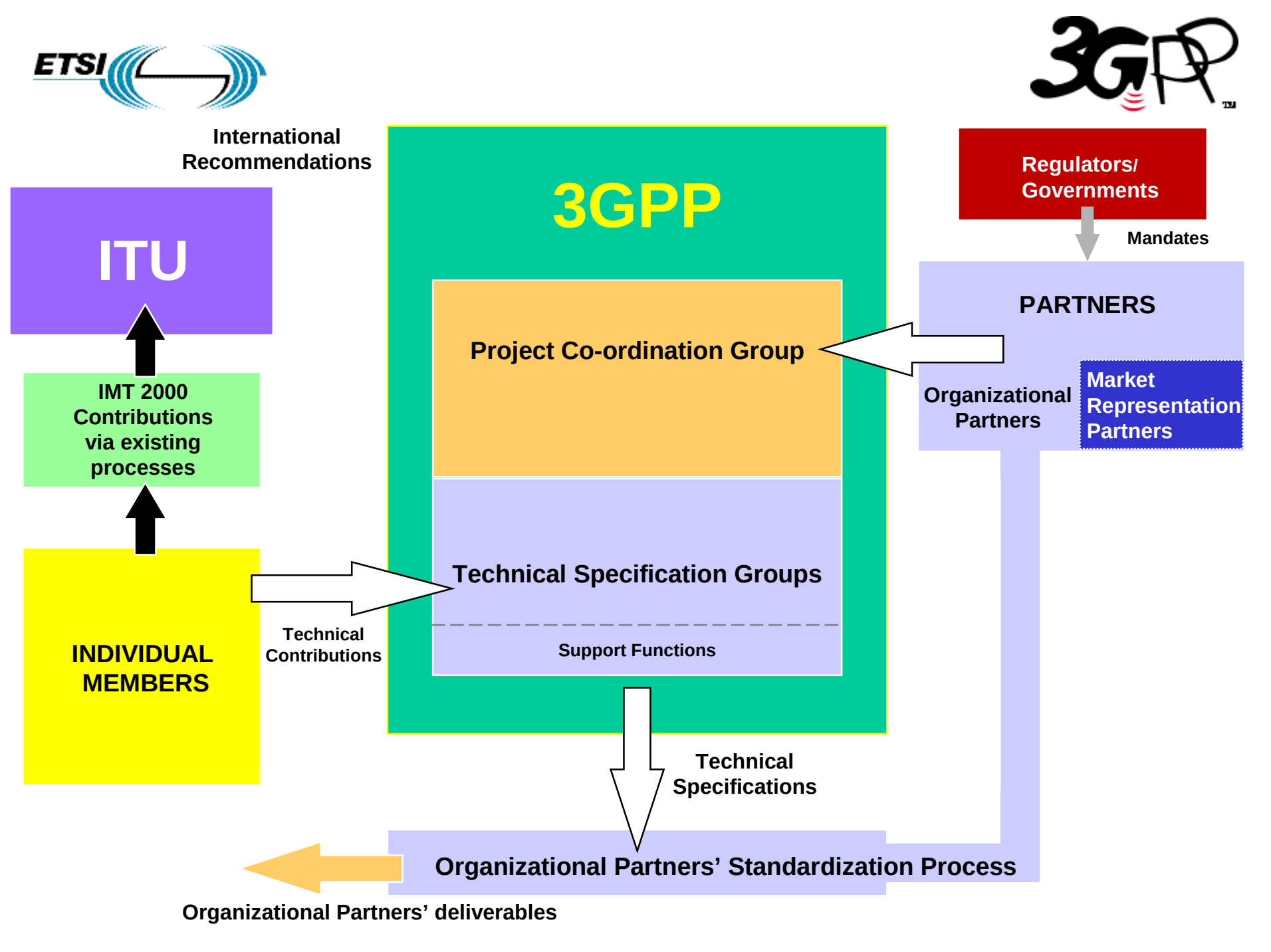
3GPP is:

- Open to all organizations that can offer market advice and a consensus view of market requirements *(Market Representation Partners)*

Individual Members

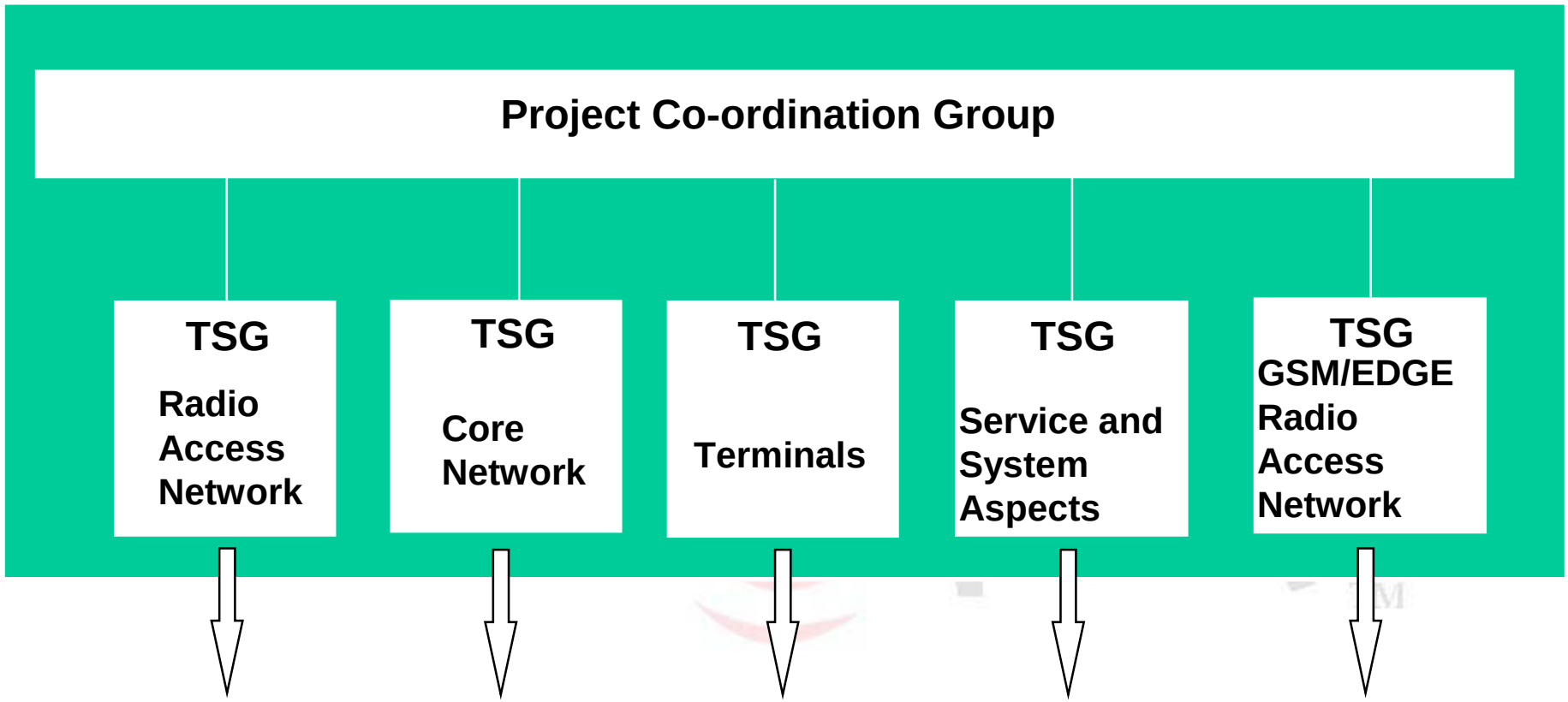
3GPP is:

- Open to the members who belong to each Organizational Partner
- Currently, more than 450 Individual Member companies are actively engaged in the work of 3GPP


International Recommendations
ITU
IMT 2000 Contributions via existing processes
INDIVIDUAL MEMBERS
Technical Contributions
3GPP
Project Co-ordination Group
Technical Specification Groups
Support Functions
Technical Specifications
Organizational Partners' Standardization Process
Organizational Partners' deliverables
Regulators/ Governments
Mandates
PARTNERS
Organizational Partners
Market Representation Partners

How does 3GPP work ?

3GPP internal structure



The Mobile Competence Centre

3GPP has a Mobile Competence Centre (MCC) providing comprehensive project support

MCC:

- is located at the ETSI HQ in Sophia Antipolis, France
- has 27 full time personnel
- is an International team of 14 nationalities from 4 continents
- has an annual budget of 6.5 Million $ US
- is ISO 9002 compliant

Project plan

- All Features, Building Blocks and Work Tasks are contained in the 3GPP Project Plan
- Plan based on Microsoft Project
- Gantt presentation available on 3GPP web site
- Open access – everyone can view the plan

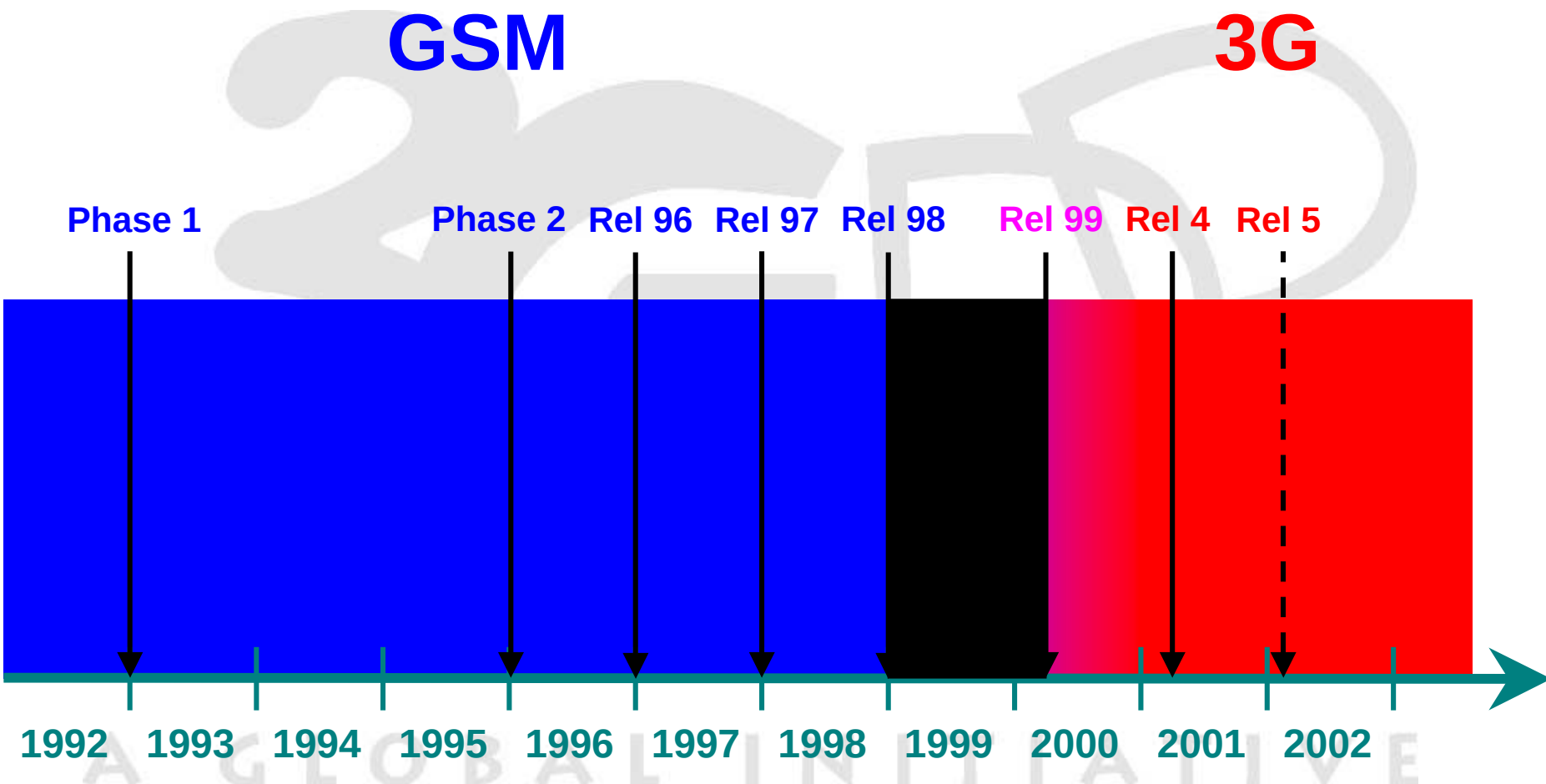
http://www.3gpp.org/3G_Specs/wi_management.htm

The 3GPP Releases so far

- ***Release 99***
  - content frozen December 1999
- ***Release 4***
  - content frozen March 2001
- ***Release 5***
  - content to be frozen early 2002

- *Time schedule for further Releases not yet established*

Release 99


GSM
3G
Phase 1
Phase 2
Rel 96
Rel 97
Rel 98
Rel 99
Rel 4
Rel 5
1992
1993
1994
1995
1996
1997
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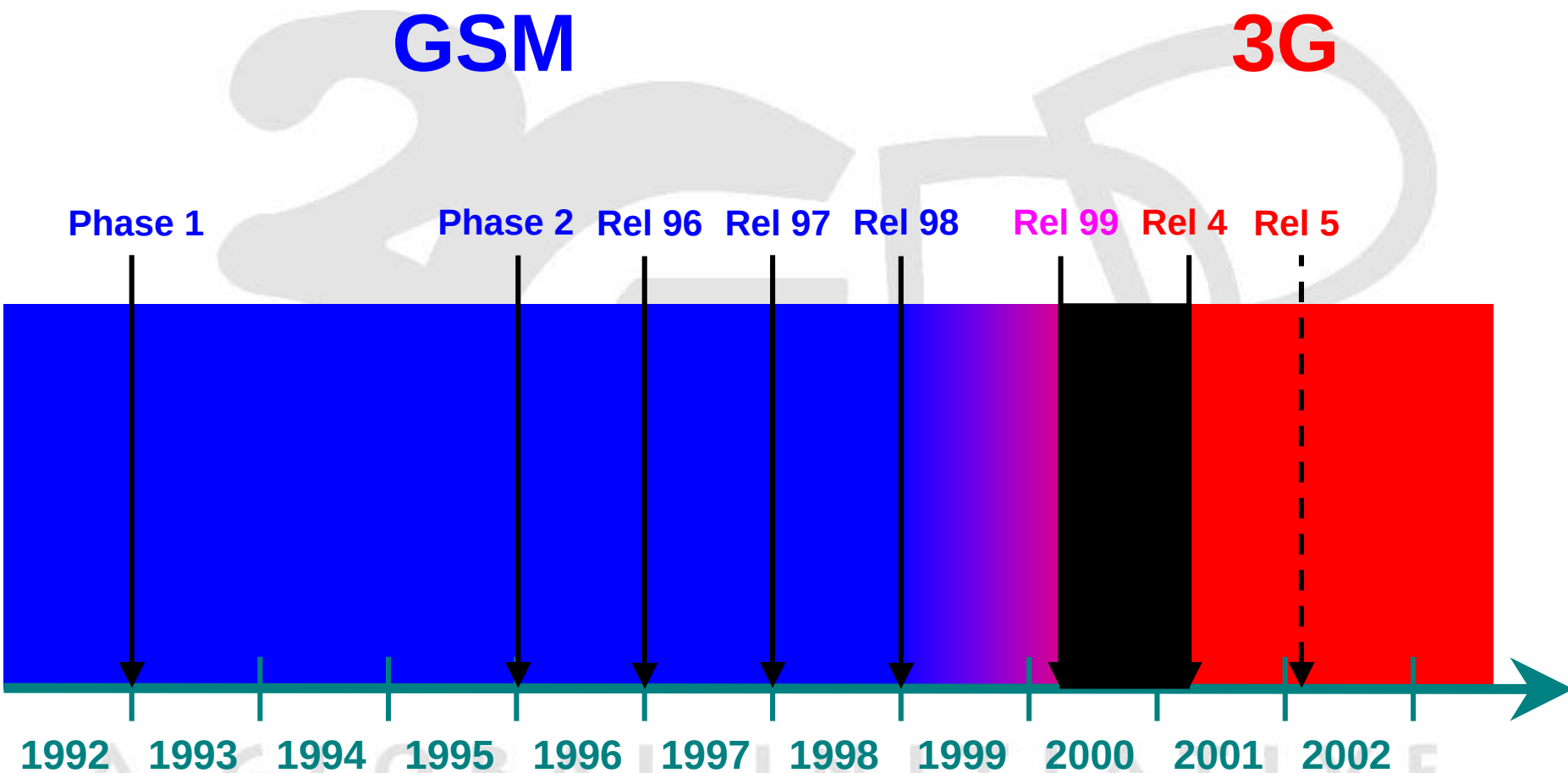
2000
2001
2002

Release 99

- Main feature:
  - Creation of the Universal Terrestrial Radio Access (UTRA)
- Other features:
  - CAMEL phase 3
  - Open Service Architecture (basic version)
  - Location Services (LCS): improvements and corrections of the basic version
  - Narrowband AMR (new codec)
- Lot of other smaller uncorrelated improvements (multicall, HSCSD for 2G, etc)

Release 4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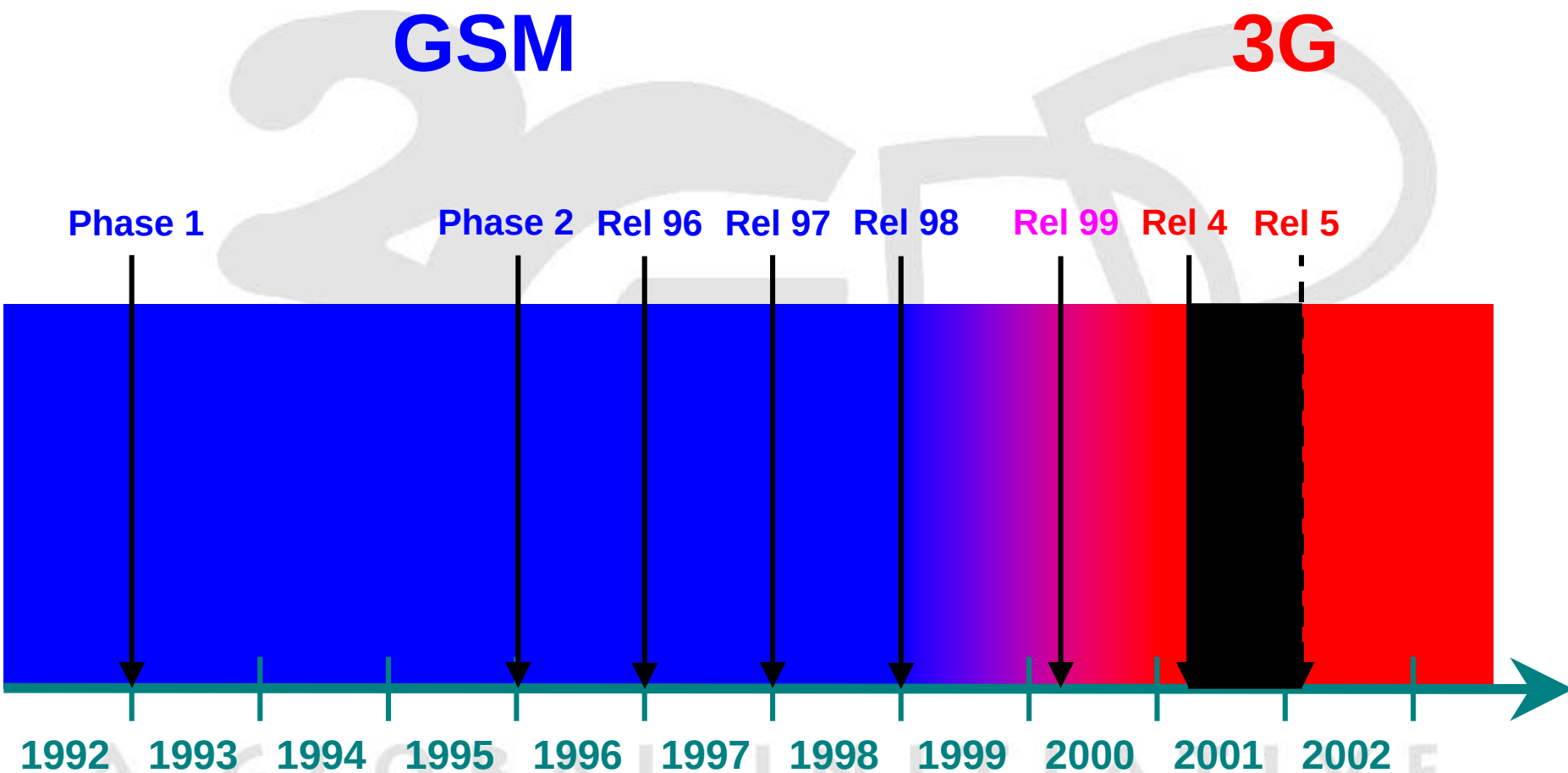
Release 4

- Main features:
  - Enable bearer independent CS network architecture
    - the MSC is split in “Media Gateway” for transport and “MSC server” for signalling
  - Streaming
    - allow to play on the terminal a real time flow stored in a distant place (e.g. a movie)
  - Multimedia messaging
  - Low Chip Rate TDD
  - GERAN

Release 4

- Lot of other uncorrelated smaller improvements including:
  - Terminal Power Saving
  - Migration to modification Procedure
  - UTRAN repeater specification
  - Real time facsimile
  - Transcoder Free Operation
  - Tandem free
  - QoS in PS domain on 3G bearers (end to end QoS is in Release 5 only)
  - Improvements in: MExE, USIM toolkit, AT command, LCS, emergency calls in CS domain, security, etc.

Release 5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Release 5

- Main features:
  - IP-based Multimedia Services (IMS)
    - handling of multimedia services using SIP signalling and the bearers offered by the PS domain
  - Wideband AMR (new codec)
  - CAMEL Phase 4
    - new functions as mid-call procedures, Interactions with Optimal Routing, etc.
  - End-to-end QoS in the PS domain
  - Global Text Telephony (GTT)

Release 5

- Some other uncorrelated smaller improvements already identified, such as:
  - IP transport in UTRAN
  - Intra domain connection of RAN nodes to multiples CN nodes
  - Emergency calls in PS domain
  - Smart Antenna
  - Improvements in GERAN, OSA, MExE, LCS, etc.

Influencing the work

3GPP is contribution driven…

- All progress is the result of contributions…
- Progress can be accelerated by more input…
- New Features may be proposed by 3GPP Individual Members, so…
- Make sure your company participates in 3GPP

Conclusions

- 3GPP is well established
- 6 OPs representing Europe, Asia and North America
- 8 MRPs (vendors, operators) provide consolidated market requirements
- Results are of an unprecedented volume and speed
- Release '99 firmly established
  - more than 300 Technical Specifications and Reports
  - an unprecedented achievement in standardization!
- Release 4 stable (March 2001)
- Stable plans for Release 5 (early 2002)
- Releases 4 and 5 include use of Internet Protocols plus numerous other features and enhancements
- 3GPP is the principal driver in IMT 2000

http://www.3gpp.org