ERICSSON

TSG RAN Meeting #22
9-12 December, 2003
Maui, HI, USA

Report from TSG RAN WG1 Chairman to TSG RAN#22

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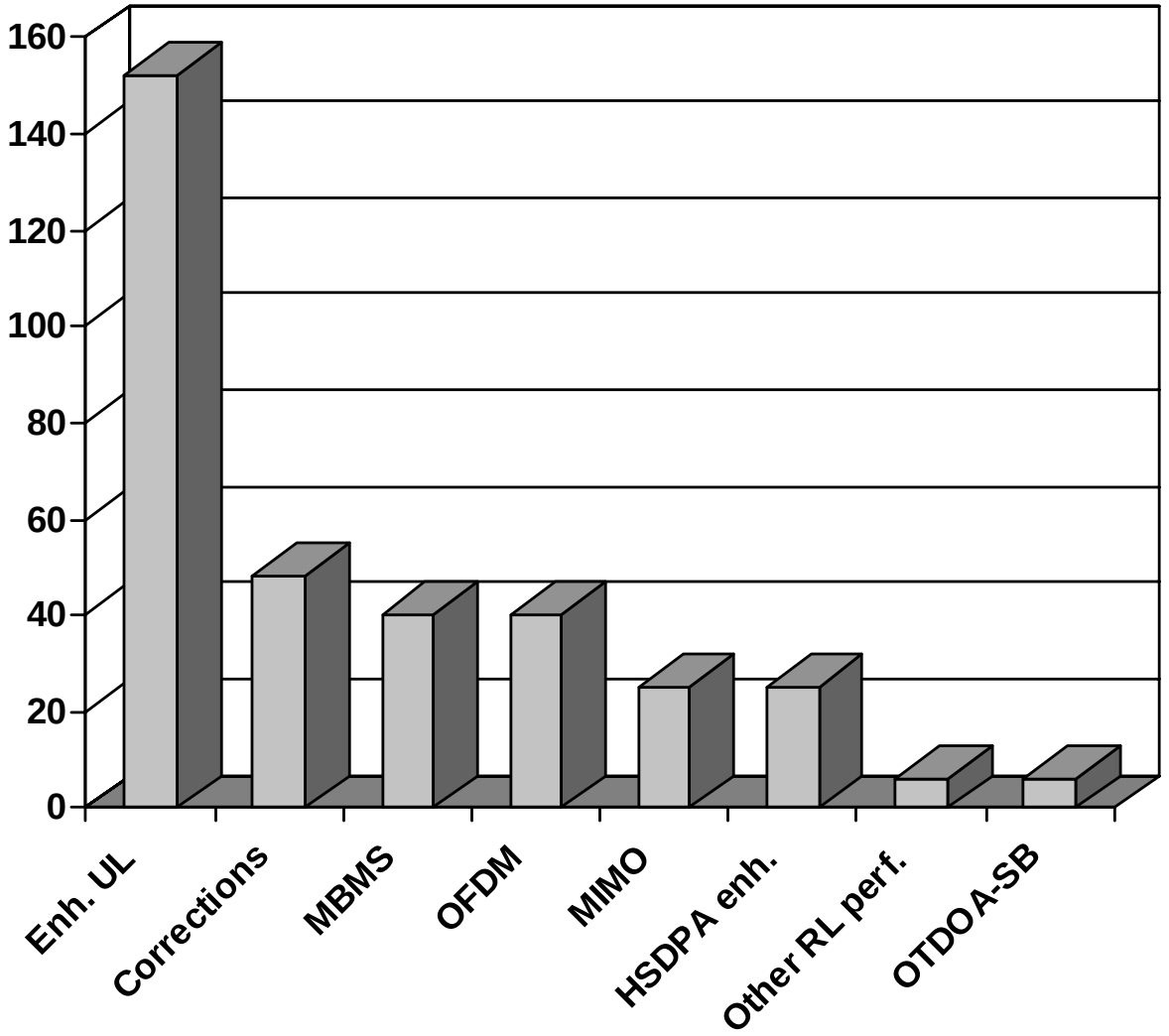
Two RAN WG1 meetings held during Q4 2003

- RAN WG1#34 in Seoul, South Korea, 6-10 October 2003
- RAN WG1#35 in Lisbon, Portugal, 17-21 November 2003

Executive Summary

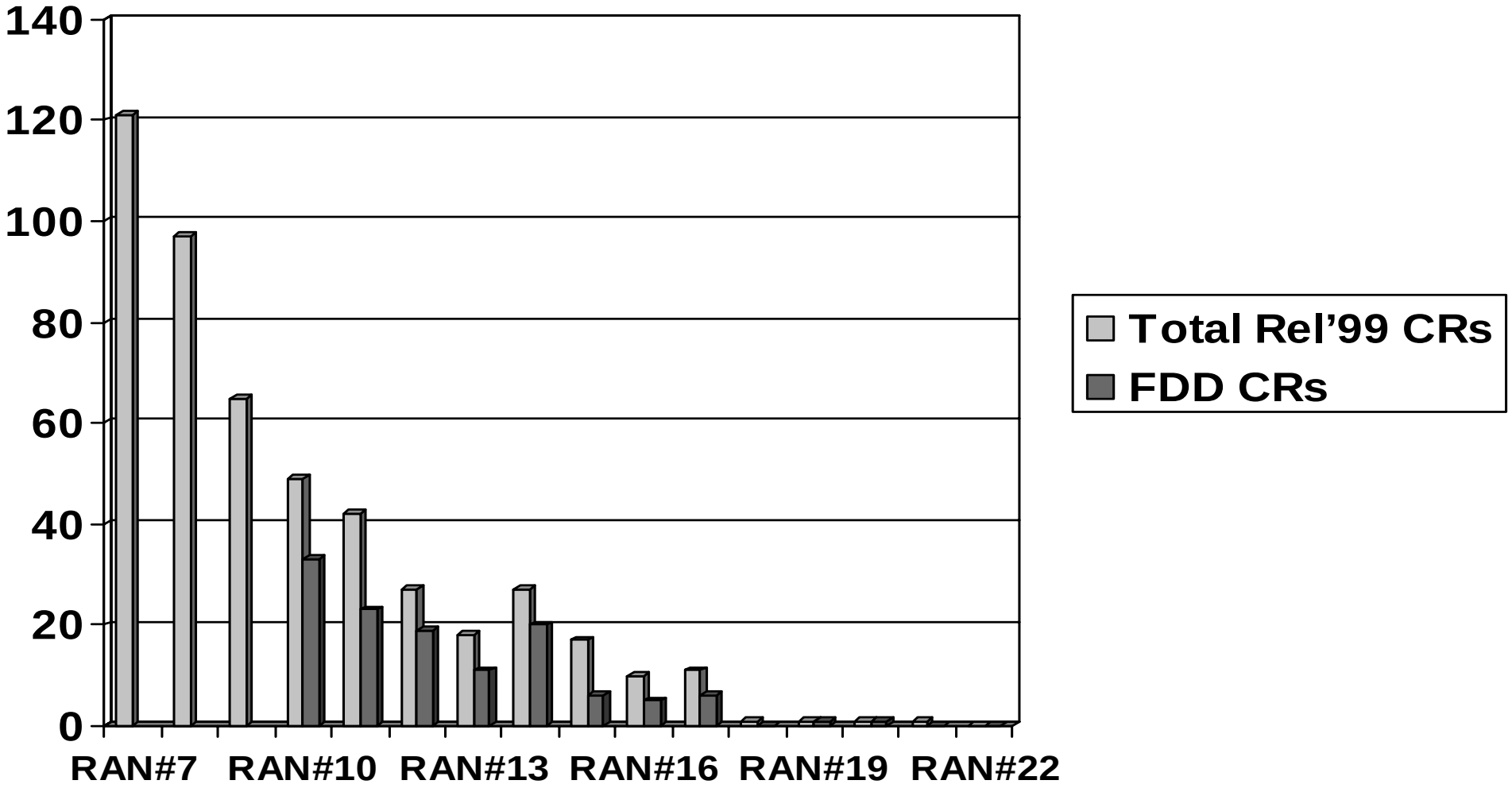
- Agreed change requests
  - 1 CR for Rel4 TDD
  - 8 CRs for Rel5 FDD, 2 CRs for Rel5 TDD
- Around 90 delegates attended each RAN1 meeting
  - 191 contributions submitted to RAN1#34
  - 241 contributions submitted to RAN1#35
- Around 80% of the time used for Rel'6 discussions
- Most discussions on
  - Enhanced UL DCH
  - Rel99/Rel4/Rel5 maintainance
  - MBMS
  - OFDM

Contributions per topic for RAN1#34&35



Release 99 & Release 4

Zero Rel99 CRs for RAN#22



Release 99 & Release 4

- No CRs for FDD (R99/Rel4)
- One CR for TDD (Rel4)
  - 25.222: Correction of subframe segmentation & physical channel mapping for 1.28 Mcps TDD
- One Rel4 CR for TDD agreed in principle
  - 25.224: Correction to computed gain factors with signaled reference gain factor values (company CR)
- UE behaviour for uplink power control in soft handover
  - UE behaviour is defined in RAN1 for *reliable* TPC commands
  - Detection of “reliable vs unreliable” to be ensured in Rel99
    - LS sent to RAN4 to cover this issue in Rel99

Release 5

Release 5 (FDD)

- 25.212
  - Clarification of the CRC attachment procedure for HS-SCCH
  - Correction of UE ID notation
  - HARQ process identifier mapping
- 25.213
  - Downlink Spreading, reference correction
  - Correction of reference to calculation of HS-DPCCH gain factor
- 25.214
  - Clarification of HS-SCCH reception
  - Clarification of CQI definition
  - Clarification of the HS-SCCH detection

Release 5 (TDD)

- 25.222
  - Clarification of the CRC attachment procedure for HS-SCCH
  - Correction of subframe segmentation & physical channel mapping for 1.28 Mcps TDD
- 25.225
  - Definition of Transmitted Code Power and ISCP measurements in the case of antenna diversity for TDD

Other Rel'5 related issues

- HSDPA reconfigurations
  - Detailed UE behaviour for a number of reconfigurations is under discussion, based on a CR for 25.214
- TFC selection with HS-DPCCH transmission
  - Discussion on how to consider HS-DPCCH transmissions in the TFC selection is ongoing on the RAN1 reflector
- Physical channel combinations for TDD
  - Discussion on the need of TDD PhCH combinations currently not covered by 25.302
    - simultaneous support of HS-DSCH and USCH within the UE
    - Operation of HSDPA without DPCH

Release 6

WI/SI where RAN WG1 is the leading group (1/6)

- Enhanced Uplink DCH (See RP-030577)
  - The biggest topic in RAN1 both in terms of number of contributions and contributing companies
  - Many contributions focus on detailed solutions, rather than topics required to progress the study item
  - 24 text proposals agreed for inclusion in the TR
    - Description of techniques
    - Rel99 reference results
    - UE complexity evaluation (PAR)
    - Link and system level results
  - Updated TR 25.896 (v1.1.2)

WI/SI where RAN WG1 is the leading group (2/6)

- Uplink enhancements for UTRA TDD (See RP-030581)
  - Latest TR 25.804 (v0.0.1)
  - Contributions on Rel5 reference performance and some improvement proposals discussed, but nothing included in the TR
  - No discussion at RAN1#35.

WI/SI where RAN WG1 is the leading group (3/6)

- OFDM (See RP-030576)
  - Updated TR 25.892 (v0.5.2)
  - System simulation methodology and effective SIR mapping agreed
  - Link simulation assumptions and reference link level results agreed
  - Set of initial system level evaluation results presented
  - Structure of UE complexity section in the TR agreed, text proposals on two selected complexity areas agreed in principle.
  - RAN guidance needed on whether also more advanced OFDM techniques shall be studied by RAN1 under the OFDM study item

WI/SI where RAN WG1 is the leading group (4/6)

- Beamforming enhancements (See RP-030565)
  - No contributions
  - Two sets of RAN1 CRs were already agreed at RAN1#33
- MIMO (See RP-030571 for physical layer)
  - Latest TR 25.876 (v1.2.0)
  - Description of some of the candidate techniques proposed so far were included in the TR
    - PARC, MPD
  - Discussion on system level evaluation started
  - TR structure for TDD sections agreed
  - How to conclude the SCM activity?

WI/SI where RAN WG1 is the leading group (5/6)

- Radio link performance enhancements (See RP-030574)
  - TDD power control enhancements
    - Latest TR 25.898 (v0.1.0)
    - Capacity and coverage with R99/Rel4 DL power control
  - Updated TR for TX diversity with more than two antennas
    - Latest TR 25.869 (v1.2.0)
    - 4Tx Diversity scheme for sub-arrays and performance of 4Tx OL-CL diversity scheme discussed
  - HSDPA enhancements
    - Latest TR 25.899 (v0.3.0)
    - Text proposals on Fractional DPCH, improvements of CQI reporting, TDD operation w/o DPCH agreed

WI/SI where RAN WG1 is the leading group (6/6)

- Improvements of interfrequency and intersystem measurements (See RP-030559)
  - No contributions
- Higher chiprates for TDD (See RP-030578)
  - Updated TR 25.895 agreed (v1.3.0)
  - Rel99 link level results included in the TR
  - Rel5 system level results included in the TR
  - UE and UTRAN complexity aspects included in the TR
- TEI6
  - Proposal for NodeB Tx branch load measurement presented

WI/SI where RAN WG1 is not the leading group

- MBMS (See also RP-030570)
  - Update of TR 25.803 (v1.2.0) sent to RAN & SA groups
  - FDD macrocell coverage estimate figures included
  - Further results for FDD and TDD added
  - Discussions on outer coding and selective combining ongoing
    - LS sent to RAN2/3
- UE positioning enhancements (See also RP-030652)
  - Discussion of simulation parameters for Soft-IPDL
  - Signaling aspects for IPDL alignment to be further investigated

Annex: RAN1 meeting schedule

Meeting	Date	Location	Host
RAN1#36	16-20 February 2004	Malaga, Spain	European Friends of 3GPP
RAN1#37	10-14 May 2004	Montreal, Canada	North American Friends of 3GPP
RAN1#38	16-20 August 2004	Prague, Czech Republic	European Friends of 3GPP
RAN1#39	15-19 November 2004	TBD, Japan	TBD

- All meetings are co-located with RAN2&3
- RAN1#38 and RAN1#39 are co-located with RAN4