Agenda item: **Reports of Adhocs**

Source: **Adhoc 26 chair**

Title: **Report from Adhoc 26: Transmit diversity with more than 2 antennas**

Document for: **Approval**

1 Introduction

Adhoc 26 meeting on Tx diversity with more than 2 antennas took place on March 1st, 2001.

Starting Time: 21:45
End Time: 22:30

2 Discussion of Contributions

Two contributions have been presented.

Tdoc R1-01-0287, Further Simulation Results of the Tx Diversity Scheme with Beamforming Feature, Fujitsu

Further simulation results for the Tx diversity scheme with sub-array antenna configuration have been presented. The results showed that the unequal power allocation for the pilot sequences of CPICH is effective to minimise the channel estimation performance degradation for Release'99 UEs. To achieve power balancing for each antenna the scheme by Samsung was proposed. Beam tracking performance and the permissible feedback delay for closed-loop beamforming and methods for controlling the beamforming weights in soft handover have been addressed.

The document was noted.

Tdoc R1-01-0335, Backward Compatibility with Tx-Diversity Extensions, Nokia

In this contribution backward compatibility issues on Tx Diversity extensions related to CPICH configuration have been addressed. It was stated that in order to extend the Tx-diversity functionality for 4 antennas, Rel'99 backward compatibility problems concerning common pilots should be solved. Furthermore, if the common pilot energy of Node B using 4-antenna Tx diversity increases compared to 2-antenna Node B, this gain should be taken into account when evaluating the performance of 4-antenna Tx diversity over the Rel'99 2-antenna method.

The document was noted. The extension of the CPICH will be further discussed.

Due to time constraints, the following documents for Adhoc 26 including the text proposals have not been presented. It will be left for presentation in the WG 1 plenary.

Text proposals:

Tdoc R1-01-0203   Description of the eigenbeamformer concept (update) and performance evaluation, Siemens

Tdoc R1-01-0204   Text proposal for WG 1 report on Tx diversity for multiple antennas, Siemens

Tdoc R1-01-0370   Proposed TR of Tx diversity for multiple antennas, Samsung

Tdoc R1-01-0404   Text proposal for WG 1 report on Tx diversity for multiple antennas on general issues, Nokia, Siemens

Discussion papers:

Tdoc R1-01-0394

Tdoc R1-01-0276   Closed Loop Mode Transmit Diversity for DSCH in Soft Handover

3 Summary

Two documents have been presented at this AH26. They have been noted. The remaining documents including text input to the TR could not be treated and are left for presentation in the WG1 plenary.