3GPP TSG RAN Meeting #26   RP-040521
Athens, Greece, December 8– 10, 2004

Title: **Proposed work item: UE Antenna Performance Evaluation Method and Requirements**

Agenda: 8.12

Source: TeliaSonera, T-Mobile, NTT DoCoMo, Orange, Vodafone Group, Nokia, Ericsson

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At RAN WG4#33 it was reported that COST273 SWG2.2 has finalized the specification of a method for measurement of radiated output power and radiated sensitivity of 3G UE antennas for the "speech mode" (UE close to the head), and that the method is ready for inclusion in the 3GPP specifications. The specification of the method was presented to RAN WG4.

It was noted that future envisaged steps will cover the "data mode" and diversity antenna UE, though it was currently unclear which body would undertake this work.

A couple of years back this topic was handled within the RAN WG4 Study Item "UE antenna efficiency test methods and performance requirements". At the RAN plenary #17 it was agreed that RAN WG4 should wait for COST273 to finish their work before including an antenna evaluation method and antenna performance minimal requirements in the 3GPP specifications.

UE antenna performance has a critical impact on coverage and capacity. To enable for operators to plan their networks in a systematic manner, ensuring a certain coverage and QoS for their customers, a method for UE antenna performance evaluation and UE antenna minimal performance requirements are needed.

Thus, a new work item "UE Antenna Performance Evaluation Method and Requirements" is proposed for the inclusion of an UE antenna performance evaluation method and for the inclusion of minimal requirements for UE antenna performance in the 3GPP specifications. A work item description proposed for approval by the RAN plenary is enclosed below.

Work Item Description

Title: **UE Antenna Performance Evaluation Method and Requirements**

1   3GPP Work Area

X	Radio Access
	Core Network
	Services

2   Linked work items

3   Justification

The UE antenna performance has critical impact on both system performance (throughput) and coverage. In order to ensure a certain level of coverage and QoS for the user, minimal requirements for UE antenna performance are necessary.

4   Objective

The aim of this work item is to
1. introduce a UE antenna performance evaluation method
2. define UE antenna minimal performance requirements

in the 3GPP specifications, for the speech mode (UE close to head).

5   Service Aspects

None

6   MMI-Aspects

None

7   Charging Aspects

None

8   Security Aspects

None

9   Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes		X			
No	X		X	X	X
Don't know					

10   Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
25.9XX	User Equipment (UE) Antenna Performance Evaluation Method				RAN#29	

Affected existing specifications					
Spec No.	CR	Subject	Approved at plenary#		Comments
25.101		User Equipment (UE) radio transmission and reception (FDD)	RAN#28		

11   Work item rapporteurs

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12   Work item leadership

TSG-RAN WG4

13   Supporting Companies

TeliaSonera, T-Mobile, NTT DoCoMo, Orange, Vodafone Group, Nokia, Ericsson

14   Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14a   The WI is a Feature: List of building blocks under this feature

n/a

14b   The WI is a Building Block: parent Feature

n/a

14c   The WI is a Work Task: parent Building Block

n/a