Study Item Description

Title

Feasibility Study on Uplink Enhancements for UTRA TDD

1   3GPP Work Area

X	Radio Access
	Core Network
	Services

2   Linked work items

None

3   Justification

With the growth in IP based services, there is a burgeoning requirement for increasing the coverage and throughput and reducing the delay of the uplink. Applications that could benefit from an enhanced uplink include web browsing, video clips, multimedia messaging and other IP based applications. This study item proposes to investigate enhancements that can be applied to UTRA in order to improve the performance for uplink dedicated and shared transport channels.

4   Objective

It is proposed that the study should include, but not be restricted to the following topics related to uplink enhancements for UTRA TDD to enhance uplink performance in general or to enhance the uplink performance for background, interactive and streaming based traffic:

- Adaptive modulation and coding
- Hybrid ARQ
- Node B controlled scheduling
- Fast allocation of dedicated and/or shared resources
- Enhancements to uplink dedicated channels
- Enhancements to uplink shared channels
- Physical layer and higher layer signalling mechanisms to support the enhancements

5   Service Aspects

None – better support of existing services

6   MMI-Aspects

None

7   Charging Aspects

None – uses existing charging schemes

8   **Security Aspects**

None

9   **Impacts**

Affects:	UICC apps	ME	AN	CN	Others
Yes		X	X		
No	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
TR	TDD Uplink enhancements	R1	R2,R3,R4	RAN#22	RAN#22	New study item
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments

The technical report should present the results of the study and make a recommendation for which techniques should be incorporated into current and future releases of the standard. The report should also detail the work items descriptions necessary to continue this work.

11   **Work item rapporteurs**

[TBA]

12   **Work item leadership**

RAN WG1

13   **Supporting Companies**

IPWireless, InterDigital, Alcatel, Samsung, **3**

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

(list of Work Items identified as building blocks)

14b	The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

(one Work Item identified as a building block)