# Status Report for SI to TSG

Agenda Item: 9.9.1

Study Item Name: "Radio Link Performance Enhancements"

SOURCE: Rapporteur TSG: RAN

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Ref. to WI sheet: RAN\_Work\_Items.doc

# Progress Report since the last TSG (for all involved WGs):

### Tx diversity for multiple antennas

The scope for the TR25.869 was agreed and one text proposal for A-STTD scheme was added. Discussion continued on the evaluation methodology for the proposals in the TR.

#### **HSDPA** enhancements

Seven text proposals on six different schemes were agreed to the TR25.899.

- Dynamic range extension to TDD CQI report
- o CQI enhancement schemes
- o Multiple simultaneous transmissions to a UE
- Code reuse
- Fast adaptive emphasis
- Fast signalling

#### **Power Control enhancement**

A question was raised whether RAN WG1 is in agreement about the need for this TR. It was concluded that RAN WG1 has agreed that this new TR is going to be handled as part of this SI. There have been a few proposals on the structure of the new TR on power control enhancement (TR25.898) but RAN WG1 has not reach an agreement (on the structure) yet and discussion continues. One scheme for TDD power control was proposed in 2002, and it is now in the scope of further work in this TR.

## List of Completed elements (for complex work items):

#### Tx diversity for multiple antennas

Description of studied schemes

# List of open issues:

## Tx diversity for multiple antennas

- System simulation model.
- Evaluation of presented pilot schemes + conclusion.
- Reviewed performance results.
- o Impacts to UE and UTRAN implementation.
- Impacts to physical layer operation.
- o Complete "backwards compatibility to R99/R4" considerations.
- o Evaluation of described schemes (comparing of different techniques).
- o Conclusion

#### **HSDPA** enhancements

Evaluation of described schemes

#### **Power Control enhancement**

- o TR structure
- Evaluation of described schemes

# Estimates of the level of completion (when possible):

# Tx diversity for multiple antennas

o Basic techniques are introduced.

#### **HSDPA** enhancements

o Basic techniques are introduced.

## Power control enhancement

o TR structure has not been agreed on yet.

# SI completion date review resulting from the discussion at the working group:

# Tx diversity for multiple antennas

o Completion date for TR25.869 remains as 09/2003.

## References to WG's internal documentation and/or TRs: