

TSG RAN meeting #8  
21 – 23 June 2000  
Dusseldorf, Germany

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Agenda Item: 6.1

Source: TIM/CSELT

Title: Radio link performance enhancements

Document for: Discussion & Decision

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## 1. Discussion

At the last RAN Plenary a Study Item on radio link performance enhancements has been approved. Currently, two technologies have been identified (namely TX diversity improvements and DCH/DSCH power control improvements) and relevant studies are currently undergoing within WG1.

No firm decision has been reached yet on whether any of these technologies will be included in Release 2000, and TIM/CSELT think that it is rather premature to have a Work Item on these topics.

For instance, in order to have a complete picture of the technologies currently available for the enhancements of radio link performance, investigations on RX diversity techniques in the UE are encouraged. Several studies [e.g., 1-2] consider this possibility (e.g., by means of polarization diversity) that may be very interesting. In fact, from an operator perspective, these techniques may turn out to be more attractive than other solutions like TX diversity whose implications in terms of number of antennas per site probably have not been taken into account yet; moreover, TX diversity is in any case optional in UTRAN (see TS 25.211).

Moreover, since the description of a Work Item/Study Item should be generic in nature, and since other technologies can be identified to be relevant for the enhancements of radio link performance, it would be better to delete any reference to specific technologies from the current Study Item sheet.

## 2. Conclusion

TIM/CSELT think that at this stage it is premature to have any Work Item on topics related to the Study Item on radio link enhancements. Moreover, it would be better to delete any reference to specific technologies from the Study Item sheet.

## References

- [1] Agius et al., "Mobile VCE Research in the area of antennas for 3<sup>rd</sup> generation mobiles terminals", Proc. of Millennium Conference on Antennas & Propagation, Davos, Switzerland, 9-14 April 2000
- [2] A.A. Agius, S.R. Saunders, "Intelligent Antennas for Mobile Handsets", 1st Intelligent Antennas Symposium 28-28 August 1997, University of Surrey, UK