To:	TSG-R WG2, TSG-R WG4
Source:	TSG-R WG1
Title:	Liaison to TSG-R WG2 and TSG-R WG4 on proposed changes to TR25.926 regarding the need to support downlink and uplink compressed modes
Document for:	Approval

In Technical Report, TR25.926, v.1.0.0, the UE radio access capability parameters and their possible values are described in the Table 1. Related to measurement capabilities, there is one parameter called "Need for compressed mode" which can take values Yes/No. In TSG-R WG1 opinion this capability should be described separately for uplink and downlink. The reason for this is that having single parameter puts unnecessary restrictions on the implementation possibilities of various multimode terminals.

In downlink case, the proposal is to have parameter called "Need for compressed mode in DL" which can take two values, Yes/No, regardless of the supported multimode or multi-RAT. This single parameter will allow for efficient implementations of the supported multi-mode and multi-RAT UEs.

The uplink case requires a bit more detailed descriptions of the UE capabilities related to compressed mode. As such, the Table 1 already has got other parameters that can be used to define the compressed mode capability of the UE in uplink for certain multi-mode or multi-RAT cases. Therefore it is proposed:

- For FDD interfrequency measurements, the need for uplink compressed mode is defined by the parameter "Tx/Rx frequency separation" as follows:

  ★ In case of fixed duplex spacing the uplink compressed mode is needed

  ★ In case of variable (flexible) duplex spacing the uplink compressed mode is not needed

Additionally, it is proposed that in case of TDD, DCS1800 and GSM1900 measurements, the uplink compressed mode is always needed. However, for GSM900 measurements, whether uplink can be in compressed mode or not, may have a big impact on UE implementation. As this may also affect the system performance further studies on UE implementation and system performance implications of the uplink compressed mode are needed.. Therefore, it should be possible define if there is a need for uplink compressed mode or not. Consequently, the following parameter, "Need for UL compressed mode" having two values, Yes/No, is proposed to be added.