

## Abstract Session 4 Spectrum Monitoring and broadcasting

Spectrum monitoring serves as the eyes and ears of the spectrum management process and supports its functions through verification of planning, licensing and enforcement.

In short: the role of monitoring is to observe the use of the spectrum and report on it.

Monitoring also is able to support major introduction of new applications in the spectrum, such as the introduction of DVB-T, replacing analogue TV.

Another task of monitoring is to enforce the various regulations as set for the use of the spectrum.

Broadcasting stations nowadays have the capability to transmit besides the various programmes for the listeners, also various other information via the same transmission.

Via monitoring it is possible to analyse the emission via investigating the so-called base band and check the various parameters.

Via the Radio Regulations limits are set for the maximum deviation of a FM broadcasting emission. ITU-R recommendations are providing guidance via which measuring protocol a emission can be measured. For measuring the maximum deviation of a FM broadcasting emission Recommendation ITU-R SM.1268 can be used. Examples will be shown that addition of extra elements to a transmission the deviation increases.

Another element of monitoring is to provide statistics on the use of various frequencies. Via so-called trend measurements one can see the development of a transmission over a certain period.