

# Future of TV for Europa

## 5G promises for broadcasting

Dr. Khishigbayar Dushchuluun

In recent decades, incredible innovations have taken place with television moving from analogue to digital broadcasting, from 4:3 SDTV to 16:9 HDTV (and even UHD TV). Today, TV faces the next challenge. Video is considered one of the important pillars of the 5G era. 5G can enhance the mobile experience and provide consumers with almost limitless media consumption. From a media perspective, a broadcast mode based on a global standard is urgently needed. This idea has existed since the introduction of LTE, but it was recently further developed by the 3GPP group with Release 14 as "Further Enhanced Multimedia Broadcast Multicast Service" or "FeMBMS". Taking into account further improvements from Release 16 onwards, this technology is now widely known as 5G Broadcast.

5G Broadcast makes use of the 5G transmission specification. It will allow broadcasters a new dimension of efficiency both from the mere number of potentially reachable devices and a cost perspective, while exploring a new era of quality of (mobile) experience. The idea is to receive broadcasters' signals primarily on mobile, portable and nomadic devices. Additionally, interactivity can be realized (e. g. for supplementary downlinks).

Actually, none of the consumer handsets and none of the existing TV sets are capable of receiving 5G Broadcast. In any case, 5G Broadcast is a broadcast system that can provide (interactive) TV reception even in rural areas with low population density and large coverage areas.

To what extent a conversion to 5G Broadcast would ultimately be meaningful and feasible requires further research.