

Broadcasters' report rejects co-primary allocation of UHF

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Consortium of broadcasters argues that the report it commissioned disproves the economic case for a co-primary allocation of the UHF band.

A new report commissioned by a consortium of broadcasters argues that a co-primary allocation of the entire UHF band for mobile broadband could lead to a loss of billions of euros to the European economy over the next 15 years.

... the total cost of DTT migration could be €38.5 billion

The report is timed to influence policy makers ahead of WRC-15 next year, which may decide to approve a co-primary allocation of the entire UHF band to mobile broadband and broadcasting. These new calculations challenge numerous studies that have highlighted the economic benefits of using spectrum for mobile broadband. Broadcasters in the past have often appealed to political or cultural objectives.

The work was commissioned from Aetha Consulting by a consortium consisting of Spanish, French and UK infrastructure firms Abertis, TDF and Arqiva; UK public broadcaster the BBC; digital terrestrial TV (DTT) operators' association Broadcast Networks Europe; and the European Broadcasting Union (EBU).

The UHF band has traditionally been allocated to broadcasting in Region 1, but in recent years, parts of it have been used for mobile broadband. The 800 MHz band (790–862 MHz) currently has a co-primary allocation to fixed, mobile, and broadcasting services. The 700 MHz band (694–790 MHz) is currently allocated to broadcasting on a primary basis but in 2012 political agreement was reached to allocate the band to both services on a co-primary basis after WRC-15.

The lower UHF band (470–694 MHz) also has a primary allocation to broadcasting, but many in the mobile industry and even the ITU-R director Francois Rancy have previously promoted its co-primary allocation with mobile.

Reports with contrasting findings

Studies commissioned by the GSM Association have in the past highlighted the economic benefits that mobile broadband can generate in contrast to broadcasting. For example, a 2013 study by Plum found that by 2023, the economic value of mobile broadband in the EU27 (EU minus Croatia) would be €477 billion compared to €25 billion from broadcasting. This study used a very different methodology to the Aetha report.

Advocates of a co-primary allocation also argue that it would give national administrations across ITU Region 1 (Africa, Middle East, and Europe) the flexibility to use the spectrum as they wish. This argument was rejected in the Aetha report.

“What you've got to consider here are the precedents,” said the report's lead author, Aetha founding partner Lee Sanders. “The history is that at WRC-07, the 800 MHz band was made co-primary and that quite quickly led, and arguably for very good reasons as the case for mobile was very clear, to the use of the band being taken away from broadcasters and given to mobile”. At WRC-12, the process was (almost) repeated for the 700 MHz band.

The report argues that a co-primary allocation could lead to a weakening of the digital terrestrial television (DTT) platform, and it is the costs of providing broadcasting services using alternative

means that are calculated in the report. It sets these costs against the estimated economic value that mobile broadband would generate between 2015 and 2029 in EU member states.

The report says that cost of new consumer equipment for replacement broadcasting services would be €19.7 billion, the cost to set up new free-to-view platform would be €10.8 billion, and the cost of reduction in TV platform competition would be €14.2 billion. These costs are offset against the net avoided cost of operating a DTT network, which would be €6.2 billion. All this means the total cost of DTT migration could be €38.5 billion.

... there is clearly no economic case for switching off existing DTT networks across Europe on the grounds of spectral efficiency

Aetha worked out the benefits of the use of the band for mobile broadband by calculating how much more money mobile operators would have to spend to provide for the predicted increase in mobile data demand without the lower UHF band. They then included a multiplier to take into account the higher consumer prices and diminished consumer benefit that this would cause. These calculations assume that both the 700 MHz and 800 MHz bands will be assigned across Europe.

They found that this figure was highly dependent on which mobile data demand projection should be believed. If current projections by the ITU-R are taken into account, then the economic benefit is projected to be €10.3 billion, whereas projections calculated by Analysys Mason for Ofcom as part of its 700 MHz band consultation process indicate that the benefit will be nearer to zero.

Aetha concluded that even in the most aggressive traffic growth forecast, the potential use of the band for broadcasting was worth four times as much as for mobile broadband. The report argues that in order to avoid that cost, the DTT platform should be protected by policy makers, and the lower UHF band should retain its primary allocation to broadcasting.

Why not have flexibility?

The premise of this argument was disputed by Wladimir Bocquet, senior director of spectrum policy at the GSM Association. He said the 470–890 MHz band is co-allocated on a primary basis to both mobile and broadcasters in ITU Region 3 (APAC), yet there is still a healthy broadcasting market. "ITU allocations give regulators flexibility to make harmonised decisions—they are not an accurate guide for financial investments," he said.

Nevertheless, Aetha's report says: "It is clear that the economic benefits for the EU are maximised if the 470–694MHz band continues to be used for DTT for at least the next 15 years—there is clearly no economic case for switching off existing DTT networks across Europe on the grounds of spectral efficiency."

The report's findings chime with the Lamy report, a failed attempt to forge a pan-European consensus on the coveted bands. This report settled on a 20-30-25 formula: that the 700 MHz band should be assigned by 2020 (+ or - 2 years), that the DTT platform for broadcasting should be maintained until 2030, and that there should be another review in 2025.

Reacting to the Aetha Report, Bocquet emphasised the importance of flexibility and the growing consumption of broadcasting services through mobile devices. "We are not advocating the end of broadcast TV – it clearly provides a vital service," he said. "Yet regulators cannot make good, long-term decisions in a straitjacket. As technology and usage trends evolve in future, it is essential that regulators have the flexibility to react by altering how much spectrum is used by broadcast and mobile services."

He argued that new technologies will allow more to be done with less broadcast spectrum and the whole TV market is evolving due to Internet-based on-demand TV access. He argued that

national administrations can cater for these changes with more flexibility if there is a co-primary allocation of the band.

"Terrestrial broadcast networks, with their large installed base of viewers and low cost of service provision, position DTT as the economically rational means of delivering audio visual content in Europe over the long term," said BNE secretary general Lars Backlund.

Aetha's report was presented at the European Broadcasting Union's "Forecast" conference in Geneva last week. •

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