

# EBU

OPERATING EUROVISION AND EURORADIO

## R 156

# INFRASTRUCTURE STRATEGY TO ENSURE CONTENT DISTRIBUTION DURING TIMES OF CRISIS

Recommendation

Geneva  
May 2022



This page is intentionally left blank

## Infrastructure strategy to ensure content distribution during times of crisis

<i>EBU Committee</i>	<i>First Issued</i>	<i>Revised</i>	<i>Re-issued</i>
TC	May 2022		

**Keywords:** Crisis, Broadcast, Content, Distribution, Infrastructure, Resilience, Security, Co-operative networks, Radio, DTT, FM, Television.

*This recommendation has been precipitated by the impact of recent natural disasters and the unfolding crisis in Ukraine and it is designed to provide guidelines to EBU Members and other broadcasters.*

### Recommendation

#### *The EBU, considering that:*

- Universal availability of accurate, timely, and reliable information is always essential for a functioning society and particularly so during times of crisis.
- In times of crisis, as in normal times, the population shall be offered access to information.
- Distribution infrastructure can be damaged by natural disaster<sup>1</sup> and is a strategic target in times of war, as is amply demonstrated in the current Ukrainian crisis<sup>2</sup>.
- Only a combination of multiple, different distribution infrastructures can ensure that 100% of the population and territory can be reached. This includes both broadcast and broadband networks.
- Broadcast networks, both satellite and terrestrial, can provide near-universal coverage and efficiently reach very large audiences, hence they are an essential part of the national communications infrastructure, alongside broadband and cable networks.

<sup>1</sup> An analysis of the impact of floods in Germany in 2021 found that 'some areas were impacted so heavily that all critical infrastructure was damaged to a point beyond repair and ceased operation. In the Ahr valley, this included roads, rail, bridges, electricity, cell broadcast, food, water, sewage, hospitals and much more of the critical infrastructure.'

One of the recommendations is that 'Key features of resilience such as redundancies must be kept or created; when one communication system fails, another one must function, at least one or the other. The n-1 principle hence must also consider different modalities of one service; when digital broadcast communication fails, analogue radio needs to be maintained.'

see [https://mdpi-res.com/d\\_attachment/water/water-13-03016/article\\_deploy/water-13-03016-v2.pdf](https://mdpi-res.com/d_attachment/water/water-13-03016/article_deploy/water-13-03016-v2.pdf).

<sup>2</sup> An Associated Press (AP) correspondent from Mariupol, Ukraine, Mstyslav Chernov, wrote:

*"The absence of information in a blockade accomplishes two goals.*

- *Chaos is the first. People don't know what's going on, and they panic. At first, I couldn't understand why Mariupol fell apart so quickly. Now I know it was because of the lack of communication.*
- *Impunity is the second goal. With no information coming out of a city, no pictures of demolished buildings and dying children, the Russian forces could do whatever they wanted. If not for us, there would be nothing. ...*

*I have never, ever felt that breaking the silence was so important."*

<https://apnews.com/article/russia-ukraine-europe-edf7240a9d990e7e3e32f82ca351dede>.

- In the current Ukrainian crisis, broadcast and telecommunications resources are being progressively disrupted or occupied. The importance of DTT and FM transmitters is indirectly underlined by the fact that they are key targets of the invading army. As a result, terrestrial broadcasting as well as internet and cellular network resources in a large part of the Ukrainian territory are not operational.
- The Ukrainian authorities and broadcasters are using all available existing and legacy broadcasting technologies, including DTT, FM, MW and SW transmissions and, extensively, satellite technologies<sup>3</sup> are helping to reach the population independently of local infrastructure.

***Recommends that:***

- EBU Members, together with national authorities and other stakeholders in media and telecommunications sectors, shall design, deploy and run *resilient distribution infrastructures* that shall involve multiple technologies and networks that co-operate and that are sustainable.
- This co-operative infrastructure should include both broadcast and broadband networks and should implement high reliability, resilience and security features<sup>4</sup>.
- The same resilient approach, combining a multiplicity of infrastructures relying upon multiple technologies and network configurations, should be considered for content production and contribution.
- The distribution infrastructure should aim at providing services to 100% of the population and across 100% of the territory, leveraging the respective strengths of different technologies and networks.
- This distribution infrastructure shall be regarded as a critical national asset<sup>5</sup> and a strategic resource allowing low-barrier access to multiple and trusted sources of education and information to support citizens' safety and democratic lives; it is also a strategic asset against disruption and disinformation.
- The distribution infrastructure continues to be developed and used not only in time of crisis but also every day during normal times for the purposes of public service broadcasting, aiming to inform, educate and entertain the whole population, as well as alerting them to critical events.
- EBU Members continue to work with regulators and policy makers to create appropriate regulatory and market conditions to support the development and implementation of the advanced co-operative distribution solutions outlined here.
- The regulatory framework provides stability and long-term certainty, including access to sufficient spectrum resources for the continuous development of broadcasting technologies and networks.
- The critical network infrastructure must leverage the well-known strengths of broadcasting such as robustness and the ability to reach large audiences simultaneously, without the risk of congestion or delays.

---

<sup>3</sup> Many actions have been coordinated by the EBU to support the UA:PBC, involving the use of terrestrial and satellite-based resources.

<sup>4</sup> For example, using SFN with High, Medium and Small towers; equipment that will not switch on unless they receive an authenticated feed signal; systems that use redundant synchronization not only using GNSS systems; etc.

<sup>5</sup> For example, in some countries during the Covid-19 crisis, the staff responsible for the maintenance of transmitter networks were legally exempted from travel restrictions.