

ITUWorkshop

The future of television for Europe

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itu.int/en/ITU-R/seminars/Future-of-TV-Europe



ITU Workshop on “Future of television for Europe”

Broadcasting Early Warning Systems and Resilience

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Broadcasting in times of crisis



Türkiye/Syria earthquakes 6 February 2023 04:17

Broadcasting in times of crisis

TRT (Turkish PSB)

1 station totally collapsed
4 stations heavily damaged
28 station moderately damaged.
57 station not damaged.

Reaction

Continued FM Broadcast from undamaged and self-powered stations

Contact Electricity Network Operators

Oil for generators

Result

- Radio 1 (FM) restarted in 30 minutes
- TRT HABER (TV News) restarted in 30 minutes



Türkiye/Syria earthquakes 6 February 2023 04:17



.. And many more examples

ITU Workshop on Emergency Broadcasting

November 2013

ITU-R Report “Broadcasting for public warning, disaster mitigation, and relief”

ITU-R BT.2299-3 – March 2022

EBU Workshop “Broadcasting in times of crisis - 2023”

March 2023

EBU Report “Radio in Times of Crisis”

April 2024



Public Broadcasting systems are resilient

Resilience

Capability of a network to continue providing a service in case of unwanted event impacting network operation and to recover from such an impact.

PSM Obligations

Resilience requirements are sometimes explicitly mentioned as part of PSM's obligations to distribute on terrestrial broadcasting networks.

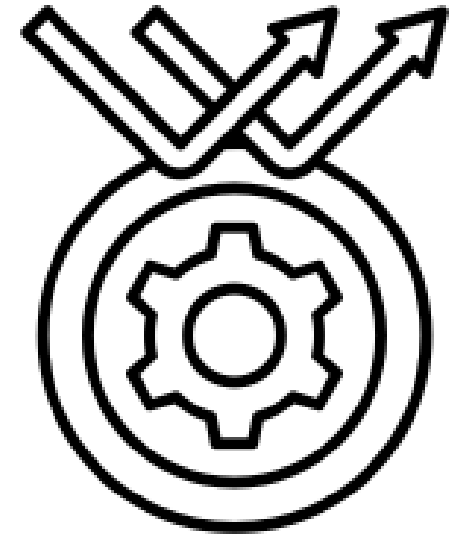
PSM have an implicit obligation to ensure high availability of their services, including in emergency situations.

PSM Recommendations

EBU published [Recommendation R156](#)

“Infrastructure strategy to ensure content distribution during times of crisis”

- Multiple technologies
(**M**ulti layer)
- Universal coverage
(**A**nywhere)
- **R**esilient infrastructure
- **S**ustainable
- **I**nforming and alerting



Terrestrial Broadcasting is very resilient

Redundant feeds

Fiber, satellite, fixed links, repeater mode

Replacement equipment on-site

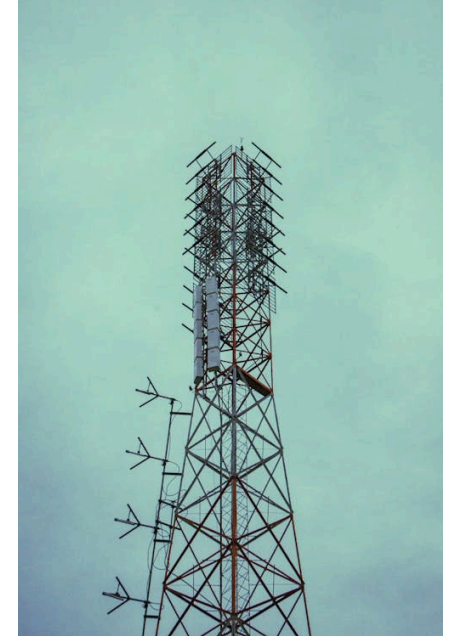
Redundant antennas, transmitters and feeders

Several days of power autonomy

Diesel backup generators and enough fuel

Geographical redundancy

Multiple sites, transportable transmitters



Roles of PSB in times of crisis

Information

Before, during and after the disaster

Continuous information to the public in relation to the disaster

No need for selective geographical coverage

No need for user feedback

Under the full editorial responsibility of the PSB



RTVE maintains its special programming on Thursday around the DANA

- News broadcasts from the most affected areas: special news at 2:15 p.m., TD1 from 3:00 p.m. and TD2 until 10:50 p.m., without broadcast of 'La Revuelta'
- '59 seconds' will analyze the causes and consequences of the DANA and will give a voice to the citizens from Utiel
- In the afternoon, special 'La Hora de La 1' from 18:30 to 21:00 on La 1 and Canal 24 horas. And 'La Noche en 24' is extended until 01:00

10/31/2024 | 12:14 p.m. By RTVE PRESS



Effects of the DANA in Alfafar (Valencia) / Europa Press



Spain floods 29 October 2024 – RTVE coverage

Roles of PSB in times of crisis

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Early warning

Only before the disaster

Often requires selective geographical coverage

Requires agreed protocol with alerting authorities (e.g. CAP)

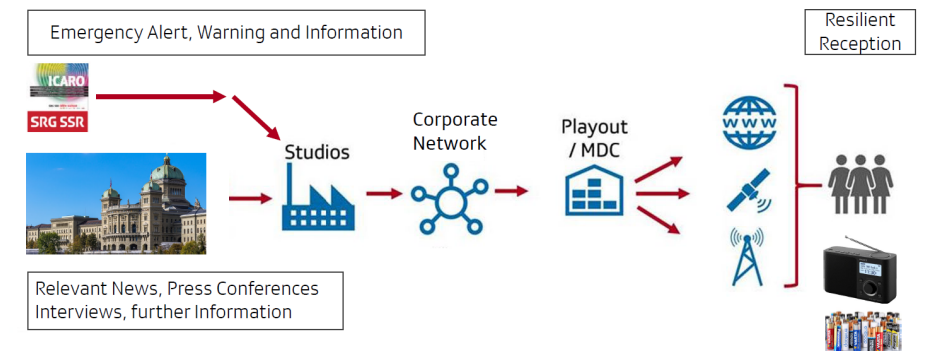
Useful to have user feedback, although not mandatory

Requires an automatic “wake up” feature in the user device



Spain floods 29 October 2024 – RTVE coverage

Global Chain of Resilient Emergency Broadcasting

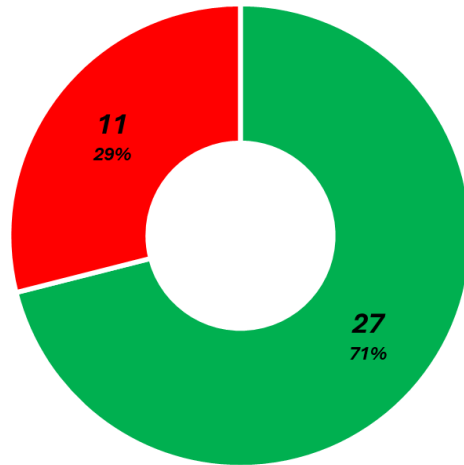


Swiss Emergency Alerting Broadcasting (ICARO) by SRG SSR – Swiss PSB

Broadcasters' involvement in EW4ALL

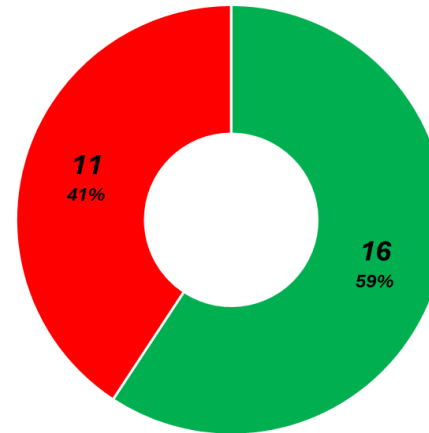
Ongoing questionnaire to broadcasters worldwide

Early Warning System in your country/State?



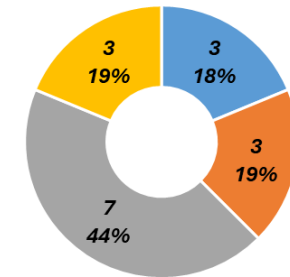
■ Yes ■ No

Is your Broadcasting organization involved in it?



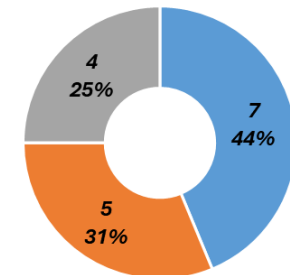
■ Yes ■ No

Which format is used for communicating the alerts to the Broadcasters?



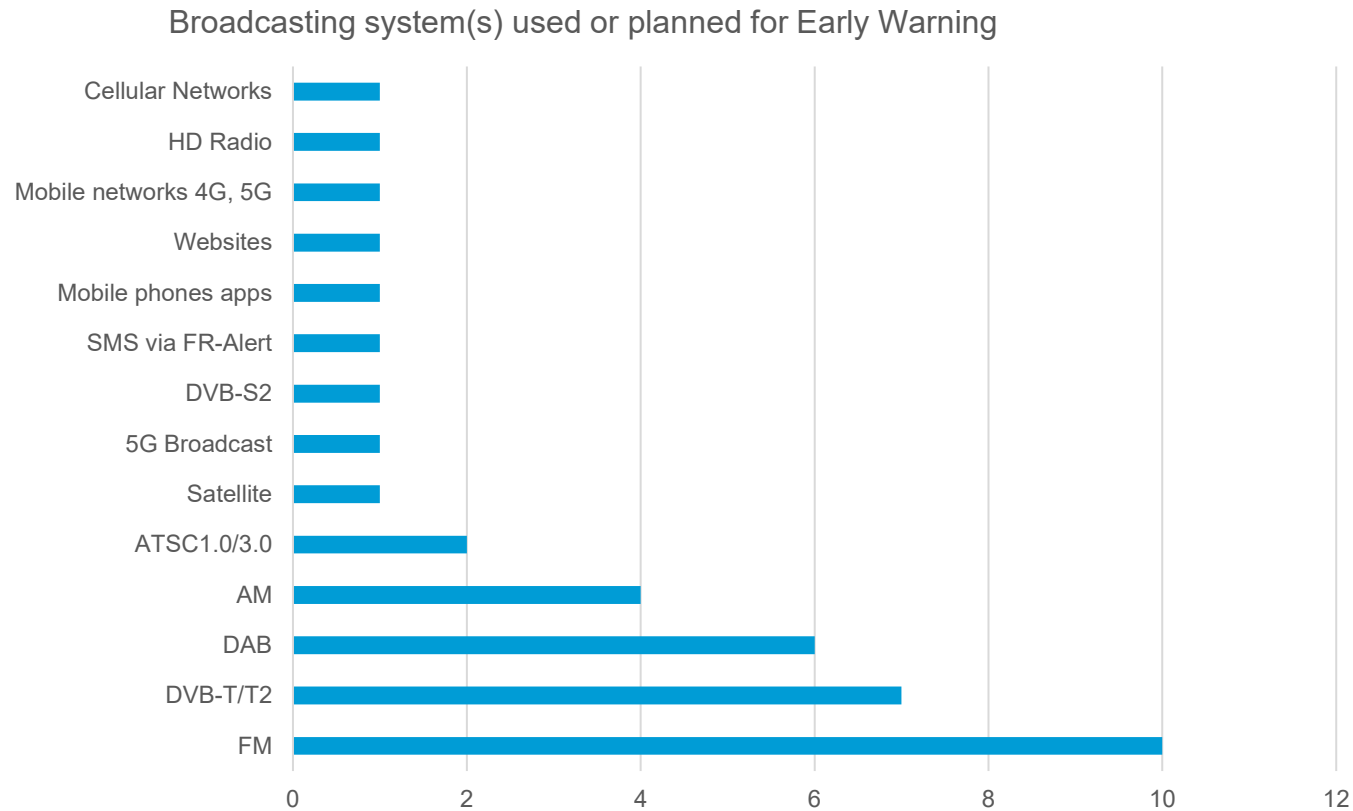
■ CAP ■ CAP+other ■ Other Protocol ■ N/A

Would you consider requesting wake up alerting in digital receivers' specifications?



■ Yes ■ No ■ N/A

Broadcasting systems used for Early Warning



Radio is the main broadcasting platform used for Early Warning

.. but Terrestrial Television is also used

Thank you!

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