

SHURE **100** YEARS

RSPG Workshop

The future of the 470-694 MHz band within the EU

11 April 2025

... just a few numbers

- ~75 000 assignments for PMSE use in London in 2018 (FM51(19)359)
- **Global Growth:** The live events industry is projected to expand from \$652.6 billion in 2022 to \$1.2 trillion by 2032, reflecting a compound annual growth rate (CAGR) of 5.9%.
(<https://www.prnewswire.com/news-releases/live-events-industry-market-to-reach-1-2-trillion-globally-by-2032-at-5-9-cagr-allied-market-research-301956049.html>)
- **Europe-Wide:** A 2022 survey revealed that 83% of event planners across Europe anticipated hosting more live events in 2023 compared to 2019, indicating a strong momentum in the return of in-person gatherings.
(<https://news.itb.com/topics/news/live-events-europe/>)
- **Spain:** The live music sector in Spain reached a record revenue of over €570 million in 2023, surpassing the previous year's figures by €20 million. This growth was primarily attributed to large-scale festivals and concerts by international artists.
(<https://elpais.com/cultura/202410-18/la-musica-en-directo-firma-su-mejor-ano-con-record-de-recaudacion.html>)



Call to Action

We urge governments, regulators, and international spectrum management bodies to:

- **Ensure long-term access to sub-700UHF spectrum for PMSE** by safeguarding dedicated spectrum bands that enable professional wireless audio solutions.
- **Maintain spectrum coexistence policies** that prioritize critical PMSE needs and prevent displacement by commercial mobile services.
- **Support innovation and development** of wireless PMSE technologies through stable regulatory frameworks that encourage investment.
- **Facilitate international harmonization** of PMSE spectrum allocations to enable cross -border productions and global event coordination.



+ LET'S CELEBRATE

100 YEARS OF EXTRAORDINARY SOUND

SHURE 100 YEARS

THE SHOW MUST GO ON

The Criticality of UHF Spectrum Access for PMSE Audio

Shure Position Paper

RSPG Sub-700 MHz Workshop (April 11)

Programme Making and Special Events (PMSE) audio equipment plays a fundamental role in global cultural, entertainment, and media industries. From live concerts, theatre productions, and broadcasting to sports events and political conferences, professional wireless microphones and in-ear monitors rely on stable and interference-free radio frequency (RF) spectrum. The UHF (Ultra High Frequency) spectrum has historically been the backbone of PMSE operations, offering unparalleled reliability, range, and flexibility. As spectrum reallocation discussions intensify worldwide, it is imperative to safeguard PMSE's continued access to this vital resource.

THE UNPARALLELED IMPORTANCE OF UHF SPECTRUM FOR PMSE

#1 Reliability in Professional Environments

PMSE audio applications demand real-time, high-fidelity audio transmission. Unlike other consumer and industrial wireless applications, PMSE cannot tolerate interference, latency, or dropped signals. The UHF band (470-694 MHz) has proven to be the most reliable spectrum range due to its ability to penetrate obstacles, provide sufficient range, and support high channel densities essential for large-scale productions. Additional frequencies should be considered such as 960–1164 MHz, 1240-1260MHz and 1350–1400 MHz bands to face the surge of activities

#2 Lack of Viable Alternatives

The physical properties of higher-frequency bands result in reduced coverage, increased susceptibility to interference, and the requirement for higher power consumption. Lower frequency bands, conversely, are often congested with other critical services. Emerging technologies, such as 5G and Wi-Fi-based solutions, do not yet provide a dependable alternative for professional audio due to latency and spectrum sharing challenges. Thus, UHF remains irreplaceable for PMSE.

#3 Economic and Cultural Significance

The creative and entertainment industries contribute significantly to global GDP and employment. Live events, concerts, and broadcasting depend on PMSE equipment functioning flawlessly. A lack of access to sufficient UHF spectrum would result in operational disruptions, increased costs, and reduced quality of productions, threatening the viability of many industries that rely on live performances and broadcasts.

#4 Spectrum Efficiency and Responsible Usage

PMSE equipment manufacturers and users have demonstrated responsible and efficient spectrum usage, continually innovating to optimize the use of available frequencies. Digital wireless audio technology and dynamic frequency coordination have further improved spectrum efficiency. PMSE is not a passive consumer of spectrum but an active innovator in ensuring its optimal utilization.

#5 The Need for Regulatory Protection

As spectrum allocation debates continue, mobile broadband operators seek greater access to UHF frequencies, often at the expense of PMSE. Several studies show that mobile data growth is decelerating globally¹. Decisions should not come at the cost of an industry that cannot simply migrate to another frequency band without significant compromise. Policymakers and regulators must recognize the essential nature of PMSE applications and provide protected spectrum access.

CALL TO ACTION

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1. **Ensure long-term access to UHF spectrum for PMSE** by safeguarding dedicated spectrum bands that enable professional wireless audio solutions.
2. **Maintain spectrum coexistence policies** that prioritize critical PMSE needs and prevent displacement by commercial mobile services.
3. **Support innovation and development** of wireless PMSE technologies through stable regulatory frameworks that encourage investment.
4. **Facilitate international harmonization** of PMSE spectrum allocations to enable cross-border productions and global event coordination.

Conclusion

The continued success of the creative and event industries depends on secure and stable access to UHF spectrum for PMSE audio. This is not just a technical necessity; it is a fundamental requirement for maintaining the quality, reliability, and economic viability of cultural, entertainment, and broadcasting sectors worldwide. Without decisive regulatory support, the very essence of live performance and broadcast excellence is at risk. We must act now to preserve this vital resource for future generations of performers, producers, and audiences.

**More than ever it is crucial for the European Union to
support meaningful European value through contents and creativity
promote sharing values and emotions by bringing people together in
“real world” events**



**WE STAND UNITED IN OUR COMMITMENT TO ENSURING
THE FUTURE OF PMSE AUDIO IN THE UHF SPECTRUM**

Surge in Physical Events:

• **Global Growth:** The live events industry is projected to expand from \$652.6 billion in 2022 to \$1.2 trillion by 2032, reflecting a compound annual growth rate (CAGR) of 5.9%.ⁱⁱ

• **India's Boom:** In India, there were 27,000 live events in 2024, marking a 35% increase from the previous year. This surge is attributed to rising disposable incomes and enhanced infrastructure.ⁱⁱⁱ

• **Melbourne's Recovery:** Melbourne has witnessed record-breaking attendance at events like the 2025 Australian Open and concerts by international artists, underscoring a robust return to live events post-pandemic.^{iv}

• **Europe-Wide:** A 2022 survey revealed that 83% of event planners across Europe anticipated hosting more live events in 2023 compared to 2019, indicating a strong

momentum in the return of in-person gatherings.^v

• **United Kingdom:** In the first week of July 2023, over 1 million people attended live music shows in London alone, demonstrating a robust appetite for live events.^{vi}

• **United Kingdom:** In 2023, the UK's live music industry achieved a record economic impact of £6.1 billion, marking a 17% increase from 2022 and a 35% rise from pre-pandemic levels. This growth was driven by over 55,000 events, with major tours contributing significantly.^{vii}

• **Spain:** The live music sector in Spain reached a record revenue of over €570 million in 2023, surpassing the previous year's figures by €20 million. This growth was primarily attributed to large-scale festivals and concerts by international artists.^{viii}

USE CASE

Music Tourism in the European Union

Concerts, theatre productions, and large-scale events significantly bolster the socio-economic landscape of the European Union (EU), particularly through the burgeoning sector of music tourism. These events stimulate local economies by increasing spending in areas such as accommodation, dining, and transportation.

Music tourism has emerged as a prominent trend, with travelers increasingly planning trips around concerts and festivals. This phenomenon not only enriches cultural experiences but also drives substantial economic benefits to host cities^{ix}.

- **Traveler Behavior:** A study^x by Amadeus revealed that many European travelers intend to follow their favorite artists on tour, leading to a surge in concert and festival attendance. Notably, 79% of Spanish travelers expressed a desire to explore the destination when traveling for live music events^{xi}.
- **Impact on Travel Demand:** The announcement of major tours has been linked to significant increases in travel searches and bookings. For instance, Taylor Swift's 2024 European tour dates resulted in a 91% surge in flight searches to Romania and a 62% increase to Athens.^{xii}

Economic Contributions of Live Music Events

Live music events contribute directly and indirectly to local economies through various channels.

- **Spending Patterns:** Attendees of major concerts often incur substantial expenses beyond ticket purchases. A survey indicated that concertgoers spend approximately \$1,300 per event on hotels, transportation, and food^{xiii}.
- **Multiplier Effect:** The live entertainment industry exhibits a notable multiplier effect. For every \$100 spent on a concert ticket, an additional \$334.92 is generated in local spending, culminating in a total economic impact of \$434.92^{xiv}.

Case Study: United Kingdom

The UK's live music sector exemplifies the economic potential of music tourism.

- **Economic Impact:** In 2023, the UK live music industry achieved a record economic impact of £6.1 billion, marking a 17% increase from 2022 and a 35% rise from pre-pandemic levels. This growth was driven by over 55,000 events, with major tours by artists like Beyoncé and Coldplay contributing nearly three-quarters of the total impact^{xv}.
- **Tourist Attendance and Spending:** The UK attracted 19.2 million music tourists in 2023, with London alone hosting 4.9 million. These tourists generated £6.6 billion in total spending, underscoring the substantial financial influx associated with music tourism^{xvi}.

Impact on Hospitality Sector

Large-scale events have a pronounced effect on the hospitality industry, particularly hotels.

- **Hotel Bookings:** Major concerts and festivals lead to increased hotel occupancy rates and elevated room prices. For example, Beyoncé's tour stop in Stockholm attracted approximately 90,000 visitors, significantly boosting local hotel bookings^{xvii}.
- **Revenue Generation:** Hotels in cities hosting major events often experience a surge in revenue due to heightened demand. The "Oasis effect" in Cardiff exemplifies how large events can substantially boost daily trade for hoteliers^{xviii}.

In summary, concerts, theatre productions, and major events serve as catalysts for economic growth within the EU. They enhance local economies through increased tourism, substantial spending in the hospitality sector, and the broader multiplier effects associated with cultural events.

ⁱ <https://www.mobileeurope.co.uk/mobile-data-uses-growth-rates-down-65-in-1h-2024/>

ⁱⁱ <https://www.prnewswire.com/news-releases/live-events-industry-market-to-reach-1-2-trillion-globally-by-2032-at-5-9-cagr-allied-market-research-301956049.html>

ⁱⁱⁱ <https://www.reuters.com/world/india/global-music-stars-head-india-young-affluent-indians-pack-concerts-2024-12-06/>

^{iv} <https://ground.news/article/empty-stands-to-heaving-crowds-how-major-events-brought-life-back-to-melbourne>

^v <https://news.itb.com/topics/news/live-events-europe/>

^{vi} <https://accessaa.co.uk/a-year-of-major-challenges-and-huge-opportunity-what-2023-meant-for-the-live-events-industry/>

^{vii} <https://www.theguardian.com/business/article/2024/sep/04/economic-impact-of-uk-live-music-industry-hits-record>

^{viii} <https://elpais.com/cultura/2024-10-18/la-musica-en-directo-firma-su-mejor-ano-con-record-de-recaudacion.html>

^{ix} <https://emoryeconomicsreview.org/articles/2024/11/16/swiftonomics-how-the-eras-tour-boosted-the-global-economy>

^x <https://amadeus.com/en/newsroom/press-releases/music-tourism-expected-to-drive-european-traveler-demand-in-2024>

^{xi} <https://www.theticketingbusiness.com/2024/01/25/music-tourism-predicted-to-increase-travel-among-europeans/>

^{xii} <https://discover.bedsnline.com/en-na/resources/insight/travel-trends-2024-music-tourism>

^{xiii} <https://emoryeconomicsreview.org/articles/2024/11/16/swiftonomics-how-the-eras-tour-boosted-the-global-economy>

^{xiv} <https://www.oxfordeconomics.com/resource/livemusic/>

^{xv} <https://www.theguardian.com/business/article/2024/sep/04/economic-impact-of-uk-live-music-industry-hits-record>

^{xvi} <https://www.statista.com/topics/12417/music-tourism-in-europe/#topicOverview>

^{xvii} <https://discover.bedsnline.com/en-na/resources/insight/travel-trends-2024-music-tourism>

^{xviii} <https://www.thetimes.com/business-money/entrepreneurs/article/oasis-and-other-mega-events-are-music-to-hoteliers-ears-enterprise-network-6pnzlbwbd>