

Audible Public Transport

A Strategic Report on Safety, Orientation, Trust, and Recognition

Sound Strategy • 2026



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A Strategic Report on Safety, Orientation, Trust, and Recognition

by Herwig Kusatz

Sound Strategy))) Trust You Can Hear

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Executive Summary

Public transport is not only seen and used. It is also continuously heard.

Announcements, warnings, voices, interface sounds, and audible environments shape how passengers experience safety, orientation, trust, service quality, and recognition. Yet while visual identity, service design, and operational performance are usually managed with intent, the audible layer of public transport is still often treated as a **byproduct** of systems, suppliers, and isolated functional decisions rather than as a **coherent part of the service experience**.

In Germany alone, local public transport accounted for 9.84 billion passenger trips in 2024, or roughly 27 million passenger journeys per day. Beyond Germany, the relevance is clearly not local: UITP's latest Global Urban Mobility Indicators benchmark now covers 53 major cities worldwide, underlining the scale at which public transport systems are used, compared, and judged. Across those journeys, passengers repeatedly encounter voices, signals, alerts, announcements, and the audible character of stations, vehicles, and transfer points. **The audible layer is therefore not marginal. It is part of the infrastructure of the service.**

Newman and Schwarz (2018) showed that the same spoken content was judged as less credible, less important, and less intelligent when its audio quality declined. In other words, **the words did not change; only the quality of the sound did**. Even then, listeners did not need to consciously identify the quality difference for the effect to appear. A 2025 systematic review in *Frontiers in Psychology* likewise confirms that voice acoustics, including factors such as loudness, pacing, and pitch, shape perceived trustworthiness and competence. The implication for public transport is direct: how information sounds affects how the system behind it is understood.

The effect is not only theoretical. In Vienna's public transport network, sound-related passenger feedback improved by **13%** following the redesign of the audible layer. When sound is **governed with the same seriousness** as other service-shaping elements, the difference becomes audible in the passenger experience.

This report argues that the audible layer deserves strategic attention. Not because public transport needs more sound, but because it needs a clearer, more coherent, and more trustworthy audible system.

+13 %

Improvement in sound-related passenger feedback
Wiener Linien x Sound Strategy

53 cities worldwide

Included in UITP's latest Global Urban Mobility Indicators
(2023 data)

Core Theses

1. Public transport is already heard at scale.

Its audible layer is not marginal. It is part of the daily experience of millions of passengers.

2. Sound shapes interpretation, not just atmosphere.

It influences whether a system feels clear or confusing, careful or careless, calm or stressful.

3. Audible inconsistency weakens service perception.

When voices, signals, tones, and environments do not follow a recognisable logic, the system feels less clear, less reliable, and less considered.

4. This is a leadership issue, not only an operational one.

Because sound shapes perception and intersects with accessibility, passenger information, safety, and public trust, it cannot be treated as a purely technical byproduct.

5. A stronger audible system can improve both experience and reputation.

When guided intentionally, sound can support orientation, reinforce trust, improve perceived service quality, and strengthen recognition across touchpoints.

Introduction

Public transport is one of the most visible and audible services in everyday life. It is judged constantly, often quickly, and not only through formal performance indicators. People do not experience it as infrastructure alone. They experience it as a **system of signals**.

Some of those signals are visual. Others are functional. **A significant part of the experience is audible.**

Passengers hear announcements, alerts, confirmation tones, interface sounds, voices, and the acoustic character of the space. These elements **do more than transmit information**. Together, they shape **how a system is experienced**. They influence whether it feels clear or confusing, calm or stressful, modern or outdated, trustworthy or careless.

And yet this audible layer is rarely managed with the same strategic attention given to visual identity, service design, or communications. In many organisations, sound is still **treated as a technical byproduct**, a procurement matter, or a collection of isolated decisions. The result is often fragmentation: usable parts **without a coherent whole**.

That matters because public transport does not only move people. It directs, informs, reassures, and represents. It operates in moments that require clarity, accessibility, safety, and trust. In those moments, **sound is not peripheral. It is part of the service itself.**

1. Why the Audible Layer Matters

Public transport is usually described in visible and measurable terms: networks, timetables, vehicles, capacity, punctuality, infrastructure, digital services, and passenger information. All of these matter. But they do not describe the full experience of the system.

Public transport is also heard: before a train arrives, in the voice that explains a delay, in the signal that confirms a ticket action, in the warning that asks for attention, and in the recurring sounds of doors, escalators, machines, platforms, and vehicles.

Scale

In Germany alone, public transport accounts for roughly 27 million passenger journeys per day, or 9.84 billion trips annually. At a wider level, UITP's current benchmark spans 53 major cities worldwide, showing that public transport is not only a local service but part of a global field of large-scale urban systems. Each journey involves repeated acoustic contact with the system: onboard announcements, platform information, disruption messages, interface sounds, and the audible quality of stations, vehicles, and transitions.

The audible layer is therefore **not an add-on to the service**. It is part of how the service is **experienced in real time**.

In public transport, sound does not only perform a functional task. It also shapes how the system is interpreted. It influences whether a service feels organised or confusing, attentive or careless, modern or outdated, inclusive or excluding. **Sound does not merely carry information. It shapes perception.**

For leaders responsible for service quality, public trust, and institutional reputation, the implication is clear: the audible layer cannot be treated as a technical residue of the system. It is **part of the service, part of the public experience**, and part of the way people judge whether an organisation feels clear, capable, and trustworthy.

The audible layer is not a detail of the service. It is part of how the service is judged.

2. Public Transport Is Already Heard

Public transport does not need to add sound in order for sound to matter. **The audible layer is already there**, across the entire journey.

It begins before travel starts: in the app, at the ticket machine, and on the service hotline. It continues in stations, on platforms, at entrances, inside vehicles, and across transfer points. It becomes audible through voices, warnings, confirmation signals, alerts, prompts, and the acoustic character of the environment itself.

In many organisations, this layer does not emerge from one clearly led system. It emerges from different teams, suppliers, technologies, and earlier decisions. One sound may come from the vehicle manufacturer. Another from an interface provider. Another from an agency. Each may be justified on its own terms. From the passenger's point of view, however, they are **not heard separately. They are heard as part of one service.**

Where the audible layer appears

Voices carry instruction, reassurance, interruption, authority, and tone. They appear in onboard announcements, station messages, call-centre systems, accessibility support, and moments of service recovery.

Signals confirm, warn, prompt, and direct attention. They include ticket validations, door alerts, interface confirmations, escalator warnings, and system notifications.

Audible environments shape how places are experienced. Reverberation, crowd noise, mechanical sound, silence, acoustic harshness, and the balance between signal and background all influence whether a system feels calm, clear, burdensome, or disordered.

Passengers do not hear departments. They hear one system.

3. How Sound Shapes Perception

Where public transport is heard at scale, sound also shapes perception at scale. The audible layer influences four strategic outcomes in particular: trust, orientation, service quality, and recognition.

Trust

Trust is not built only through promises. It is also built through signals that suggest **competence, care, and control.**

Newman and Schwarz (2018) showed that the same spoken content was judged as less credible, less important, and less intelligent when its audio quality declined. In other words, **the words did not change; only the quality of the sound did.** Even then, listeners did not need to consciously identify the quality difference for the effect to appear.

In public transport, the implication is direct. When announcements are unclear, acoustically degraded, inconsistently voiced, or poorly judged, they do not simply communicate less well. They also affect how the system behind them is perceived.

In Vienna's public transport network, internal project data showed a **13% improvement** in sound-related passenger feedback after the audible layer was redesigned and governed more coherently.

Orientation

Orientation is not only about whether an announcement can technically be heard. It is about whether the audible system helps passengers understand where they are, what is happening, and what they need to do next.

For visually impaired passengers in particular, the audible layer is not an added convenience. It is **essential infrastructure**. A 2024 review published in PMC identifies the absence or low volume of auditory announcements as a **significant barrier** to public transport use, alongside other failures of accessible information.

Service Quality

Passengers do not experience service quality only through punctuality, cleanliness, or infrastructure. They also experience it through the character of interaction. **Sound shapes that character continuously.**

A 2025 systematic review in Frontiers in Psychology concludes that voice acoustics affect perceived trustworthiness, and that combinations of acoustic features offer more reliable guidance than isolated variables alone.

For public transport, the implication is practical. **How announcements sound affects how the organisation behind them is perceived.**

Recognition

Recognition in public transport should be understood more broadly than a signature sound or a campaign device. The question is whether the system has an **audible character** that remains **identifiable and coherent across touchpoints**.

Recognition does not emerge from one isolated element. It emerges from repeated consistency.

Sound does not merely accompany the journey. It shapes how the journey is understood.

4. Where the Experience Breaks

If sound shapes trust, orientation, service quality, and recognition, then audible inconsistency does more than create minor irritation. It weakens the experience at the point where people make judgments.

In public transport, these breaks are rarely caused by one dramatic failure. They usually emerge through **many small deviations**: a voice that does not feel aligned with the rest of the system, a warning tone that cuts too sharply, an interface sound that follows a different logic, or a disruption message that is technically correct but poorly placed in time.

When sound is audible, but not clear

Audibility alone is not clarity. An announcement may be heard without being easy to understand. A warning may be noticeable without being well judged. The problem in such cases is not silence. It is misjudged communication.

When touchpoints follow different logics

Voices may vary in tone, pacing, or authority. Signals may differ in character without a clear hierarchy. Environments may work against intelligibility. None of this needs to be dramatic to matter. Over time, the system starts to sound **assembled rather than aligned**.

When nobody owns the whole experience

In many organisations, **no single leader owns the audible layer** as a whole. Individual sounds are managed. Systems are maintained. Suppliers are coordinated. Yet **the overall experience falls between functions**.

That gap becomes audible to passengers not as an internal governance problem, but as unclear, poorly timed, or poorly judged communication. Transport Focus (2021) found that passengers described live onboard announcements as more problematic than automated ones, citing poor sound quality and too little warning to pay attention.

Most audible problems are not sound problems first. They are system problems made audible.

Expert Insight: Identifying Where the Audible Experience Breaks

Breaks in the sonic experience are difficult to identify when sounds are reviewed in isolation. They become visible — and audible — in real conditions: on crowded platforms, under time pressure, during disruptions, or in moments when passengers need to act quickly.

That is where it becomes clear whether an announcement is understandable over platform noise, whether a door-closing warning is appropriately timed, or whether a ticket validation sound gives passengers enough confidence that their action was successful.

Exploratory user experience research helps organisations study these moments from the user's perspective. In public transport, one particularly valuable method is contextual inquiry: a combination of on-site observation and interviews with passengers and staff.

Observation shows how sounds perform in real environments: whether they are heard, understood, trusted, ignored, or mistimed. Interviews add another layer by revealing how passengers interpret different sounds, where they feel uncertain, and which audible cues support or weaken confidence. Staff perspectives are equally valuable, especially from people who hear these systems continuously and observe passenger responses in daily operation.

This kind of research helps transport organisations move beyond judging individual sounds. It reveals how the audible system functions as a whole — and where the experience breaks.

UX research is also valuable later in the process. Usability testing and controlled listening sessions can assess clarity, timing, perceived meaning, tonal consistency, and functional fit before new sounds are rolled out. This reduces the risk of introducing sounds that work in isolation but fail in practice.

For public transport, this matters because sound is not only designed. It is used. It must perform under pressure, across contexts, and for a wide range of passengers.

The point is simple: **do not only test how sounds sound. Test how they work.**

Caitlyn Trevor is an award-winning researcher and musician with over a decade of experience studying how people perceive and respond to sound. She holds a PhD in Music Theory from The Ohio State University, has published in leading journals including PNAS, JASA, and Music Perception, and is professionally certified in user research. At SonicUXR, she helps teams evaluate and design sound through evidence-led user research.

5. Why This Is a Leadership Issue

The audible layer of public transport shapes outcomes that matter directly to leadership: safety, orientation, trust, service quality, and public perception. Once sound influences how a system is understood, the issue extends beyond technical performance. **It becomes a leadership issue.**

Because accessibility and information obligations now matter more

The European Accessibility Act, Directive (EU) 2019/882, applies from 28 June 2025. In passenger transport, it covers certain digital and information-related elements, including websites, mobile services, real-time travel information, and self-service terminals, though the scope is narrower for urban, suburban, and regional services.

For rail, the regulatory context is stronger still. Regulation (EU) 2021/782 has applied since 7 June 2023 and requires accessible information for passengers with disabilities and reduced mobility.

In the rail context, the PRM TSI also applies explicitly to visual and audible passenger information systems in stations and rolling stock, and requires written procedures, training, and operational measures to support accessibility in practice.

The implication is straightforward. The audible layer is **no longer only a matter of taste or added quality**. It sits at the **intersection of accessibility, passenger information, operations, and reputation**.

Because no single function can solve it alone

The audible layer **cuts across operations, accessibility, safety, digital systems, procurement, communication, and brand**. That is precisely why leadership is required.

The OECD's work on accessible cities makes the same point from a wider public-service perspective: accessibility in transport depends not only on infrastructure, but also on governance, cross-sector coordination, and the allocation of responsibility across systems.

The real question is therefore not who owns one sound in isolation. The real question is who ensures that what passengers hear adds up to a clear, accessible, and trustworthy public service.

What passengers hear is not just an output of the system. It is part of how the system earns trust.

6. What Better Could Sound Like

A stronger audible public transport system does not begin with more sound. It begins with clearer criteria for the sound that is already there.

Coherent rather than fragmented

A stronger audible system follows a recognisable logic across touchpoints. Voices should not sound as if they belong to different organisations. Signals should follow an intelligible hierarchy. What is experienced together should also be thought together.

Clear rather than merely audible

Clarity means more than acoustic presence. It requires intelligibility, timing, hierarchy, rhythm, and restraint. In busy environments, it is not enough for something to be heard. It must also be easy to process. **Better often means simpler.**

Targeted rather than burdensome

Sounds that are too sharp, too frequent, poorly prioritised, or badly placed in time make a system feel more tiring, even when it functions correctly. A stronger audible system draws attention where attention is needed and recedes where it is not.

Context-sensitive rather than generic

Urgency, reassurance, confirmation, and instruction are not interchangeable modes. What works in an emergency is not automatically right for a routine confirmation. What is meant to reassure should not sound like an alarm.

Accessible rather than excluding

A stronger audible system treats inclusion as part of its design logic, not as an afterthought. Intelligibility, contrast, sequencing, environmental masking, and alignment with other cues are not extras. They are part of a usable public service.

Governed rather than improvised

Without principles, clear ownership, and cross-functional coordination, **even well-designed sounds drift over time.** A stronger system is one in which decisions are not made in isolation, but guided by a shared logic.

Better sound is not more sound. It is sound with clearer purpose, stronger fit, and better governance.

7. Where Leaders Can Start

Start by **making the audible layer of the journey visible**. Before sound can be improved, it has to be understood as a system. Identify where passengers already encounter it: in apps, ticketing, platforms, vehicles, alerts, announcements, help systems, service hotlines, and audible environments.

Prioritise the moments that matter most. Not every audible touchpoint carries the same weight. The most important are those where sound most strongly affects safety, orientation, trust, usability, and perceived service quality.

Look for breaks, not just assets. The more useful question is not, “What sounds do we have?” It is, “**Where does the experience break?**” Where does sound create uncertainty? Where does it feel fragmented? Where does it undermine clarity or accessibility?

Clarify ownership across functions. A stronger audible system does not require one department to control every sound. It requires enough **shared responsibility and decision logic** for separate outputs to add up to one coherent public service.

Define a small set of principles. A disciplined set of principles creates a shared standard for decisions across teams, suppliers, and touchpoints.

Choose one pilot area. The best pilot is rarely the easiest one to brand. It is the one where passenger value, visibility, and organisational learning can meet.

Build governance, not just outputs. The long-term goal is not a one-off sound project. It is a more reliable way of making audible decisions over time.

The first step is not to add more sound. It is to lead what is already being heard.

Conclusion: What the System Sounds Like Matters

Public transport is often assessed through visible outputs and measurable performance: reliability, coverage, punctuality, cleanliness, accessibility, safety, infrastructure, and digital convenience. All of these matter. But they do not tell the whole story of how the service is experienced.

Public transport is also interpreted through sound. That interpretation happens continuously: in announcements, warnings, confirmations, voices, and the audible character of vehicles, stations, and transfer points. It matters in calm situations and in moments when clarity becomes critical.

The argument of this report is straightforward. The audible layer **should not be treated as decoration, branding surplus, or technical residue**. It should be treated as **part of the service itself**: part of how safety, orientation, trust, and perceived quality are experienced in practice.

In the end, passengers do not only judge whether a system works. They also judge whether it sounds like one they can trust.

Public transport is judged not only by how it runs, but also by how clear, reliable, and trustworthy it sounds.

Key Data and References

Scale

- Germany: public transport passenger trips per year — **9.84 billion** — VDV — 2024.
- Germany: passenger journeys per day — **around 27 million** — VDV — 2024.
- Global benchmark coverage — **53 cities worldwide** — UITP *Global Urban Mobility Indicators* — 2023 data / latest edition.
- United States: public transit trips — **7.7 billion** — APTA — 2024.

Practice

- Vienna public transport network: improvement in sound-related passenger feedback — **+13%** — internal project data from Sound Strategy and Wiener Linien — post-implementation.
- Announcements under governance — **5,000+** — internal project data from Sound Strategy and Wiener Linien.
- Project duration — **12 years** — 2011–2022.

Research

- Lower audio quality reduces perceived credibility, importance, and intelligence of identical content — Newman and Schwarz, *Science Communication* — 2018.
- Auditory announcements that are absent or too quiet are a significant barrier to public transport use for visually impaired passengers — *PMC review* — 2024.
- Voice acoustics influence perceived trustworthiness and competence — *Frontiers in Psychology* systematic review — 2025.
- Passengers report live announcements as harder to hear and less reliable than automated ones, especially in disruption contexts — *Transport Focus* — 2021.

Governance and Regulation

- European Accessibility Act (EU 2019/882) — applies from **28 June 2025**.
- Regulation (EU) 2021/782 on rail passenger rights — applies from **7 June 2023**.
- PRM TSI — explicitly covers visual and audible passenger information systems in rail contexts.
- OECD accessible-cities work — highlights governance, coordination, and allocation of responsibility as necessary conditions for accessible transport systems.

About the Author

Herwig Kusatz is a **Sonic Governance Advisor** based in Vienna. He **defines and steers how organisations sound** so they come across as more trustworthy, recognisable, and effective.

His work focuses not on isolated sound creation, but on the **strategic logic, principles, and governance** that turn sound into a **coherent system across touchpoints**. That includes announcements, digital interfaces, public environments, campaigns, and service moments.

Across infrastructure and brand contexts, his work is heard by **more than 4 million people every day**.

Selected recognition includes the **German Design Award**, **Transform Awards Europe**, the **Audio Branding Awards**, and the **Red Dot Design Award**.

Next Step: Sonic Governance Briefing

To assess how your audible layer supports **orientation, trust and service quality**, the next useful step is a **Sonic Governance Briefing**.

In 30 minutes, we clarify which audible touchpoints are most relevant, where friction, weak recognition or loss of coherence may occur, and whether a focused **audit**, a **pilot area** or a **governance structure** would be appropriate.

The goal is not to add more sound.

It is to govern more deliberately what is already being heard.

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