

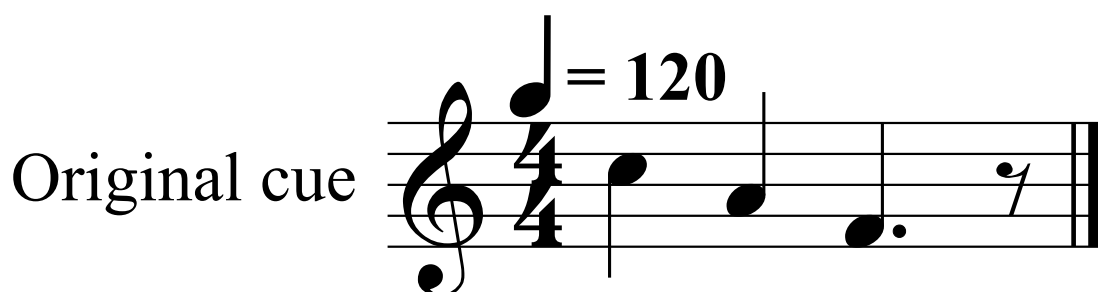


Transport sound

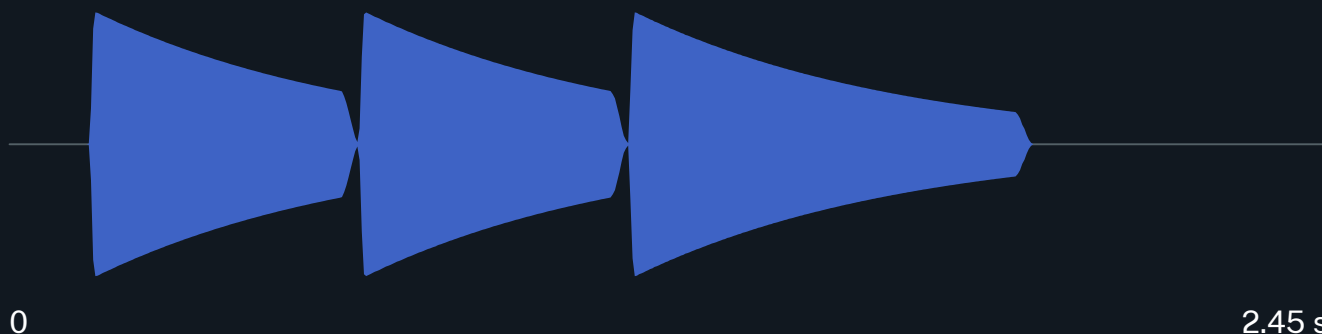
Event meanings in sound.

Documentary cases and unvalidated
non-safety cue prototypes.

OTI-A03 / Next stop / unvalidated prototype



Original non-safety prototype



Musical and passenger validation pending.

OTI sound study separates event information from network identity

A familiar transport chime can identify a network, attract attention or accompany an instruction. Those functions are related, but they are not interchangeable. Open Transit Information's new documentary study argues that any attempt to create a shared sound system should begin with the meaning of the event and the conditions for communicating it, before selecting a recognisable tune.

A sound confirming that a help request has been received cannot promise that assistance has arrived. A signal preparing someone for their next stop cannot give permission to board. The study treats network recognition and correct action as separate evaluation outcomes. The underlying information must remain available through appropriate speech, text and other accessible routes.

The study brings together a discovery catalogue of 42 system or programme entries across six regions, 18 accepted documentary sound or access-function records and 15 extended case analyses. Those are different levels of evidence. The catalogue contains 24 leads that were not accepted as documentary records, and related authorities and operators overlap. It is not a survey of 42 verified sonic identities or a representative sample of the world's passengers.

Alongside the documentary work, OTI has produced three original approaches to five non-safety meanings, with a neutral attention baseline. Sixteen audio specimens, editable production definitions, scores or timed diagrams and a local listening comparison make the proposals inspectable. They are research candidates rather than a recommended operational sound system.

The immediate recommendation is to standardise the passenger meaning, confirmed trigger, timing and accessible information before trying to standardise a melody. It proposes a comparison with no added cue, retaining the same essential information.

This is a completed local documentary study and reproducible design prototype within its stated scope. No participant study, calibrated acoustic trial, human musical approval or operational deployment has established that its original sounds improve a journey.

Familiar sounds can serve different purposes

The cases document different uses of identity, attention and action signals. Their design accounts describe intentions; passenger comprehension requires separate evidence.

Île-de-France Mobilités describes a new shared sound identity for a network previously associated with different operators' signatures. Its six-note design is intended to support a consistent experience across modes. The authority describes a gradual introduction, rather than a completed network-wide conversion. The case records a rationale for a shared identity within one connected network. The announcement does not establish universal comprehension of its melody.

RATP's account of station announcements offers another route. It describes changing the intonation of a station name between approach and arrival, avoiding the need for an additional introductory jingle in that use. Speech can carry distinctions that might otherwise be assigned to extra music. This is a documented practice to examine, rather than proof that every listener interprets the intonation in the same way.

TransLink's history of the SkyTrain chime describes rising tones intended to draw attention to departure and closing doors. A rising contour therefore cannot simply be assigned an intuitive meaning such as welcome, approach or permission to board. Local conventions matter, especially where a mistaken interpretation could affect an immediate action. OTI's original cue comparison excludes door states and emergency signals.

The documentary sample also reaches beyond melodies. MyCiTi's kiosk hearing loops concern access to spoken information. For emergencies involving passengers in vehicles, Washington State Ferries documents staff-delivered action cards for deaf and hard-of-hearing passengers. These access arrangements are documentary examples, outside OTI's non-safety cue prototype. They broaden the question from which sound to play to how essential information reaches someone who does not receive that sound.

The study treats historical dates and versions as part of the evidence. An old introduction, a later souvenir release or a recording found online cannot by itself establish what is currently played in service. It also separates the ability to hear a recording from permission to redistribute or adapt it. The OTI material contains no copied operator recordings or transcribed historical melodies.

The proposed evaluation asks whether an optional learned cue changes correct action, learning, repeated exposure or interference relative to an otherwise equivalent message.

Three original approaches to the same five meanings

The OTI proposal defines each event before attaching a sound. The five meanings are confirmed validation accepted, relevant information updated, preparation for the next stop, a relevant interchange and a help request received. None represents an emergency, a door condition, permission to board or the arrival of a member of staff.

The proposed event record identifies the responsible source, relevant service or facility, confirmed state, time, validity, priority and essential message. It also records the requested channels and an alternative delivery route. That structure is intended to prevent a success cue from playing merely because someone pressed a button, or an expired update from remaining active while a musical phrase finishes. It is a research proposal, not an adopted OTI specification.

Three deliberately different sound families encode the same meanings. Contour uses sequential pitched motives with changes of interval and rhythm. Pulse uses unpitched bursts whose count, spacing and length vary. Voicing changes simultaneous tones and harmonic density. Each brings a different possible weakness: unfamiliar musical associations, blurred temporal patterns or chords that become difficult to distinguish in the listening environment.

All five meanings appear in all three families. The neutral baseline uses the same sustained attention tone for every event. A future no-added-cue comparison must retain the same essential information without a prefix. The proposal also recognises speech and requested information as alternatives. Its present listening room compares sound prefixes; it does not contain a completed speech-intelligibility experiment.

The production is open to inspection. Eleven pitched specimens have MusicXML and MIDI files. Five unpitched specimens use explicit timed-event definitions and diagrams rather than misleading musical notation. All sixteen specimens have lossless audio masters, playback derivatives and visual representations. The actual timed definitions and synthesis parameters are retained, so a reviewer can request a precise change rather than comment only on a finished recording.

These are comparisons between candidate designs that change several parameters together. A preference for one family would not isolate a causal effect of pitch, rhythm or texture. An outcome for a complete candidate design would need to be distinguished from a causal effect of its individual parameters.

What the local checks establish, and what comes next

The completed technical checks establish reproducible properties of the supplied files. The sixteen mono audio masters use a common 48 kHz, 24-bit format and last 2.45 seconds. They meet the specified whole-file digital-energy target and contain no clipped samples. The pitched notation and MIDI were compared with their timed production definitions. The scores and diagrams make the intended structure visible.

Those measurements do not establish equal perceived loudness, a safe acoustic level or intelligibility in a station. Browser volume is not calibrated sound pressure. The study's simplified digital alterations and waveform comparisons expose technical variables for later work; they are not measured station acoustics, hearing-loss simulations or passenger confusion results.

Local browser checks exercised deliberate playback, pause, resume, mute, stop and a single-player design. A playback state or successfully decoded file does not demonstrate auditory quality. The owner's listening review remains deliberately unfilled, and no participant response has been invented to complete the story.

The proposed musical and editorial review would decide which two candidate families, if any, to revise and which event distinctions to remove. A dated review should identify the exact cue version, playback arrangement, possible confusion and requested change. That review would direct design revisions; it would not establish passenger outcomes.

The proposed subsequent research asks about correct action, learning and retention, access to the essential message, effort and repeated exposure. It includes neutral-cue and no-added-cue comparisons and appropriate routes for people who do not hear the sound. Recognition, musical preference and successful navigation remain separate outcomes. The prepared trial schedules and synthetic analysis fixture are planning and software checks, with zero empirical participants.

Before any field use, the work needs specialist review of familiar operational meanings, calibrated preparation, appropriate research arrangements and participant evidence. Historical musical analysis also needs a rights-cleared, precisely identified set of recordings and scores. Existing door and emergency systems remain outside the prototype's remit.

Notes for editors

Study and evidence

The underlying living report is Transport sound and passenger journeys, OTI-BD-003, local research version 0.1.0, dated 23 October 2026. It includes the source register, individual claim records, reproducible production, local verification and the prospective evaluation protocol.

The purposive documentary sample is not an exhaustive census or systematic review. No third-party signals were measured and no historical melodies were transcribed. Quantitative signal results concern original OTI specimens only.

Selected primary references

- [Île-de-France Mobilités: the new transport identity](#).
- [RATP: how announcements work](#).
- [TransLink: Once upon a chime, 2017](#).
- [TfL: recording reuse conditions, FOI-3123-2324](#).

About Open Transit Information

Open Transit Information (OTI) is developing shared quality requirements, draft specifications, data conventions and experimental tools for transport information. Singularity Ingeniería currently maintains the project under a maintainer-led governance model.

The canonical website is opentransitinformation.org. The technical source is available at [opentransitinformation](#). Draft specifications, experimental software and complete product editions have separate release states. This study does not establish official-standard recognition, certification or endorsement by the organisations studied.

Preparation and reuse

Prepared with AI assistance against the dated study. Musical and independent human editorial review remain pending. No public press contact is listed.

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