

The Festival Tech Stack

What every festival could to be running in 2026 — and why **yesterday's ops model** is already costing you.

 A FIELD GUIDE FOR FESTIVAL ORGANISERS & OPERATIONS TEAMS



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Sponsor + Brand **Activation**



01 · ATTENDEE EXPERIENCE & APPS

Make Every Attendee Feel Like a VIP

The gap between festivals with great apps and those without has never been wider. Attendees expect real-time lineups, personalised schedules, interactive maps, and instant push notifications.

App Experience by the Numbers

78%

Check App First

Attendees check the festival app before entering the gates

3.2x

Return Rate

More likely to return if they rate the app experience highly

52%

Artist Discovery

Discover new artists via app-powered recommendations

Tech to Deploy: Attendee Apps



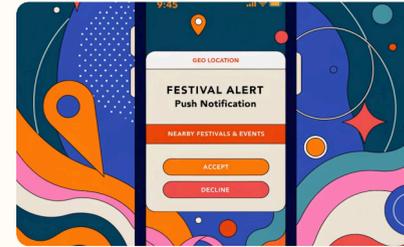
Personalised Schedules

Heart acts, auto-build itineraries, and get conflict warnings when two favourites clash. Table stakes in 2026.



Offline-First Maps

Vector tile maps (Protomaps or MapTiler) that load once and work without signal. **Vendors, toilets, first aid** – all dynamic.



Contextual Push Alerts

Geo-fenced: "Your next act starts in 10 mins at Stage B – 4 min walk." Attendees love it. **Sponsors pay for placement.**

Friend Finder & Live Feedback



Friend Finder & Safety Circles

BLE-assisted or GPS group tracking so mates can find each other in a 60,000-person crowd. Doubles as a welfare tool for vulnerable attendees.

In-App Ratings & Live Feedback

Real-time Net Promoter Score (NPS) after each set. Identify problems — sound issues, queue lengths — before they become **social media storms**.



02 · SAFETY & CROWD MANAGEMENT

Keep the Crowd Moving. Keep Everyone Safe.

Post-pandemic – the scrutiny on crowd safety has never been higher. Insurers are asking harder questions. The technology to manage this intelligently has never been more accessible.

Safety Response Benchmarks



Under 30 Seconds

Target time to push a mass emergency notification to all attendees



4× Faster

Incident response with digital vs. paper logs



85%

Of major incidents have early detectable warning signs

Tech to Deploy: Safety

AI-Powered CCTV Analytics

Computer vision detects crowd density hotspots in real time. Systems like Crowd Connected and Genetec are deployable at scale.

BLE Beacon Tracking

Wristbands with BLE chips show aggregate crowd flow on a live heatmap. Pinpoint bunching near stages or exits.

Digital Incident Management

Every welfare call, ejection, or medical event timestamped, geo-tagged, and shareable with emergency services instantly.

Emergency Broadcast Push

Mass notification to every attendee app in under 30 seconds. Critical for weather events, security threats, or evacuations.

03 · CASHLESS PAYMENTS & RFID

Kill the Queue. Kill the Cash.

Every minute someone waits at a bar is a drink they didn't buy. A 30-second transaction vs. a 12-second tap-and-go means **2.5× more customers per hour** with the same **staff**.



The Cashless Revenue Uplift

35%

Higher Per-Head Spend

Fully cashless festivals report **22–35%** higher per-head spend vs. mixed cash events

The RFID Wristband Does Three Jobs

Ticket

Wallet

Loyalty Card

Pre-loaded wristbands linked to a web top-up portal. No cash handling, no float, no theft.

Tech to Deploy: Payments



Mobile Wallet Integration

Apple Pay & Google Pay via SoftPOS – any modern phone becomes a payment terminal. No dedicated hardware needed.



Vendor Revenue Dashboards

Real-time sales by vendor, item, and hour. Redeploy staff and prove ROI to sponsors with live numbers.



Token-Free Redemption

Sponsorship activations and artist riders redeemed digitally via QR or NFC. No paper tokens to print or reconcile.



Post-Event Reconciliation

Automatic settlement reports per vendor within hours of bump-out. Close the books in days, not weeks.



04 · SUSTAINABILITY & GREEN TECH

Your Carbon Footprint Is Now a Headline.

Sustainability is a **competitive advantage**. Gen Z and Millennial audiences actively choose festivals with credible environmental commitments. Sponsors with ESG mandates need partners who can **prove impact, not just promise it.**

Tech to Deploy: Green Operations



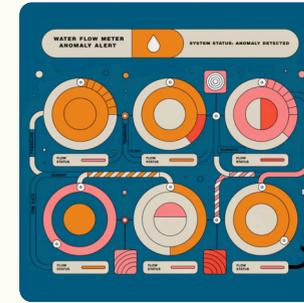
Hybrid & Battery Power

BESS and temporary solar arrays displacing diesel generators. Aggreko and Sunbelt offer hybrid rigs purpose-built for events.



Smart Waste Tracking

RFID-tagged bins and IoT fill-level sensors — empty what's full, not what's scheduled. Reduces staff hours and **overflow**.



Water Usage Analytics

Flow meters on potable water infrastructure with **anomaly alerts**. A burst pipe at 2am costs thousands — a sensor catches it in minutes.

Engage Attendees & Report Impact



Attendee Sustainability Engagement

In-app challenges: scan a recycling bin QR to earn a discount, log your travel mode to unlock exclusive content. **Gamify** the green behaviour you want.

Carbon Reporting Dashboards

Automated post-event carbon accounting across travel, energy, waste, and catering. Export-ready for **sponsor ESG reports** and council submissions.

05 · AI & DATA ANALYTICS

Your Data Is Worth More Than Your Bar Stock.

Every ticket scan, app open, bar transaction, and stage visit is a data point. Aggregated and analysed, they're the operating manual for a better festival. AI doesn't replace your ops team – it makes them **superhumanly** well-informed.



Tech to Deploy: AI & Analytics



AI Lineup Curation

Feed historical attendee data into an AI model to identify which genre combinations drive the highest retention. Stop guessing on bookings.



Predictive Crowd Modelling

ML models trained on gate data, transport patterns, and weather forecasts to predict hour-by-hour crowd flow with precision.



AI Chatbots

A well-trained chatbot handles 80% of common queries — ATM locations, set times, bag check — without a single staff member.



Sponsor ROI Attribution

Computer vision and app engagement data measure dwell time near sponsor activations. Give sponsors actual numbers, not estimated footfall.

Personalisation & Operational Intelligence

Personalised Artist Recommendations

Spotify-style "you might also like" for your lineup, powered by app listening history and ticket purchase patterns. Drive discovery and reduce stage clashes.

Operational Intelligence Dashboards

Real-time KPIs for your ops director: gate throughput, bar revenue per hour, incident rate, weather vs. crowd density correlation.



"The question isn't whether to use AI in your festival ops. It's whether you can afford not to."

06 · ARTIST, STAGE & VENDOR TECH

The Stage Is Your **Product**. Make It Extraordinary.

LED walls, immersive visuals, and spatial audio were once the preserve of stadium tours. The tech has democratized — a mid-size festival can now deliver a world-class **sensory experience** at a fraction of what it cost five years ago.



Tech to Deploy: Stage & Production



LED Mega-Walls & Dynamic Visuals

Full-stage LED walls with real-time content synced to the live mix. Artist-specific VJ sets, reactive visuals, and IMAG for crowd connection at scale.



Immersive Spatial Audio

d&b Soundscape and L-Acoustics L-ISA deliver audio that wraps around the crowd. More consistent sound across the field, less **ear fatigue**.



Holographic & XR Extensions

AR overlays visible through phones, holographic performer projections, and live-composited video backdrops. No longer **experimental**.

Digital Stage Management & Streaming



Digital Stage Management

Cloud-based software gives every department – audio, lighting, rigging, pyro – a shared live cue sheet. Eliminates radio miscommunication.

Artist Rider Management

Digital artist portals for hospitality riders, guest lists, set times, and backstage logistics. Replace the 47-email thread with one live document.

Multi-Camera Live Streaming

High-quality multi-cam streams to your app and social channels. Monetise through premium livestream tickets and reach global audiences.

06 · ARTIST, STAGE & VENDOR TECH

Your Vendors Are Part of the Show. Manage Them Like It.

Festival logistics are a **web of hundreds of moving parts** — food traders, equipment suppliers, staff rosters, and delivery windows. **When comms break down**, the whole operation suffers. Modern vendor management platforms bring it all into **one place**.



Tech to Deploy: Vendor & Logistics

Vendor Management Platforms

Centralised portals for trader applications, contracts, and compliance docs. Platforms like Eventbrite Organiser and Grip **streamline onboarding**.

Staff Scheduling & Comms

Digital rota tools with **push notifications** for shift changes. Integrate with PoC radio systems for **real-time coordination**.

Inventory & Supply Chain Tracking

IoT-enabled stock monitoring for bars and food traders. Reduce waste, prevent stockouts, and track deliveries in **real time**.

Digital Briefing & Induction

Replace paper packs with **mobile-first** briefing apps. Every crew member gets **role-specific info**, site maps, and emergency procedures on their phone.



07 · CONNECTIVITY & INFRASTRUCTURE

If the **Network** Goes Down, Everything Goes Down.

Every system in this guide – **cashless payments**, safety alerts, app features, AI dashboards – runs on connectivity. Most festivals treat it as an afterthought. It's the spine your entire operation runs on.

Connectivity Benchmarks

5G

The new baseline expectation for festival connectivity in 2026

99.9% Uptime

Target for payment infrastructure – downtime is lost revenue

6 Months

Minimum lead time to negotiate carrier densification – plan early

Tech to Deploy: Connectivity

4G/5G Network Densification

Work with carriers to deploy temporary COW (Cell on Wheels) for pop-up capacity. Plan **6 months** out, not 6 weeks.

Dedicated Festival Wi-Fi

Managed Wi-Fi across vendor villages, backstage, ops, and media. QoS rules that prioritise **payment terminals** and emergency comms above all else.

Starlink Backup Links

A Starlink terminal as out-of-band backup for critical ops costs under **\$1,000**. The day your primary ISP fails during headliner, you'll call it the best **\$1,000** you ever spent.

Mesh Networking for Ops

Private LoRa or Wi-Fi mesh for ops and safety teams – functions **independently** of the public network so a social media surge doesn't blind your security team.

PoC Radios & the NOC



PoC Radios

Replace ageing UHF radio systems with **Push-to-Talk over Cellular** handsets running on 4G. Unlimited range, no repeater infrastructure, calls logged digitally.

NOC — Network Operations Centre

A dedicated network ops station in your main control room with live bandwidth dashboards, health monitoring, and an on-call engineer. **Not optional at 10,000+ capacity.**

MUSIC FEST

EXPERIENCE THE FUTURE OF FESTIVAL ENTRANCE.

NFC READY



Faster, Smarter, Seamer

08 · TICKETING & ACCESS CONTROL

The Gate Is Your First Impression. Don't Blow It.

Queues at the gate set the tone for the entire event. Slow entry, paper tickets, and manual checks are a **reputational risk**. **NFC wristbands**, **digital wallets**, and **AI-powered fraud detection** mean gates can process thousands per hour — **frictionlessly**.

Tech to Deploy: Ticketing & Access



Digital Ticketing Platforms

Mobile-first ticketing with dynamic QR codes and Apple/Google Wallet integration. Reduce fraud and eliminate print costs entirely.



NFC Wristband Entry

Tap-to-enter wristbands linked to ticket purchase. Process 1,200+ entries per gate per hour vs. 400 with manual scanning.



AI Fraud Detection

Machine learning flags duplicate tickets, suspicious resale patterns, and counterfeit barcodes in real time before they reach the gate.



Capacity & Zone Management

Real-time gate-by-gate entry counts feed into crowd management dashboards. Trigger gate diversions automatically when zones hit capacity thresholds.

09 · SPONSORSHIP & BRAND ACTIVATION TECH

Sponsors Want Data. Give Them a Platform.

Brand partners are no longer satisfied with a logo on a banner. They want dwell time analytics, **AR activations**, digital signage impressions, and post-event ROI reports. The festivals that can deliver this will command **premium sponsorship rates**.



Tech to Deploy: Sponsorship & Activation

AR Brand Activations

Augmented reality photo moments, branded filters, and interactive installations. Attendees share to social, multiplying sponsor reach far beyond the site.

Programmatic Digital Signage

Dynamic LED and screen networks across site that serve sponsor content based on time, location, and crowd density data.

Sponsor Data Dashboards

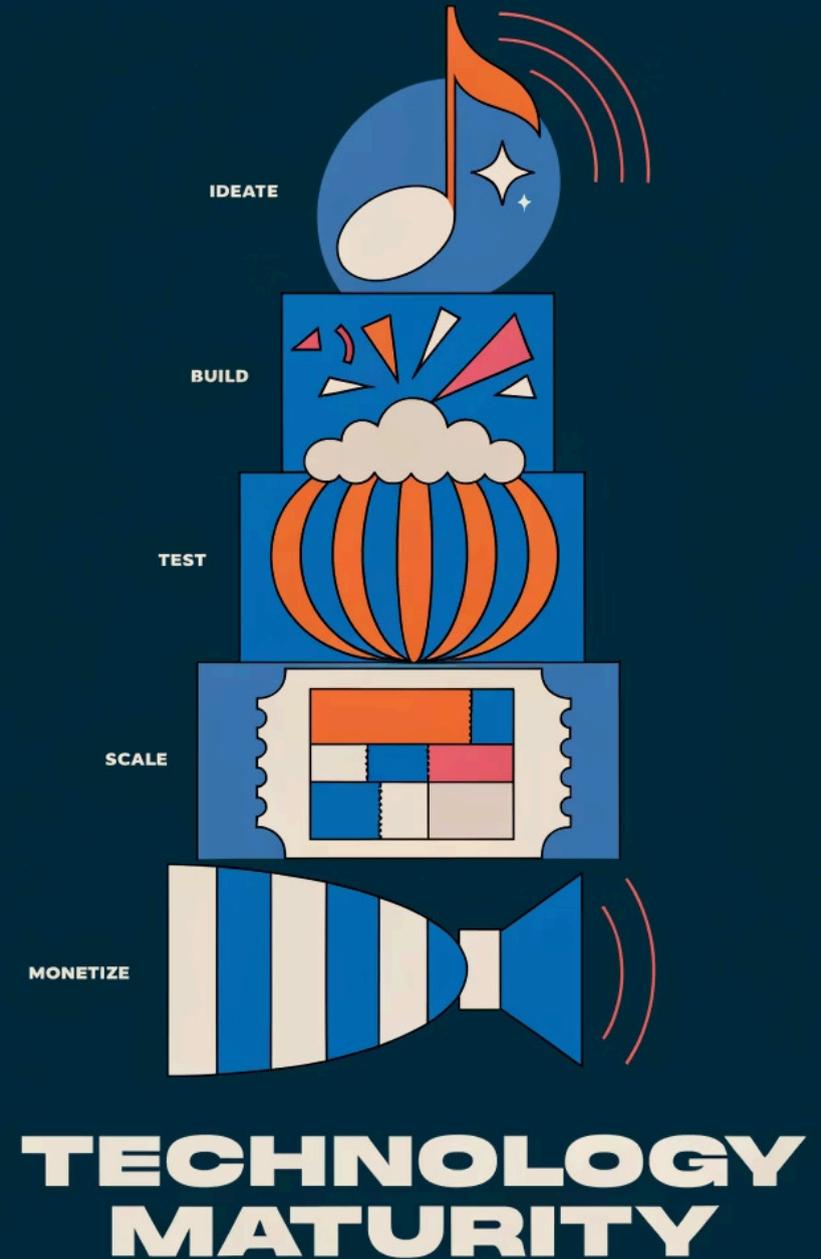
Real-time impression counts, dwell time heatmaps, and app engagement metrics delivered to brand partners via a live portal.

RFID-Linked Loyalty & Rewards

Sponsors can offer wristband-triggered rewards, free product samples, or exclusive access tied to brand interactions. Trackable, measurable, repeatable.

Where to Start: The Tech Maturity Ladder

You don't have to do all of this at once. Here's how to **sequence it**.



Year 1 — Foundations



Starlink Backup Connectivity

Low cost, high impact insurance for your critical ops network



Offline-Capable Attendee App

Maps, schedules, and push notifications that work without signal



Digital Incident Management

Replace paper logs with **timestamped**, geo-tagged digital records



Cashless Payments

RFID wristbands or mobile wallet — the **single highest-ROI** investment

Year 2 – Intelligence



Vendor Revenue Dashboards

Real-time sales data to redeploy staff and prove sponsor ROI



AI Chatbot for Attendee Support

Handle 80% of common queries without additional staff



Real-Time Energy Monitoring

IoT sensor networks catching waste before it compounds



BLE Crowd Tracking & Safety Heatmaps

Aggregate crowd flow visibility for ops and safety teams

Year 3 — Differentiation



Personalised AI Artist Recommendations

Spotify-style discovery powered by app and ticket purchase data



Spatial Audio & LED Immersive Staging

World-class sensory experience now accessible at mid-size scale



Carbon Reporting Automation

Export-ready ESG reports for sponsors and council submissions



Predictive Crowd Modelling

ML-driven hour-by-hour crowd flow for precision staffing and logistics

Start Iterating Now.

"The festivals that will define the next decade aren't waiting for the perfect time. They're iterating now." – Rhythm Labs, 2026

