

Advanced Radio Mapping

BEHAVIOURAL SEGMENTATION · SAMPLE REPORT

Lichtwege Krems 2026

Five Audiences, One Festival

Open-air light & photography festival · Krems an der Donau · 19 Jun – 6 Sep 2026

Who the festival audience really is: five behavioural personas detected from co-visitation structure — each with its spatial signature, psychographic, message framing, channels and retention play — plus the network findings that re-draw the festival map. All data in this sample is synthetic and illustrative; the festival is fictional.

SAMPLE — ILLUSTRATIVE DATA

Sample v1.0 · August 2026 · SKU B1 · Tier 2–3 (analyst personas)

Lichtwege Krems 2026 · 19 Jun — 6 Sep 2026 (80 days) · 5 km riverside route, 8 zones, free 24/7 access · 21 ARM sensors · campaign-scope salt retained for the season by contract · WiFi passive sensor intelligence · unique device counts · Force Atlas 2 + Louvain community detection

Executive summary

Across 80 festival days, **187,000** unique devices were detected along the route. **84%** engaged — dwelling ≥ 30 seconds at an installation zone — averaging 41 minutes and 2.4 zones per visit. In an open-city festival this engagement level is structural: free, 24/7, unstructured access removes every barrier between passing and participating.

Community detection on co-visitation resolves the audience into **five behavioural personas** — from ten-minute Transit Samplers to terrace-loyal Vineyard Contemplatives. Each persona below carries its spatial signature, psychographic, message framing, channel plan and retention play. Louvain community labels are algorithmic; the persona names and interpretations are analyst work (Tier 2–3).

One structural finding re-draws the festival map: **Stadtplatz — not the official Domplatz start — is the true hub**, out-reaching it 1.4:1 on transit gravity alone. Programming and partnerships should treat it as a second front door.

187,000

Unique devices
full season

84%

Engaged
 ≥ 30 s at a zone

41 min

Avg engaged dwell
2.4 zones avg

17%

Returned in season
31,790 devices

1 · Season shape

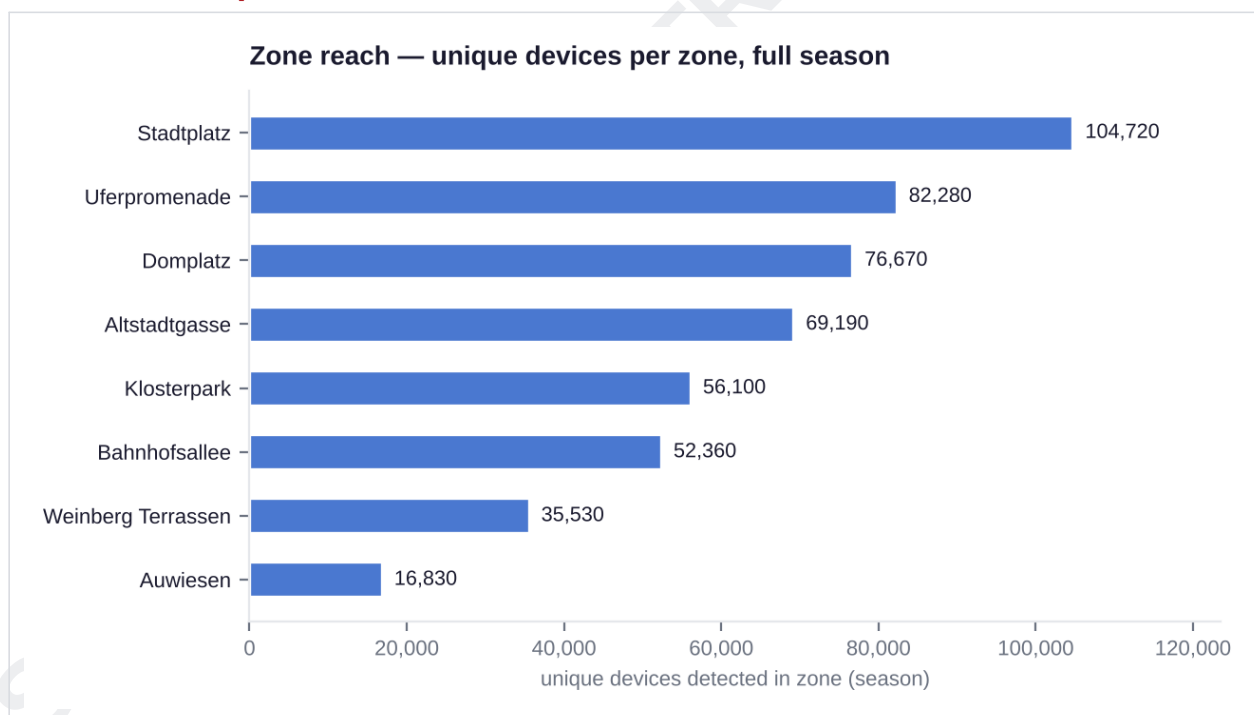


Figure 1 — zone reach ranking · Lichtwege Krems 2026 · illustrative synthetic data (no dashboard capture)

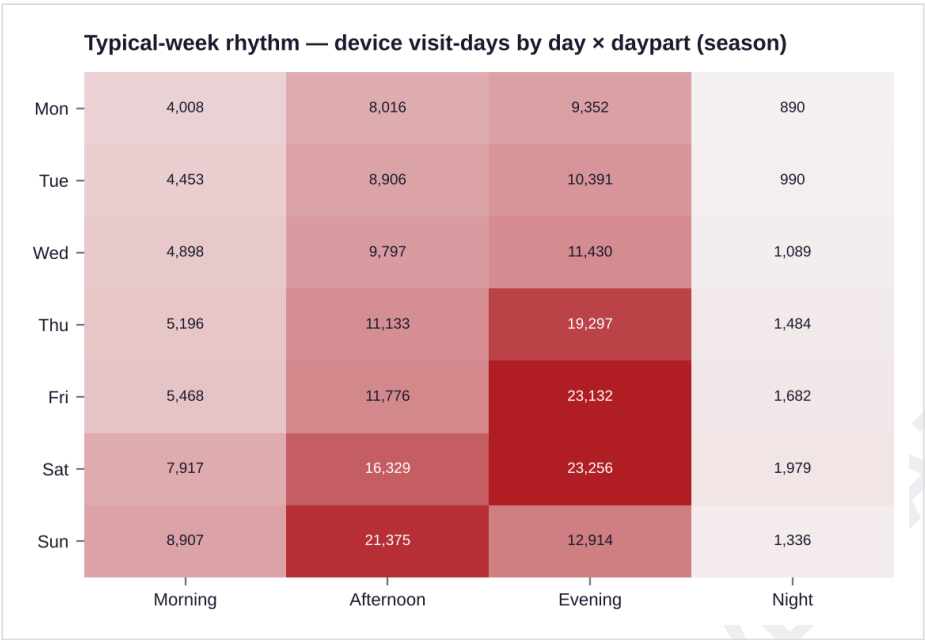


Figure 2 — typical-week rhythm · Lichtwege Krems 2026 · illustrative synthetic data (no dashboard capture)

Thursday-to-Saturday evenings are the festival's centre of gravity; Sunday afternoon is the family block. Night intervals between 03:00 and 05:00 fall below the k-anonymity floor in every zone and are suppressed from any finer reporting ($n < 12$); the Night column above is a season aggregate.

2 · Five personas

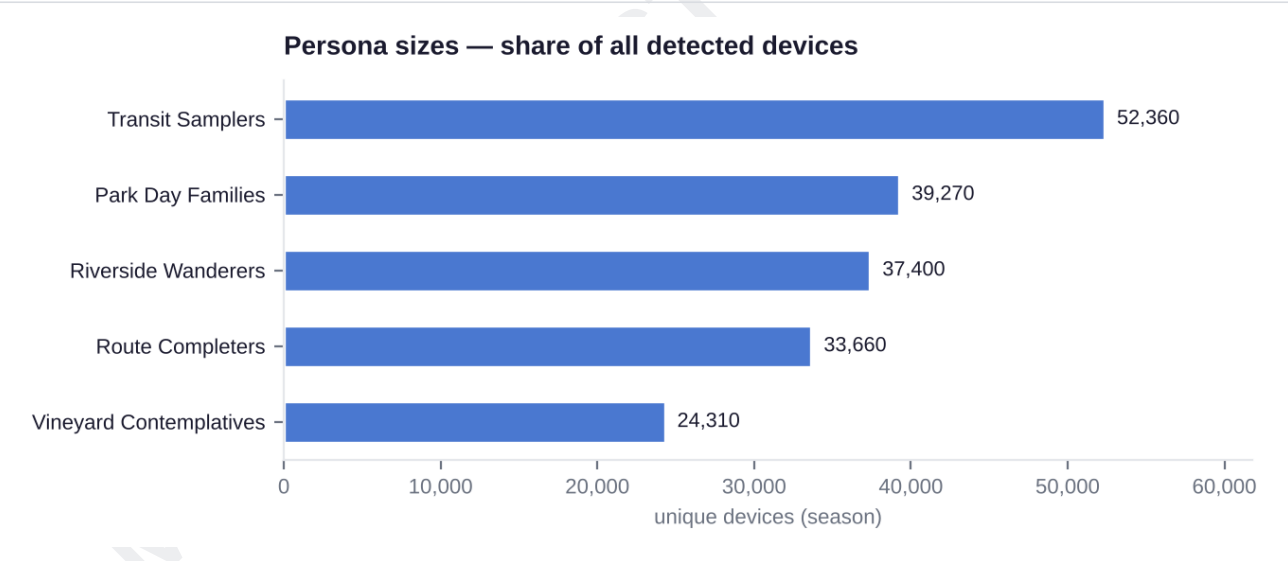


Figure 3 — persona sizes · Lichtwege Krems 2026 · illustrative synthetic data (no dashboard capture)

Personas are renamed Louvain communities: the clustering is algorithmic (community names carry no intrinsic meaning); naming, archetypes and playbooks are analytical interpretation. Archetype labels follow visitor-identity vocabulary (Facilitator, Experience Seeker, Recharger, Explorer).

Transit Samplers — 52,360 devices (28%) · Experience Snacker

Anchor zones: Stadtplatz
Behavioural signature: avg dwell 24 min · 1.7 zones per visit · 12% season return rate
Spatial pattern: Stadtplatz-anchored — the transit hub, not the official start; most enter from bus and rail connections and sample whatever is within sight of the square.
Psychographic: Time-boxed city users: commuters, day-shoppers, coach-tour stops. The festival is an encountered pleasure, not a destination.
Message framing: "Ten minutes of light on your way through town" — zero-commitment framing; never sell the full route.
Channels: Transit advertising (station + bus shelters), Google Maps/transit app placements, local radio drive-time.
On-site tactics: QR codes on Stadtplatz installations linking to a 10-minute mini-route; evening light moments timed to commuter waves.
Retention play: Convert to Riverside Wanderers: signpost the two nearest riverside works with walking minutes, not a map.

Park Day Families — 39,270 devices (21%) · Facilitator

Anchor zones: Klosterpark

Behavioural signature: avg dwell 68 min · 1.4 zones per visit · 24% season return rate

Spatial pattern: Klosterpark-isolated: one zone, long stays, weekend-afternoon concentration. Zone isolation is a served niche, not a failure.

Psychographic: Parents curating a low-cost day out; success is the children's experience, not artistic completeness.

Message framing: "A festival day the kids will remember" — picnic, playground and art in one park.

Channels: Family/parenting media, school newsletters (September re-opening window), community Facebook groups.

On-site tactics: Family programming Sunday afternoons in Klosterpark; buggy-friendly route markings; picnic partnerships with local bakeries.

Retention play: Highest-return casual segment: season family pass messaging after first visit weekend.

Riverside Wanderers — 37,400 devices (20%) · Experience Seeker

Anchor zones: Uferpromenade, Altstadtgasse

Behavioural signature: avg dwell 37 min · 2.6 zones per visit · 15% season return rate

Spatial pattern: Uferpromenade + Altstadtgasse corridor: two-to-three-zone strolls woven into café and old-town time.

Psychographic: Lifestyle-led locals and regional visitors; the festival upgrades an evening walk they were already taking.

Message framing: "The river walk, re-lit" — art as ambience, not itinerary.

Channels: Instagram/TikTok geo-targeted reels, gastronomy cross-promotion, hotel concierge cards.

On-site tactics: Golden-hour content moments on the promenade; café terrace light-viewing partnerships; late-evening highlights Thu–Sat.

Retention play: Rotate featured works monthly so the same walk is never the same twice — reason to return within the season.

Route Completers — 33,660 devices (18%) · Explorer

Anchor zones: Domplatz

Behavioural signature: avg dwell 52 min · 3.4 zones per visit · 17% season return rate

Spatial pattern: Domplatz official start, then the signed route: highest zone coverage (3.4 zones average), long committed visits.

Psychographic: Culture-intentional visitors, often from Vienna and the Wachau day-trip flow; completion and comprehension motivate them.

Message framing: "All eight stations, one evening" — the definitive festival experience, map-first.

Channels: Cultural listings (Vienna + Lower Austria), rail-tourism bundles, festival newsletter, guided-tour platforms.

On-site tactics: Guided twilight tours from Domplatz; route stamps/collectible; programme drops for the quiet early week (Mon–Wed).

Retention play: Season narrative arc — works change over the 80 days; completion this month is not completion next month.

Vineyard Contemplatives — 24,310 devices (13%) · Recharger

Anchor zones: Weinberg Terrassen

Behavioural signature: avg dwell 61 min · 2.1 zones per visit · 27% season return rate

Spatial pattern: Weinberg Terrassen-anchored: the climb filters for intent; longest single-zone dwell after families and the highest return rate.

Psychographic: Solitude seekers, photography hobbyists, wine-landscape lovers; quality of attention over quantity of works.

Message framing: "Above the town, after dark" — stillness, view, and one perfect installation.

Channels: Photography communities and clubs, wine-tourism newsletters, print culture supplements.

On-site tactics: Limited sunset-slot events on the terraces; tripod-friendly hours; winery evening pairings.

Retention play: Highest return rate of all personas (27%): a "terrace regular" quiet-hours pass converts loyalty into advocacy.

3 · Cross-cutting engagement patterns

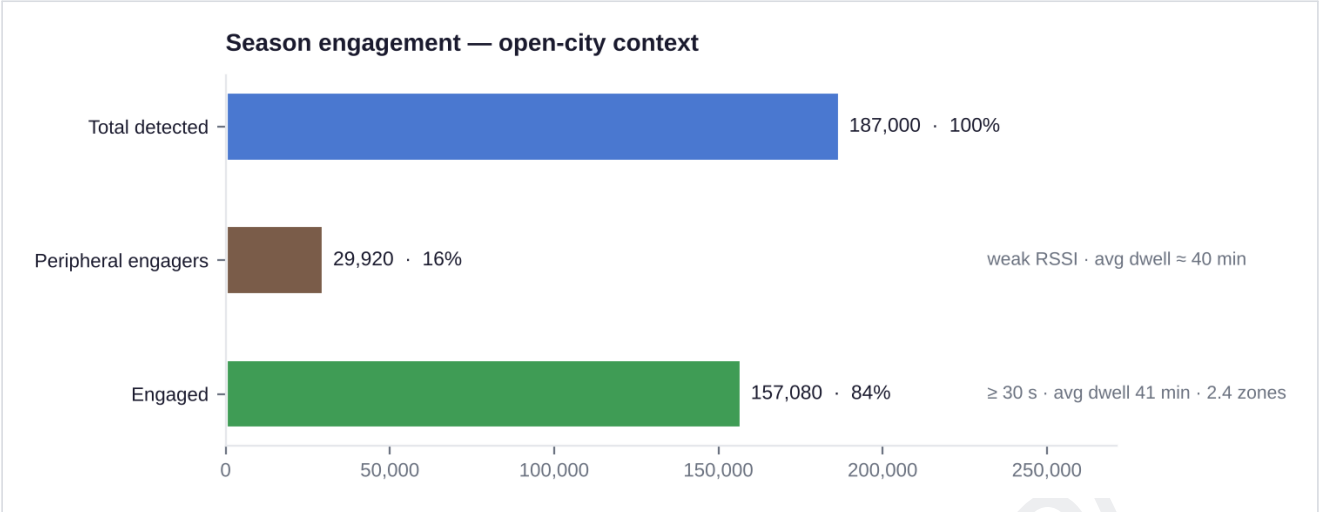


Figure 4 — season engagement funnel · Lichtwege Krems 2026 · illustrative synthetic data (no dashboard capture)

The 16% “faraway” tier deserves re-reading in an open city: these devices sit at weak signal strength yet average ≈ 40 minutes nearby — **peripheral engagers**: crowd-avoiders, café sitters and accessibility users experiencing the works from the edges, not non-visitors. Open-venue engagement must never be benchmarked against hall or booth contexts (venue-type dependence).

Returning devices (17%, 31,790 devices) visit 3 zones per visit against 2 for first-timers and accumulate 92 minutes across the season — repeat visits deepen, not repeat, the first experience. Season return metrics exist only because the campaign salt is retained for the full season by contract; with default per-event salts these figures would be unmeasurable.

4 · Network-structure findings

- 1. Stadtplatz is an unplanned hub.** Transit gravity, not programming, makes it the most-reached zone. Action: welcome-signage, a mini-route and partner retail at Stadtplatz; treat Domplatz as the ceremonial start, not the only one.
- 2. Klosterpark isolation is a feature.** Park Day Families barely leave it — and return at 24%. Action: serve the niche (family programming in place) rather than forcing route behaviour.
- 3. Bridge the corridor to the terraces.** Riverside Wanderers rarely climb to Weinberg Terrassen. Action: one bridge installation at the Altstadtgasse–terrace junction with sightline lighting; measure conversion next month.
- 4. Programme the quiet early week.** Mon–Wed evenings run at half the weekend level. Action: guided-tour and photography-club slots Mon–Wed for Route Completers and Contemplatives — audiences that prefer quiet.

5 · Segmented communication timeline

Persona	Pre-visit targeting	Primary channels	On-site conversion
Transit Samplers	none — encounter-based	transit ads, maps apps	QR mini-route at Stadtplatz
Park Day Families	1–2 weeks out (weekend planning)	family media, school newsletters	Sunday programming, buggy routes
Riverside Wanderers	2–4 weeks out	geo-social reels, gastro partners	golden-hour moments, café decks
Route Completers	4–8 weeks out (trip planning)	cultural listings, rail bundles	guided twilight tours, stamps
Vineyard Contemplatives	2–6 weeks out	photo clubs, wine tourism	sunset slots, quiet hours

One festival, five experiences. The same 5 km of riverside light is a ten-minute detour, a family day, an evening stroll, a completed route and a hilltop ritual — simultaneously. Marketing that averages these audiences reaches none of them; the persona playbooks above are the operating plan for filling the 2027 season.

Data limitations

This is a SAMPLE document. Every figure, count and name in it is synthetic, generated for illustration; venues, events, exhibitors and zones are fictional. Real engagements are produced from live dashboard data. Sensor-derived counts are calibrated at approximately 92% of gate-truth attendance in comparable venues.

All counts are unique detected devices, not people. Devices with WiFi off and some devices using MAC randomisation are not captured, so actual visitor numbers are higher than reported device counts.

“Engaged” means a device dwelling ≥ 30 seconds in the vicinity of a sensed zone (platform-defined threshold).

Spatial figures are density functions derived from sensor-perimeter detection — not location tracking of individuals.

k-anonymity: no reported cell represents fewer than 12 devices. Cells below this threshold are suppressed and footnoted (cell suppressed, $n < 12$).

Season return metrics are valid only under the contracted campaign-scope salt retention (salt destroyed at season close, 6 Sep 2026); no cross-season device linkage is possible. Louvain community names are algorithmically generated and carry no intrinsic meaning; personas are analyst interpretations of aggregate cohort behaviour, never individual profiles.

Report SKU card

SKU	B1 · Behavioural Segmentation Report
Buyer	Organiser / destination marketing department — sold per season or per event
Question answered	Who actually came, how did each audience behave in space and time, and how do we market to each of them next season?
Tier	Tier 2–3 (persona naming, psychographics and channel playbooks are analyst work on the auto-generated community structure)
Gates	G2 salt horizon — season return metrics require campaign-scope salt retention agreed in contract. G3 k-anonymity — sub-12 cells suppressed (night intervals shown aggregate-only).
Page count	8–14 pages typical at full length (this sample: 6 pages, compressed)
Data basis	Passive WiFi sensing · unique devices, not people · engaged = ≥ 30 s · all figures in this sample are synthetic and illustrative

The festival, city zones and all numbers are fictional. Sample generated from a seeded synthetic dataset (seed 20260805).