Case Study

A41 Ploughley Road

The Project

The A41 / Ploughly Road improvements are part of the Bicester Garden Town infrastructure programme and are essential to support the planned development and the successful delivery of the garden town.

The early delivery of critical infrastructures like roads, cycleways, and pedestrian crossings is key to ensuring that we can accommodate the expected increases in population from the new garden town without adversely impacting residents, who will benefit from improved facilities.

Lead Contractor: Galliford Try

Data Gathered: 1st Sept – 30th Sept 2022 (1 Month)

No. of Headsets on Site - 9

Hours of Data Analysed - 579

The Challenges Faced by Galliford Try Highways

Galliford Try Highways originally approached the problem of hazardous noise at their sites using the classic hearing protection toolkit - carrying out risk assessments based on estimates and data snapshots, and issuing traditional PPE like earplugs and earmuffs. But this approach meant that the team managing the site had no visibility or actionable data on 1. PROTECTION WEAR RATES 2. PROTECTION EFFECTIVENESS or 3. ACTUAL SITE NOISE, and that operatives found themselves wearing PPE which reduced their situational awareness and put them at greater risk from worksite accidents.

THE CLASSIC HEARING PROTECTION TOOLKIT GALLIFORD TRY HIGHWAYS EMPLOYED AT THE START OF THE PROJECT

The Solution

EAVE

FOCUSLITE

Smart ear defenders with built-in hear-through technology, which promote situational awareness and gather data on site noise and worker noise exposure

PEAK

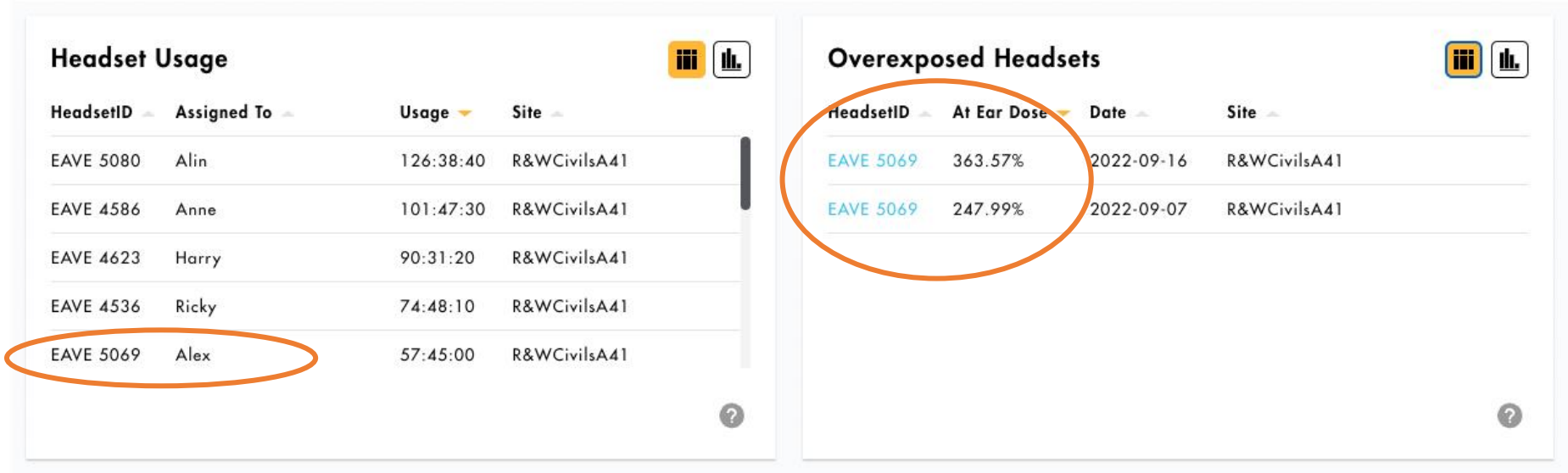
An online platform for viewing the data collected by Eave's smart ear defenders in order to uncover issues and make effective interventions

R&W September Findings

The Eave System gives a chance to quickly view if you've you had any overexposures and who those are linked to.

Headset 5069 was over exposed by as much as **363%** at the ear in one day.

That's the equivalent of standing 50m next to a jumbo jet and having it take off, twice.



Headset Usage

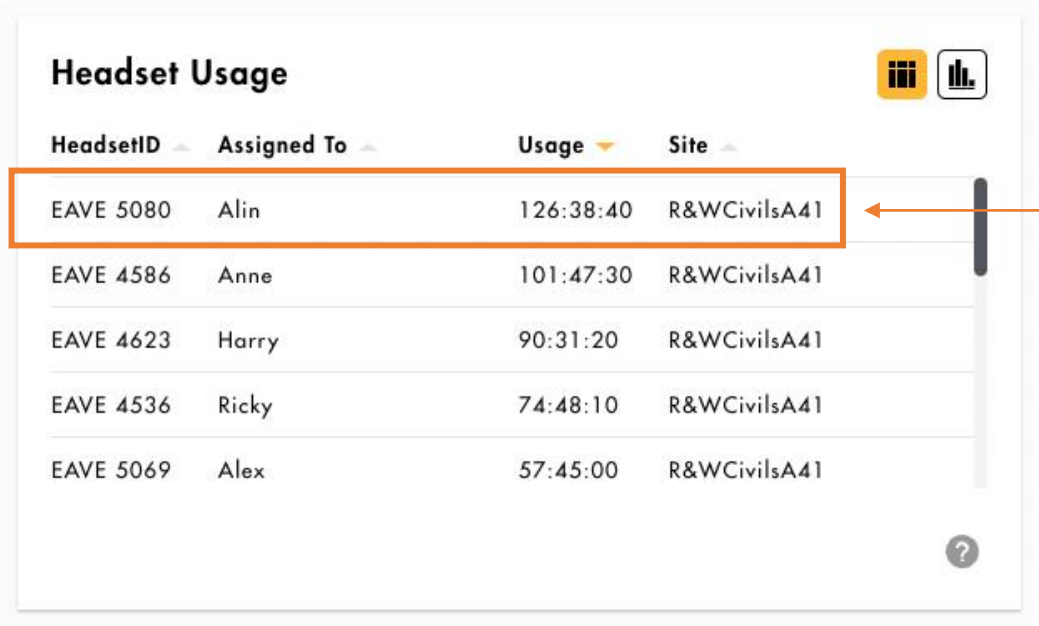
HeadsetID	Assigned To	Usage	Site
EAVE 5080	Alin	126:38:40	R&WCivilsA41
EAVE 4586	Anne	101:47:30	R&WCivilsA41
EAVE 4623	Harry	90:31:20	R&WCivilsA41
EAVE 4536	Ricky	74:48:10	R&WCivilsA41
EAVE 5069	Alex	57:45:00	R&WCivilsA41

Overexposed Headsets

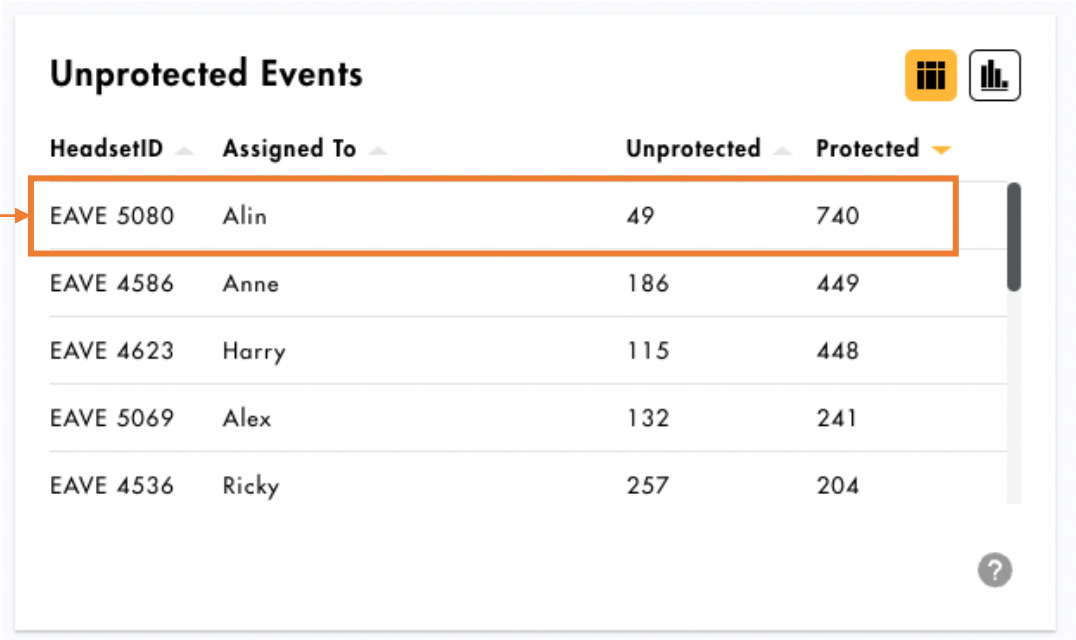
HeadsetID	At Ear Dose	Date	Site
EAVE 5069	363.57%	2022-09-16	R&WCivilsA41
EAVE 5069	247.99%	2022-09-07	R&WCivilsA41

R&W September Findings

EAVE



The system helps us also reward people who are using it consistently. Alin wore his headset nearly 20% more than everyone else



He didn't just have an increased wear-rate but was effective when he did wear it. Only being unprotected 6% of the total wear time.

Conclusion

EAVE

This data has helped us to educate, inform and nudge behaviour to better protect users hearing. Rather than waiting until a doctor confirming hearing loss within the operative, we were able to intervene before it's too late.

Giving H&S and Site Managers the opportunity to see those invisible risks helps them make informed decisions on policy and prolonging the long-term health of their employees.

EDUCATE

Peak data was used to educate people on the actual noise levels they were subjecting themselves to, which helped drive up wear rates

PROTECT

Incidents of over-exposure were captured and processes were put in place to stop them re-occuring

REMOVE HAZARDS AT SOURCE

Continuous noise monitoring revealed unexpected noise hazards which site management could remove rather than control

Thank you

Ryan Sewell

Account Manager