

EDIAN | CASE STUDY

Scaling Algorithmic Staffing: 2000 Staff Matched Per Week

How an intelligent matching engine took a UK staffing requirement from zero to eight-figure revenue - and what it demonstrates about deploying AI where decisions must be fast, fair, and explainable.

300%

ANNUAL REVENUE GROWTH

95%

COST REDUCTION PER SHIFT

10%

HIGHER WAGES FOR STAFF

2020

ACQUIRED BY PE

■ THE CHALLENGE

Traditional approaches to matching temporary staff to shifts in hospitals, operations, and hospitality were expensive, slow and unpopular with staff.

Every one of those shifts was originally filled by hand - an operations team working phones, email, and text to broker each match.

The model worked, but it could not scale: cost grew linearly with volume, urgent shifts went unfilled, and with people's wages at stake, allocation decisions had to be demonstrably fair.

■ THE APPROACH

Edian's leadership team - Will Taylor served as Rota's CTO (2015-16) and then CEO (2017-20) - designed and deployed a matching engine built on three principles:

- 1.) Use the data that matters - and only that data. Matching was driven by signals with a defensible link to shift success: prior work history at the venue and two-way ratings between staff and employers. Signals that could introduce bias were deliberately excluded.
- 2.) Explainable by design. Because the output of every decision was someone's wages, the engine was built to be fully auditable - not a black box. For this reason, custom decision trees were designed rather than LLMs.
- 3.) Human-defined outcomes, machine-speed execution. Humans set the rules and the definition of a fair outcome; the engine executed them in seconds across thousands of weekly shifts.

THE RESULTS

The platform handled some 2,000 active workers and filled 3000 shifts every week. Fill times collapsed from days to minutes. In one case, a key operations client posted a 15-person shift on short notice - the kind of request that under manual matching would simply have gone unfilled. The engine filled it in five minutes. The team enjoyed a 95% reduction in operational cost per shift - without reducing headcount. The cost of running 3,000 weekly shifts fell to a fraction of its former level, and the team's time shifted to growth rather than administration.

Cost efficiency was passed through to the staff themselves, funding wages roughly 10% above market. In an industry where average temporary staff tenure is six months, staff on the platform typical exceeded a year and many stayed for years more. The platform compounded with 300% year-on-year growth, revenue growth to eight figures, a 5x expansion in physical offices.

WHY THIS MATTERS FOR CLINICAL DEVELOPMENT

Clinical trials share the underlying shape of this problem: operationally intensive processes carried out by an expensive, highly skilled labour force, in a regulated environment where every decision must stand up to audit. The disciplines that scaled the staffing platform - selecting the right data, careful engineering for explainability rather than defaulting to black-box LLMs, and keeping humans in control of outcomes - are the same disciplines Edian applies to clinical development decision-making today.

Edian builds clinical intelligence tools for CROs and pharma. To explore what evidence-based, explainable decisioning could do for your team, book an intro call at edian.ai.