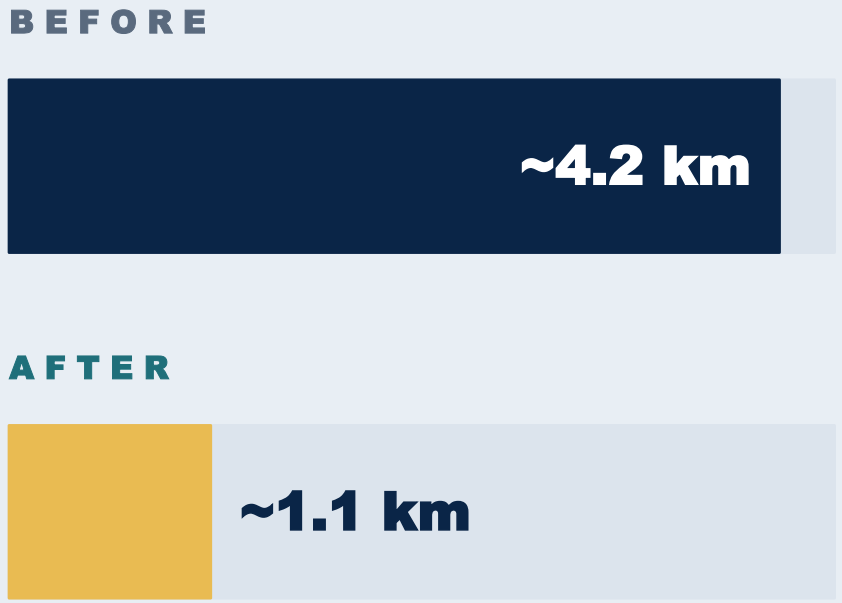
CASE STUDY · LABORATORY LAYOUT

Four kilometres a shift.

Effort that deserved a better route.

In many laboratories, a large share of a technician's day goes into moving between benches, stores and instruments.

How a national energy company **redesigned its laboratory around the way the work actually moves**, and gave each technician more than an hour a shift back.



kilometres walked per technician, per shift

SWIPE →

THE SITUATION

A layout built by history, not by the work

- **Instruments sat where space once allowed.** Each was placed when it arrived, wherever power, gas and extraction happened to be available. Over the years, the room came to reflect its purchases rather than its work.
- **Materials lived in many places.** Consumables and tools were spread across cupboards and stores, so many tests began with a search.
- **Samples travelled the long way.** Between receipt, preparation, testing and recording, a single sample could cross the laboratory several times.
- **And a pattern common to many laboratories:** movement looks like commitment. The distance went unseen, carried quietly by the people covering it.

WHAT A LAYOUT IS FOR

To put what each test needs within reach · to let samples move forward rather than back and forth · to keep people clear of unnecessary handling · to leave room for the laboratory to change as its work does.

~4 km walked by each technician, every shift

~19 km covered by the shift team of four to five technicians

THE RESULT

~75%

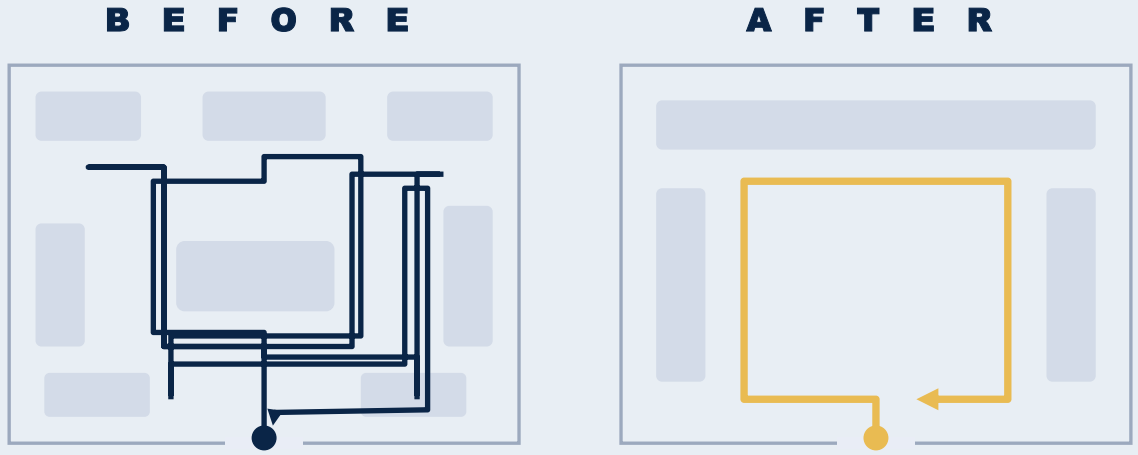
less walking for every technician, every shift

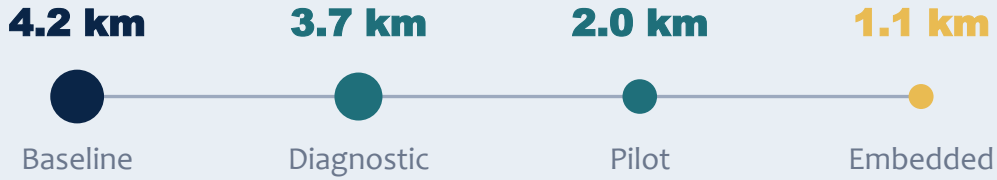
BEFORE	AFTER
~4.2 km	~1.1 km

Time spent looking for materials and tools, per shift

~30 min	under 3 min

Distance walked per technician, per shift, by project phase





More than an hour a shift, returned to each technician.

THE APPROACH

Three of the changes that mattered most

01

The laboratory's key processes became the foundation of its layout

The space now reflects the work carried out in it. **Equipment sits in the order the work uses it,** and each area of the laboratory is arranged around the processes that happen there. Technicians move less, and shared instruments are within easy reach of every process that relies on them.

02

Materials and tools, exactly where they are needed

Consumables and tools now sit **beside the test or task that calls for them,** and they are replenished before they run out. A test begins with the work itself, not with a search.

Set-up per test: ~35 → ~6 min

03

Lessons carried into the next laboratory

What the team learned about its own work became part of the brief for **a new laboratory the company was planning.** There, the key processes shape the layout from the first drawing, rather than being fitted in afterwards.

WHAT IT TAUGHT

A layout is a decision about the work. Worth making on purpose.

Many laboratories are not so much designed as accumulated, with each instrument placed wherever there was room when it arrived. The layout that results is **nobody's decision, yet everybody's daily effort**. Whether a laboratory has run for decades or is still on the drawing board, the same principle holds: the work comes first, and the space follows.

*Laboratory teams tend to embrace continuous improvement more readily than most, and the reason is simple: **the payback is immediate**. The next shift is lighter, and **the time recovered becomes room to think**. When people feel the benefit that quickly, they rarely stop at the first improvement.*

IF THIS RESONATED

→ Want improvement to take root this readily across your whole organisation? Let's talk.

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