

Cut Your Energy Bills & Prevent Breakdowns: Join Our Smart Factory Pilot

Is your factory full of older machines that do the job but provide you less 'smart' data than newer models would? Full Matrix, a Cambridge-based technology firm, is developing retrofit monitoring devices to gather and report data on machinery to help spot sources of wasted energy and monitors for signs of machine degradation. We are looking for SME manufacturers to participate in a free feasibility study to trial our low-cost, non-invasive monitoring system.

The Challenge: The "Silent" Costs of Manufacturing

Many small-to-medium factories rely on older machine tools, compressors, and ventilation systems that lack modern digital monitoring. This leads to:

- **Wasted Energy:** Compressed air leaks alone may account for 10% to 30% of your electricity use.
- **Idle Running:** Machines left running can add thousands to annual bills.
- **Unplanned Downtime:** Unexpected mechanical failures that could have been spotted through subtle changes in vibration or sound.

Our Solution: The "Sound Twin"

We are developing a retrofit system that "listens" to your assets and builds a 'digital twin' of your factory's behaviour.

- **Simple Hardware:** Small boxes containing vibration and sound sensors are attached on or near your equipment (lathes, mills, compressors, extract fans).
- **Intelligent Alerts:** Our software learns what 'normal' looks like for each machine and flags when something drifts, like a new air leak or a bearing starting to fail.
- **No "Proprietary" Traps:** Built on affordable, off-the-shelf components and open software, avoiding the high costs of traditional industrial platforms.

What's In It For You?

- **Identified Savings:** We expect to reveal site-wide electricity savings of 3–5% (potentially worth thousands of pounds per year).
- **Improved Reliability:** Catch faults before they lead to scrap, rework, or total machine failure.
- **Expert Insight:** Gain a professional energy baseline and verification of your savings from a specialist energy consultant.

The Pilot Details

We are seeking a range of sites to test our system under different conditions.

- **Timeline:** The trial runs between April and September 2026.
- **Disruption:** Minimal. Nodes are magnetically attached, and designed for fast, non-intrusive installation/removal without interfering with your production.
- **Requirements:** Access to your machinery and energy data, and a willingness to provide feedback on our dashboard and alerts.

Ready to modernize your legacy equipment? Contact Dr. Phil Catton before the end of May 2026 at phil.catton@fullmatrix.co.uk to discuss how we can help you reach your Net Zero goals and improve your bottom line.