

Issue Two | Autumn 2024
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The Fourth Portal is a new type of gathering space. Blending cafe, bar, work, social and retail with retro and

advanced technologies, materials and processes. It creates a different way to meet, learn, collaborate and innovate.



/// FOURTH PORTAL

THE PAST AND THE FUTURE ALWAYS MEET IN THE PRESENT





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Welcome to Issue Two of the *Fourth Portal* newspaper, where we explore innovation in all its forms – technological, societal, and systemic.

The Fourth Portal is a social gathering space in Gravesend, Kent, merging work, learning, shopping, and technology.

Twenty years in development, it draws on objects, materials, art, local history, and technology to spark conversations and connections, attracting people from all generations and backgrounds.

Gravesend once thrived with major industries in papermaking, printing, cement, and trade on the River Thames, providing thousands of jobs. As these industries declined, so did employment opportunities, echoing the challenges faced by many post-industrial towns.

Despite this, the first year of the Fourth Portal has revealed that the borough of Gravesend is an oyster of innovation, rich with potential. Issue Two highlights a selection of these local “pearls” – businesses reimagining formats, focusing on wellbeing, creating jobs, and reshaping work while investing in the future.

The Fourth Portal would like to acknowledge the ongoing support of Gravesend Borough Council and thank the officers and those elected for the warm welcome to this incredible town.

And a particularly big thank you to the residents and fellow businesses of Gravesend who have supported and advocated for the Fourth Portal since day one. We would not be doing this without you. Cheers!



ST. ANDREW'S WATERSIDE MISSION CHURCH AT GRAVESEND

Home to the Fourth Portal

Stepping into this former seafarer's chapel by the Thames in Gravesend immerses visitors in a calm beauty — a place of stunning stained glass and a ceiling representing an upturned boat hull.

Originally built to serve Gravesend's bustling waterside community, St. Andrew's stands as a reminder of the town's vibrant 19th-century shipping industry, where local families supplied vessels bound for distant shores. Connections to innovation run deep here, from Admiral Francis Beaufort, creator of the wind scale, to tributes to the HMS Terror and Erebus, two pioneering ships lost in the Northwest Passage in 1845.

St. Andrew's Waterside Mission Church construction was to promote education, health, and wellbeing. Today, the Fourth Portal continues this legacy, showcasing how innovation and technology can inspire people, change lives and reduce environmental impact.

Discover more at www.fourthportal.com/gravesend.



Fourth Portal newspaper Issue 2 explores the resistance individuals, communities, businesses, and institutions face in adapting to the dramatic technological disruption of our time.

One theme that stands out throughout the newspaper is the rising importance of personal wellbeing in both work and private life.

We begin with institutional intransigence and its role in slow or flawed decision-making, highlighting the journey of the Church of England to ordain women priests — an example of how even the oldest institutions can embrace positive change.

The paper examines the power of statistics and big data to drive social and community transformation, followed by how data-driven technologies improve health outcomes and daily life for those with medical conditions. As individuals adopt new tools to enhance their lives, we ask how organisations are adapting to changes in customer and colleague lifestyle expectations while still addressing the climate emergency.

Concluding with a nod towards our first edition, we revisit the enduring relevance of materials with interviews about adapting traditional industries and giving old objects new purpose in a fast-moving world.

Enjoy!



The Fourth Portal's Innovation Showcase 2024, held across Gravesend town centre, provides a glimpse into the emerging economy, featuring demonstrations of advanced technologies, talks, and interactive sessions focusing on AI, robotics, creativity, wellbeing, and community engagement.

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INSTITUTIONAL INTRANSIGENCE

The reluctance of institutions to adapt or embrace new ideas, methods, technologies, or cultures often poses the most significant barrier to innovation.

The word 'institution' encompasses a swathe of societal structures, from government bodies and churches to corporations and charities. These entities are rarely governed by a single individual but operate within established rules, systems, and processes. With time, this can bring about intransigence and the fostering of comfort with the status quo. While institutions may work smoothly for a time, when circumstances shift, the establishment can become sluggish, creating challenges for people, other institutions, or the broader environment.

The following pages touch on some causes of institutional intransigence, its negative impacts, and innovations that disrupt established norms to provide positive change.

The Future of Government Policymaking

Humans often struggle to anticipate what is coming down the road, says one central government civil servant as they drew up a chair. "With over 400,000 civil servants, change can be slow," says a colleague. As with other organisations, those in government tend to stick to what worked yesterday, creating resistance to innovation. When the future arrives faster than expected, as with Artificial Intelligence (AI), it can present extra challenges.

No Government minister can grasp every detail, so they rely on their advisors. If civil servants become entrenched in current practices and past experiences, it can become difficult to foresee future challenges. A reactive approach can prove costly, as the government responds to crises instead of preparing for them.

LEARNING FROM HISTORY

The coal mining industry during the 1980s was reactive policymaking. A phased withdrawal from coal mining could have lessened the economic and social impacts on communities as the government, Coal Board, and Unions had already agreed that 40% of coal mines were unviable by the late 1970s. The inability to act preemptively led to rapid closures in the 1980s, with devastating consequences still felt today.

Parallels with AI and other technologies can be drawn, impacting sectors like clerical, retail and customer service roles.

REGULATING EMERGING TECHNOLOGIES

In the late 1990s technologies, like Google search and Amazon web services, often emerged with little regulation. Early oversight might have placed safeguards on the digital economy, but was initially viewed as niche. Now, regulating tech behemoths has become a colossal challenge with global consequences.

AI has received more regulatory attention, partly because its risks are better understood. Writers like Isaac Asimov warned of AI dangers decades ago, yet regulation has lagged behind its rapid advancement. The recent Bletchley Park agreement attempts to establish ground rules, but balancing AI's risks and rewards remains a complex task.

PATH AHEAD

The challenge for all levels of government will be formulating policies that balance these rapid innovations with regulation. Technologies like AI hold vast potential but bring considerable risks. A faster shift to proactive policymaking is essential to enable progress while managing its downsides, concluded the interviewees.

'The statement elaborates on the dual nature of AI — representing disruptive potential and offering transformative opportunities but also posing major risks regarding human rights, fairness, transparency, safety, accountability, ethics, and bias mitigation.'
(Bletchley Declaration, 01 November 2023).

REVEREND JACQUELINE LITTLEWOOD

In 1994, Reverend Jacqueline Littlewood made history as one of the first women ordained in the Church of England. The following article, originally published by Rochester Cathedral, reflects on Jacqueline's pioneering journey in women's ministry and the challenges she faced in breaking down barriers of discrimination within the Church.

Just as AI is reshaping technology today, Jacqueline's ordination shattered long-standing beliefs and paved the way for a more inclusive and equal church. Her story shows how innovation, whether in technology, society, or institutions, can reshape the future for the better.

A pioneer of women's ministry

This year marks the 30th anniversary of women being admitted to the priesthood in the Church of England. In 1994, the Rev

Jacqueline Littlewood was one of the first women in the Diocese of Rochester to be ordained a priest. In this anniversary year, we asked her about her reflections on her ministry and of that historic occasion.

When did you start to sense a calling to the ministry?

In 1970 I had a conversation about the possibility of training for licensed lay ministry in the Church Army — a Christian organisation seeking to transform society through faith — but the thought of a vocation and full-time training at theological college did not fully germinate until later on in the 1970s.

What happened?

Well, I really think the Holy Spirit was moving during

the 1970s, waiting for me to answer the call and not letting me go. In January 1977 I attended an ACCM three-day residential conference where the selection panel conducted interviews. This appraised the different forms of ministry available to the laity, along with call and experience. Then in August, it was recommended that I should train to become a licensed Parish Worker.

Your vocation journey continued and you went on to become a Deacon. What is a Deacon?

A Deacon is the foundation of all ordained ministry. For most clergy, after a year, they will be ordained as priest. For me as a woman at the time, it was as far as I was able to go.

Was it still pretty rare for a woman to be a Deacon?

Yes. I remember getting robed for the service. It was the first time that women were allowed to wear a dog collar. We no longer had

to wear the blue cassock and Deaconess (a lay role in the church) cross and chain. We would now be called Reverend. There was a real feeling of the power of the Holy Spirit moving within the service, and there was tremendous prayerful support from the congregation.

What was it like for you to be a Deacon then?

There were people who were point blank in their opposition to women's ministry. This included refusing to receive the chalice I was administering, which they also did when women chalice assistants were administering. It was a different type of rejection and exclusion to that I had experienced in previous years. It was not easy. But that was my calling. My cross so to speak.

Then, in 1992, General Synod — the decision-making body of the Church of England — voted for women to be admitted to the priesthood.

Yes. It followed years of countless debate and votes on whether women should be ordained as Priests, but the vote felt spirit-led to me.

You were one of the first women to be ordained a priest in Rochester Cathedral in 1994. What was that like?

Being ordained a priest was such an affirming experience and full of joy. At the end of the service we could see people with banners and I and others in the procession wondered if they were protestors — we were greatly relieved to find they were members of the Catholic Women's Ordination Group who had come to support us. On reflection it was a day which heralded new challenges, particularly if someone refused my ministry when I was presiding at the Eucharist and other sacraments of the church.

How did that affect you?

It hurt but I had to carry on. I suppose it was breaking new ground, so to speak, and some people just needed more time to acclimatise to change than others. There still continues to be difference of opinion on women's ministry and their holding positions of authority.

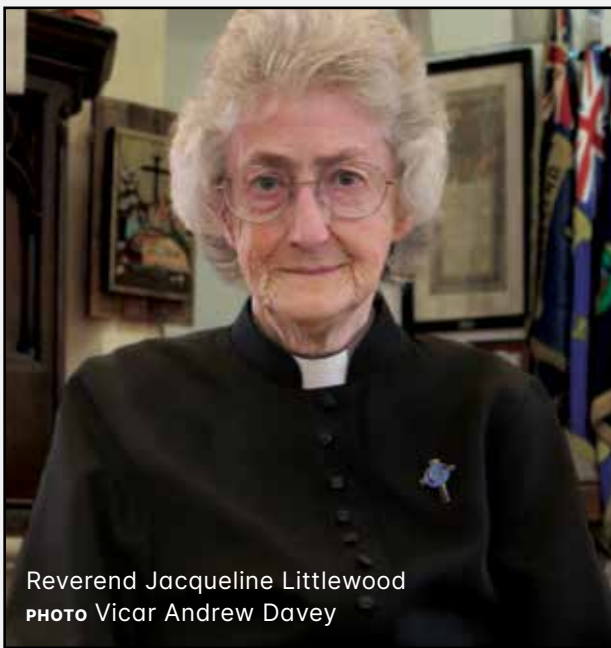
You have received a number of honours in recognition of your ministry.

Yes, and these include when I was kindly invited to a Buckingham Palace Garden Party in 2016 in recognition of my chaplaincy ministry and service. Then last year, I was presented with the Royal Maundy Money by King Charles III in York Minster in recognition of my Christian service. Both events were so unexpected but so joyful and such amazing privileges.

What has sustained you?

Making time for spiritual reading, private prayer, visiting places and doing things that will be enjoyed. Jesus has been my focus and strength. My rock along with dear family and friends, many who have sadly died, who have accompanied me along the way. I have also been assisted with, as my friends might say, a distinct blast of stubbornness... grim determination... and being an indomitable spirit!!! ■

www.rochestercathedral.org



Reverend Jacqueline Littlewood
PHOTO Vicar Andrew Davey

AN INNOVATOR AND INDOMITABLE SPIRIT

JAGDEV SINGH VIRDEE – STATISTICS

Statistics are a powerful tool for communities to shape their local environment and help understand behaviour, spending patterns, and needs. Jagdev Singh Virdee, a distinguished statistician and General Secretary at the Guru Nanak Darbar Gurdwara in Gravesend, emphasises that data is not just for government or big tech. Communities can use freely available statistics to lobby policymakers and drive meaningful improvements in their local areas.

COMMUNITY STATISTICS

The media often highlights data misuse by large corporations when discussing AI and big data. While such concerns are often valid, there are also significant opportunities for communities to utilise freely available statistics to influence policymakers at a very local level.

Breaking national data down to local areas or sub-populations, and developing sub-indices, allows a clearer understanding of different needs and demands. For instance, pensioners' spending patterns differ from younger people, which may impact the effect of overall inflation on each group. Spending patterns also have implications for the type of businesses an area can support.

JAGDEV SINGH VIRDEE

Jagdev Singh Virdee's career included over 32 years in the Government Statistical Service, starting with the Department of Trade and Industry (DTI) in 1978 and finishing in the Office for National Statistics (ONS). He eventually became Deputy Head of the ONS Centre for Regional & Local Statistics, a position he held until 2010. Since then, he has been undertaking many short statistical projects and assignments in several countries across the world, as well as serving in some voluntary roles as a Fellow of the Royal Statistical Society (RSS), and leading the annual production of the British Sikh Report, based on a survey of Sikhs living in Britain.

As Chair of the Forum of Statistics User Groups and a member of the National Statistics Advisory Group, Jagdev remains deeply involved in promoting the use of statistics. He stresses that "poor data leads to poor decisions" while emphasising that "Trustworthiness, Quality and Value (TQV) are essential principles that underpin statistical outputs, as required by the UK Code of Practice for Statistics."

Jagdev played a key role in modernising data usage for local policymaking. Under the 1997 UK Blair government, he helped develop Neighbourhood Statistics to support the government's Neighbourhood Renewal programme, enabling granular data at a very local level, aggregated from individual households. This innovation allowed policymakers to identify local needs and direct resources accordingly, particularly through improving the Indices of Multiple Deprivation, which still guides funding to the most deprived areas.



LOCAL DATA

"My passion for statistics dates back to childhood, and maths was always my favourite subject at school," Jagdev says with a smile. Early in his career, statistical work was largely manual. His first task was compiling statistics on UK strategic raw materials, all recorded by hand. When working on monthly trade statistics in the early 1980s, trends were calculated on Texas Instruments programmable calculators and then plotted manually on graph paper. "Today, technology has streamlined these processes, but the core principles of accuracy and relevance remain unchanged," he notes.

ADVANCES

One of the most significant advancements in modern statistics is the ability to link large datasets at the very individual level. Jagdev points to the COVID-19 pandemic as an example. The ONS linked census data with death records to identify the different impacts on individual ethnic and faith groups. "Such analyses, impossible in previous decades, now provide critical insights that shape policy," Jagdev explains. "It is also now easy to visualise statistics at a local level in interactive charts. An excellent example is the 2021 Census data, showing a lot of information about your area for districts and much smaller areas. Just go to www.ons.gov.uk/census/maps and see how your neighbourhood compares with others, in terms of housing, education, health, work and more."

CHAMPIONING COMMUNITY DATA

As Chair of the Champion Award for Excellence in Official Statistics, Jagdev continues to advocate for the role of data in improving lives. He says "It is very satisfying to, at least once a year, celebrate the best of the excellent work undertaken by those who produce official statistics". He aims to raise awareness of how statistics can be actively used in everyday decision-making, seeing technology as a key enabler of broader engagement and more efficient analysis. He remains committed to helping policymakers make informed, evidence-based decisions grounded in the independence and reliability of official statistics.

EVOLVING METHODS

Looking ahead, Jagdev sees even greater potential for local groups to harness official statistics to achieve their goals. With initiatives like ONS Local and advancements in technology, producing and analysing detailed data will become increasingly accessible, leading to better-informed decisions at both local and national levels. ■

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PAT KNIGHT – LIFT



PHOTO Jem Sahgun

The pandemic wreaked havoc on household finances, particularly for those already struggling before Covid. Recognising the gap between what support benefits residents claimed and the financial resources available, Kent County Council (KCC) formed a task force to address hardship. The task force enlisted the expertise of Deven Ghelani, a former Universal Credit, Welfare and Employment Specialist at the Centre for Social Justice and founder of Policy in Practice, who was developing a programme called LIFT — Low Income Family Tracker.

Gravesham Borough Council (GBC), a local authority in Kent with particularly acute areas of deprivation, saw potential in LIFT. Pat Knight, GBC's Assistant Director (Corporate Services) and a self-described 'data geek', took a keen interest in the initiative and persuaded councillors and senior management to support a trial. Pat was not a fan of traditional debt recovery approaches and wanted a system that scrutinised the data, emphasising the need to support people more efficiently and proactively in paying their bills. His personal background influenced this perspective: raised in social housing, Pat was fortunate to attend a grammar school, but his parents worried about the costs and had to work weekends fruit picking to cover the extra expenses.

Working with Policy in Practice, GBC developed the unpublished Poverty Gap Report to highlight poverty levels in the borough. It identified households with high vulnerability and low affordability — those who genuinely could not pay. The council then began contacting these families to inform them of the support available.

IMPACT

The impact of this initiative has been substantial. Approximately 800 children have been lifted out of relative poverty in the borough, reducing the number of affected households from 3,000 to 2,400 out of 44,000. Financial support has included:

- £125,000 in council tax support
- £250,000 for energy assistance
- £2.2 million in pension credit over the next six years, with £1 million proactively paid out to those in need.

WHAT'S DIFFERENT? £19 BILLION!

The money being paid to residents is not GBC money; it is unclaimed funds set aside by central government. The Guardian newspaper (23 April 2023) reported that "UK households are missing out on £19bn a year in unclaimed welfare benefits". The article noted that the "complexity of the system and the perception of government handouts as 'shameful' are stopping people from accessing much-needed support".

"But the study found even bigger sums were not unusual. In one case, advisers helped a pensioner couple in Kent (GBC residents identified by LIFT) living on £280 a week secure an extra £222 a week in pension credit — £11,500 a year."

The report highlighted that pensioners are particularly likely not to apply for benefits, perceiving them as shameful. An estimated 850,000 pensioner households fail to claim £1.8bn annually in pension credit.

BIG DATA

LIFT uses data linked through council records and postcodes, cross-referenced with DWP records, without using names or addresses. "The Digital Economy Act should have made sharing data easier but it still remains extremely difficult," Pat explains, "and the DWP is very strict on data protection." He continues "GBC has a dedicated Information Governance Officer to ensure strict compliance with these stringent laws."

"We don't know the true value of poverty," Pat points out. The Office for National Statistics (ONS) provides good ward-level data on deprivation, but it does not reveal where the pain is most acutely felt. GBC sought household-level data to monitor and actively assist households in reducing their liabilities. Reducing the number of forms claimants had to fill in was another goal, easing their burden and reducing the workload for GBC staff.

ADDITIONAL BENEFITS

"£1 million has been actively paid out to GBC residents — money that would otherwise sit idle in a pot in central government," Pat says proudly, "and this money nearly all flows back into the local economy, boosting trade for local businesses."

Pat strongly believes the improvements brought about by LIFT demonstrate the effectiveness of targeted financial support and data-driven intervention. At the time of the interview, Pat was in discussions with Southern Water regarding a social tariff on water rates and targeting families by assisting with funding for school uniforms.

"£1 million has been actively paid out to GBC residents — money that would otherwise sit idle in a pot in central government... and this money nearly all flows back into the local economy, boosting trade for local businesses"

— Pat Knight, Assistant Director, Gravesham Borough Council

THE FUTURE

There are genuine concerns about big data and data sharing, and these should not be ignored. The Digital Economy Act (DEA) addresses many of these concerns, making it clear that the only lawful reason to use data is for the benefit of the person. The DEA encourages institutions to work together and provide services like those LIFT currently offers. Maintaining proportionality is essential, but the benefits highlighted by these early years of LIFT are encouraging, demonstrating how lives can improve when data is expertly scrutinised. ■

<https://policyinpractice.co.uk/policy-dashboard>

NAOMI BOYLE – THE WONKY POTTER

Naomi Boyle has a dual identity in the world of ceramics. She teaches accessible pottery classes under the pseudonym, The Wonky Potter and her artistic endeavours come under Naomi Boyle Ceramics. Through both, she has found a way to combine creativity with pain relief, to shape a new entrepreneurial journey.

PAIN RELIEF

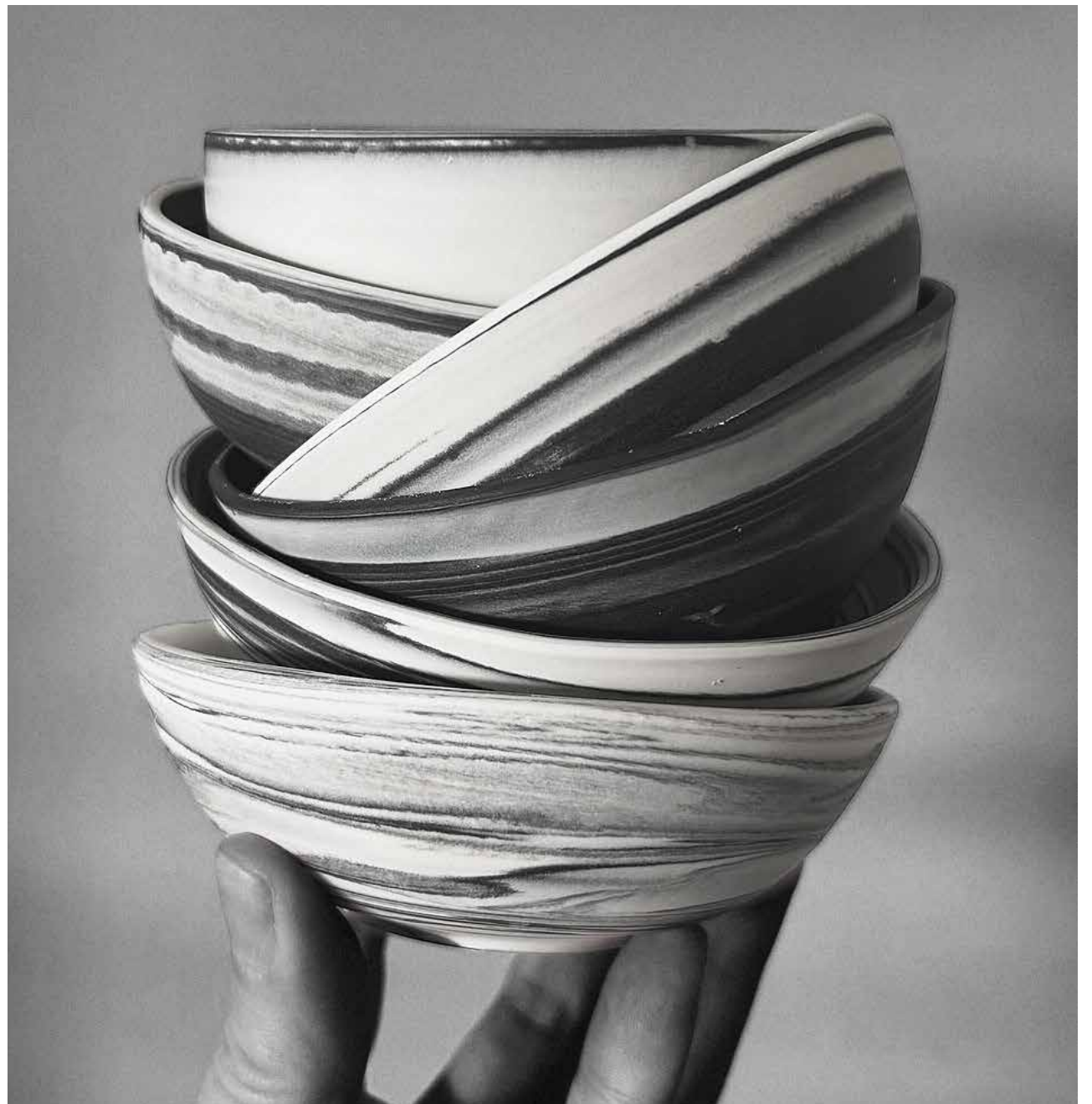
‘Pottery is about more than making objects. It’s about connection; to yourself, others, and the material,’ Naomi explains. ‘The Wonky Potter is about making pottery welcoming and accessible, while Naomi Boyle Ceramics represents my personal artistic journey.’

Her love for clay started in childhood. ‘I had a strong dislike for school,’ she recalls, ‘but when a potter visited, it was the best day of my life.’ Returning home proudly with a ‘wibbly wonky pot,’ Naomi’s parents were shocked when a teacher told them this formed part of the evidence that showed she was “educationally subnormal.”

The impact was profound. Naomi was sent to a special unit, only to be returned when it became clear the placement was a mistake. However, the emotional damage lingered, and this label followed her for her whole school career. Yet, her love for pottery remained.

REDISCOVERING CLAY

In her late teens, Naomi began to suffer from constant pain, not until she was 40 years old, was she eventually diagnosed with a birth defect called ‘transitional vertebrae.’ “The vertebrae thinks it’s a pelvis, and the two grew together at birth,” she explains. This led to years of chronic pain, isolation, and dependence on medication, which in turn forced her to take a 10-year break from clay.



Her turning point came during a 4-week, residential pain management course at St Thomas’ Hospital’s INPUT Pain Unit. ‘The course taught me how to shift focus from the pain to what I’m doing. Pain is complex; sometimes your body thinks it’s in pain even when the wound is healed.’ She returned to study and gained a BA in Ceramics from Central Saint Martins, University of the Arts London.

ORIGINALITY AND PROCESS

Naomi’s work is deeply rooted in emotional response. “I get into my feelings when working with clay,” she says. “It’s a meditative process, much like my pain therapy.” The connection between movement and mindfulness is central to her art.

“Ceramics is so varied,” she explains. “Two people can use the same process but create very different outcomes. While others might make plates, I make spinning tops. My work embraces chaos, while others might focus on controlled patterns.”

“Pottery is about more than making objects. It’s about connection; to yourself, others, and the material.”

— Naomi Boyle





CHALLENGES AND RESISTANCE

Pottery, Naomi admits, can often feel exclusive and expensive. “It’s tied to class divides,” she says. Through *The Wonky Potter*, she aims to make it more accessible. “I want to create an open, warm space where people can try their hands at clay. It’s a slow, meditative process, but it can also be stressful when things go wrong.”

Naomi runs a pottery class out of a loft studio at a Gravesend institution, Munn’s Art Shop on Windmill Street. Her family roots run deep in Gravesend. Her great-grandparents had a green-grocer’s on the street, and her grandfather owned a chemist on Manor Road. “I find it is comforting working in an area where past generations of my family have worked, and such a privilege to have the support of the Munns family”

After leaving school, she started as a window dresser but pottery always drew her back. “Through *The Wonky Potter*, I wanted to bring that connection that clay creates back to the community.”

ENVIRONMENTAL CONCERNS

Naomi is concerned about the environmental impact of ceramics. “The energy, water, and raw materials used are significant,” she says. “For example, cobalt mining, (which is linked to the poverty of its miners and child labour), is needed for blue glazes.”

The ceramics industry is slowly reflecting on its environmental impact. “Recycling, reusing, and being more mindful of what’s being fired is becoming an important issue,” Naomi explains. Innovation is now centred around sustainability, such as using solar power, reducing water waste, and finding alternatives to harmful materials.

Resistance to change can be present in older potters. Universities are driving the sustainability message forward with younger generations pushing for sustainability, while older generations can hold on to wasteful practices. “There’s a lot of waste in the sector, and many are reluctant to change.”

THE FUTURE OF CERAMICS

While technology like 3D clay printing exists, Naomi believes it lacks the human touch. “Clay is humbling. You connect with it through your hands, which can’t be replaced by machines.” 3D printing with clay, along with AI can produce some fascinating results, however, for me, this work lacks soul and connection. Clay is in our DNA, crafting by hand, leaving throwing lines or a thumbprint leaves that human connection and mark that will still be there hundreds of years after we are gone, maybe I’m just really sentimental when it comes to the actual craft of making with our hands, how it connects us to our making, and in turn when making in a class this connects us to each other. This is something a clay 3D printer cannot do.’

In five years, Naomi envisions *The Wonky Potter* as a thriving community pottery in Gravesend. ‘I want it to be a space where people can come together, fall in love with clay, and learn in an open, accessible environment.’

“I worry about the environmental impact of wild clay digging, but I believe the innovations that matter are the ones that reduce harm.”

— Naomi Boyle



Naomi hopes the ceramics sector will return to more traditional, sustainable methods. ‘I worry about the environmental impact of wild clay digging, but I believe the innovations that matter are the ones that reduce harm.’

As for robots and automation, Naomi is sceptical. ‘Clay is such hands-on material. People want that tactile connection, and robots can’t replace that. The best innovation will be by making the process more sustainable, not less personal. ■

www.instagram.com/the_wonky_potter

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JAMIE IZZARD & PROFESSOR CHRIS HOLLAND – DIABETES CLOSED-LOOP SYSTEM

Before the discovery of insulin in 1921, a diagnosis of diabetes was a death sentence. While insulin revolutionised treatment, the past century has seen little change in how it is administered. Now, the real innovation lies in monitoring and delivering insulin, and technologies like the ‘closed-loop system’ are transforming lives.

Jamie Izzard, Deputy CEO of Gravesham Borough Council, shared his experiences with diabetes, alongside Professor Chris Holland, Dean of Kent and Medway Medical School, who explained how new medical technologies are not only improving lives but also offering long-term benefits for the NHS.

CLOSED LOOP SYSTEM

Since 2020, advancements in data technologies have rapidly shifted from hospitals into patients’ hands. The closed-loop system, a Continuous Glucose Monitoring (CGM) device, provides glucose readings every five minutes to help manage type 1 and type 2 diabetes. This system is changing how people live with diabetes by minimising the risk of error and improving overall management.



Prior to the closed-loop system, diabetes sufferers relied on finger-prick blood tests and manually injecting insulin. Although effective, this method carried risks of miscalculating dosages. The closed-loop system significantly reduces these risks by automating insulin delivery based on real-time glucose readings.

CONTINUOUS GLUCOSE MONITORING (CGM)

The closed-loop system includes a monitor and a pump, such as the Dexcom G6 monitor and the Omnipod pump. The Dexcom device, attached to the body, sends glucose readings via Bluetooth every five minutes. The Omnipod pump responds by automatically adjusting insulin doses. These real-time updates can be viewed on a smartphone or smartwatch, giving users constant access to their glucose levels.

PATIENT STORY

At 26, just before his wedding, Jamie Izzard lost half a stone (3kg) in one week and was diagnosed with type 1 diabetes. “I felt like my life was over,” he recalls. “Everything I took for granted seemed impossible, and I was depressed for a while, unable to work.” Professor Holland explained that this reaction is common for many newly diagnosed patients.

Unlike type 2 diabetes, which is often linked to lifestyle factors, the causes of type 1 diabetes remain unclear, possibly related to stress or post-viral effects. Both types of diabetes, however, can lead to serious complications, including blindness and amputations.

Jamie adapted to his new routine of finger-prick tests, managing food choices, and regular hospital visits. The stress of dealing with high morning blood sugar, known as the



“dawn phenomenon,” was a constant challenge. “Starting the day with high blood sugar is stressful and sets the day off badly,” explains Jamie.

Since switching to the closed-loop system, Jamie’s life has transformed dramatically. With real-time updates, his lifestyle is more flexible, and the system administers insulin as needed throughout the day. In the first three months of using the device, he hasn’t experienced a single episode of dawn phenomenon.

WIDER IMPACT

Professor Holland explained that the impact of the closed-loop system extends beyond individual patients. Fewer diabetes sufferers using this system end up in intensive care, and the need for regular hospital visits has dropped as clinicians can access patient data online.

In some cases, diabetes can lead to driving licence revocations, affecting employment prospects, particularly in professions like HGV driving. The CGM system is changing that, allowing some patients to regain their licences and apply for roles previously off-limits to them.

POSTCODE LOTTERY

Despite the benefits, access to the technology remains uneven across the UK. Some health trusts provide devices for free, while others do not offer them at all. Jamie, for example, has to pay a monthly subscription for his Dexcom G6 monitor, while his health trust funds the Omnipod pump. Professor Holland notes that where these devices are available on the NHS, they are often rationed to patients who demonstrate they can use them responsibly.

THE FUTURE

Professor Holland is optimistic that the roll-out of devices like the closed-loop system will significantly reduce the need for medical procedures across various conditions, from diabetes to chronic pain and heart problems, over the next 20 years.

“I have a new lease on life... Everyone with type 1 diabetes should have access to the closed-loop system; it’s life-changing.”

— Jamie Izzard, Deputy CEO, Gravesham Borough Council

For Jamie, the future has already arrived. He is sleeping better, feels healthier, and is more relaxed. “I have a new lease on life,” he says. “Everyone with type 1 diabetes should have access to the closed-loop system; it’s life-changing.” ■

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ELLIOTT REID – THE REVITALIZE CLINIC

Revitalize is a health and wellness specialist founded by Elliott Reid, operating from a refitted former pub in Gravesend town centre. The business offers a holistic approach to healthcare, including physical rehabilitation, mental health support, personal training, and medical herbalism.

Revitalize stands out for its philosophy and commitment to treating the individual, not just the condition. It is on a mission to change the 'pill for the pain' mentality that permeates Western medicine.

ELLIOTT REID

Founder Elliott Reid is a passionate advocate for a patient-centred approach to health. Born and raised in Gravesend, Kent, Elliott brings local insight and an international perspective to his work.

He grew up in a household shaped by strong philosophical and inquisitive influences, which fostered his tenacious approach to understanding people's lived experiences. This outlook is central to the business ethos.



Elliott began his career as a mobile sports massage therapist. As his client base grew, so did the company, eventually evolving into a thriving clinic. Revitalize now employs a diverse team of professionals, all focused on centring on the health and wellbeing of their clients.

UNIQUE SELLING POINT

The appeal of Revitalize lies in its holistic, individualised approach to healthcare. Each treatment is "tailored to the person in front of the clinician", says Elliott, considering not just physical symptoms but also the emotional and psychological factors affecting their health. "There is a strong emphasis on understanding the whole person," Elliott continues, "allowing clients to lead their journey to health rather than simply following a prescriptive treatment plan."

Mental health is seen as deeply interconnected with physical rehabilitation. "Clients often arrive with emotional stress linked to their physical condition," Elliott notes, "and if these mental barriers aren't addressed, it can hinder their recovery." The team works to foster a healthy relationship between the client's mind and body, helping them overcome self-doubt and regain control of their health.

This commitment to treating the individual, not just the condition, is complex and time-consuming. Elliott explains: "For example, a patient may come in with physical pain, but we will also address the emotional distress that may accompany it. We offer both physical rehabilitation and mental health support." This integrated approach ensures that clients are not only treated for immediate symptoms but also supported in building a sustainable path to long-term wellbeing.

CHALLENGES AND RESISTANCE

One of the main challenges arises from ingrained healthcare expectations. Many people are accustomed to generic treatments, such as taking painkillers for physical discomfort, without addressing the root cause. Resistance often comes from clients who expect a quick, mechanical solution rather than the deeper, holistic approach Revitalize advocates.

Financial stress can also affect how clients experience and engage with their care, making it more difficult for them to commit to long-term solutions.

CHANGING EXPECTATIONS

"Clients are increasingly looking for more than just a quick fix," Elliott continues. "There is a growing awareness of the need for a comprehensive approach to health, focusing on long-term solutions rather than temporary relief." This shift reflects a broader move away from the traditional Western 'pill for the pain' mentality.

The demand for personalised, holistic healthcare, addressing both mind and body, is driving much of the change in the sector. Clients are becoming more informed and aware of their options, seeking treatments that align with their lifestyle and values. Additionally, the rise of technology and the increasing pressure on public health systems like the NHS are pushing practitioners to innovate and find more efficient, patient-led solutions.



INNOVATION

The business continually evolves through ongoing professional development, blending the latest techniques in physical therapy with psychological support methods such as Acceptance Commitment Therapy (ACT). In the wider sector, technology is playing an increasing role, with greater attention given to how AI and robotics can assist in diagnosis and treatment.

WHY GRAVESEND?

Diversity and community spirit were key factors in establishing Revitalize in Gravesend. Elliott sees the town as a microcosm of the world, with a rich mix of cultures and influences that make it an ideal place to offer personalised, culturally sensitive care.

The area's economic diversity also presents challenges and opportunities, "which Revitalize is well-positioned to address through its inclusive, patient-centred ethos," Elliott expresses passionately.

"A patient may come in with physical pain, but we will also address the emotional distress that may accompany it. We offer both physical rehabilitation and mental health support."

— Elliott Reid, Founder, Revitalize

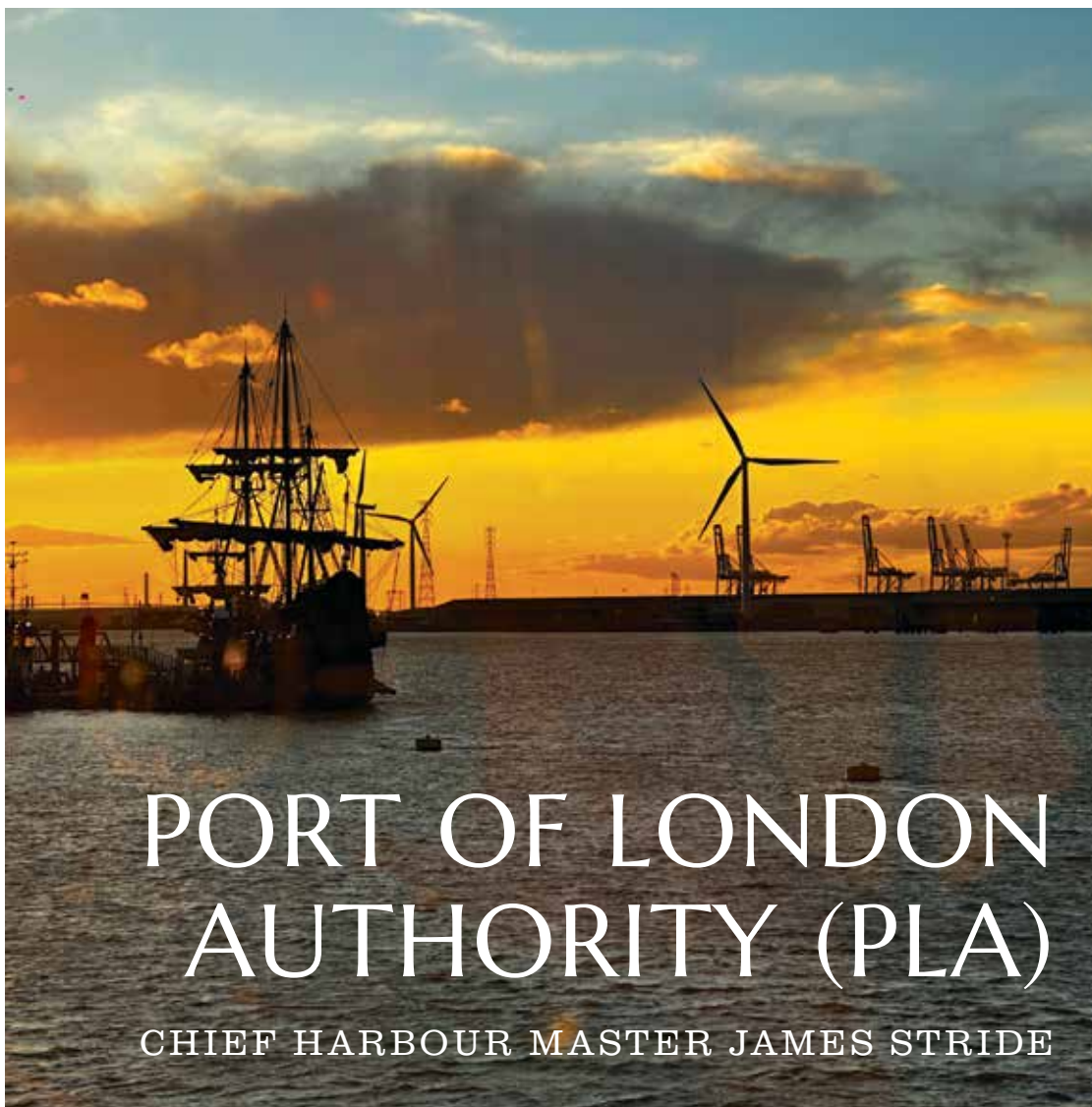
THE FUTURE

Revitalize aims to expand by opening more clinics and growing its client base, with plans to explore partnerships with other clinicians. Elliott believes the market for businesses with a patient-centred ethos will continue to grow exponentially.

In ten years, the sector is likely to see significant advances in robotics and AI in treatment. Machines will likely take over many routine tasks, allowing practitioners to focus on the human side of care.

However, Elliott believes that while technology will play an important role, there will always be a need for human interaction, particularly in areas like rehabilitation and mental health support, where trust and empathy are crucial. There is a growing realisation that health is about more than just treating symptoms; it's about creating a framework for living a fulfilling, active life. And that will always remain Elliott's central philosophy. ■

www.revitalizeclinic.co.uk



“The PLA shall be established for the purpose of administering, preserving, and improving the port of London and otherwise for the purposes of this Act.” (Port of London Act, 1908)

The Port of London Authority (PLA) manages 95 miles of the River Thames, one of the UK’s most important commercial and leisure waterways. This vital stretch sees everything from major international cargo transport to boating events. Chief Harbour Master James Stride and his team oversee its safety and operations, ensuring the smooth running of an artery crucial to the UK economy.

THE PLA

The PLA was founded under the Port of London Act 1908 to bring order to London’s chaotic docks, where private wharves undercut each other and edged towards collapse.

As a Trust Port, the PLA has no shareholders and operates on behalf of its stakeholders – anyone using the river. This trust model, like those of other UK ports, such as Dover and Harwich, allows for long-term investment in critical infrastructure. Alternative types of port operations include private and local authority ownership.

CHIEF HARBOUR MASTER

The maritime career of Chief Harbour Master James Stride spans over two decades. He served in the Royal Navy for 24 years, rising to command a Type 45 destroyer. After leaving the Navy in 2015, James worked for the Cruise Liner company, Carnival in both Southampton and Hamburg. Whilst in Germany, responsibility included overseeing nautical operations for their fleet of 35 ships. This included further developing the company’s in-house software systems, and providing a telematics capability. This allows tracking of vessel movements, as well as shoreside access to technical and nautical data to allow diagnostics of issues. This was an innovative first for the cruise industry.

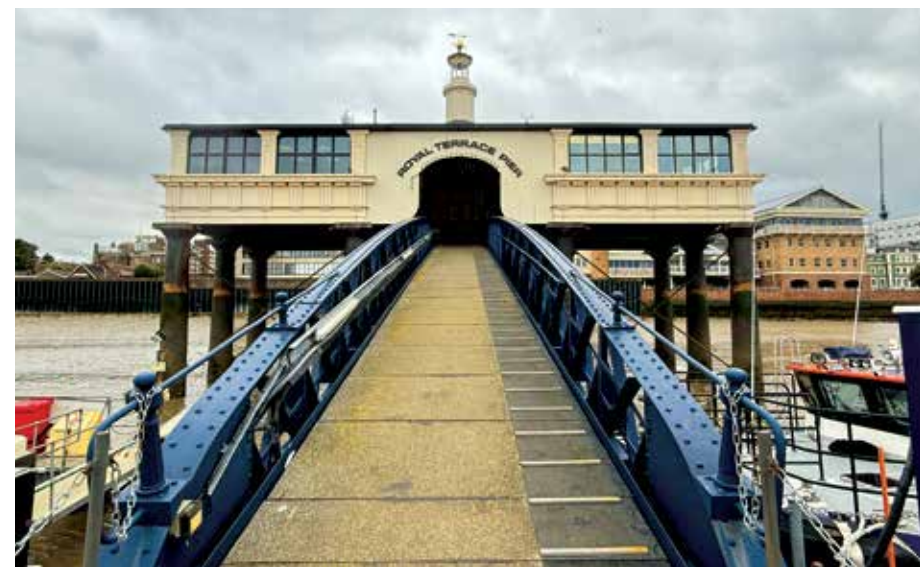
Raised in Christchurch, Dorset, James’s love for the sea is in his blood. His family’s 200-year maritime history led him naturally to a career at sea and navigation. Now at the PLA, his current role allows him to combine his passion for navigating with the operational complexities of managing the River Thames.

STRATEGIC INVESTMENT

As the authority responsible for navigational safety on the Thames, the PLA invests heavily in technology. “Innovation is key to maintaining safety and efficiency,” James says. The PLA is upgrading the Vessel Traffic Service (VTS) system. It provides pilots with portable navigation systems offering sub-1 metre accuracy when manoeuvring vessels. The upgrade involves working closely with the UK Hydrographic Office for hydrographic trials.

Port Control Centre, one of the PLA’s headquarters buildings, is undergoing a major £10m refurbishment, delivering a cutting-edge VTS, as well as a vessel planning centre. Once complete, it will act as a control centre for the whole tidal river, bringing pilot planning, operations, and vessel management under one roof.

James emphasises this is one of the advantages of the Trust Port model. “We reinvest profits into the business, allowing us to make long-term strategic investments in technology and infrastructure.” The investment extends to the workforce, ‘Pilot turnover is very low when taking out retirement,’ James explains, ‘there is a loyal workforce with opportunities to move between different parts of the PLA and the organisation invests in people and grows individuals within the business, developing talent rather than just bringing it in.’



ENVIRONMENTAL RESPONSIBILITY

Managing the Thames comes with significant environmental responsibilities. The Thames is divided into three districts:

- Commercial section: Large vessels like tankers and aggregates up to the Thames Barrier.
- Middle section: Barges, pleasure boats, and waste transport.
- Upper section: Predominantly leisure boats, from Putney upwards.

With 56 million tonnes of cargo passing through annually, the Thames remains one of the UK's busiest ports. "Environmental concerns are central to our operations," says James. The PLA has introduced measures to reduce pollution from smaller vessels, requiring houseboats to use pump-out facilities. It's also working toward Net Zero, with solar panels and electric or hybrid road vehicles forming part of the strategy.

The PLA supports alternative fuels, such as LNG and methanol, with several shipping operators operating new ships delivered with engines able to run on these new fuels. However, James acknowledges that challenges remain with the energy density of these options.

The organisation also plays a key role in the Thames Estuary 2100 project, which aims to protect the river from rising sea levels driven by climate change. "We know the river will rise, and we're preparing for that reality," says James.

LOOKING AHEAD

James points out that it is important to recognise that the PLA is part of a global transport network and emphasises

the importance of cooperation. "Ports and associations don't compete on safety and environmental standards. We're all working to maintain safe practices," he says.

James sees further innovation on the horizon. 'In five years, I expect electric vessels to be more common on the river, alongside developing hybrid freight operations.' The PLA's latest pilot cutters boast 40% greater fuel efficiency thanks to innovative hull designs.

He also predicts more automation in port operations, with digital twins – virtual models of port infrastructure – being used to manage traffic and plan new developments. 'We're seeing autonomous shipping emerge in places like Norway, but for international vessels, crews will remain essential. Still, AI and digital technologies will play an increasing role in port management.'

CONCLUSION

The Port of London Authority is a vital part of the UK's maritime industry, with a well-respected, long history and a forward-thinking approach to innovation and sustainability. Significant challenges lay ahead, particularly around the impact of climate change. For the PLA, it is about finding a balance between navigational safety, environmental responsibility and technological advancements that will continue to shape the Thames as both a commercial and leisure waterway. ■

Learn more about the PLA here: www.pla.co.uk



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EVOLVING THREAD: RNLI KIT INNOVATION

When the Royal National Lifeboat Institution (RNLI) was formed 200 years ago, Personal Protection Equipment (PPE) consisted of a cork life jacket and woollen jumpers.

Since then, PPE has gradually evolved, incorporating improved levels of protection, such as jackets that help keep the crew warm and afloat in the water. However, the last 20 years have seen significant innovations, transforming the safety of crews operating at sea and on rivers.

CHALLENGING DESIGN

One of the main challenges in redesigning the RNLI kit is balancing durability with comfort. Crew members need kits that can withstand cold water, wind, and rough conditions while still allowing them to perform tasks such as operating boats and rescuing people from the water or confined spaces. Ensuring that suits are not too tight, and allowing for layering while maintaining mobility is crucial. Common points of failure, such as zips and latex seals, also need regular improvement to ensure longevity. Kits must adhere to strict safety regulations, such as SOLAS standards, without compromising wearability.

Long-time Gravesend RNLI crew member Tim Wyatt sat with early-career outdoor clothing designer Matt Davies to discuss RNLI kit design, safety, and overcoming challenges.

TIM WYATT

Tim Wyatt has been a volunteer crew member at the Gravesend RNLI station for 18 years. His day job is in research and development for BT Openreach, specialising in fibre optics.

Although Tim's professional role doesn't directly overlap with his RNLI duties, his keen interest in materials and clothing has made him 'something of a clothing geek' within the station. His technical knowledge, particularly about fabrics and their performance in extreme conditions, has proved valuable in discussions about developing life-saving equipment.

MATT DAVIES

Matt Davies specialises in sportswear design, with a background in creating outdoor and performance gear for activities such as rock climbing and watersports. His expertise in specialist clothing construction has been

informed by decades of fabric innovation, and working at companies like Vollebak, which works with fabric from textile mills like Pertex, Mectex and Schoeller. Matt's practical experience in outdoor sports ensures that the equipment he helps conceive is fit for purpose in demanding environments.

EVOLVING EXPECTATIONS

Crew expectations, alongside regulations, increasingly inform how RNLI PPE develops. New technologies in fabric and design are playing a growing role. "Thermal efficiency is one of the major improvements," Matt emphasises. Tim adds, 'Crew members are now equipped with dry suits, base layers, and PPE designed to withstand extreme weather and temperature fluctuations, from cold water to high winds.'

Matt explains, "Materials like Dyneema, used in ropes and sails, become stronger in colder temperatures, making them ideal for harsh environments." Tim picks up on this, "Crew members might be woken from a warm bed and find themselves in freezing conditions within minutes. The need for gear that can quickly adapt is vital."

INNOVATION

Advances in fabric technology are also driving innovation in other areas. The development of reflective materials that enhance visibility at night, combined with infrared sensors to locate individuals, represents significant progress. Matt notes, "Such materials and innovations are often developed through collaborations with the military, where research into rugged, durable equipment is ongoing."

Tim describes modern life jackets: 'They have integrated buoyancy features that automatically keep the wearer afloat, even without activating the gas canister that inflates the jacket. The kit also includes distress flares, location beacons, and helmets with built-in lights and visors to improve safety in all conditions.'

FUTURE DEVELOPMENTS

'The future will likely see kit becoming more efficient at regulating body temperature while maintaining durability in extreme conditions,' Tim summarises. 'Warmer temperatures due to climate change could lead to more unpredictable storms, while cold snaps increase the risk of hypothermia for crew and those they rescue. RNLI kit must therefore adapt to a broader range of conditions.'

Matt adds, "Innovations in material science are likely to lead to more affordable and accessible high-performance gear. Robots and AI will play a role in the design and testing phases, allowing for more precise, data-driven improvements. AI may also identify material weaknesses and suggest solutions that reduce human error in the design of life-saving equipment. Additionally, the military and stringent PPE and sports regulations will drive the innovations in textiles and clothing construction."

WHAT'S NEXT?

In the past 20 years, wetsuits, dry suits, and other safety gear have become more flexible and comfortable. This trend is expected to continue. Attention to detail and strict procurement processes are part of what makes the RNLI one of the most expensive charities to operate. Ensuring all PPE meets high safety and durability standards keeps the organisation balancing cost with the

"Crew members might be woken from a warm bed and find themselves in freezing conditions within minutes. The need for gear that can quickly adapt is vital"

— Tim Wyatt, Volunteer Crew Member, Gravesend RNLI

need for the best equipment available. Matt predicts, "Machinery and algorithms will help manufacturers design, weave and knit more specific configurations for certain environmental conditions, like having increased thermal conductivity in colder climates, which will benefit people doing roles, like in Tim's case." Tim concludes. 'This is only likely to improve with time.' ■

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RNLI Inspector Captain Ward's
Cork Lifejacket, 1854



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RNLI AND GRAVESEND STATION

The RNLI is a charity dedicated to saving lives at sea, offering services including lifeguards and inland waterway support. Gravesend station is one of four RNLI stations on the River Thames, ensuring vital maritime and waterway safety given the heavy river traffic.

Following the Marchioness disaster in 1989, which claimed 51 lives, the RNLI established three full-time Thames stations to improve response times. Due to its strategic location, Gravesend became one of the full-time stations as it allows for swift rescues at speeds of up to 40 knots (45 mph).

Around 50 crew members, a mix of volunteers and full-time staff, operate from Gravesend covering the Thames from Woolwich to Canvey Island.

Changes in how people shop, the growth of online shopping, and the influence of social media are often blamed for the demise of the traditional High Street. Yet, these shifts in retail behaviour are also unlocking new entrepreneurial opportunities, as Reena Khokhar, co-founder of RC Bathrooms, explains.

BATHROOMS BOUTIQUE

Founded by Reena Khokhar and her husband Charanjeet Singh, RC Bathrooms is a boutique showroom on Windmill Street in Gravesend, Kent, specialising in mid-to-high-end bathroom brands. A family-run business with a small, dedicated team, including Reena's father, playing a key role in operations, the company focuses on personalised service.

RC Bathrooms sets itself apart through its service-led, experience-driven approach. Rather than focusing solely on sales, the business prioritises building strong relationships with clients and developers and understanding their unique needs. Curating a bathroom can be complicated, particularly with the requirements of modern day living, requiring electrical installations, non-standard plumbing and creative wall and floor finishings. RC Bathrooms guides clients through this sometimes complex process, from concept to completion.

COMPLEX PURCHASE

"The main challenge for most clients searching for a new bathroom is a lack of awareness of the advancements in the bathroom industry that could improve their day-to-day lives," says Reena. "Many customers simply don't know what's possible in modern bathroom design until they come in and we discuss their requirements."

"The bathroom is the first room you visit in the morning and often the last one at night... How you start and end your day in that space can influence your mood and well-being considerably!"

— Reena Khokhar, Co-founder,
RC Bathrooms



The key to securing a client's business is offering a solution that combines the design and functionality they require for their daily needs whilst combining the element of luxury specific to them. "It's about blending aesthetics with functionality, at a price that works for them," Reena explains. "The products offered need to be not only visually appealing but also designed for everyday use, whilst enhancing the bathroom experience".

Reena points out how international travel influences people's perceptions of their bathrooms. "People travel more and often stay in more luxurious accommodation than at home," she says. "This exposure creates awareness of designs and products they may not have seen or tried before, such as washing with water."

Washing with water toilets, sometimes described as bidets, have evolved into "smart toilets" and one of the brands RC Bathrooms partners with is now the fastest-selling toilet system in mainland Europe.

CULTURAL INFLUENCES

Cultural differences can create dialogue, particularly when discussing features like smart toilets that incorporate water washing. Growing awareness through social media, access to global travel and more diverse social circles is helping bridge this gap in having conversations on typically awkward topics.

For some people, like Reena, growing up in a household where washing with water is a cultural norm, yet for others, it is a new cultural experience and approach to bathroom use. Interestingly, more and more clients are curious to learn about the benefits of a smart toilet. When launching RC Bathrooms, being conscious of specific cultural requirements, as well as sustainability became a core aspect of the business proposition. Offering smart toilets that allow for washing with water, a feature valued by many from traditional backgrounds, and introducing this concept to others became a key part of the business.



OFFERING SOMETHING DIFFERENT

“Competing on price or with mass retailers is not something we get involved with,” Reena says plainly. “What makes us different is our service and how we truly understand the client and their needs.” She adds, “A client might have just been diagnosed with a condition or experienced a major life event, like having a baby or the children leaving home, prompting a rethink of what they require from their bathroom. We get a lot of walk-ins asking for advice based on life changes.”

REAL-WORLD EXPERIENCE

A High Street presence allows RC Bathrooms clients to visit the showroom and experience the products first-hand. Once Inside, visitors can access knowledge and expertise.

RC Bathroom does not offer off-the-shelf solutions, it instead provides a tailored service, connecting clients with high-quality brands. More customers are

becoming aware of sustainability and the impact of their purchasing decisions. RC Bathrooms promotes long-lasting and responsibly sourced products focused on durability. Clients; are increasingly knowledgeable about the materials used and how they contribute to the longevity of their investment.

SKILLS GAP

A challenge to the business is the evolution of skills fitting modern bathrooms, a recurring theme in many sectors. Now, the demand for technology-driven products means there is a requirement to understand more than just plumbing, including electrics and the customisation of high-tech features.

Technology and materials are driving innovation within the bathroom sector. Smart products like toilets with integrated washing functions, sound systems, and customisable lighting have made fitting a modern bathroom far more complex than 20 years ago.

WELLBEING

The perception of the role of the bathroom is changing with more people now seeing the bathroom not just as a functional space but as a place for wellness and mindfulness.

Social media, the rise of wellness practitioners, and better education are all driving an evolution in personal care products. Consumers are seeking more luxurious, wellness-focused spaces. “The bathroom is the first room you visit in the morning and often the last one at night,” Reena explains. “How you start and end your day in that space can influence your mood and well-being considerably!” This growing focus on wellness is pushing the bathroom industry forward.

OPPORTUNITY

It was spotting the opportunity that encouraged Reena and Charan “to take the leap”. Her background was in private banking, whilst her husband was in construction and interiors, but their passion for interiors drove them to turn it into a business. Taking the plunge, especially with young children, was daunting but felt right.

Deep family roots in Gravesend with a strong family ethos, and the support of friends in the industry, the next step was finding the right location. “After about a year of planning and searching,” Reena smiles, “we launched the showroom on 23 March 2024.”

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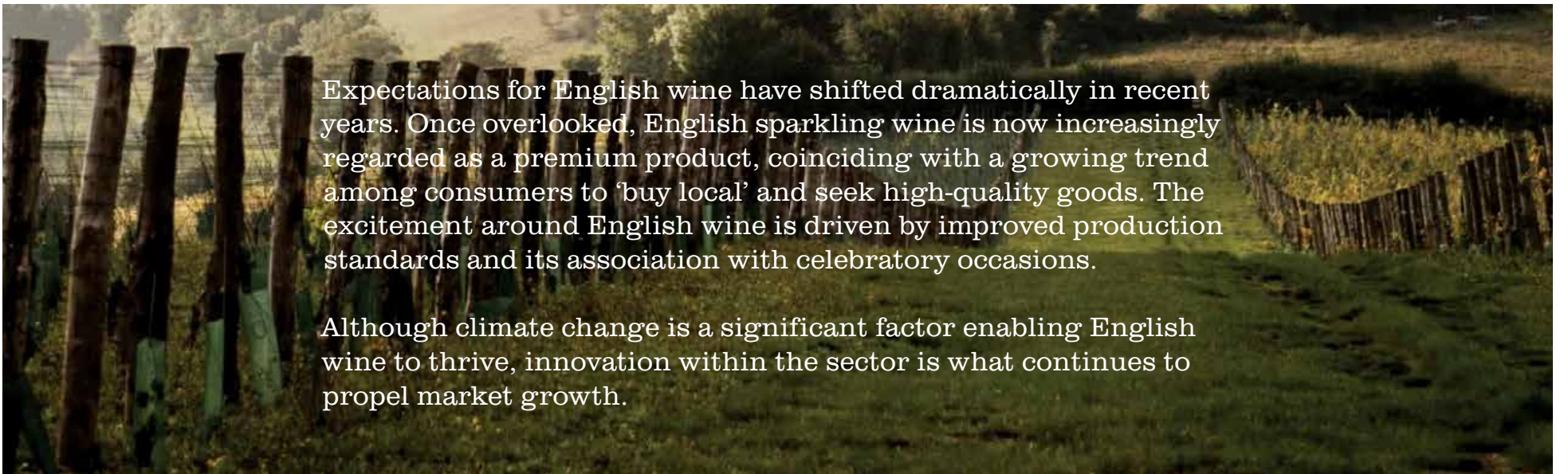
THE FUTURE HIGH STREET

Now, the business goal is to stay at the forefront of innovation in the sector, offering clients access to products and experiences they may not have considered before. Over the next decade, technological advances will make smart systems a standard feature in bathrooms, and prices for tech-driven products will come down, making them more accessible.

Despite the increase in automation, particularly in manufacturing and distribution, people will still want to experience products first-hand before making decisions. A physical showroom helps clients explore options, understand the materials, and see how innovative technologies work in a real-world setting. And this is the reason that types of businesses, like RC Bathrooms, will be the kind that will fill High Streets in the latter half of this century. ■



Silverhand Estate



Expectations for English wine have shifted dramatically in recent years. Once overlooked, English sparkling wine is now increasingly regarded as a premium product, coinciding with a growing trend among consumers to 'buy local' and seek high-quality goods. The excitement around English wine is driven by improved production standards and its association with celebratory occasions.

Although climate change is a significant factor enabling English wine to thrive, innovation within the sector is what continues to propel market growth.



William Moreno (L) and Cristina Alves —
Farm and Conservation Team

GARY SMITH – SILVERHAND ESTATE

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SILVERHAND ESTATE

Silverhand Estate is a prominent vineyard in Luddesdown, Kent, focused on producing high-quality English wines. The estate spans 1,600 acres, with 800 acres dedicated to vines. Since its establishment, the vineyard has expanded from 25 to over 160 staff in just six years.

CEO Gary Smith explained, “The vineyard is based in Gravesham due to the unique opportunities the region presents. The estate was originally an organic farm, purchased in 2018. The area’s clay-rich Kimmeridge soil, which stretches from Dorset to Kent, provides an excellent foundation for growing vines, complemented by increasingly favourable temperatures for wine production in the UK.”

BUSINESS OPPORTUNITY

With changes in shopping habits, social behaviours, and climate, coupled with rising awareness of English wine as a premium product, Silverhand identified a compelling business opportunity.

The market for English wine is on an upward trajectory, with increasing consumer demand reflected in strong sales in major retailers like Marks & Spencer and Waitrose. Waitrose now sells 40% of English wine. Gary added, “Silverhand is capitalising on this growing interest, expanding production and focusing on building a strong brand presence.”

English wine producers are competing against large European producers. The UK wine industry produces around 8 million bottles annually, compared to Europe’s 200 million UK market sparkling sales. Gary sees this as an opportunity rather than a limitation, stating they are “seeking to take a larger slice of the existing pie.”

CHALLENGES

Warmer temperatures have made English wine production more feasible, but significant challenges remain. Increased rainfall, for instance, brings problems such as mildew, which requires careful management, especially for organic vineyards like Silverhand. Because of sustainability concerns, the industry is adopting more sustainable practices to reduce carbon footprints.

The biggest risk for Silverhand is lower yields due to changing weather patterns and disease pressures. To mitigate this, the estate focuses heavily on conservation and biodiversity enhancement, believing that “a healthier ecosystem will ultimately lead to better vines and higher-quality wine.” This approach involves significant investment in technology and data gathering to monitor environmental impact and improve overall efficiency.

ORGANIC INNOVATION

Innovation at Silverhand centres around organic farming and technological advancements. For example, they are testing robotic solutions like the “Vitibot” for under-vine cultivation, which helps reduce competition from weeds without resorting to herbicides.

Another innovation being trialled is virtual fencing to manage sheep grazing between the vines, though connectivity issues, such as limited Wi-Fi, present challenges in monitoring.

While robotics and automation are set to transform vineyard operations over the next decade, there is also value in returning to traditional methods, which can be seen as innovative in today’s context.

TRADITION AND INNOVATION

Silverhand’s unique selling point (USP) lies in its large-scale organic wine production, with a strong focus on sustainability and regenerative farming. Gary explains, “Intensive farming practices degrade soil quality. Our organic approach is part of a broader commitment to biodiversity and sustainability.” He believes this approach “sets us apart in a competitive market.”

William Moreno and Cristina Alves, from the Farm and Conservation Team, are proud of the company’s commitment to maintaining a working ecosystem on the estate. “The conservation team, consisting of five people, focuses on efforts such as meadows and pasture management” says William. Cristina continued how the estate uses sheep grazing to manage undergrowth between the vines while exploring innovative solutions like virtual fencing to reduce the need for physical barriers.

STEERING A COURSE

Gary Smith, an experienced leader within the food and beverage industry, has led Silverhand Estate for the past five years. His transition into the wine industry has been a steep learning curve, but his focus on organic farming and sustainable practices aims to carve out a niche for the vineyard. In addition to providing strategic leadership to deliver growth, Gary is determined to challenge consumer indifference towards organic products.

“Intensive farming practices degrade soil quality. Our organic approach is part of a broader commitment to biodiversity and sustainability”

— Gary Smith, CEO, Silverhand Estate

THE FUTURE

Looking ahead, Gary anticipates that “robotics will play a much larger role in vineyard operations, from growing and harvesting to distribution.” Advances in technology are expected to make vineyards more efficient and sustainable, reducing both labour costs and environmental impact. The UK wine industry is set to grow, with domestic consumption projected to reach 30 million bottles. When asked about the potential for exports to France, Gary smiles and avoids the question, instead outlining “exciting export opportunities to markets like Scandinavia and the US.”

Silverhand’s focus on biodiversity, along with its investment in a dedicated conservation team, places it at the forefront of the new industrial era that is unfolding. Their business model, grounded in sustainability and regenerative farming, has the potential to yield dividends in many forms, beyond return on financial investment. ■

www.silverhandestate.com



Gra vesend offers a diverse range of quality restaurants, from Korean and Japanese to African, Bengali, and Thai. Amidst this vibrant food scene, a growing market for artisanal, high-quality products is emerging.

Liam Handley, founder of Basement Bakehouse, a micro-bakery, and Ella Jackson from the Quality Food Awards (QFA), share a passion for small-scale, high-quality food production. They see increasing demand for handcrafted artisanal goods in Gravesend, along with a blending of styles.

BASEMENT BAKEHOUSE AND QFA

The Basement Bakehouse and QFA may seem like very different ventures, but both are driven by the same values: food, community, and innovation.

Basement Bakehouse is a micro-bakery focused on delivering artisan baked goods. Liam created the business in his home kitchen to follow his love for baking and explore a lifelong dream of opening a bakery. The bakery is small and community-focused, offering high-quality, handmade products, including sourdough, enriched doughs and cakes.

The Quality Food Awards (QFA), where Ella works, is a prestigious awarding body for food and non-alcoholic beverages. With categories ranging from Christmas goods to food services for wholesalers, the QFA recognises quality across the industry.

WHY GRAVESEND?

Both Liam and Ella moved to Gravesend because of personal connections. Liam, originally from Lancashire, relocated with his fiancé Ben, a children’s nurse who grew up in the town. With a background in plant physiology and global food and drink marketing, Liam’s passion for baking merged with his scientific and branding expertise, leading to the creation of Basement Bakehouse. “The community here is excited about discovering artisanal homemade goods,” says Liam. “Building a community around food has been magical.”

Ella moved to Gravesend 11 years ago from Whitstable. During the pandemic, she rediscovered her love for cooking and foraging, documenting her experiences on Instagram, which deepened her connection to food and nature.

CHANGING EXPECTATIONS

Expectations around food are shifting. “Consumers are becoming more conscious of what they eat, with increasing demand for healthier, less processed options” Ella explains. Liam adds, “That’s why I want to make good-quality baked goods while resisting the trend towards artificial ingredients and excessive, sugary recipes.” Ella acknowledges that changes in eating habits will be gradual. “Supermarkets drive many trends,” she notes, “but more consumers are now searching for an artisan experience – something personal and crafted.”



Above: Ella’s seasonal Kentish squash recipe with Basement Bakehouse sourdough. Left: Basement Bakehouse cinnamon buns



UNIQUE SELLING POINTS

For Basement Bakehouse, the USP is clear: filling a gap in Gravesend for high-quality, handmade baked goods. “You need to be innovative to reach your customers and understand what they need,” Liam explains. “We bring great products directly to the market, creating artisanal treats that sit next to your everyday items, like sourdough and tea cakes.” The bakery thrives on community connections. Liam even has food exchanges with nearby residents, swapping unsold scones for a curry from his neighbour.

The focus for Basement Bakehouse is staying local and true to offering affordable, high-quality products.

At QFA, the focus is on setting industry benchmarks for food quality. “QFA recognises excellence,” says Ella, “we work with producers to ensure consumers get the best quality products. The awards drive standards and support those aiming for high quality.” Innovation means recognising those pushing boundaries in food production. “We’re constantly exploring new trends, from plant-based foods to sustainability, and highlighting those leading the way.”

Both recognise the challenge of balancing large-scale industrial food production with the growing demand for small-scale, artisanal alternatives.

INNOVATION AND CHALLENGES

For Liam, the main challenge is the cost of production in a saturated market. This means streamlining processes

and set-up to make artisanal baking more efficient and affordable. He sees innovative routes to market and sales channels as a way to increasingly make small-batch, high-quality products more accessible. “It’s about making something for everyone, regardless of budget” Liam explains, “you’ve got to be innovative, or you’ll become hampered by continuous rising costs.”

THE FUTURE OF FOOD

Looking ahead, both Liam and Ella see exciting developments. Basement Bakehouse plans to move out of its home kitchen, though Liam isn’t aiming for rapid growth. “I want a space outside my home,” he says, “but I don’t need to turn it into a national chain. My goal is to stay local and keep serving this community.”

QFA introduced an *Innovation of the Year Award* this year. “The industry will evolve,” says Ella, “but the need for quality and innovation will remain constant.”

In 10 years, they envision more technology and automation entering the food industry – from production to marketing. However, both agree that the artisan touch will always have a place. “Technology might make things easier,” Liam reflects, “but when it comes to food, people still want something that feels personal and crafted.” ■

www.instagram.com/basement_bakehouse
www.instagram.com/ellakitto
www.instagram.com/qualityfoodawards

ASHLEY BATEUP – MYMESH



The sector is going to explode' declares Ashley Bateup, CEO of Mymesh, describing the growing importance of smart buildings. Tucked away in an unassuming business centre near the busy A2 in Kent, Mymesh is a rapidly growing Gravesham-based company at the forefront of 'intelligent buildings'.

WHAT ARE INTELLIGENT BUILDINGS?

In short, intelligent buildings integrate technologies that automatically monitor and adapt their surroundings to meet users' needs. Such systems can manage lighting, emergency systems, occupancy, and climate control. 'It's the digital backbone of a building's infrastructure,' says Ashley, 'replacing traditional wired building management systems (BMS).' This streamlines operations, allowing caretakers and facilities managers to focus on solving issues rather than locating them whilst deriving significant energy savings and carbon abatement.

THE MESH SYSTEM

Mesh systems are not new — they work similarly to the World Wide Web (www). Mesh networks connect devices without a central control point, "ensuring no single point of failure." If a node, or device, fails, the system reroutes messages instantly. Mymesh is a wireless protocol that delivers large-scale and secure networks, transforming everyday items, like light fixtures and other building assets, into smart building technology.

LOCAL BEGINNINGS

The company's early projects started with lighting solutions for the local council, but have since evolved into comprehensive smart building systems. Bluewater Shopping Centre, for example, operates over 15,000 Mymesh-enabled devices, generating more than six million data points per month whilst delivering energy savings of more than 65% across the car park and back-of-house areas.

Mymesh devices are highly secure, with encryption built in from the point of the manufacturer, and they change security keys 10 times per second across each device in the mesh. Although the system collects vast data on building operations, it ensures privacy. "It knows a car is parked, then leaves, but not the make or owner," explains Ashley. 'The same with shoppers — it knows how many people are on a stairwell, but not who they are.' Ashley emphasises that while Mymesh optimises operations at Bluewater, 'the data always belongs to the client.'

A GROWING BUSINESS

Mymesh was originally developed through an EU-funded academic research programme in the Netherlands. Today, the company operates in the UK and the Netherlands, employing eight people in the UK and forty in the Netherlands, with rapid expansion underway. Ashley attributes the company's growth to several factors, including increasing statutory requirements, rising energy prices, and environmental concerns. 'Climate change is affecting everything we do,' he notes. Mymesh helps reduce energy consumption and emissions in large commercial spaces by driving sustainability and extending asset life through its wireless systems.

CHANGING PRIORITIES

Recalling his time working with Rolls Royce, Ashley explains, "In 2012, Rolls Royce cared more about data than energy use, but now, with pressures from climate change and rising energy costs, demand for smart building technologies is paramount." At the time of writing, Guy's and St Thomas' NHS Foundation Trust has awarded Mymesh one of its largest contracts

"In 2012, Rolls Royce cared more about data than energy use, but now, with pressures from climate change and rising energy costs, demand for smart building technologies is paramount"

— Ashley Bateup, CEO, Mymesh

to date, specifying that the hospital's lighting and emergency lighting systems are to be upgraded to full wireless control and monitoring.

STAYING LOCAL

Ashley, who has lived in Gravesham for 30 years, founded the UK branch of Mymesh after a long career in the Ministry of Defence. 'I've always been passionate about keeping things local,' he says, explaining his choice to base Mymesh in Gravesham. However, finding skilled workers remains challenging, raising concerns about whether current educational curricula align with future business needs.

THE FUTURE

As buildings become increasingly connected, Mymesh's technology intends to play a crucial role in replacing outdated systems and creating data-driven, efficient environments. Looking ahead, Ashley predicts that demand for smart building technologies will 'skyrocket over the next decade.' Mymesh is positioning itself as a key player in the sector, offering scalable, secure systems that will transform how we all interact with buildings in the future. ■

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DEKE DEMARCO – ARTISAN PRINT SERVICES



Deke quickly fell in love with the craft; “the smell of the ink, the machines, the process.” After completing his apprenticeship at Pinewood Studios and studying at Reading College, he ventured into the world of commercial print and eventually opened his own printing business.

In 2004, he launched Artisan Print Services, first in Hoo, then Beckenham, before settling in Gravesend, in Kent. “Gravesend offers the right blend of community and opportunity,” Deke says. On reaching Artisan’s 20th anniversary in August 2024, Deke reflected on the importance of local connections and being part of Gravesend’s evolving business landscape.

DATA-LED PRINTING

While online marketing remains dominant, Deke has observed a renewed interest in print, particularly for targeted campaigns. “Data-driven marketing is becoming more personalised,” he says. With vast databases available, companies can tailor marketing materials to specific audiences, moving away from generic mass-marketing.

In a digital age, printing might seem like an industry in decline. Yet, for Deke Demarco, owner of Artisan Print Services, the craft of printing thrives through innovation, adaptation, and a commitment to high-quality service.

CHANGING INDUSTRY

Artisan Printers is a family-run lithographic and digital print service based in Gravesend, Kent. Founded 20 years ago, it has witnessed the printing industry undergo significant changes.

Despite inflationary trends, Deke notes, “Costs of printing have gone down, but customer prices have dropped too.” Online printing platforms have driven lower prices, with technology making it possible to order smaller print runs of leaflets, brochures, and other materials. “Minimum orders have dropped significantly in the past decade thanks to digital machines,” Deke explains. This shift has allowed smaller businesses, artists, and individuals to access high-quality printed products without committing to large quantities.

However, while online printing has made the market more transparent around pricing and options, it has also removed a personal touch. “Online printing is faceless,” Deke points out. “If a client doesn’t like a leaflet, they can’t sell it on — it’s bespoke to them.” Managing these expectations is where Deke believes Artisan adds real value.

UNDERSTANDING THE MARKET

Deke’s path into printing wasn’t straightforward. “I was a late starter,” he recalls, beginning his apprenticeship in his 20s, when most start at 16. Originally guided towards accounting or banking, Deke’s career pivoted when he applied for a role at Pinewood Studios. Instead of accounting, he was offered a position in the Xerox Department, producing scripts and stage plans for TV and film production.



UNIQUE SELLING POINT

Deke explained that printers like Artisan stand apart from the wave of online print services by focusing on quality and personalised service. “We’re not competing with cheap online printers,” Deke says. “Our value comes from offering the right product and understanding the client’s needs. It’s not just printing; it’s about providing a service and ensuring the customer knows what they’re getting.”

Deke often advises clients on options they might not have considered. One of the challenges Deke regularly faces is explaining the technical differences in printing processes, such as coated vs. uncoated paper or the contrast between offset and digital printing. “What you asked for might not be what you expected,” he says, emphasising the importance of educating clients on the finer details of printing.

Not all printers specialise in the same things. “We rarely print fifty to one hundred thousand leaflets these days,” he says. “If I think a client can get a product



elsewhere that better suits their needs, I’ll tell them,” he continues. For instance, when asked to quote for Issue 1 of this newspaper, Deke recommended an alternative provider. This level of honesty and service keeps clients coming back to Artisan, even in a price-sensitive market.

THE FUTURE OF PRINTING

Looking ahead, Deke foresees a shrinking print industry. “The industry as a whole will reduce,” he predicts. However, he believes printers like Artisan are well-positioned to adapt. Automation and data-driven solutions will play an increasing role, with companies like Amazon harnessing personalised marketing to create highly targeted campaigns. “Print will be used strategically, not broadly,” Deke explains.

Deke remains optimistic about the future. “In five years, I’ll still be here, offering the same level of service we’ve always prided ourselves on.”

As for the long-term outlook? “In 10 years, the industry will be smaller, but more focused. Print will still have its place, but it will be about using the right tools for the right purpose.” ■

www.artisanprintservices.co.uk



GRAVESHAM REPAIR CAFE



Repairing old items might not seem innovative in a world focused on the next new thing. However, the emergence of Repair Cafés, first developed by Dutch journalist Martine Postma in Amsterdam in 2009 to promote local sustainability, shows how traditional habits and methods can re-emerge and spread, offering fresh solutions to modern challenges.

The Gravesham Repair Café is a volunteer-led initiative dedicated to reducing waste and fostering community connections. By offering a space where residents can learn to repair broken items, the café encourages sustainable living and helps keep valuable goods out of landfill.

GRAVESHAM REPAIR CAFE



Gravesham's Repair Café is part of a global movement aimed at reducing waste and building community spirit. With over 5,500 Repair Cafés worldwide, the initiative started in Holland and has grown steadily, with the Gravesend branch now celebrating more than a year of operation. Volunteer-led, the café helps the local community repair items that might otherwise end up in landfill.

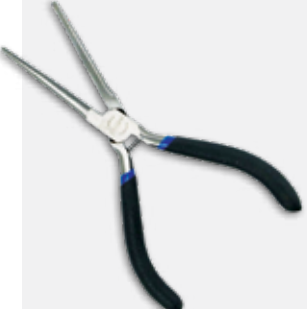
Philip Davies, one of the organisers, sums up the mission: "We want to stop things from going to landfill. The idea is to encourage people to bring in broken items and learn how to fix them." The café is more than just a repair service; it's about changing how we think about waste and con-

"In areas where money is tight, it's important to help people save what they can. It's not just about fixing things, it's about supporting the community."

— David Barnes, Volunteer, Gravesham Repair Cafe

sumerism. Volunteer David Barnes, a former civil engineer, adds, "In areas where money is tight, it's important to help people save what they can. It's not just about fixing things, it's about supporting the community."

KNOWLEDGE EXCHANGE



The café's success comes from its blend of practical repair help and knowledge exchange. Roger Stevens, a volunteer with a background in petrochemistry, explains, "It's satisfying to bring something back from the dead. Many people don't realise how capable they are of mending things themselves, and we guide them through the process." The café is growing rapidly, with plans to


expand into neighbouring areas like Meopham, a few miles away, driven largely by word of mouth. A location in neighbouring Vigo began operating as this newspaper went to press.

At the heart of the Repair Café is its focus on learning. Volunteers offer guidance on a range of repairs, from electrical items to household appliances, often using resources like YouTube to explain the process. Clive, one of the repair specialists, recently worked on a pair of headphones, noting that modern devices are often more complex to fix, but with the right approach, it is doable. "It's about changing how people think about their possessions and making repairs part of everyday life," he explains.


"It's satisfying to bring something back from the dead. Many people don't realise how capable they are of mending things themselves, and we guide them through the process."

— Roger Stevens, Volunteer, Gravesham Repair Cafe

SOCIAL SPACE



Beyond the practical help, the Repair Café offers a warm and social atmosphere. Visitors are welcomed with a free cup of tea and cake, creating a friendly space to chat while repairs are underway. Repairs are carried out free of charge though donations are welcome to keep the Repair Café going and to cover hall rental. The event happens once a month and is open to everyone, encouraging new people to join the movement and learn a few repair tricks themselves.

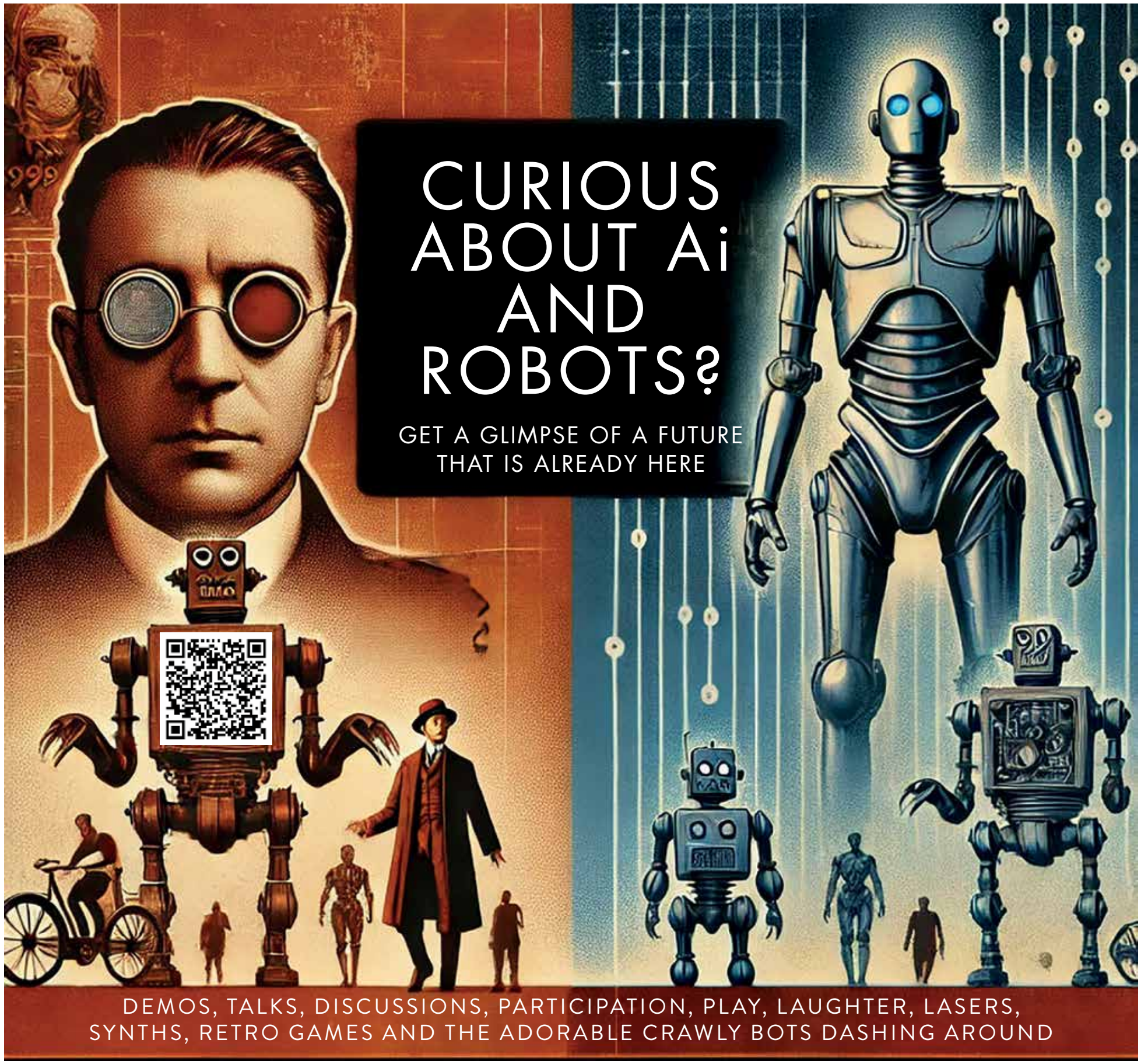


As it continues to expand, the Gravesham Repair Café is more than just a place to fix things, it's a community hub for learning, sharing, and contributing to a more sustainable future. To fix things often requires an imaginative approach, which underscores all innovation. The café serves as a reminder that small behavioural changes can make a big difference for the environment and local communities. ■

www.graveshamrepaircafe.blogspot.com



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