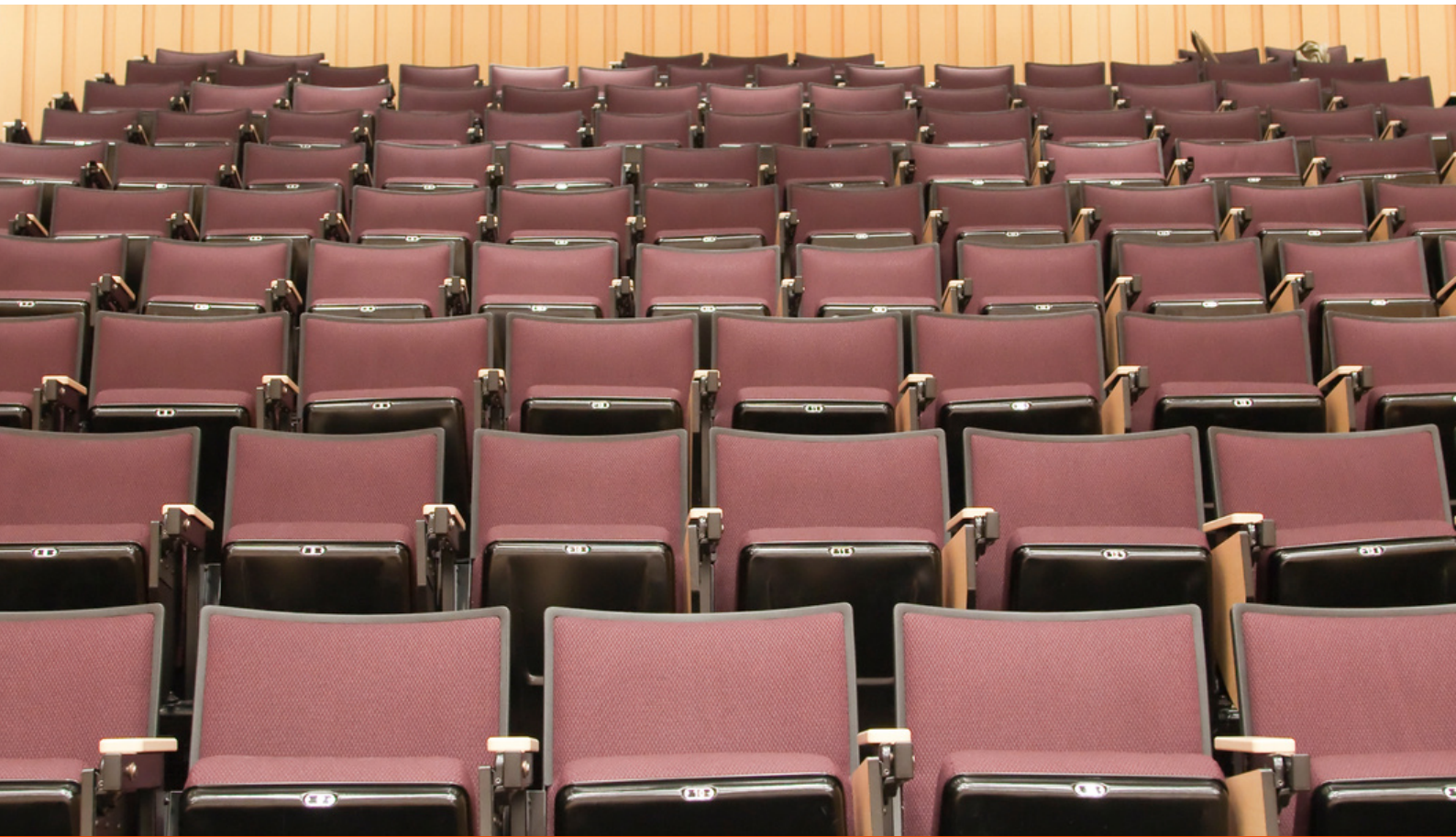




**We don't have a
space problem.
We have a
visibility problem.**

The world has changed.
But our understanding hasn't...



Contents

01 UK university key property operational costs

**02 Typical occupancy patterns across:
university office spaces and teaching spaces**

03 Forum discussion and key takeaways

04 Voices from the Forum

05 Proven in practice

Foreword

We thought we understood our buildings. Then Covid proved we didn't.

During the pandemic, while Trevor was Director of Estates at the University of Birmingham, we worked together on one of the biggest operational challenges universities had ever faced: understanding how buildings could be used safely while campuses continued to function.

At the time, the challenge seemed temporary.

It wasn't.

Covid didn't simply expose a public health crisis. It exposed something much more fundamental. Universities were making some of their biggest financial decisions with remarkably little understanding of how their buildings were actually being used.

For decades, estate strategies have relied on timetables, room bookings, utilisation surveys and professional judgement. Those approaches served the sector well when patterns of use were relatively predictable.

Today's campuses are different.

Hybrid working has become normal. Student expectations have changed. Energy costs have risen sharply. Universities face unprecedented financial pressures while striving to improve the student experience and meet ambitious net zero targets.

Yet many of the assumptions underpinning estate strategy remain unchanged.

Over the past few years, we've had the privilege of working with universities across the UK and internationally, alongside many of the estates leaders who contributed to this report. Those conversations ultimately led to the creation of the **Smart Space Forum**: a community of university estates leaders established to share experiences, challenge assumptions and collectively explore how better evidence can help address the sector's most pressing estate challenges.

Although every institution is different, one message has emerged consistently.

The issue is rarely that universities lack space.

The issue is that they lack visibility.

Once you can see how buildings are actually being used, different questions emerge.

Do we really need another building?

Could this space serve a different purpose?

Can we reduce energy without reducing quality?

Can we invest more intelligently?

This paper is not intended to promote a technology or prescribe a single solution. Rather, it captures the collective thinking of experienced estates professionals who believe the next generation of university estates will be shaped not simply by more data, but by better understanding.

We hope it contributes to that conversation.



Trevor Payne
Chair, Smart Space Forum



Dr Shrikant Sharma
Provocateur, Smart Space Forum



The savings universities are chasing are hiding in their underutilised buildings

As universities across the UK face mounting financial pressure and race towards net zero, **estate leaders are reaching the conclusion: much of the money the sector is looking for is already there. It's simply sitting in buildings that are underutilised for most of the week.**

That's the central finding of the Smart Space Forum, a group of around twenty university estates and space-planning leaders chaired by Trevor Payne, former Director of Estates at the University of Oxford, and convened by building-intelligence company SmartViz.



This paper brings together the Forum's collective insight to answer the question every estate leader is now facing: how well they're using the space they already have, and what estate they actually need.



The world has changed. But our understanding hasn't.

During the pandemic, a predictive model was built to work out how people could safely occupy buildings under social distancing rules[2]. It supported eight universities and helped over 200,000 students continue their education safely. At the time, it looked like a short-term problem.

Six years on, the world has changed. Hybrid working is now the norm. Staff expectations have evolved. Energy prices have risen dramatically. Universities face unprecedented financial pressure while striving to improve both the student experience and their journey to net zero. Yet many buildings continue to operate as if nothing changed.

What's needed now is a reset. One that improves efficiency, experience and avoids the capital cost of new space, if we just use what we have more efficiently.

UK University key property operational costs



Energy expenditure

A 13.99% YoY increase in energy expenditure, from £858 million in 2022/23 to £978 million in 2023/24, accounting for 30.3% of the sector's total property costs.



Repairs and maintenance

A 7.74% YoY increase in repairs and maintenance expenditure, from £853 million in 2022/23 to £919 million in 2023/24, making up 28.5% of total property costs.



Cleaning costs

Annual cleaning costs are £360 million, accounting for 11.2% of total property costs.

Source: Association of University Directors of Estates (AUDE), 2025. Higher Education Estates Management Report 2025: Summary, insights and analysis of the 2023/24 academic year.

[2] Smartviz. (2025). How SmartViz optimised space utilisation at the University of Southampton - Smartviz. [online] Available at: <https://www.smart-viz.com/case-study/university-of-southampton/> [Accessed 15 July 2026].



Teaching spaces typically operate at around 20% utilisation, with some under 10%.

Across universities and offices alike, activity is now concentrated into specific days. In many cases, it is anecdotally assumed that Tuesdays and Thursdays carry the bulk of the load, but without accurate, detailed analytics decision makers lack the evidence to support efficient and effective change.

Over the past few years, we've had the opportunity to analyse this at scale – across universities, commercial offices, and public sector estates, using billions of real data points. What we're seeing is remarkably consistent.



Take one university estate we're currently monitoring:

Office occupancy is significantly below the commercial sector even on the highest occupancy days

30%

Overall office utilisation is around 30%

20%

Teaching spaces, even during term time, are typically only 20% utilised.

What the data shows

In commercial offices, we typically see utilisation in the 50–60% range, but in universities and public buildings, it's often far lower:

- Office space: typical 25–30% utilisation
- Teaching space: typically 20%, in some cases under 10%

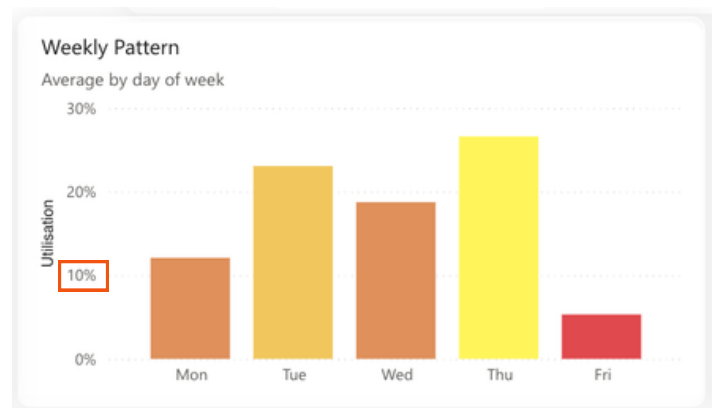
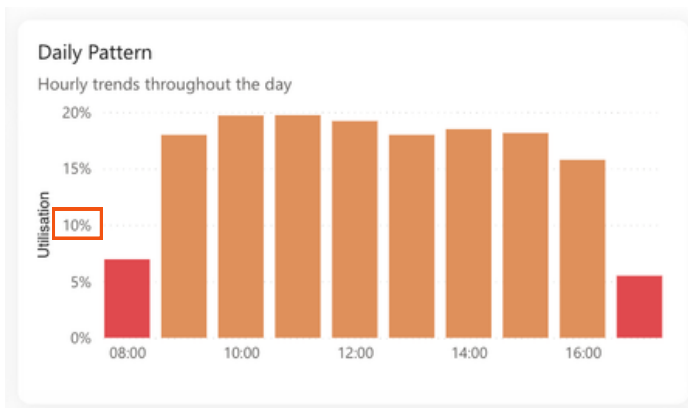
You read that right. 10%.

And yet, the perception is often the opposite. Across most universities, the perception is that there isn't enough space – that it's hard to find the space you need, when you need it. So, there is still pressure to build more space which brings us to the real issue:

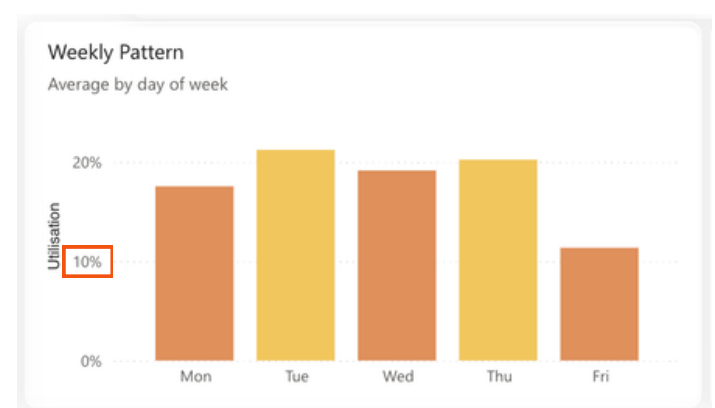
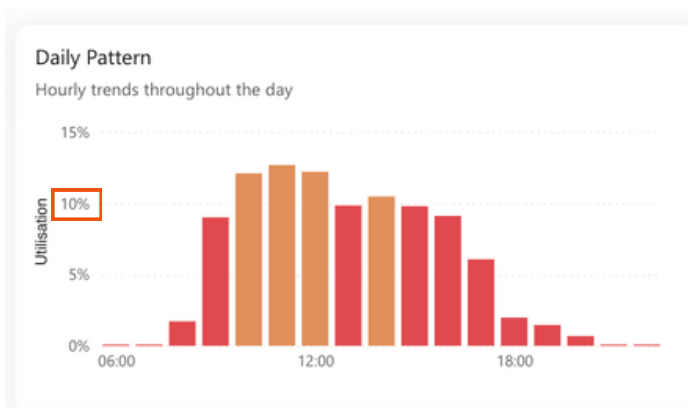
We don't have a space problem. We have a visibility problem.

Typical occupancy pattern across:

- University office space



- University teaching space



The real problem: Space isn't scarce, insight is.

Space isn't the problem. **Insight is.**

It's not about how much space we have.

It's about whether we understand how it's actually used.

It's not about more space or empty space.

It's about better and usable space.

It's not availability. **It's accessibility.**

Most importantly:

it's not whether space exists...**it's whether we know it exists.**

Key themes from the discussion

One thing became very clear during the discussion within the Smart Space Forum community: the question is no longer whether estates should become more data-driven, but how best to turn insight into action.

Six themes emerged consistently among the forum attendees:

1. Reframing the question from "What estate do we have?" to "What estate do we actually need?"
2. Moving estate decisions from opinion and anecdote to trusted evidence.
3. Creating a richer understanding of estate use by combining timetables, access control, WiFi and occupancy data.
4. Comparing timetable bookings with actual attendance to identify opportunities and influence behaviour.
5. Using occupancy intelligence to optimise energy performance and support Net Zero ambitions.
6. Recognising that culture and behaviour are often bigger barriers to change than technology.



Voices from the Forum

The discussion reinforced a common view across the Forum: the challenge facing universities is not simply reducing costs, but making better-informed decisions about how estates are planned, managed and used.

1. Opportunity is hiding in plain sight

"The money universities are being asked to find is often already there. It's sitting in the buildings they already own." – Director of Estates

"If a single-person office is only being used for six hours a week, the true cost of heating, maintaining and decarbonising that space is quite staggering." – Director of Operations

2. Better evidence changes behaviour

"The opportunity is to compare timetable bookings with actual attendance, identify 'ghost bookings' and use that evidence to influence behaviour." – Director of Estates

"We introduced a 10% overbooking policy for teaching spaces. Two years later, we haven't had a single reported issue." – Head of Space Planning

3. Visibility enables better decisions

"We're on a journey to reduce our estate by around 20–25%, primarily by exiting buildings that were never designed to support teaching and learning." – Director of Estates

"We created a new 200-seat teaching space by repurposing an office that was being used only around 10% of the time. It is now one of our busiest teaching spaces." – Head of Space Planning

4. The way we measure success is changing

"We've spent years measuring energy per square metre. The more meaningful question is energy per person using the building." – Head of Estates Digital and Insight

"The goal isn't to wait for perfect data. It's to start making better decisions using the evidence that's already available." – Forum Provocateur



We've seen these play out in practice:

Cardiff Metropolitan University

Occupancy and energy analysis identified significant opportunities to optimise space and reduce utility consumption. The university subsequently implemented a wider programme of changes that resulted in:

- £5.1m new construction avoided
- Redefined future space requirements to reshape the £100m+ masterplan
- £1.8m+ operational savings

University of Glasgow

- Avoided £1m+ capital expenditure
- Repurposed a 500-seat lecture theatre
- Outlined potential for multi-million pound savings

Midlothian Council

- Consolidated two buildings into one
- Optimised office portfolio

Vodafone

- Delivered \$40m annual savings
- Optimised a global property portfolio



The opportunity ahead

The challenge is significant. But so is the opportunity.

Universities don't have an estate optimisation problem.
They have an estate visibility problem.

Once they can truly see how their estates are being used,
better decisions follow: lower costs, lower carbon emissions,
better student and staff experiences, and more targeted
capital investment.

The data already exists.
The space already exists.
The opportunity is to use it better.



**The question is no longer:
"What estate do we have?"**

It's: "What estate do we actually need?"



Join the conversation with the people who actually run Britain's university estates

About Smart Space Forum

The Smart Space Forum exists to bring together university estates leaders to share practical experience, challenge conventional thinking and accelerate better evidence-based estate decisions. If these conversations resonate with you, we'd be delighted to welcome you to a future Forum.

The July 2026 session drew a deliberate cross-section of the sector:

- **Russell Group:** University of Oxford, University of Glasgow, University of Leeds, University of Sheffield
- **Modern / post-92:** Oxford Brookes University, Glasgow Caledonian University, University of Westminster, University of Wolverhampton, Leeds Trinity University, University of Reading, Cardiff Metropolitan University
- **Specialist & international:** SOAS University of London, Trinity College Dublin

The next Forum:

- Location: UHEI Birmingham
- Date: 24 November, 2026

If you're interested in joining the next Forum, please get in touch today.

Contact information: **Trevor Payne, Forum Chair:**
trevor@smart-viz.com

Chris Bowie-Hill, Facilitator:
chris@smart-viz.com

Shrikant Sharma, Provocateur:
shrikant@smart-viz.com

Connect on LinkedIn: [Trevor Payne](#) / [Shrikant Sharma](#) / [Chris Bowie-Hill](#) / [SmartViz](#)