Proptivity

The Indoor Paradox

Morgan Curby, CMO, Proptivity

Proptivity - Europe's leading high-performance indoor infrastructure provider

Founded by leading Nordic Real Estate

Experienced Telecom Leadership

McKinsey & Company
ERICSSON
TELE2
BT

Partnered with Global Technology Leaders

ERICSSON

Delivering many first's!

World's first multi-operator Gigabit small cell network LIVE with Ericsson

UK's first LIVE multi-operator high-performance indoor 5G solution

As-a-Service Model with simple Fixed Fee Pricing

- **Design, Plan, Build**
- **Funding**
- **Operator Integration**
- **24/7 Monitoring & Support**
- **Updates & Upgrades**
- **Legal & Regulatory**

Up and Running in:

Indoor mobile coverage is now critical across entire buildings

Stairs, Elevators
Garage
Restaurant
Gym
…

Self-scanning
Payments
Self-service
Order Pickup
…

112
Private Phones
SMS based 2FA
Voice Calls
…

5G Laptops
Mobile First Security
Video Everywhere
Quality on Demand
…

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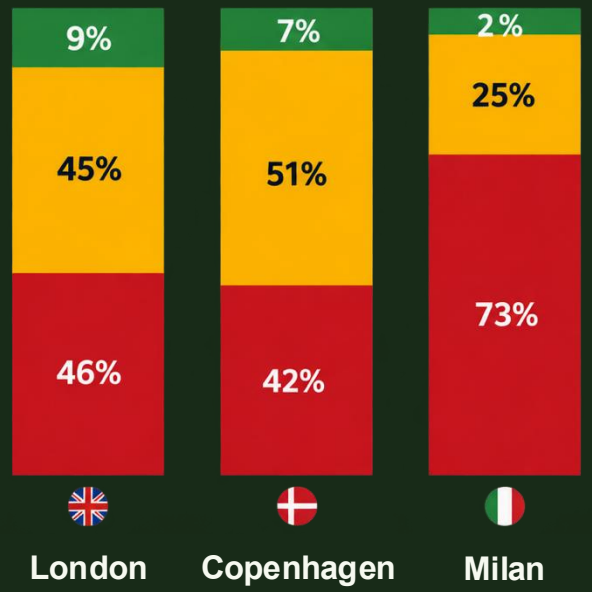
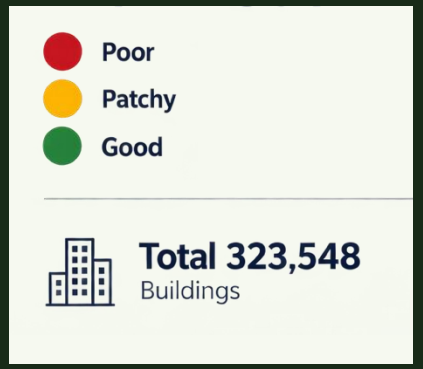
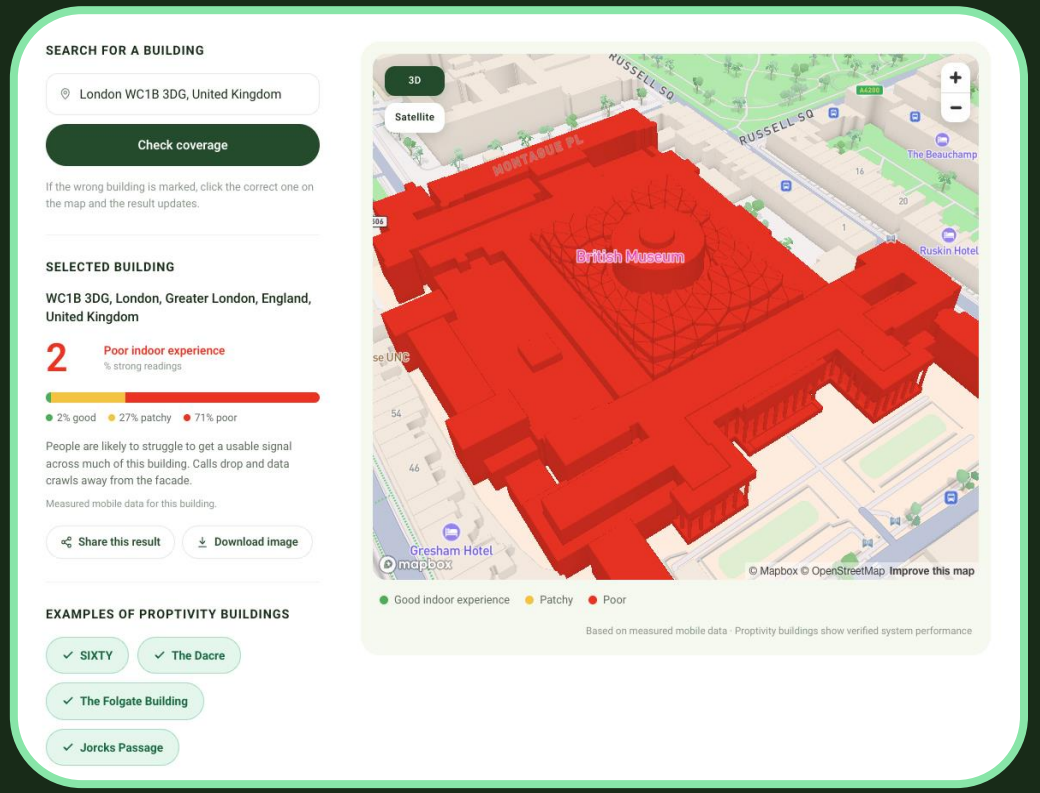
Indoor mobile coverage remains surprisingly poor





COVERAGE CHECKER



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The indoor coverage gap will continue to grow

Indoor capacity demand continues to grow

Energy-efficient buildings block signals better

Higher 5G frequencies penetrate worse

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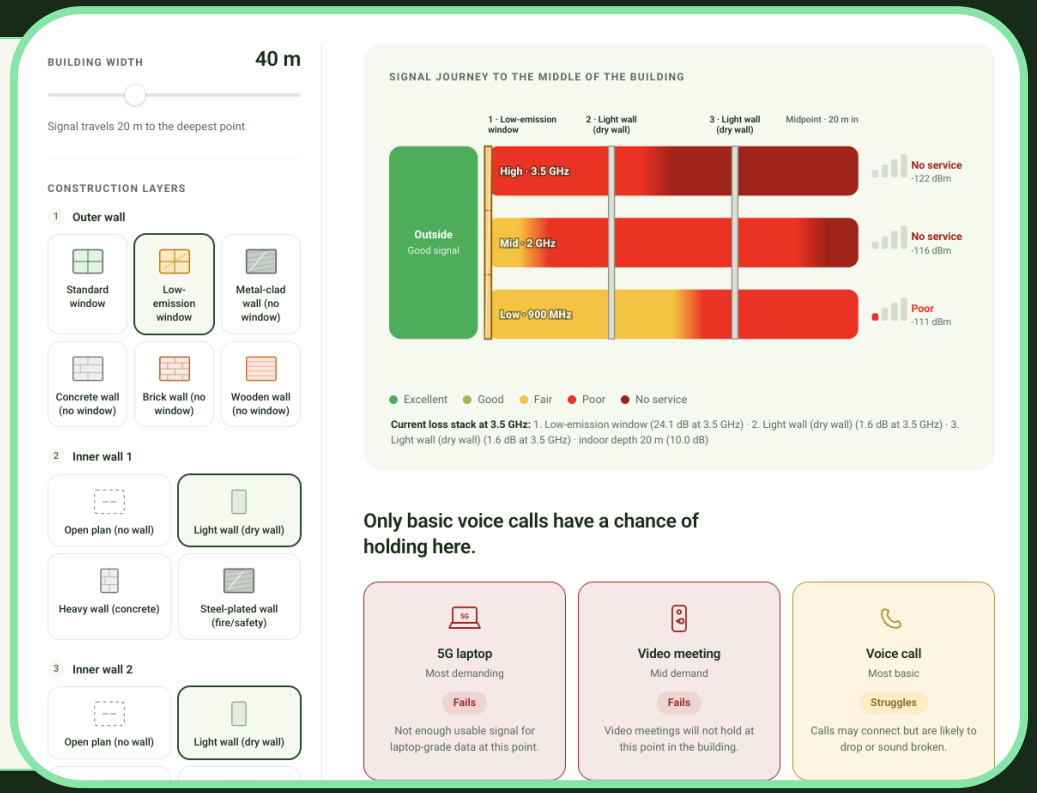
Modern buildings are increasingly effective Faraday cages

Material	0.9 GHz	2 GHz	3.5 GHz
Open plan (no wall)	0%	0%	0%
Light wall (dry wall)	24%	28%	31%
Standard multi-pane glass	40%	42%	46%
Brick wall (no window)	87%	88%	89%
Wooden wall (no window)	90%	90.5%	91.1%
Concrete wall (outer or inner)	86%	95%	98.7%
Low-emission (IRR) glass	99.53%	99.56%	99.61%
Steel-plated wall (fire/safety)	99.71%	99.74%	99.77%
Metal-clad wall (no window)	99.991%	99.992%	99.993%

COVERAGE ESTIMATOR



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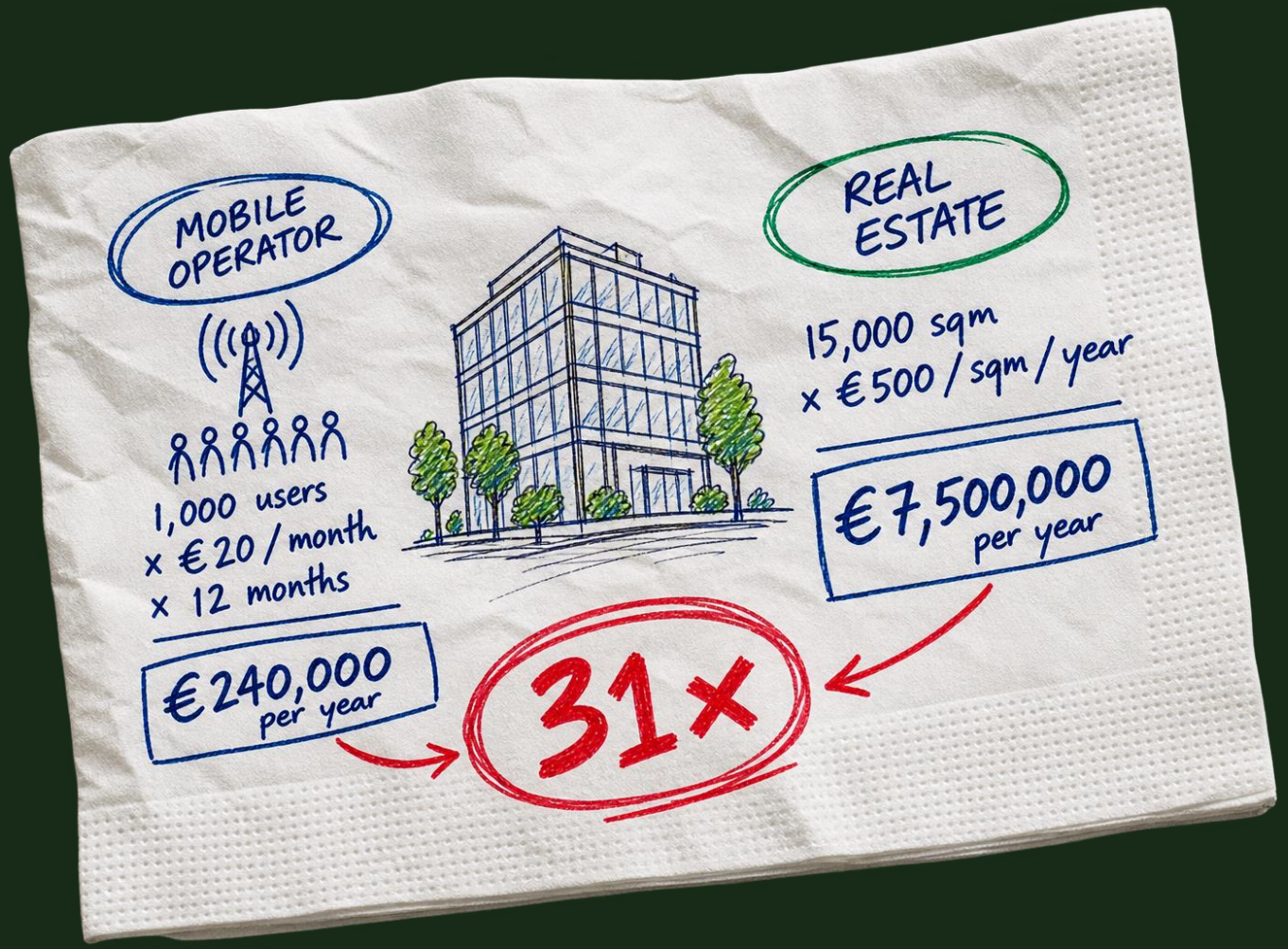
Who should pay for indoor mobile infrastructure?



OFFICE BUILDING

15,000 sqm
15 sqm/person
1,000 People
20 EUR/month (ARPU)

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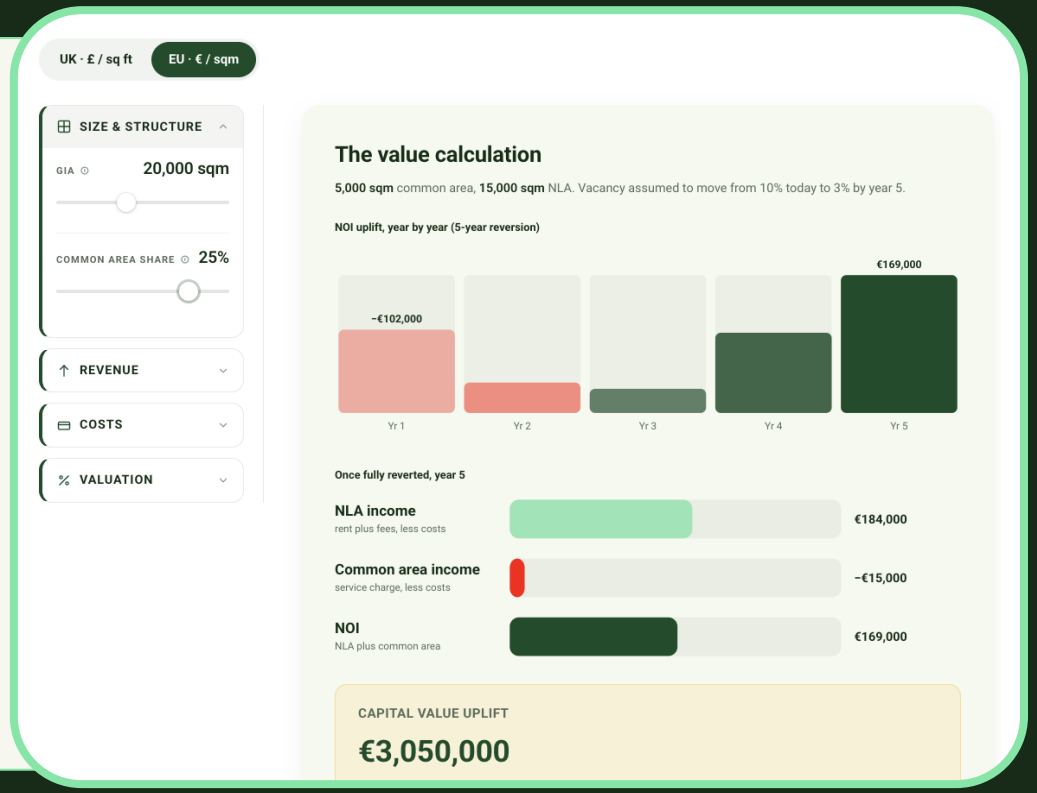
Better indoor coverage creates measurable real-estate value

+5.1%
Property value

+7.3%
Rental income

−50%
Vacancy

VALUE CALCULATOR



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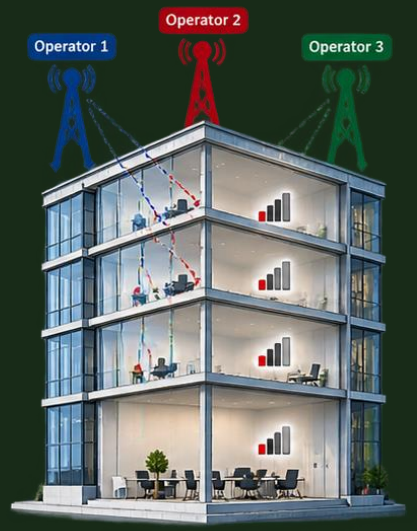
Indoor infrastructure must evolve with performance requirement



1. NO INDOOR EQUIPMENT

Relies on outdoor signals from all operators

No indoor infrastructure
POOR coverage
VERY LOW capacity

2. REPEATER (ROOFTOP)

Scotches outdoor signals on the roof and pushes them into coax cables

PASSIVE Antennas
ANALOGUE Solution
OK coverage
LOW capacity

3. PASSIVE SYSTEM (COAX)

Coax cables inside building with base stations from all operators in the basement

PASSIVE antennas
ANALOGUE Solution
GOOD coverage
LOW capacity
LIMITED 5G Support
Need MNO base stations

4. ACTIVE DAS (CAT 6)

Active DAS system with cat 6 cables running to antennas, with base stations in the basement

ACTIVE antennas
ANALOGUE Solution
GOOD Coverage
HIGH cost ($ & ESG)
MEDIUM capacity
LIMITED upgradability
Need MNO base stations

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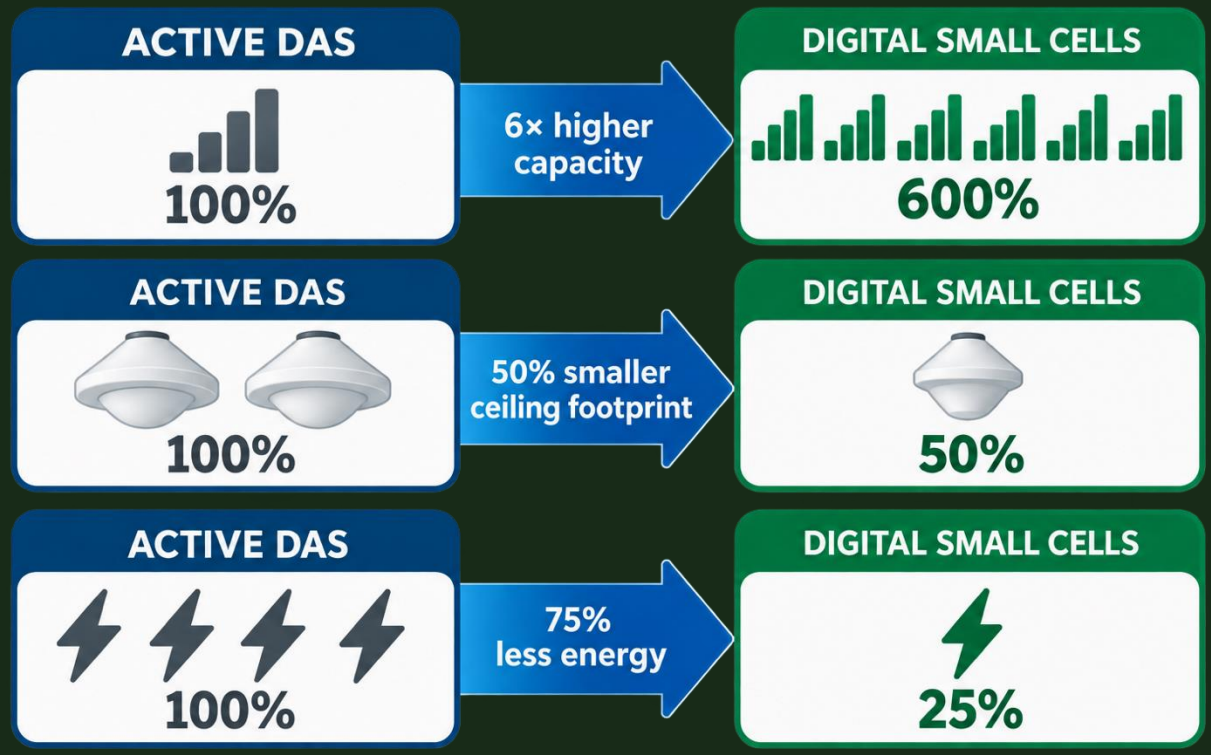
SMALL CELLS

ACTIVE antennas
DIGITAL Solution
GOOD Coverage
GREAT efficiency
GREAT capacity
GREAT upgradability
NOMNO base stations
FULL 5G Compatibility

Digital small cells change the economics and performance of indoor infrastructure



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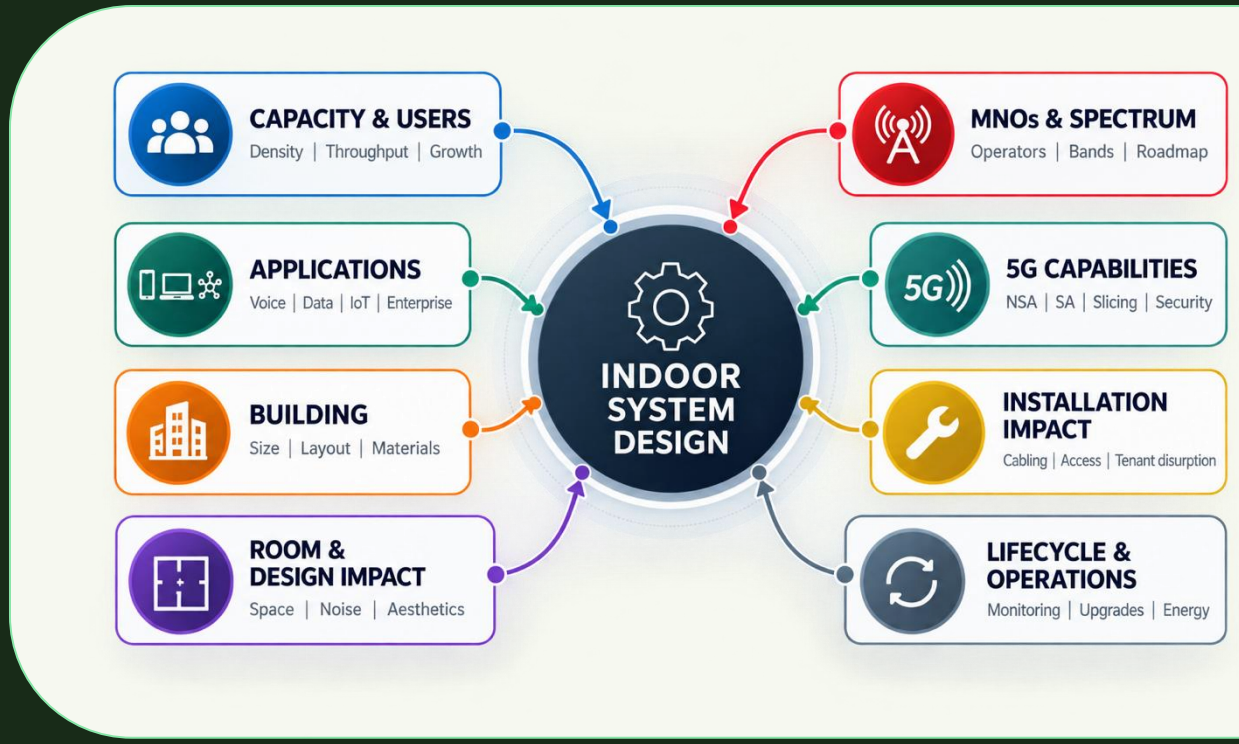
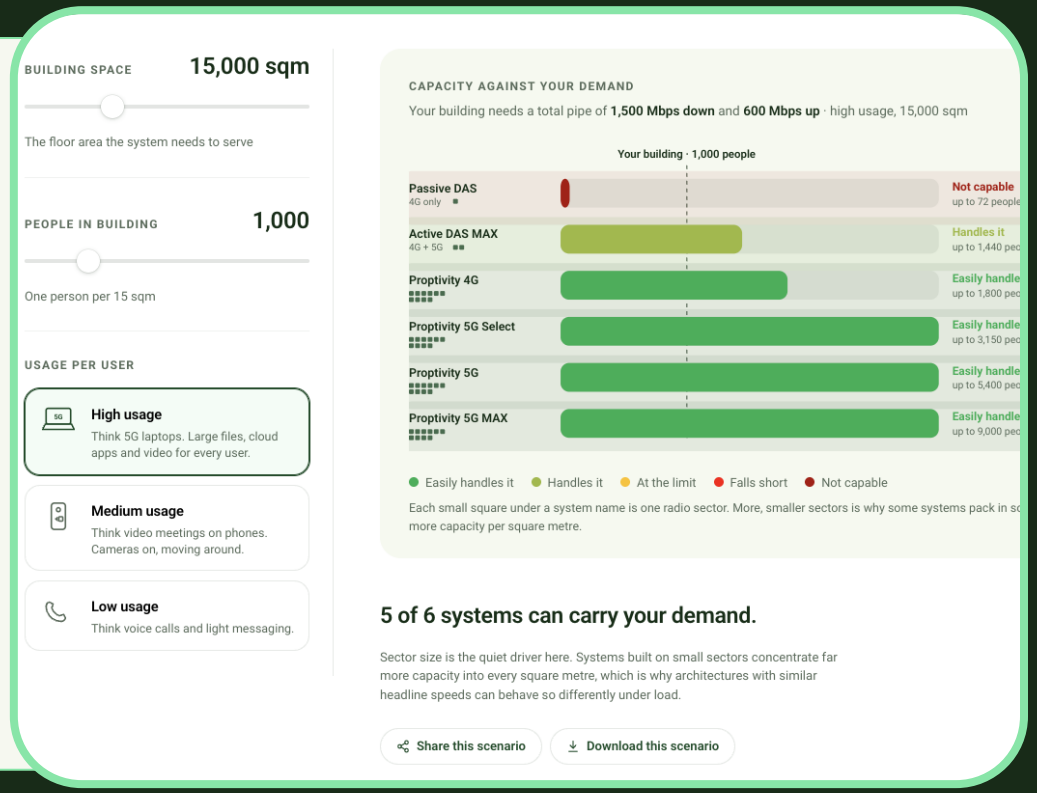
What are the requirements for a modern indoor mobile system?



CAPACITY PLANNER



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High-performance indoor 5G creates new enterprise opportunities for MNOs

T-Mobile - 2025

Singtel - 2025

Successful recent B2B trend is to bundle

Priority
Performance
Security
Coverage

High-performance indoor 5G opens new B2B Opportunities

- 5G Laptops
- 5G as Office Connectivity
- Higher Performance guarantee inside office
- 5G Security in Office
- …

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Neutral hosts extend MNO coverage where direct investment is difficult to justify

Neutral Host Delivers	Operator Value Created	New Operator Opportunities
• **Shared 4G/5G** infrastructure for multi-tenant buildings • **End-2-end:** Sell, Design, Build, Fund and Operate • **Future-ready:** 5G SA, slicing, IoT, Edge, Massive Capacity	• **Extends Indoor coverage** where MNO normally wouldn't build themselves • **Zero CAPEX**, zero MNO sales costs and landlord negotiations • **Offloading the outdoor network** – creating better customer experience everywhere	• **Take a larger Piece** of the Enterprise connectivity pie (5G Laptops, Device security…) • **Create new offerings** enabled by SA, positioning, slicing, massive capacity and guaranteed indoor coverage

Neutral hosts make indoor connectivity scalable

REAL ESTATE

One partner, all MNOs

Removes MNO coordination

Professional operation & management

Future-ready infrastructure

Scales across portfolios

MOBILE OPERATORS

Coverage without direct infrastructure investment

Leverages real estate capital

Lower operational burden

Standardised building access

Independent network & spectrum control

UNLOCKING GROWTH

Maximum coverage per € invested

One infrastructure, all MNOs

More buildings become viable

Independent alternative to MNO coordination

Repeatable, scalable deployment

More buildings. Faster deployment. Less total investment.

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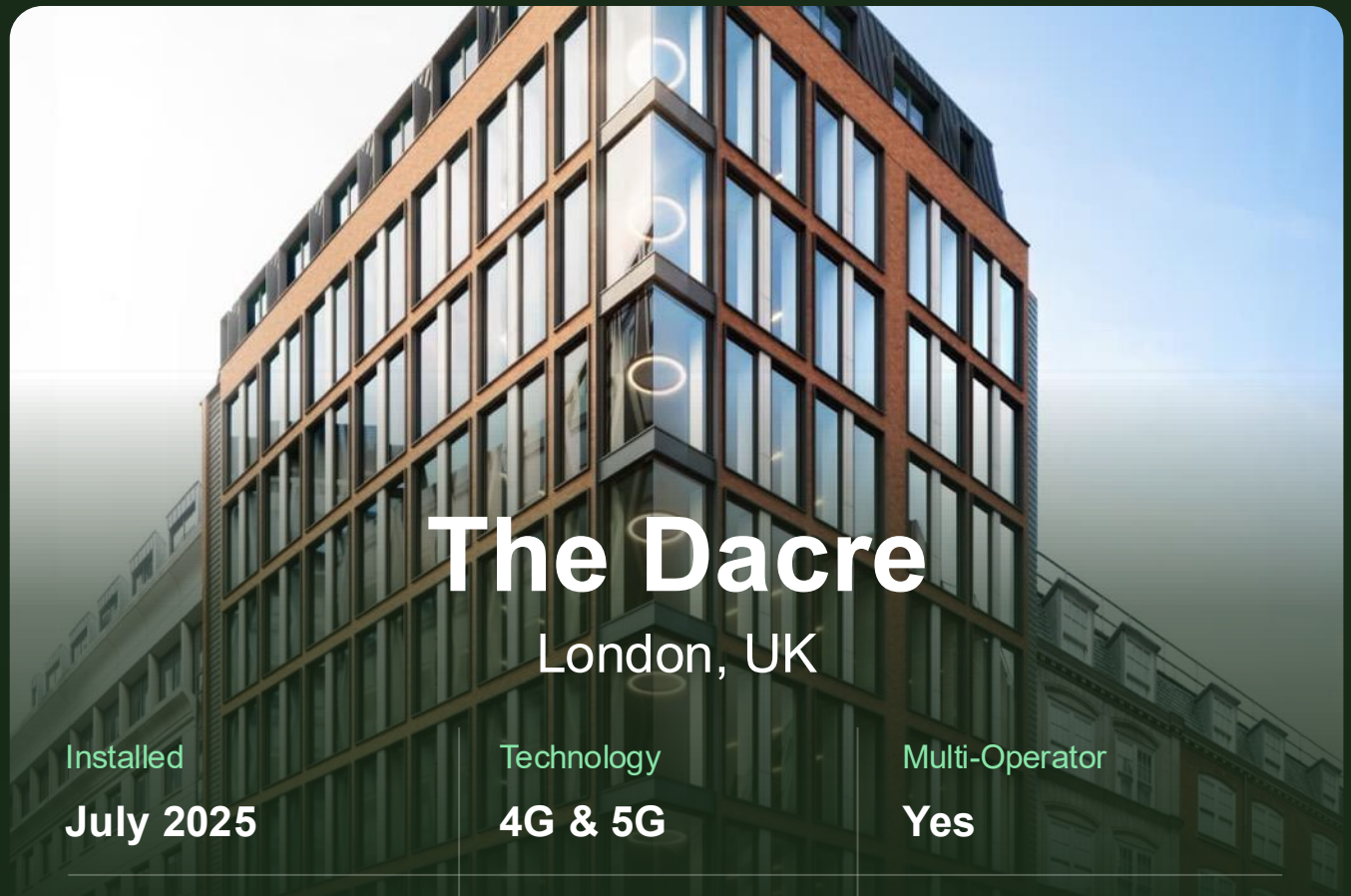

The Dacre

London, UK

Installed	Technology	Multi-Operator
July 2025	**4G & 5G**	**Yes**

Owner	Size (GIA)	Performance
CIFI GROUP	**4,000 SQM**	**5G**

Just off St James's Park, this 40,000 sq ft best-in-class workspace was built to the highest standards of design and sustainability, with seamless whole-building mobile coverage specified from the development phase to meet the expectations of high-profile tenants in today's mobile-first environment

Ben Hughes, Head of Building Technologies at MAPP

"Proptivity's solution offers future-proofed technology, energy efficiency, and alignment with our clients' ESG goals."

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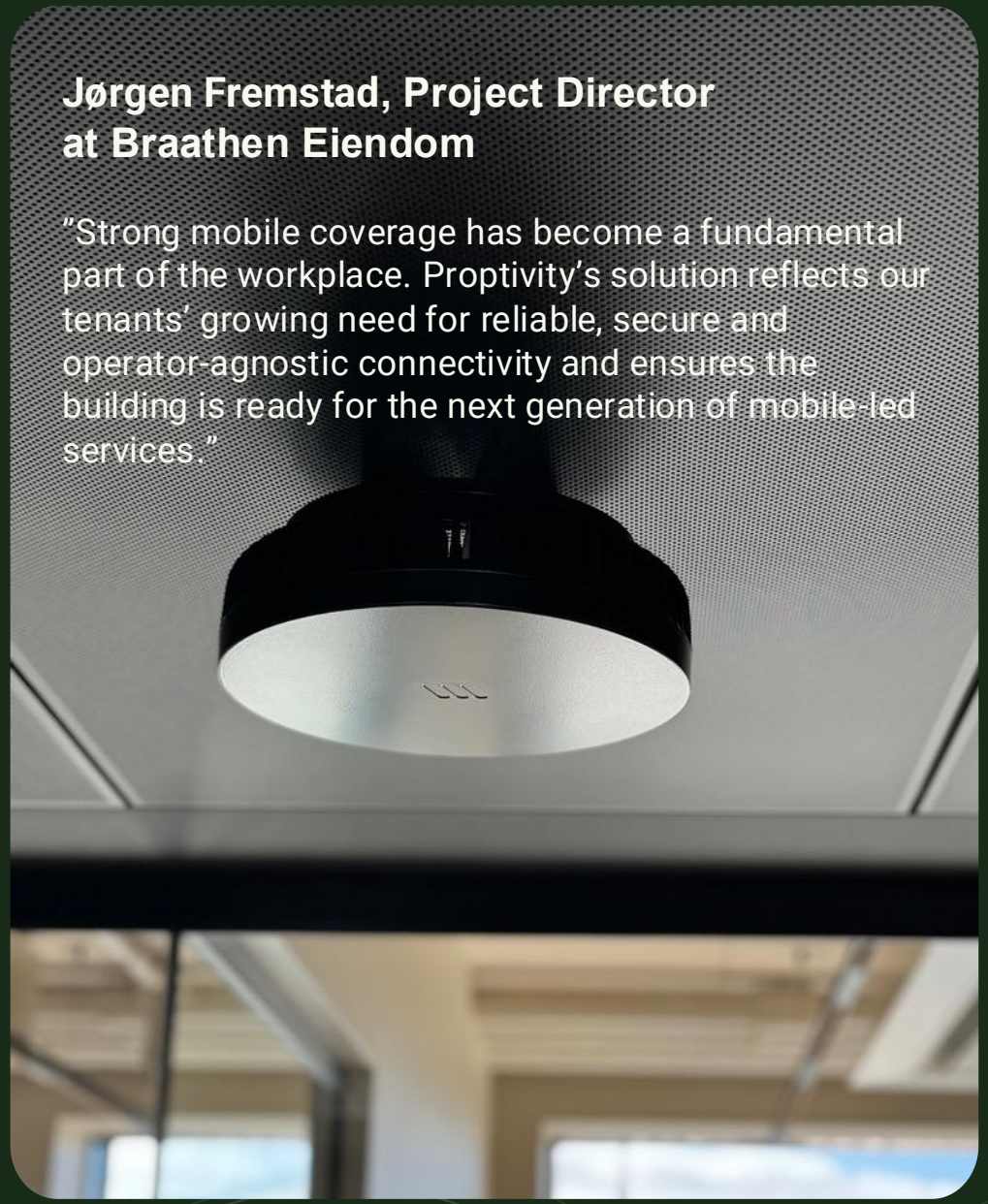
Haakon VIIs gade 2

Oslo, Norway

Installed	Technology	Multi-Operator
Sep 2025	**4G & 5G**	**Yes**

Owner	Size (GIA)	Performance
Braathen Eiendom	**13,000 SQM**	**5G**

Haakon VIIs gate 2 is a classic building in Vika, Oslo, that has undergone major renovations in recent years. With its central location, modern tenant services, and strong focus on sustainability, the building is well positioned to meet the needs of businesses that expect more from their workspace.



Jørgen Fremstad, Project Director at Braathen Eiendom

”Strong mobile coverage has become a fundamental part of the workplace. Proptivity’s solution reflects our tenants’ growing need for reliable, secure and operator-agnostic connectivity and ensures the building is ready for the next generation of mobile-led services.”

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Q&A

Wi-Fi calling will not fix your office: why buildings still need mobile coverage

https://proptivity.com/2026/07/07/wifi-calling-office-mobile-coverage/

Passive DAS vs small cells: which is future-proof for a commercial building?

https://proptivity.com/2026/07/07/passive-das-vs-small-cells/

How much does indoor mobile infrastructure cost, and who pays?

https://proptivity.com/2026/07/07/indoor-mobile-infrastructure-cost-who-pays/

What is shared indoor mobile infrastructure? Neutral host explained

https://proptivity.com/2026/07/07/shared-indoor-mobile-infrastructure-neutral-host-explained/

More… https://proptivity.com/insights

The case for neutral host - closing the indoor connectivity gap

https://proptivity.com/2026/04/21/report-the-case-for-neutral-host-closing-the-indoor-connectivity-gap/

Why is mobile signal poor in my office building?

https://proptivity.com/2026/07/06/why-is-mobile-signal-poor-in-my-office-building/

Will a mobile signal booster fix poor coverage in an office building?

https://proptivity.com/2026/07/06/will-a-mobile-signal-booster-fix-office-coverage/

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Sources (in order of appearance)

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Coverage Checker here: https://proptivity.com/proptivity-coverage-checker/

Coverage Estimator here: https://proptivity.com/proptivity-coverage-estimator/

Value Calculator here: https://proptivity.com/proptivity-value-calculator

London report here: https://proptivity.com/2026/08/25/better-coverage-drives-higher-rents-and-longer-stays

Value report here: https://proptivity.com/2024/01/10/newsec-report-market-insights-from-interviews-with-200-tenants-property-managers-and-owners/

Wiredscore report here: https://wiredscore.com/blog/2022/12/07/digital-connectivity-impact-office/

Capacity Planner here: https://proptivity.com/proptivity-capacity-planner/

More projects here: https://proptivity.com/projects/

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