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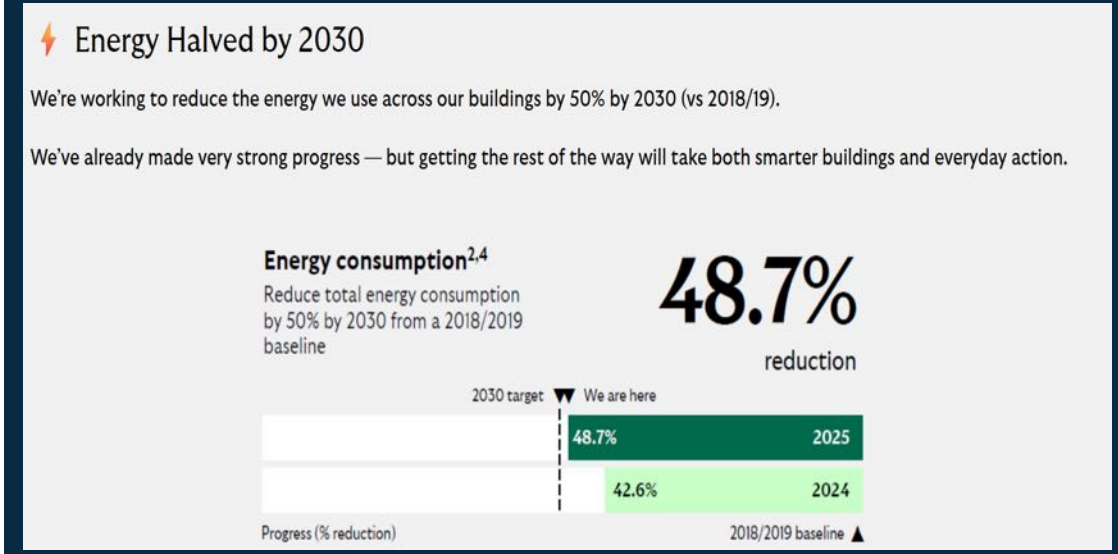
Utilising energy data to identify optimisation opportunities — and engage people in the outcome

Mai Muhammad
Energy and Water Manager
Lloyds Banking Group

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Lloyds Banking Group Climate Pledge – bigger goal





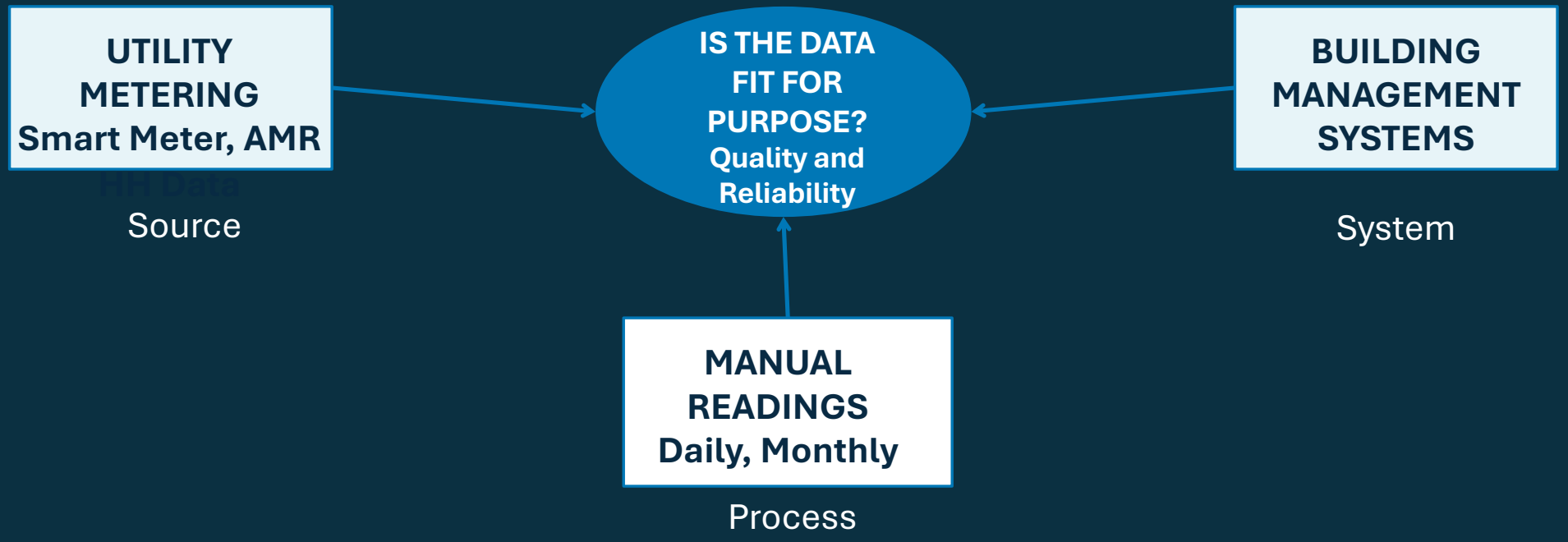
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Energy data only creates value when people act on it

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Start with the source

Different portfolios create different data realities. Public Buildings, Retail properties, Offices, Data Centres have different accessibility and frequency to energy metering data.



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Energy Metering Data analysis for informed decision making

Energy data platforms, including those linked to Building Management Systems, can help identify trends, highlight anomalies, and provide insight into how energy is being used across a building or portfolio over a period of time ,

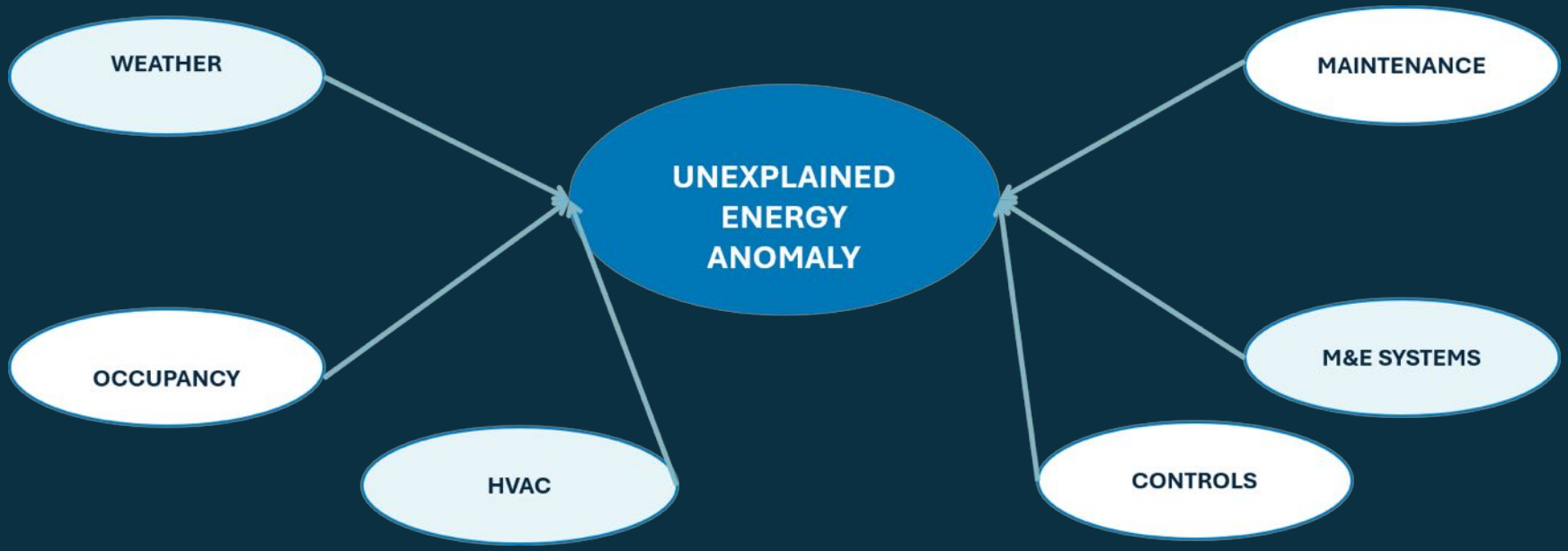
Systems and data platforms can map variables that drive energy demand such as occupancy patterns, CO2 levels, external weather, activities within spaces in building to create energy baseline and forecasting.

Systems and technology analysis alone is not enough.

As energy managers, we need to be able to interpret the analysis, challenge what the data is telling us, and determine the right corrective or preventative actions. That means considering wider variables such building performance, HVAC systems, controls, mechanical and electrical infrastructure, and maintenance activity.

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Context turns anomalies into explanations



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The gear shift from analysis to optimisation opportunities

Having practical knowledge of these variables is what enables us to move from data analysis to real optimisation opportunities.

It helps us identify where action is needed, prioritise interventions, and develop a credible plan.

Successful delivery depends not only on the quality of the energy data, but also on reliable information about the building services and on delivery partners who can manage and implement optimisation projects effectively.

AI is a tool to help, requires learning and good data.

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Effective delivery needs three kinds of confidence

01

TRUSTED DATA

A defensible baseline and a signal worth acting on.

02

BUILDING KNOWLEDGE

Accurate services information and practical operational insight.

03

CAPABLE PARTNERS

People who can design, manage and implement the change.

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Move from signal to a credible opportunity



Prioritisation converts technical possibility into an investable programme.

The output is not a list of anomalies. It is a sequence of owned decisions.

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Platforms find patterns; people make decisions

THE PLATFORM

Consolidates

Stores

Flags trends & anomalies

THE ENERGY MANAGER

Interprets

Challenges

Chooses corrective action



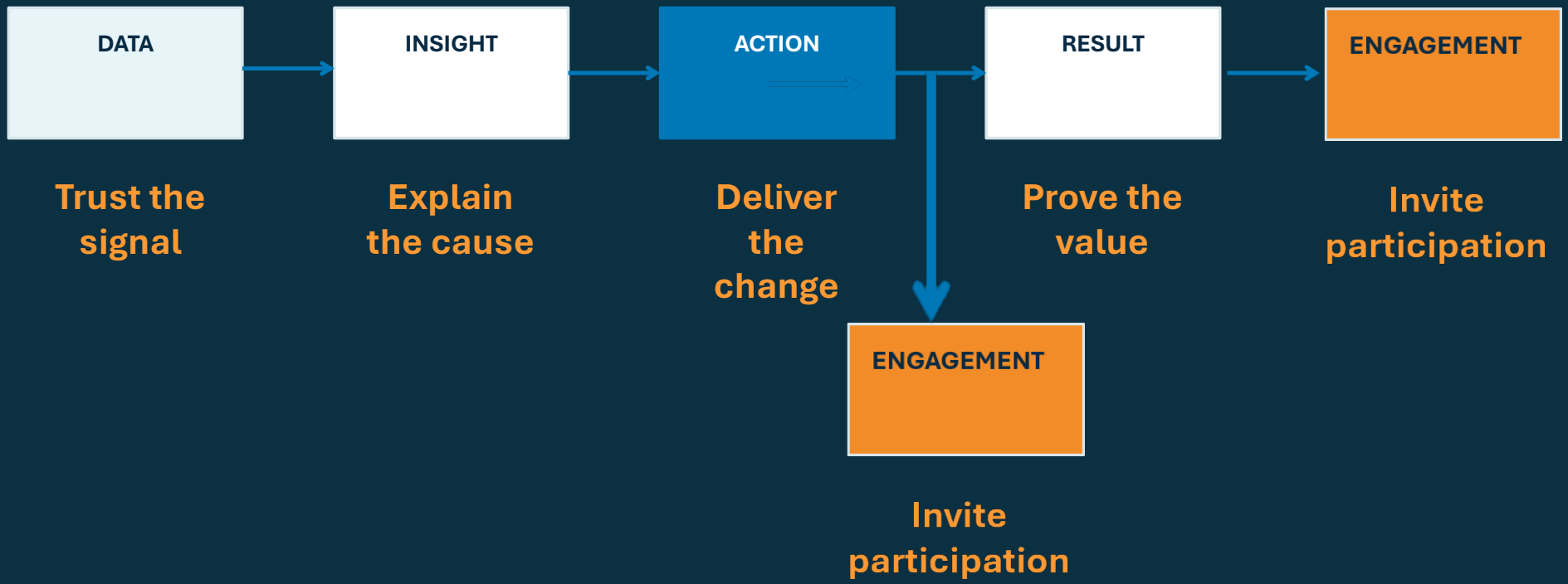
Technology accelerates analysis. Decisions creates value.

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Optimisation is a loop, not a dashboard

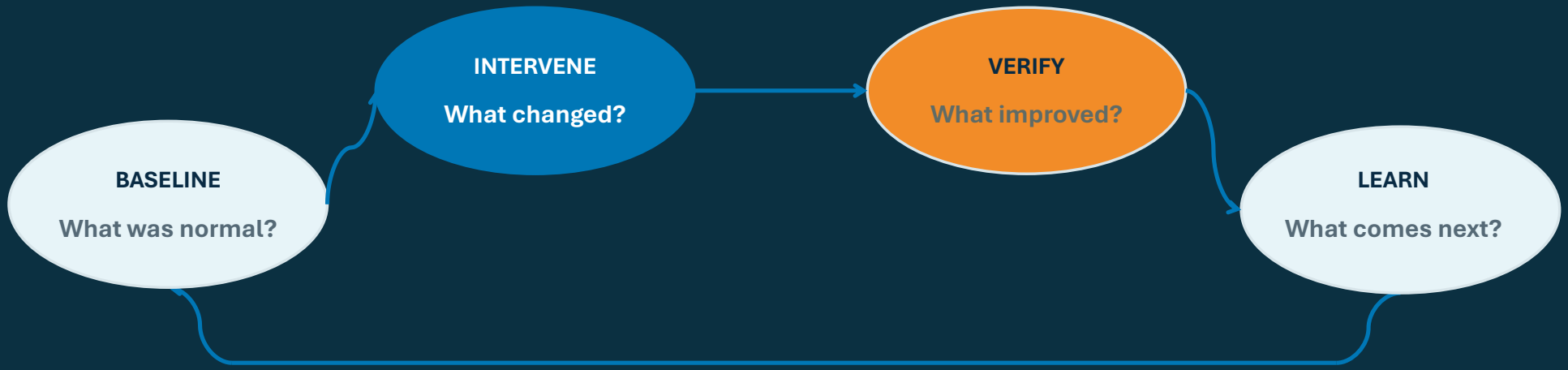
Data becomes a management capability when the loop repeats.

The work is only complete when learning and engagement feed the next decision.



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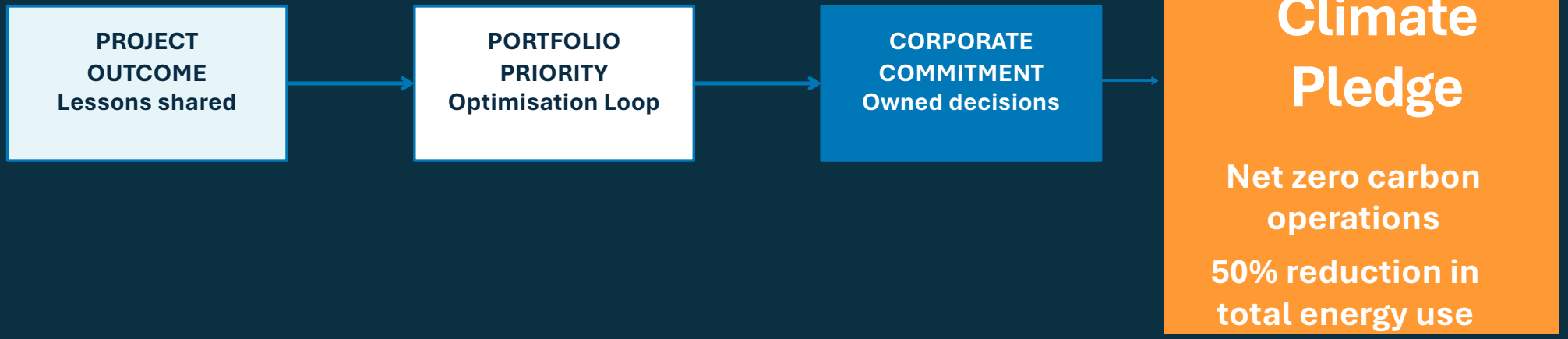
Measurement closes the loop



Capture the result in a form that supports the next decision.

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Every project should link to the bigger goal



The energy story should not end at the meter



Engagement is not an add-on. It is how optimisation becomes sustained behaviour.

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The case study in energy data, optimisation, engagement & participation, learning, future sustainability plans



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BUILDING USAGE STATS

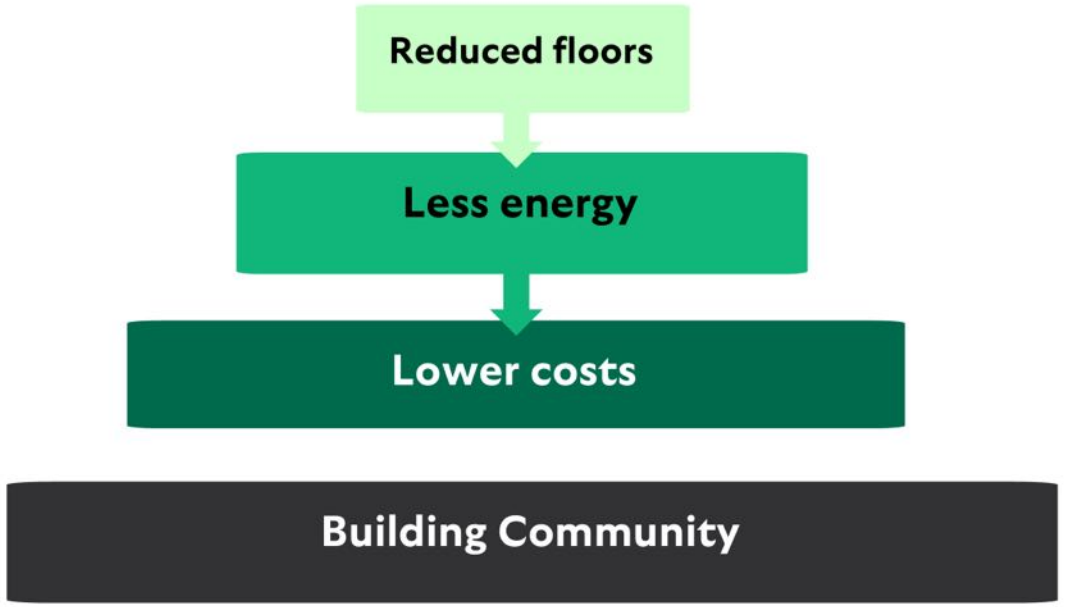


Around **60%** of the space is unutilised on Fridays.
* *Edinburgh sites*

34% below average decrease in people in the building on Fridays

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Impact flow



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Aligning with Lloyds' Sustainability Strategy



Reduce our direct carbon emissions by at least 90 per cent by 2030 – currently at 52.8%



Reduce total energy consumption across our operations by 50 per cent by 2030 – currently at 42.3% reduction



Zero waste by 2030 (includes our legacy waste reduction pledge2) – currently at 74.5%

With Sustainable Fridays', there will be a reduction of unnecessary energy being expended which will lower carbon emissions and energy consumption. Building in a zero-waste focus on a Friday is another option that can be implemented once fully established.

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Rollout of Green Fridays

When?



Friday 10th July – Friday 28th August

Engagement



Posters, Colleague discussions, Weekly Viva Engage posts

How?



Floor by Floor data collection & tracking building energy data.

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Key takeaways:

1. Energy data - quality and reliability
2. Building knowledge - Optimisation opportunities
3. Measurement - baseline, intervention, verification, learning
4. Inviting participation and engagement with stakeholders early and throughout project is important in successful outcomes and future roll out

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Make optimisation visible, credible and shared.

01 TRUST
Interrogate the data before acting

02 CONNECT
Link every result to a bigger goal

03 INVITE ENGAGEMENT
Give people a role in what happens next

Better data. Better decisions. Better participation. Better outcomes.

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Thank you!

Questions?

mai.muhammad@lloydsbanking.com