



Grid Edge

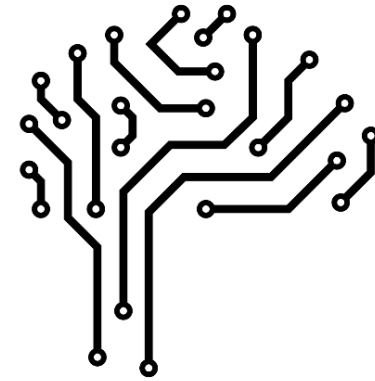
Artificial Intelligence for Energy Systems

Jim Scott – CPO Co-Founder

March 2019

Energy Data and Energy Customers

Grid Edge 



MARKET OPPORTUNITY

Making flexibility work for building operators



The most valuable commodity in the 21st Century energy system is:

FLEXIBILITY



Flexibility creates value for building operators in many ways:

£3.1bn cost & CO₂ savings
£2bn market for DSR
~50% of consumer bill by 2020



Smart energy management no longer about **how much** energy you use. It's about

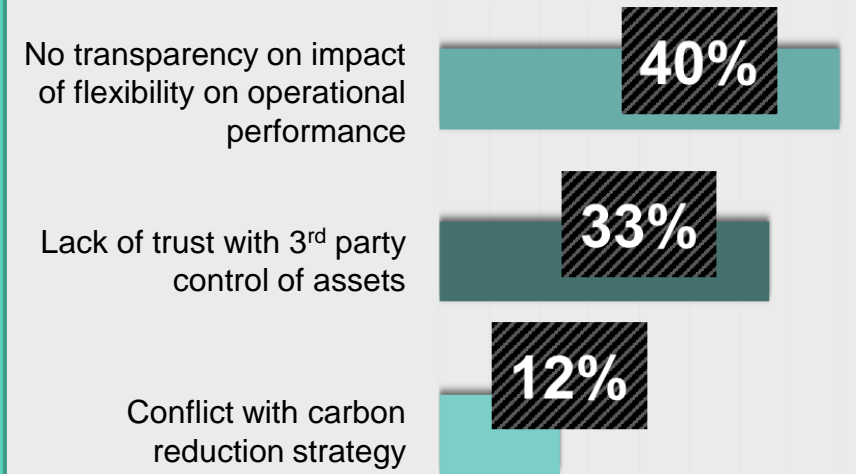
when you use it



Customer trust and experience

“Consumer empowerment is set to take another step forward as customers obtain more detailed information about their actual energy consumption. Inevitably, empowering technology will reshape the relationship between customers and suppliers...creating new options for customers.”

Working for building operators

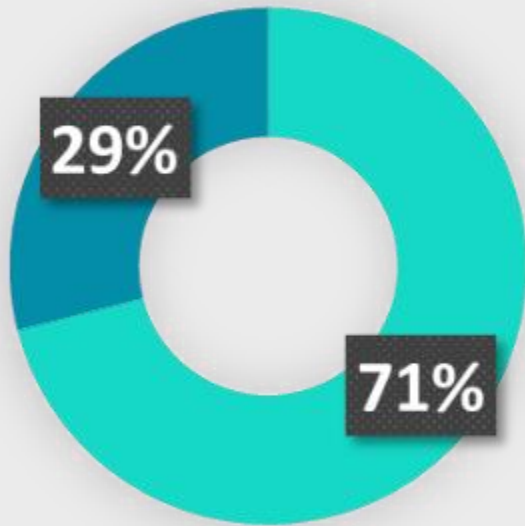


ng
n
il

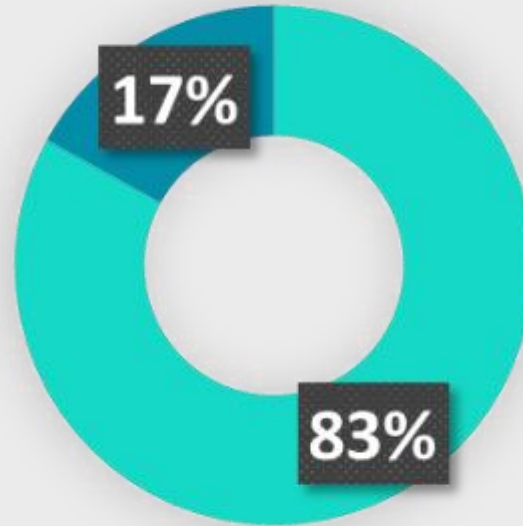
Building operators' key reasons for not currently participating in flexibility services

MARKET FAILURE

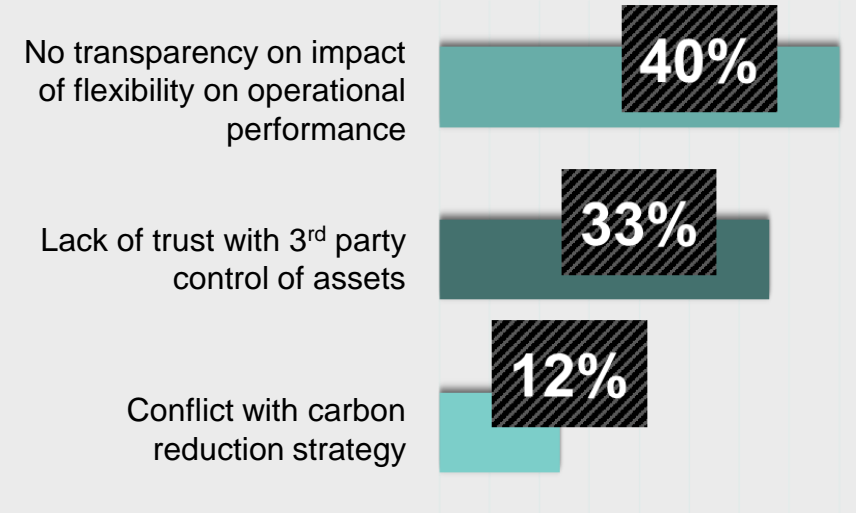
Conventional approaches to flexibility are not working for building operators



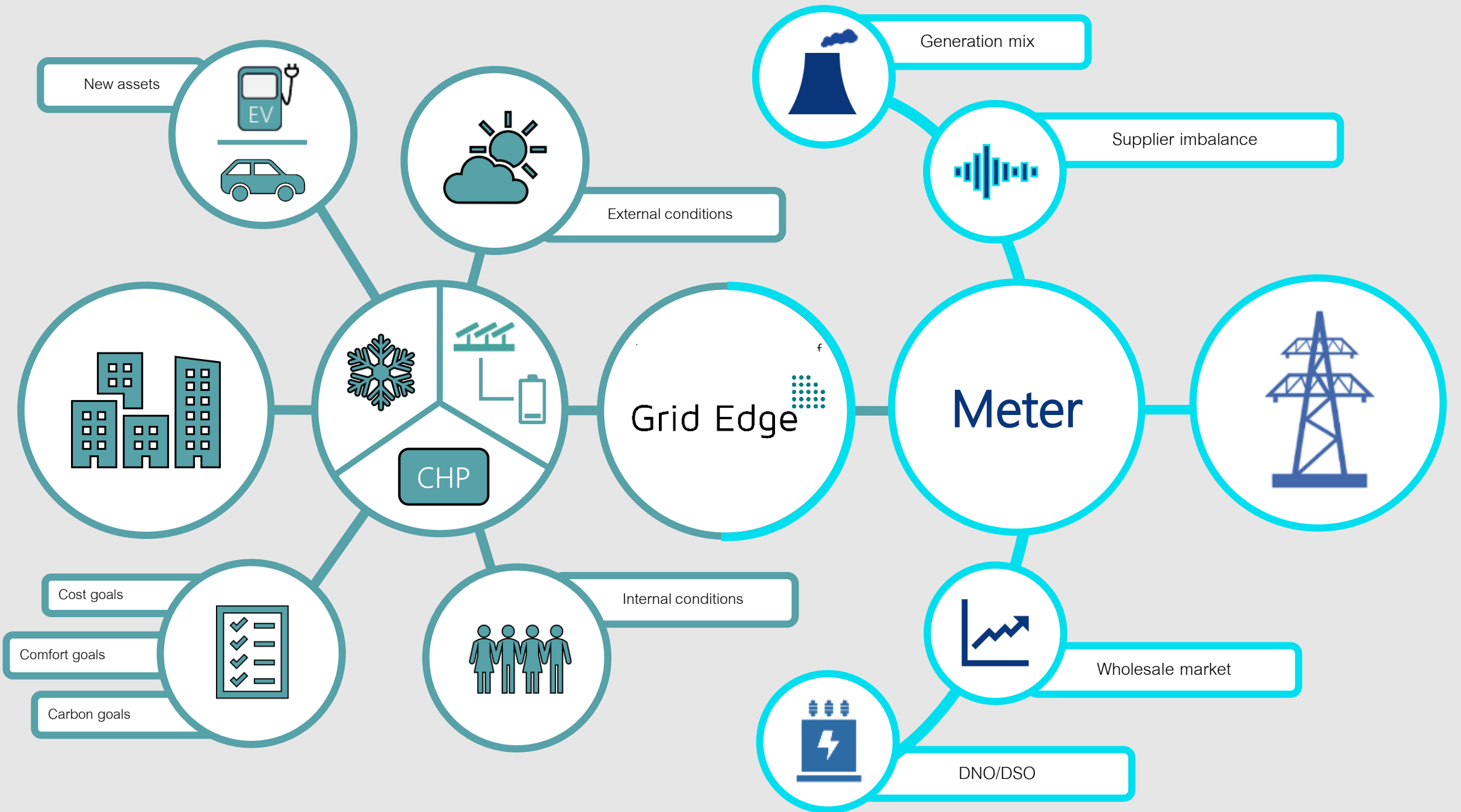
Over 70% of commercial building operators do not currently participate in flexibility services



Over 80% of commercial building operators would participate in flexibility services if it didn't compromise their operational performance



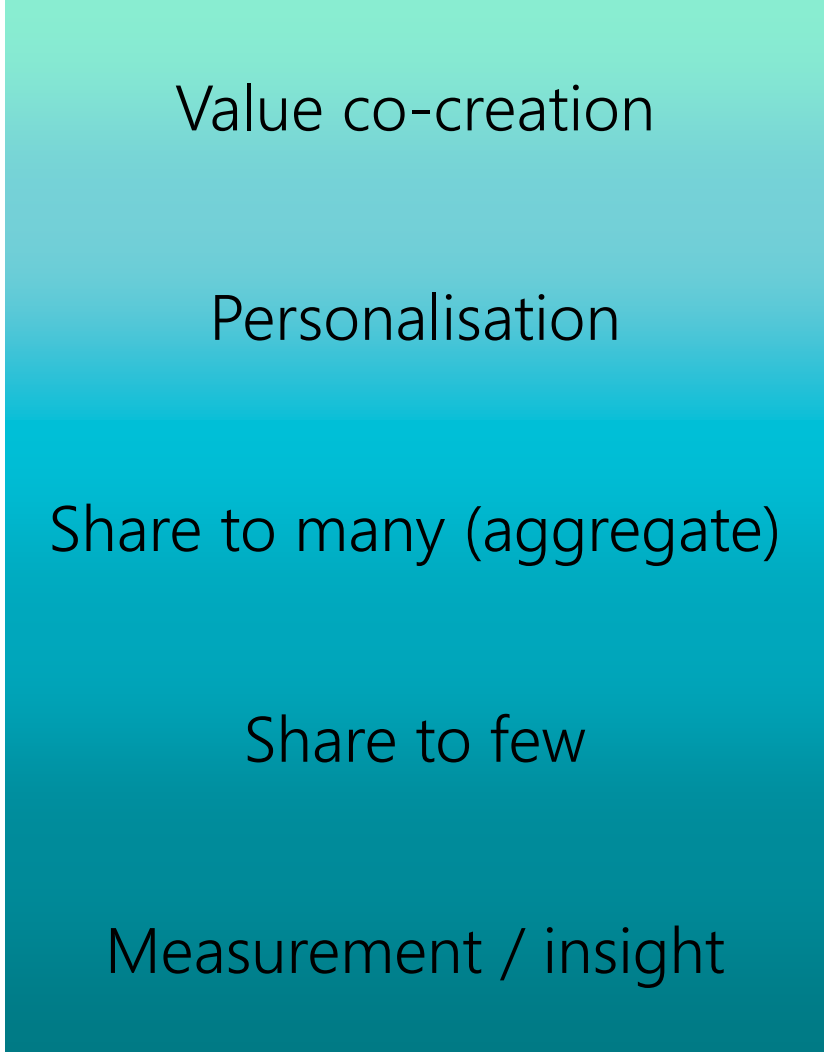
Building operators' key reasons for not currently participating in flexibility services



The shape of things...



Data value stack



Location data value stack



Measurement / insight γ | ?

Location data value stack



Share to few

How do I get there?

Measurement / insight

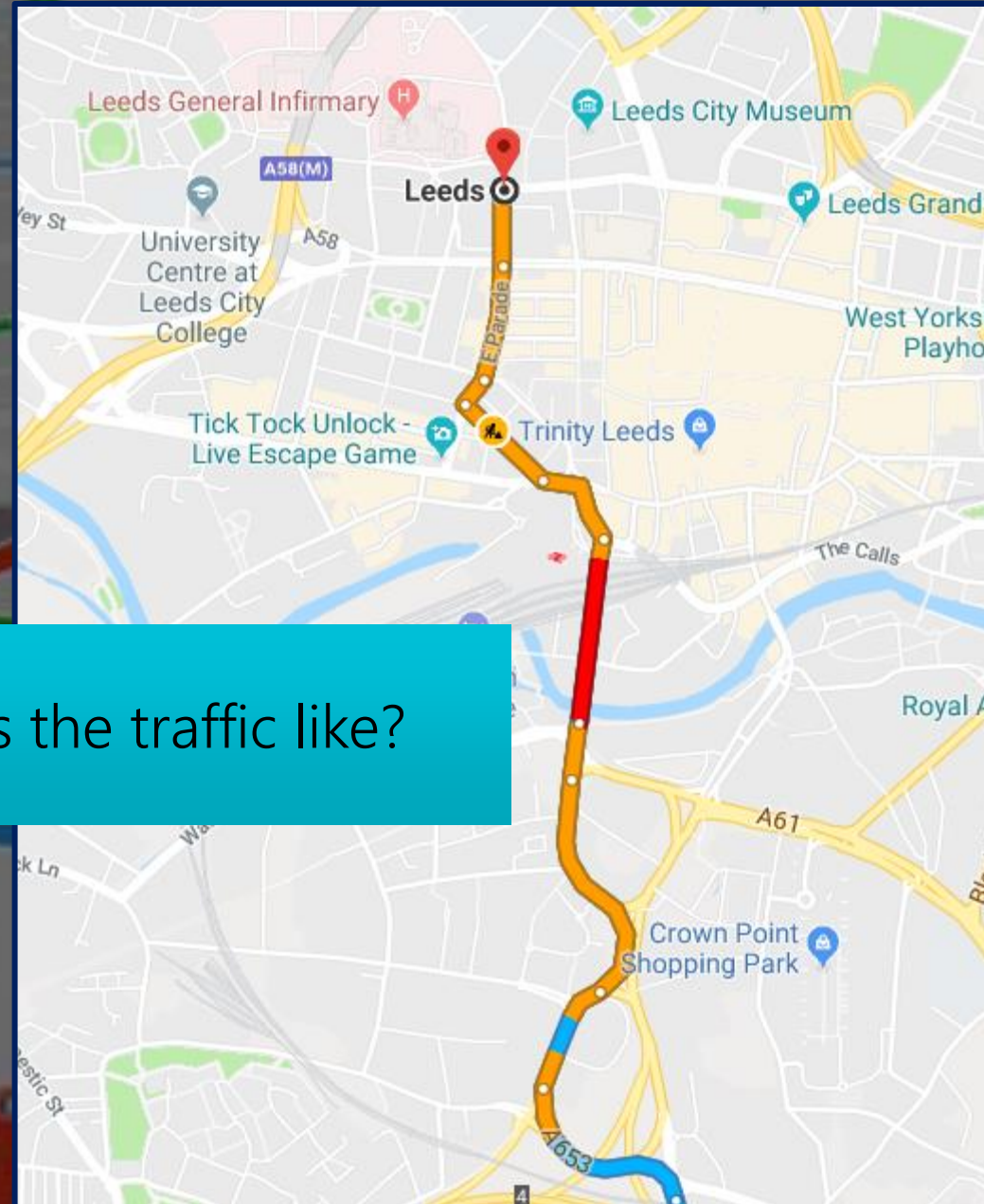
Location data value stack

Share to many (aggregate)

Share to few

Measurement / insight

What's the traffic like?



Location data value stack

Personalisation

Share to many (aggregate)

Share to few

Measurement / insight

What's my fastest route?

The screenshot shows a navigation app interface with a blue header and a white list of route options. The header includes a menu icon, a home icon, a car icon, a bus icon, a walking icon, a bicycle icon, and an airplane icon. Below the header, the start and end points are listed as Birmingham and Leeds. A 'Route options' section is visible, with 'Avoid' and 'Distance units' options. The main content area displays three route options, each with a car icon, a description of the route, a traffic status, a travel time, and a distance.

Route Description	Traffic Status	Travel Time	Distance
via A38	Some traffic, as usual	3 h 38 min	115 miles
via A38 and A515		3 h 52 min	119 miles
via A38 and A1	Some traffic, as usual	4 h 5 min	135 miles

Location data value stack

Value co-creation

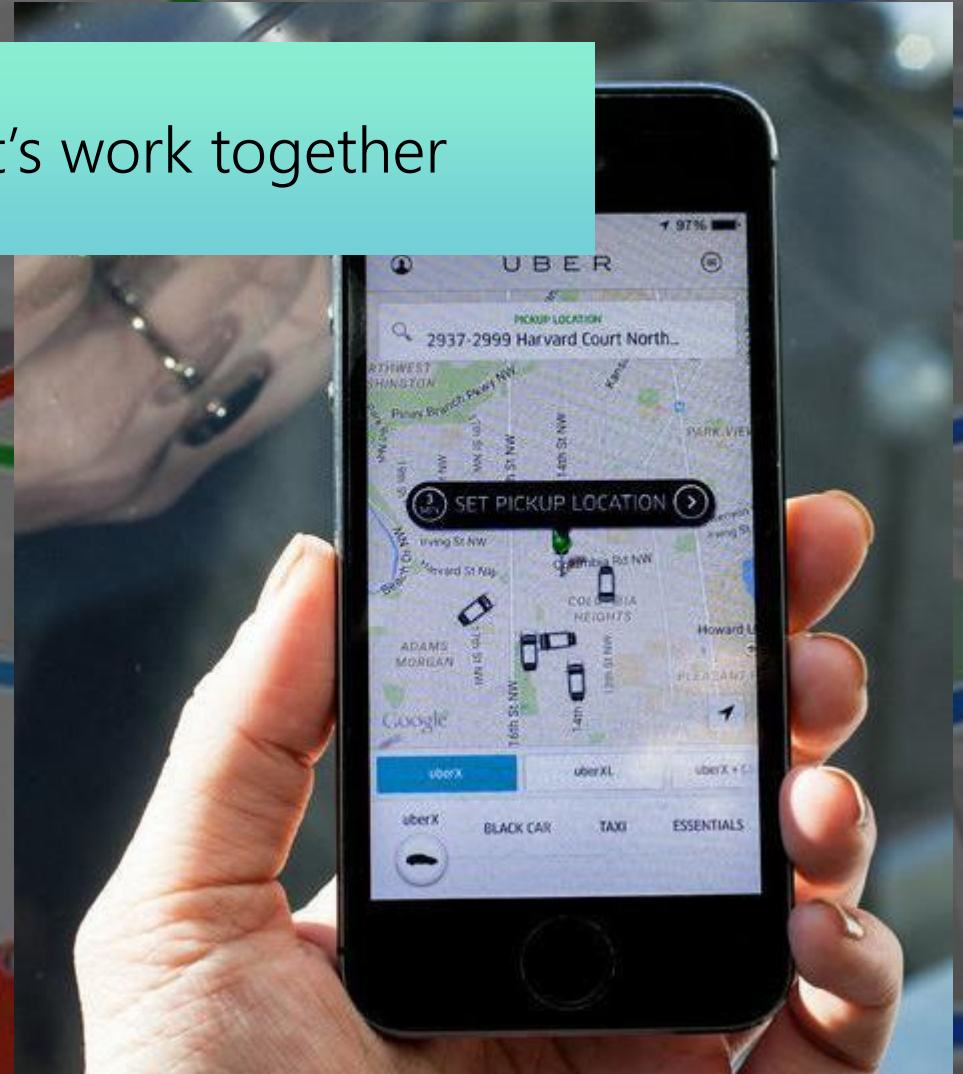
Personalisation

Share to many (aggregate)

Share to few

Measurement / insight

Let's work together



Energy system data value stack

Value co-creation

Personalisation

Share to many (aggregate)

Share to few

Measurement / insight

Prosumer, Peer-to-Peer, V2G

T.o.U. tariffs, Demand-shaping

U-Switch, DSR services

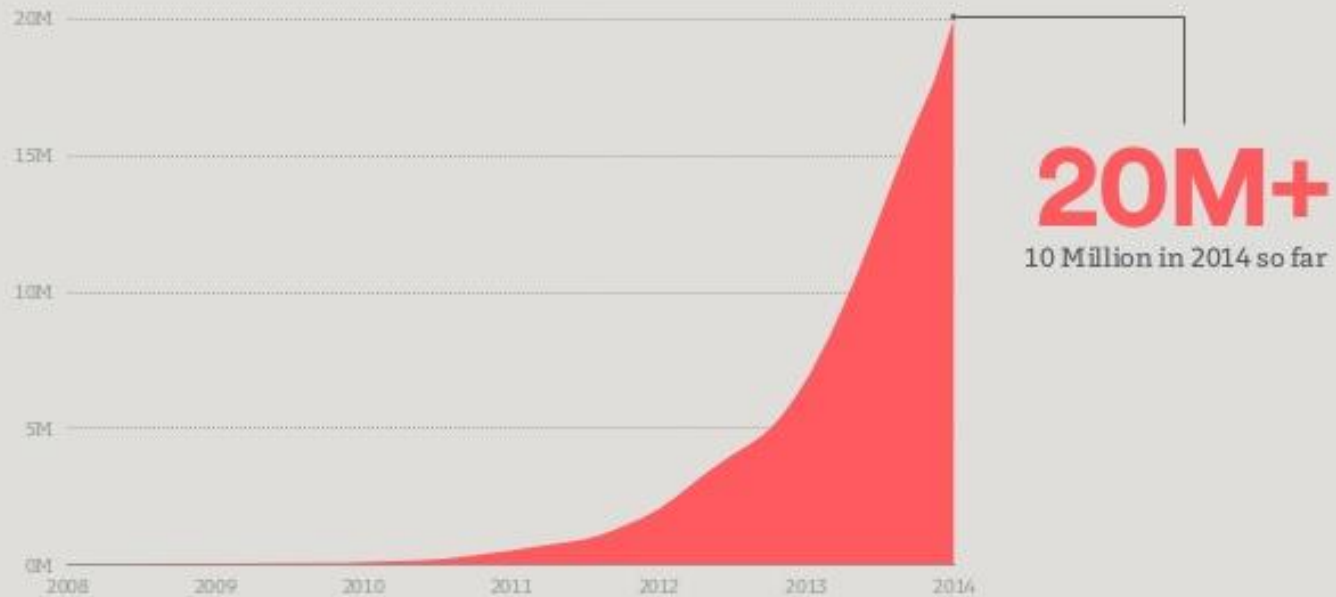
Suppliers & Brokers

Smart / sub meter data

Disruptive value co-creation and consumer empowerment has happened really quickly in other sectors



Total Airbnb Guests



EMPOWERED CONSUMERS



Grid Edge 



WANTS

- Fair reward for flexibility
- Control
- Trust asset performance is not compromised

NEEDS

- A way of unlocking flexibility in their assets
- A route to monetization

GETS

- Opaque unknown revenue share
- Loss of control
- Comfort compromise



Artificial Intelligence for Energy Systems

Thank You:

Contact:

Jim.scott@gridedge.co.uk

Visit:

www.gridedge.co.uk

[@gridedgetd](https://twitter.com/gridedgetd)