

BRAINBOX AI.

# AUTONOMOUS AI FOR REAL ESTATE CLIMATE ACTION

Quebec Climate Innovation in Action

NOVEMBER 16<sup>TH</sup>, 2021

**Buildings account for ~38% of GHG emissions and HVAC systems are a key part of these**

**Rapid urbanization + changing global temperatures  
= increased heating & cooling needs in the built environment**

**Unlike for mobility and the energy transition, the real estate industry is still searching for truly scalable solutions**

# What have we been working on at BrainBox AI?



Using **autonomous AI** to completely change how an HVAC system behaves

Make it **predictive and self-adaptive**

Render these systems **significantly more efficient and flexible**, to serve other needs

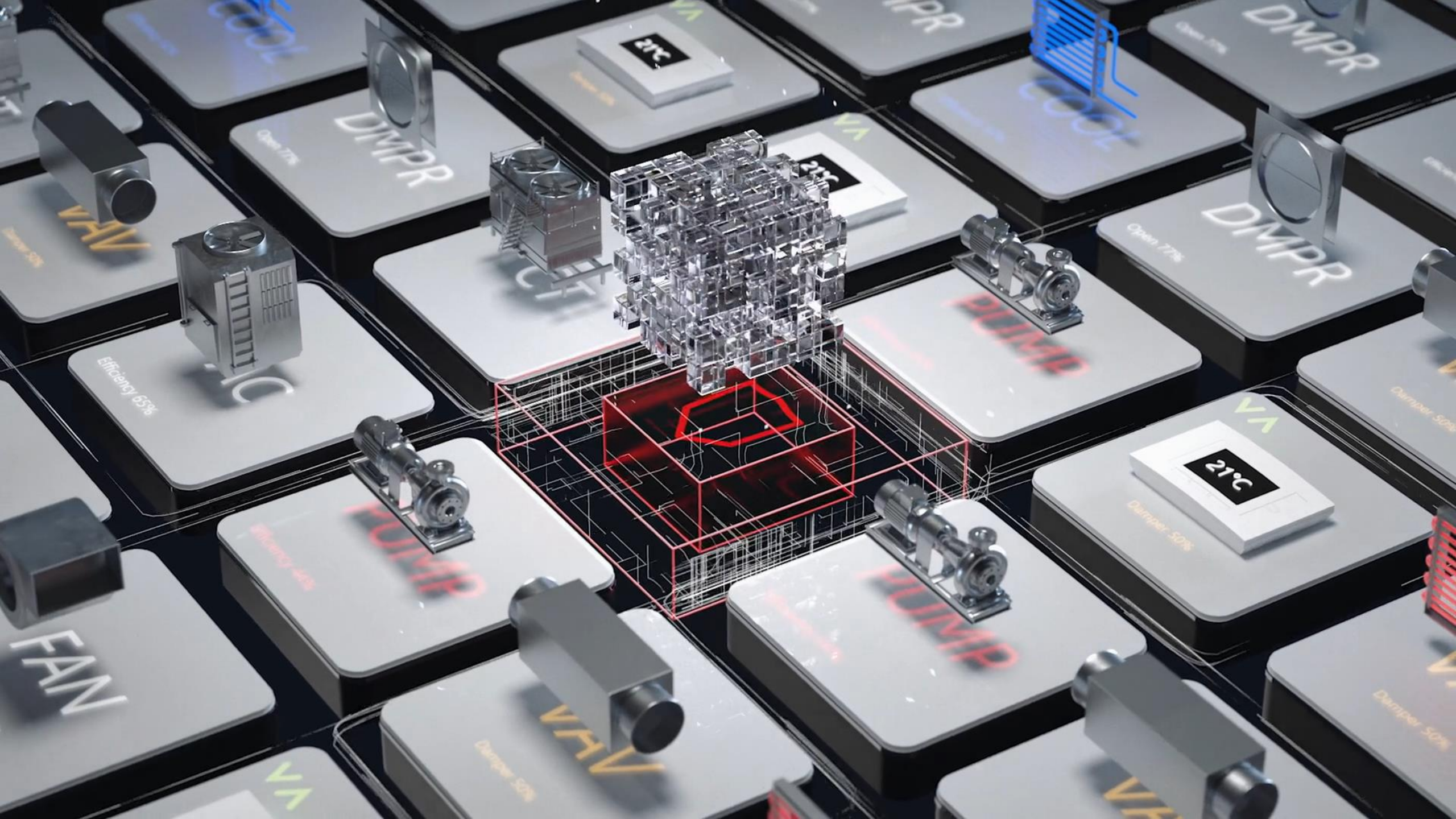
Solve many of the scale challenges that the built environment faces

**Challenge: each building is a snowflake**



**Opportunity: Leverage other rich data sets**





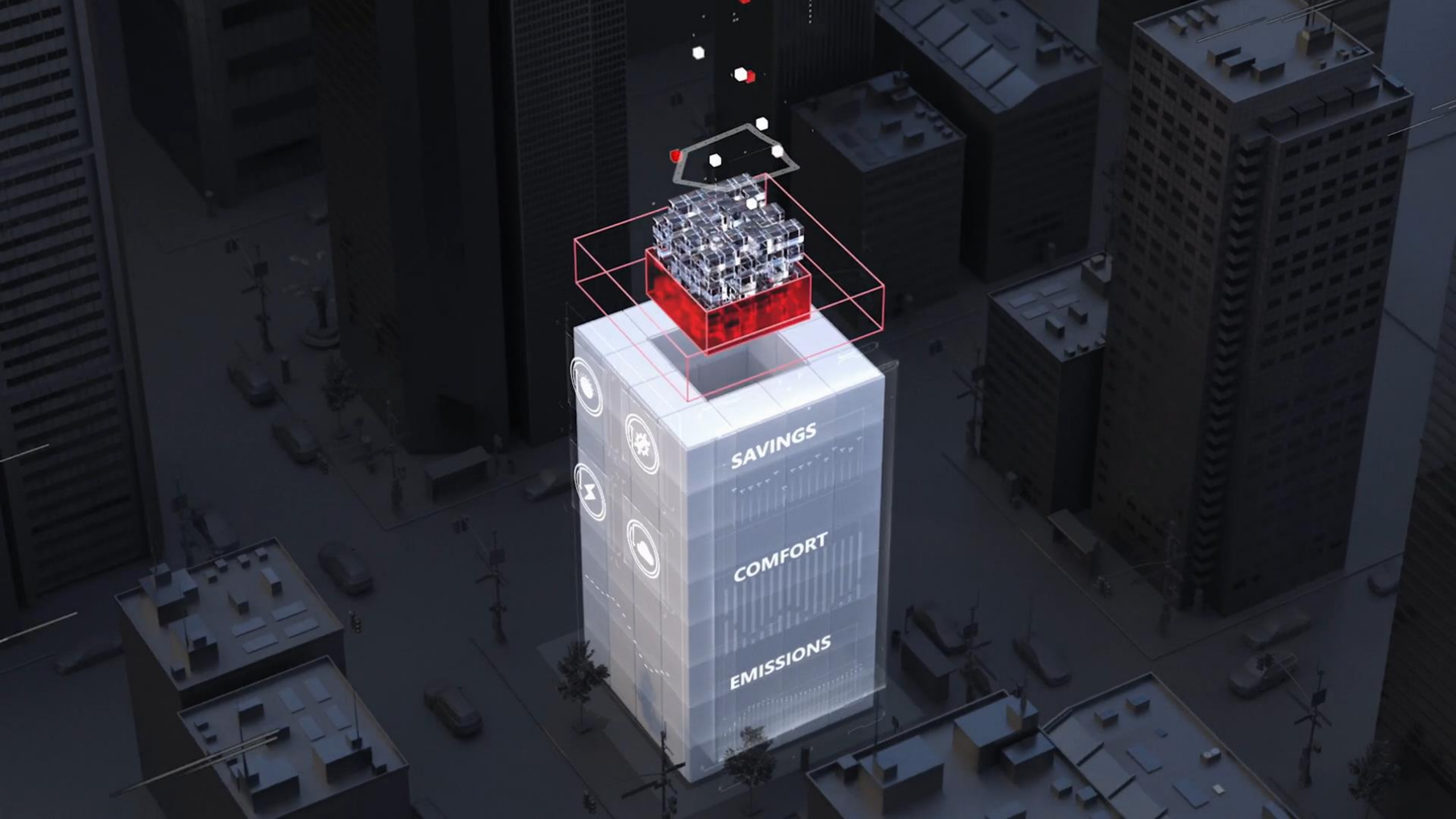
# Autonomous Decision Making:

*Multi-variable optimization*

*&*

*Decisions at a granular level*





SAVINGS

COMFORT

EMISSIONS

# SCALE & IMPACT

# IMPACT

## Meaningful results without the financial sacrifice



**Up to 25%**

reduction in energy costs



**20-40%**

decrease in carbon footprint



**Up to 50%**

extension of HVAC equipment service life



**60%**

improvement in thermal comfort

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**200-300%**

ROI for the customer

# SCALE

## In the last 28 months...



**100M+**

sq. ft. impacted by our technology

**275+**

buildings managed by BrainBox AI

**18+**

countries impacted by BrainBox AI

**70+**

cities impacted by BrainBox AI

**60+**

countries impacted by BrainBox AI

**1M+**

annualized metric tons of CO2 saved

**BRAINBOX AI**  
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