

**T A P  
E S T  
R Y •**

Revolutionizing the Electric Grid  
The Transformative Power of AI and Innovation



## **X, THE MOONSHOT FACTORY**

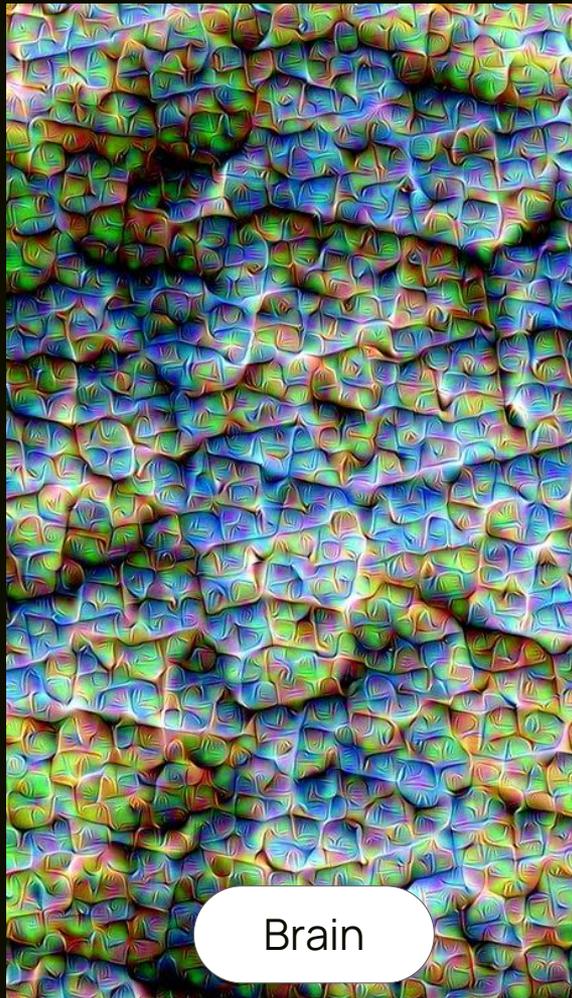
Invent and launch breakthrough technologies that  
make the world a radically better place



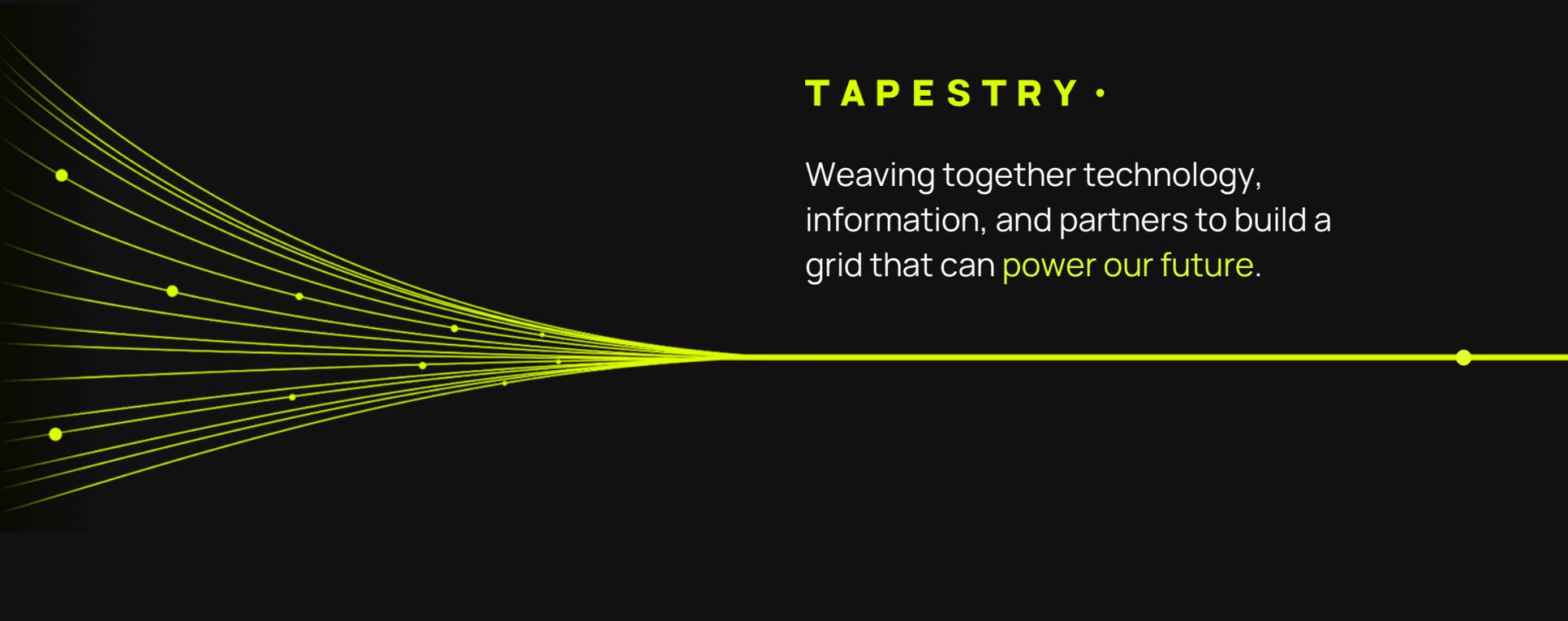
Waymo



Wing



Brain



## T A P E S T R Y •

Weaving together technology,  
information, and partners to build a  
grid that can power our future.

# Electricity runs our world, but it's not working for us.

Power outages are  
up globally

2<sub>x</sub>

Energy costs are  
rising for consumers

20%

It takes too long to  
plan building solar fields

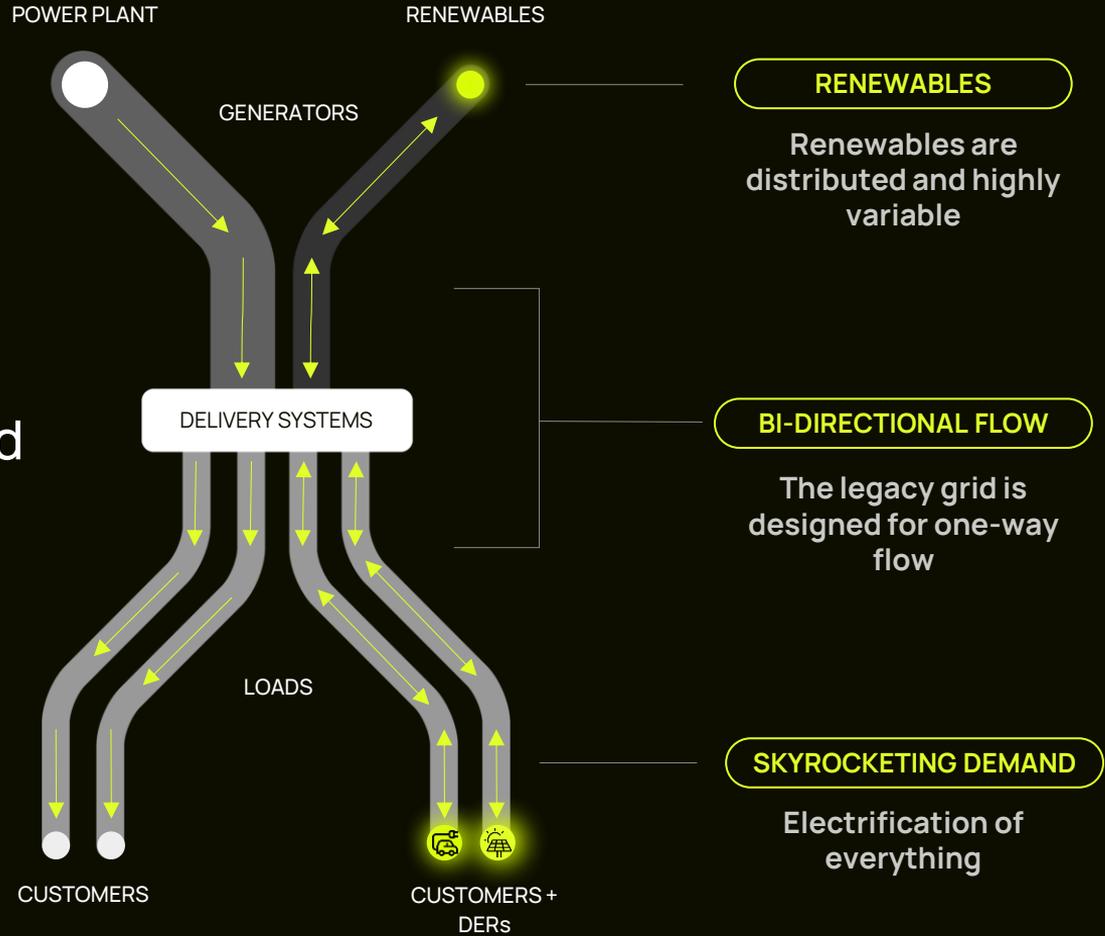
6 years

The grid creates a large portion  
of global emissions

+25%

## Two key drivers

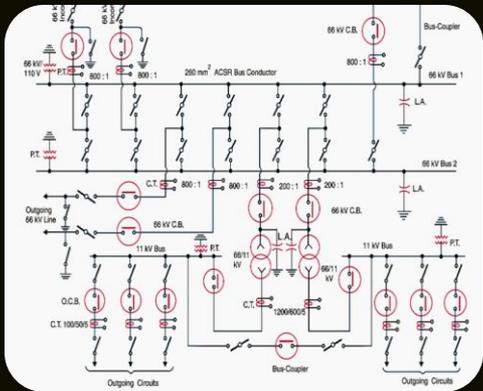
- Skyrocketing demand
- Renewables



# THOUSANDS OF DATA POINTS



# MANUAL PROCESSES



# SILOED INFORMATION

Busbar Name	Type	Rated Power (MW)	Commissioning Date	Decommissioning Date	Full Type	Heat Rate	Heat Rate
GUACOLIDA US MATIENCILLO 220 kV T		527.7		1201-02-27			
GUACOLIDA US MATIENCILLO 220 kV T		562.9		1201-02-28			
FER GUACOLIDA US MATIENCILLO 220 kV T		138.4		1201-02-28			
FER CAMPECHE US MATIENCILLO 220 kV T		242.9		1201-02-28			
FER NUEVA SANTA MARTA VENTANAS T		298.4		1201-02-28			
FER SANTA MARTA CHARRARA 220 kV B1 T		316.8		1201-02-27			
FER ANAGUATE US KAPATUN 220 kV B1 T		289.9		1201-02-28			
FER ANAGUATE US KAPATUN 220 kV B1 T		225.5		1201-02-28			
FER COOHUATE US ENCIENTRO 220 kV T		222.8		1201-02-28			
FER COOHUATE US ENCIENTRO 220 kV T		222.8		1201-02-28			
FER COOHUATE US ENCIENTRO 220 kV T		222.8		1201-02-28			
REC_V1_1	ANGOLA 220 kV B1 T	50	01/01/2023		LMS	6.2	MMBT-JATVA
REC_V1_1	ANGOLA 220 kV B1 T	110	01/01/2023		LMS	6.2	MMBT-JATVA
REC_V1_1	CANDELARIA 220 kV T	50	01/01/2023		LMS	6.2	MMBT-JATVA
REC_P_V1_2	ANGOLA 220 kV B1 T	50	01/01/2041		LMS	6.2	MMBT-JATVA
REC_P_V1_3	ANGOLA 220 kV B1 T	50	01/01/2041		LMS	6.2	MMBT-JATVA
REC_P_V1_4	ANGOLA 220 kV B1 T	50	01/01/2041		LMS	6.2	MMBT-JATVA
LAIN_MP	EL MOTAL 220 kV B1 T	42	12/01-2022		LMS	6.2	MMBT-JATVA
SOLAR_CSP_1_1	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_2	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_3	QUEBRADA BLANCO CSP	100	01/01-2024				
SOLAR_CSP_1_4	QUEBRADA BLANCO CSP	100	01/01-2024				
SOLAR_CSP_1_5	CHIMBORAZO 220 kV CSP	100	01/01/2024				
SOLAR_CSP_1_6	CHIMBORAZO 220 kV CSP	100	01/01/2024				
SOLAR_CSP_1_7	SAN SIMON 220 kV CSP	100	01/01/2024				
SOLAR_CSP_1_8	ENCIENTRO 220 kV CSP	100	01/01-2024				
SOLAR_CSP_1_9	PAMPON 220 kV CSP	100	01/01/2024				
SOLAR_CSP_1_10	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_11	SAN ANDRES 220 kV CSP	95	01/01-2024				
SOLAR_CSP_1_12	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_13	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_14	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_15	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_16	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_17	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_18	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_19	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_20	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_21	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_22	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_23	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_24	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_25	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_26	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_27	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_28	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_29	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_30	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_31	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_32	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_33	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_34	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_35	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_36	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_37	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_38	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_39	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_40	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_41	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_42	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_43	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_44	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_45	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_46	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_47	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_48	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_49	MIEVA DALZAVAR 2 CSP	100	01/01/2024				
SOLAR_CSP_1_50	MIEVA DALZAVAR 2 CSP	100	01/01/2024				

What if we could build Google Maps for  
electrons?

# Electricity powers prosperity

Source: 2025 Deloitte impact study commissioned by Google and Tapestry

Of a country's GDP can be linked to how much electricity their people use

42%

Estimated annual GDP boost with accelerated energy infrastructure investment (in PJM region of Eastern US)

\$20.9B

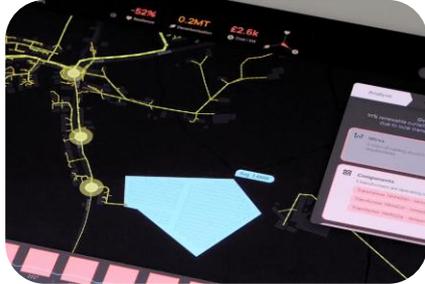
Estimated increase in total construction jobs (in PJM region of Eastern US)

5%

# Applying AI to every job across the grid



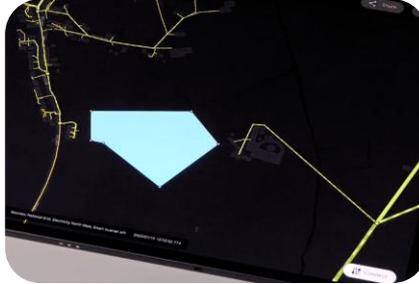
MANAGE



GridAware Suite



PLAN



Grid Planning Tool Suite



OPERATE



Operations Tool Suite

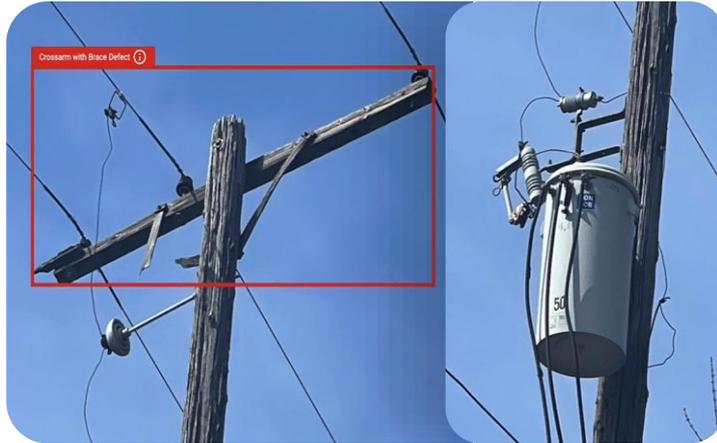
Advanced AI applications are essential to meet the twin challenges of accelerating demand and renewables

# AI to map the distribution grid



MANAGE

GridAware



4M assets  
mapped

51K overhead  
lines

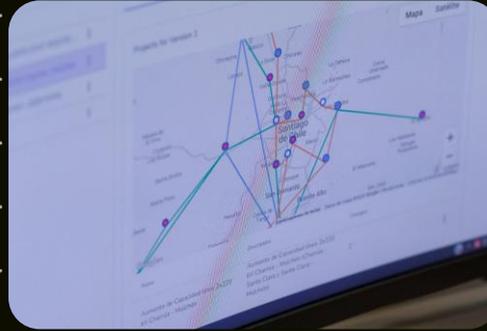
500K  
Images

# Simulation and analysis can take planners 2+ weeks



## SCENARIO MODELING & DEVELOPMENT

3-10 days



## SIMULATION

120 hours



## ANALYSIS & PLANNING

2-5 days



Tapestry is developing a new set of AI tools and models to help accelerate the connection of new energy sources to PJM's grid

This is the first time artificial intelligence is being used to manage an entire energy interconnection queue process



End-to-End  
Platform

# Interconnection application automation

## Faster approvals

Automatic checks speed up new energy connections

## Verifies requirements

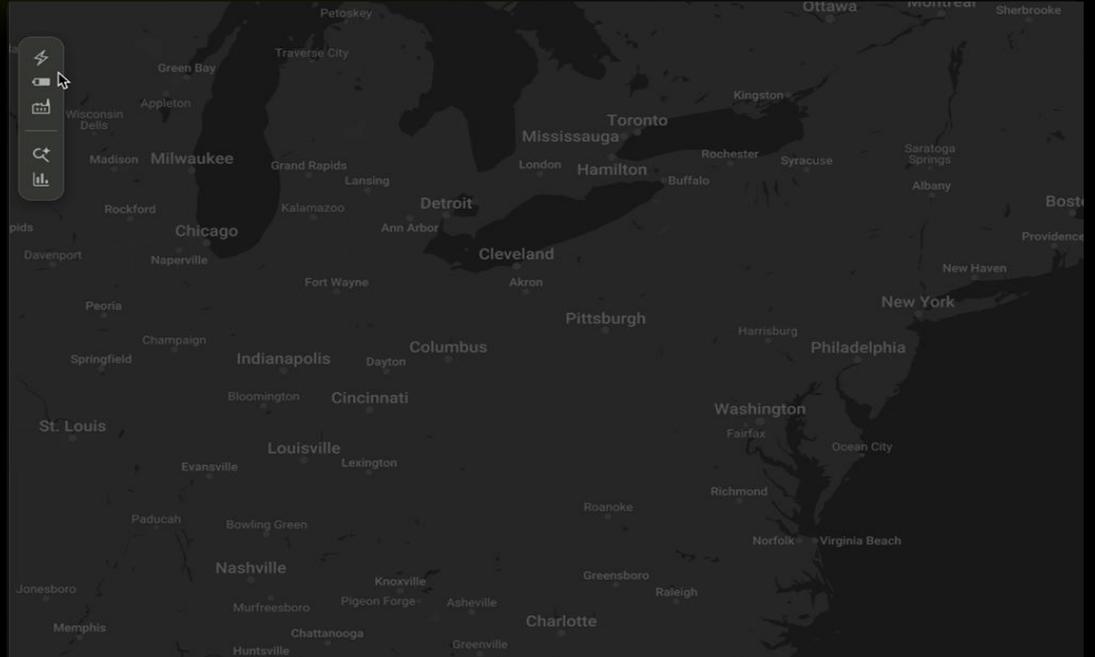
Instantly confirms land rights, equipment, grid impacts

## Streamlined process

Easier application process for developers and PJM

T A P  
E S T  
R Y .

## AI-Powered Interconnection



# The first unified model of PJM's grid

## Single view

Combines dozens of models and databases into one, cloud-based platform

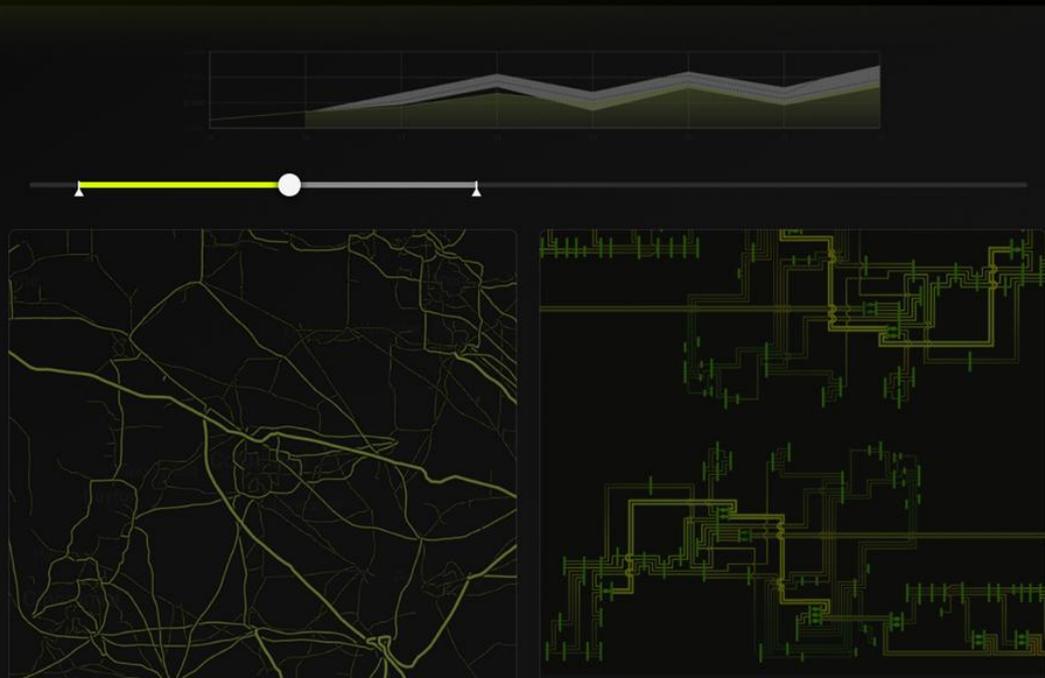
## Streamlined model management

Consistent, up-to-date data across the grid

T A P  
E S T  
R Y .

# Unified Model Management

Search in model library

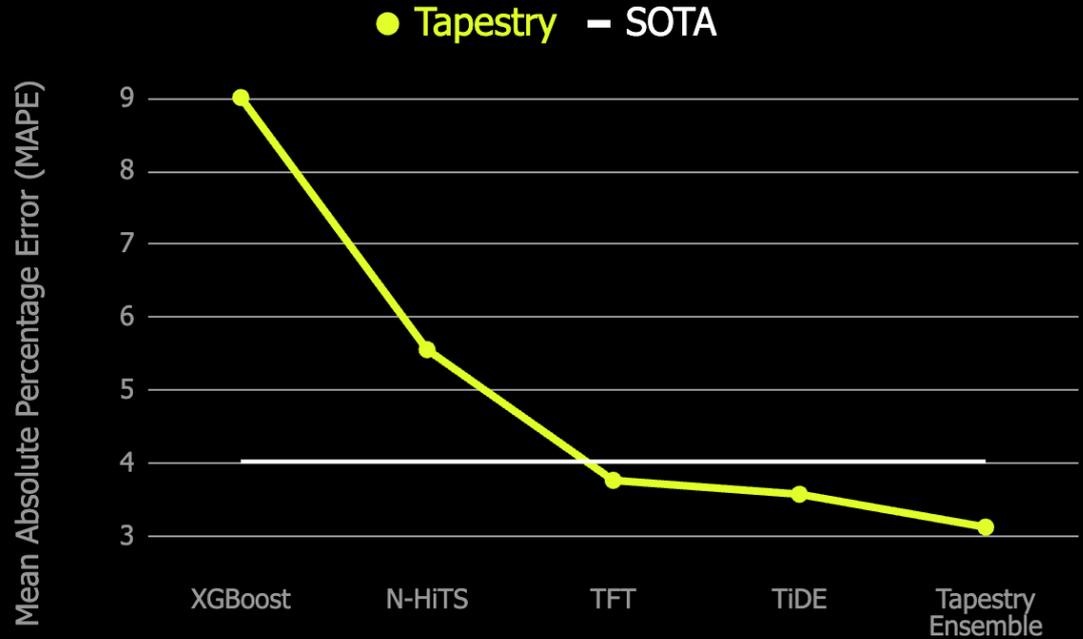


# Deep Learning models beat classical grid operator models

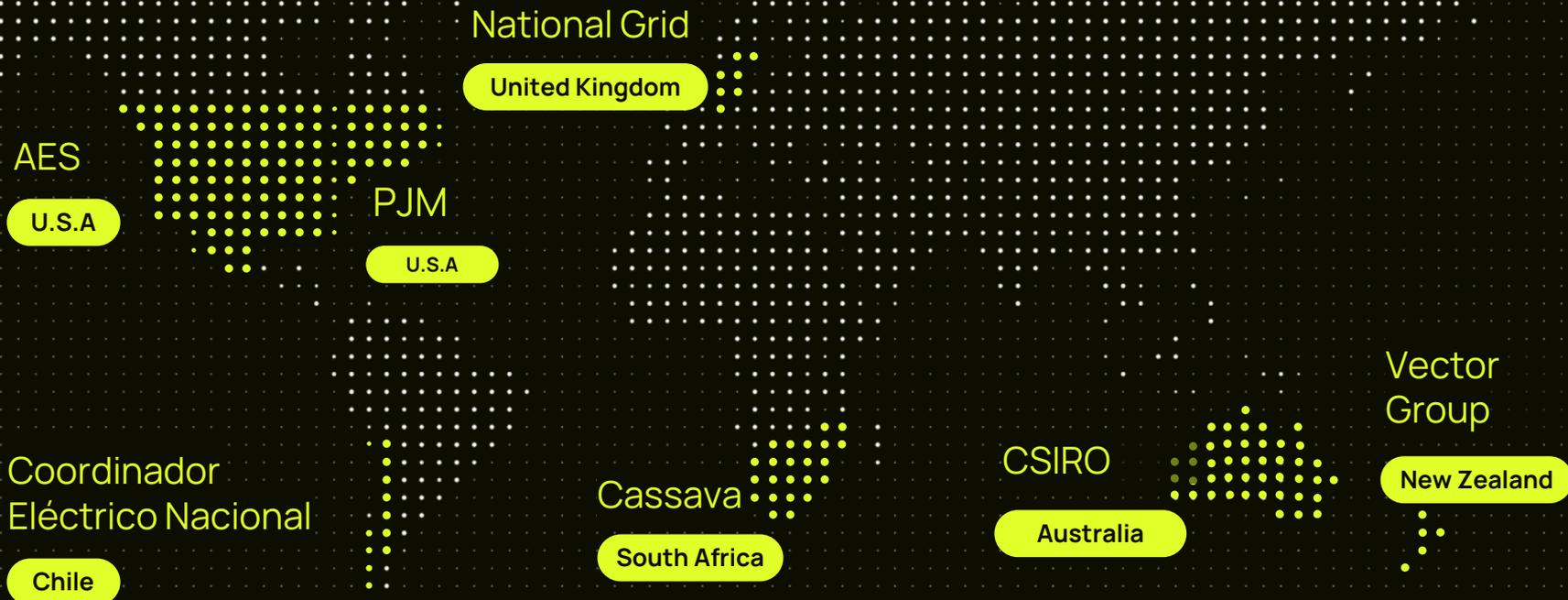
**22%**

Improvement

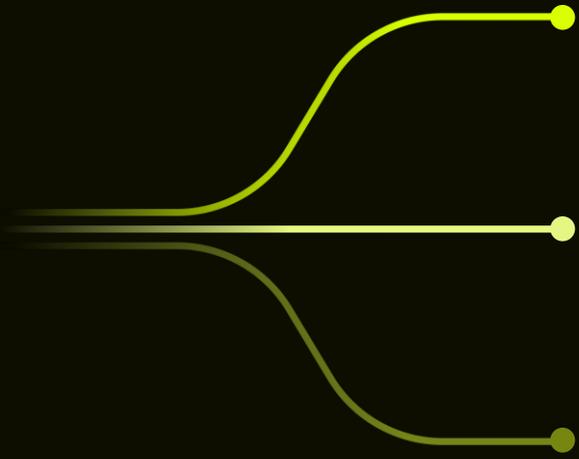
SOTA = State of the Art



# Innovating with partners around the world



If we work together, we can ensure AI will **make the grid**, not break the grid.



**DATA  
ACCESSIBILITY**

Robust datasets and open standards and protocols help AI models deliver the best conclusions, recommendations, and predictions.

**CROSS-DOMAIN  
EXPERTISE**

AI, software and grid experts need to work together to transform critical processes and build agile energy infrastructure.

**PARTNERSHIPS**

Chile's innovative approach and trust made them an ideal partner. Replicating this trust-based approach can unlock similar progress towards clean, reliable, and equitable grids globally.

**T A P  
E S T  
R Y •**

THANK YOU