

PowerBot

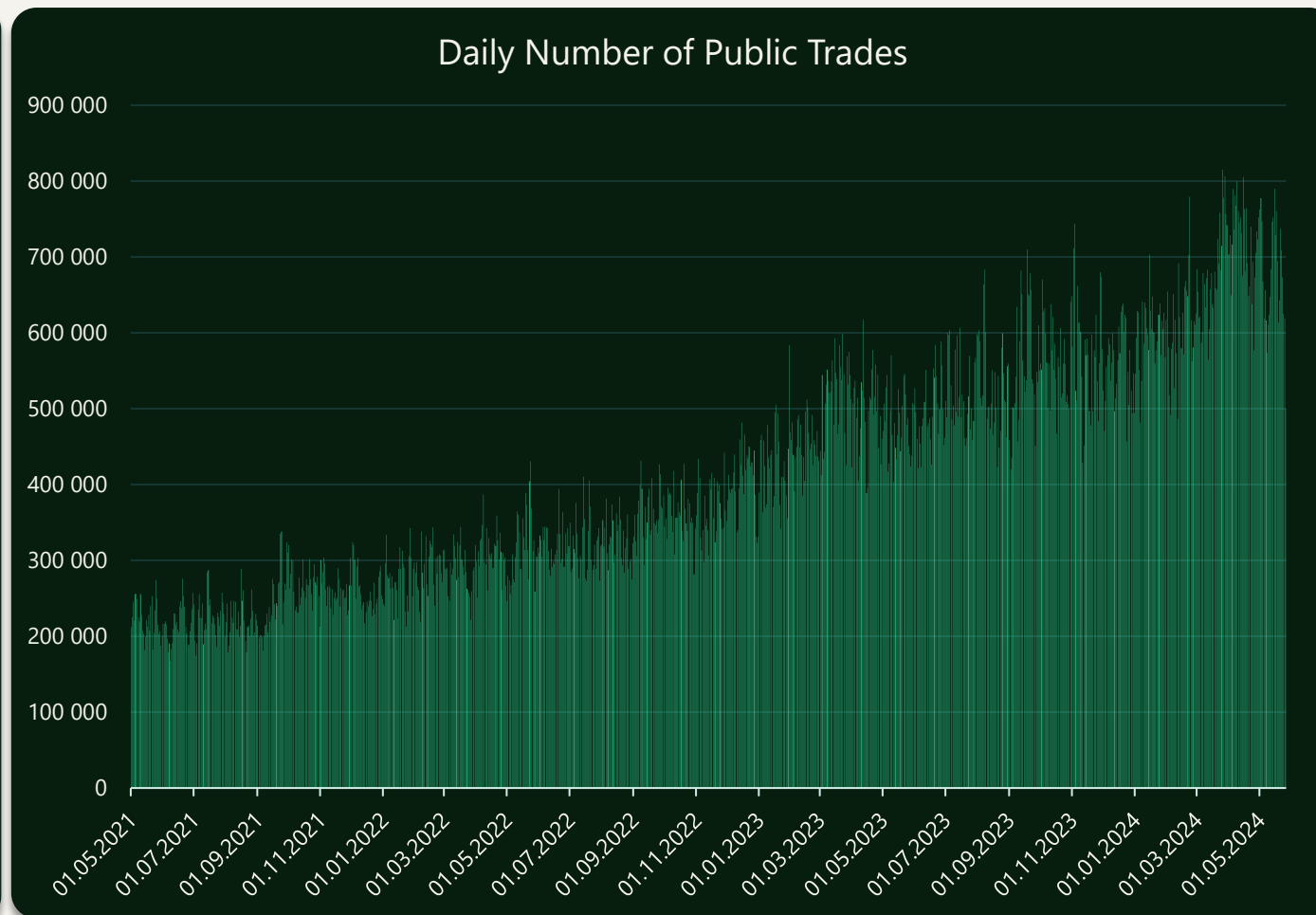
# Shorter Short-Term Markets

Greater Data Granularity and the Role  
of Automation

Maximilian Kiessler

# Why Automation Matters More Than Ever

- **We will never produce less data than yesterday.** The relentless growth of data underscores the need for robust data management and analysis systems.
- In the last **3 years**, the average number of daily trades has **increased roughly threefold.**
- Trades are only a fraction of the number of orders being produced, emphasizing the **complexity and volume of data** generated.



# Evolution of Automated Short-Term Trading

## Pre-2020 Phase 1

- Simple process automation as main goal
- Focus on configurable user interfaces
- Mostly standard algorithms for simple order splitting

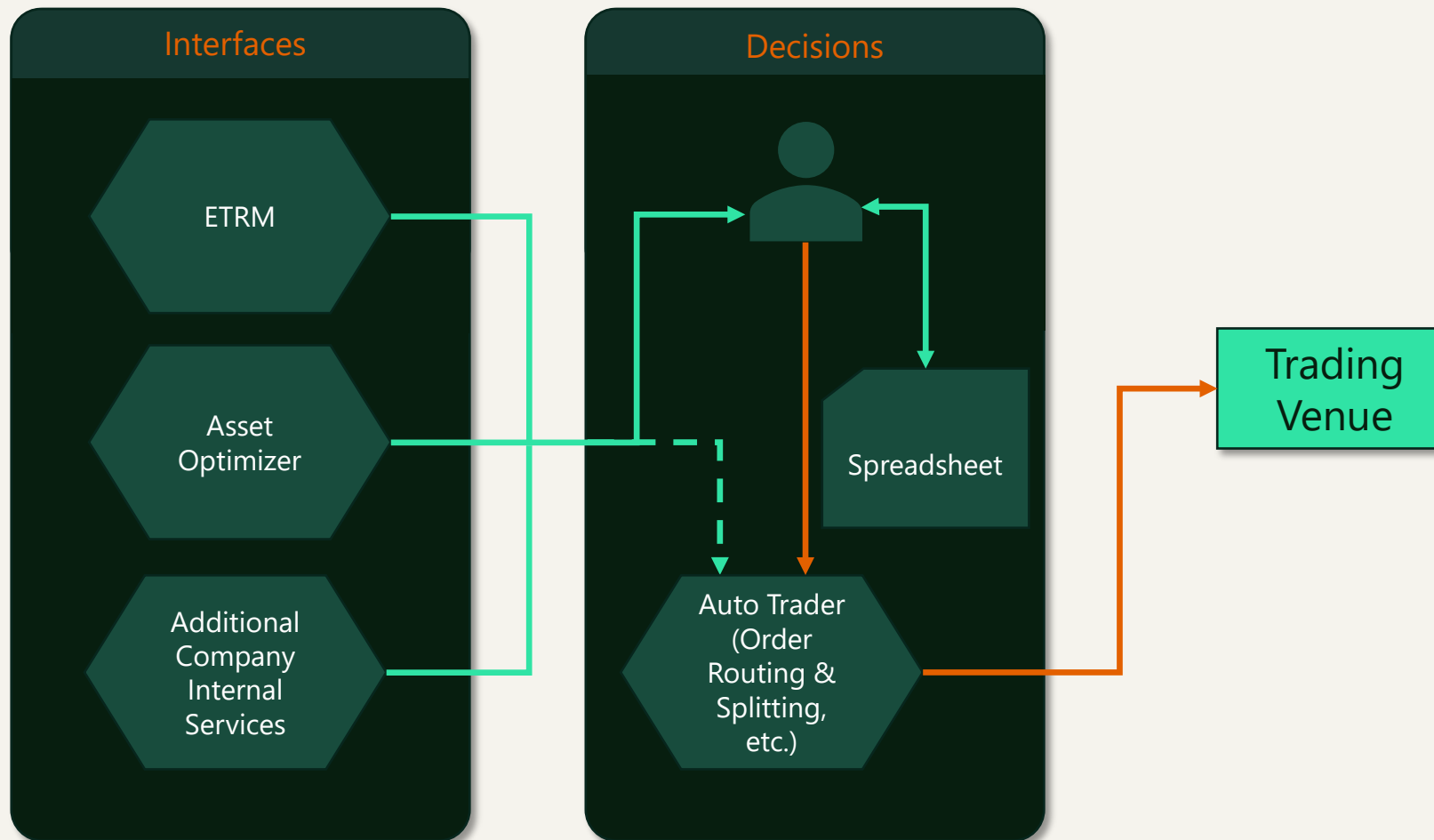
## 2020 – 2022 Phase 2

- Overreaching processes become more sophisticated
- Integration of fundamental data in many automated continuous trading operations
- Added intelligence in execution strategies

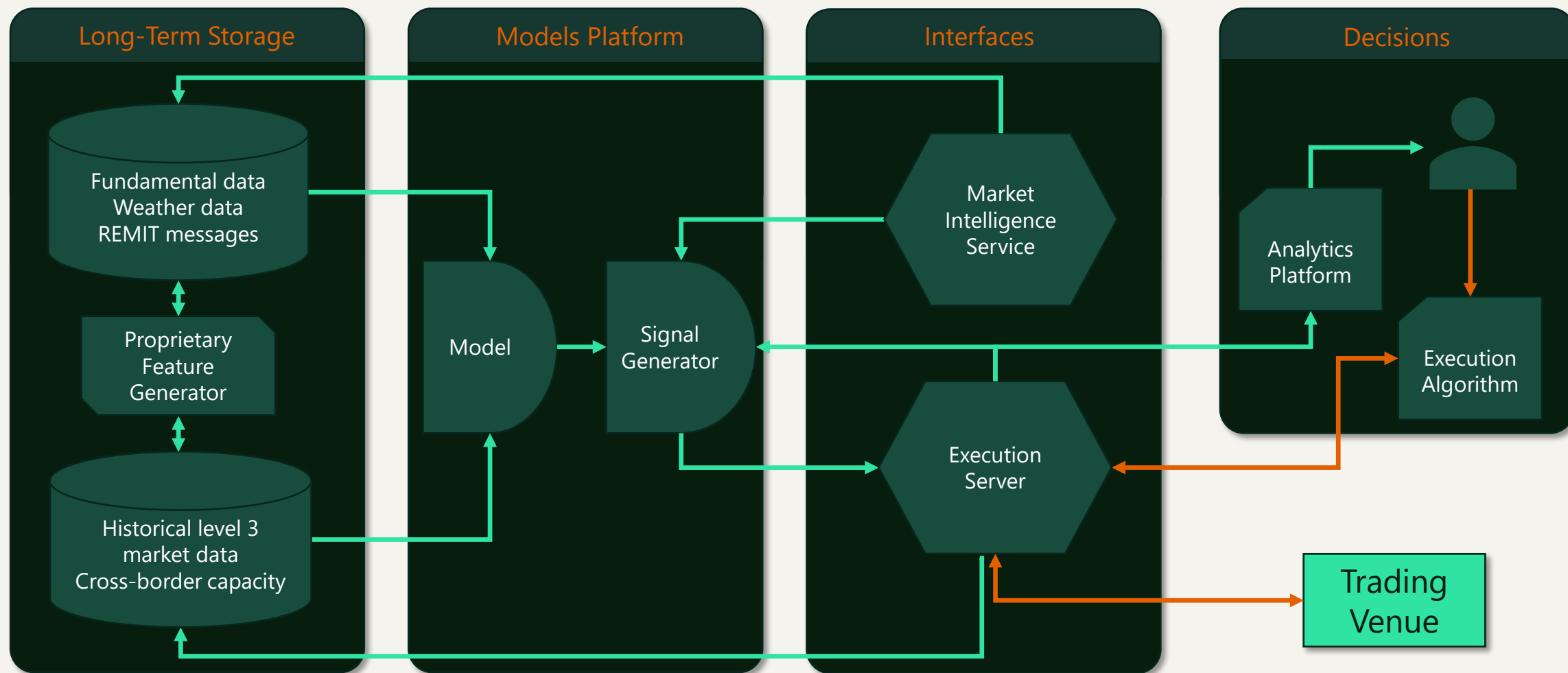
## 2023 – Today Phase 3

- Building data and execution infrastructure
- Focus on data pipelines to support advanced machine learning models
- Deployment models and tech stack increasingly important

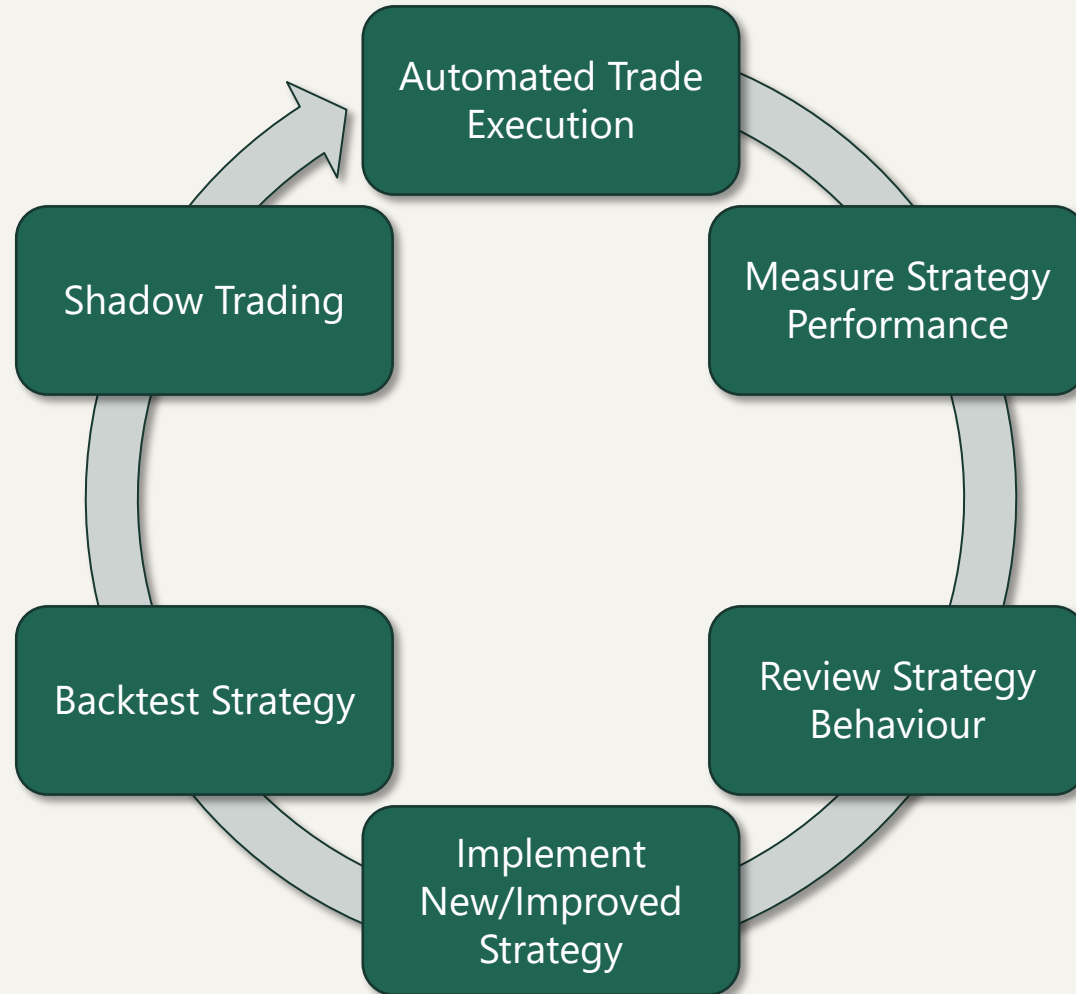
# Architecture of Legacy Automation Systems



# Blueprint for Energy Trading Infrastructure



# From Shift-Trading to Daily Process



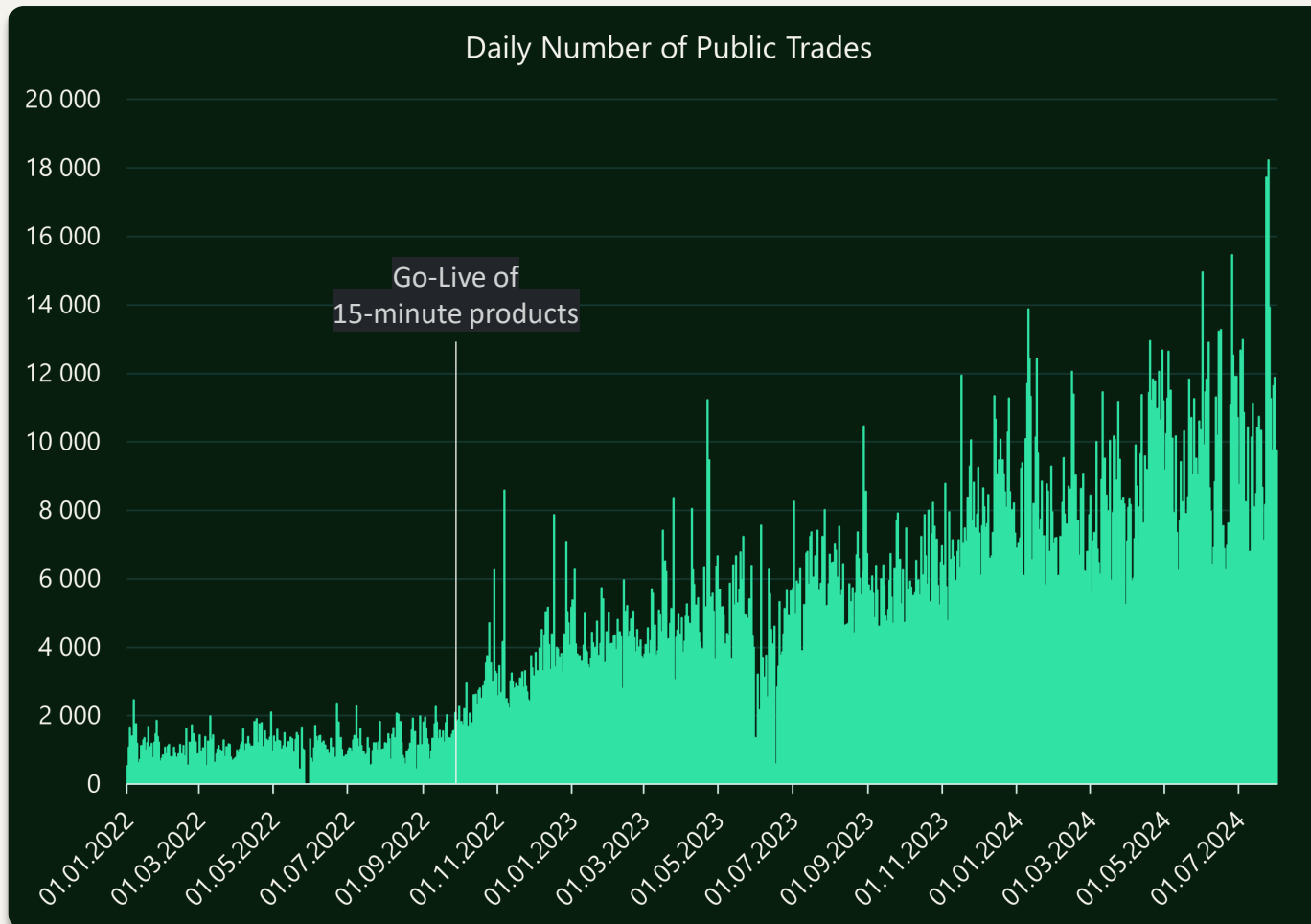
# Increased Complexity due to Faster Markets

## Scenario

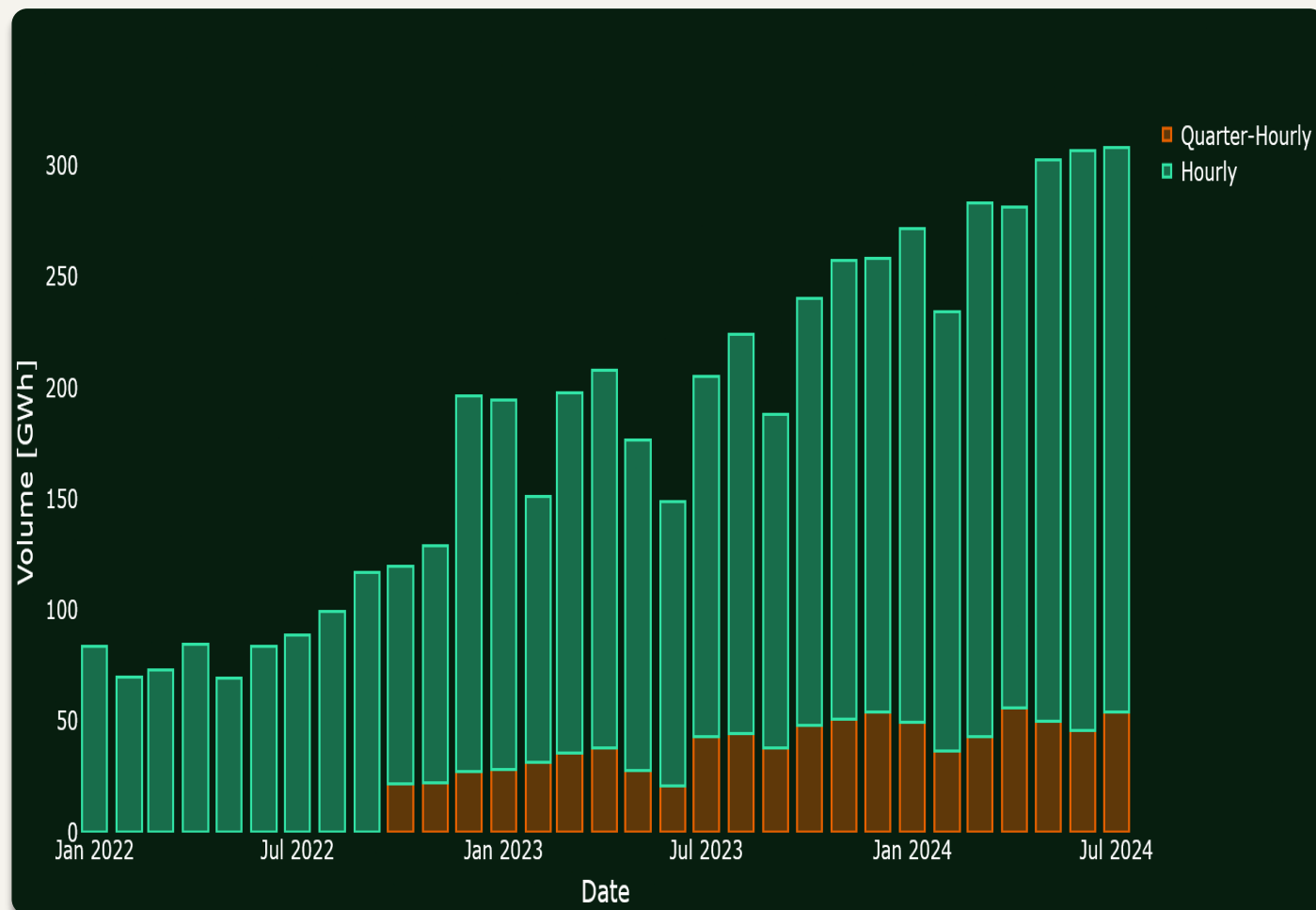
- Area: Bulgaria
- Exchange: IBEX
- Go-Live of **15-minute products** in October 2022

## Conclusion

- **More products** result in **higher complexity** due to faster markets
- Greater **data granularity** requires more sophisticated trading approaches



# Growing Granularity and Increased Liquidity



## Scenario

- Area: Bulgaria
- Exchange: IBEX
- **Monthly** traded **quantities** for **hourly** and **quarter-hourly** products

## Conclusion

- Quarter-hour products have been adopted by the market
- New trading opportunities, but also **increased complexity** for **imbalance management**



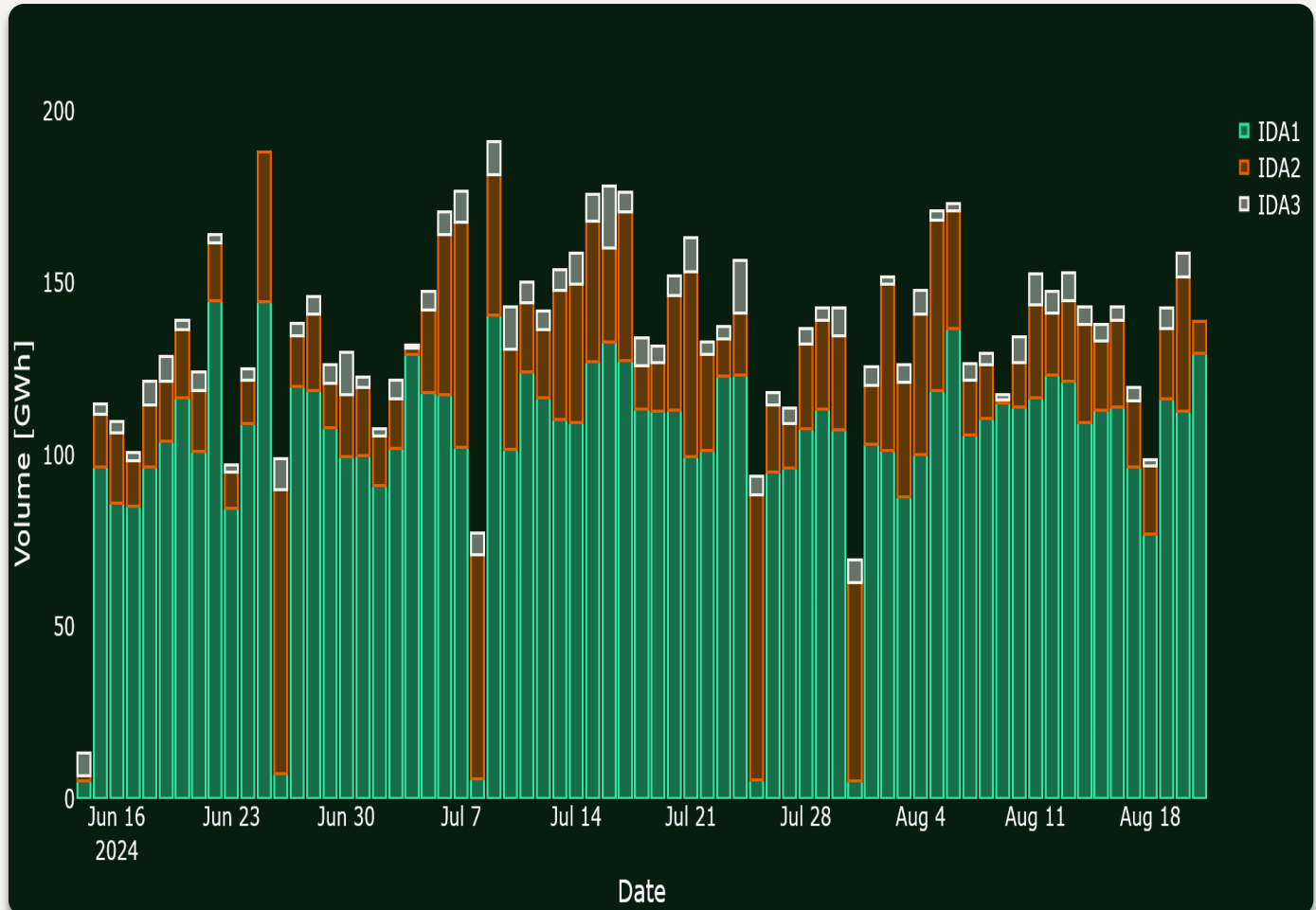
# Pan-European Adoption of Intraday Auctions

## Scenario

- Area: Pan-European
- Exchange: EPEX
- Aggregated intraday auction liquidity since Go-Live in 14 European markets

## Conclusion

- IDA1 is the most relevant auction, with IDA2 only capturing a fraction of the liquidity
- IDA3 has yet to gain significant traction



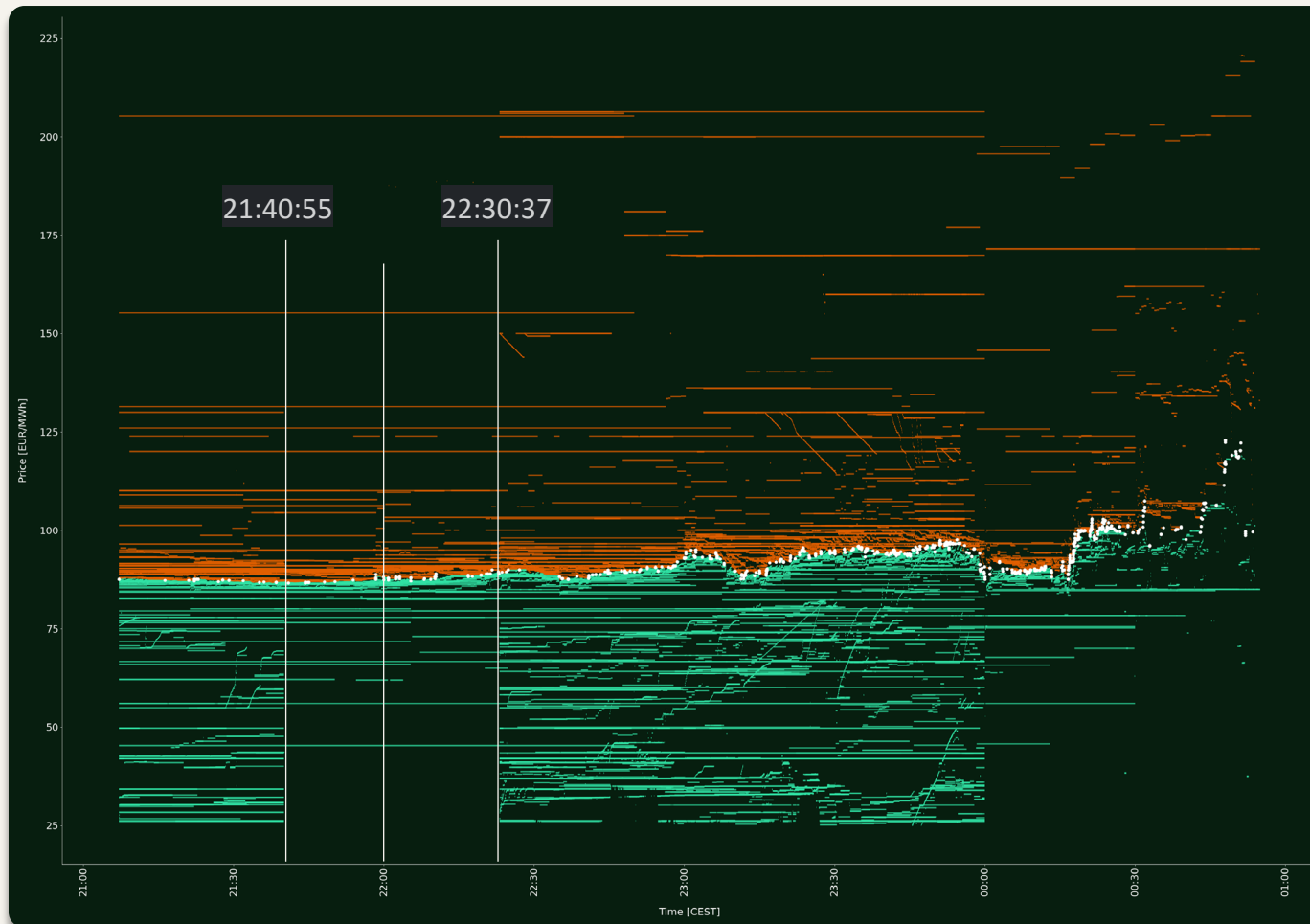
# Intraday Auctions as Driver of Change

## Scenario

- Area: Amprion, Germany
- Exchange: EPEX
- Contract: 01:00 – 02:00 CEST  
18.06.2024
- Intraday continuous market  
**liquidity changes during  
IDA2**

## Conclusion

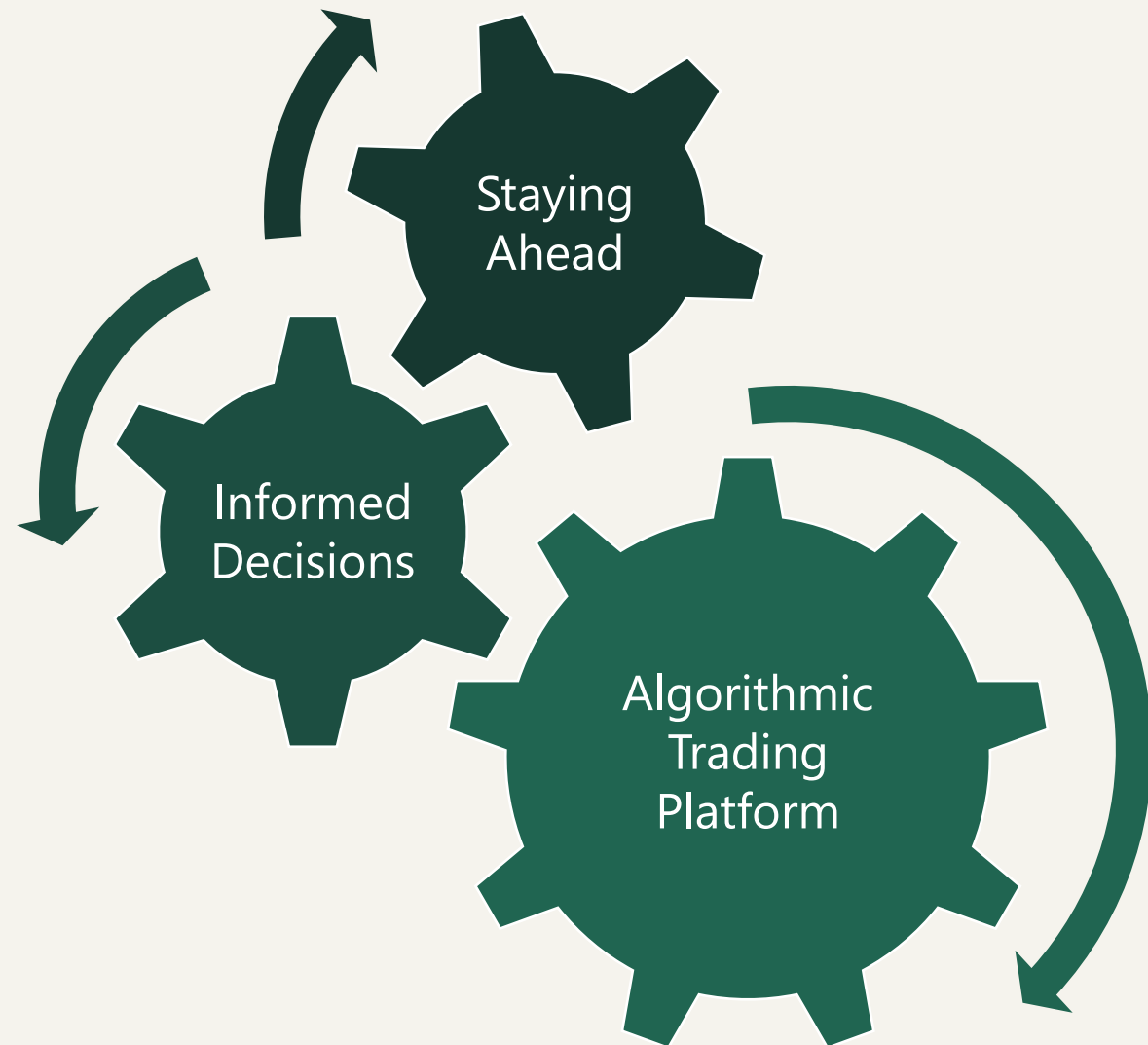
- Data platforms need to offer  
a **multi-market perspective**
- Speed in decision making  
needs to be followed by  
timely **execution**



# FINAL THOUGHTS

## MORE OPPORTUNITIES

- Markets become increasingly complex with **more venues** and a **diverse range of tradable products**.
- The energy trading landscape is **constantly changing**, making data-driven insights and automation essential for maintaining a competitive edge.
- **Embracing automation** as way to deal with the higher data granularity is crucial to keeping your trading strategies ahead of the competition.



# Thank you for your attention!

PowerBot GmbH

Gersthofer Strasse 29-31

1180 Vienna, AUSTRIA

[maximilian.kiessler@powerbot-trading.com](mailto:maximilian.kiessler@powerbot-trading.com)

[+43 720 9000 18](tel:+43720900018)