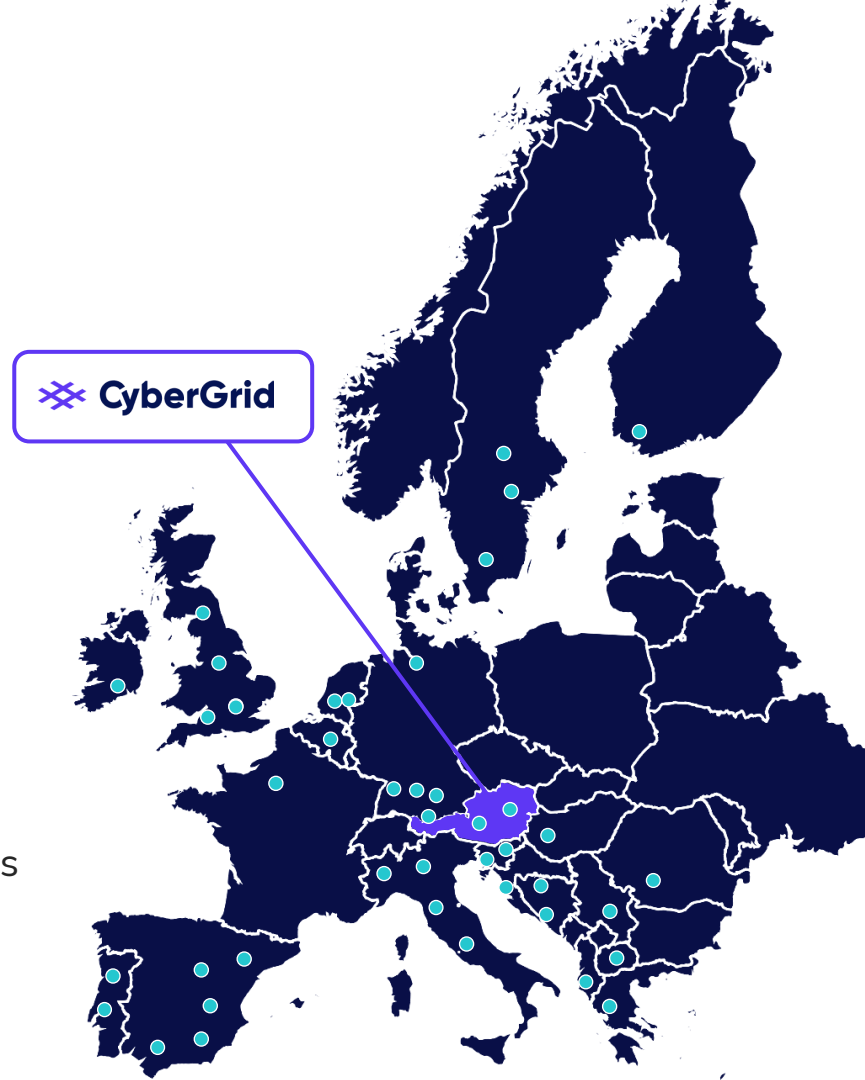


**CyberGrid**  
**Flexibility Experts**  
**since 2010**



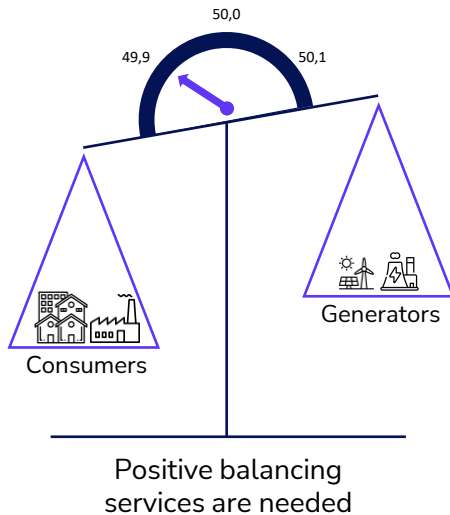
# CyberGrid is a **strong partner**

- Utility partner since 2010
- Toshiba period 2012-2015
- Member of EVN Group 2022
- Over 150 partners across Europe
- 20 successful European-funded research projects
- In excess of 200 MW attached assets



# We at CyberGrid believe in all electricity **renewable and flexible** – this needs balancing

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## Markets of today & tomorrow:

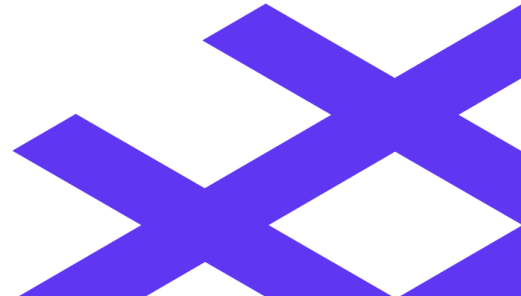
- Ancillary services marketing
- Intraday marketing
- Balancing group management
- Direct marketing
- Renewable Energy Communities
- Distribution System Operation



# We at CyberGrid believe in all electricity **renewable and flexible** – this needs balancing

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- Help you manage your energy future NOW
- Demand Response Management (DRM) & Virtual Power Plant (VPP) know-how is our core
- Renewable Energy Resource integration
- Owner of top-end market-proven technology and consultancy
- European wide research partner network
- Innovation is our DNA



# Your benefits with CyberNoc – Flexibility Management Platform



- Utilization of flexibility by active customers
- Scalable pooling of all your assets
- Automated bidding of flexibility on ancillary services markets
- Closed-loop-control to fight deviations
- Transparent accounting per asset
- Customer Web-Portal for new services to your customers
- Multi-marketing
- New revenue streams



# Management of batteries in decentralized systems Project Green the Flex

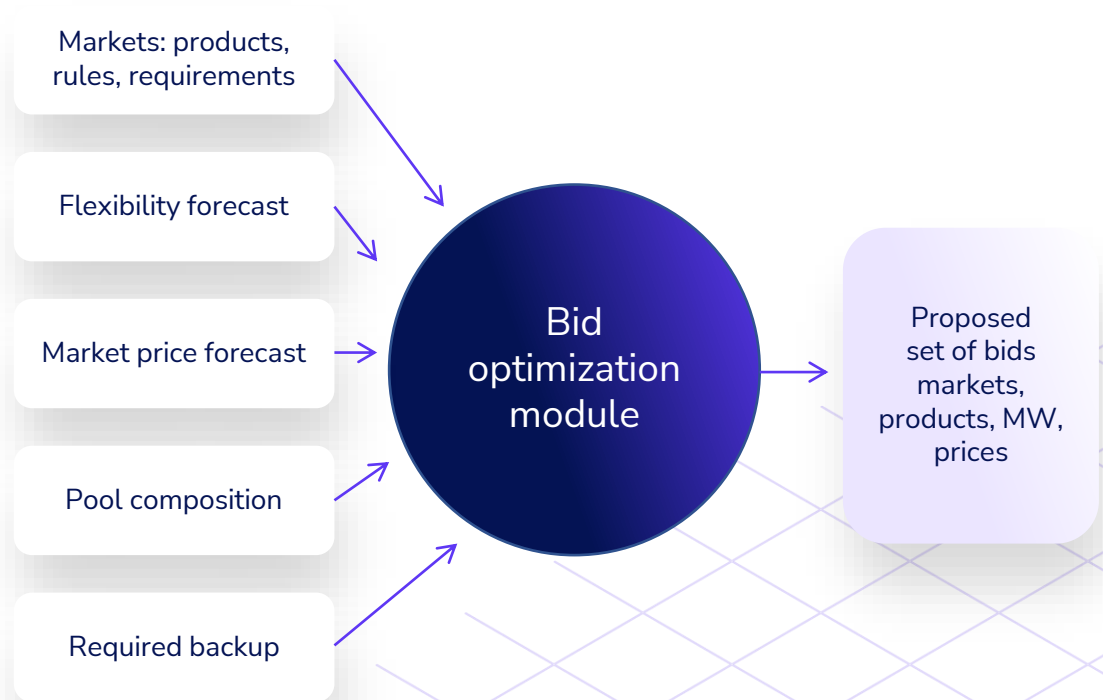
**Philip Schäffer**

Head of Business Development

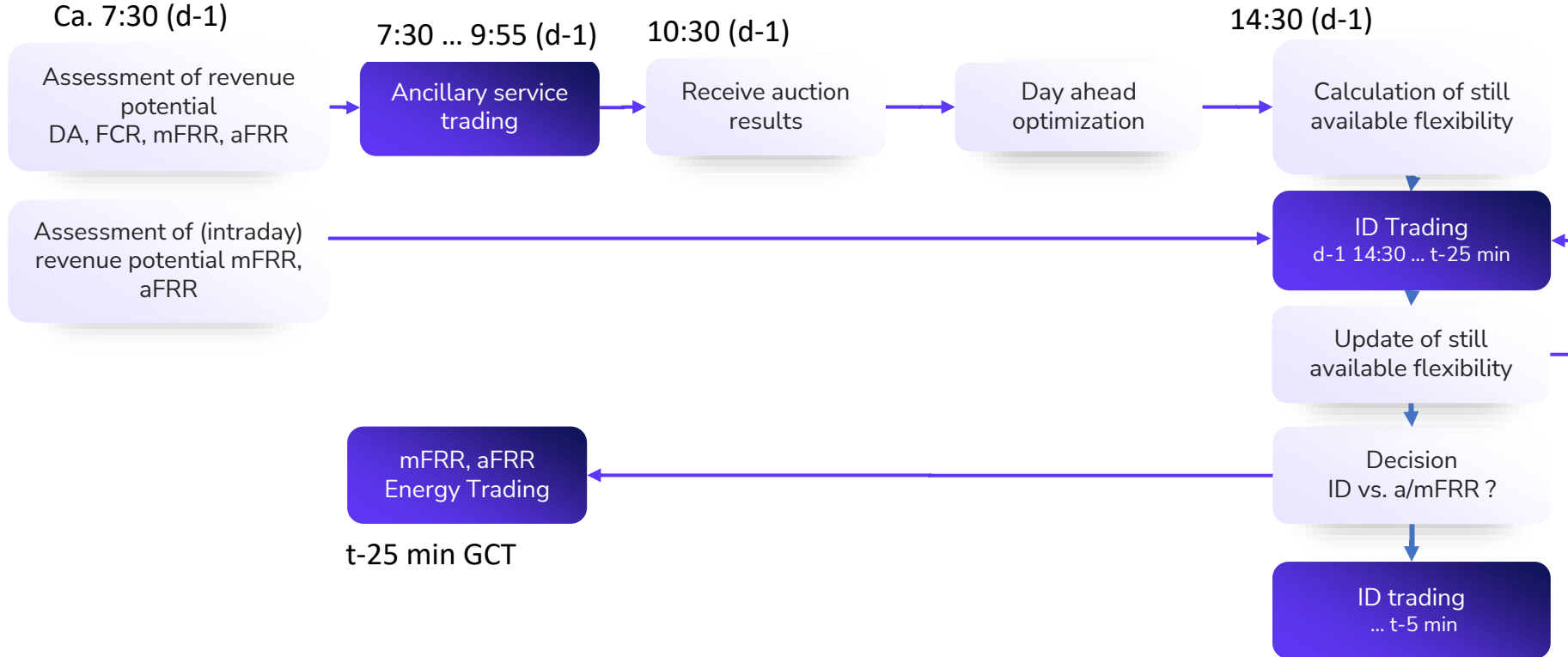


# Optimized Flexibility Trading Tool

- The bid optimization module imports flexibility forecasts and price forecasts from different sources and calculates the market bids with best revenue expectation.



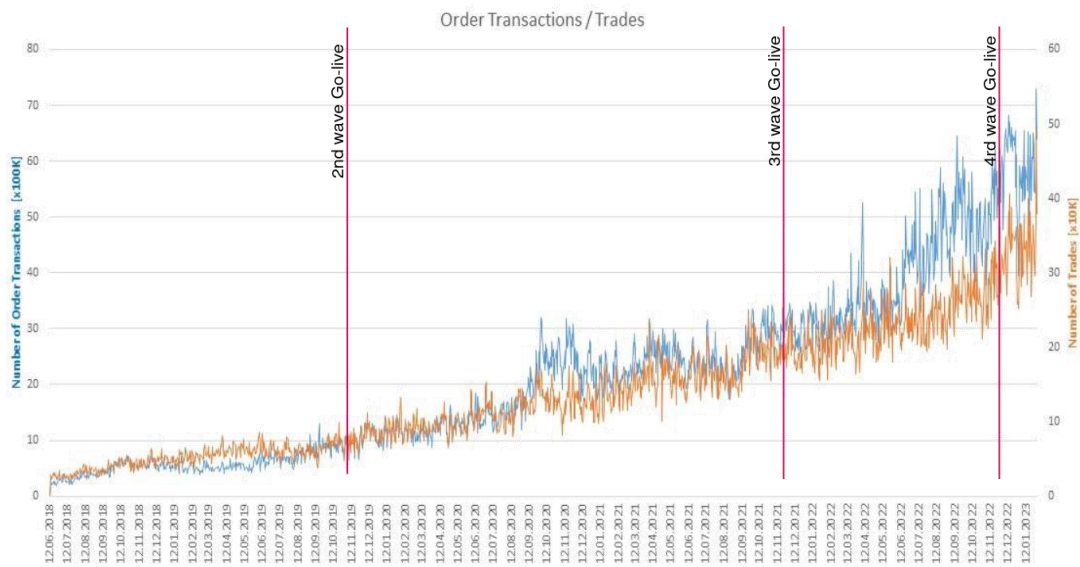
# Flexibility Trading Workflow



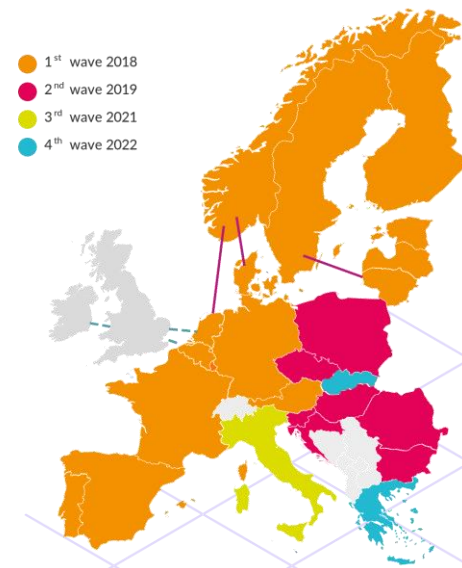


# SIDC-Market-Area

## 12. Evolution of order events and trades



Source: ENTSO-E (2023)



# Green the Flex Project (GtF)



Grant Agreement No. 101038856

"This project has received funding from the EU Innovation Fund under the grant agreement N° 101038856. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the EU Innovation Fund. Neither the European Union nor the granting authority can be held responsible for them."

# Saving 3.500 tCO<sub>2</sub> annually



- Green The Flex (GtF) project
- Small Scale Innovation Fund
- Country: Austria
- Partners: EVN & CyberGrid
- CAPEX 4,4 Mio. €
- Project start: 01.01.2022
- Operations: 01.03.2025 – 2040
- Total CO<sub>2</sub> savings: 60.000 t



# Impact

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Unlock flexibility of **3.000**  
residential customers in Lower Austria

**EVN**  **CyberGrid**





# Monetization of more than 5 GWh flexibility per year

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- **Residential Flexibility Assets:**

- Heat pumps
- Electric car charging stations
- Hot water boilers
- PV
- Battery storage systems

- **Three optimization layers:**

1. Self-consumption optimization
2. Energy Communities optimization
3. Utility optimization

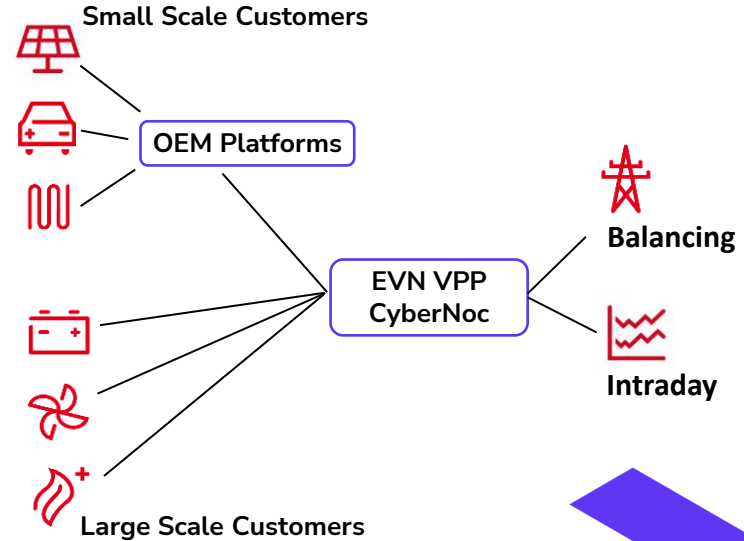
- **Markets:**

- Balancing (FCR and aFRR)
- Intraday market



# Novel, customer oriented, IT tools

- **EVN Customer Portal:**
  - Monitoring of consumption, PV, EV charging
  - Self-consumption and flexibility reports
  - Environmental impact and CO<sub>2</sub> savings
- **EVN OEM Partner Portal for more efficient and scalable project management:**
  - Standardize communication and documentation
  - Maintenance and reporting
  - System integration
- **Virtual Power Plant (CyberNoc):**
  - Battery optimization and swarm-based control
  - EV charging optimization
  - Automatic flexibility asset registration





# GtF Challenges

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Customer  
adoption

Equipment  
delivery

IT security  
requirements

Systems'  
integrations

TSO pre-  
qualification

Cost of  
flexibility





Q & A

**Thank you!**





# Contact us



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