



© Forschungszentrum Jülich / Sascha Kreklau

# JUPITER

JOINT UNDERTAKING PIONEER FOR INNOVATIVE  
AND TRANSFORMATIVE EXASCALE RESEARCH

ISC 2025 | TOP500 | JUNE 10, 2025

THOMAS LIPPERT | KRISTEL MICHIELSEN | ANDERS JENSEN | EMANUEL LE ROUX

Member of the Helmholtz Association



# JUPITER



**JUPITER**  
JOINING FORCES



Ministerium für Kultur und Wissenschaft des Landes Nordrhein-Westfalen



EVIDEN



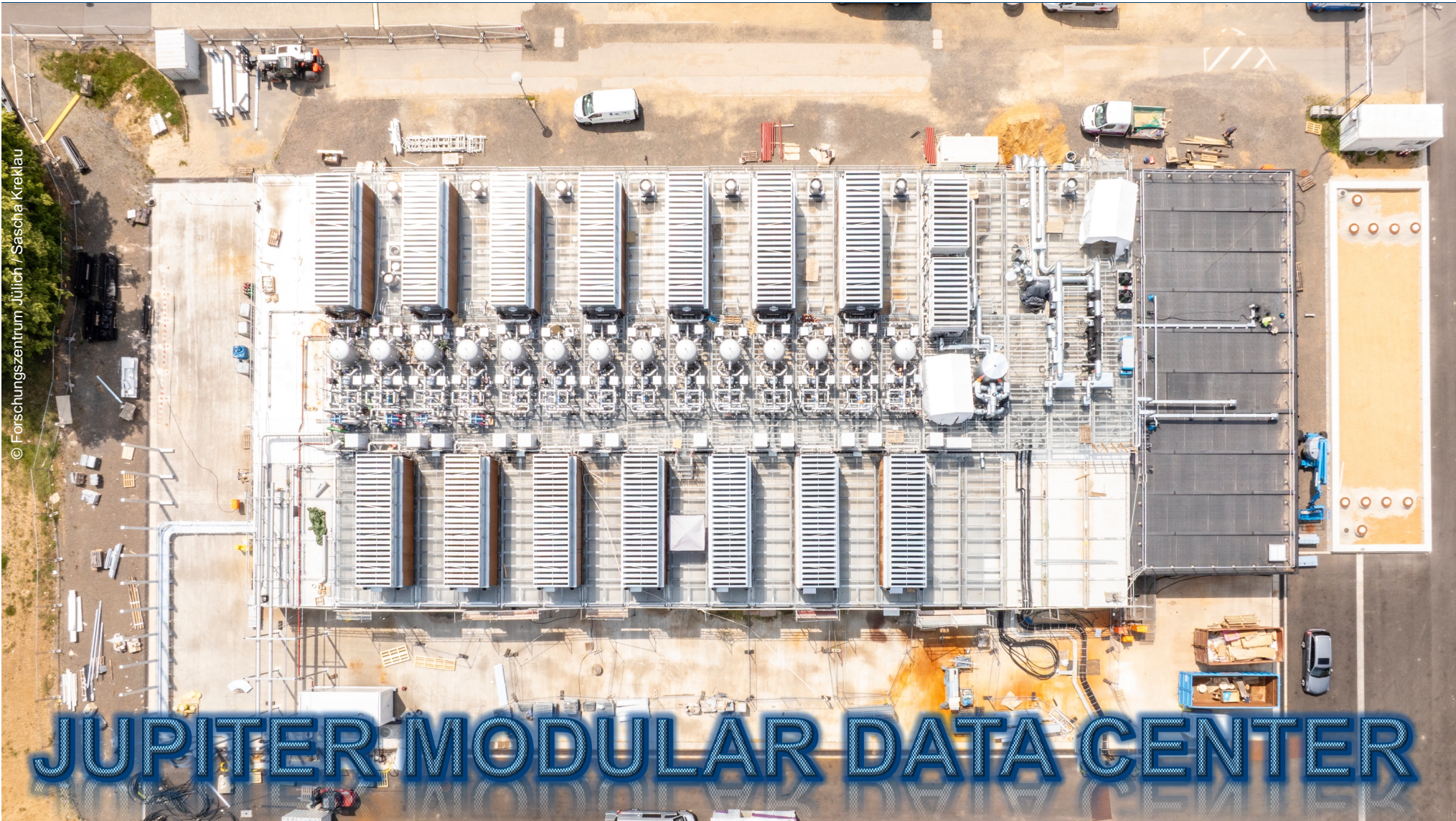
[jupiter.fz-juelich.de](http://jupiter.fz-juelich.de)

# Funders & Partners

# JUPITER – TIMELINE

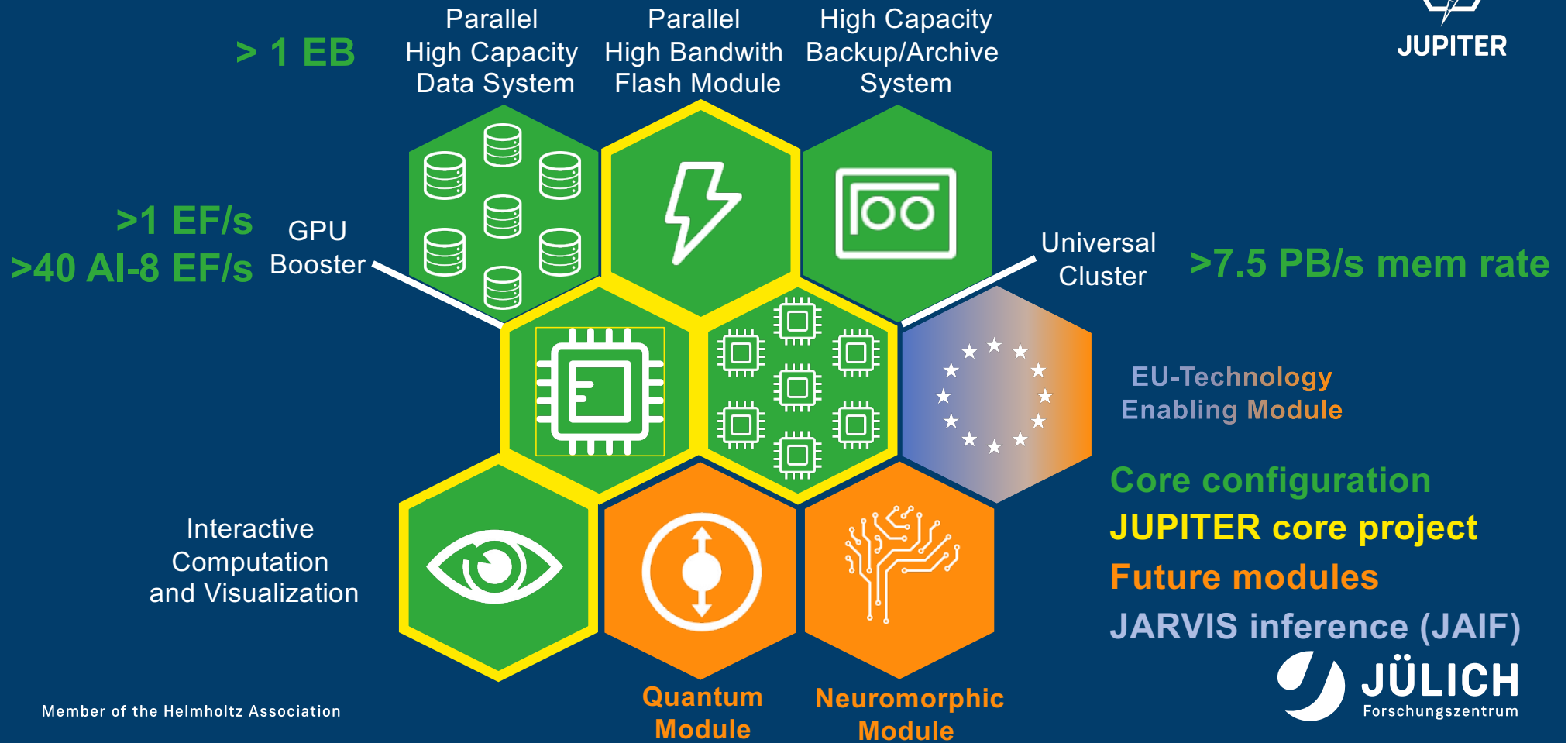
- 14.02.2022 EoI Submission
- 14.06.2022 Hosting site decision
- 14.12.2022 Hosting agreement
- 16.01.2023 Start of procurement
- 03.10.2023 Contract signature
- 01.01.2024 MDC procurement done
- 01.04.2024 Concrete foundation ready
- 01.09.2024 MDC shipping/installation
- 01.2025 Start JUPITER installation
- 05.2025 End JUPITER installation





# JUPITER MODULAR DATA CENTER

# JUPITER and its MODULAR ARCHITECTURE



# THE BOOSTER – RANK 4 ON TOP500 2025

## JUPITER Booster

Large-Scale Simulations & AI

7 double containers

125 Racks BullSequana XH3000

20 Racks per double container

6000 nodes

4 × NVIDIA Grace-Hopper superchips per node

4× NDR200 NICs per compute node

30 PB Flash, 310 PB HDD, 370 PB TAPE

17 MW for LINPACK

EVIDEN



24 000  
NVIDIA Grace Hopper  
Superchips

**JUPITER Booster**  
Large-Scale Simulations & AI



**NVIDIA**

4 GPUs  
4 GPUs  
4 NICs

# THE CLUSTER – JUPITER’S NEXT MODULE

**JUPITER Cluster**  
Data-Intensive Applications

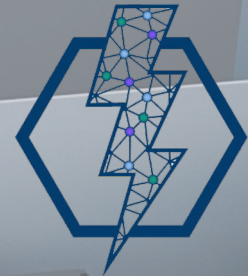


# JARVIS – THE JUPITER INFERENCE MODULE

Greetings from the JUPITER AI Factory

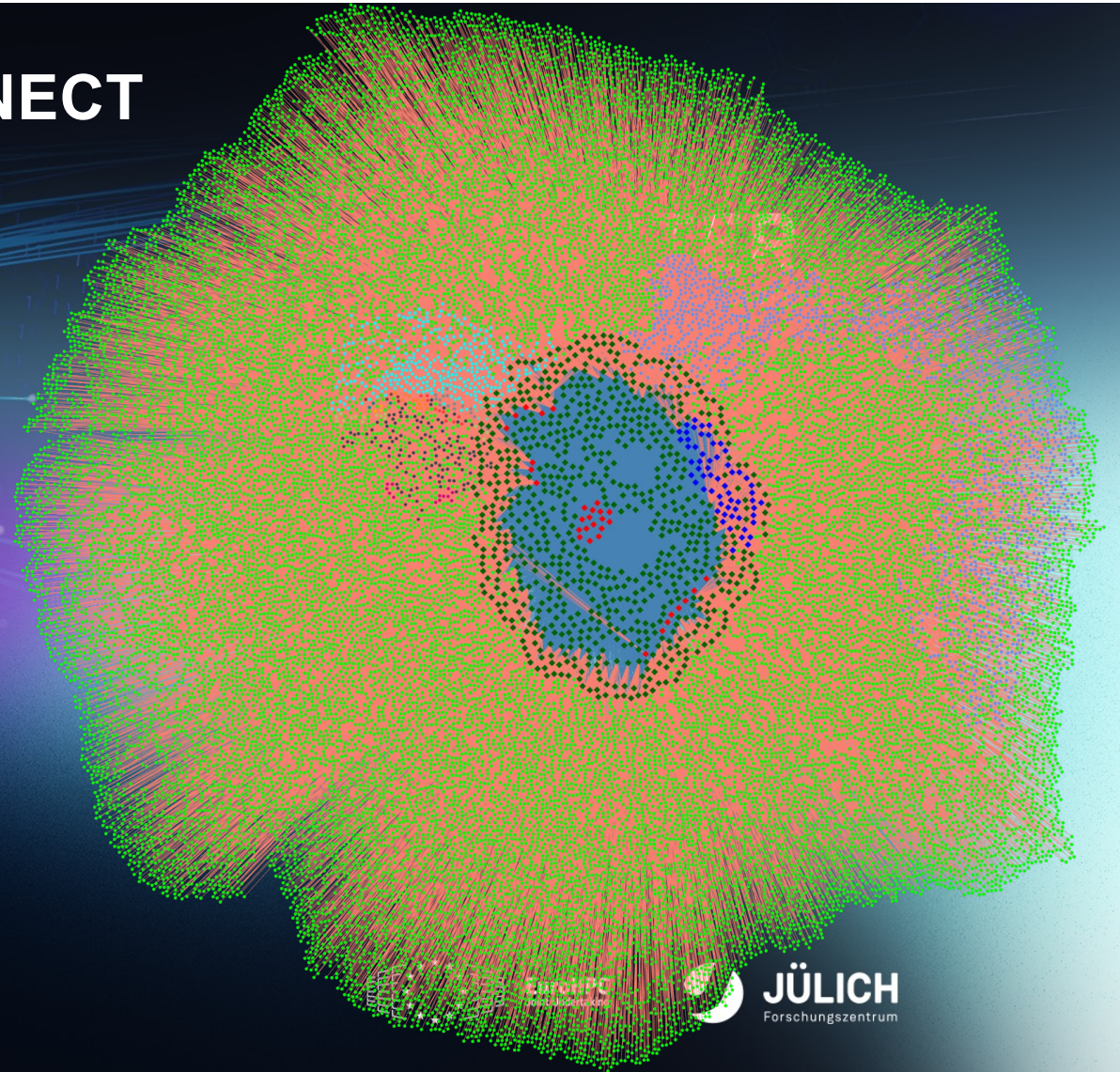
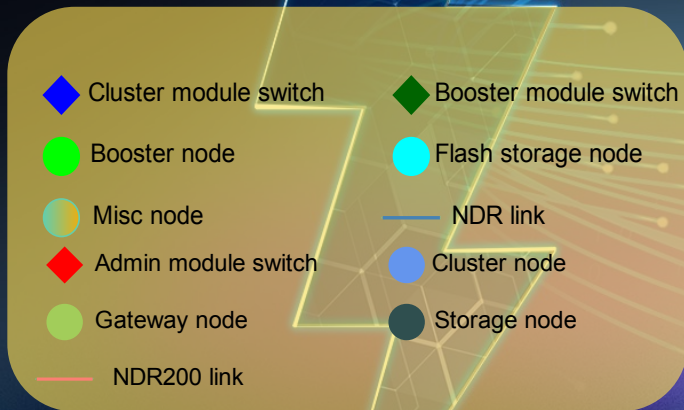
**JARVIS KI Cloud**  
AI Inference

**JUPITER**  
AI FACTORY



# JUPITER – INTERCONNECT

One Net to Rule Them All



# THANK YOU

**JUPITER**  
THE FIRST EXASCALE IN EUROPE

**TO ALL WHO HAVE CONTRIBUTED  
TO BRING JUPITER INTO EXISTENCE**

**SPECIAL THANKS GO TO**

**Benedikt von St. Vieth,  
Thomas Eickermann,  
Andreas Herten and  
Mathis Bode**

