anabrid

Key Message

anabrid delivers the world's most **energy-efficient** supercomputing through hybrid analog-digital technology, solving problems **1000x faster** while using **10,000x less energy** than digital alternatives

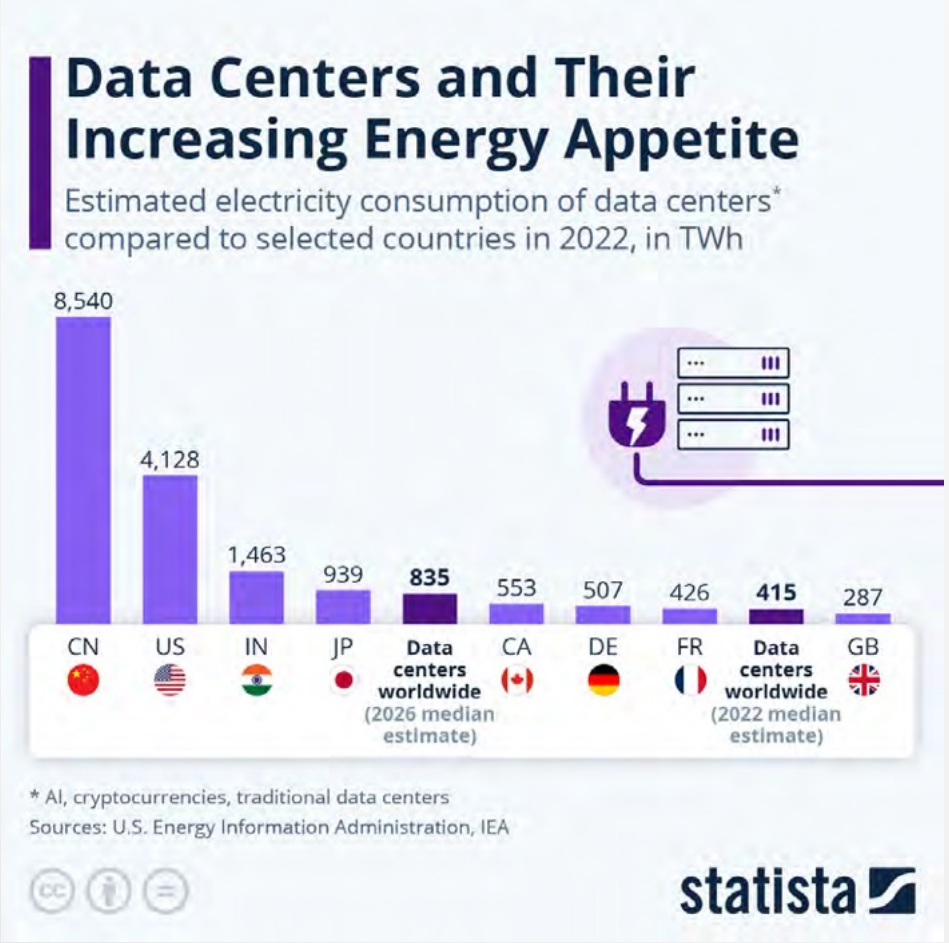
Problem: Digital computing reaches its limits

Solution: Proven analog-digital hybrid

Market: $500B+ computing industry transformation

The computing crisis

Where digital computing has hit the wall



Moore's Law is Ending: Digital systems can't get faster

Rising Energy Use: Rising data workloads drive energy usage through the roof.

Heavy Workloads: Modern problems are too complex for digital tech alone

Our Vision:

"We're reimagining computing by fusing analog and digital technologies to create ultra-efficient, powerful hybrid systems that redefine what's possible."

Lars Heimann, CEO

anabrid

The Analog Advantage

Up to **1,000× faster** than conventional digital systems **regardless of the complexity.**

Up to **10,000× more energy efficient**

Inherently secure and **immune to hacking**

Enables faster innovation with instant, **reconfigurable computing**

Where Digital Falls Behind

Analog/Hybrid Computing Unlocks New Possibilities

Areospace
- Engine Design — Fluid Dynamics
- Flight Control — Trajectory Calculation
- Aerodynamics — Molecular Dynamics

Automotive
- Obstacle Recognition — Image Processing
- Combustion — Artificial Intelligence & Machine Learning
- Path Planning

Health Care and Life Science
- Drug Discovery — Protein Folding
- Medical Imaging — Computational Chemistry
- Devices & Implants — Oscillator Based Computing

Analog Domain

Hybrid Computing

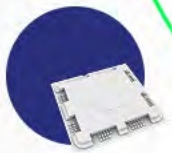
Digital Domain

Digital Output

Manufacturing
- Structural Analysis, FEM — Design Optimization IoT
- Thermo dynamics — Predictive Maintenance
- Electro magnetics — Robotics

Energy & Forecasting
- Electro magnetics — Numerical Climate & Weather Simulation
- Thermo dynamics — Power Grid Optimization & Forecasting

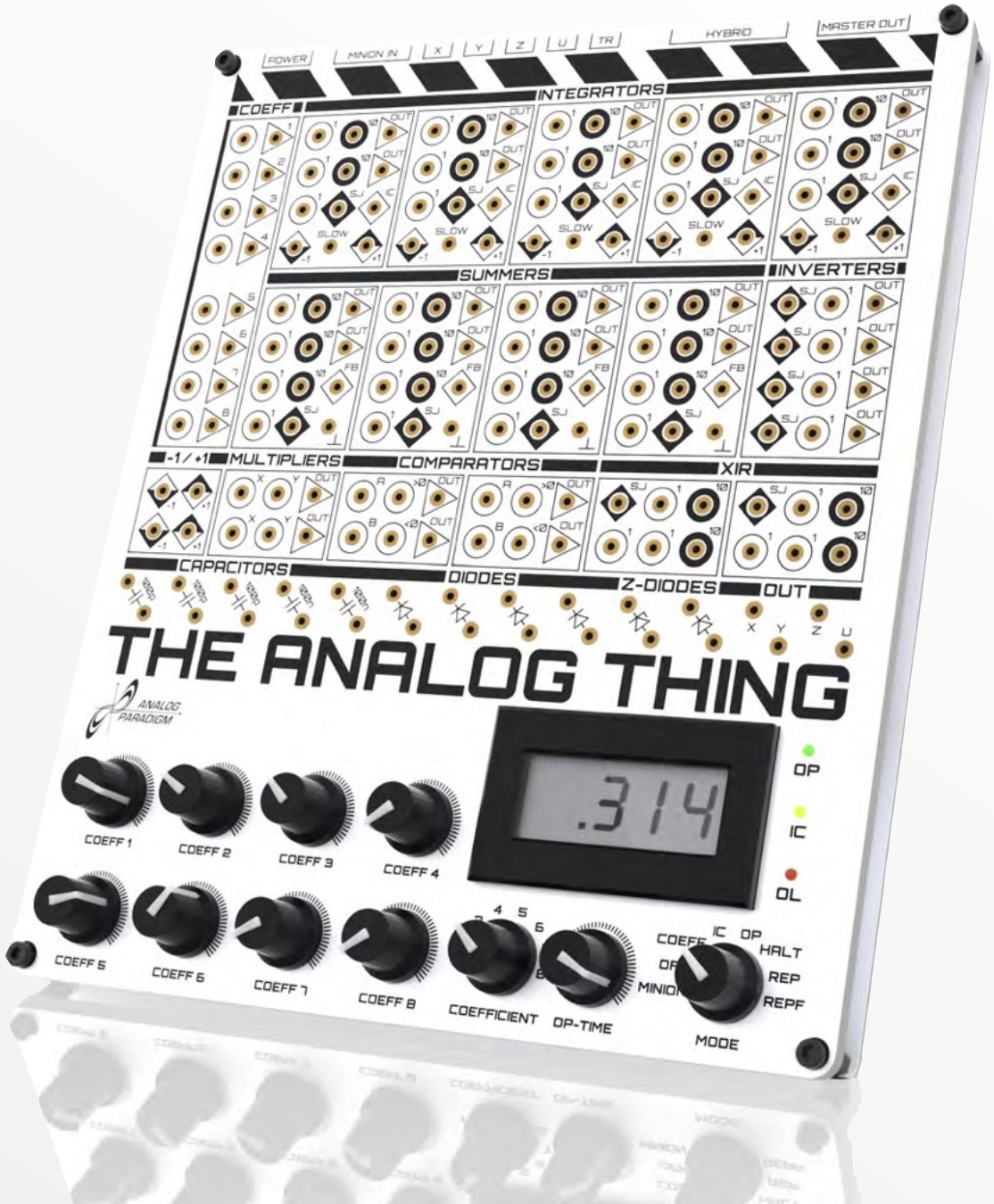
Design Automation & Semiconductor Tooling
- Chip Routing — Chip Layout
- Design Verification — Chip Layout



Making the world Hybrid

THAT is your entry point

- 100% true parallelism
- Seamless entry to analog computing
- Exceptional Energy Efficiency
- Proven track record in education



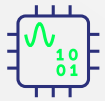
The REDAC

Analog/Hybrid Supercomputing

- Massive **performance boost** for complex simulations
- Highly energy-efficient **at scale**
- **Easy integration** with existing systems
- **Simple, flexible** programming tools
- **2 Pilot Customers** - Active enterprise partnerships

Quantum Collaboration

Strategic Partnerships & Implementation Plan



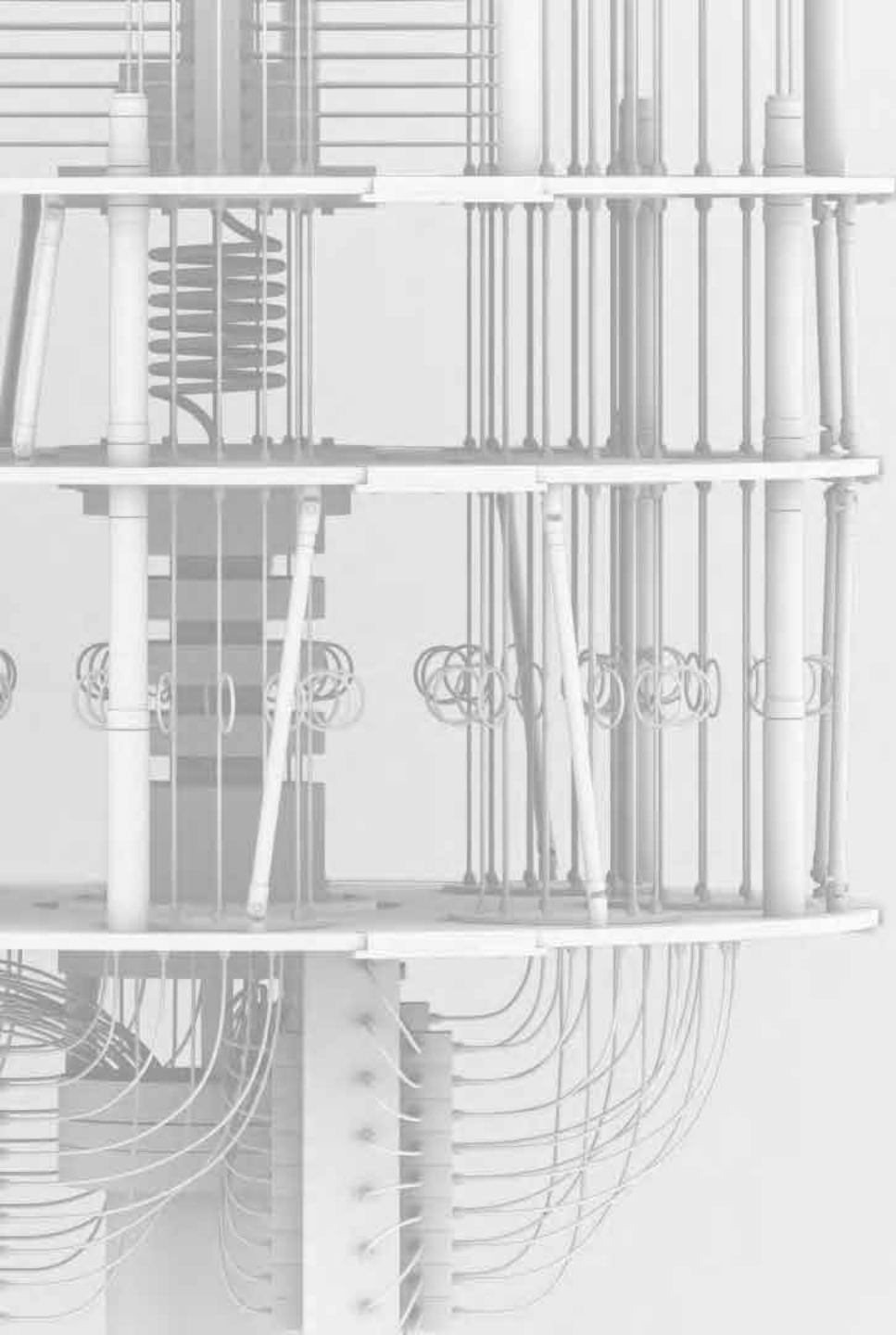
Hybrid Quantum-Classical Control Systems

Quantum Simulation Acceleration

Error Correction & Calibration Systems

Quantum Machine Learning Infrastructure

Quantum Sensing and Metrology

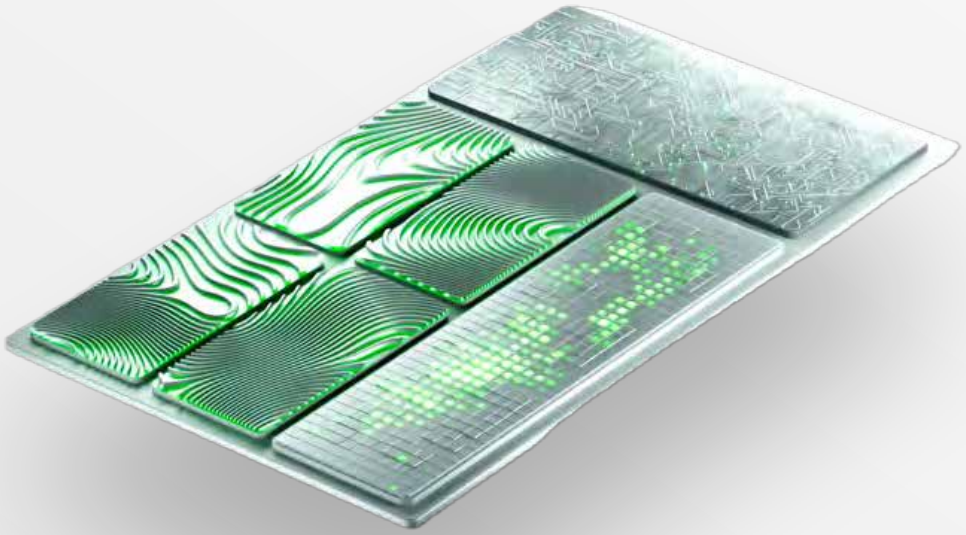


Quantum vs. Analog

- Technological Maturity
- Energy Efficiency
- Integration & Portability
- Scalability
- Affordability
- Versatility
- Potential for Performance Gains

Our Next Goal: Hybrid Chip

The first reconfigurable analog/hybrid realtime chip

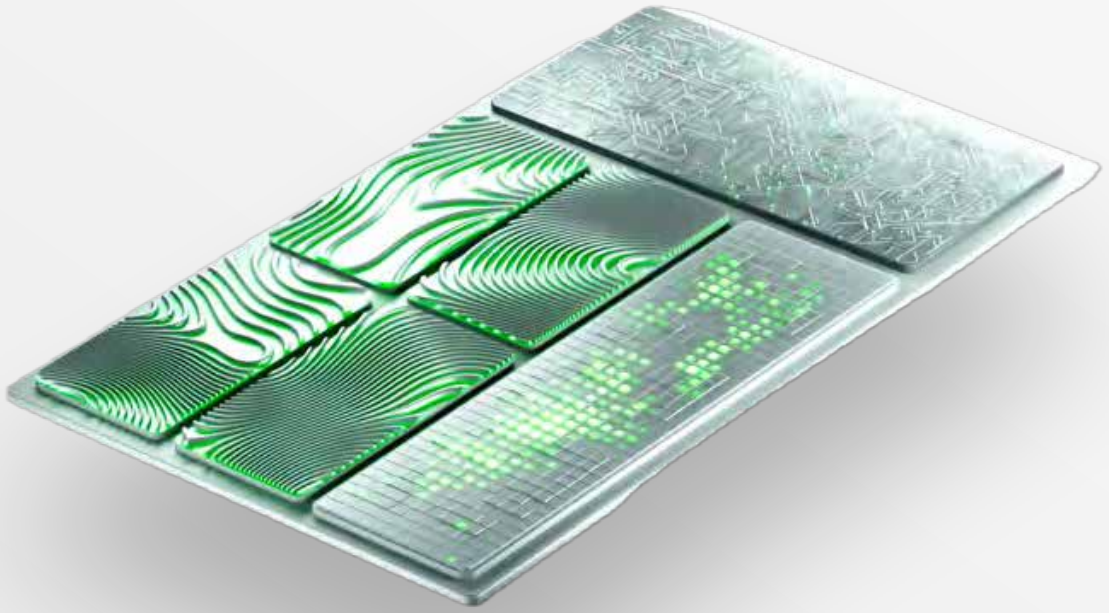


Delivers up to **1000× better energy efficiency** than digital chips—ideal for low-power environments.

Scalable, **Low-cost manufacturing** via standard CMOS processes

Perfect for devices where size, cost, and energy use are critical—from **sensors to wearables.**

How should we name our Chip?



It's fast. It's efficient. It needs a name.

Green innovation made with hybrid computing

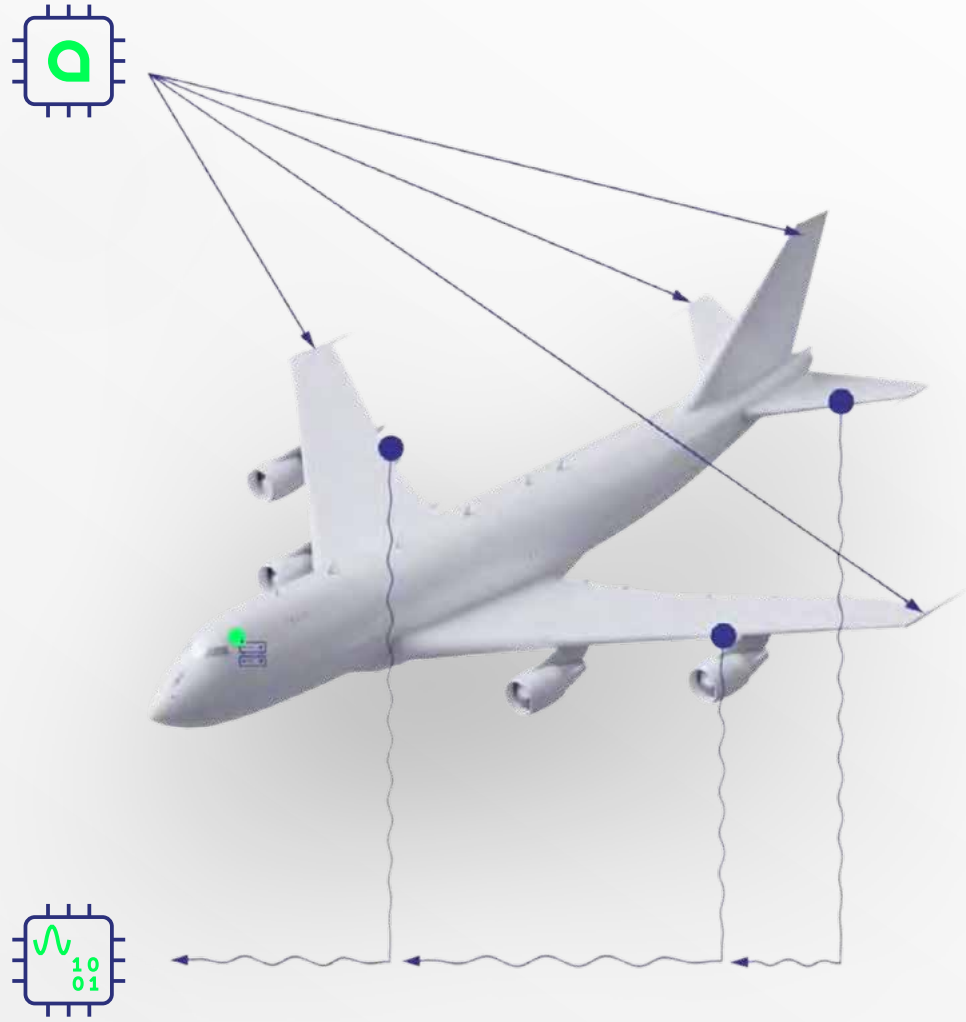
Next-Generation Flight Control

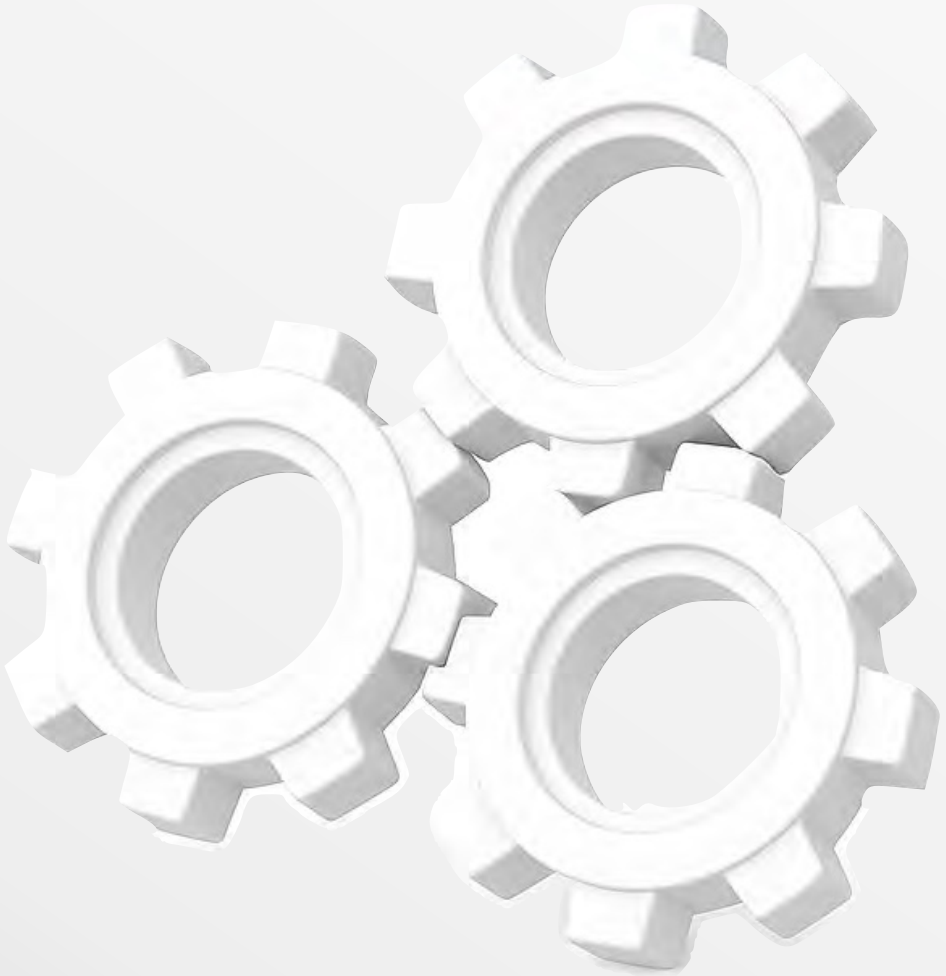
Instant Decision-Making: Reacts to flight changes in real time

Analog-Level Security: No code, no breaches, no digital attack surface

Intelligence in Motion: Adapts to takeoff, turbulence, or failure automatically, in-flight.

Radical Energy Savings: Up to 10,000× more efficient.





Made in Germany

As a proud German startup driving global innovation, we believe in the power of collaboration between industry, research, and government to shape the future of technology for our nation and the world.

European Independence

All components can be manufactured in Europe

Aligns with EU's semiconductor sovereignty goals

Takes advantage of Germany's growing semiconductor ecosystem

Reduces geopolitical risks for customers

Positions them to benefit from EU Chips Act funding and support

The Founders

Decades in Science and Consulting

Dipl.-Ing. Lars Heimann (CEO), is a results-oriented leader with a strong track record of building successful companies and deep expertise in the banking sector.

Prof. Dr. Bernd Ulmann (CVO), is the driving force in analog computing, blending deep academic expertise in mathematics with a strong focus on real-world applications.

Prof. Dr.-Ing. Dirk Killat (Head of Chip Development), leads innovation in efficient chip technology, advancing cutting-edge microelectronics.

Dr. Sven Köppel (CTO), is a quantum physicist with extensive experience in complex simulations whose strategic approach to science leadership is both flexible and effective

The Team

United by excellence, guided by vision

Your Home for Hybrid Computing

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Berlin, Frankfurt, Ulm
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think hybrid