DSAINT

Distributed Sovereign AI Infrastructure Nodes Technology

Securing Germany's Digital Future Through Distributed Sovereign AI Infrastructure

CONCEPT DEVELOPMENT DOCUMENT

BUILDING THE SOVEREIGN AI INFRASTRUCTURE FOUNDATION FOR **EUROPE'S DIGITAL FUTURE**

DIGITAL SOVEREIGNTY | DISTRIBUTED INFRASTRUCTURE | SUSTAINABLE FUTURE | SECURE & RESILIENT | LONG-TERM VALUE

DEMONSTRATOR NODE 01

- BEDBURG-HAU, GERMANY
- 2 MW IT LOAD (EXPANDABLE TO 6 MW)
- TIER III EQUIVALENT | DIRECT-TO-CHIP LIQUID COOLING
- PUE ≤ 1.20 | REDUNDANCY N+1

A DISTRIBUTED NETWORK.
A SOVEREIGN FUTURE.
A STRONGER EUROPE.

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Concept Development Document

Tagline:
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Disclaimer

Concept Development Document – not an offer of securities or investment solicitation.

This document presents the conceptual framework, strategic vision, and development roadmap for DSAINT (Distributed Sovereign AI Infrastructure Nodes Technology). All information contained herein is subject to further technical, financial, regulatory, and commercial validation.

Executive Summary

DSAINT (Distributed Sovereign AI Infrastructure Nodes Technology) is a proposed European sovereign AI infrastructure platform designed to develop, own, and operate a distributed network of high-performance AI infrastructure nodes across Germany and Europe.

Unlike traditional AI companies focused on model development or GPU ownership, DSAINT focuses on long-term infrastructure ownership and operation, creating resilient digital infrastructure capable of supporting future artificial intelligence workloads, sovereign cloud services, defense applications, research initiatives, industrial digitalization, and public-sector innovation.

The project begins with Demonstrator Node 01 in Bedburg-Hau, Germany, serving as the foundation for a scalable European network of sovereign AI infrastructure facilities.

Vision

To establish a distributed network of sovereign AI infrastructure nodes that strengthens European technological independence, digital resilience, and long-term economic competitiveness.

Mission

To develop secure, scalable, energy-efficient AI infrastructure that supports:

- Artificial Intelligence
- High-Performance Computing (HPC)
- Sovereign Cloud Services
- Digital Government Services
- Research & Innovation
- Industrial Digital Transformation
- Civil and Defense Applications

Strategic Objectives

Digital Sovereignty

Enable European organizations to host and process strategic workloads within sovereign infrastructure environments.

Infrastructure Resilience

Reduce dependence on centralized hyperscale infrastructure through geographically distributed deployment.

Economic Development

Create high-value infrastructure investments that stimulate local and regional economic growth.

Sustainable Growth

Implement energy-efficient technologies and heat reuse systems to minimize environmental impact.

Long-Term Asset Ownership

Create durable infrastructure assets capable of generating recurring revenue throughout multi-decade operational lifecycles.

Demonstrator Node 01

Location

Bedburg-Hau, Germany

Initial Capacity

2 MW IT Load

Expansion Capacity

Up to 6 MW

Classification

Tier III Equivalent

Cooling System

Direct-to-Chip Liquid Cooling

Power Usage Effectiveness (Target)

PUE ≤ 1.20

Redundancy

N+1

Infrastructure Components

AI Infrastructure Core

Primary data center facility designed for AI and HPC workloads.

Administration & Operations Building

Operational command center supporting facility management and customer services.

Maintenance & Storage Building

Technical support and storage functions.

Dedicated Substation

20kV / 110kV electrical infrastructure.

Cooling Plant

High-efficiency liquid cooling infrastructure.

Security Infrastructure

Dual-perimeter security architecture including controlled access points and security airlocks.

Parking & Support Facilities

Employee and visitor support infrastructure.

Employee Housing

Integrated workforce accommodation.

Visitor & Demonstration Center

Public engagement and stakeholder presentation facility.

Sustainability Strategy

DSAINT incorporates sustainability principles throughout infrastructure design.

Heat Reuse

Potential integration with:

- District heating systems
- Agricultural greenhouse operations
- Municipal energy programs

Geothermal BTES System

Potential implementation of:

- Borehole Thermal Energy Storage
- Seasonal thermal balancing
- Sustainable cooling support

Energy Efficiency

Target industry-leading operational efficiency through:

- Direct liquid cooling
- Intelligent infrastructure management

- Advanced energy monitoring

Business Model

DSAINT operates as an Infrastructure-as-a-Platform (IaaP) company.

Revenue opportunities may include:

- Infrastructure Leasing
- Data Center Operations
- Power Delivery Services
- Cooling Services
- Security Services
- Managed Infrastructure Services
- Sovereign AI Infrastructure Hosting

The business model focuses on ownership of:

- Land
- Buildings
- Power Infrastructure
- Cooling Infrastructure
- Security Infrastructure
- Connectivity Infrastructure

rather than ownership of rapidly depreciating computing hardware.

Expansion Roadmap

2026

Demonstrator Node 01

Bedburg-Hau, Germany

2028

Three operational nodes in Germany

2032

Six operational German nodes

2036

Twelve core infrastructure nodes

2040

Pan-European sovereign AI infrastructure network

Target countries may include:

- Netherlands
- Belgium
- France
- Denmark
- Poland
- Czech Republic
- Austria
- Italy
- Spain
- Sweden
- Finland

Governance Framework

DSAINT is envisioned to operate under a structured governance model consisting of:

Supervisory Board

Strategic oversight and governance.

Executive Team

Operational leadership and execution.

Technical Governance Board

Technology standards and infrastructure architecture.

Security Committee

Cybersecurity and physical security oversight.

Sustainability Committee

Environmental performance and energy strategy.

Key Benefits

For Municipalities

- Regional economic development
- Skilled employment opportunities
- Enhanced digital infrastructure
- Potential heat reuse benefits

For Industry

- Sovereign AI infrastructure access
- High-performance computing capacity
- Secure data processing environments

For Research Institutions

- Access to advanced computing resources
- Collaboration opportunities
- Innovation ecosystem development

For Europe

- Increased technological sovereignty
- Reduced infrastructure concentration risk
- Strategic digital resilience

Conclusion

DSAINT represents a long-term vision for distributed sovereign AI infrastructure across Germany and Europe.

By combining infrastructure ownership, energy-efficient design, resilient architecture, and strategic expansion, DSAINT aims to contribute to Europe's digital sovereignty while creating sustainable infrastructure assets capable of supporting future generations of AI-driven innovation.

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