MCP SERVER | NO CODE | CLOUD HOSTED

Eurostat Environment MCP

Benchmark EU Carbon Emissions & Energy Flows

Eurostat Environment — EU Green Data provides immediate access to official environmental and energy statistics for all 27 European Union member states. It tracks everything from greenhouse gas emissions by sector (Paris Agreement compliance) to detailed energy balance sheets, electricity prices, and renewable energy shares. You get complete data on waste generation, agriculture production, and national carbon footprints —all in one place.

A+ Quality Score 100/100

greenhouse-gas | energy-balance | renewable-energy | environmental-data | carbon-emissions | sustainability

MAINTAINED BY VINKIUS CLOUD FOR AI AGENTS · JUNE 2026
vinkius.com/mcp/eurostat-environment-eu-green-data

SCAN TO VIEW

The infrastructure that powers AI agents in the real world.

Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Eurostat Environment — EU Green Data MCP

6 tools available
Cloud-hosted on Vinkius

Tracking the EU Green Deal requires deep dives into complex datasets: which country's emissions are rising? How does a nation’s mix of power sources compare to its neighbors? This MCP connects you directly to official Eurostat data, eliminating weeks of manual API calls and spreadsheet wrangling. Instead of sifting through disparate reports on carbon output, energy consumption, or agricultural yields, your agent runs the necessary queries instantly. You can get granular breakdowns of greenhouse gas emissions by specific sectors—like transport or industry—or map out a country's entire energy flow, tracking everything from initial production to final consumption. It makes comparing complex sustainability metrics across dozens of nations something you do in minutes. When you connect this MCP via Vinkius, your AI client acts like an expert researcher, synthesizing raw data into actionable reports on waste management trends or the real-time comparison of industrial versus household gas prices.

Core Capabilities

01 — Track National Emissions

You can pull detailed greenhouse gas emissions for any EU country and break them down by source sector (energy, transport, agriculture).

02 — Map Energy Flows

Retrieve a complete picture of an EU member state's energy system, including production, imports, exports, and total consumption across all sources.

03 — Compare Utility Pricing

Get semi-annual data showing the specific costs of electricity and gas for both industrial operations and residential households.

04 — Assess Green Transition Targets

Check a country's current renewable energy share against its national targets and regional averages.

05 — Analyze Waste Streams

Gather statistics on how EU nations generate, recycle, or landfill their waste products for circular economy assessments.

06 — Review Agricultural Output

Access official data on crop yields and livestock production essential for Common Agricultural Policy (CAP) analysis.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/eurostat-environment-eu-green-data** — connect your AI agent in three steps.

01 Start by asking your AI client a specific question, like 'Compare the gas prices in Germany versus Hungary.'

02 Your agent identifies that this MCP has the necessary tools and automatically executes the relevant calls, gathering official data points.

03 The system returns structured data—for instance, a table listing electricity costs for both households and industries across multiple countries.

The bottom line is you talk to your AI client like talking to a human analyst; it handles all the complex data retrieval from Eurostat behind the scenes.

Built For

This MCP is for policy analysts, sustainability consultants, and energy sector researchers. You're the person who gets paid to know exactly how much carbon a country can afford to emit or which market segment needs immediate regulatory attention. If your job involves benchmarking national performance against international standards, this data saves you endless hours.

Policy Analyst

Using the MCP, they compare historical trends in greenhouse gas emissions to model the impact of new EU regulations and track compliance with targets.

Sustainability Consultant

They use the data to create reports comparing waste treatment methods or renewable energy shares across multiple clients' operating regions.

Energy Economist

They analyze electricity and gas prices over time, contrasting industrial costs with household rates to forecast market volatility.

What Changes When You Connect

01 You stop guessing about carbon compliance. Using get_emissions, you pull verified greenhouse gas data by sector, making your Paris Agreement tracking accurate and immediate.

02 Mapping a country's entire energy system is simple with get_energy_balance. You see the complete picture—from where the power comes from to how much it’s consumed—all in one call.

03 Forget cross-referencing utility sites for costs. get_energy_prices gives you specific, comparable data on electricity and gas rates for both industry and homes.

04 You can instantly measure progress toward green goals. The get_renewable_energy tool helps you benchmark a nation's clean energy share against the 2030 targets.

05 The waste management picture is clear using get_waste_statistics. You track generation, recycling rates, and landfill volume for policy recommendations.

06 Need to understand food security? get_agriculture_data pulls official figures on crop production and livestock that are crucial for CAP analysis.

Real-World Applications

Modeling Carbon Reduction Strategy

A climate consultant needs to show a client how much their emissions will drop if they shift from transport energy sources. They ask the agent to combine get_emissions (by sector) with get_energy_balance data to build a comprehensive, verifiable model.

Comparing Cost of Living Indices

A financial analyst needs to compare the true cost of running a small business in three different EU countries. They use get_energy_prices to pull industrial electricity and gas rates for a direct, accurate comparison.

Assessing Circular Economy Readiness

A municipal planner is tasked with identifying best practices for waste reduction across the continent. They run get_waste_statistics to compare recycling vs. landfill percentages in several nations.

Evaluating EU Food Policy Impact

An agricultural economist needs baseline data on staple crops and livestock yields. Using get_agriculture_data, they gather the necessary information to assess the impact of changing CAP subsidies.

Patterns to Avoid

Manual API Scraping

✗ AVOID

The user spends half a day hitting multiple Eurostat web pages and manually downloading CSV files for different time periods (e.g., 'energy prices 2018' vs 'emissions 2019'). This is slow, tedious, and error-prone.

✓ INSTEAD

Ask your agent to use get_energy_prices and get_emissions in a single prompt. The MCP handles the complex data orchestration, returning structured, comparative results instantly.

Using General Data Sources

✗ AVOID

Relying on think-tank estimates or private industry reports that use proprietary methodologies, making it impossible to benchmark against official EU standards.

✓ INSTEAD

Stick to this MCP. It connects directly to Eurostat, ensuring all data—like get_energy_balance figures—are based on the definitive, official sources.

Ignoring Sector Granularity

✗ AVOID

Only looking at total GHG emissions without knowing which sector (transport or industry) is responsible for the increase. This leads to incorrect policy recommendations.

✓ INSTEAD

Use get_emissions and specify the breakdown by source sector in your prompt; this gives you the necessary granularity to pinpoint problem areas.

The Right Fit

You should use this MCP if your work requires definitive, cross-national comparison of public utility data: energy costs, emissions tracking, or sustainability metrics. If you need to model climate risks using official EU standards for things like get_emissions (GHG by sector) or assessing national green goals via get_renewable_energy,

this is the tool. Don't use it if your goal is internal company performance tracking; this data applies only to sovereign nation statistics and cannot reflect your private operational metrics. Also, don't rely on it for real-time commodity market pricing; while get_energy_prices gives semi-annual rates, it isn't a live ticker feed. Use this when accuracy, scope (the whole EU), and official source validation are non-negotiable.

The Challenge of Global Benchmarking

Right now, comparing environmental performance across the 27 member states is a bureaucratic nightmare. You open dozens of government websites, downloading PDFs and separate CSV files for emissions, energy mixes, waste generation, and agriculture—all dated differently. You spend hours just trying to align the time periods and data methodologies before you even start analyzing anything.

With this MCP, your agent handles all that messy cross-referencing. Ask it to compare get_emissions trends between France and Poland side-by-side, and it pulls the official Eurostat figures for both countries into a clean dataset. You go from days of data wrangling to seconds of insight.

Get Reliable EU Green Data With Eurostat Environment — EU Green Data MCP

Manual processes force you to use disparate tools for different metrics. You might pull get_waste_statistics from one source and then have to manually find the corresponding energy usage data using a separate query. This disconnect breaks your analysis.

This single MCP unifies that entire spectrum of environmental and economic data. By combining calls like get_energy_balance with get_renewable_energy, you create a holistic picture instantly—a level of comprehensive comparison that was previously impossible without a dedicated team.

Eurostat Environment — EU Green Data: 6 Tools

Use these six tools to retrieve authoritative environmental and energy statistics from the European Union for detailed policy modeling and comparative analysis.

#	TOOL	DESCRIPTION
01	`get_emissions`	Retrieves EU greenhouse gas emissions data broken down by country and specific source sector.
02	`get_energy_balance`	Provides a comprehensive view of an EU nation's energy system, listing production, imports, exports, and consumption totals.
03	`get_energy_prices`	Gathers semi-annual pricing data for electricity and gas used by both industrial and residential customers.
04	`get_renewable_energy`	Calculates the share of renewable energy in a country's total gross final consumption.
05	`get_waste_statistics`	Collects official figures on how EU countries generate, recycle, and dispose of waste products.
06	`get_agriculture_data`	Pulls detailed production data for various crops and livestock across the European Union.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U Which EU countries have the highest share of renewable energy?

EU Renewable Energy Share

SE Sweden: 65.5%
FI Finland: 47.9%
LV Latvia: 43.3%
DK Denmark: 41.6%
EE Estonia: 38.0%
...
EU27 average: 23.0%
2030 target: 42.5%

Hydro (Nordics) and wind (Denmark) drive the leaders.

U Compare electricity prices for households across the EU

Household Electricity Prices (EUR/kWh)

Most expensive:
DE Germany: 0.417
DK Denmark: 0.391
BE Belgium: 0.357

Cheapest:
BG Bulgaria: 0.117
HU Hungary: 0.103

EU average: 0.285

U How have EU greenhouse gas emissions changed since 1990?

🌍 EU27 GHG Emissions Trend

1990: 5,653 Mt CO2eq (baseline)
2005: 5,152 Mt (-8.9%)
2019: 4,067 Mt (-28%)
2020: 3,723 Mt (-34%, COVID)
2022: 3,892 Mt (-31%)

EU targets: -55% by 2030, net-zero by 2050.
Energy sector: largest reduction. Agriculture: stagnant.

Frequently Asked Questions

01 **What time period does the Eurostat Environment — EU Green Data MCP cover for emissions?**

This MCP pulls historical data, allowing you to track trends over decades. You can compare current figures with baseline years required for Paris Agreement tracking.

02 **Can I use get_energy_balance to compare different types of energy sources?**

Yes, the tool provides a complete breakdown by source, allowing you to see how production, imports, and consumption vary across various energy types in an EU country.

03 **Is the data from get_energy_prices current?**

The pricing data is semi-annual. This means it reflects official published rates for specific reporting periods (like electricity or gas) and won't be a live ticker feed.

04 **How do I check if an EU country meets its renewable energy goals using get_renewable_energy?**

You can run the tool to get the current share of renewables for any nation, which you then compare directly against the stated 2030 target percentage in your prompt.

05 **Does Eurostat Environment — EU Green Data MCP include agricultural data?**

Yes, using get_agriculture_data provides official figures on crop production and livestock for analysis related to the Common Agricultural Policy (CAP).

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"eurostat-environment-eu-green-data": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Eurostat Environment — EU Green Data is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

INDEPENDENT PLATFORM DISCLAIMER

DOCUMENT INFORMATION

Generated	June 2026
MCP Server	Eurostat Environment — EU Green Data MCP
Server ID	`019d7592-1d38-733e-98b2-fc129e49f137`
Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

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