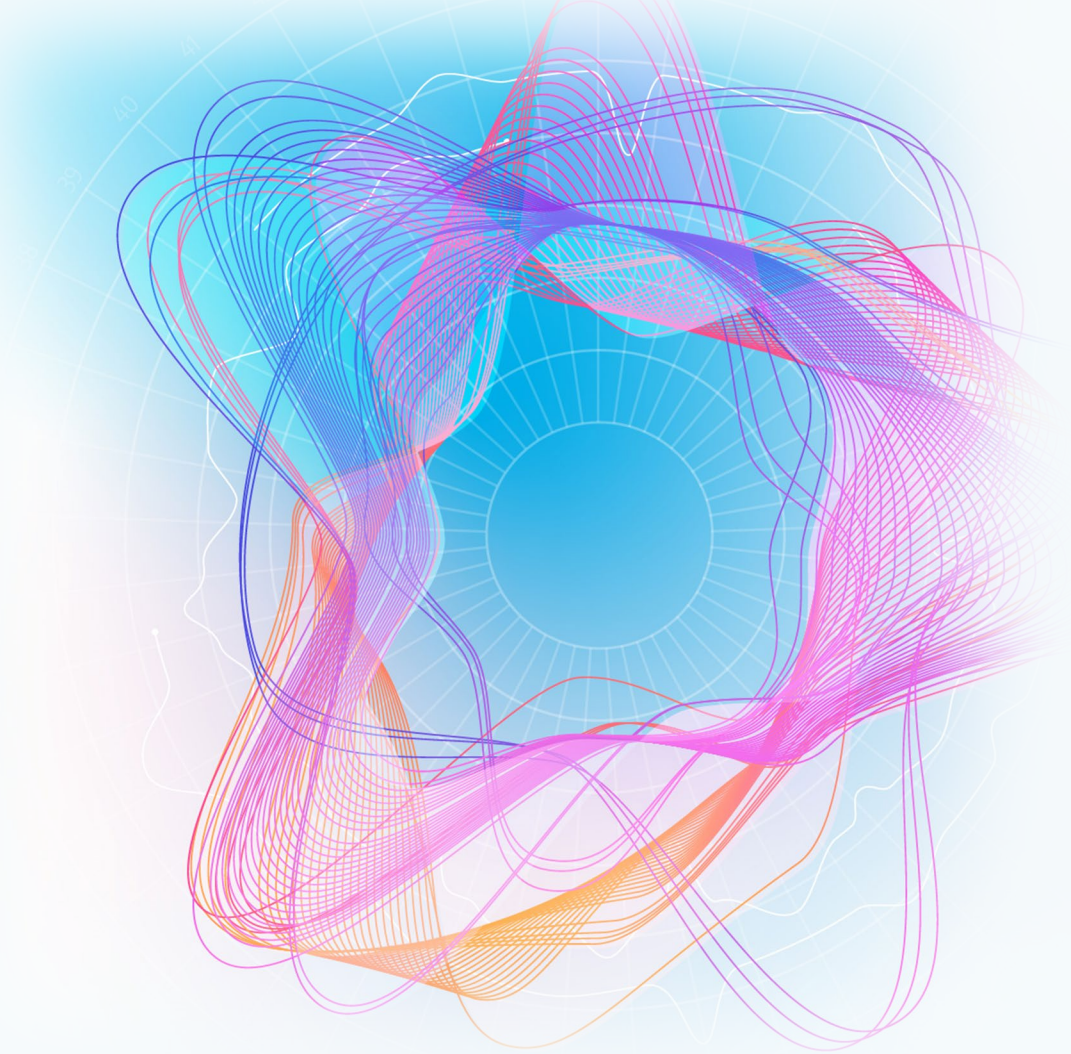


Datahub AI

Demo and lessons learned

Fredrik Eriksson, Senior Data Scientist, ITU

September 2026

ITU | ITUWTIS GENEVA2026

Datahub AI to improve access ITU data and methodology

Make methodology easier to find and understand

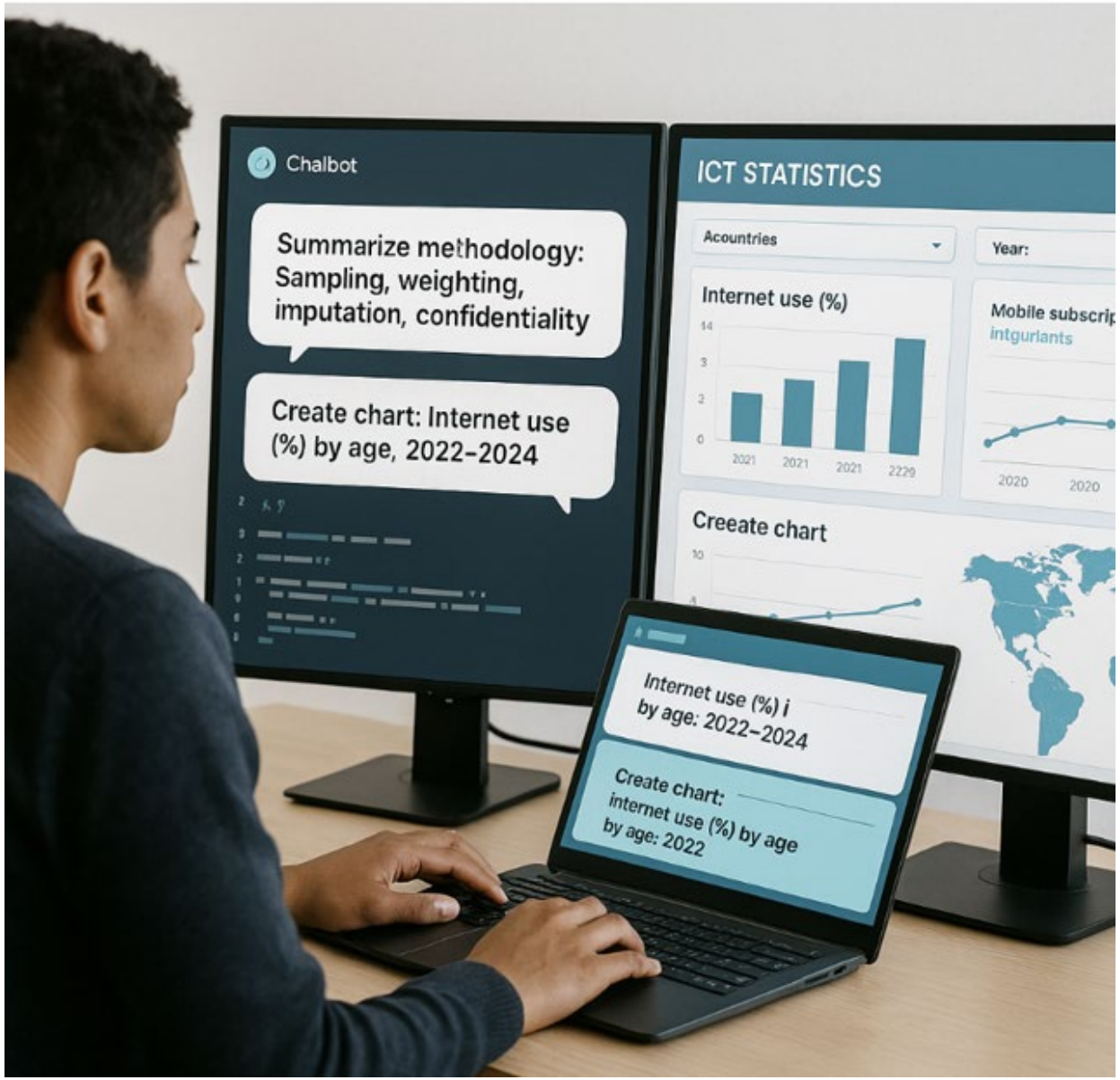
Access methodologies, definitions and technical guidance through natural-language questions.

Explore publications, events and other ITU resources

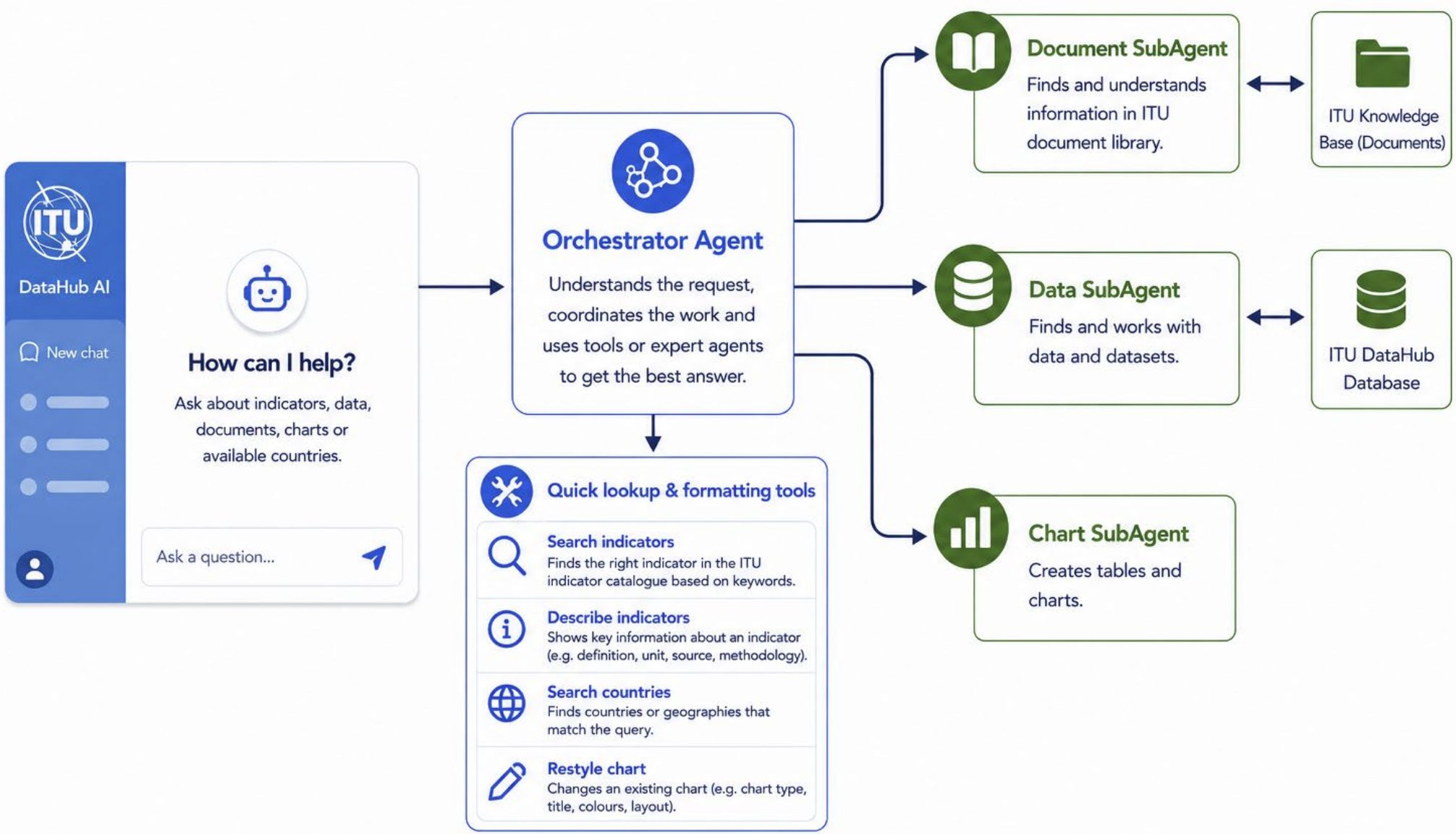
Ask questions about analytical publications, expert group work, events and other content.

Explore ITU data and create visualizations on demand

Find indicators and countries, retrieve data and generate custom charts and maps.



Multi-agent architecture to retrieve the correct content



DEMO

Scope & infrastructure

- Define clearly what the assistant **should — and should not — do**
- Choose infrastructure based on the goal: **reusable open-source solution vs. managed service**
- **Open source supports reuse**, but may require more development, maintenance and scaling effort
- For a managed service, leverage **cloud/native tools already available in your environment**

Accuracy & testing

- **Invest heavily in testing** — it is essential for a reliable system
- Test systematically: **160 questions** compared against expected answers
- **Investigate poor results manually** to identify root causes
- Quality depends on the **whole pipeline** — documents, chunking, retrieval and model choice

Costs & performance

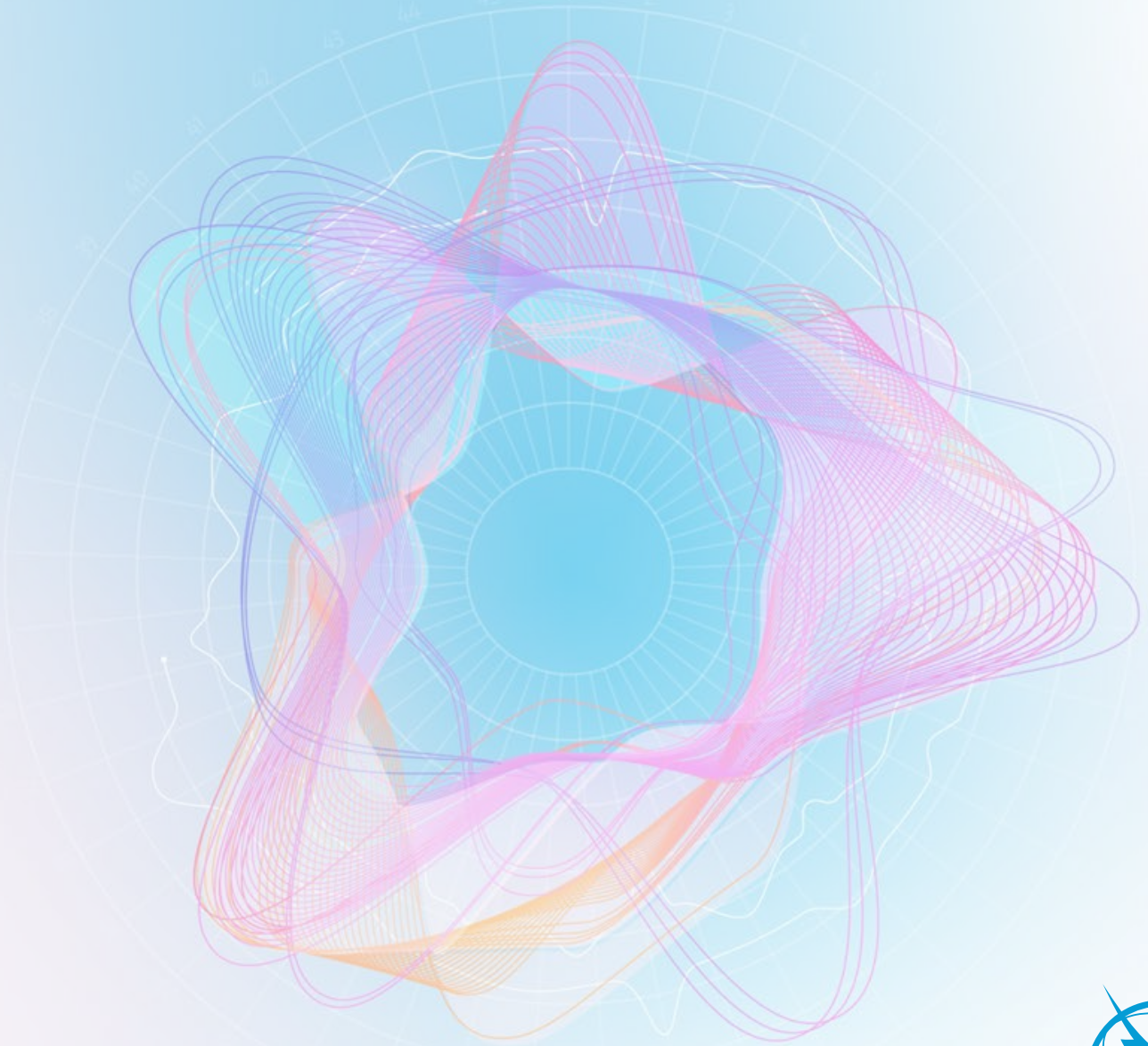
- LLM costs are driven by **input and output tokens** — and can add up quickly
- Input grows with **context, retrieved chunks, conversation history and agent/tool iterations**
- Balance **model quality, cost and speed** — the strongest model is not always needed
- **Optimize continuously**: specialized agents, smaller contexts and caching can substantially reduce costs

Governance & safeguards

- **Monitor costs and usage** to detect unexpected activity or misuse
- **User registration and authentication** provide control and accountability
- Reduce hallucinations through **trusted sources, constrained tools and clear system instructions**
- Define **what the AI can access, answer and execute** — and how it should respond when it cannot

DEMO CONTINUED

Thank you



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