Tokenising Geospatial Data

GEOSPATIAL FRAMEWORKS
Maximising your spatial investment

Building a Sustainable Geospatial Knowledge Economy for the AI Era

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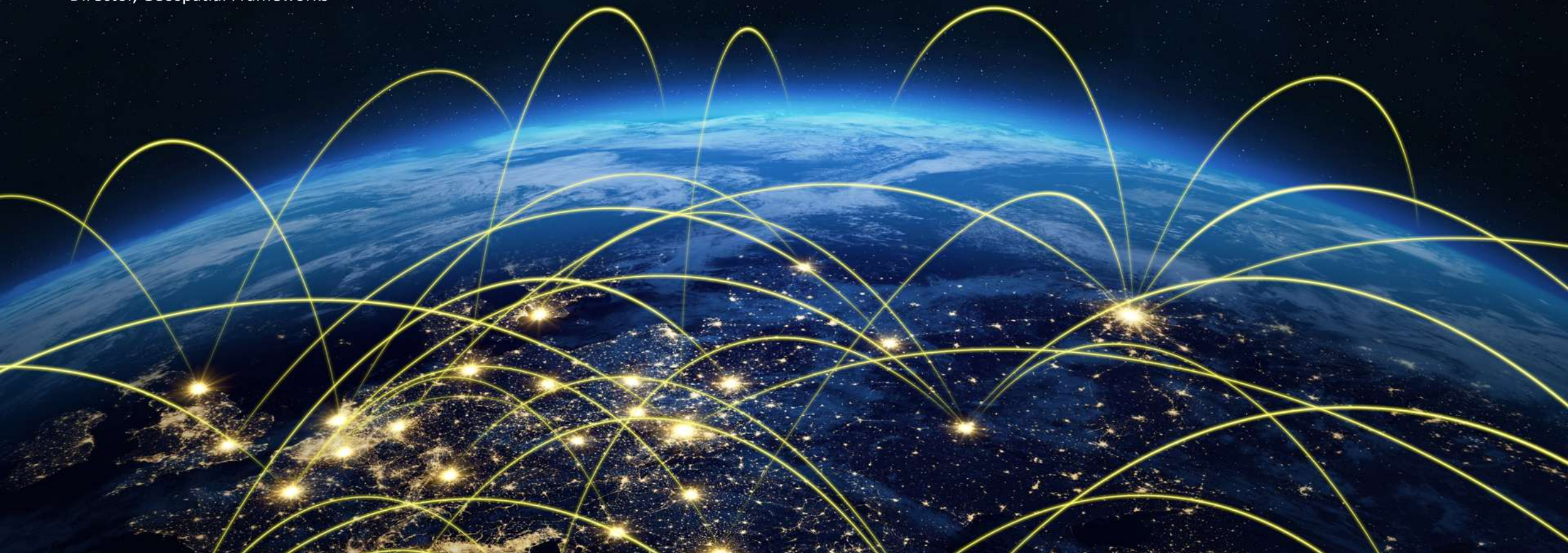


AI will create a massive wave of questions against geospatial data.

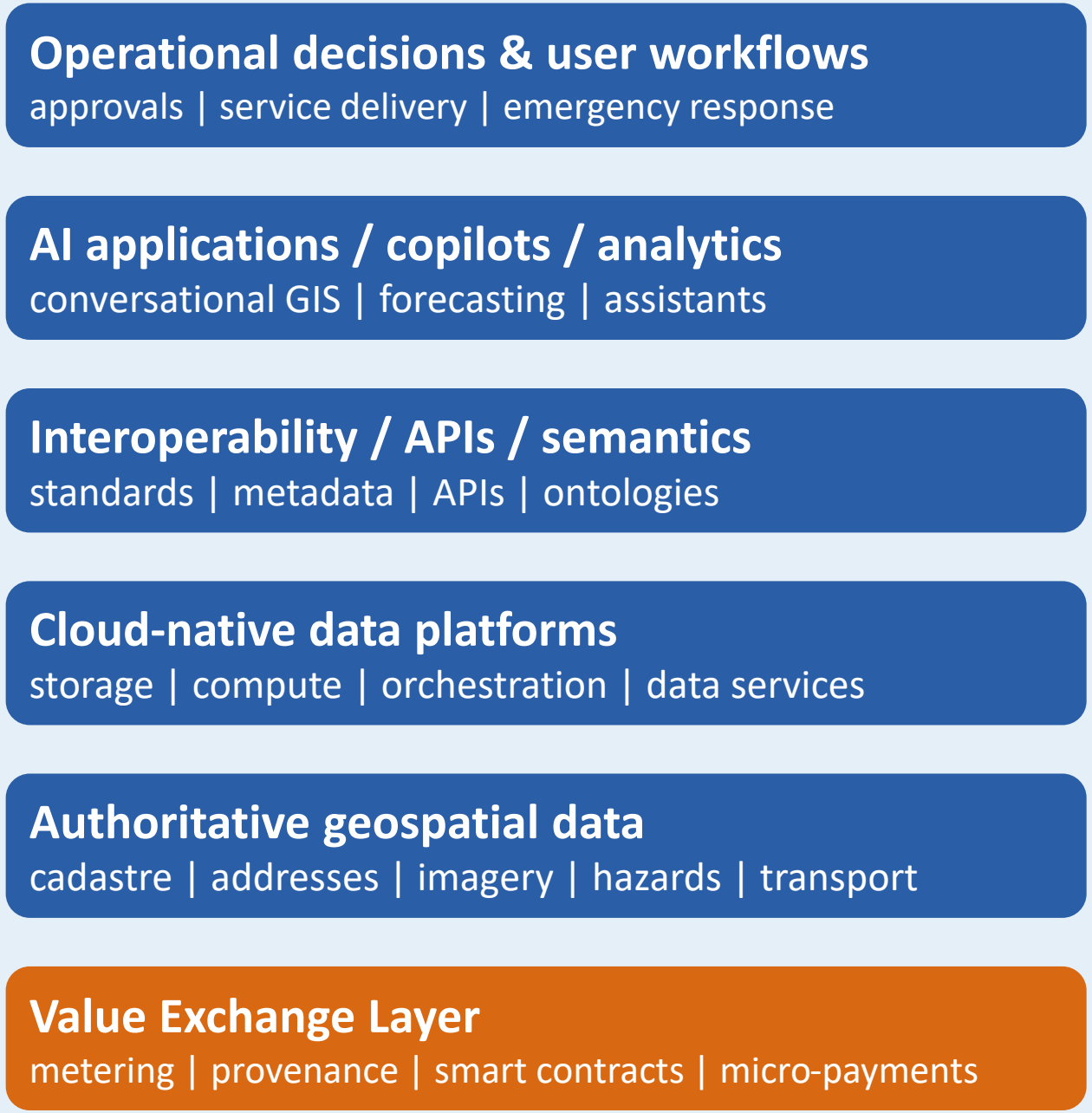
The future GKI stack needs to be ready.

A modern GKI stack needs a value exchange layer

Cloud, AI and interoperability are essential, but incomplete for AI-scale geospatial use

If demand for geospatial intelligence is increasing drastically, how do we sustainably fund the data that underpins it?

Open data solved access.
It did not solve sustainability

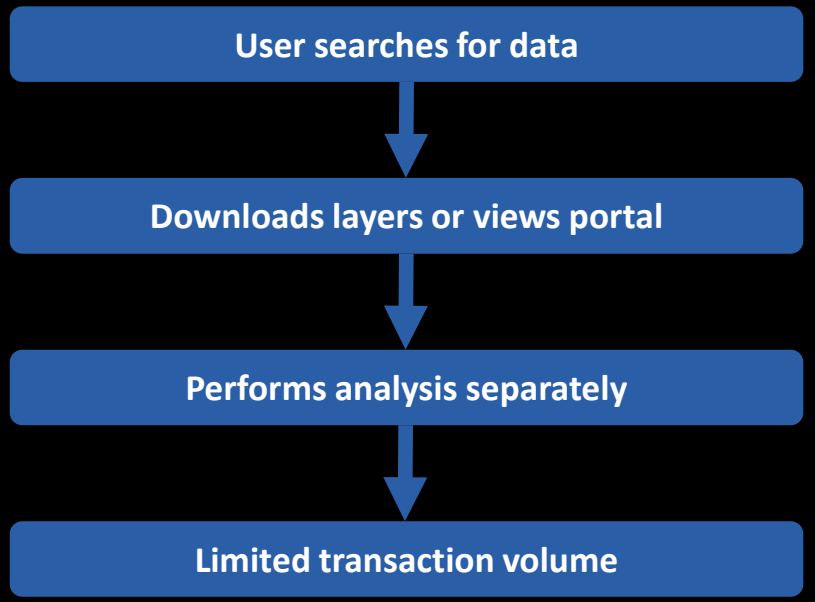


AI is changing geospatial from visible human use to invisible machine consumption.

AI changes the economics of geospatial data use

The shift is from visible human access to high-frequency background machine use

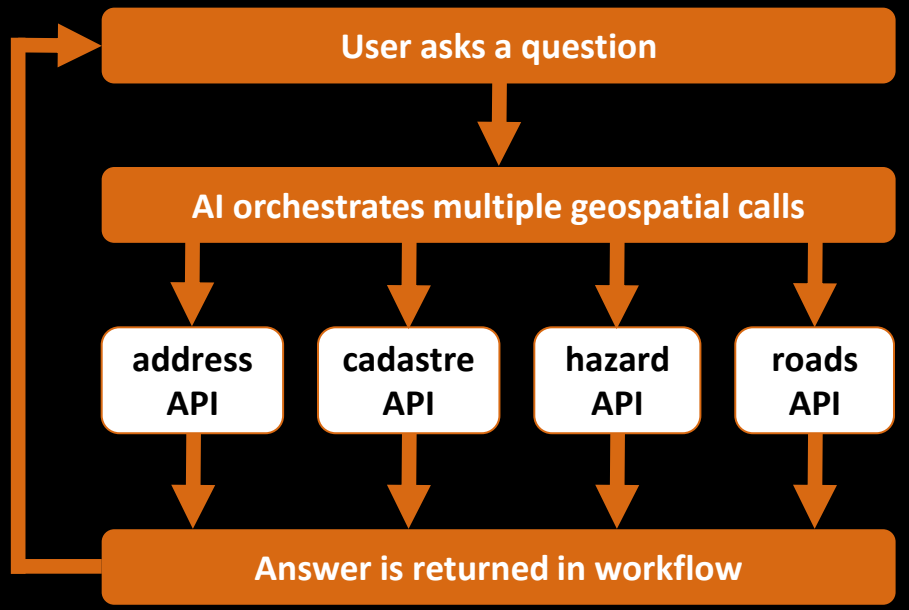
Traditional model



Most value exchange is manual, slow or absent

Use is visible at the front end, but not continuously metered across downstream applications

AI-era model



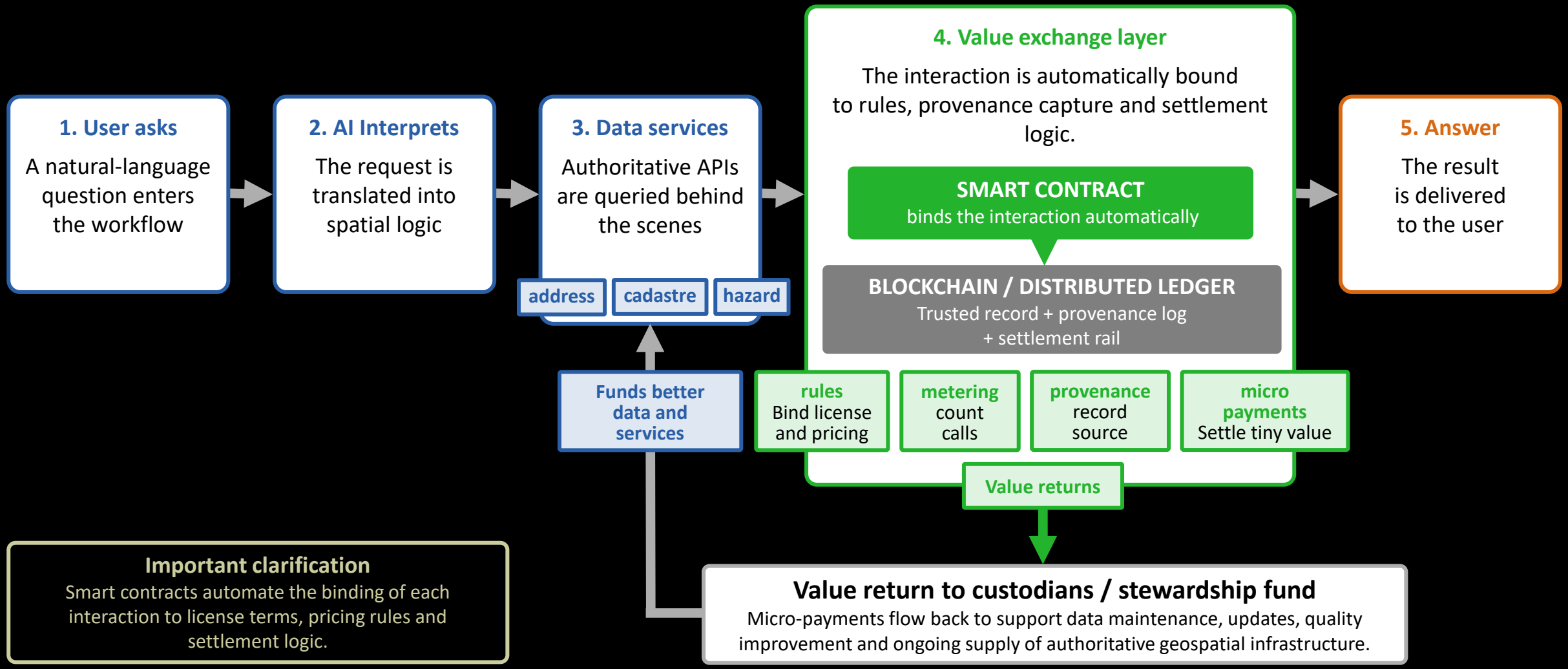
Tiny interactions can accumulate into major use at machine scale

The geospatial infrastructure is increasingly used in the background of AI services, without a built-in return path to support stewardship

If use can be measured,
value can flow back into stewardship.

The Value Exchange Layer

How smart contracts, trusted records and value return work inside the GKI stack.



The question is not whether to prepare, but how…

What countries should now consider

A value exchange layer is a design choice inside the GKI stack – not a one-size-fits-all model

Open access vs licensed commercial use

Keep public-interest access open, while considering metering or charging for commercial or high-volume automated use.

Centralised vs federated

Use one metering and settlement service for simplicity or allow multiple custodians to participate through a federated model.

Build vs buy

Countries can build core governance rules themselves or use shared service providers to reduce complexity and speed adoption.

Technology-neutral implementation

Start with the function: metering, smart contracts, provenance and settlement. The exact technology stack can evolve over time.

Outcome-led pilot

Start with 2-3 high-demand datasets, expose APIs, meter usage, test smart contracts and evaluate value return.

Thank you
Questions?

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