



ECSPM

European Civil Society Platform
for **Multilingualism**

**Translation as global knowledge infrastructure: from the
European interoperability to planetary knowledge commons**

Effrossyni Fragkou

National & Kapodistrian University of Athens

March 19-20, 2026

Translation as Strategic Infrastructure for Global Knowledge Circulation

Toward an Interoperable, AI-Enabled, and Ecologically Balanced Multilingual Ecosystem

Reality



Translation and Interpreting
• Strategic



Multilingual mediation as a condition of socially usable digital systems



Ecology of languages + ecology of knowledge



Digital sovereignty, open science, AI, epistemic justice

The Illusion of Frictionless Circulation

Illusion



Illusion



All languages
are equal



Full open
access to all

Reality

Digitalization does not efface linguistic inequality

English remains dominant in indexing, citation, metadata, prestige

Open access can remain linguistically closed

Reconceptualizing translation as strategic infrastructure



Translation as Infrastructure

Translation

- Not post hoc transfer
- **Conditions:**
 - Rights access
 - Discoverability
 - Institutional usability
 - Multilingual AI development



Infrastructure

- Standards, datasets, interfaces, institutions, governance
- Translation infrastructure – sociotechnical arrangement

The epistemology of mediation



Steiner emphasizes that comprehension is achieved through translation.



Jakobson identifies three types of translation: interlingual, intralingual, and intersemiotic.



Lefevere, Venuti, Toury, and Even-Zohar focus on concepts such as rewriting, norms, positioning, and visibility in translation studies.

Why equivalence is not enough

Linguistic hospitality, untranslatability, and ecological difference



Ricoeur = linguistic hospitality



Berman = the ethical force of the foreign



Derrida = no such thing as perfect equivalence

Cassin = productive resistance to the untranslatable



Cronin = ecology requires the preservation,
not erasure, of the difference

Regulating the ecology of languages

Haugen = language ecology

Cronin = translation as linguistic sustainability

Gutas = translation movements as ecologies of commentary and innovation

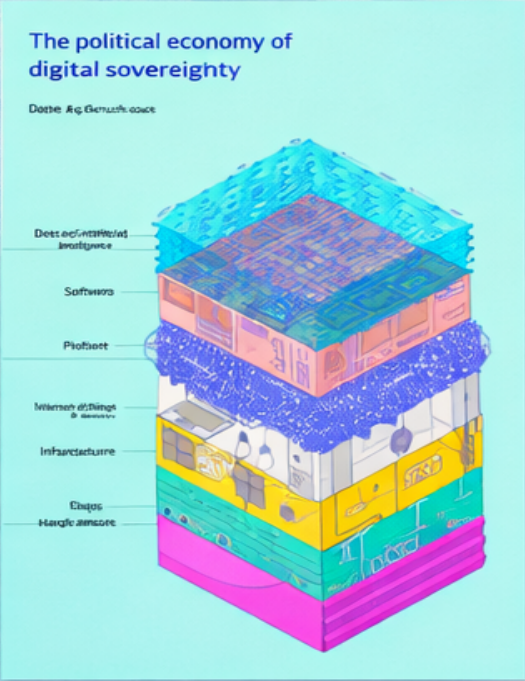
Pöchhacker: *interpreting as situated institutional mediation*

Consequently



Translation and interpreting are **organizers of coexistence** not just a means for regulating exchange

Public-interest infrastructure for multilingualism



AI-mediated multilingualism: When scale is mistaken for equity



NMT and LLMs scale multilingual mediation



But multilingual scale \neq equitable multilingualism

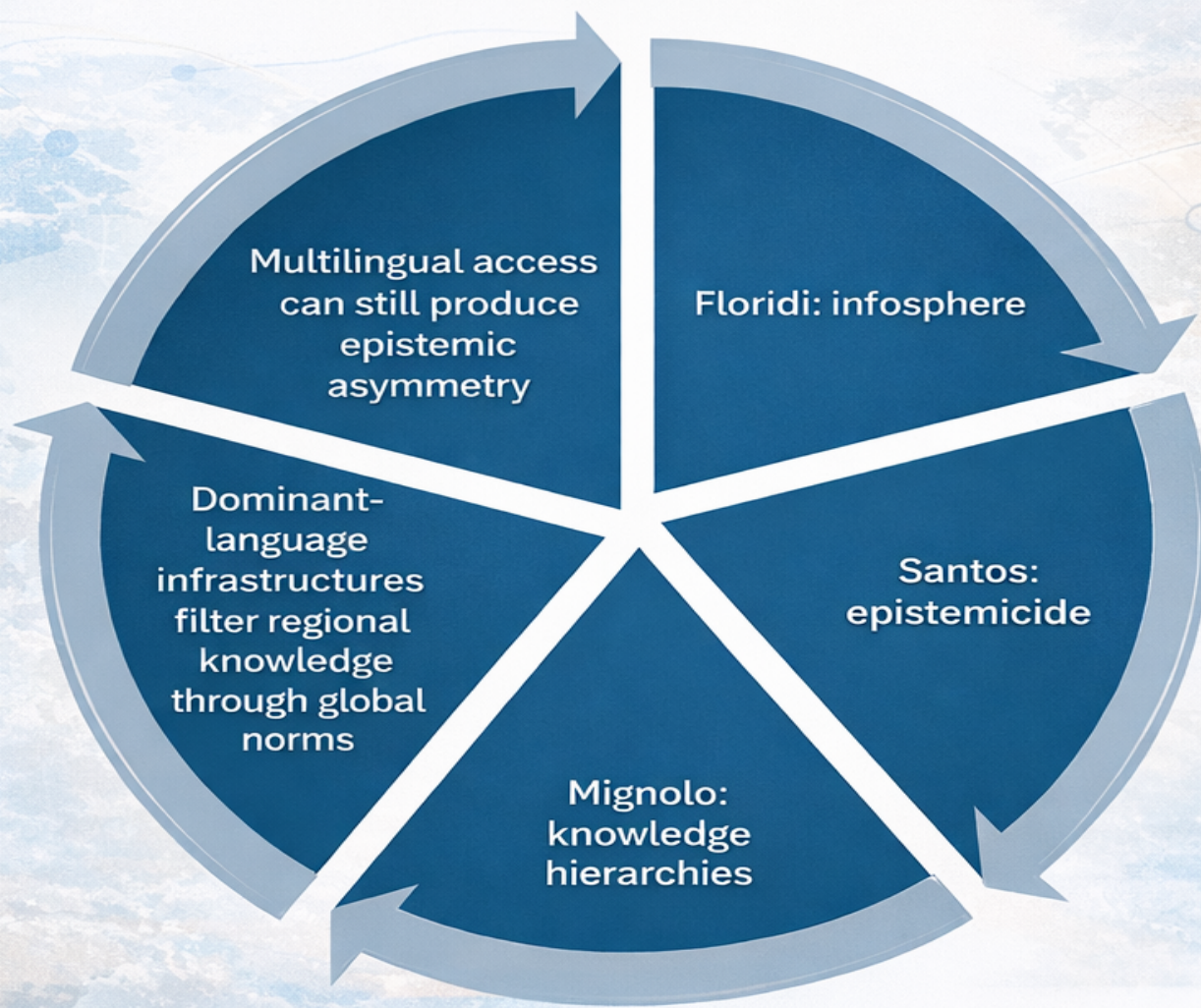


High-resource languages become semantic and procedural centers



AI reorganizes which languages remain active in circulation

The ecology of knowledge under dominant-language infrastructures



The subterranean risks of AI translation and the mechanisms of epistemic distortion

Semantic flattening

Cultural normalization

Conceptual misalignment

Register displacement

Asymmetric quality

Hallucinated coherence

Epistemic stewardship under conditions of asymmetry – Human mediators

- conceptual specificity
- non-equivalence
- institutional register
- ambiguity where needed
- epistemic plurality

FIVE LAYERS OF AI TRANSLATION ECOSYSTEM



Ecology of Languages
Ecology of Knowledge

Layer 1 Foundational Infrastructure

- compute • cloud
- storage • governance

Layer 2 Language Resource Ecology

- corpora • TMs • terminology
- speech data

Layer 3 AI Mediation Layer

- MT • ASR • speech translation
- LLMs

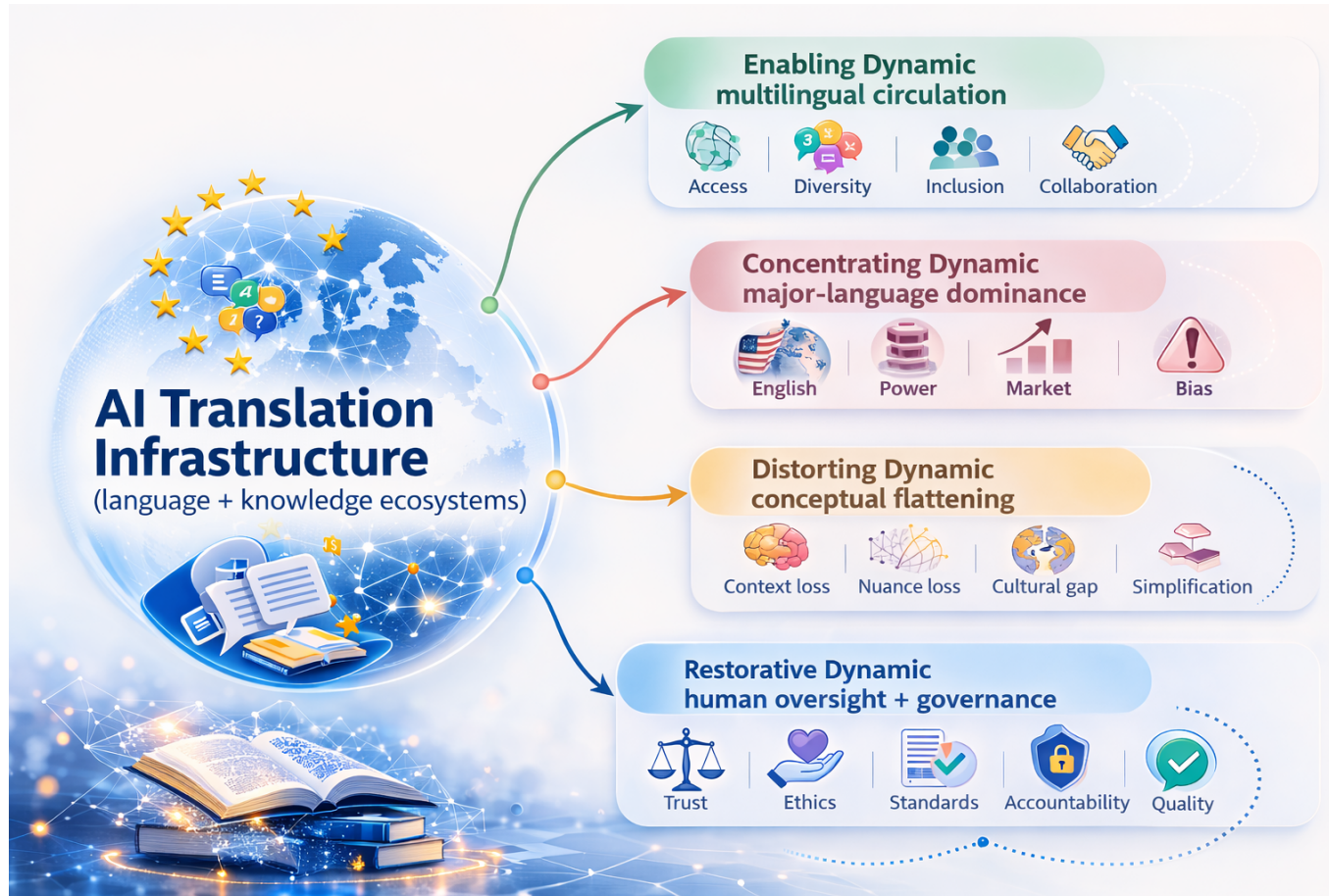
Human Mediation Layer

- translators • interpreters • terminologists

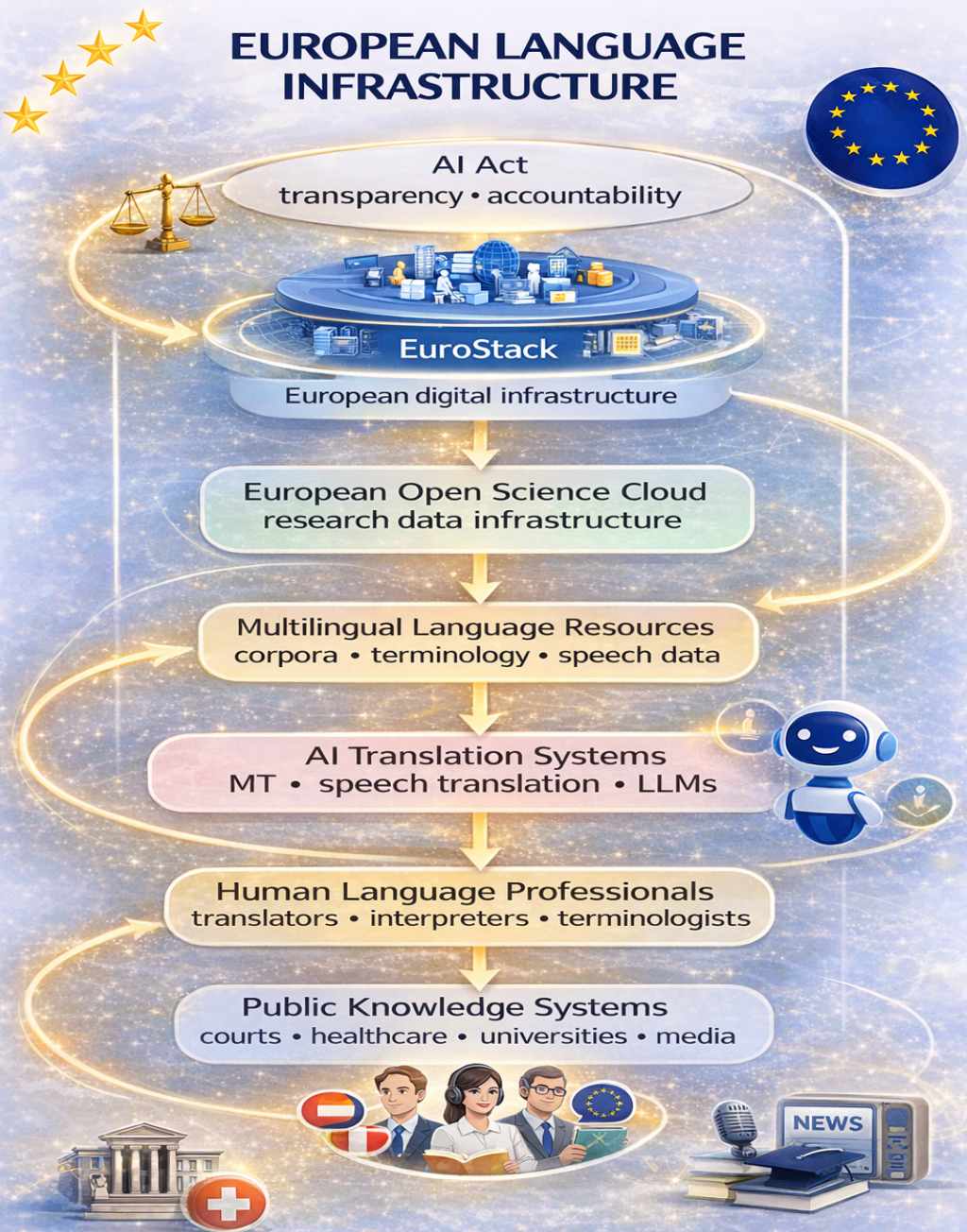
Knowledge Circulation Layer
courts • healthcare • research • media

Ecology of languages and knowledge in AI Translation Infrastructures

Recurrent dynamics in AI-mediated multilingual circulation



EUROPEAN LANGUAGE INFRASTRUCTURE



From policy architecture to integrated model



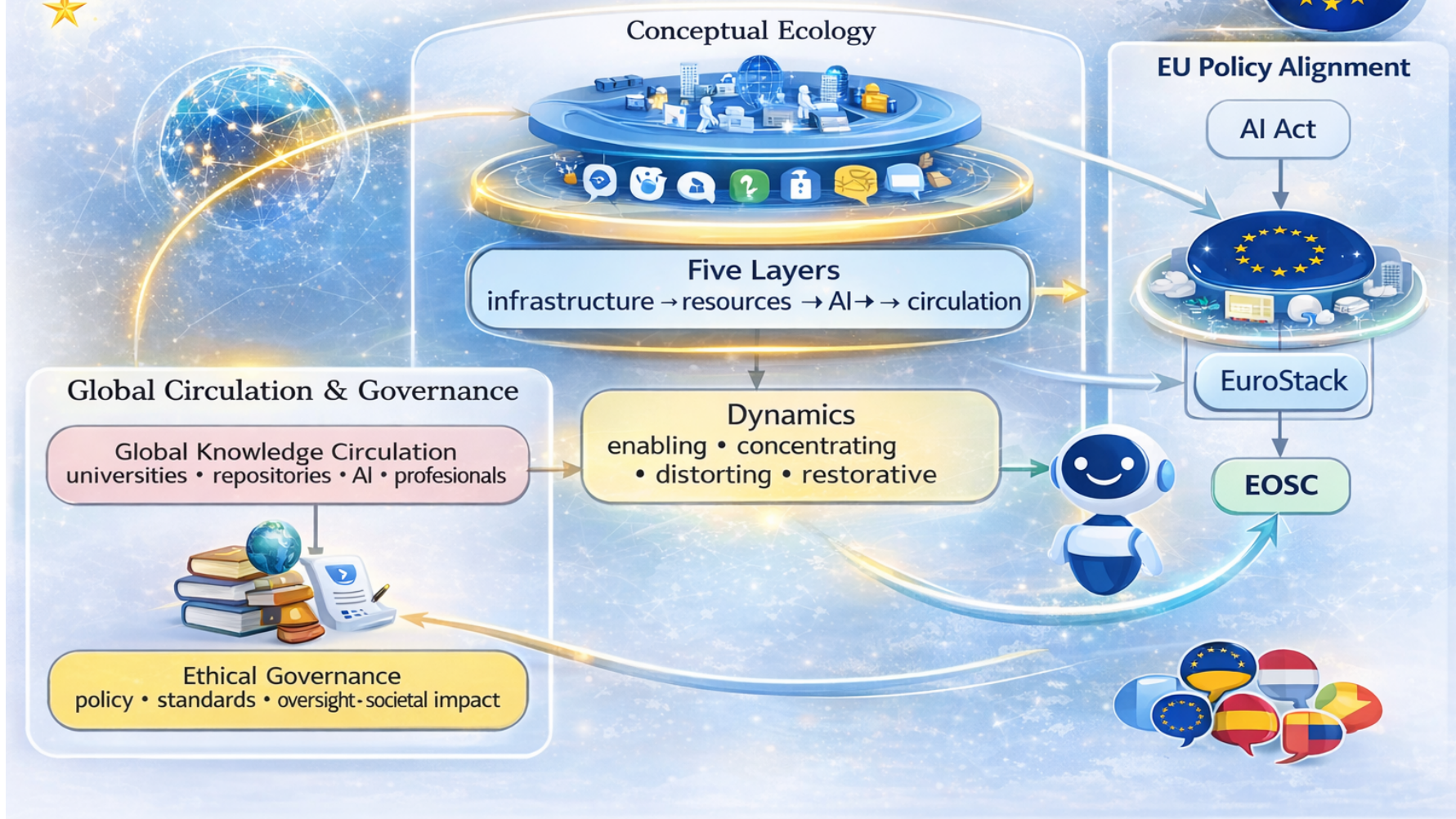
EUROPEAN LANGUAGE & AI PIPELINE





Knowledge Circulation Framework

European Multilingual Infrastructure as a Bridge between Ratner et al.



EUROSTACK ECOSYSTEM

Building Europe's Digital & Language Backbone



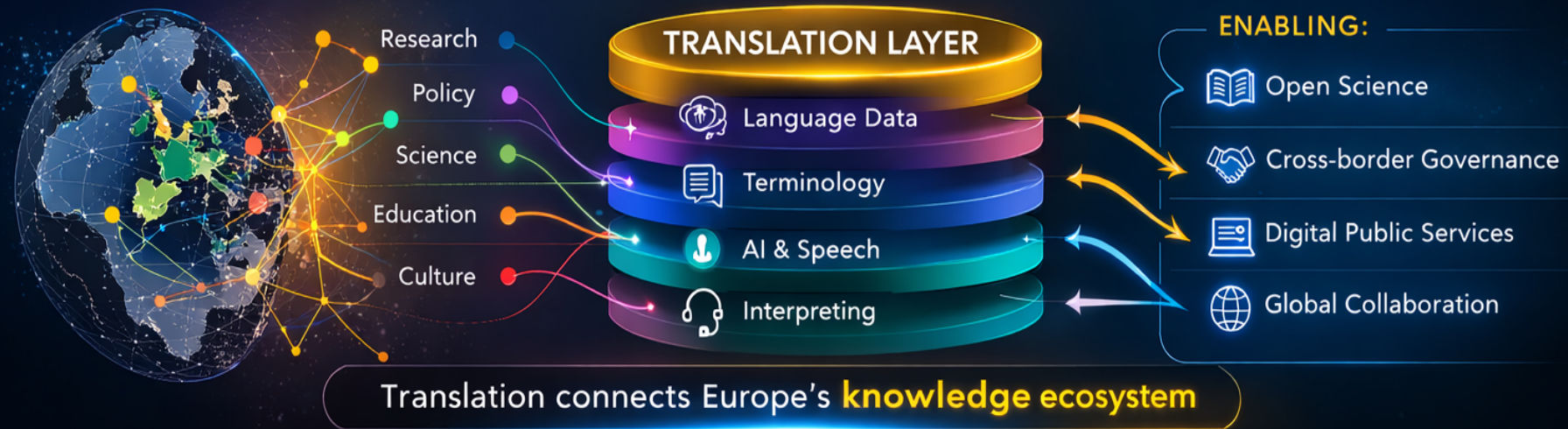
EUROPE vs BIG TECH:

LANGUAGE INFRASTRUCTURE



TRANSLATION AS KNOWLEDGE INFRASTRUCTURE

Knowledge flows in every language → powered by translation



effiefragkou@enl.uoa.gr

THANK YOU!

