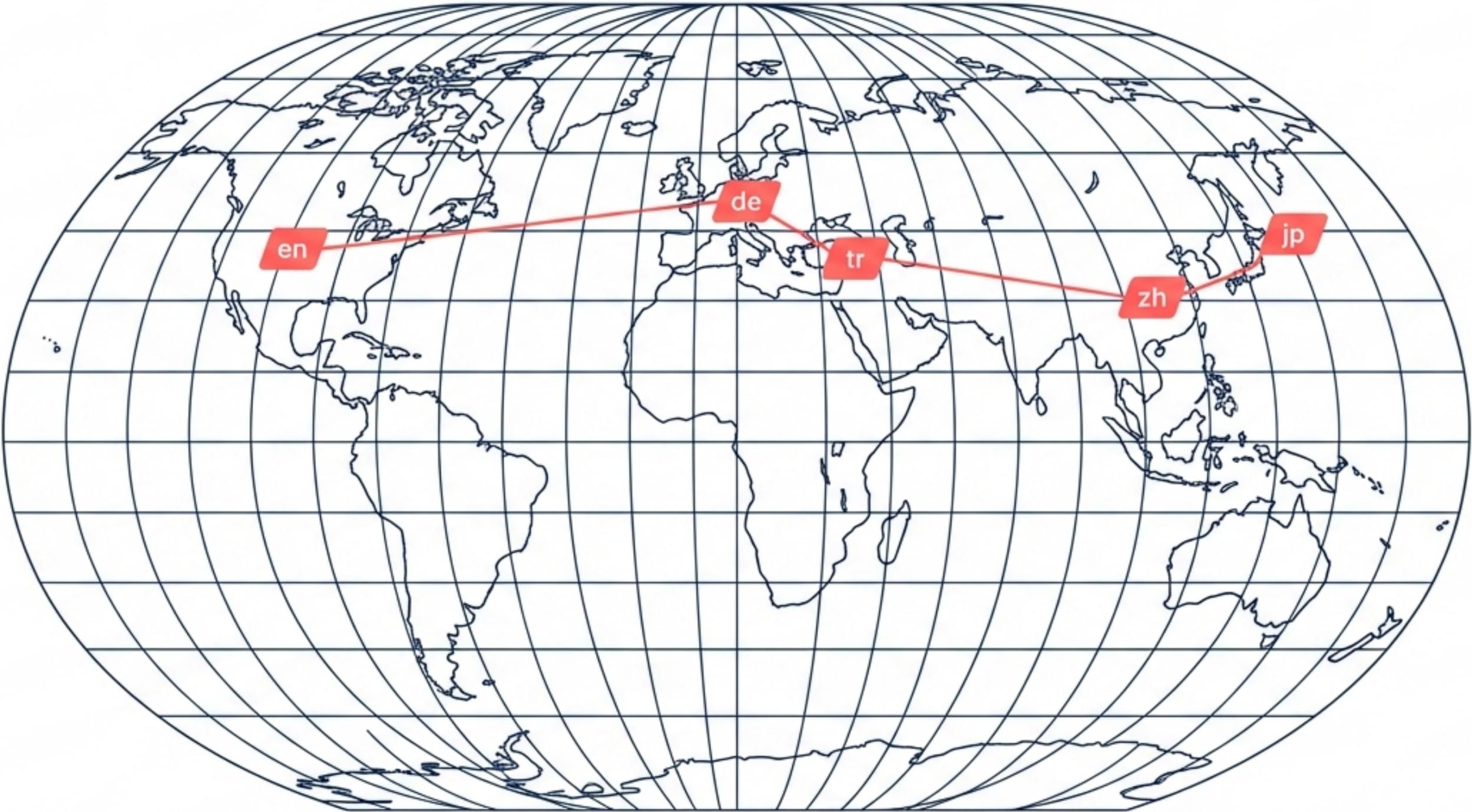
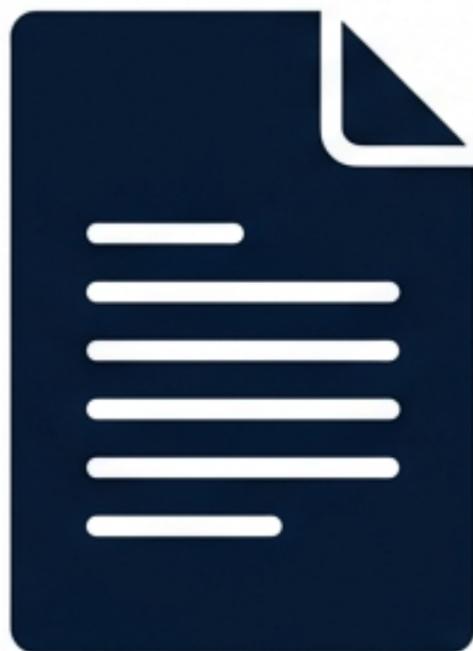


Digital Localization: Engineering Global Connections

A Strategic Handbook for Definitions, Processes, and the Technological Ecosystem

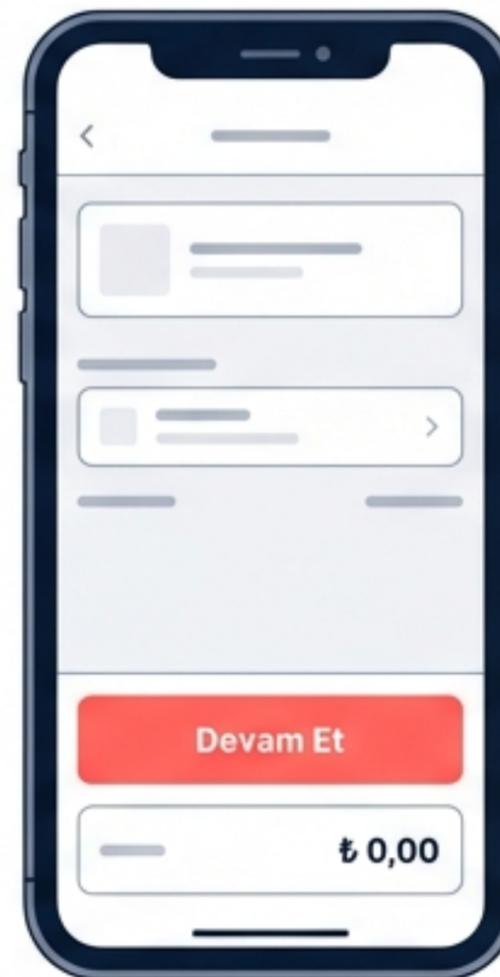


Moving Beyond Translation to True Localization



Translation (T9n)

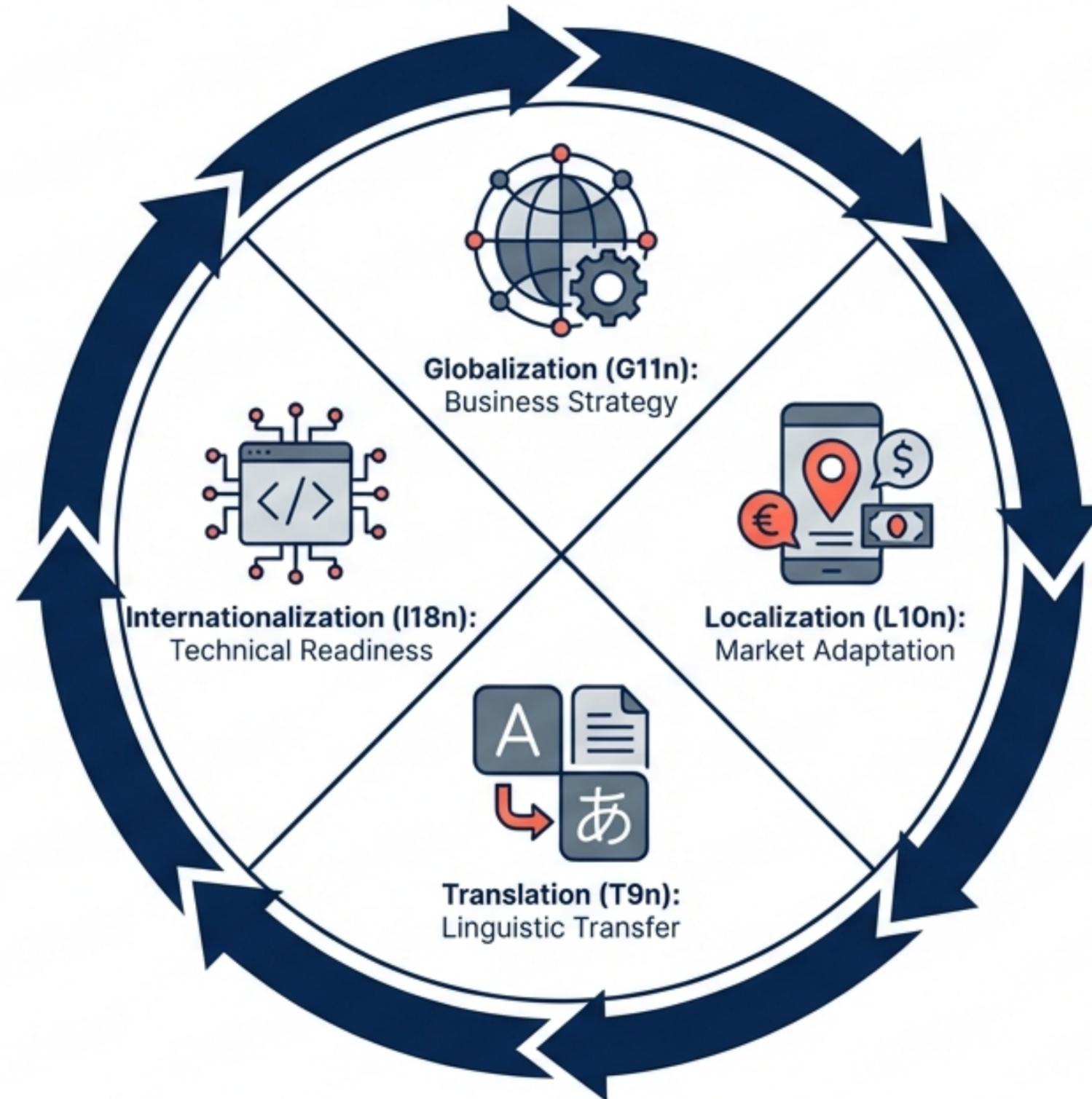
Focus: Text & Words



Localization (L10n)

Focus: Product & Experience

The GILT Framework: A Cycle of Global Development



Key Insight

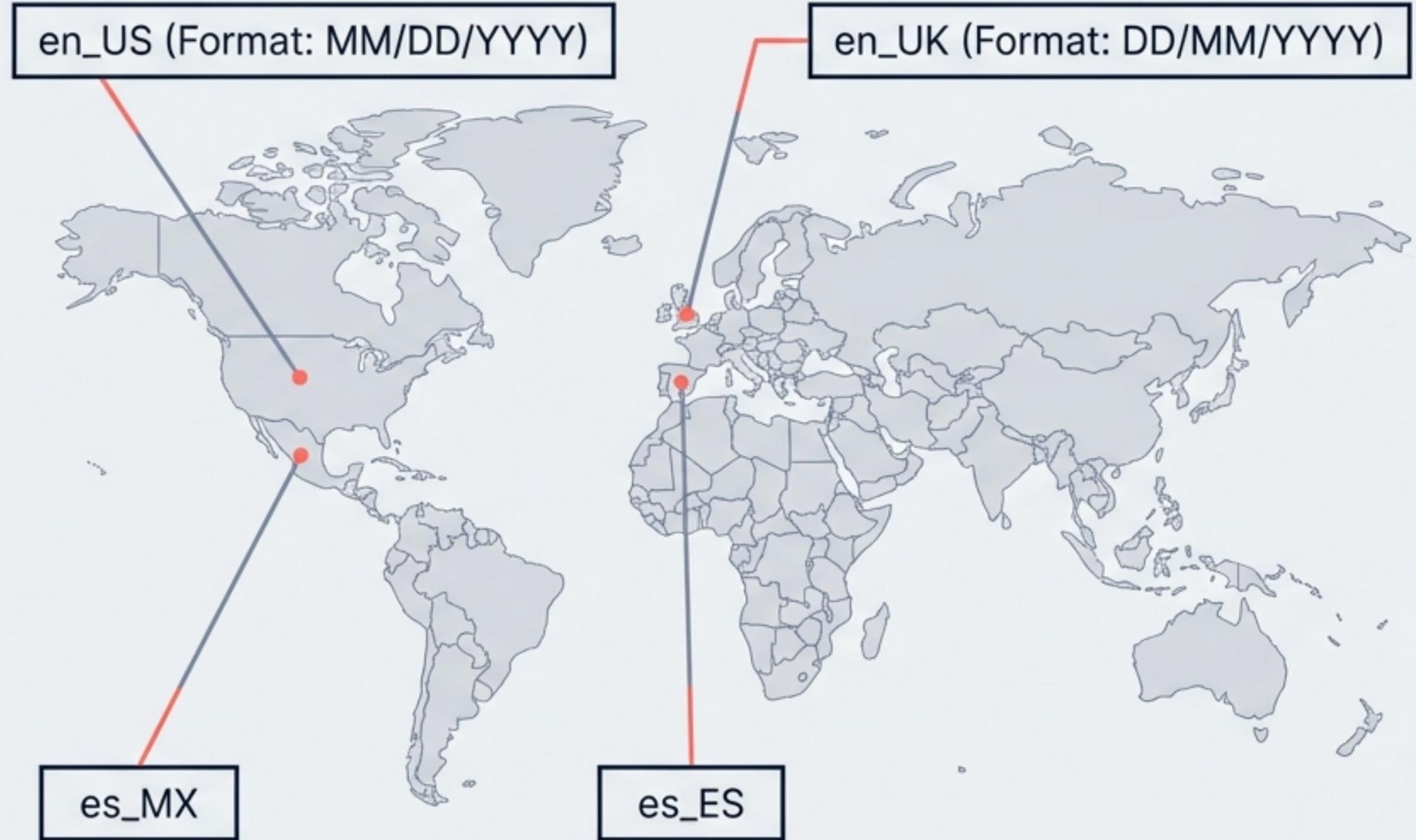
Critical:
Internationalization (I18n) must occur before the Localization (L10n) process begins.

Understanding the 'Locale'

The Formula:

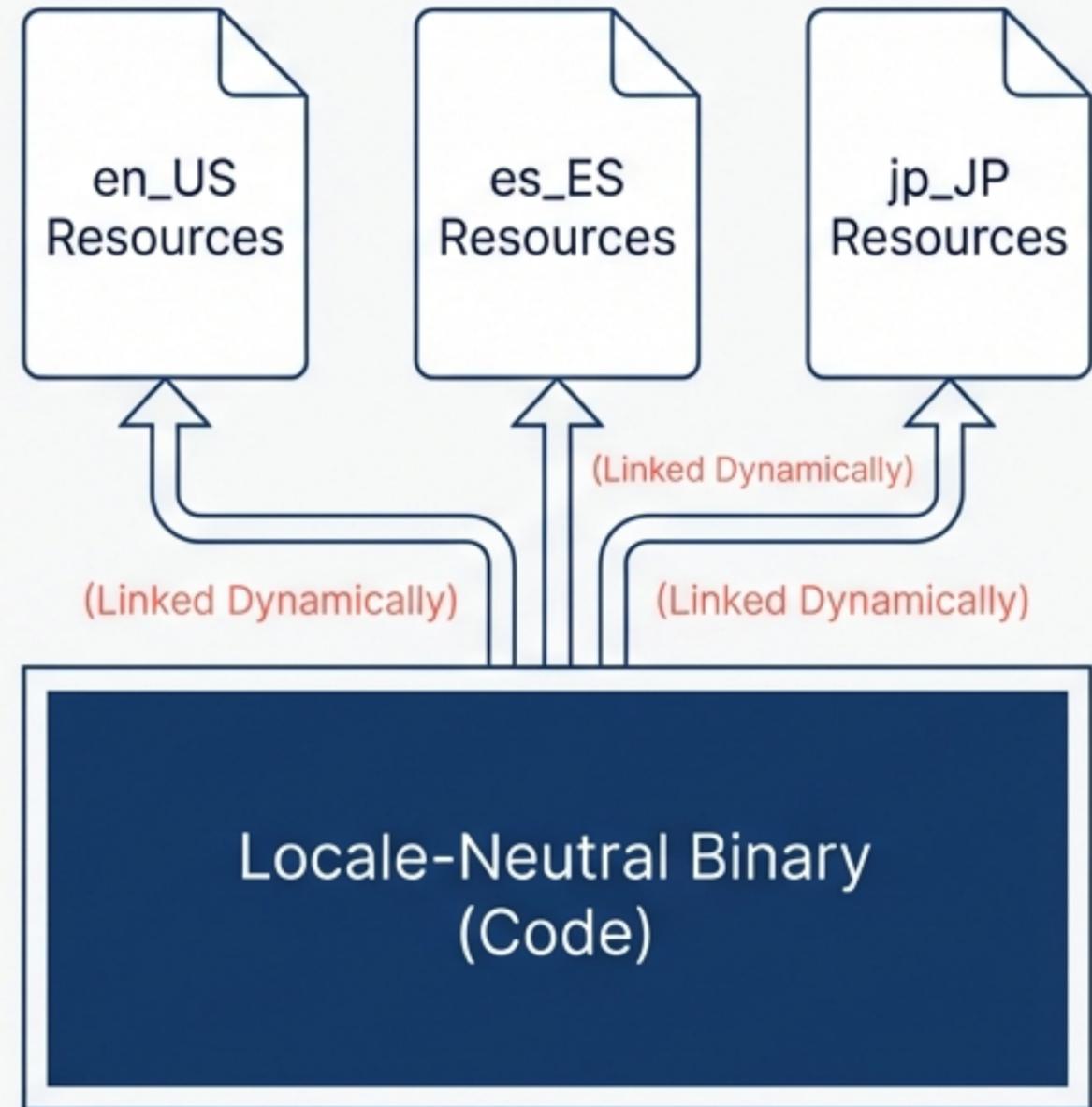
Language (ISO 639)
+ Region (ISO 3166)
= **Locale**

Scope: Date Formats,
Currency, Paper Sizes,
Keyboard Layouts

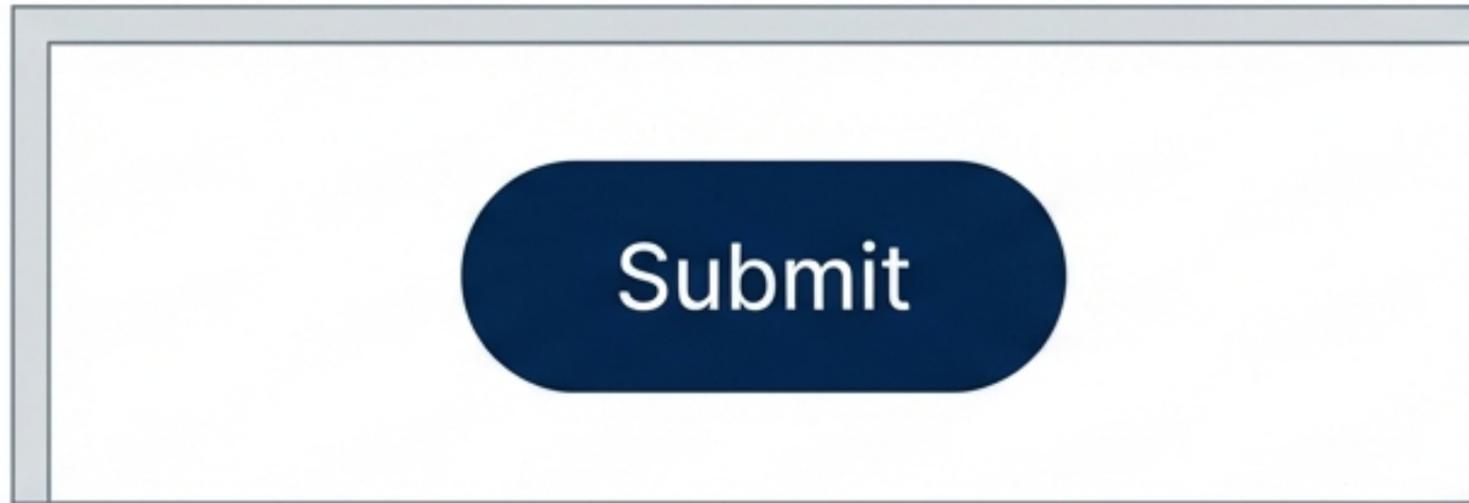


Internationalization (I18n) Readiness

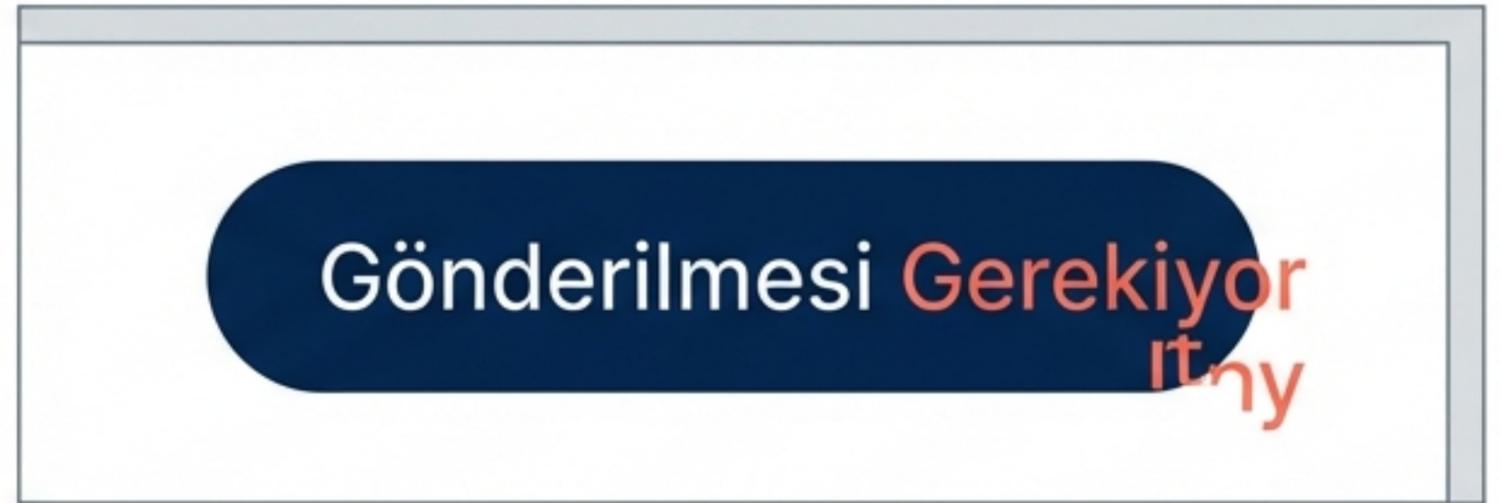
- **Separation:** Text and visuals are decoupled from executable code.
- **World-Ready Design:** Architecture supports any language without re-engineering.
- **Pivot Localization:** Using English as the bridge language.



Technical Constraints & Engineering Hazards



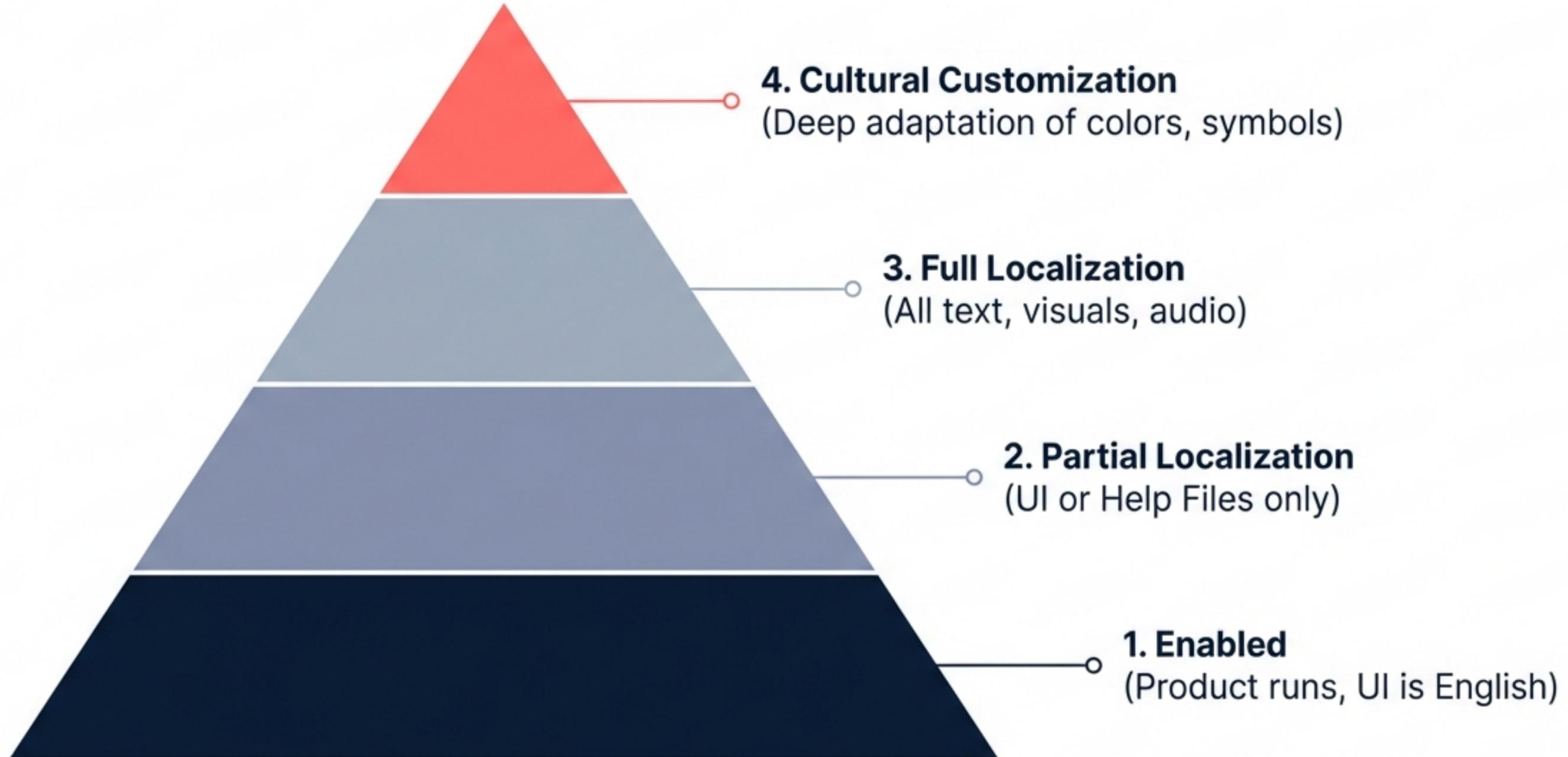
Normal



Broken

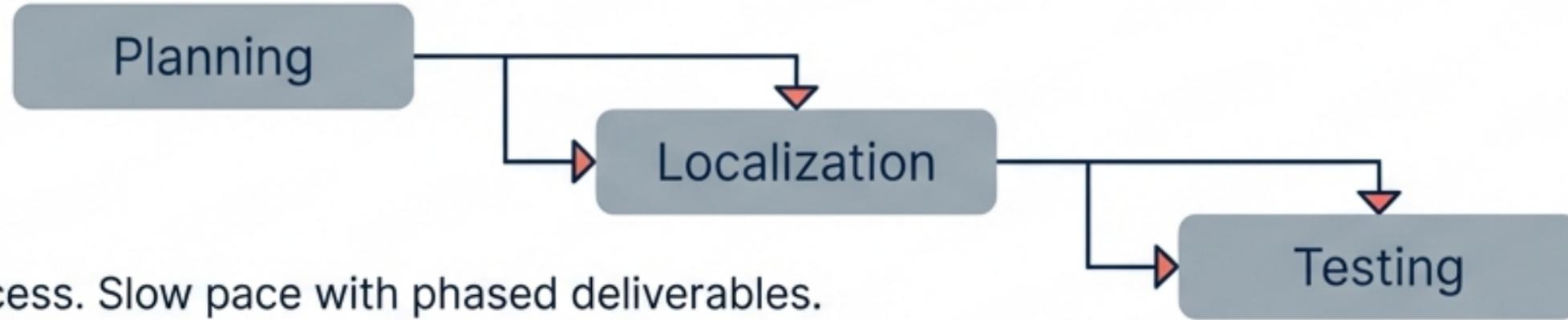
- 1. **Text Expansion:** German or Turkish can be 30-40% longer than English.
- 2. **Character Encoding:** Must use Unicode (UTF-8) for CJK and Emoji support.
- 3. **Variables:** Handling placeholders embedded in code strings.

The Hierarchy of Adaptation Levels



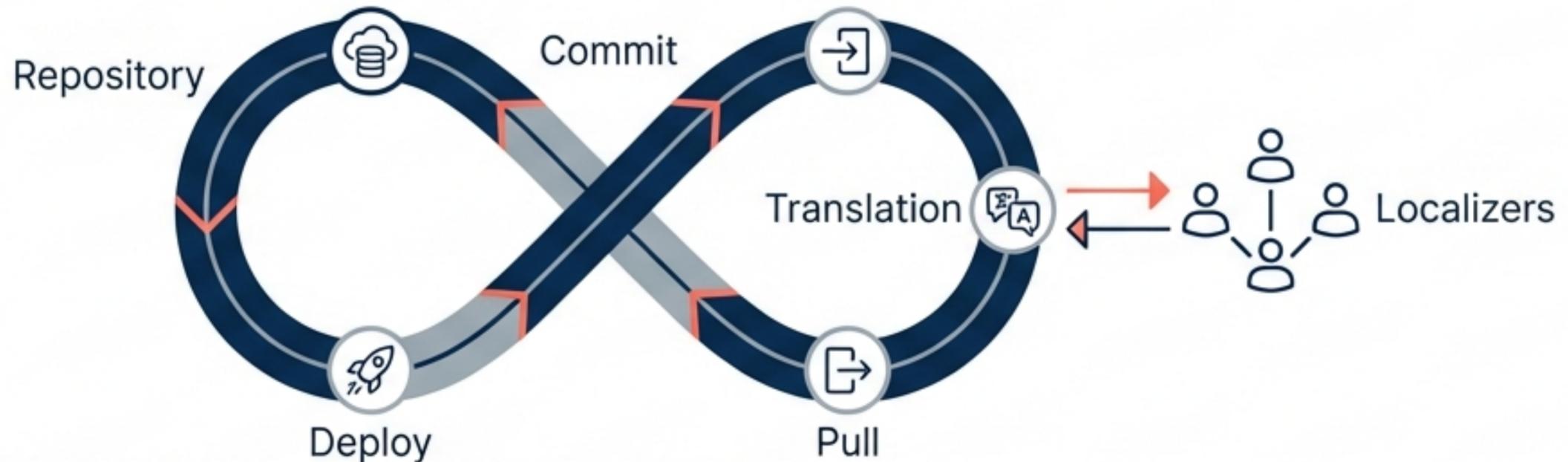
Operational Workflow Models

Waterfall Model: Linear, Slow, Phased



Linear, sequential process. Slow pace with phased deliverables.

Agile Model: Continuous 'Sim-ship'

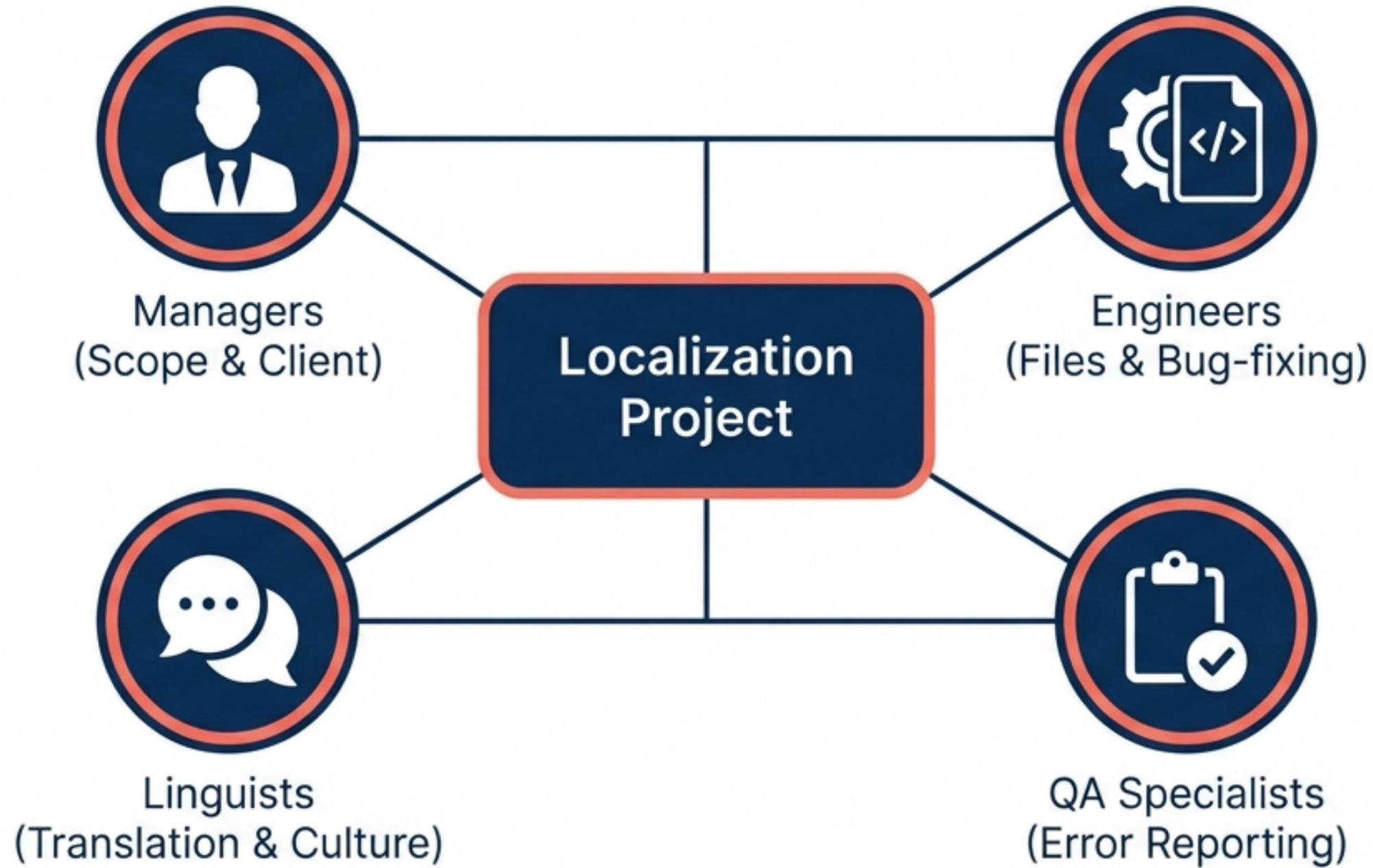


Iterative, continuous cycle. Enables simultaneous shipment ("Sim-ship").

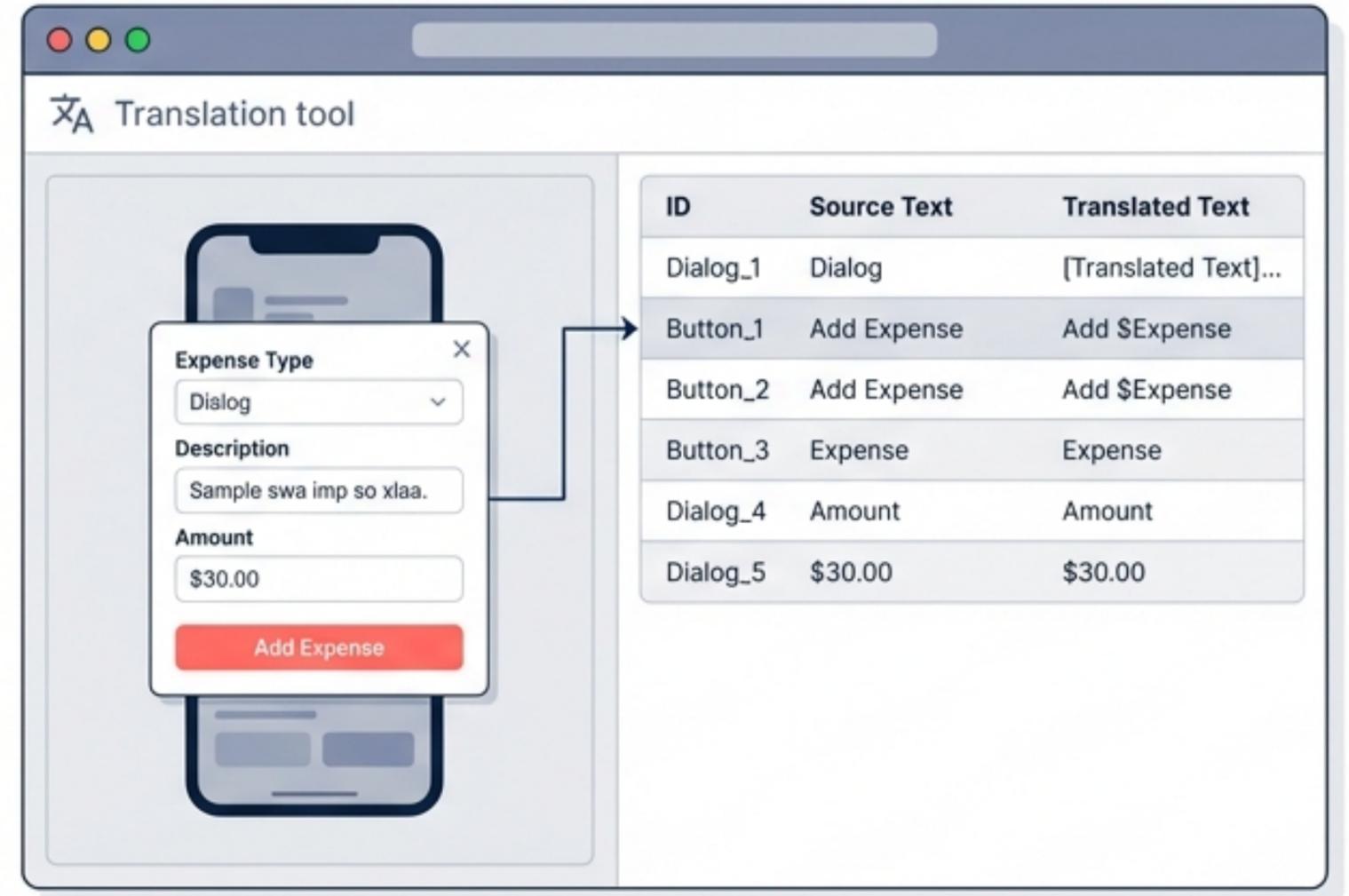
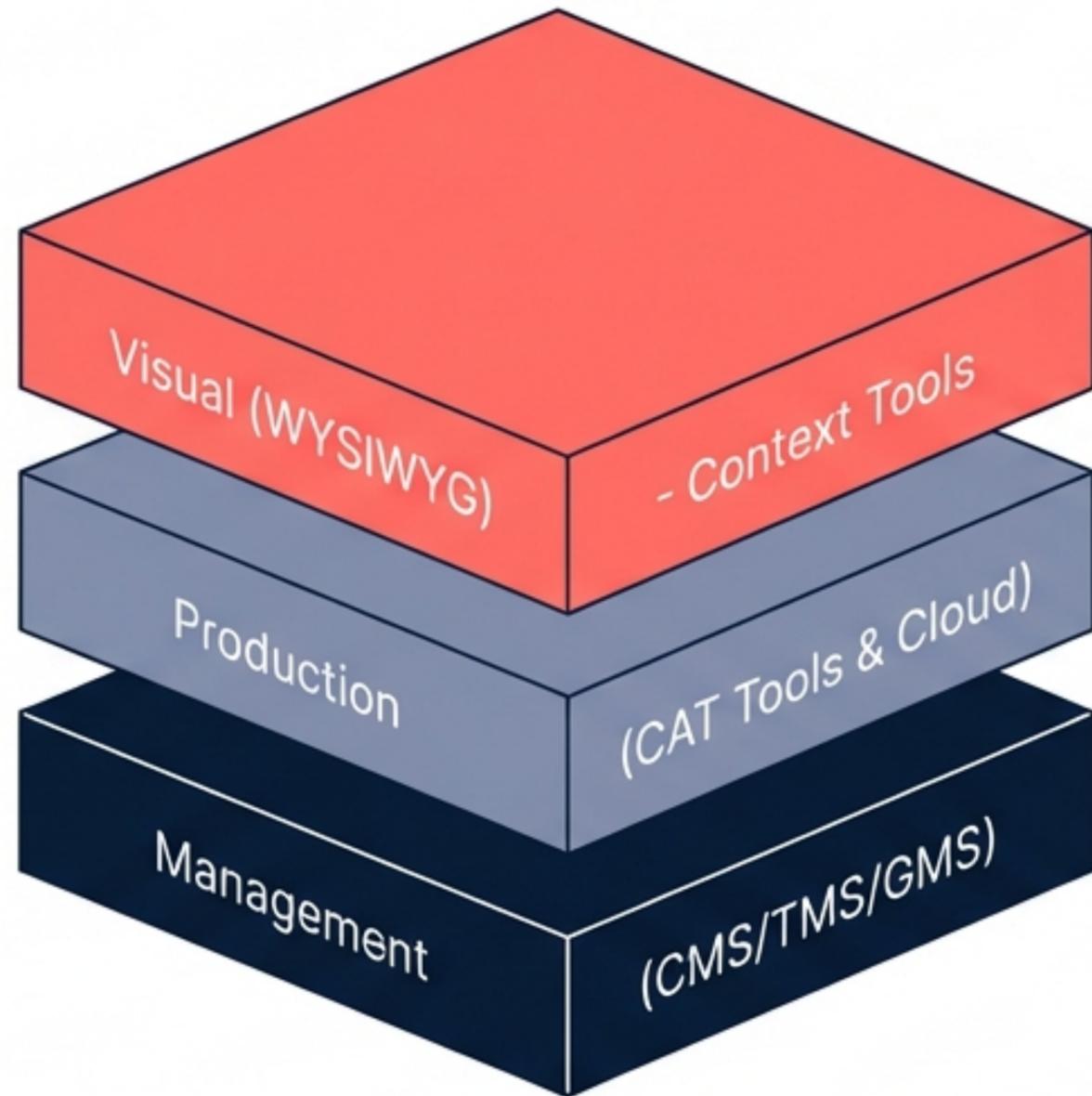
The Localization Project Lifecycle



Agents of the Ecosystem



The Localization Technology Stack



Visual Context

Segment List

Industry Standards & Data Exchange



Data Structure



Data Exchange



Terminology



Translation
Memory

```
<trans-unit>  
  <source>Hello</source>  
  <target>Merhaba</target>  
</trans-unit>
```

Comprehensive Quality Assurance (QA)



4 Pillars of QA

1. Functional Test:

Does the software run? Do buttons work?

2. Linguistic Test:

Is the translation accurate? Is the context correct?

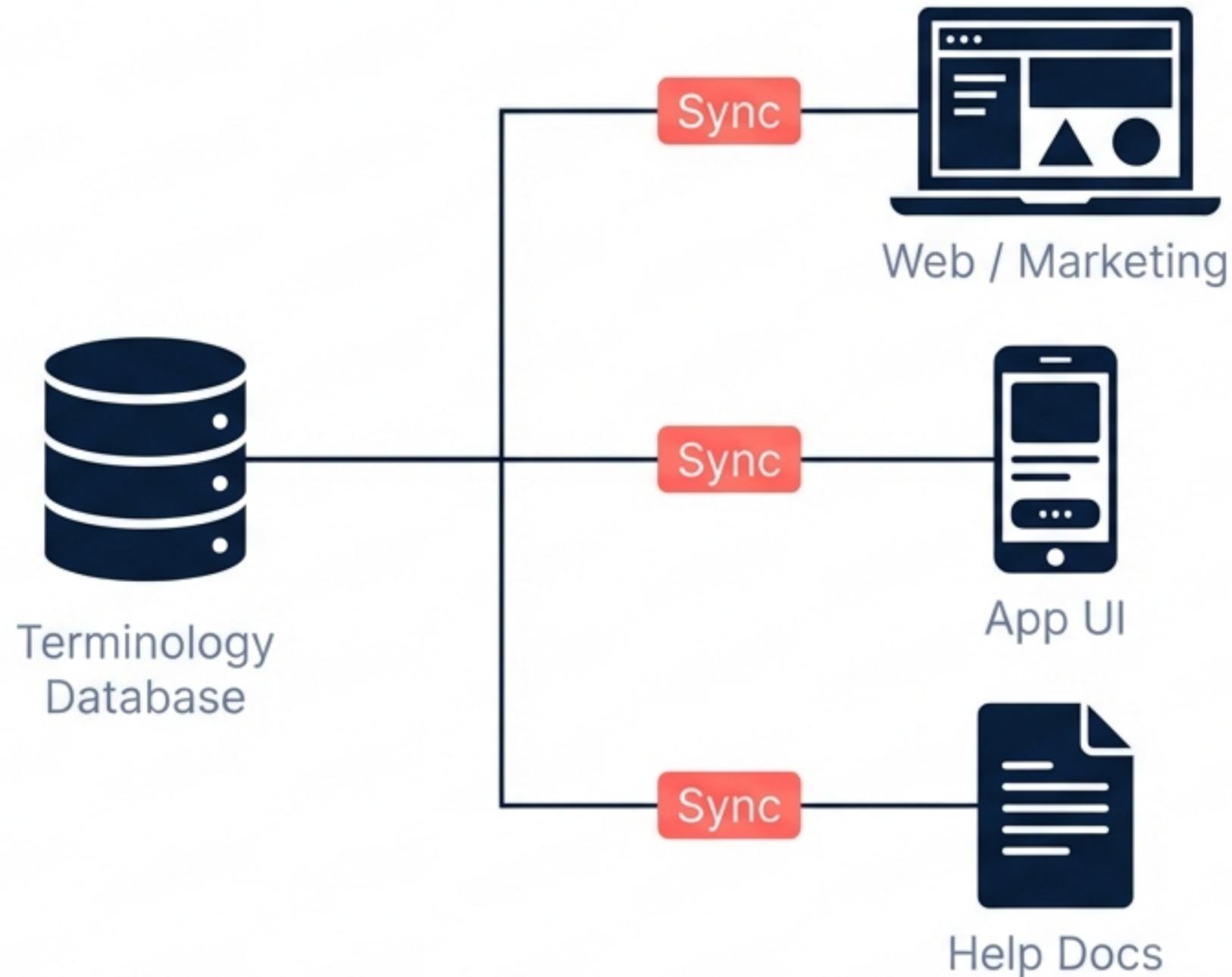
3. Cosmetic Test:

Is there text truncation? Are fonts rendering?

4. Cultural Test:

Are colors, symbols, and tone appropriate?

Terminology Management & Brand Consistency



- **Outcome: Unified Brand Voice & Improved UX**

The Future of Global Connection

- **Economic Engine:** Localization is the primary driver of the global digital economy.
- **Tech + Human:** AI increases speed, while human expertise ensures cultural nuance.
- **Vision:** Designing a user experience that feels native to every user, everywhere.

