

Benchmarking Innovation in Spoken Language Translation (SLT)

The Strategic Value of the IWSLT Infrastructure for Europe

Luisa Bentivogli



MT
MACHINE
TRANSLATION

Head of the Machine Translation Unit
Fondazione Bruno Kessler (FBK), Italy



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| Speech Translation: A Strategic Challenge



Strategic Importance

A vital infrastructure
for a seamless,
multilingual European
Union



Inherent Complexity

Speech adds layers
of difficulty (accent,
disfluencies) beyond
text translation



Not a Solved Problem

Commercial systems
still struggle with
complex domains and
low-resource
languages

Continuous benchmarking is required to track true progress

IWSLT: International Conference on Spoken Language Translation

-  The Premier Venue for SLT: **scientific papers + evaluation campaign**
-  **A 22-year history** of driving the field forward via rigorous evaluation
-  Supported heavily by the **voluntary commitment** of top EU teams

Partners:

SIGSLT



ACL



ISCA



ELRA

Rigorous Benchmarking as a Driver of Progress



Shared Tasks: Defining common, high-impact goals to align the community



Evaluation Protocols: Standardizing metrics and human evaluation protocols



Shared Benchmarks: Releasing challenging test sets for reproducible results



Objective Results: Publishing rigorous scientific findings tracking progresses

Supported by:

EU Projects, Academia, Industry ([Apple](#), [AppTek](#), [Amazon](#), [Meta](#), [Microsoft](#), [Zoom](#), [Google](#))

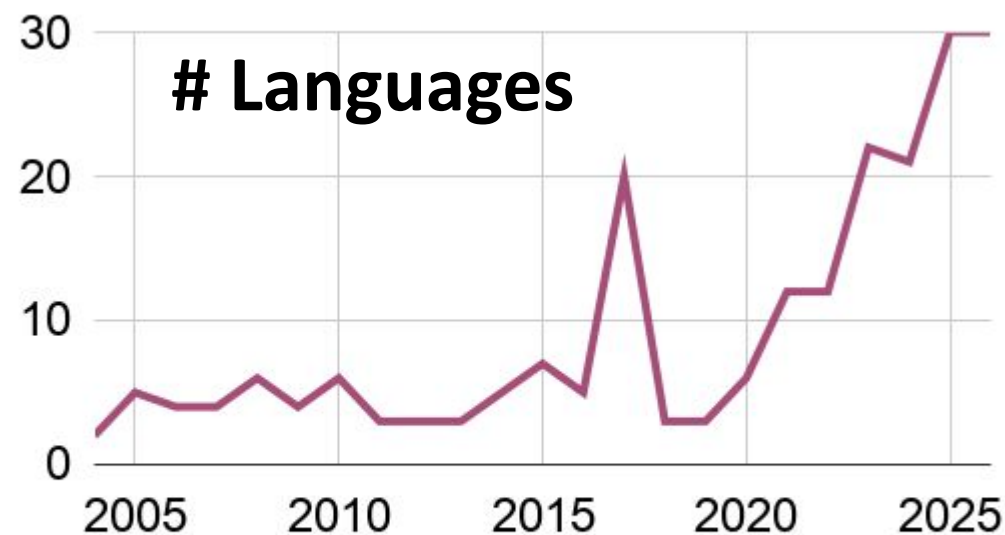
| Shifting Frontiers: Evolution of the Challenge

Progressive Complexity: from low to high difficulty tasks to assess technology readiness

- 🌱 **Early Days:** Translating pre-transcribed text in resource-rich languages
- 🏔️ **Modern Frontier:** Moving to real-world, high-stakes scenarios
- ⚡ **Key Tasks:** Simultaneous translation (low latency), model compression (footprint reduction), automatic subtitling (rigorous formatting), instruction following (multi-task inputs), low-resource (data constraints), metrics (automatic quality assessment), cross-lingual voice cloning (naturalness), speech2speech translation (speech in output)

Shifting Frontiers: Evolution of the Challenge

Growing trends: for tasks and languages in a broadening ecosystem



Strong European Leadership



The Core Engine: Historically driven and sustained by top European institutions like FBK and KIT



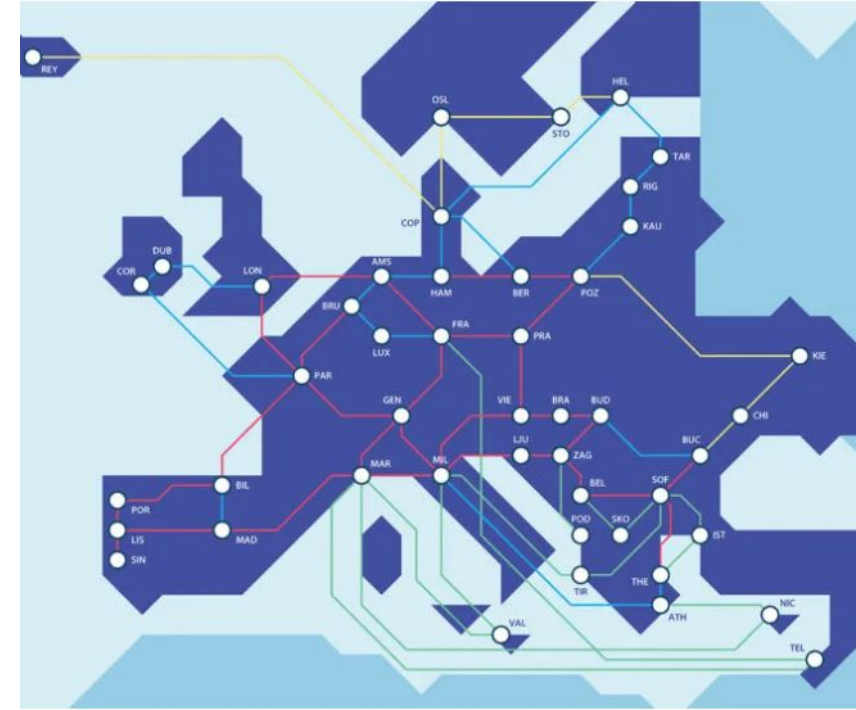
Voluntary Commitment: Powered by the dedication of EU researchers since 2004



Global Landmark: A European-led initiative that has become the global gold standard for SLT evaluation



Strategic Asset: Proves that Europe possesses the foundational talent to anchor AI sovereignty



| Linking IWSLT Campaign to EU Projects



Funded projects provide the critical mass for participation



Mutual benefit: Projects get data, IWSLT gets participants



Success stories (organizers' effort, datasets, human evaluation):

- 2004: IWSLT started from the outcomes of C-STAR (BTEC corpus)
- Along the years: EuroMatrixPlus, T4ME, EU-BRIDGE, CRACKER, ELITR, LT-BRIDGE, AI4Culture, UTTER, WELCOME
- From 2025: Meetween

| Current driver: The Meetween project



SPEECHM Evaluation server and leaderboard: Automated, objective scoring for participants



HPC Compute: Leveraging Cyfronet for large-scale testing



Strategic Data Assets: Releasing cutting-edge multilingual/multimodal data



Call to Action: Integrate IWSLT benchmarking into the EU AI Strategy



A Ready-to-Use Opportunity: Leverage a well-established infrastructure stemming from 20+ years of expertise by top European research centers



Standardized Validation & Objective KPIs: Make IWSLT benchmarking a standard for EU projects dealing with speech to rigorously measure SOTA progress and the real impact of public funding



Securing AI Sovereignty: Ensure Europe defines its own evaluation metrics and standards, maintaining strategic independence from non-EU tech giants

Let's leverage this asset to guarantee accountability and impact

See you in San Diego!



Luisa Bentivogli
bentivo@fbk.eu

MT Unit @ Fondazione Bruno Kessler
<http://mt.fbk.eu/>