

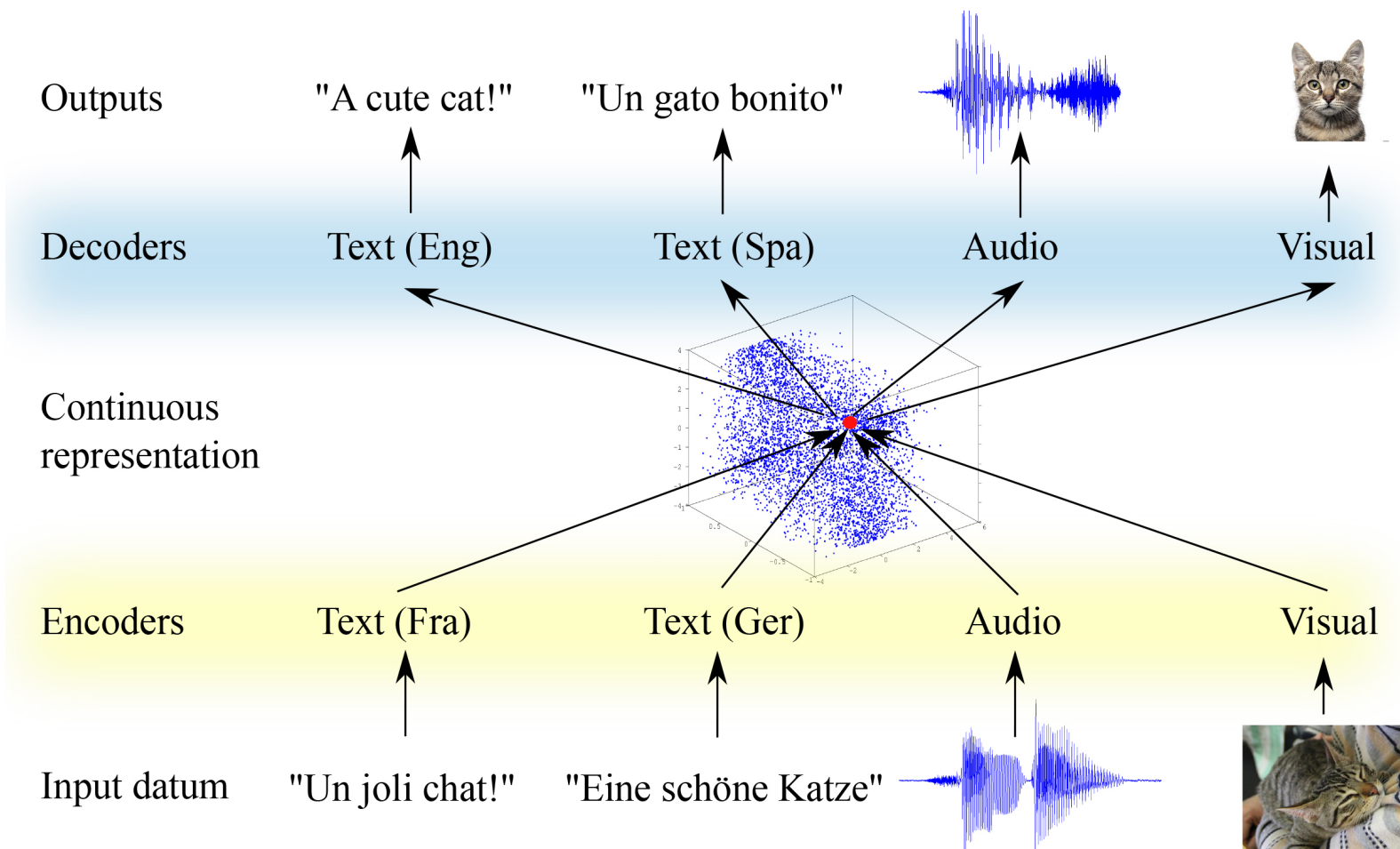


M2CR presentation

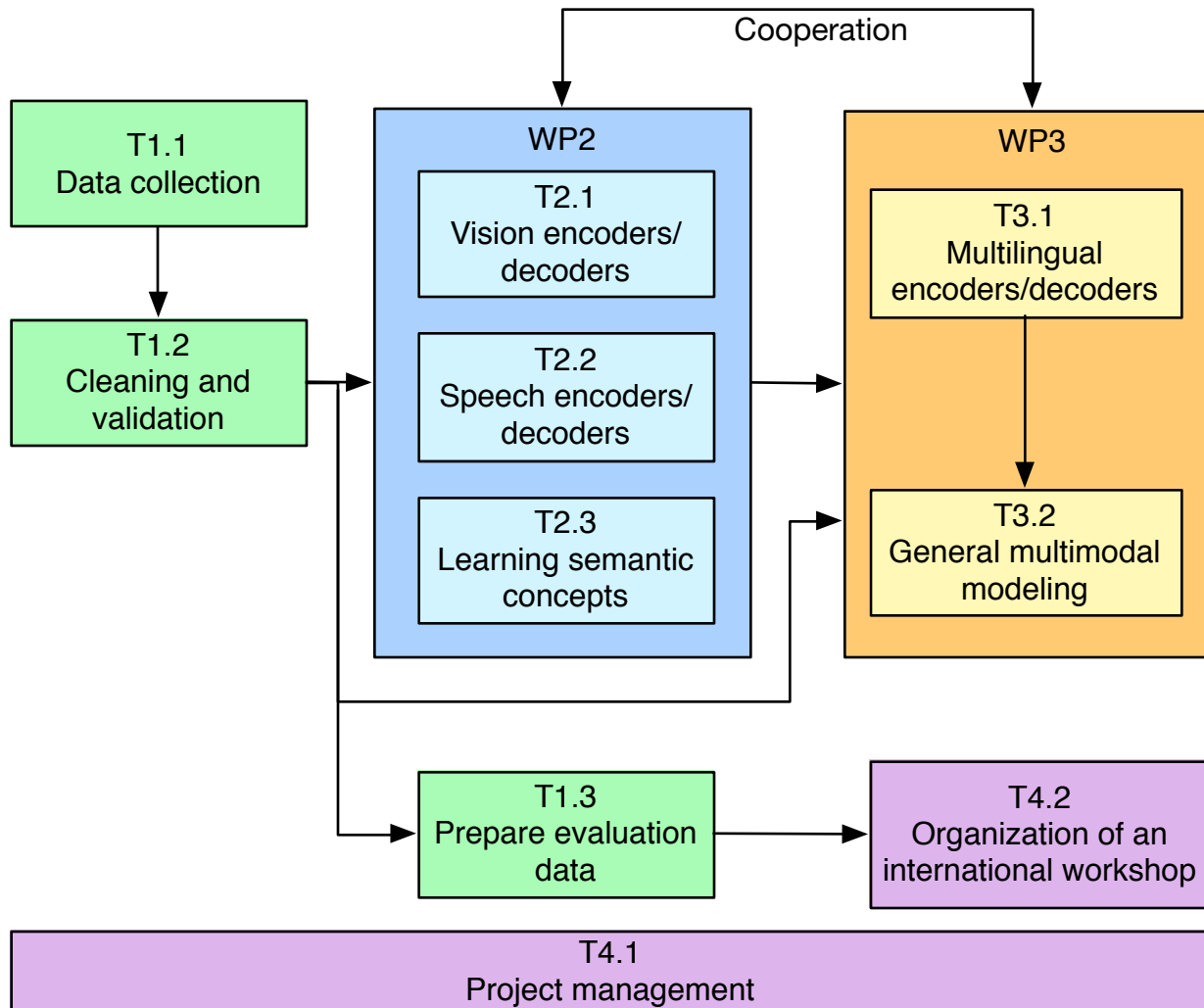
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LIUM / LST

Unified architecture



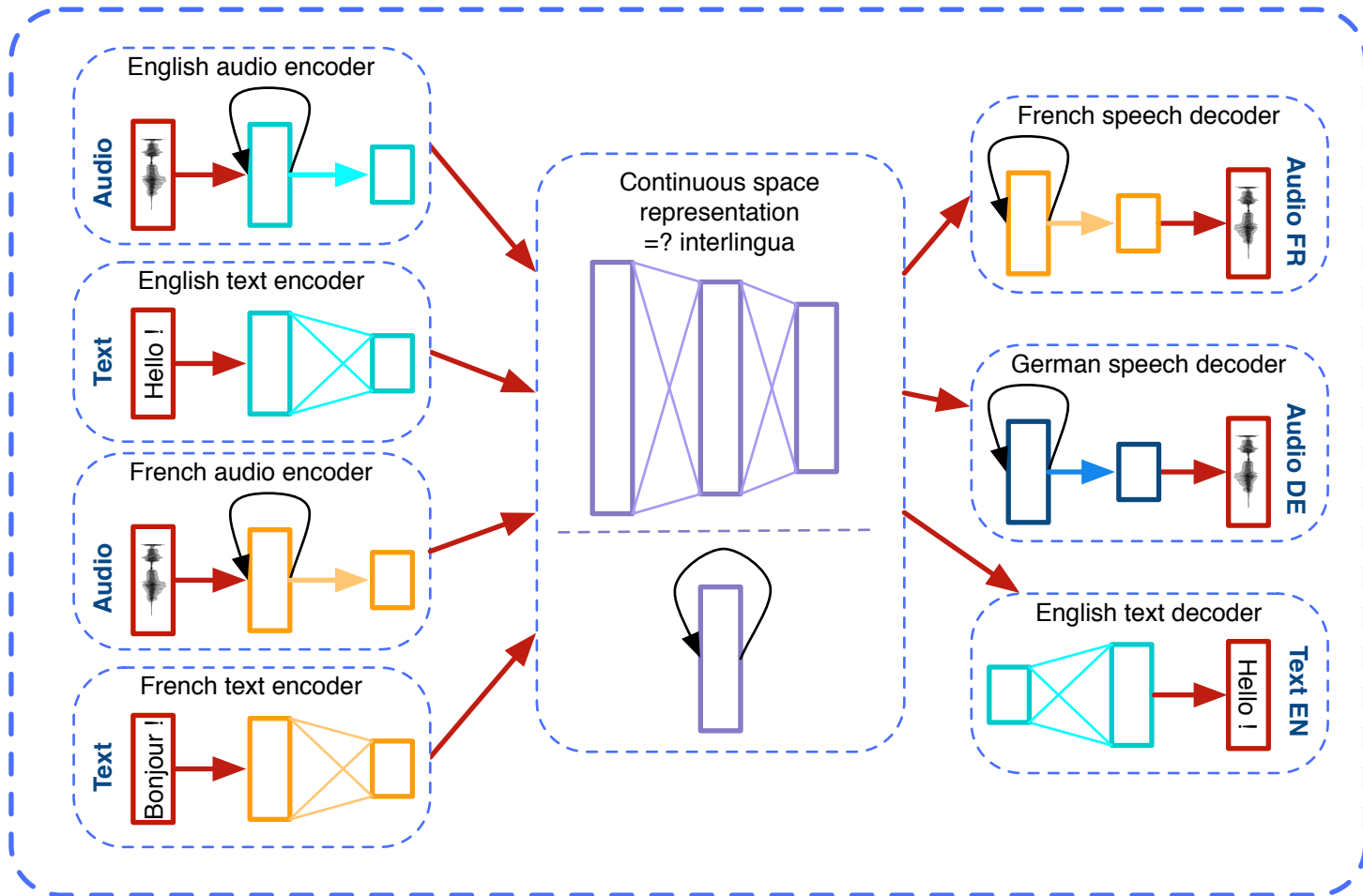
Overview



Core concepts - 1/

- Encoder/decoder approach
 - (very?) deep NN
 - with attention mechanism (?)
 - global vs. partial training of components
 - deal with incomplete data
 - supervised/unsupervised (!)
 - scalability
 - model might grow quickly

Architecture



Core concepts - 2/

- Multimodality

- speech, text, images
- at input and output
 - speech and image synthesis is highly prospective

- Multilinguality

- English, French, German, Spanish, Chinese, Arabic

Expected consequences

- Define a **semantic** continuous vector space
 - human language understanding
 - globally optimized
- Help systems trained on **low-resourced languages**
 - continuous representation will benefit from well-resourced languages
- Improve results with multiple modalities and languages
 - incomplete information in one modality can be provided by another modality

Partners

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 - Y. Bengio, P. Brakel

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