

# Deep Neural Networks for Human Language Understanding

- Advanced machine learning is the core of human language understanding by machines
- Currently, there is a large variety of algorithms
- Recent success of **deep neural networks** in some applications
- Unify these approaches and aim at applying them systematically in speech recognition, machine translation, semantic interpretation and computer vision
- **Jointly learn models on multiple modalities**
- Understanding of human language with machines can be only achieved when algorithms are trained on **huge amounts of data**
  - Create and distribute appropriate multimodal corpora
  - Efficient parallel computing on GPUs
- Expect significant breakthroughs and **promote change in paradigm**
- **Europe must catch up with significant efforts in the USA**
- Consortium: LIUM (France), LISA (Quebec) + partners in vision