

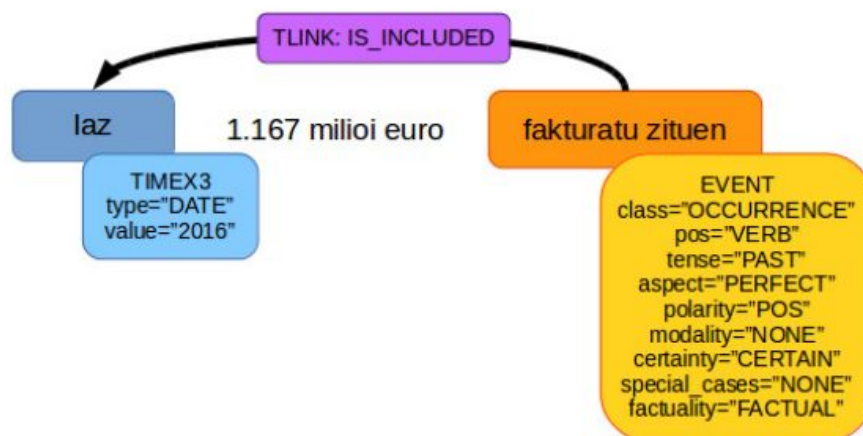
# Capturing and Structuring Temporal Information in Basque

**Proposers:** Rodrigo Agerri and Olatz Arregi

**Contact:** [rodrigo.agerri@ehu.eus](mailto:rodrigo.agerri@ehu.eus)

**Keywords:** Events, temporal relations, TimeML

**Description:** Capturing and Structuring Temporal Information consists of: (i) identifying any temporal expression and event in text; (ii) establishing the temporal order in which the events occurred, as defined by the TempEval3 shared evaluation task (UzZaman et al. 2013). The starting point would be the work described in Altuna et al. (2017). Furthermore, the role of both event and nominal coreference in the task would be explored.



## Objectives:

- to identify temporal expressions, events and their temporal relations in text;
- to *automatically* annotate raw text using eusTimeML annotation scheme for the Basque language.
- study the importance of event and nominal coreference and their interaction with temporal expressions in the task.

## Tasks and Plan:

- Statistical and deep learning approaches for modeling temporal expressions in Basque;
- development of semi-automatic methods for the creation of a corpus annotated with eusTimeML;
- establish, via experimentation, how useful is recognizing coreferent event and nominal expressions for the task.

- Month 1: Start of the project, defining the objectives and tasks.
- Month 2: Start experiments. Optionally, it is recommended for the candidates to attend the "Seminar on language technologies. Deep Learning (LAP 18)". [https://ixa.si.ehu.es/master/programa\\_html](https://ixa.si.ehu.es/master/programa_html)
- Months 3-5: Experiments and final development.
- Final month: Writing up.

**References:**

*Begoña Altuna, María Jesús Aranzabe, Arantza Díaz de Ilarraza (2017). EusHeidelTime: Time Expression Extraction and Normalisation for Basque. In Proceedings of SEPLN 2017.*

UzZaman, N., Llorens, H., Derczynski, L., Allen, J., Verhagen, M., Pustejovsky, J. (2013). *Semeval-2013 task 1: Tempeval-3: Evaluating time expressions, events, and temporal relations*. In Proceedings of the Seventh International Workshop on Semantic Evaluation (SemEval 2013), Atlanta, Georgia, USA. pp. 1–9.

**Profile:** Computer Scientist

**Other:** We are also open to multilingual works including other languages (in addition to Basque).