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Assembling EuReCo for Contrastive Research: The Polish Piece

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EuReCo is a federated virtual corpus under development since 2013, enabling large user-definable comparable corpora across various languages upon an infrastructure supporting contrastive research. The core of the infrastructure is KorAP, a scalable open-source corpus platform. So far, EuReCo comprises the German Reference Corpus DeReKo, the Reference Corpus of Contemporary Romanian Language and the Hungarian National Corpus.

EURECO APPROACH TO COMPARABLE CORPORA

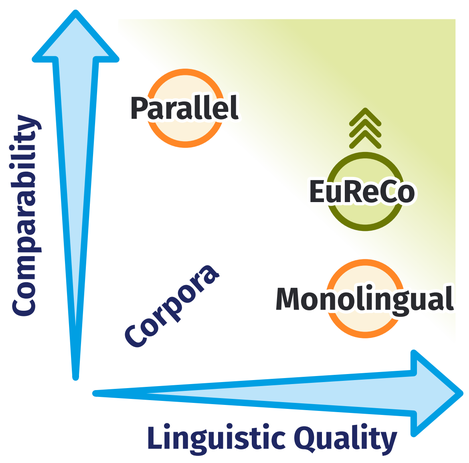
- **open initiative** founded in 2013
- **combine existing national and reference corpora**
  - maintained by sustainable institutions
  - instead of building new ones
- provide predefined virtual (comparable) corpora **AND**
- enable users to define **specific virtual comparable corpus pairs** dynamically

BECAUSE ...

- corpora with reasonable size and diversity **cannot be perfectly comparable in general**
  - always at least one criterion against comparability
  - whether unequal distribution with regard to such a variable is relevant **depends on the specific research question**
- also: single language corpora cannot be generally representative
  - population is not generally definable
  - whether a corpus is sufficiently representative **depends on the research question and the language domain**

BENEFITS OF THE EURECO APPROACH

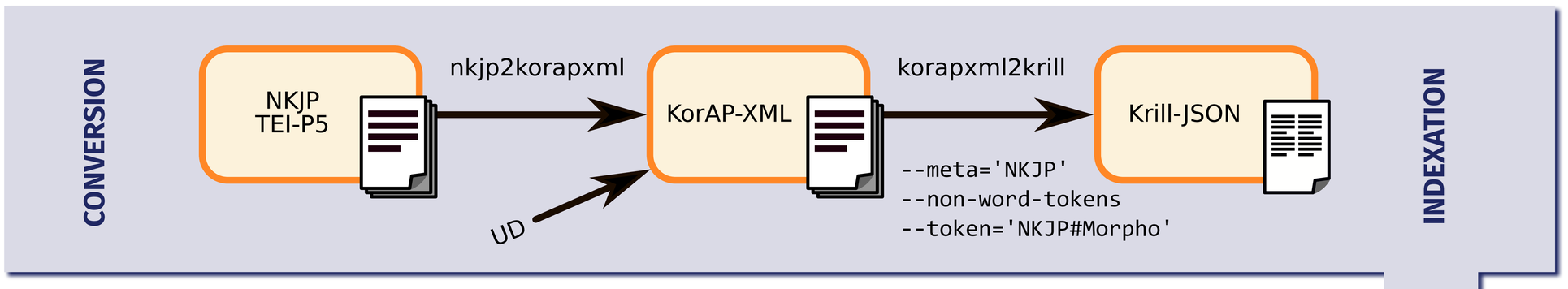
- more **economical**, **scalable** and **sustainable**
  - especially since one can also benefit from ongoing and future extensions and improvements of these corpora
  - high linguistic quality and sufficient size to be expected



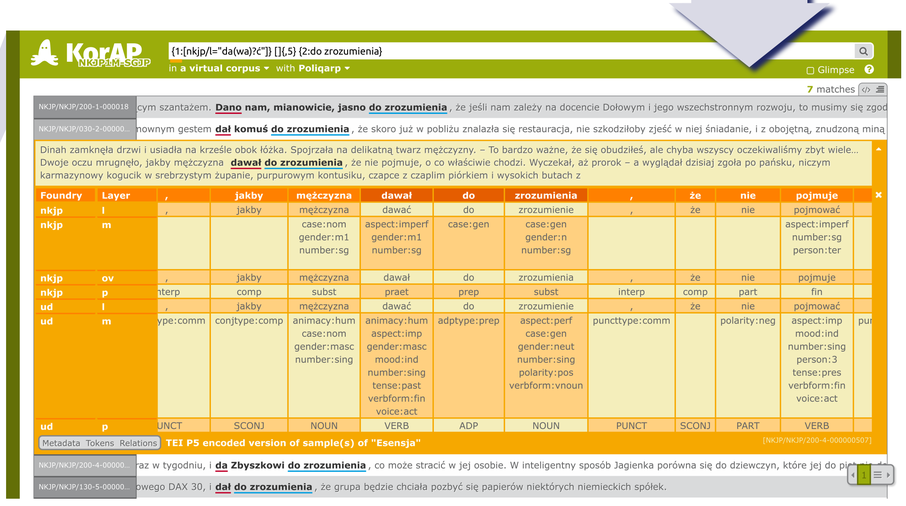
APPROACHING COMPARABILITY

- draw sub-corpora from monolingual corpora
  - so that they have similar token distributions with respect to **metadata variables** like topic area, text type, publication date etc.
- Iterative refinement for gradual approximation to sufficient comparability concerning specific research questions

NKJP-1M-SGJP IN KORAP



- Conversion for the NKJP corpus was conducted in multiple steps by extending the existing KorAP ingestion pipeline:
  1. NKJP format was transformed to KorAP-XML using **dedicated XSLT scripts**
  2. KorAP-XML data was enriched using **UDPipe 2** for Polish
  3. KorAP-XML data was further transformed using korapxml2krill with **dedicated conversion rules** for metadata and annotations
- To improve access to the NKJP annotation scheme, the annotation assistant for KorAP was extended to support the tagsets for part-of-speech and morphological information



ANALYSIS WITH R

```
01 library(RKorAPClient)
02
03 new(
04   "KorAPConnection",
05   KorAPUrl = "https://korap.ids-mannheim.de/instance/nkjp1m-sgjp"
06 ) %>%
07 collocationAnalysis(
08   'focus({[nkjp/l="da(wa)?ć"] []{,5} do} [nkjp/p=subst])',
09   leftContextSize = 0,
10   rightContextSize = 1, # relative to { ... } in focus()
11 )
```

LVC	logDice	pmi	ll
da(wa)?ć ... do zrozumienia	11.84246	13.05918	107.977

FURTHER INFORMATION

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https://www.ids-mannheim.de/digspra/kl/projekte/eureco

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