

# Results in WP3

- Large set of machine learning algorithms tested and results tabulated
  - Table available as CSV in Allas: <https://a3s.fi/hpd-data/XMTC-experiments.csv>
- Hyper-parameter optimization for fastText and omikuji (parabel, bonsai, att.xml)
  - FastText recommended parameters: <https://a3s.fi/hpd-data/Annif-fasttext-yso-recommendations.cfg>
  - Omikuji parameters in XMTC table
- CSC's algorithm recommendation: omikuji
  - Tree-based ensemble model, reasonably fast
  - Results good overall
  - Well-maintained software
  - One downside: model files tend to be quite big – can be reduced with some reduction in performance
- Neural network-based X-BERT promising, more study needed
  - Instructions on how to reproduce current X-BERT results with Annif databases documented: <https://github.com/mvsjober/X-Transformer/blob/master/README-Annif.md>
  - Selection of models and settings available in Allas

## Results in WP5.3

Pilot technology demonstration to utilise CSC computing platforms with Annif: <https://github.com/CSCfi/annif-utils>

- Created application to combine flexibility of Rahti, computing power of Puhti and storage capacity of Allas (also transferable to other standard environments)
- Demo-notebook application:  
<https://github.com/CSCfi/annif-utils/blob/master/annif.ipynb>