

Safeguarding or Sacrificing? The dynamics of biodiversity-related issue uptake in EU commission proposals

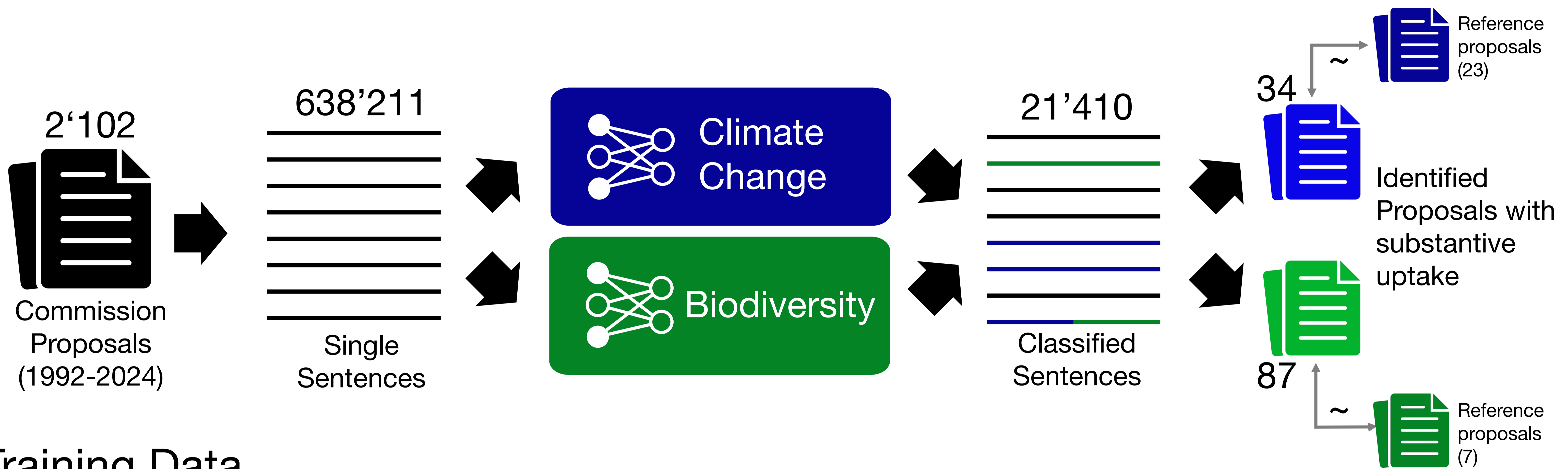
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Research Question

Biodiversity loss and climate change are related yet distinct environmental issues. How has their uptake in EU Commission proposals evolved?

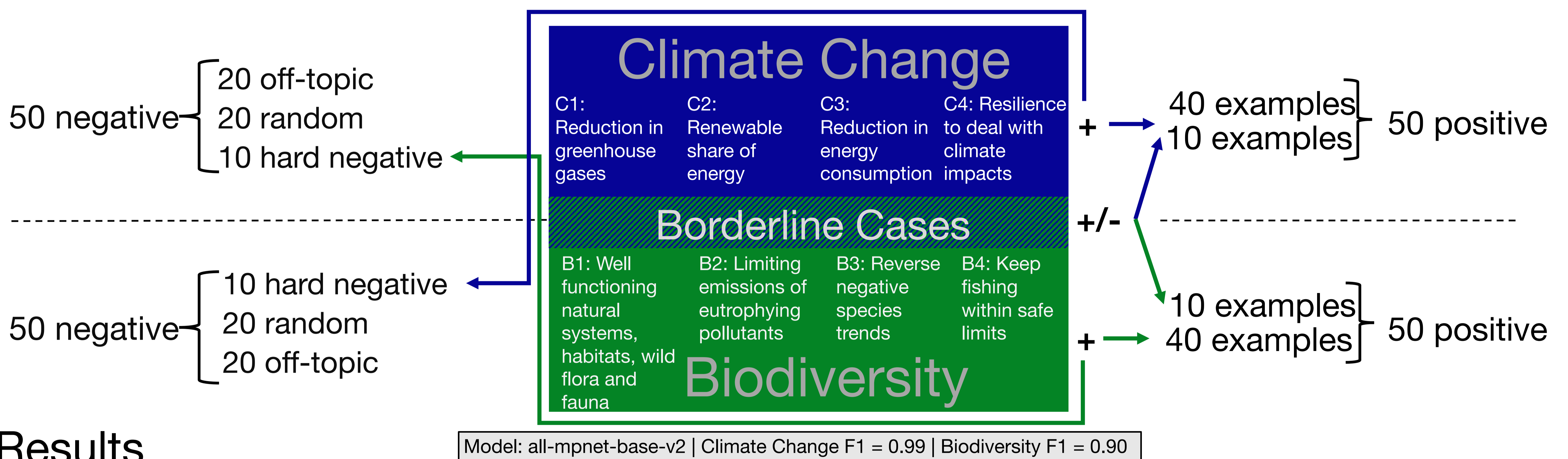
Our Approach

To assess issue salience in policy proposals, we measure climate- or biodiversity-relevant content by classifying individual sentences. To build separate classifiers for climate change and biodiversity, we fine-tune a pretrained language model using a data-efficient few-shot framework [1].



Training Data

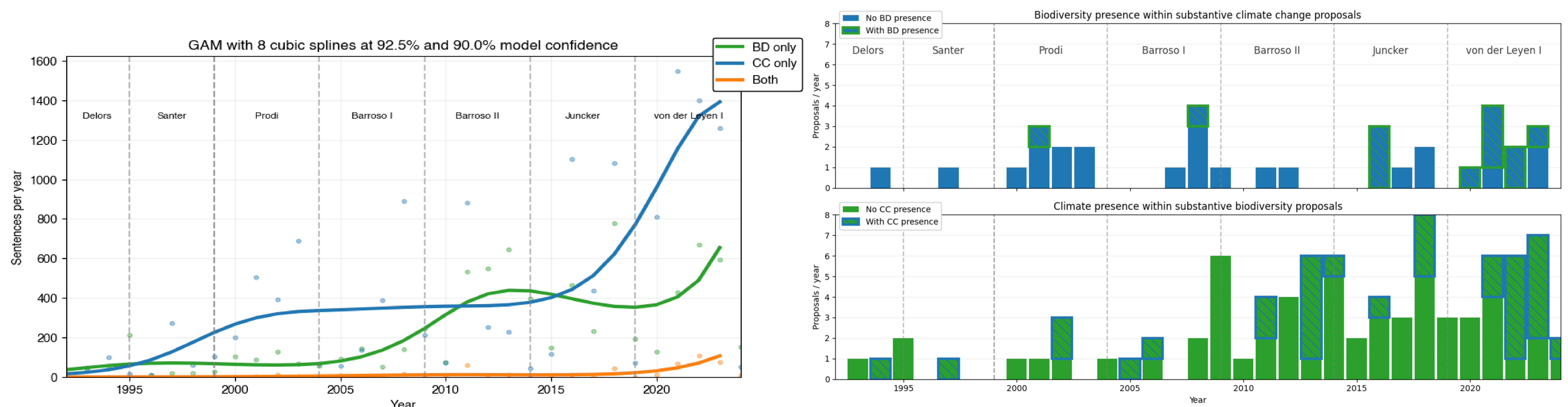
To train a classifier for each issue, we build two separate training sets with controlled overlap using a preexisting categorization [2]. We collect example sentences for each category (C1–C4; B1–B4 below) from reference proposals and assess the model performance on independent data sets.



Model: all-mpnet-base-v2 | Climate Change F1 = 0.99 | Biodiversity F1 = 0.90

Results

Climate change and biodiversity policy have stayed on the agenda and gained attention despite competing issues, such as economic crises. Additionally, they are increasingly addressed within the same proposals, indicating convergence in policy venues. On the left, GAM-smoothed estimates for sentences related to biodiversity (BD), climate change (CC), or both across all proposals between 1992 and 2024 are shown. The right shows proposals with substantive issue uptake over time. Hatched bars indicate proposals with the presence of the respective other issue.



References

- [1] Tunstall, L., Reimers, N., Jo, U.E.S., Bates, L., Korat, D., Wasserblat, M., Pereg, O., 2022. Efficient Few-Shot Learning Without Prompts. <https://doi.org/10.48550/ARXIV.2209.11055>
- [2] Nilsson, M., Zamparutti, T., Petersen, J.E., Nykvist, B., Rudberg, P., McGuinn, J., 2012. Understanding Policy Coherence: Analytical Framework and Examples of Sector–Environment Policy Interactions in the EU. *Env Pol Gov* 22, 395–423. <https://doi.org/10.1002/eet.1589>



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