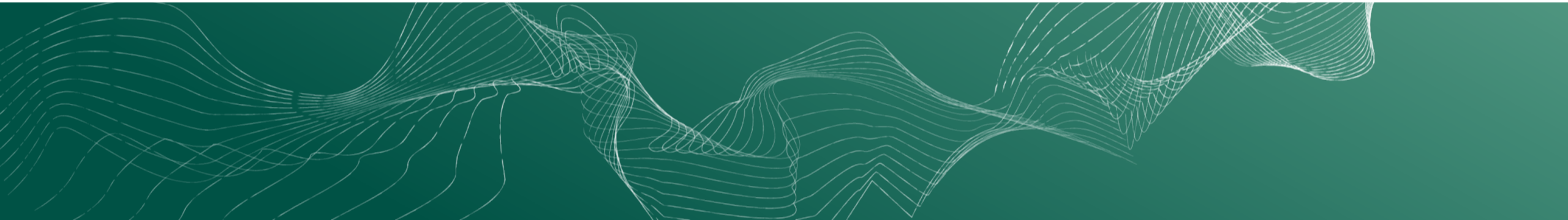


PROBLEM

European protein deficit

Johann Vollmann, BOKU University

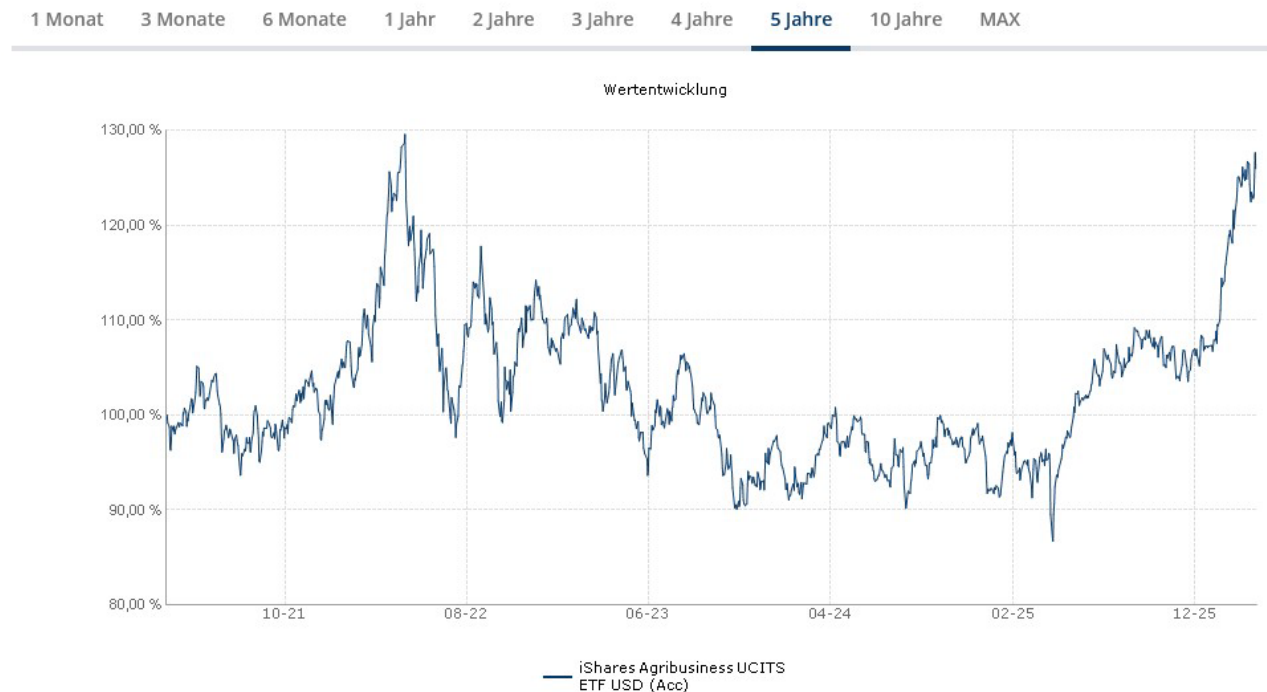


European strategies for self-sufficiency

Self-sufficiency in

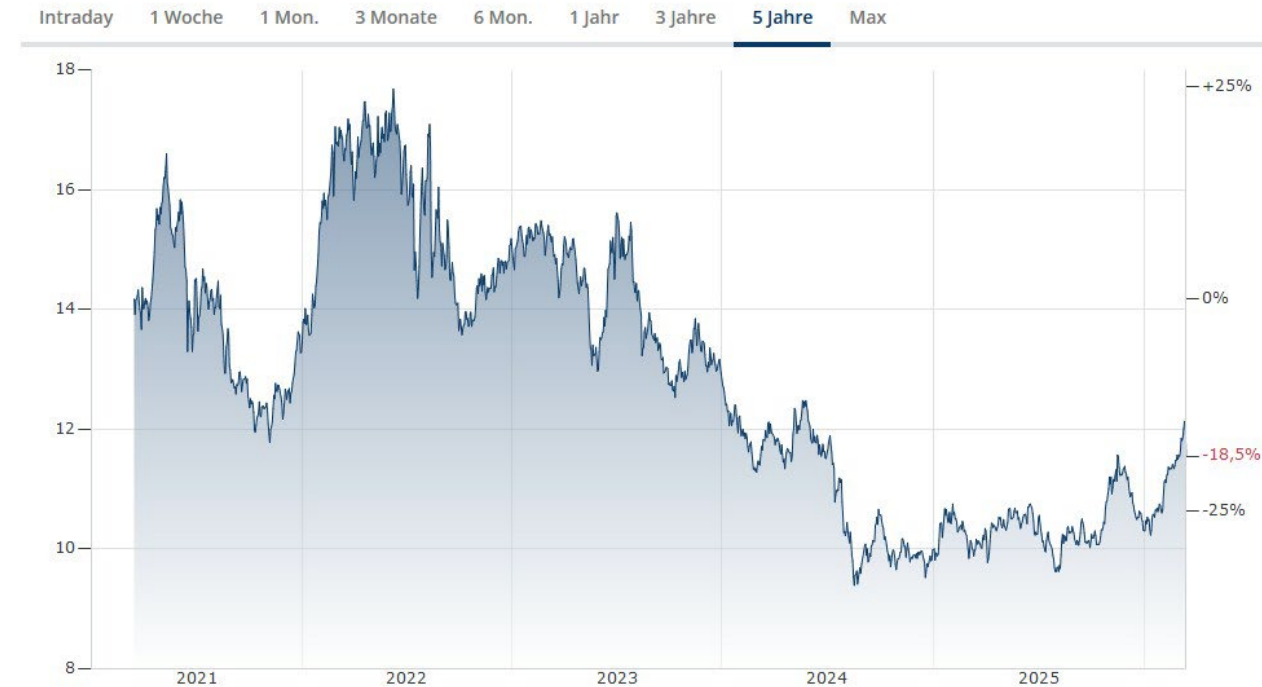
- energy supply
- industrial production
- critical infrastructures (software, transport, research, pharma ...)
- agri-food sector : **European PROTEIN DEFICIT**

iShares Agribusiness UCITS ETF USD (Acc) Performancechart



Sojabohnenpreis Chart in Dollar

(Source: <https://www.finanzen.net/>, Mar 2026)



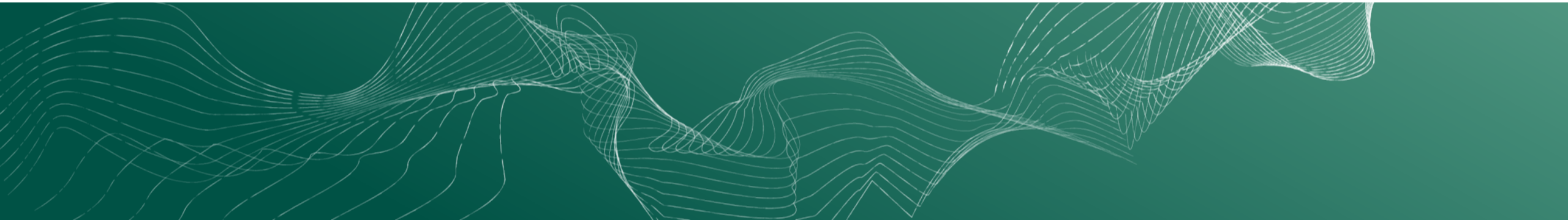


**Soybean harvest
in Austria**



Soybean diversity in seed traits

RESEARCH QUESTIONS

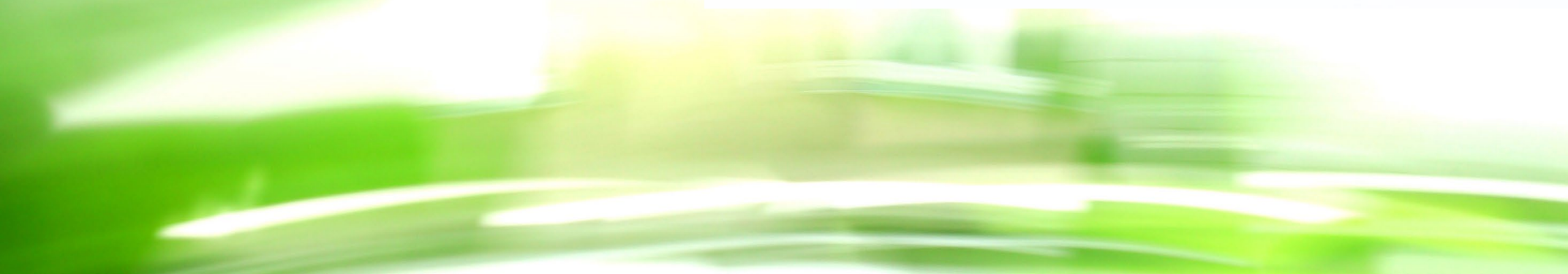




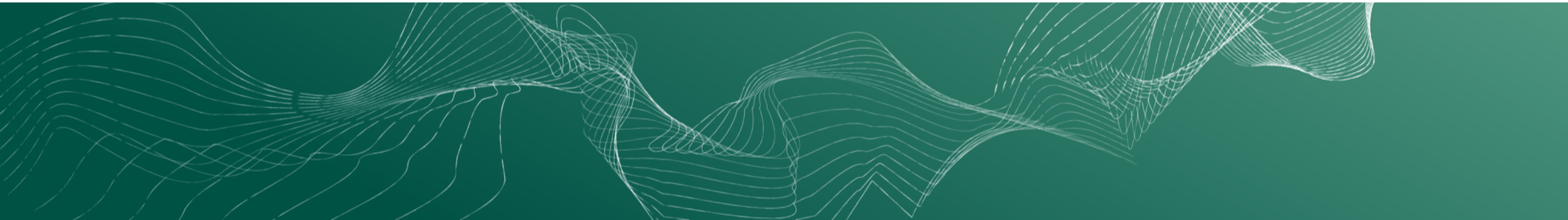
Key research questions

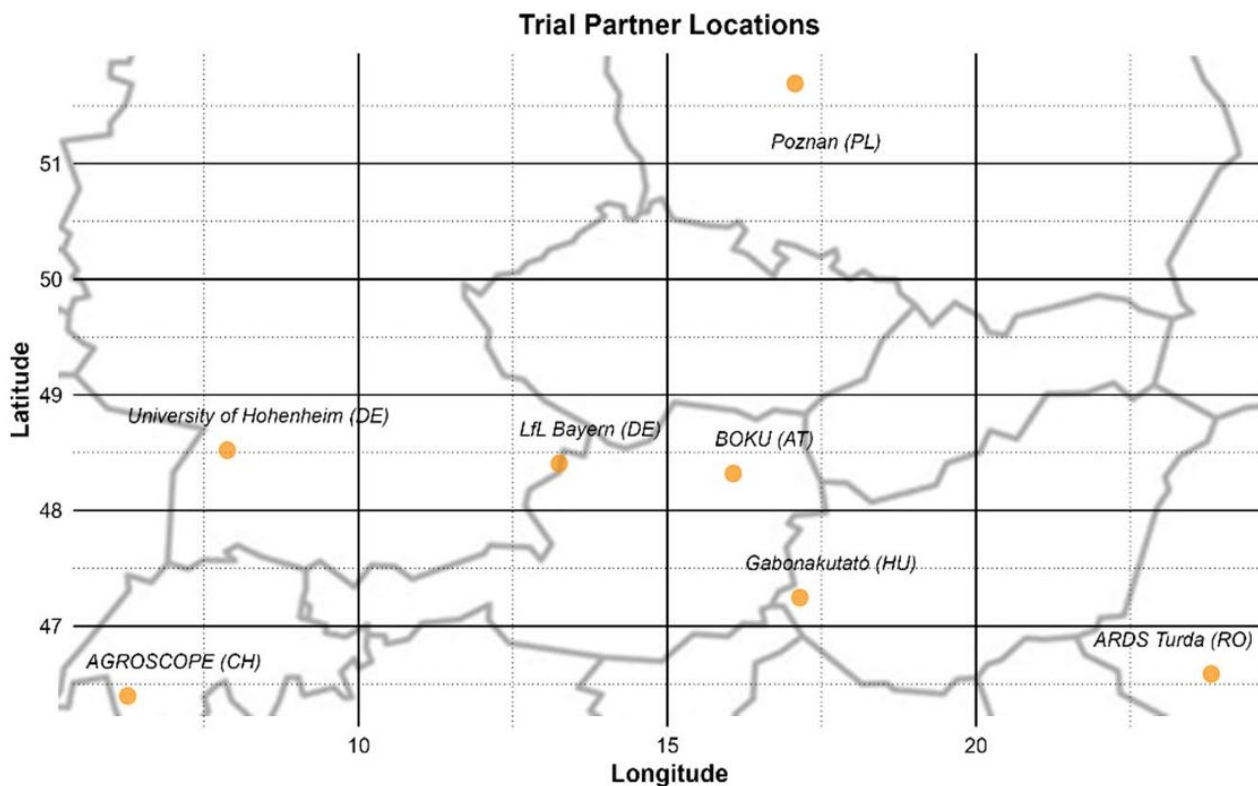
European soybean:

- Protein quality and quantity
- Adaptation to environments / climate change



CURRENT RESEARCH PROJECTS





Project **HABERLANDT**



Project **LEGUME GENERATION**

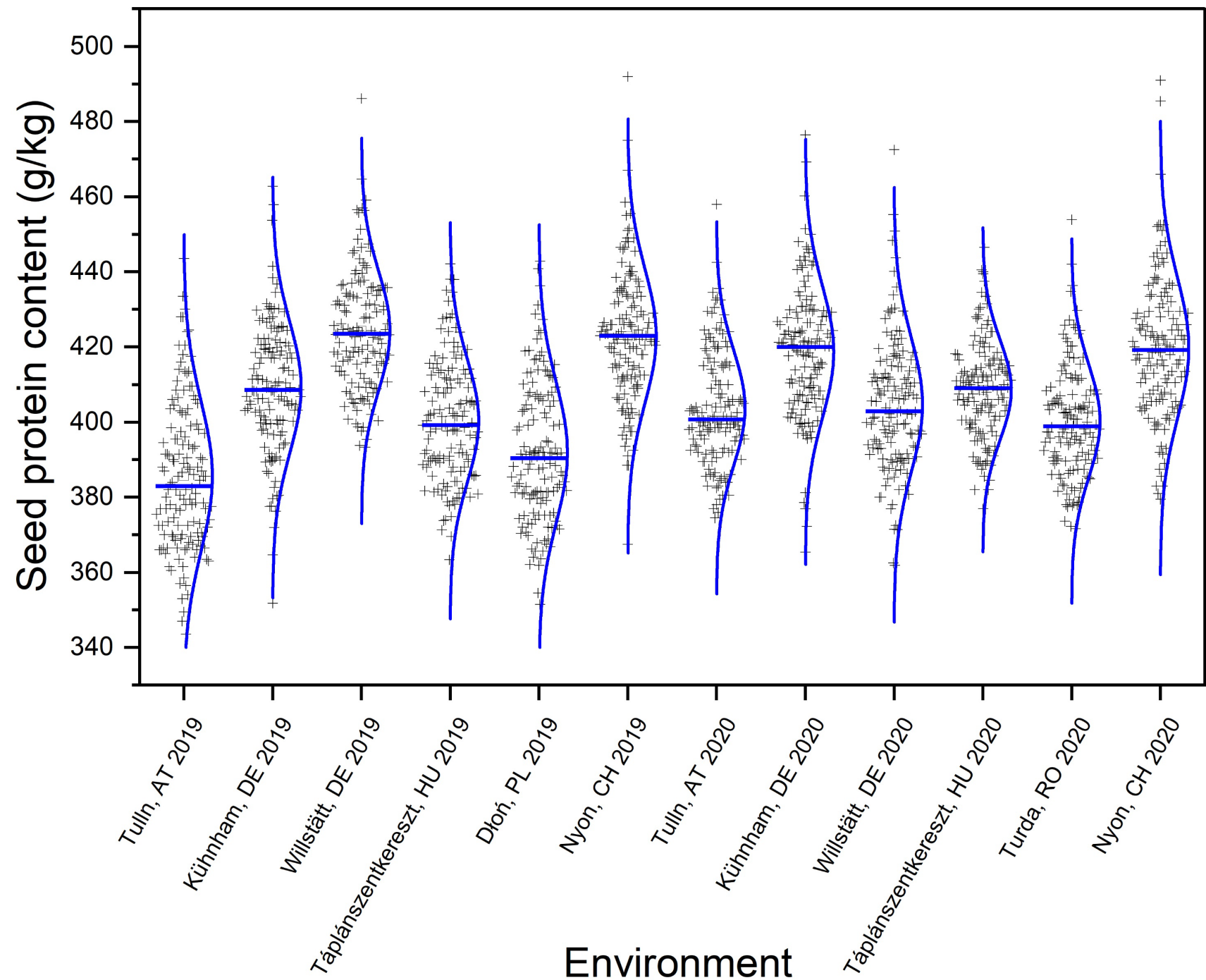


Legume
Generation



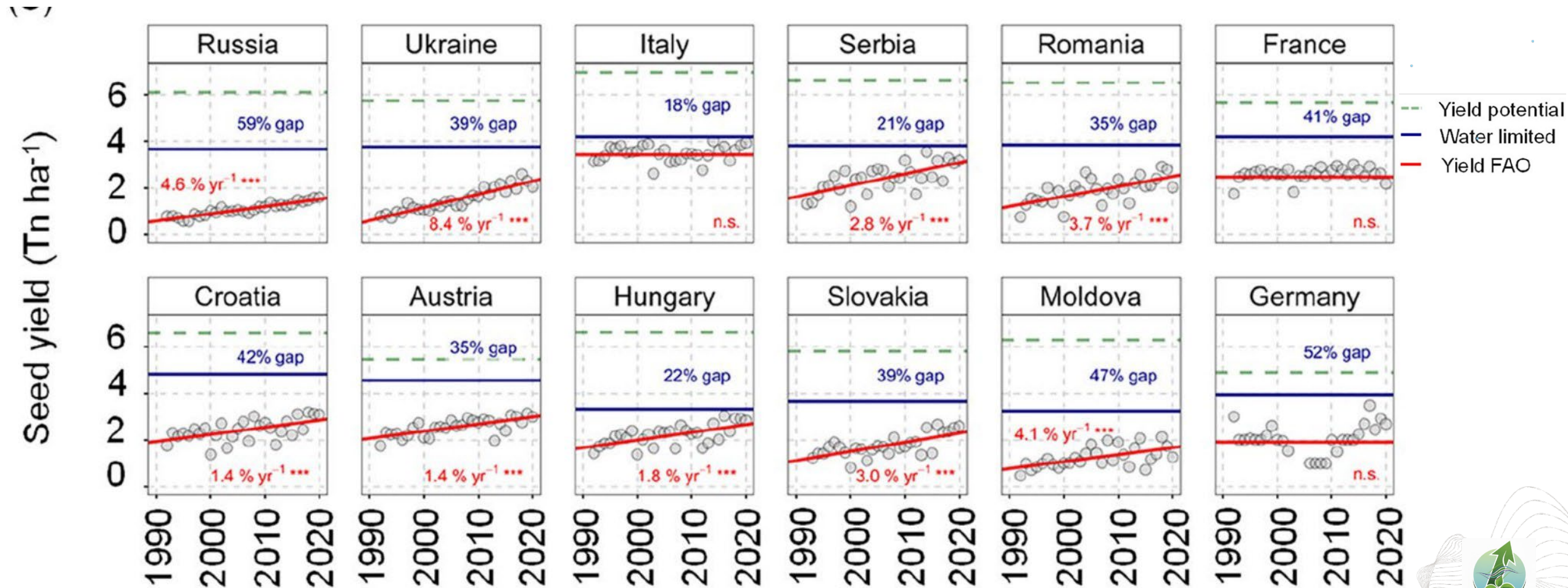
Funded by
the European Union

Soybean
seed protein content
depending on
environment:
**High seed protein
content**



Lack of water

Europe has a soybean yield gap – need of **adaptation research**



(Source: Rotundo et al. 2024, doi: 10.1038/s41598-024-57522-z)

Drought stress adaptation research



Drone with Sony RGB camera and Micasense multispectral cameras



Digital phenotyping: Hyperspectral reflectance is recorded in the field. Water indices are calculated from spectral data describing water status



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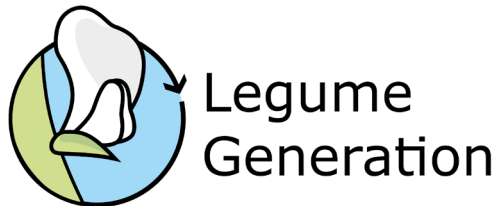
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Legume Generation consortium



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