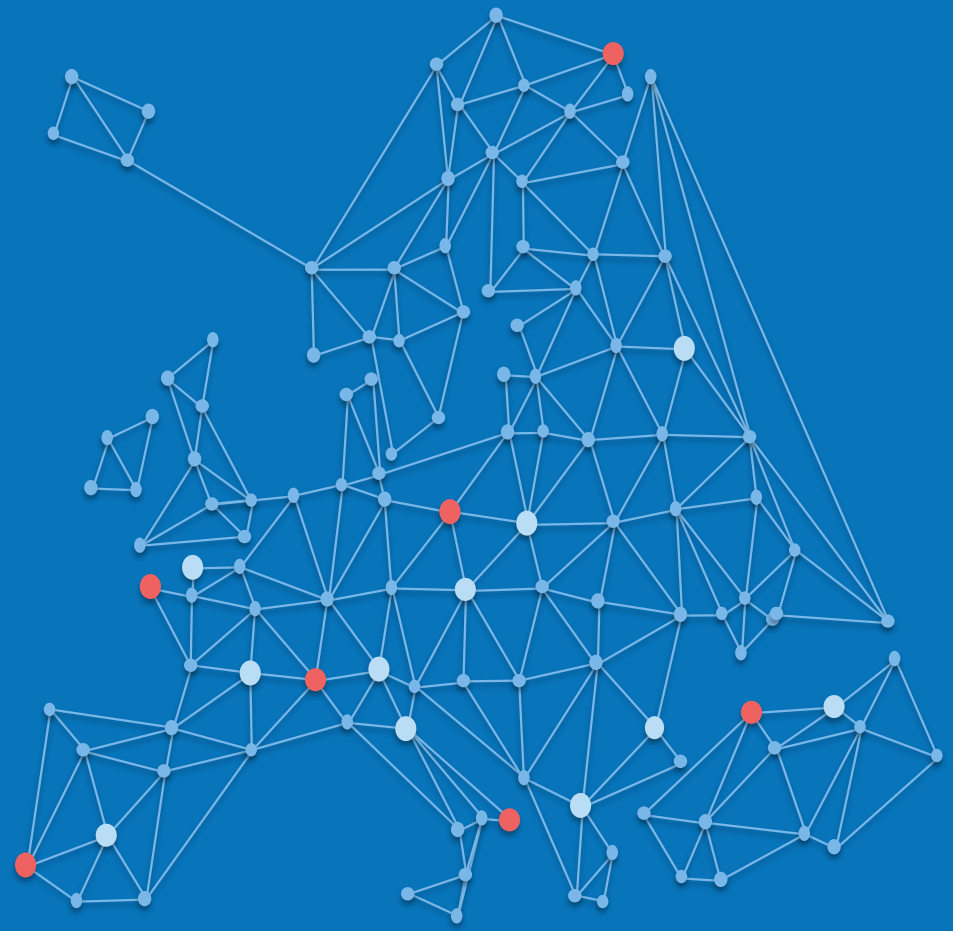
MOOD Non-profit Association

MOOD Epidemiological platform

From data to epidemic intelligence

Spatial epidemiology . One Health . Decision support



How was the platform created?

How was the platform created?

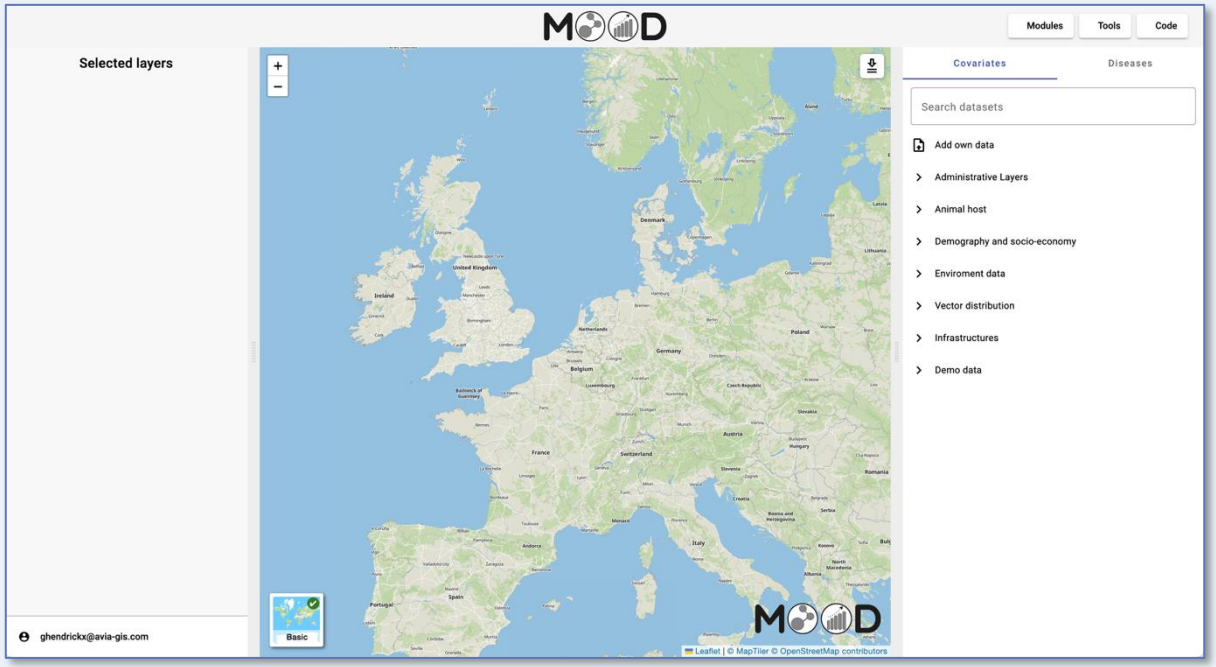
- MOOD project (EC):
  - Initiated by epidemiologists
  - Multidisciplinary co-creation
  - Integrating user needs
  - Covering Europe
  - Sustainable output
- Non-profit association:
  - 7 MOOD partners
  - Epidemiologists
  - Independent open access platform
  - Offers ready-to-use platform as a partner in new projects



What can the platform do?

What can the platform do?

1. Query, extract and download environmental data (co-variates)
2. Query and extract vector and host suitability model outputs
3. Query and extract disease risk maps and prediction model outputs
4. Access and add disease data
5. Access additional tools and code packages



https://mood-platform.eu/core

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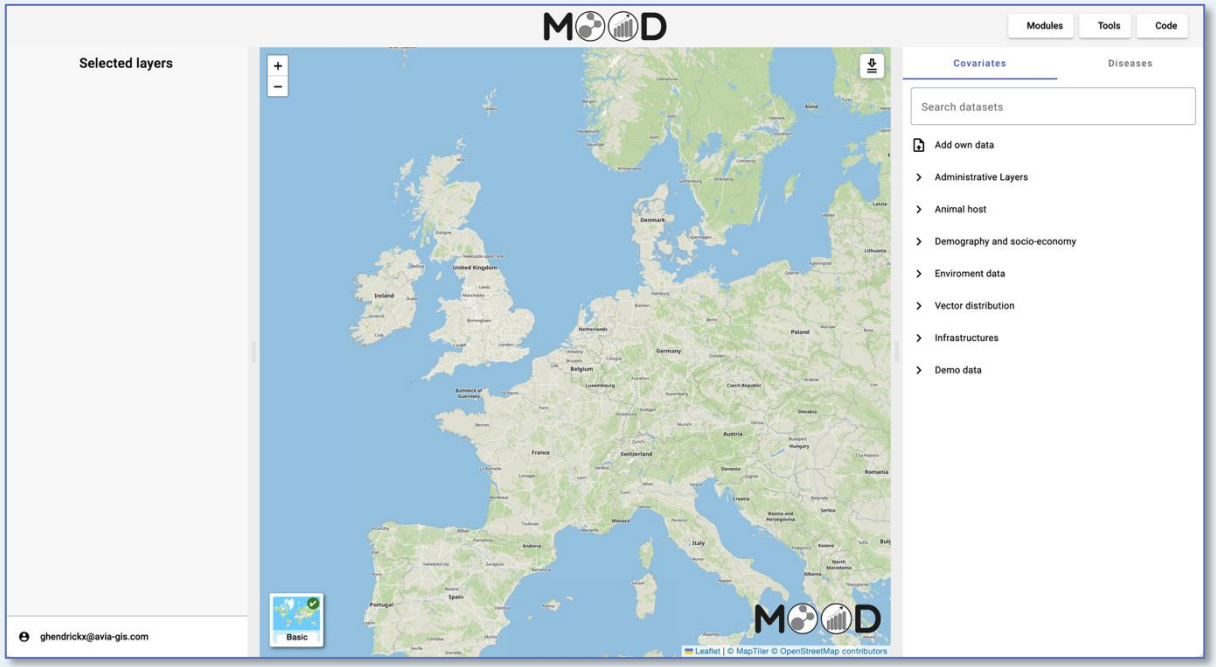

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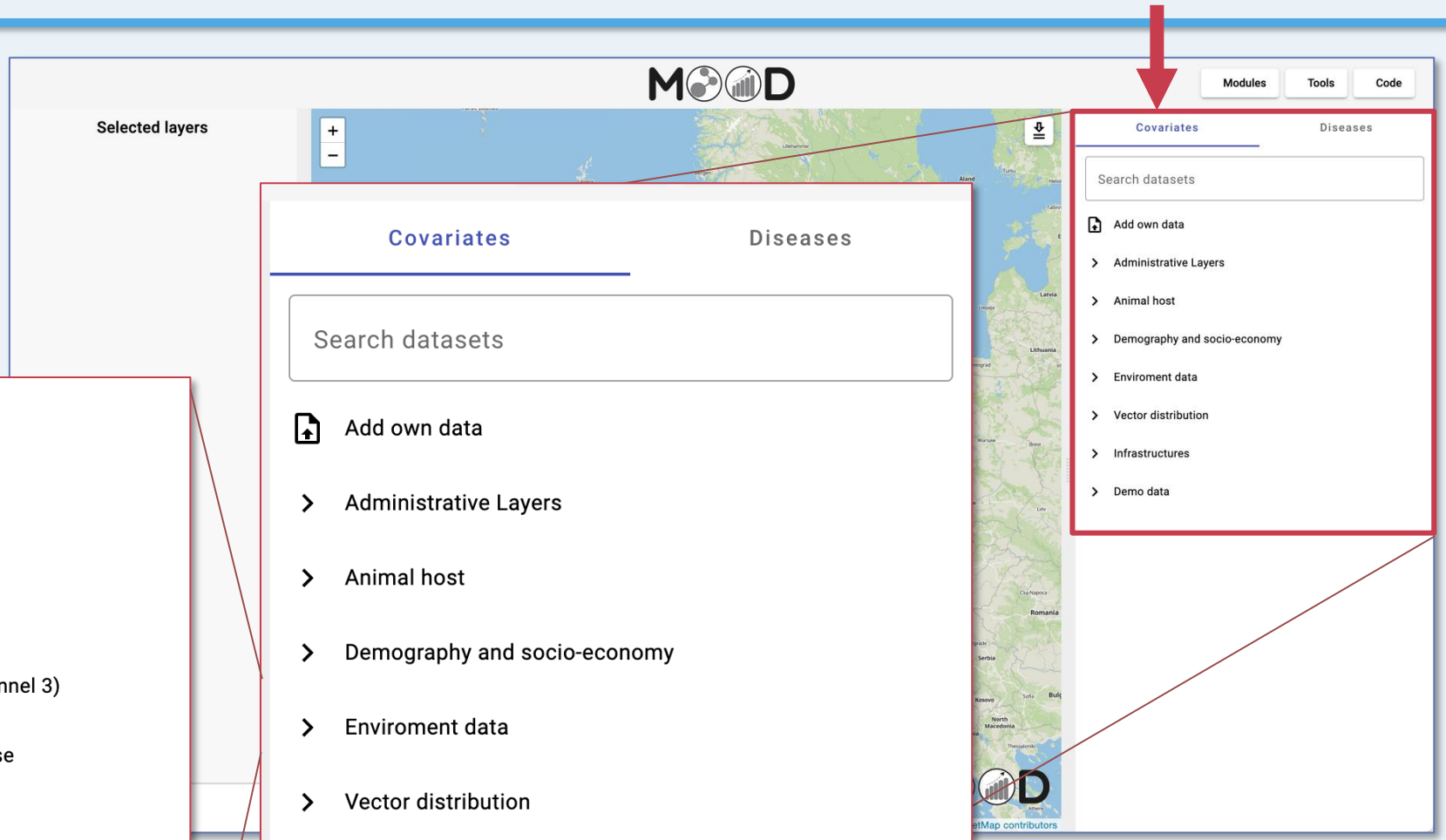
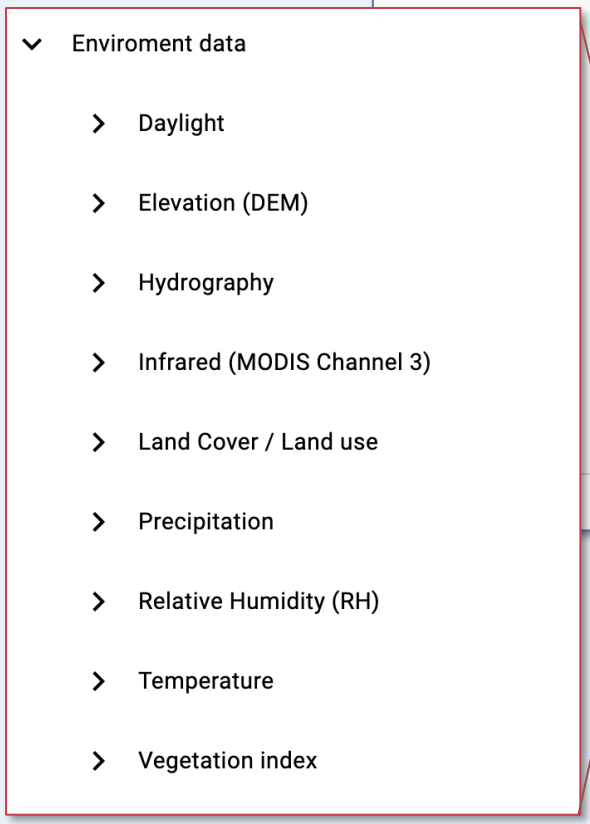
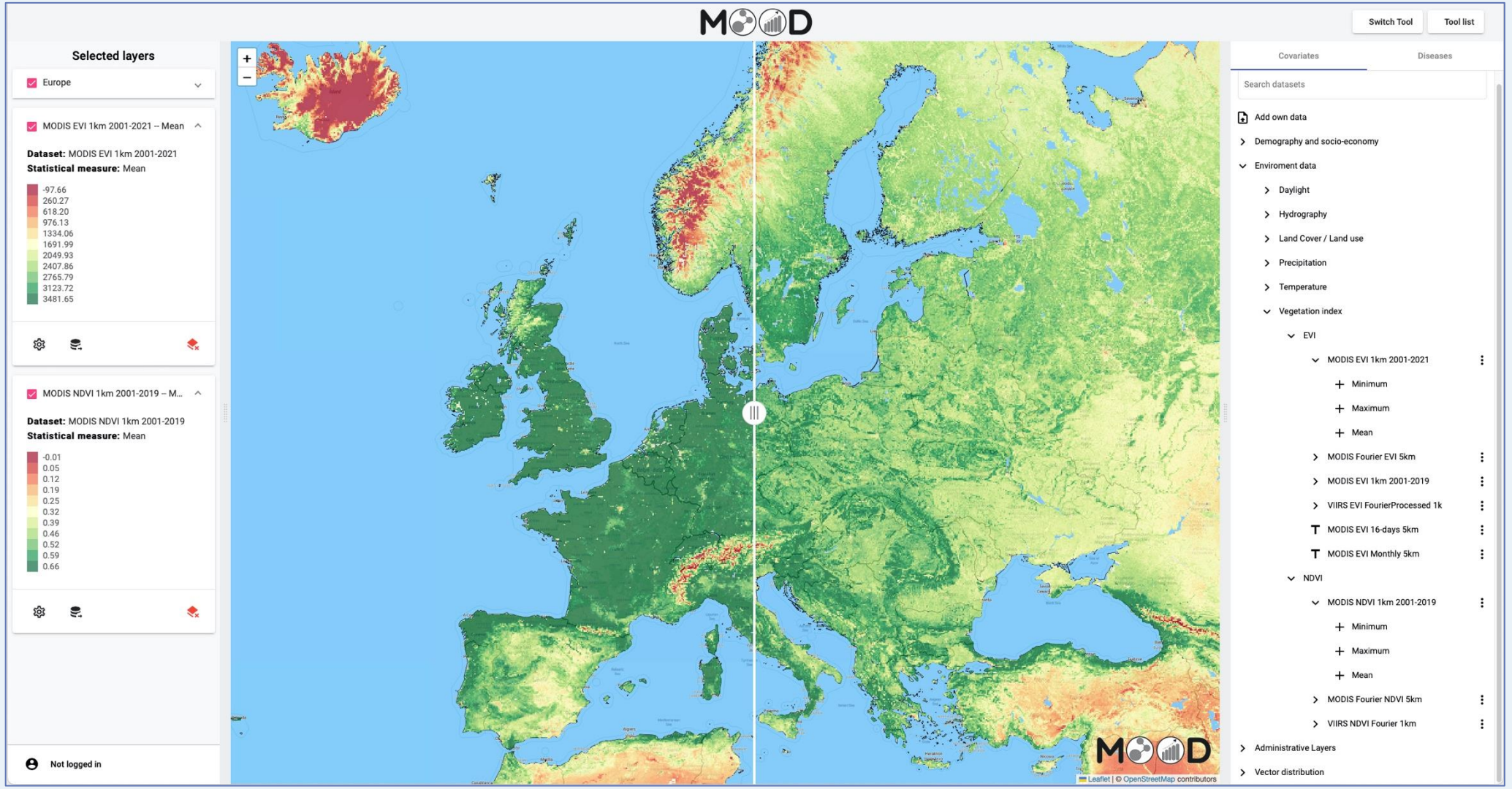
Access environmental datasets





Query, compare, extract, download environmental datasets



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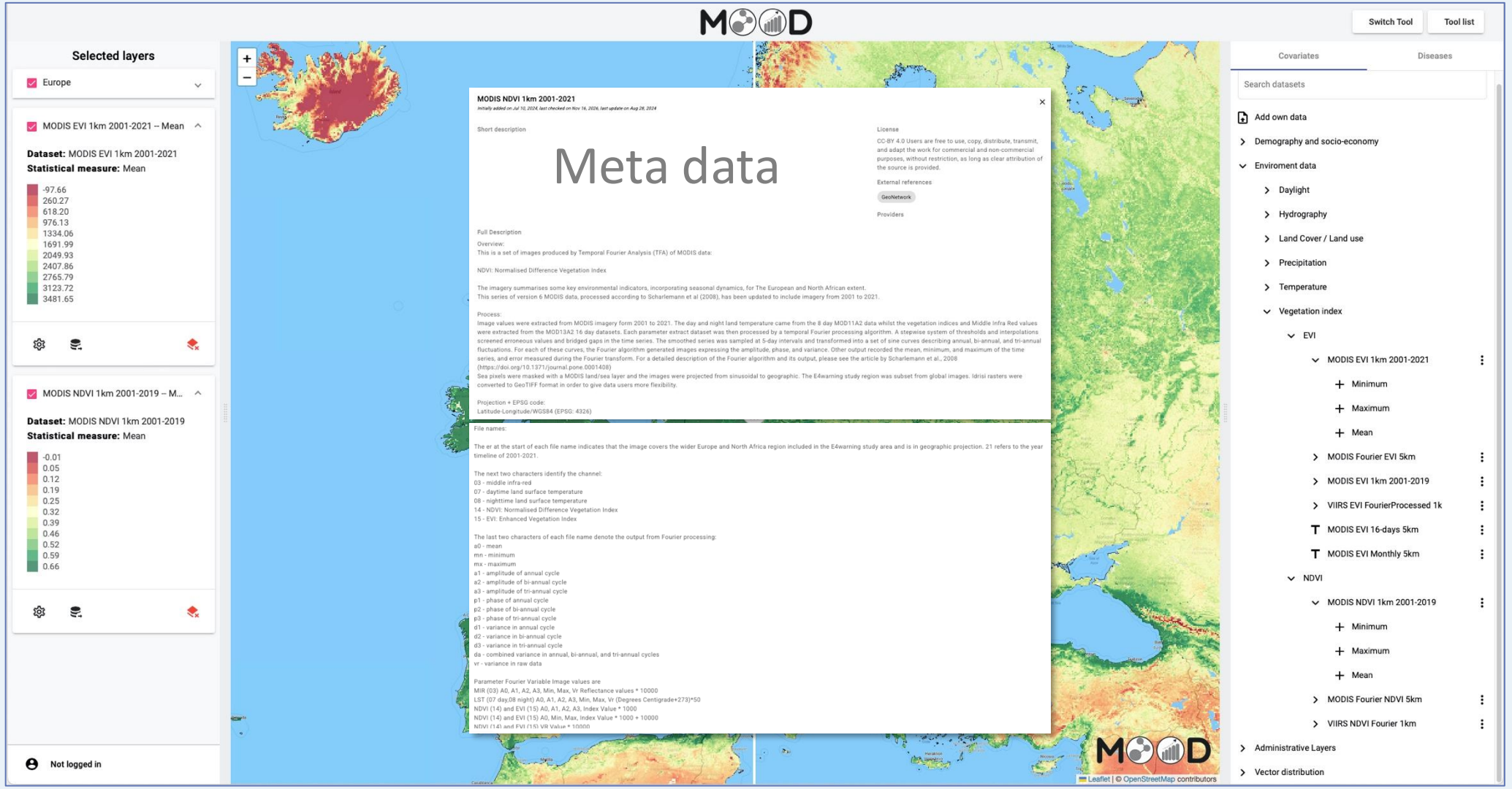

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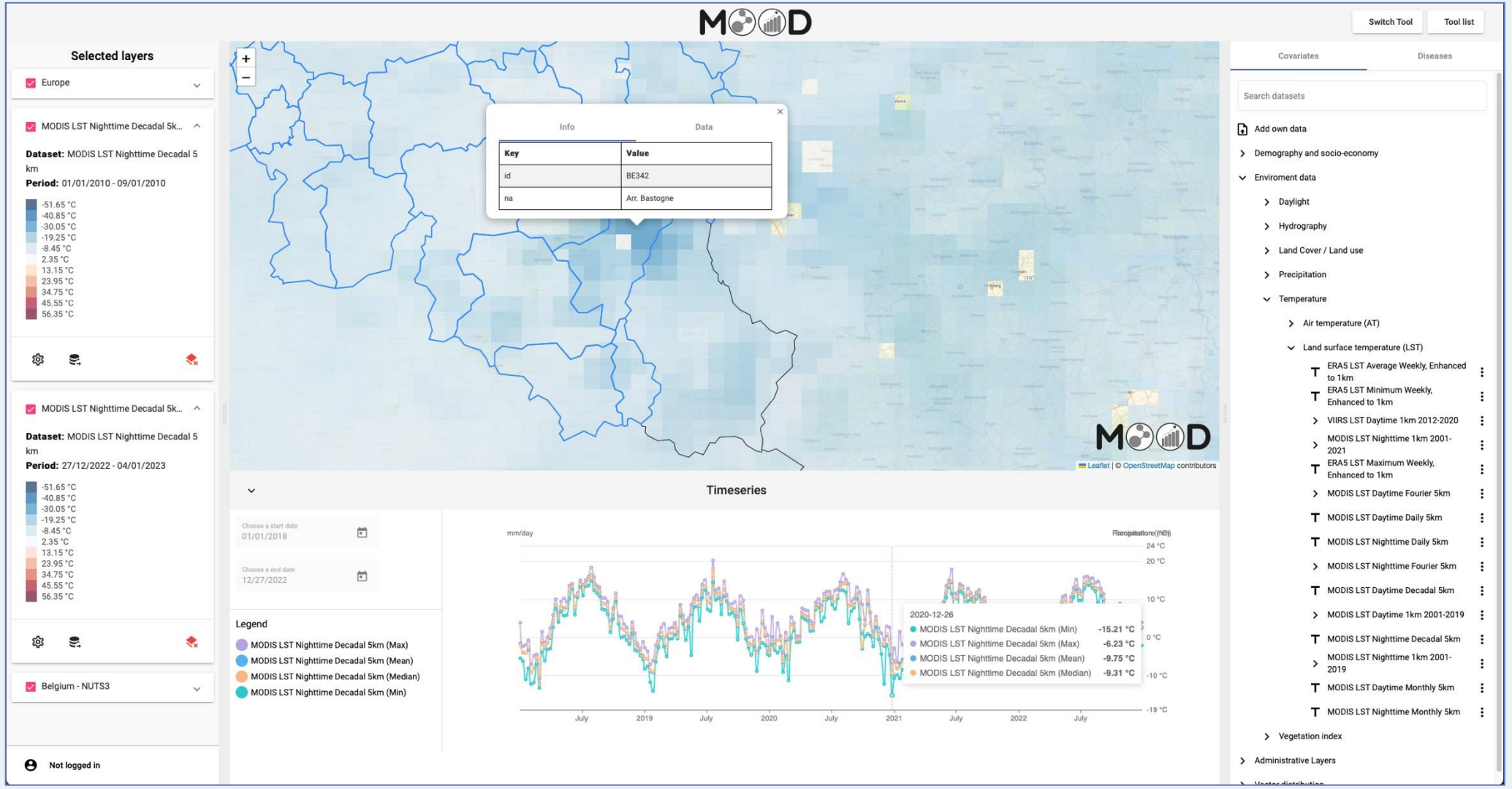
Extract time series data: point or polygon data



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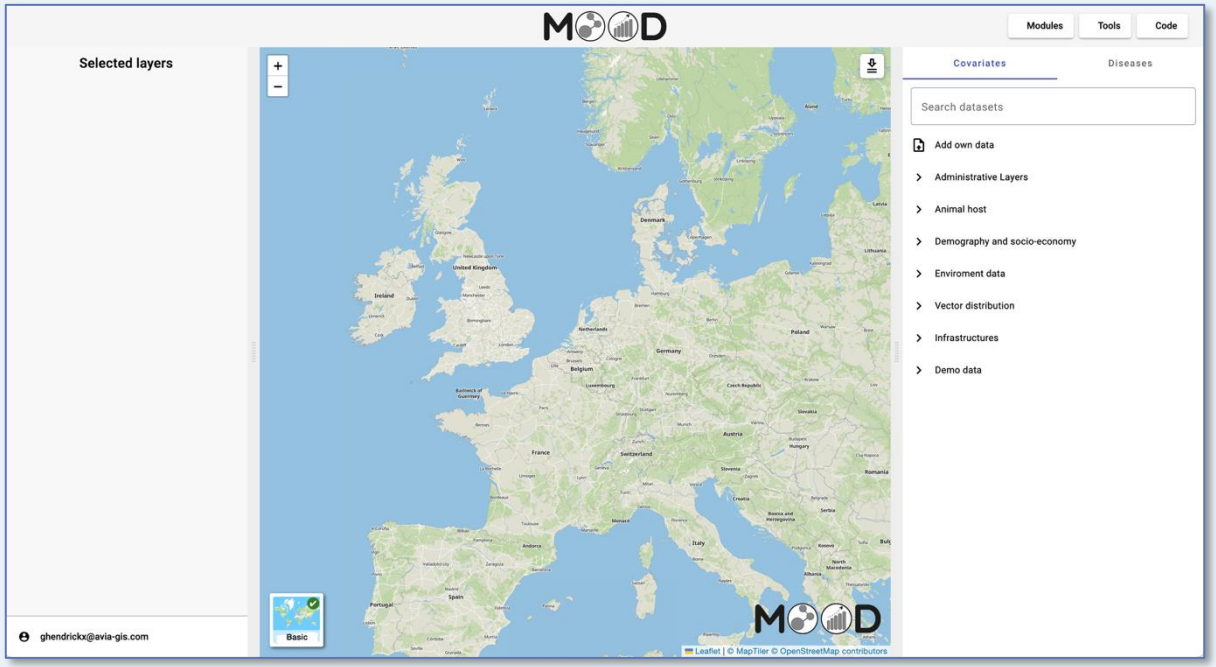

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Vector and host suitability moddel outputs

- Disease vector suitability models:
  - Ticks: *Ixodes ricinus, I. persulcatus, Hyalomma marginatum, H. lusitanicum*
  - Mosquitoes: *Aedes albopictus, Ae. aegypti, Culex pipiens, Cx. torrentium, Cx. Perexiguus, Cx. Modestus*

- Host suitability models:
  - Rodents: *Apodemus flavicollis, Myodes glareolus*
  - Hares: *Lepus europeus, L. timidus*
  - Ruminants: *Cervus elephus, Capreolus capreolus, Dama dama*
  - Birds: 18 species linked to WNF and 10 species linked to HPAI

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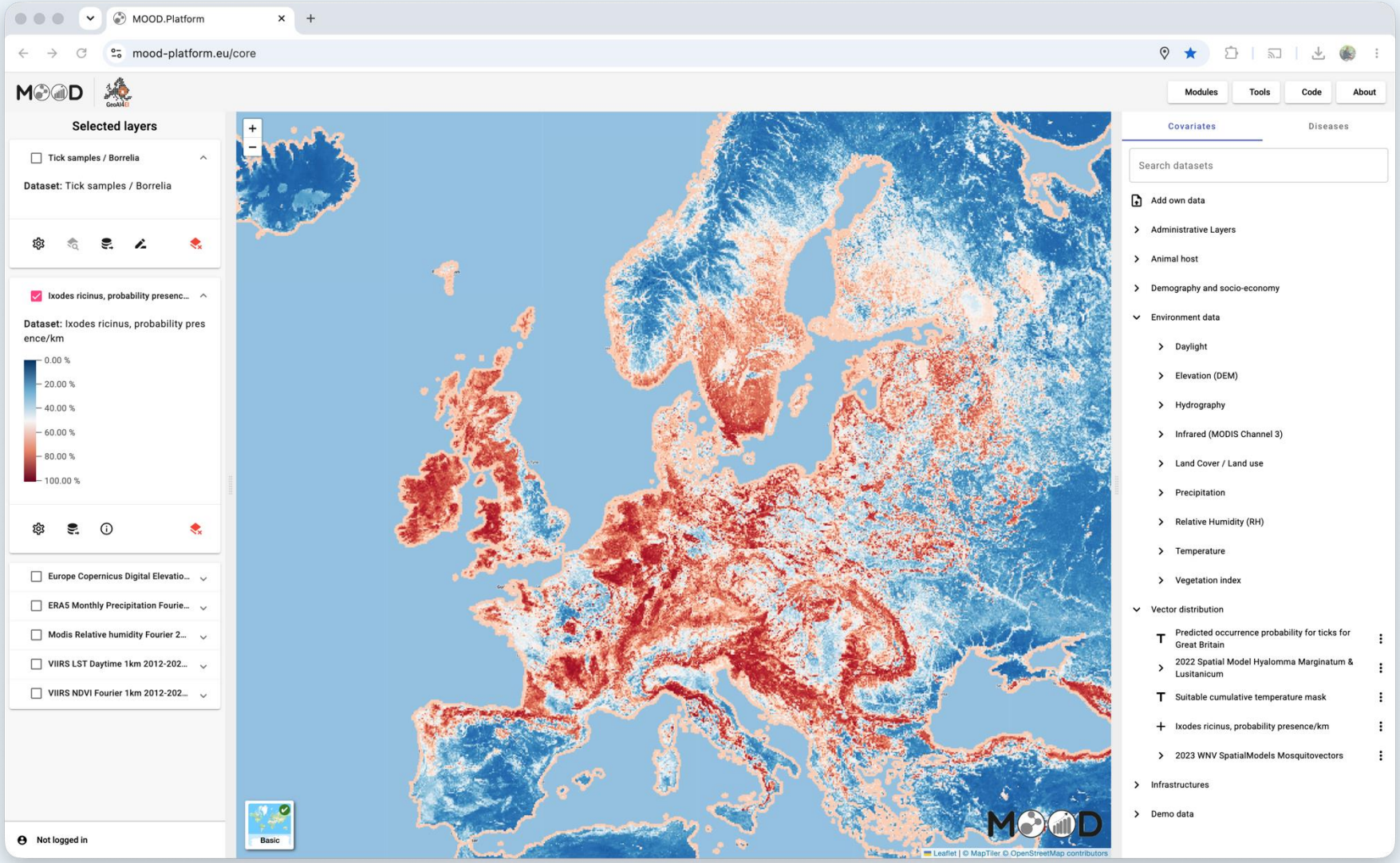
Ixodes ricinus environmental suitability model output



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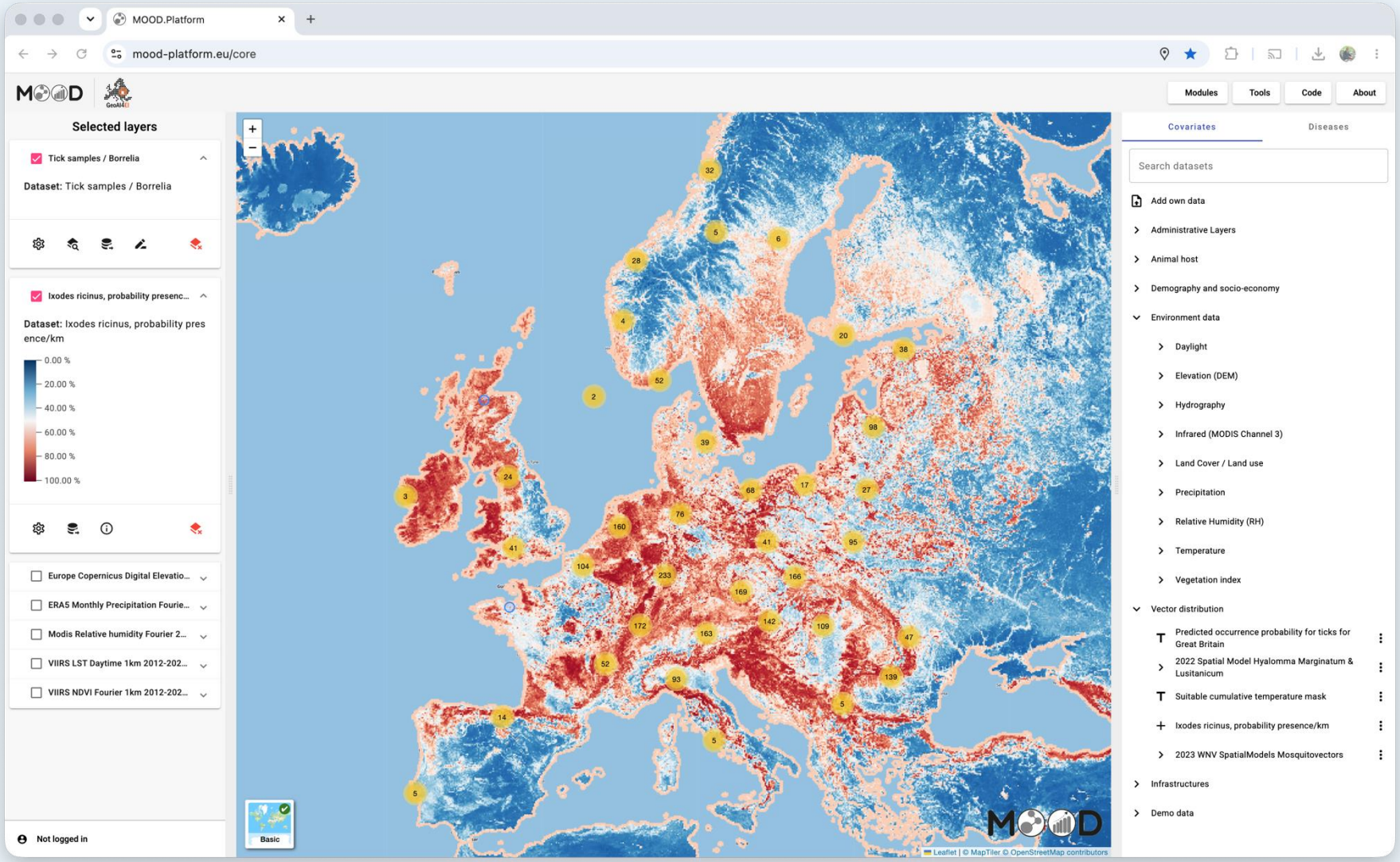
Ixodes ricinus + imported tick sample data



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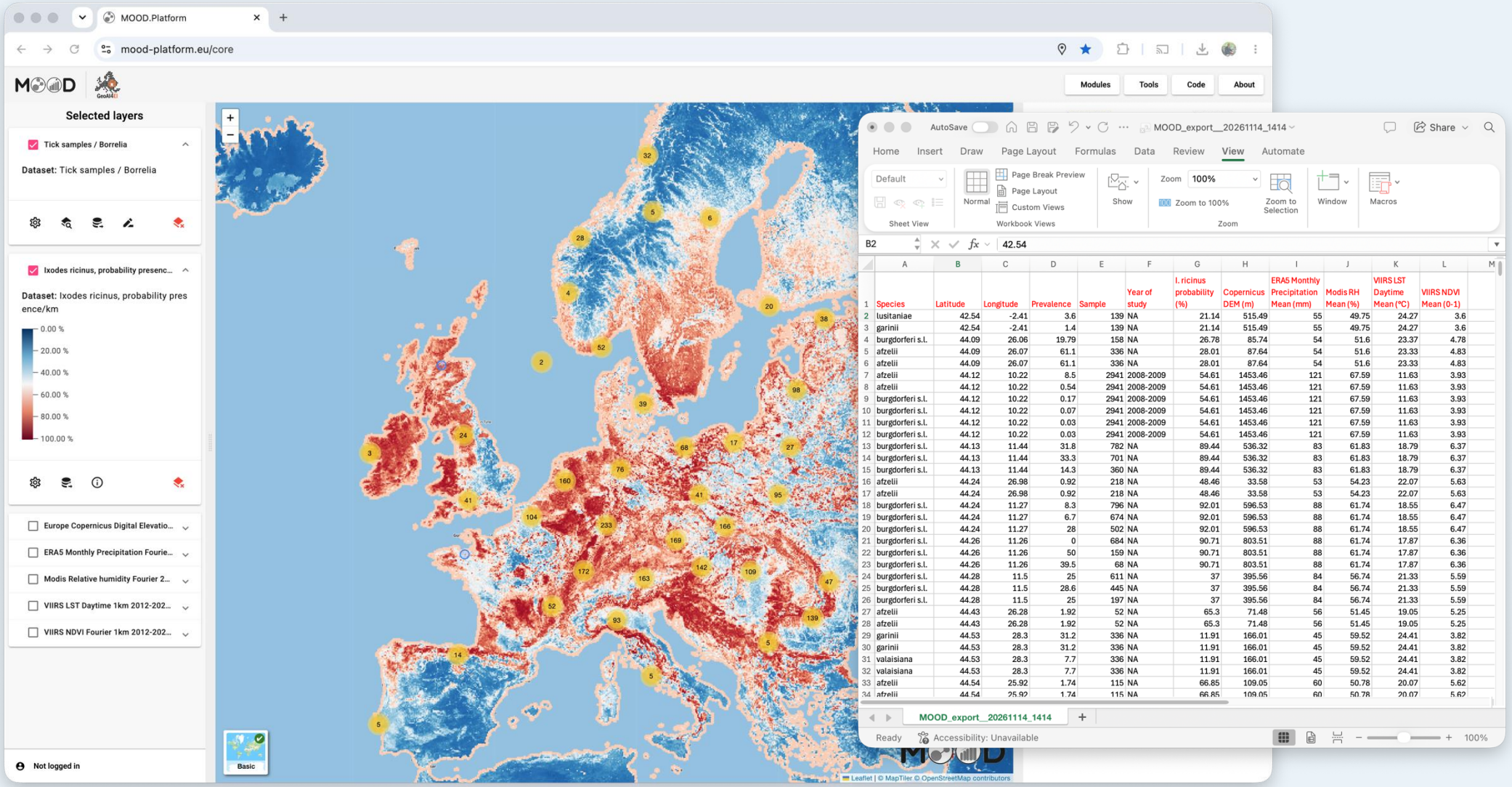
Ixodes ricinus + imported tick sample data + extracted envi cov



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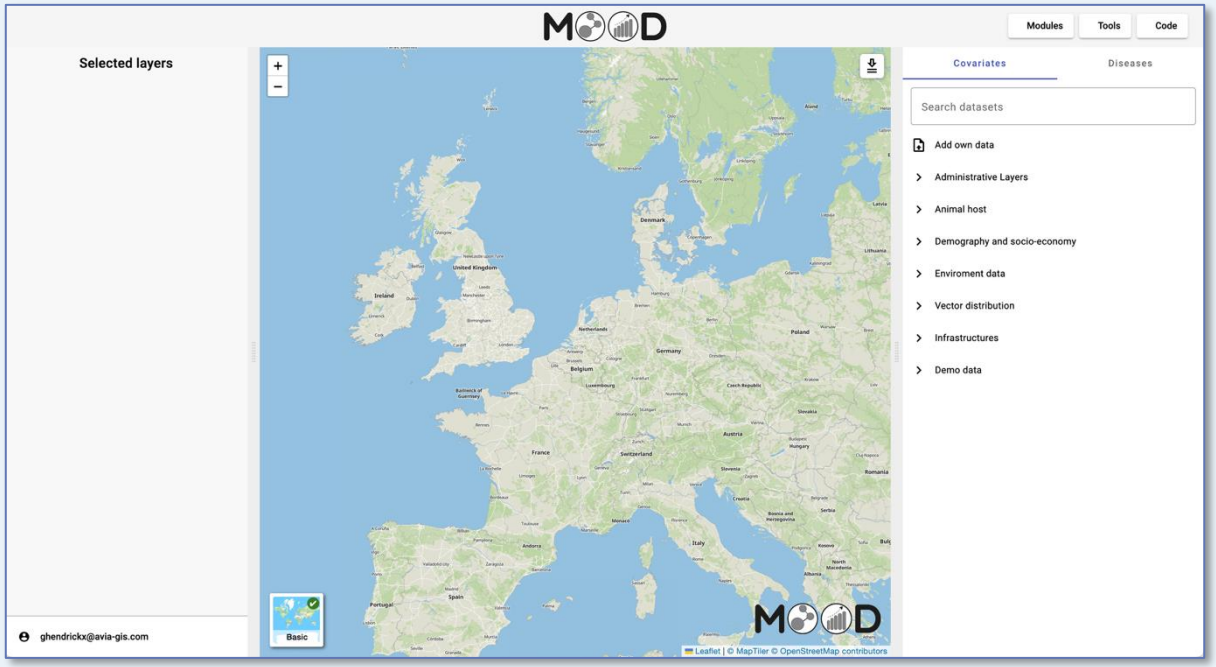
What can the platform do?

1. Query, extract and download environmental data (co-variates)
2. Query and extract vector and host suitability model outputs
3. Compare and query disease risk model outputs
    1. Download or add (your) disease data
    2. Extract co-variate data
4. Access additional tools and code packages



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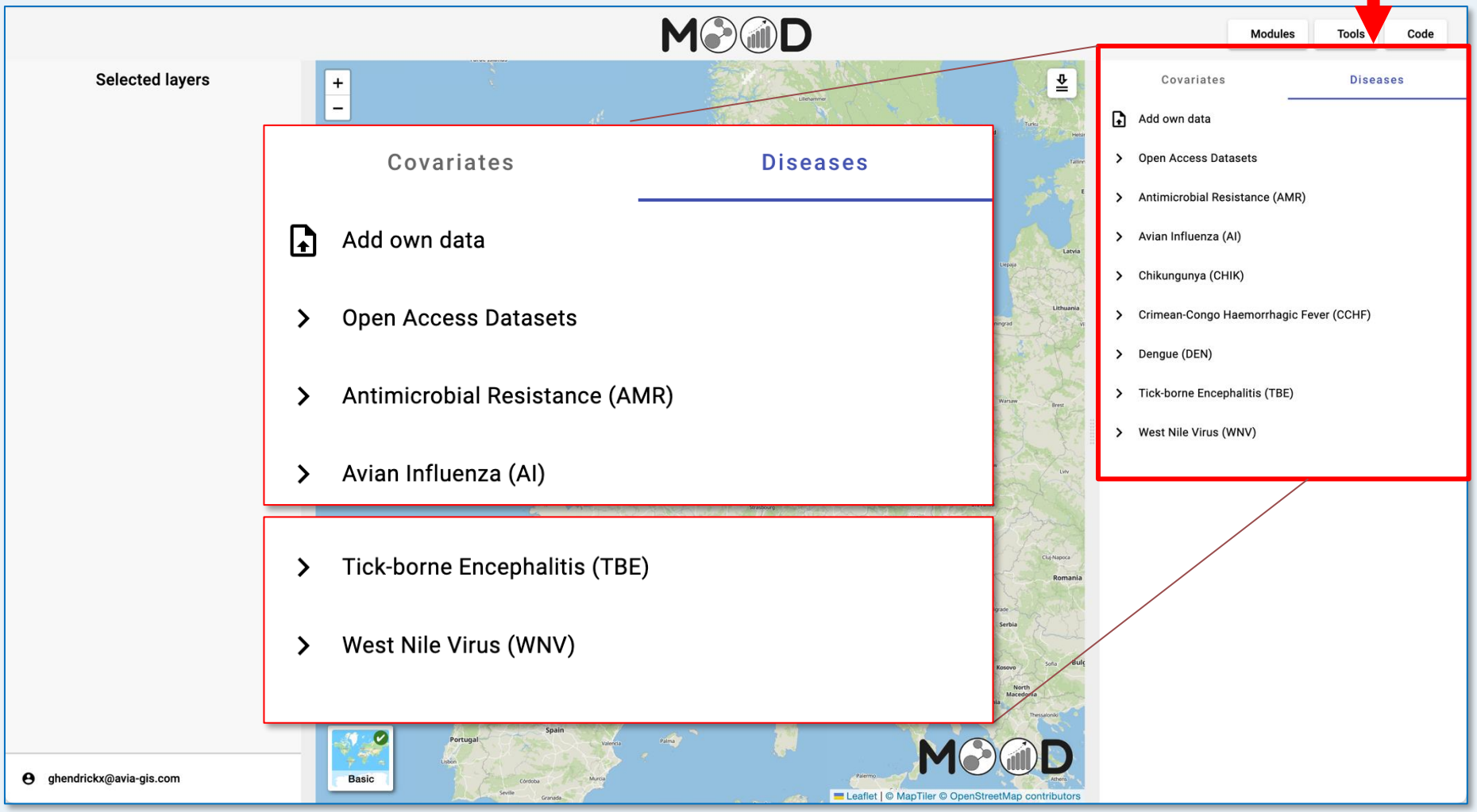
Disease risk model outputs



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Disease risk model outputs

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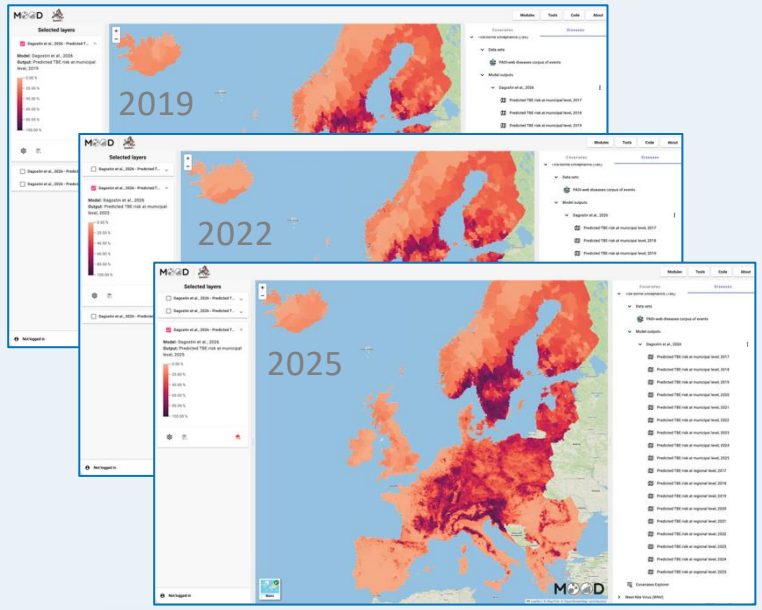
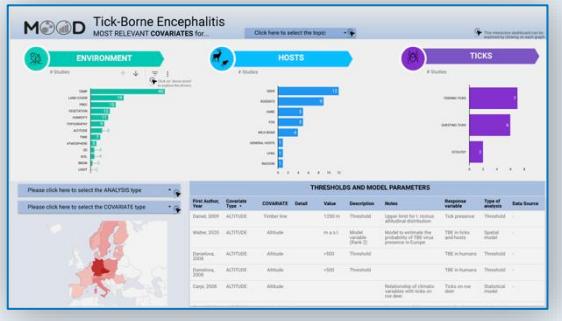
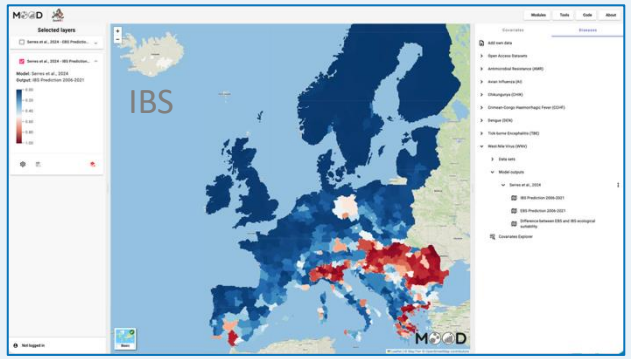
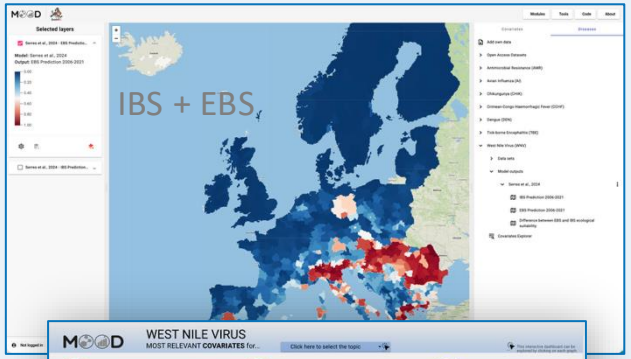
TBE (Dagostin et al, 2026)
Risk/ municipality or region
2017-2025

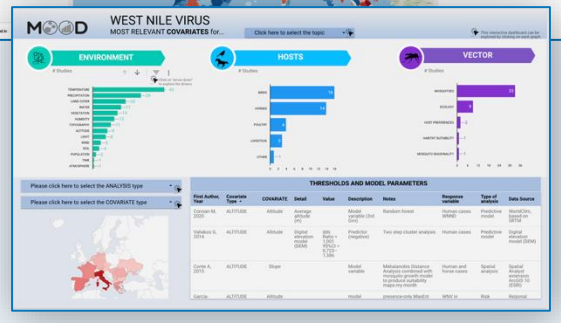




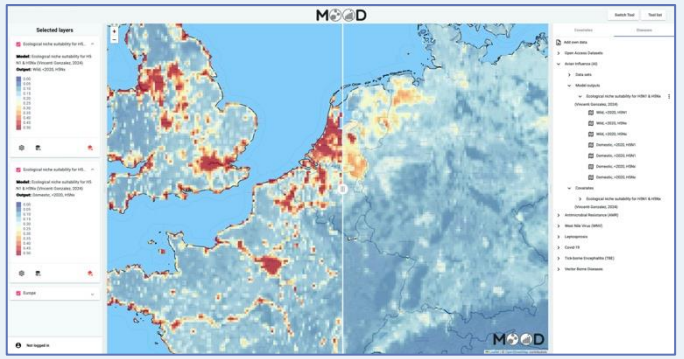
WNV (Serres et al, 2026)
Added value EBS data
vs. classic survey data [2006-2021]

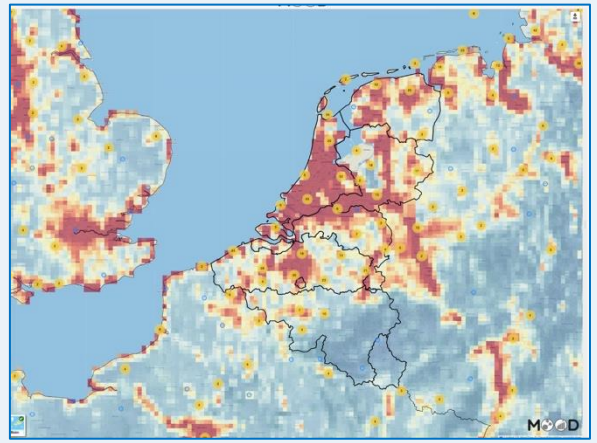






HPAI (Dupas et al, 2026)
Wild birds vs. domestic birds





What is currently under development?

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- Revamp front-end and expand website
- Add and compare published disease risk maps:
  HPAI, WNV, TBE, CCHF, Invasive *Aedes* related
- Integrate AI tools: GeoAI4EI partners
- Expand beyond Europe: OHS area, E4Warning outputs
- Increase environmental data archive
- Regularly update time series data
- Develop additional services with MOOD INPA partners

GeoAI4EI
Toolbox for epidemic intelligence

Non-profit Association

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Thank you for your questions

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