

# Recent Highlights from Helmholtz AI Consulting in Earth & Environment

*Donnerstag, 8. Juni 2023 14:30 (15 Minuten)*

As Helmholtz AI consultants we support researchers in their machine learning and data science projects. Since our group was founded in 2020, we have completed over 40 projects in various subfields of Earth and Environmental sciences, and we have established best practices and standard workflows. We cover the full data science cycle from data handling to model development, tuning, and roll-out. In our presentation, we show recent highlights to give an impression of how we support researchers in the successful realisation of their machine learning projects and help you to make the most of your scientific data.

In particular, we will present our contributions to:

- \* Detecting sinkhole formation near the Dead Sea using computer vision techniques (Voucher by D. Al-Halbouni, GEOMAR)
- \* Integrating trained machine learning algorithms into Earth system models (Voucher by S. Sharma, HEREON)
- \* Encoding ocean model output data for scientific data sonification (Voucher by N. Sokolova, AWI)
- \* Operational machine learning: automated global ocean wind speed predictions from remote sensing data

Our services as Helmholtz AI consultants are available to all Helmholtz researchers free of charge. We offer support through so-called vouchers, which are up to six-month long projects with clearly defined contributions and goals. Beyond individual support, computational resources and training courses are available through Helmholtz AI. If you would like to get in touch, please contact us in person during the symposium, via [consultant-helmholtz.ai@dkrz.de](mailto:consultant-helmholtz.ai@dkrz.de), or at <https://www.helmholtz.ai/themenmenue/you-helmholtz-ai/ai-consulting/index.html>.

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**Sitzung Einordnung:** Talks