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Tethys Research Data Repository – an approach to provide sustainable and readable valuable geoscientific data for further research

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Tethys RDR, the research data repository of GeoSphere Austria available at www.tethys.at, serves as a pivotal data publication platform, dedicated to providing open, accessible, and sustainable data. Tethys emphasizes high-quality data publication, with a particular focus on Austrian geology. The RDR publishes and offers an array of freely available resources, including GIS data, various analytic data measurements, monitoring information, and models. Notably, GIS datasets associated with Austria's official geological maps are published on Tethys and are freely accessible for download.

Beyond merely archiving data, Tethys RDR enhances usability through a widely used application programming interface (API) that facilitates technical data harvesting. By adhering to standardized and internationally recognized metadata standards, the platform ensures that metadata can be seamlessly harvested and integrated into other scientific services, such as the scientific search engine BaseSearch (base-search.net).

This practice not only promotes transparency but also contributes to the sustainability and continuity of the scientific life cycle by linking published data to related research articles and other data publications.

Aligned with the FAIR principles, which stand for Findable, Accessible, Interoperable, and Reusable data, Tethys RDR functions as a disciplinary data publisher and plays a notable role within the broader international research data infrastructure, helping make valuable geoscientific research data more discoverable and reusable. Consequently, all research data published on Tethys RDR are accessible through select scientific search engines like BaseSearch and other scientific services, thereby enhancing their visibility and utility within the scientific community.

Within GeoSphere Austria, Tethys RDR is integrated into a network of related services, including the GeoSphere Maps (maps.geosphere.at), Thesaurus (thesaurus.geolba.ac.at), and Library (opac.geologie.ac.at), to optimize access to interconnected content. From an international perspective, Tethys has already established its presence within the research data infrastructure, and its ongoing goal is to maximize this integration. By doing so, Tethys aims to make all published data easily findable for researchers and to support ongoing scientific development.

A testament to its reliability and sustainability, Tethys RDR recently received certification from CoreTrustSeal, recognizing it as a trustworthy research data repository. This certification underscores Tethys' commitment to maintaining high standards of data preservation and accessibility.

In summary, Tethys RDR stands out as a comprehensive data publication platform that not only provides open access to high-quality geological data but also integrates advanced technical capabilities and international standards. By fostering ease of access, transparency, and sustainable data practices, Tethys RDR significantly contributes to the global geoscientific research community, enhancing the findability and reusability of critical research data. It is therefore not only attractive for scientific foundations, but also for geoscientists to increase the value of their data by publishing it in Tethys.

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