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Accelerating Critical Zone Science with an International Network of Networks

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The international Critical Zone Network of Networks (CZ-NoN) project, launched in January 2025 and funded by the US National Science Foundation, promotes the study of the Earth's Critical Zone (CZ), the vital near-surface environment where essential life-supporting processes converge. Building on previous investments in CZ research, CZ-NoN fosters collaboration and communication between existing and emerging environmental observatories and monitoring networks worldwide. By establishing a unified framework for collaboration and discussion, CZ-NoN addresses long-standing challenges such as fragmented methodologies, redundancies, poor communication, and barriers to data discoverability and accessibility. Key project components include planning meetings, workshops, and an online webinar series aimed at building community, showcasing new efforts, and increasing awareness of ongoing CZ research. In parallel, a global polling effort will compile a crowdsourced list of grand research questions to guide future CZ studies. By bringing together researchers from different countries and disciplines, and prioritizing cooperation over competition, CZ-NoN will accelerate scientific research and position the international research community for future funding opportunities to support complex, integrated study of the global CZ across diverse socio-environmental conditions.