

Implementing the CARE Principles for Datasets with Local Context Labels

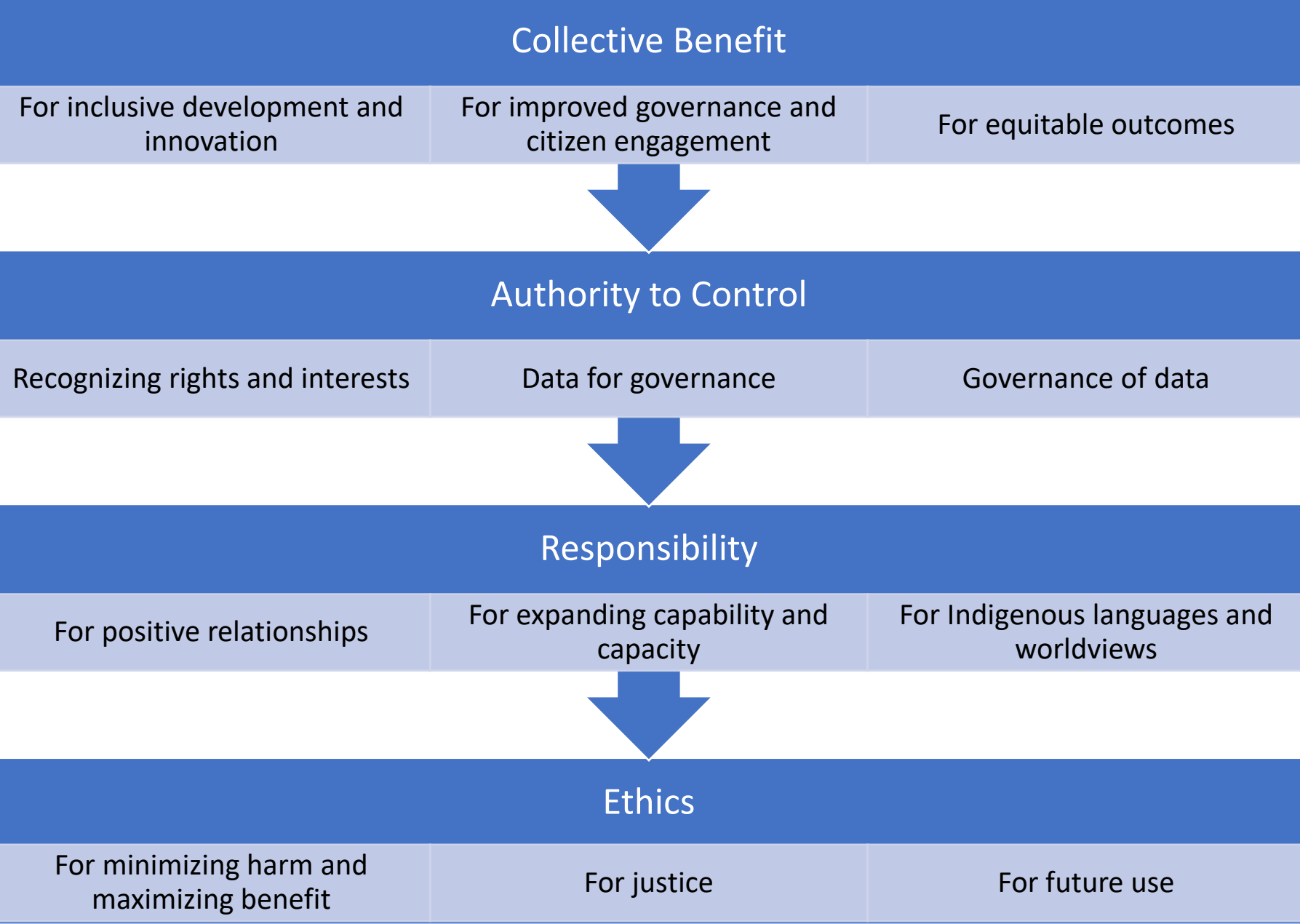
Chantel Ridsdale,¹ Sarvi Ghafourian,² Sean Tippet³

¹Ocean Networks Canada, ²Ocean Networks Canada, ³Ocean Networks Canada

FAIR and CARE Principles

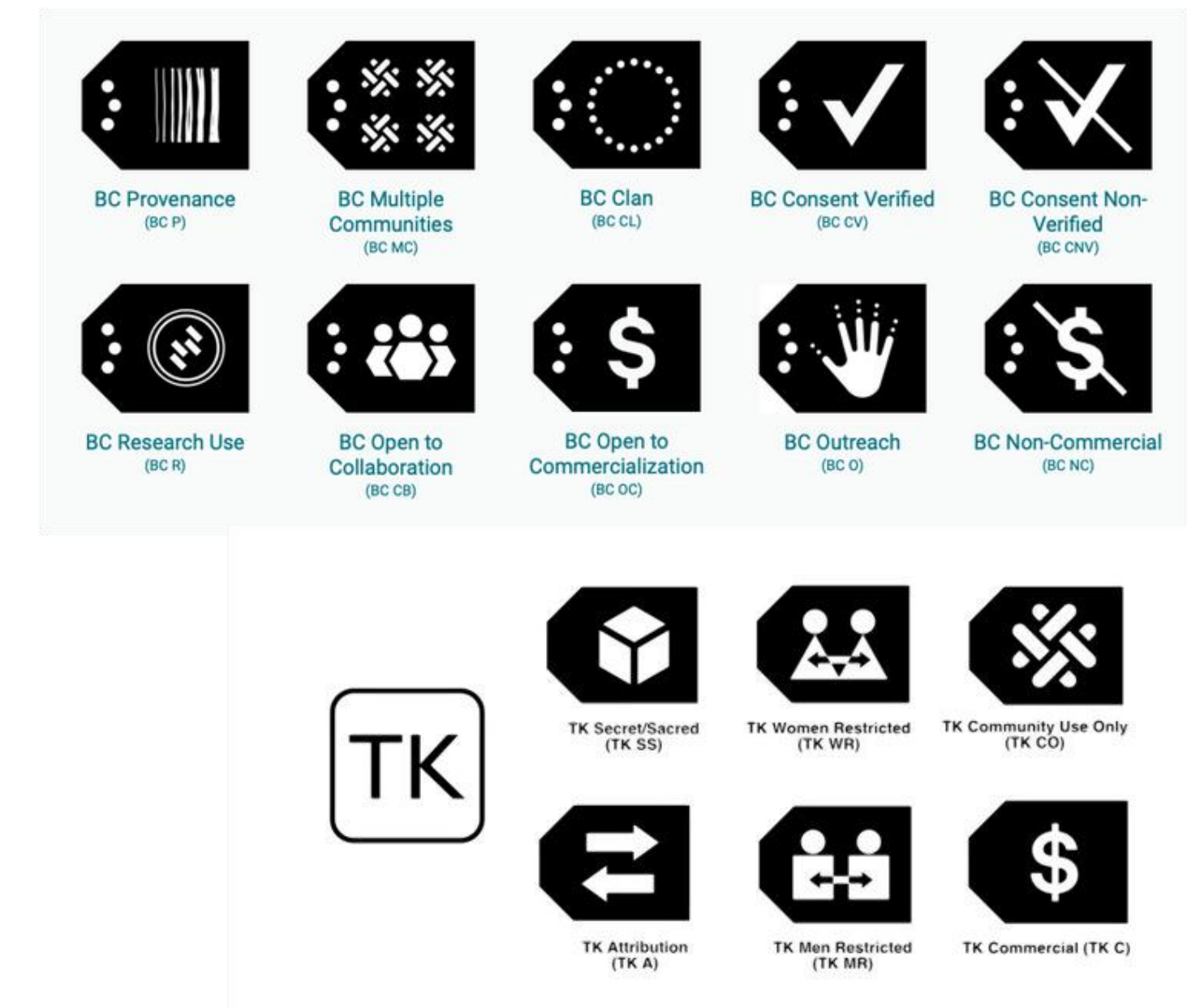


The CARE Principles for Indigenous Data Governance are a high-level framework that must be contextualized into local settings to be implemented

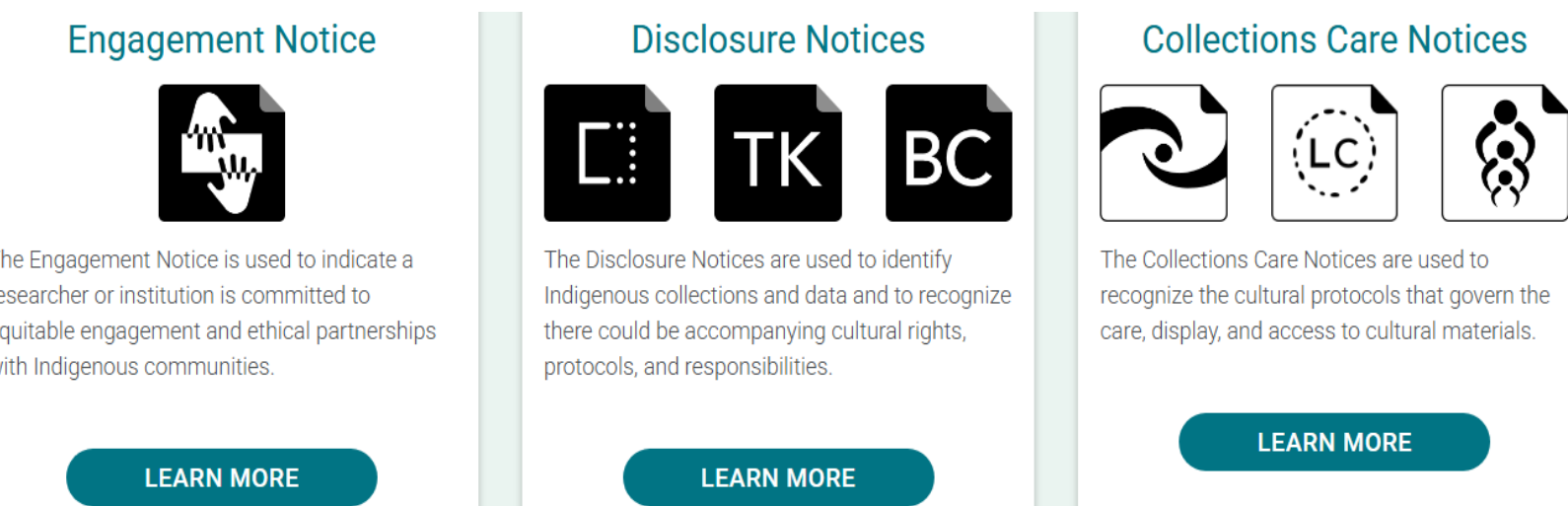


Local Contexts provides tools for integrating the CARE Principles into data infrastructure, allowing communities to express culturally-specific conditions for data sharing

Local Contexts Labels



Local Contexts Notices



Ocean Networks Canada (ONC) is committed to becoming both FAIR and CARE-ful. Local Contexts Labels and Notices were identified as an opportunity for both!

Acknowledgements

O'Brien, M, Duerr, R, Taitingfong, R, Martinez, A, Vera, L, Jennings, L L, Downs, R R, Antognoli, E, Brink, T T, Halmaj, N B, Carroll, S R, David-Chavez, D, Hudson, M, and Buttigieg, P L 2024 Earth Science Data Repositories: Implementing the CARE Principles. Data Science Journal, 23: 37, pp. 1–29. DOI: <https://doi.org/10.5334/dsj-2024-037>

Local Contexts 2024 *Local Contexts – Grounding Indigenous Rights*. Available at: <https://localcontexts.org/>

Owens D, Abeysirigunawardena D, Biffard B, Chen Y, Conley P, Jenkyns R, Kerschient S, Lavallee T, MacArthur M, Mousseau J, Old K, Paulson M, Pirenne B, Scherwath M and Thorne M (2022) The Oceans 2.0/3.0 Data Management and Archival System. Front. Mar. Sci. 9:806452. doi: 10.3389/fmars.2022.806452 <https://www.frontiersin.org/articles/10.3389/fmars.2022.806452/full>

GIDA 2023a CARE Principles. *Global Indigenous Data Alliance*. January 23, 2023. Available at: <https://www.gida-global.org/care>.

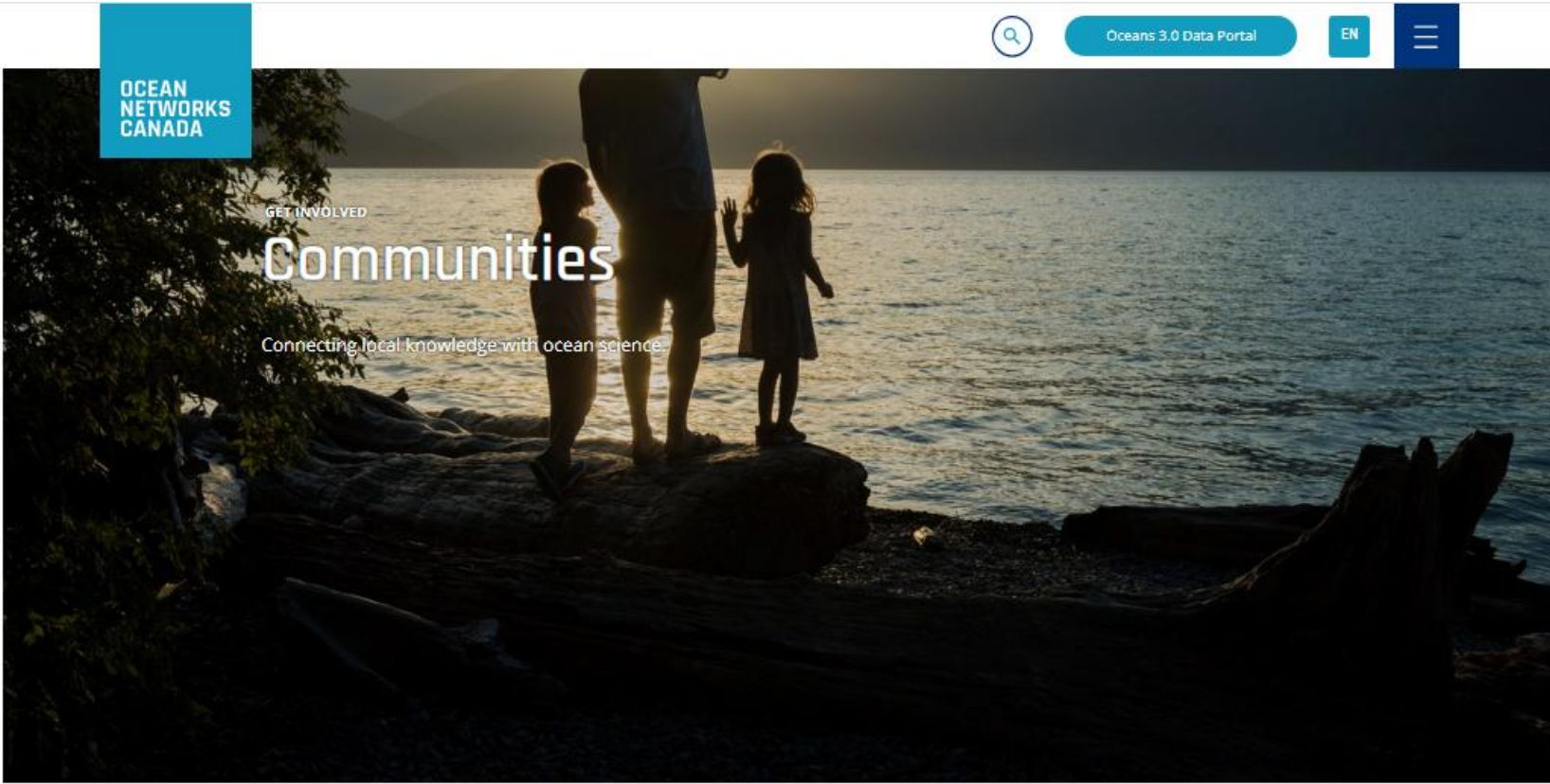
A UNIVERSITY OF VICTORIA INITIATIVE



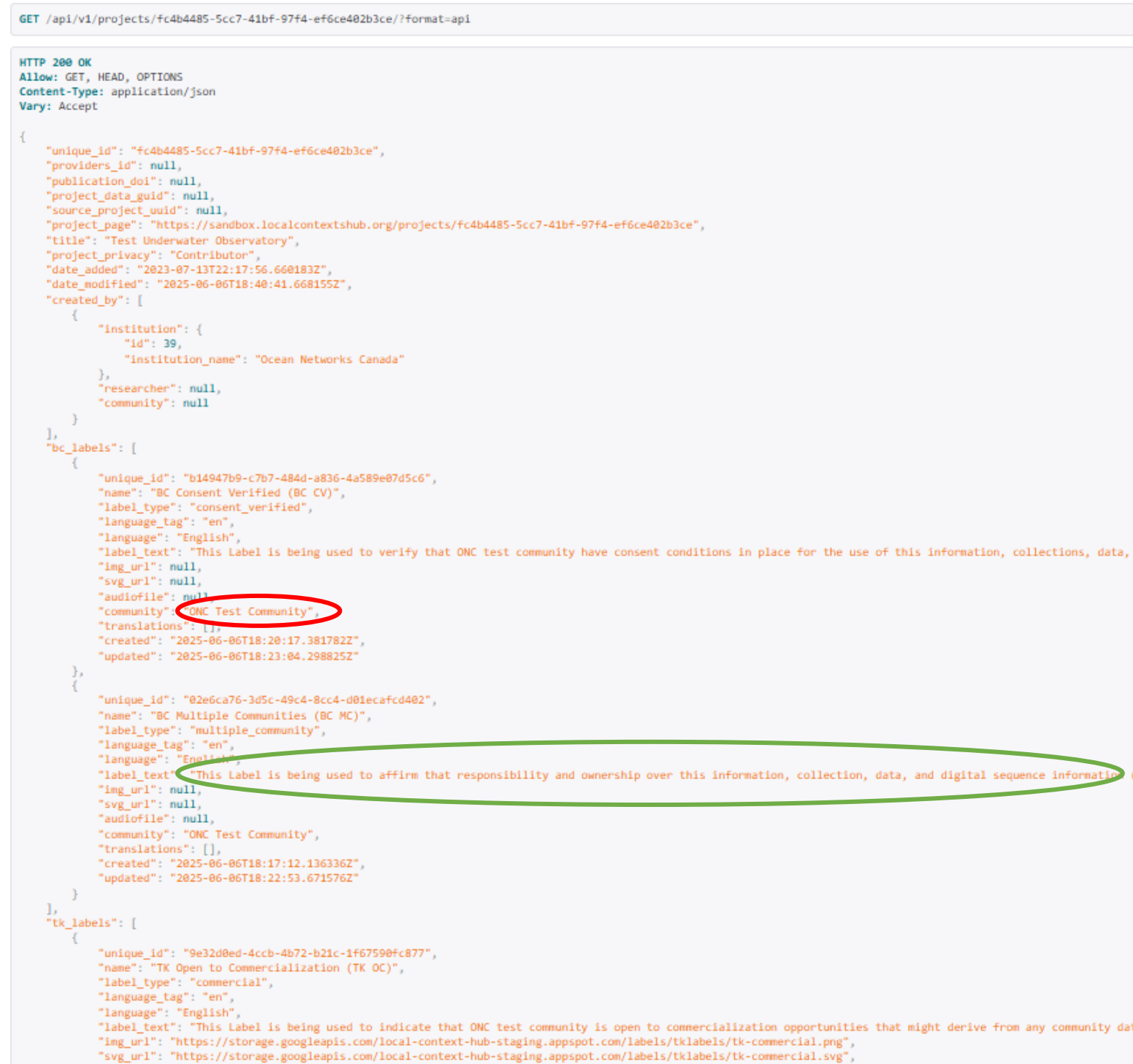
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Implementing the CARE Principles – Proof of Concept

ONC Indigenous community partners have shown great interest in the ONC Local Context Labels implementation, but their capacity is low. ONC is completing a Proof of Concept, so we can properly provide resources and guidance for technical implementation to our partners when they are ready to implement.

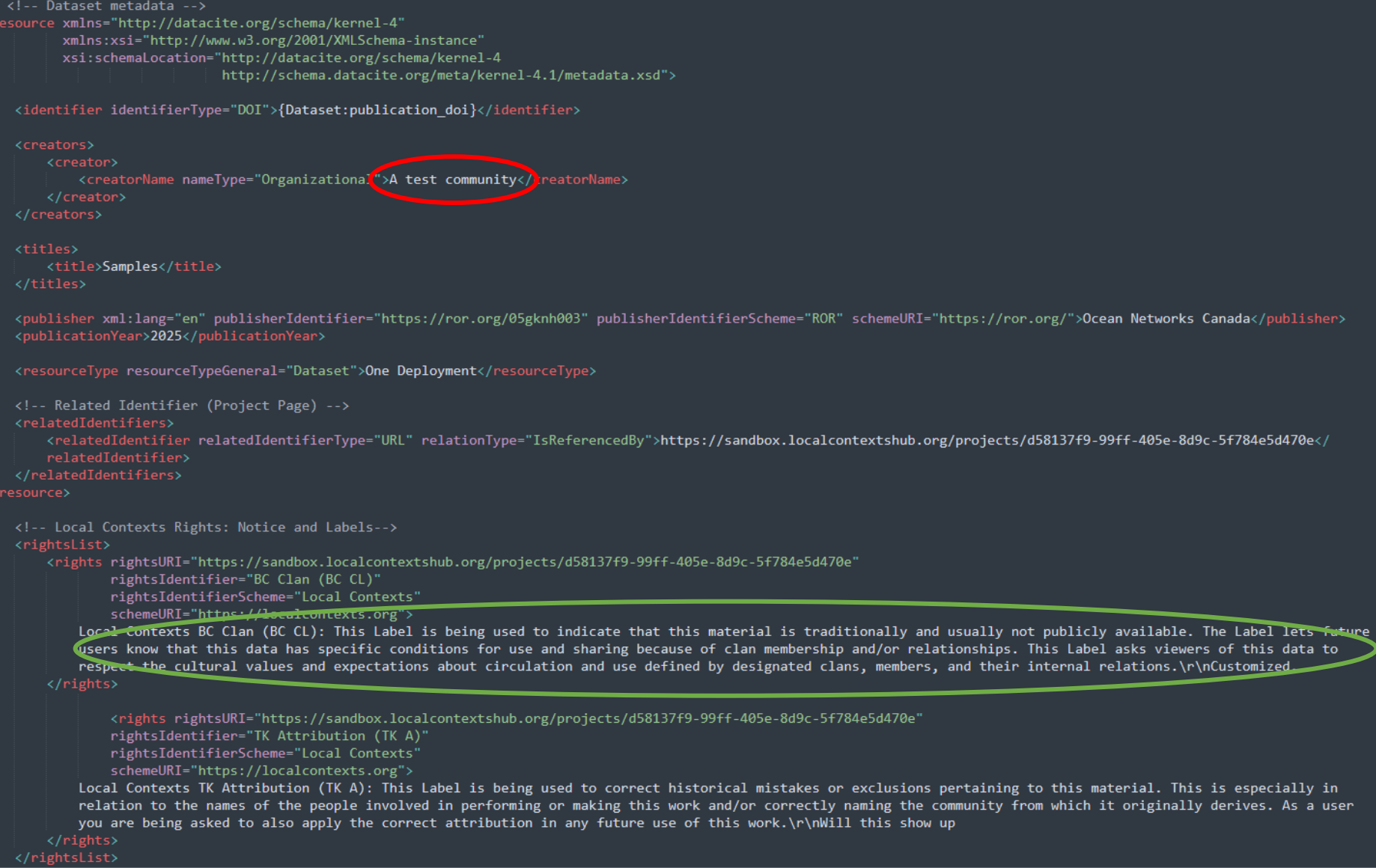


To properly implement Local Contexts Labels into our data infrastructure, we needed to identify how to do this programmatically. We used the Local Contexts API to map outputs to the metadata fields for both DataCite and ISO 19115.

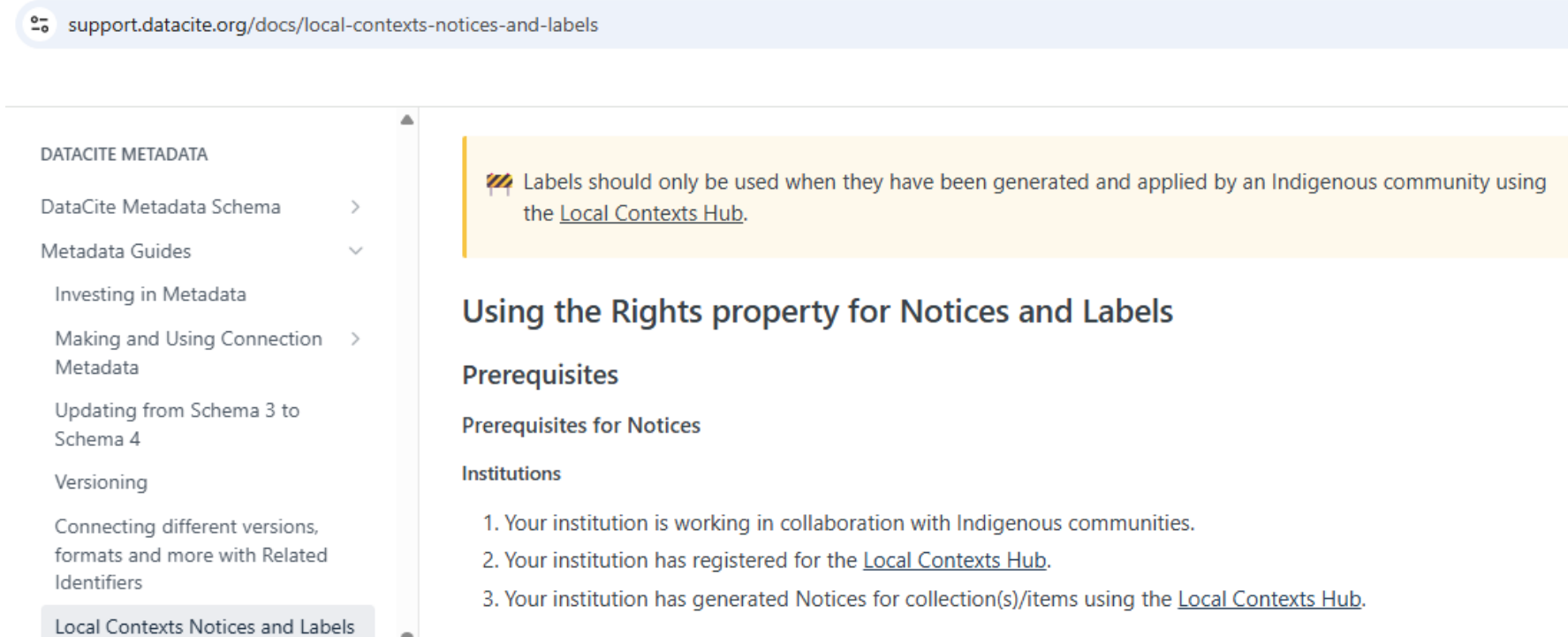


Technical Implementation - DataCite

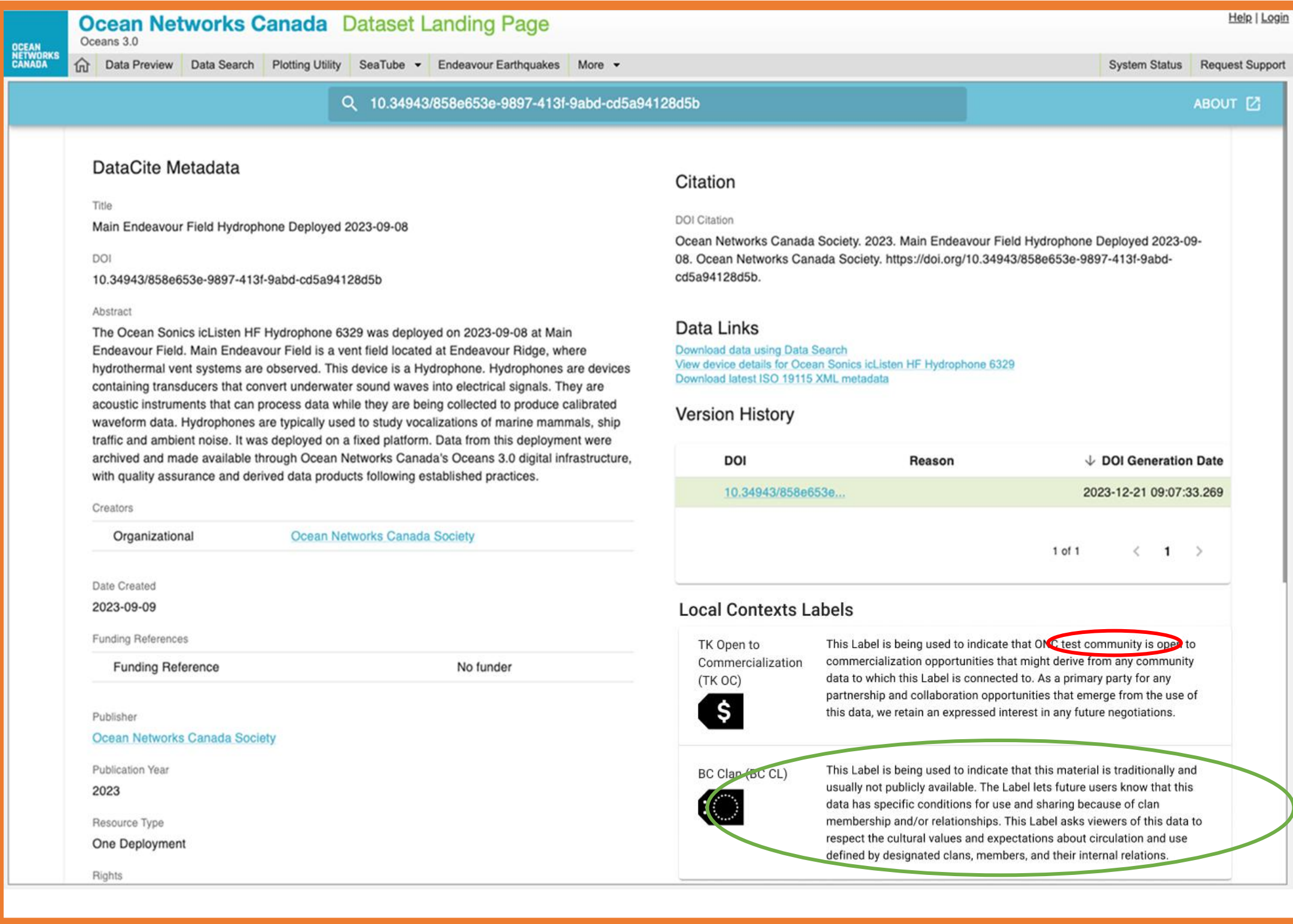
- DataCite: DOI-linked dataset metadata (JSON-based)
- Local Contexts labels integrated via <rightsIdentifier> and <relatedIdentifier> fields
- Maintains compatibility with existing DataCite standards
- Supports machine-actionable, human-readable metadata



DataCite has specific guidance on how to properly associated Local Context Labels into the metadata profile



ONC Dataset Landing Page Mock-up

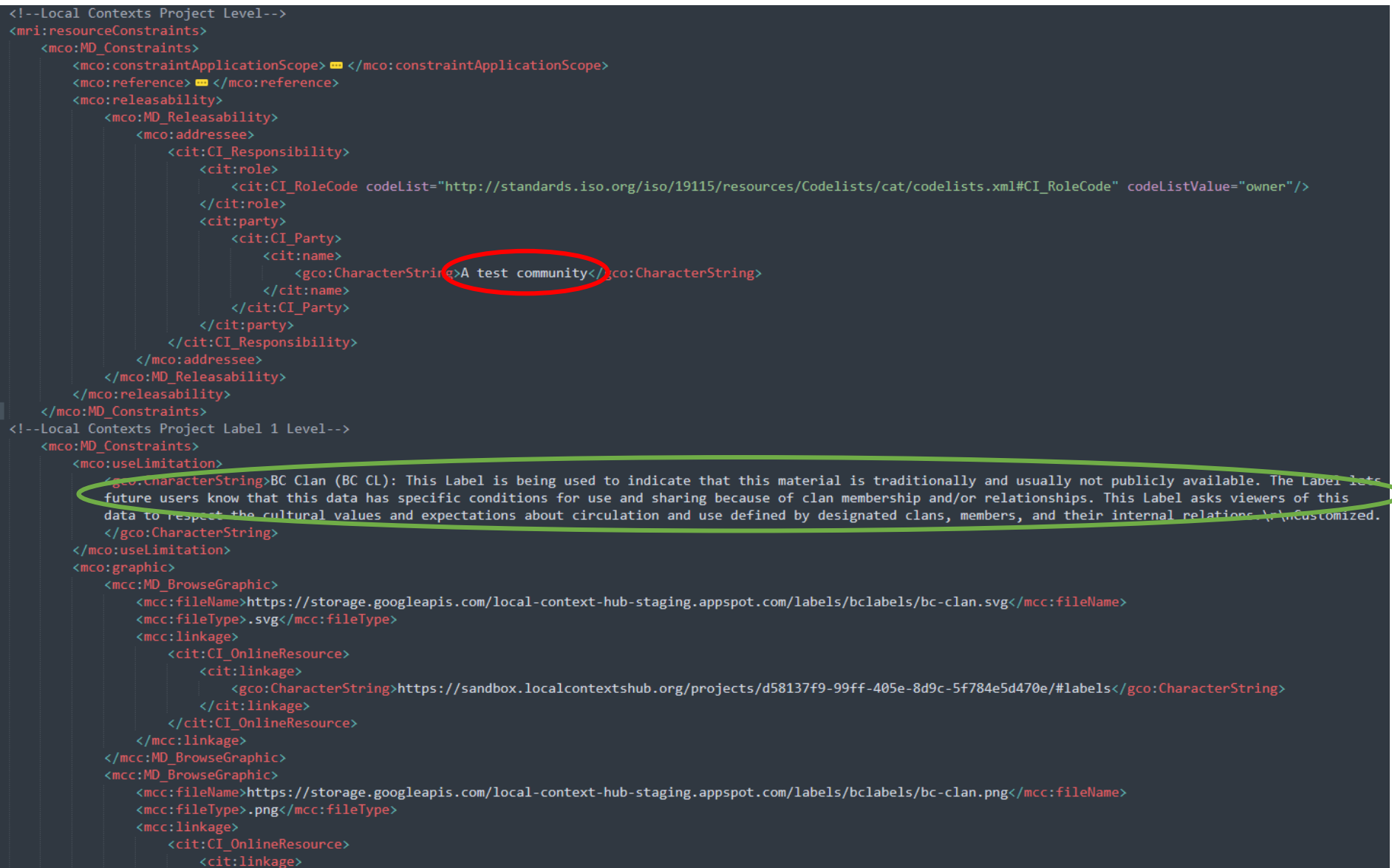


ISO 19115 profile options for including Local Contexts Labels included

- Constraint – MD_Constraints
- Service – SV_ServiceIdentification

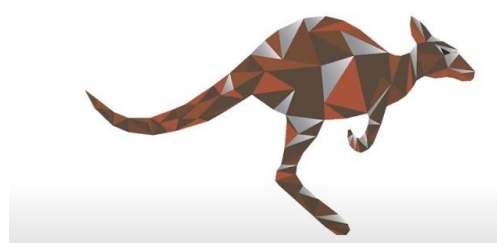
Technical Implementation - ISO XML

- ISO 19115: Geospatial metadata in XML format
- Custom use of <MD_Constraints> section for governance metadata
- Encodes label description, icon (graphic), and reference URI
- Required custom schema extensions and structural adjustments



Next Steps

ONC's Learning and Community Engagement Team are currently developing resources and guidance materials to share with our Indigenous community partners, so they can easily take this on when they have capacity.



INTERNATIONAL DATA WEEK
13-16 October 2025
Brisbane, Australia

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