

Enhancing Australian Foundation Spatial Data Framework to support Australia's future

Irina Bastrakova¹, Nicholas Car², Andrew Whiting¹, Graham Logan¹, and Robert Newham³

¹Geoscience Australia

²CSIRO

³Geosciemnce Australia

November 24, 2022

Abstract

The Foundation Spatial Data Framework (FSDF) is a framework of ten national authoritative geographic data themes that supports evidence-based social-economic decision making across multiple levels of Australian and New Zealand government agencies, industry, research and the community. The AAA data management principles (Authoritative, Accurate and Accessible), articulated for FSDF, are easily translatable to the FAIR Principles and applied to ensure: * Ability to Find data through rich and consistently implemented metadata; * Access to metadata and data by humans and machines while practicing federated data management within trusted data repositories; * Interoperability of metadata and data through adoption of common standards and application of best practices; and * Reusability of data by capturing licencing constraints and information about its quality and provenance. The Location Information Knowledge Platform (LINK) was developed in 2016 as a digital catalogue of FSDF content. This governed, online, dynamic, analysis and discovery tool was designed to enhance the discovery of FSDF datasets, support work planning and indicate the legal frameworks, agency priorities and use case associated with FSDF data. More than 73 Australian government agencies and commercial organisations use this Platform. Current work includes: * Building common high-level and individual lower-level information models (ontologies) for the FSDF and each dataset; * Development of a new architecture for persistent identifiers and identifier incorporation in the datasets; * The ISO 19115-1-based Australian and New Zealand Metadata profile and best practices user guides; and * Testing new workflows for metadata and data governance and integration utilising a set of common cloud-based infrastructure. On realisation, the FSDF will become a necessary component of spatial socio-economic decision making across Australian and New Zealand government agencies and the private sector. FSDF will encourage cross-sector partnerships and enable seamless access to authoritative spatial data across organisational and jurisdictional boundaries, thus contributing to economic growth, improved public safety, meeting legal and policy obligations and sustaining business needs.

