

# Enabling Integrated Marine Management

## Part 1: Technical Proof of Concept

### Appendix 6:

Use Case Summary: Te Arawhiti

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## Contents

<b>Te Arawhiti: Visualising Applications and Orders made under the Marine and Coastal Area (Takutai Moana) Act 2011.....</b>	<b>3</b>
Use case overview .....	3
Key Findings .....	3
Project Outputs.....	4
Recommendations.....	5

# Te Arawhiti: Visualising Applications and Orders made under the Marine and Coastal Area (Takutai Moana) Act 2011.

## Use case overview

Te Arawhiti administers the Marine and Coastal Area (Takutai Moana) Act 2011 (the Act). This act provides for a legislative to recognise Māori customary rights around the coast of Aotearoa.

Under the Act, Māori were invited to apply to have their rights recognised over a specific geographic area. These applications are then subject to various tests relating to tikanga, historical use and occupation and the possibility that customary rights may have been extinguished or interrupted. These tests are administered either through a High Court hearing, or by direct engagement with the Crown.

Successful applicants may receive recognition of two types of customary rights: Customary Marine Title (CMT) and Protected Customary Rights (PCRs). CMT constitutes recognition of general customary rights over a given area of the takutai moana. PCRs recognise an activity, typically undertaken in a specific location or locations, which is recognised as culturally and historically important.

Various rights and obligations flow on from the Act. Applicants under the Act must be notified of any proposed resource consents in their application area. Holders of CMT and/or PCRs receive a right of veto over resource consents in their customary area, as well as a right to contribute to local authorities' environmental planning.

Te Arawhiti maintain publicly available spatial data describing the location and extent of these area on its own platform, Te Kete Kōrero a Te Takutai Moana Information Hub, or Kōrero Takutai. To ensure that the rights described above are respected, it is vital that local and national government, as well as the public and other interested parties.

The aim of the Te Arawhiti use case was to import its data into the Datamesh, making it available and searchable. The application areas in the Datamesh will be the most up to date which will reduce the risk of using outdated application areas.

## Key Findings

The Datamesh allowed Te Arawhiti to link its data directly to an external platform, ensuring that it has a higher profile. Anyone working the Marine and Coastal Area space would be able to easily find spatial information on customer rights that have been applied for and/or recognised.

It will also provide a one-stop shop for related data. Administering the tests involves assessing a breadth of evidence, some of which can be easily collated thanks to the other data available on the Datamesh provide by partner agencies.

Once Te Arawhiti's data was imported into the Datamesh it was viewable by the partner agencies and could be used to support their use case tested.

## Project Outputs

**Output 1:** Connections between existing GIS web services and/or datasets (without replicating the data across to this system). **Achieved**

**Finding:** Oceanum were able to connect with our seven existing REST API services and add the data to the Datamesh. Initial problems with one of the datasets were overcome.

**Output 2:** Interoperability of various data formats, standards, and scales. **Achieved**

**Finding:** Our relatively simple data was compatible across the variable formats. Te Arawhiti were able to integrate datasets from DOC, MPI, and LINZ with our own software and platform.

**Output 3:** A web service (conforming to OGC API standards) enabling users to query and stream data into their own GIS systems and analysis platforms. **Achieved**

**Finding:** Although Te Arawhiti didn't use this functionality as a matter of course, it was tested, and it worked well for the proof of concept.

**Output 4:** Safe and secure access to sensitive data repositories. **Achieved**

**Finding:** All data linked to the datamesh was open to all users. This output was not applicable directly to the Te Arawhiti use case, but it is understood it was tested by other agencies and as part of the oil spill exercise.

**Output 5:** A spatial catalogue viewer with query functionality such as searching and filtering. **Achieved**

**Finding:** These features were useable and useful. The Datamesh is workable, but would require some fine tuning if made public, mostly a more polished UX. One feature that would be useful would be query by attribute field.

**Output 6:** Access to analytical tools (source code) using open formats. **Not Applicable**

**Output 7:** Insights/models from analytical queries run across multiple datasets. **Not Applicable**

**Output 8:** Performance of the system meets partners' and users' needs.

**Finding:** Again, the Datamesh is generally functional, but fine tuning would enhance the experience.

## Recommendations

Case for changes: strategic level learnings, functional and non-functional requirements.

### High Level Recommendation

- Te Arawhiti supports further development of a future Datamesh with a view to making it a publicly available platform.
- Should a future datamesh be stood up, Te Arawhiti would be happy to continue providing our data to the system

### Technical Requirements Recommendations

- Te Arawhiti's use case did not make use of many of the more advanced features of the datamesh, such as the data analysis tools, so our technical recommendations are limited.
- Generally, we would like to see the Datamesh and its GUI refined and polished.