DataAgility | RECYCLING VICTORIA

Transforming insights and efficiency with a Circular Economy Data Platform

Recycling Victoria Modernises Data Management

"I'd like to thank the Data Agility team for their work on our Circular Economy Data Platform project. The teams engagement with RV, expertise and commitment have been invaluable to the projects success"

Chris Antoniou

Manager Data Governance and Compliance| Sector Intelligence and Reporting

Recycling Victoria | Department of Energy, Environment and Climate Action

Challenge

- High cost of existing solution
- Legacy reporting infrastructure
- Lack of efficient access to data domains
- Inadequate system management and control

Results

- Platform cost reduced by 50%
- Better decision making
- Simplified access and sharing of data
- Control over development, administration and maintenance

Background

Recycling Victoria (RV) is a Victorian Government agency established within the Department of Energy, Environment and Climate Action (DEECA) following machinery of government changes in 2022. It is responsible for overseeing and strengthening Victoria's waste, recycling and resource recovery sector, worth approximately $4.4 billion to the state.

RV supports a reliable, transparent and sustainable approach to materials management by leading strategic planning, oversight and regulation of waste and recycling services, and by collecting data to inform system performance and future investment. It works closely with councils, industry and communities to reduce waste, increase recycling and support a circular economy in which resources remain in use for longer rather than ending up in landfill.

Recycling Victoria also helps set service standards, supports better procurement and infrastructure planning, and plays a central role in delivering key programs and reforms to household recycling systems.

Challenge

Previously part of Sustainability Victoria (SV), RV inherited its data warehouse from SV and along with it, the complexity and history that occurs over 10 years of growth and change within a system.

The existing data warehouse enabled reporting and analytics on data from across the waste sector in Victoria.
It remained hosted on SVs Azure infrastructure for three years which brought with it many challenges around access and sharing of data. It also limited RVs ability to undertake required software of functionality upgrades.

An initiative was launched in 2025 to move the data warehouse to DEECA's Azure tenancy. The move would not be a simple 'lift and shift' but rather a redesign and development of a new data platform.

Solution - Circular Economy Data Platform

Data Agility developed a new system for RV in Azure that simplified their existing architecture, upgraded many of their Azure services to current versions and standardised many of the data processing pipelines. It also simplified access to data and maintenance of the solution.

The system was named the Circular Economy Data Platform.

The work applied the Data Agility Azure Framework. The framework is specifically aimed to deploy and manage a data platform solution within the Microsoft Azure product suite. It applies Microsoft and industry best practice. The framework contains all the required activities for a successful implementation as well as the required tools and templates to reduce risk, implementation effort and cost.

The work involved:

- Redesign and development of the Azure layer of the data platform
- Application of a standardised ETL/ELT framework
- Redevelopment of data ingestion processes to utilise templated pipelines
- Remediation and cleansing of medallion zones to align with industry standard patterns
- Standardisation of data transformation pipelines
- Implementation of a multi-environment workspace architecture in Power BI
- Redevelopment of Power BI reports
- Implementation of a new overall security architecture to better meet the needs to administrators, developers and end users

Results

As detailed below, the work delivered operational improvements and significant costs savings.

Benefits included:

- Increased control over development, administration and maintenance of the platform
- Simplified access and sharing of data
- New solution enabled better governance practices across the platform
- Better decision making, and easier to use – allowing more efficient access to data across domains and providing more confidence in reporting
- Doubled the user base and continuing to increase - the platform is now being used by data analysts to draw deeper insight from the data rather than just data engineers and business users

Reduction in cost

- Reduction of IT waste due to decommissioning of now unused infrastructure
- Azure infrastructure costs decreased by 40%
- Overall platform support and maintenance costs decreased by 50%

DataAgility

Data Agility are specialists in Data Analytics, AI and Information Management. We support our clients to improve performance and resolve business issues through the effective application of their data.

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