

Data Analytics CASE STUDY

WARDY IT Solutions helps Food Standards Australia New Zealand deliver flexible scientific data modelling on food analysis

About FSANZ

- Established in 1991
- 110 employees
- Government
- www.foodstandards.gov.au

Food Standards Australia New Zealand (FSANZ) is an independent statutory Government agency that develops and administers Australian and New Zealand food standards. FSANZ develops standards that regulate the use of ingredients, processing aids, colourings, additives, vitamins and minerals in food. The Food Standards Code also covers the composition of some foods, e.g. dairy, meat and beverages as well as standards developed by new technologies such as genetically modified foods. FSANZ is also responsible for some labelling requirements for packaged and unpackaged food, e.g. specific mandatory warnings or advisory labels. FSANZ employs 110 staff and shares operational and management responsibilities between their offices in Canberra, Australia and Wellington, New Zealand.

Executive Summary

Food Standards Australia New Zealand faced a business challenge safeguarding their data assets. Two legacy analytical computing systems were used in daily production but their age was raising concerns about reliability and their suitability for purpose.

WARDY IT Solutions were engaged to evaluate the organisation's unique computational needs and propose a powerful and flexible replacement. A multi-user system with extensive modelling capabilities was designed using off-the-shelf hardware and Microsoft's leading SQL Server Data and Business Intelligence Platform.

One important consideration was that the system could be expanded and extended with ease to meet future needs. The system exceeded all expectations, mitigating a critical business risk posed by the system's single point of failure. The analytical team can now deliver results in a fraction of the time compared with their legacy system while the increased speed and flexibility have increased productivity and streamlined daily operations.

- Increased productivity and flexibility using improved technology and processes
- Better data manipulation tools have improved the organisation's capabilities
- Deploying "off the shelf" systems has lowered ownership costs
- Industry standard application protocols enable future capability extensions
- Partnering with Business Intelligence specialist WARDY IT Solutions has added "on-call" expertise that helps tackle complex cube structured data modelling

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WARDY IT Solutions are fantastic. We were surprised how quickly they learned our logical needs and helped us design database cubes that encapsulated our exact requirements.

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*Janis Baines
Section Manager -
Food Data Analysis
Food Standards Australia
New Zealand*

Client Challenge

Scientific researchers face unique technology challenges because their computing needs are specific to their highly specialised industry. FSANZ's legacy systems were almost 15 years old, raising concerns about data integrity, application support and ongoing hardware maintenance availability. The catalyst for change came when two dedicated system and software engineers announced their imminent retirement. Their pending departure posed a critical risk to business operations and future system support. The platform was overdue for replacement but the organisation needed a more flexible solution that increased collaborative capabilities. A rigorous market analysis revealed that leading Microsoft Business Intelligence specialist WARDY IT Solutions had the experience and expertise to develop a cutting-edge, replacement solution.



Solution

WARDY IT Solutions met with FSANZ's management team to review the organisation's business challenges and learn more about Project Harvest and their technical computing requirements. The complexity of the modelling demanded that a custom software development project be initiated. WARDY IT Solutions built an Agile software prototyping framework to develop key application deliverables. FSANZ staff were impressed with how quickly the WARDY IT Solutions team grasped their complex, and nuanced data modelling environment. Working closely with FSANZ stakeholders, WARDY IT Solutions aligned the needs of the scientists with the practical software design dependencies and delivered a solution that met the immediate needs and offered a roadmap for future development. Over the length of the project, WARDY IT Solutions' development team scheduled regular knowledge exchanges where practical design considerations were matched with technology needs. This created a robust and adaptable system that was optimised to realise greater insights from the organisation's data modelling output.

Outcome

The most striking deliverable was replacing a dedicated, single user system with a multi-user solution that enabled greater collaboration and increased the analytical team's productivity. A complex task that had previously taken 4 months of intensive work could now be completed in 1 hour with the replacement system. The ability to process more than a single computational query concurrently delivered massive productivity increases while the integration with Microsoft SharePoint enabled new and better ways of presenting and integrating data across many platforms. The increased collaborative capabilities have enabled a rethink of how the scientists engage together to build problem solving tools to meet analytical challenges.

About WARDY IT Solutions

- Established in 2005
- 65 employees
- Information Technology
- Australia & USA
- www.wardyit.com

WARDY IT Solutions are Australia's leading SQL Server and Business Intelligence specialists. The company creates solutions that enable businesses to maximise returns on their investment in knowledge management. Through the extensive use of Business Intelligence, WARDY IT Solutions help their clients to realise the best possible dividend from their data assets.

WARDY IT Solutions have received numerous industry accolades, most notably the prestigious Microsoft Global Data Platform Partner of the Year in 2013. The organisation is recognised internationally for their innovative solutions, training skills and unwavering commitment to education and furthering the interests of the broader Microsoft SQL Server community. WARDY IT Solutions deliver:

- Project Delivery based on time and resources
- Consultation and Gap analysis
- SQL Server database design and programming
- Support services
- Managed Services and Business Intelligence Solutions
- Business Intelligence Consulting, including strategy, review, design and implementation of Business Intelligence Solutions

Technical Overview

Microsoft SQL Server Analysis Services was the hero for the Harvest Project for Food Standards Australia New Zealand. By utilising Analysis Services it enabled the Business Intelligence solution to manipulate very large volumes of scientific data as well as the complex nutritional calculations required to support the ontology models. Analysis Services also enabled complex what-if scenario analysis to enable FSANZ to model nutrients, contaminants, additives and pesticides in food and how they affect the public.

Conclusion

The new system has revolutionised how FSANZ delivers scientific workflow. The transition from a single-user to multi-user environment has increased operational efficiency and brought about immeasurable improvements to user satisfaction levels. Because the scientists have more powerful, customisable tools, they can quickly model scenarios that deliver rapid insights from interdependent datasets. The most important project outcome was the exponential improvement in processing times that has enabled the organisation to be more proactive in meeting Project Harvest's primary goal of protecting public safety.



- Productivity and user satisfaction levels have increased exponentially
- A better data modelling toolset has increased flexibility
- Industry standard computing platforms have reduced business risks posed by legacy technology
- Interoperability and open protocols provides the flexibility for extending and scaling the system's future capabilities

Products and Services

- High level SQL Server database design
- MDX "dynamic query" development
- AGILE software application development in collaboration with FSANZ
- SQL Server tuning and optimisation
- Project management and delivery
- SQL Server support services
- .Net stored procedure development