

On Time, On Budget, and Built to Scale: Modernising PIRSA's Digital Ecosystem

How FrontStage Digital transformed decade-old government websites into mobile-first, accessible, and intelligent digital service on Squiz Matrix.

CLIENT	PLATFORM	DURATION	GO-LIVE
PIRSA – SA Government	Squiz Matrix	Nov 2024-June 2025	30 June 2025

EXECUTIVE SUMMARY

The Department of Primary Industries and Regions (PIRSA) is a key part of South Australia's economy. It is responsible for policy, regulation and community support across fishing, agriculture, biosecurity, emergency response (droughts, bushfires and floods), natural resource management, and comprehensive food safety and quality assurance standards.

PIRSA's digital presence is a vital conduit for economic facilitation, regulatory compliance, and public safety. After more than a decade of updates, PIRSA's digital presence was no longer fit for purpose: poorly structured internal architecture, not fully mobile-responsive, non-compliant with accessibility standards, and difficult to search.

Visitors and users of the site, from recreational fishers and farmers to interstate travellers navigating biosecurity rules, were struggling to find what they needed.

After an extensive tender process, PIRSA partnered with FrontStage Digital to redevelop its main website and associated sub-sites on the Squiz Digital Experience Platform (DXP).

As a specialist Squiz DXP partner with ex-Squiz employees on the development team, the agency met an ambitious seven-month deadline. We delivered a mobile-first, WCAG 2.2 AA-compliant website with concierge search, a restructured information architecture, and a reusable design template system that has since been extended across multiple related sites.

The engagement was delivered on time and within budget by June 2025, with ongoing enhancements and support continuing through to December 2025.

Executed within a highly compressed seven-month timeframe from November 2024 to June 2025, the project demonstrates a smarter, faster, and more secure way to build enterprise-grade government platforms.

This white paper details the approach, methodology, technology, and measurable outcomes of that engagement and what it demonstrates about effective government digital transformation.

Department of Primary Industries and Regions

Advancing SA's primary industries and regional communities.

policy

Suggestions

- policy
- polymakers
- declared animal **policy** feral goat
- declared animal **policy** feral deer
- declared animal **policy** feral pig

Pages

- Aquaculture (Standard Lease and Licence Conditions) **Policy** 2022
- Policy** and legislation for aquaculture

Documents

- African boxthorn **policy**
- Policy**
- Proclaimed Plant **Policy**

Contacts

- Invasive Species Unit**
Contact the Invasive Species Unit for state **policy** advice.
PIRSA.InvasiveSpecies@sa.gov.au
08 8429 0823
- Jane Ham**
Science **Policy** Integration Officer
pirta.scrvf@sa.gov.au
(08) 8429 0845

Our state is protected by legislation supporting primary production and clean environment, including well established natural

 Algal bloom update

The new PIRSA homepage features a concierge search and a refined menu structure.

SARDI

South Australian Research and Development Institute

Addressing real-world challenges

snapper

Suggestions

- snapper
- snapperrecovery
- snappers
- snapper18
- snapper recovery

Pages

- Stock enhancement process - PIRSA
- Review of biological parameters in SA **Snapper** - PIRSA
- Evaluate CKMR for **Snapper** - PIRSA
- Stock assessment and management - PIRSA
- Recruitment variability and the potential effects of climate change - PIRSA

Reports

- Fowler, A. J. et al. (2016) **Snapper** (*Chrysophrys auratus*) ...
- Cost-effective, non-destructive solutions to developing a pre-recruit index for **Snapper** (*Chrysophrys auratus*)
- Snapper** (*Chrysophrys auratus*) Fishery AJ Fowler, J Smart, R ...

• increasing the productivity, adaptability, and economy of SA's primary industries

The new SARDI homepage features a concierge search and a refined menu structure.

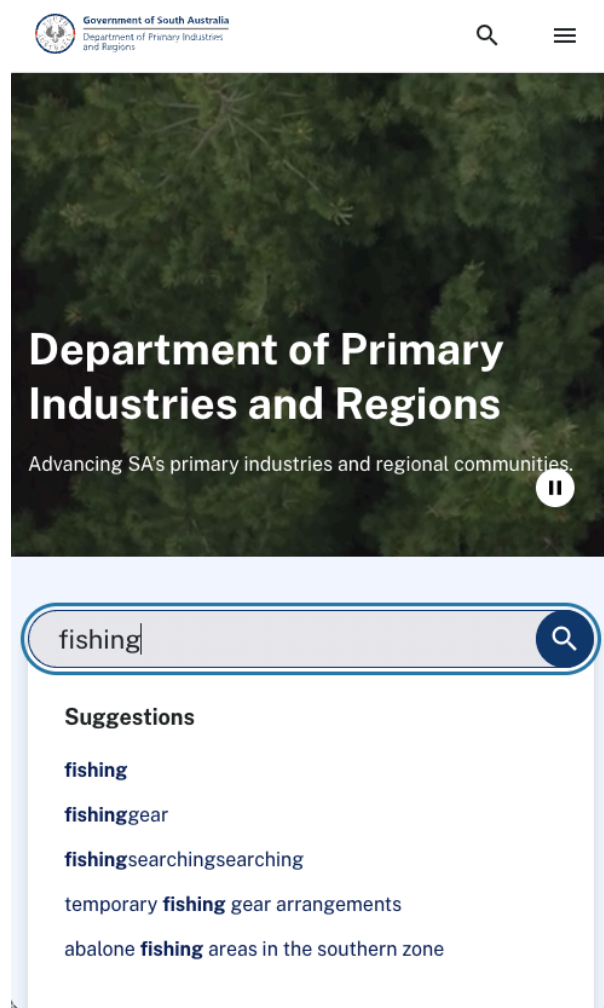
THE CHALLENGE

PIRSA's website had served South Australians for more than ten years, but it had grown organically without a cohesive strategy.

By 2024, it presented a range of compounding problems that undermined both user experience and the department's ability to deliver on its public promise.

- The site was not fully mobile-responsive (less than 50% of the site was optimised for mobile devices), which created a significant issue given that many of PIRSA's users, including farmers and regional fishers, access information from mobile devices in the field.
- Site search returned incomplete and inaccurate results, making it difficult for citizens to locate regulatory guidance, fishing limits, or biosecurity requirements.
- The information architecture lacked a user-oriented organisation, making it difficult to search for and find information. Users had to navigate the site in 3-5 clicks to find the primary regulatory content.
- The site was non-compliant with modern WCAG accessibility standards and had poor screen reader support, creating barriers for users with disabilities and exposing the agency to compliance risk.
- SARDI, PIRSA's self-funded research arm, lacked any structured way to showcase its research output, limiting its visibility with industry partners and potential investors.

The cost of these shortcomings was measurable. Unnecessary phone calls and enquiries were burdening staff, and residents were turning up at the wrong locations, threatening non-compliance and PIRSA's ability to provide effective updates on natural disasters. A structured, purpose-built redevelopment was the best solution.



The new PIRSA site features the Funnelback-powered concierge search.

WHY FRONTSTAGE DIGITAL

PIRSA conducted a competitive tender process and selected FrontStage Digital as its preferred partner. The decision came down to several factors that distinguished FrontStage from other respondents.

1. The FrontStage team are all senior former Squiz employees, which means they understand the Squiz Matrix and Funnelback platforms at a depth that generalist agencies cannot match.
2. Their tender response included a detailed pre-sales analysis of PIRSA's existing site, identifying specific structural weaknesses and proposing concrete solutions.
3. FrontStage also presented proprietary tools such as a Squiz Matrix content audit plugin that would add immediate value to the project.
4. The combination of experience, innovation and clarity demonstrated that they cared about their work and the projects they undertook.

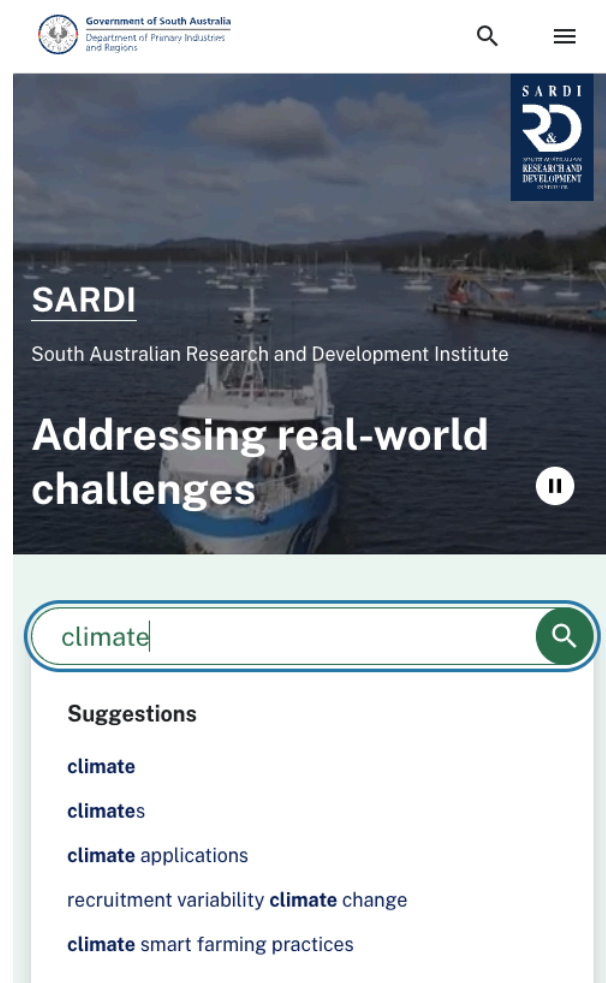
FrontStage's technical capability, genuine commitment to the project's outcomes, and PIRSA's Project Manager, noting they had done the work to understand the problem before even being appointed, all contributed to the project win.

Client Testimonial

"FrontStage took the time to understand our users and built us a future-ready digital platform.

Their collaborative style, technical capability, and attention to accessibility were standout."

— PIRSA Digital Team



The updated SARDI site also features the Funnelback-powered concierge search.

THE PROJECT APPROACH

Discovery & Strategy

To navigate the complexities of this transformation and deliver by the strict 30 June 2025 deadline, a governance structure was established to ensure milestones were met and to adhere to data privacy and security standards.

A critical factor in the project's success was PIRSA's decision to appoint a dedicated internal project manager to serve as the operational bridge between the department's internal stakeholders and the external technical vendor, FrontStage Digital.

Given PIRSA's broad remit spanning fisheries, biosecurity, agriculture, emergency response, and research, it was essential to understand the stakeholders, how different user groups used the site, and the tasks they sought to complete.

The team partnered with a dedicated UX agency to conduct targeted user research, with a particular focus on the SARDI content section.

These insights informed the design direction and gave FrontStage a sound basis for restructuring the information architecture around user tasks rather than internal organisational logic.

FrontStage began with a structured discovery phase: stakeholder workshops across PIRSA's diverse divisions, a design system audit, and a technical audit of the existing platform.

A Rebuild, Not a Redesign

Although described internally as a redesign, the scope of change warranted treating this as a full rebuild.

In government technology procurements, projects frequently stall or experience scope creep due to a lack of internal alignment and decentralised decision-making.

The dedicated internal project manager de-risked the engagement by managing the competing priorities across diverse departments, ranging from the highly academic requirements of the SARDI research teams to the rapid-response needs of the biosecurity unit, ensuring that all deliverables were mapped directly to the core usability objectives.

The existing site's template, navigation, and content structure were all redeveloped. To manage this without disrupting PIRSA's ongoing communications, the department needed to continue publishing timely content on drought conditions, algal blooms, and other urgent matters throughout the project. For a department responsible for communicating during natural disasters, maintaining that publishing capability was not optional, but essential.

FrontStage used its proprietary tool, the **Design Switcher**, during development, allowing the old and new designs to run simultaneously on the live site and preventing duplicate content or downtime, saving both time and money.

Content teams could continue publishing without interruption, and there was no requirement for a content freeze or duplication of effort. When the new site was ready, the switch was made in less than two days of downtime. Business continuity was maintained throughout every project phase.

The NSW (OneCX) Design System

Rather than designing from scratch, FrontStage adopted the NSW Government Design System as the foundation for PIRSA's new website template.

The NSW Government Design System had already undergone extensive safety, security, user testing, and accessibility validation. It was built specifically for government use, which meant the team could focus on customisation and content, delivering an on-budget solution that adhered to the project timeline.

By importing this proven framework into Figma and adapting it to PIRSA's specific branding and content requirements, FrontStage Digital drastically accelerated the design and prototyping phases.

The resulting design system is reusable as the template can be re-themed as a 'child site' for related sub-brands, a capability that has since been applied to the Fruit Fly SA biosecurity site.

WHAT WAS DELIVERED

Concierge Search with Funnelback

The most significant user experience improvement was the introduction of concierge search, powered by Funnelback, the CSIRO-developed search engine within the Squiz DXP ecosystem.

Where the previous site offered a basic, undifferentiated search, the new experience provides predictive suggestions and filters across five distinct content types: pages, documents, research publications, news, and contacts.

Moving far beyond basic keyword matching, the Concierge system provides predictive, real-time auto-completion suggestions as users type, guiding them intuitively toward high-value content, locations, and contacts before the query is even finalised.

Extensive metadata work underpinned the capability, with PIRSA's internal team reviewing and restructuring the content in collaboration with FrontStage's taxonomy expertise. Thousands of existing documents and content pages were categorised, making content that had long been buried easily discoverable.

Bulk metadata uploads via a spreadsheet made this practical at scale, so that a fisheries officer or recreational fisher can now type a species name such as 'whiting' and receive relevant, filtered results in seconds, rather than navigating several layers of menus.

Restructured Information Architecture

FrontStage redesigned PIRSA's navigation with a user-centric, task-based approach, including a new mega menu for desktop and a simplified mobile navigation that exposes a broader range of content without overwhelming users.

The previous architecture was 'narrow and deep', meaning users could not easily discover content beyond the top level without already knowing where to look.

The new structure addresses this directly, enabling users to access most content within two clicks of the homepage.

Mobile-First & Accessible Design

All templates were built mobile-first, with analytics-informed decisions about device usage, ensuring that even users on

smaller, older devices in regional and rural areas could reliably access core content.

Accessibility was treated as a priority requirement, with automated and manual code checks integrated into the build process. FrontStage also engaged Vision Australia to conduct an independent accessibility audit and remediated all identified issues, achieving a compliance score above 95% against WCAG 2.2 AA standards. A language switcher feature using Google Translate was also added, broadening access for users from non-English-speaking backgrounds.

The SARDI Research Hub

The South Australian Research and Development Institute (SARDI) is PIRSA's self-funded research arm, generating revenue through partnerships with industry bodies, including grain growers and aquaculture associations. Previously, SARDI's research was largely invisible online, with no structured way for stakeholders to discover publications or researcher profiles.

FrontStage built a dedicated document library, complete with searchable views filtered by author, program, year, and subject, powered by Funnelback, and added a dedicated section to the PIRSA homepage to showcase SARDI's work.

Researcher profile pages were created to automatically link individuals to their published work via metadata, positioning SARDI's scientific output for discovery by Google, industry partners, and, increasingly, by generative AI tools that index structured web content.

Contact Workflow & Location Intelligence

The redesigned Contact Us page integrated Google Maps to provide location-based filtering and an AI-powered pre-enquiry tool, enabling users to find and contact the appropriate regional office based on their location.

Enquiry routing was improved so that submissions are automatically directed to the appropriate team, reducing misdirected messages and the administrative overhead of re-routing enquiries.

The Shark Sighting reporting form was rebuilt to auto-complete coastal locations, preventing manual entry errors.

Fruit Fly SA Website

Following the successful launch of the main PIRSA site, the same design system was extended to the Fruit Fly SA biosecurity site to ensure brand alignment.

Fruit Fly SA serves a distinct user group, specifically interstate travellers and South Australian residents navigating strict biosecurity requirements. A separate specialist team within PIRSA manages the site.

Because the PIRSA design system had already been built, tested, and accessibility-audited, FrontStage was able to re-theme the Fruit Fly site in only three weeks, without the extended discovery and design phases required for the main project, thereby proving the scalability of the approach. Once a well-structured design system is in place in Squiz Matrix, additional sites can be redesigned and developed quickly and cost-effectively.

HOW WE WORKED TOGETHER

Effective government digital projects depend on clear roles between the vendor and the client's internal team.

FrontStage served as the technical and design authority, while PIRSA's team, led by its dedicated project manager, orchestrated content, stakeholder management, and information architecture decisions.

The project manager served as the critical bridge between FrontStage and PIRSA's many internal divisions, managing competing priorities and keeping the project moving amid significant organisational complexity.

Daily standups were conducted throughout the project. PIRSA's content team had direct access to FrontStage's JIRA board. It could communicate with developers via Microsoft Teams for any development assistance, giving the client full visibility of progress and the ability to reprioritise in real time. Regular showcases provided formal touchpoints for stakeholder reporting.

PIRSA's internal IT team reviewed every phase of the project and helped integrate the Squiz Matrix forms to ensure that security standards were met for the collection of public data and its integration into the live shark sightings section of the website.

Security & Data Sovereignty

Security and data sovereignty were non-negotiable requirements. The platform was built using the NSW Government Design System on Squiz's pre-approved, penetration-tested

infrastructure, hosted on AWS servers in Australia. All website data remains onshore, meeting South Australian Government data residency requirements. PIRSA's internal IT team reviewed and signed off on every phase of the build, with continuous quality checks including BrowserStack testing, accessibility audits, and code validation throughout.

After the build was completed, FrontStage was engaged for six months to provide support and further build-outs to the PIRSA team via a case-by-case, ticket-based system in JIRA.

Training was also provided via the customised content maintenance guide, which offers backend how-tos for staff.

The keys to our success were:

1. Integrated teams with daily standups, clear phased deliverables, good visibility across teams and support from internal IT.
2. Implementing the pre-vetted NSW (OneCX) design system eliminated technical debt and accelerated the design and development process.
3. Using the Design Switcher meant that business operations continued while the project ran, without interrupting development or necessitating urgent content updates.

Upon project completion, the Internal IT team upgraded the entire ecosystem to a new version of the Squiz DXP. Everything built migrated easily to the DXP without any performance issues, further proving the project's success.

RESULTS

The PIRSA redevelopment delivered measurable improvements across every dimension the project set out to address.

95%+

Accessibility compliance score (WCAG 2.2 AA)

76%

SEO health score (up from 40% at launch)

2 clicks

Average depth to key content (down from 3–5 on the previous site)

100%

Mobile responsive optimisation site-wide

Beyond these headline numbers, the outcomes reflect the project's deeper intent: improving the quality and reliability of information available to South Australians.

Residents navigating fishing regulations, biosecurity requirements, and agricultural standards now have a faster, more intuitive path to the information they need, reducing unnecessary enquiries, improving compliance, and supporting PIRSA's public service charter.

The SARDI research hub has made years of scientific output discoverable for the first time, supporting SARDI's commercial model and strengthening South Australia's profile as a centre of agricultural research.

The Fruit Fly SA site retheme demonstrated that the design system approach can deliver high-quality results in a fraction of the time and at a fraction of the cost of a new build, without repeating the accessibility or UX research already completed for the main site.

Post-launch, FrontStage has continued to support PIRSA through a structured maintenance arrangement, including ongoing SEO improvements, accessibility enhancements, and refinements to the Concierge search experience.

A Looker Studio dashboard provides PIRSA with real-time visibility of Google Analytics, Funnelback search data, and SEO health reporting.

Platform Efficiencies

1. FrontStage utilised a Squiz Matrix audit tool for content planning to speed up the process by conducting a site audit, which also allows content editors to update image alt tags even if they are not logged in, enabling bulk SEO updates.
2. The new site system also lets users automatically resize and compress images when adding content to the site.
3. Adding forms is a quicker and smoother process than building new content pages.
4. A code repository was set up for multiple developers to provide a history of code changes.

CONCLUSION

The PIRSA engagement demonstrates what is possible when a government agency partners with a specialist vendor that genuinely understands its platform, its users, and the practical constraints of the public sector.

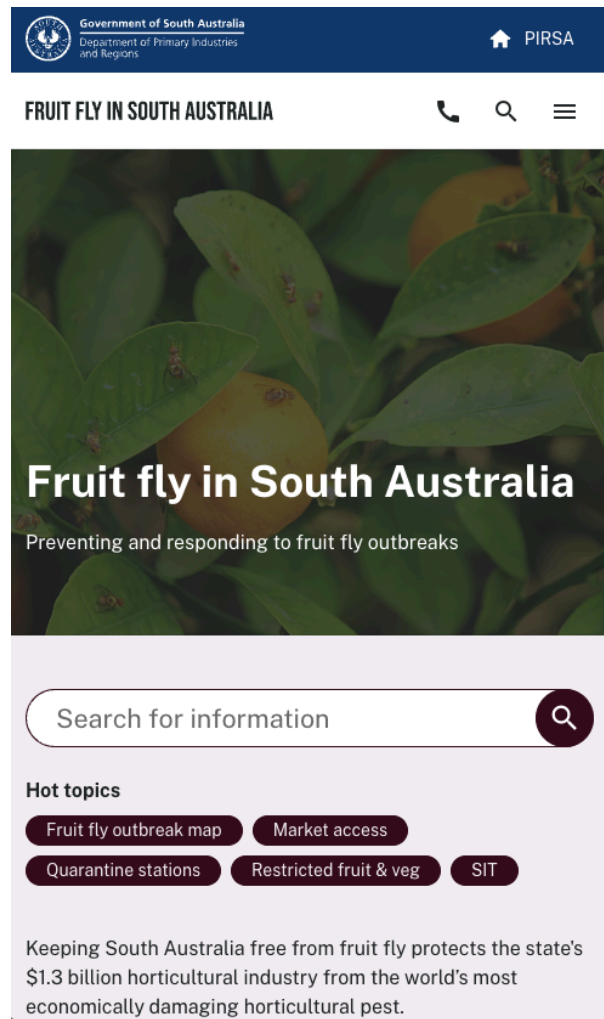
FrontStage Digital delivered a complex, multi-stakeholder project on time and within a fixed budget without disrupting PIRSA's day-to-day operations.

The approach, grounded in reusable design systems, rigorous accessibility, intelligent search, and structured content management, is directly applicable to other government agencies facing similar challenges.

Whether the starting point is an ageing Squiz Matrix site, a frustrating search experience, or a research collection that deserves better visibility, FrontStage has the platform expertise, the methodology, and the track record to deliver.

FrontStage Digital is a certified Squiz DXP partner.

To discuss how we can support your agency's digital transformation, contact David Oakley at dave@frontstage.digital or visit www.frontstage.digital to learn more.



The updated Fruit Fly site was re-themed within three weeks using the Squiz Matrix theme, making it simple to create and add additional sites for the PIRSA team.