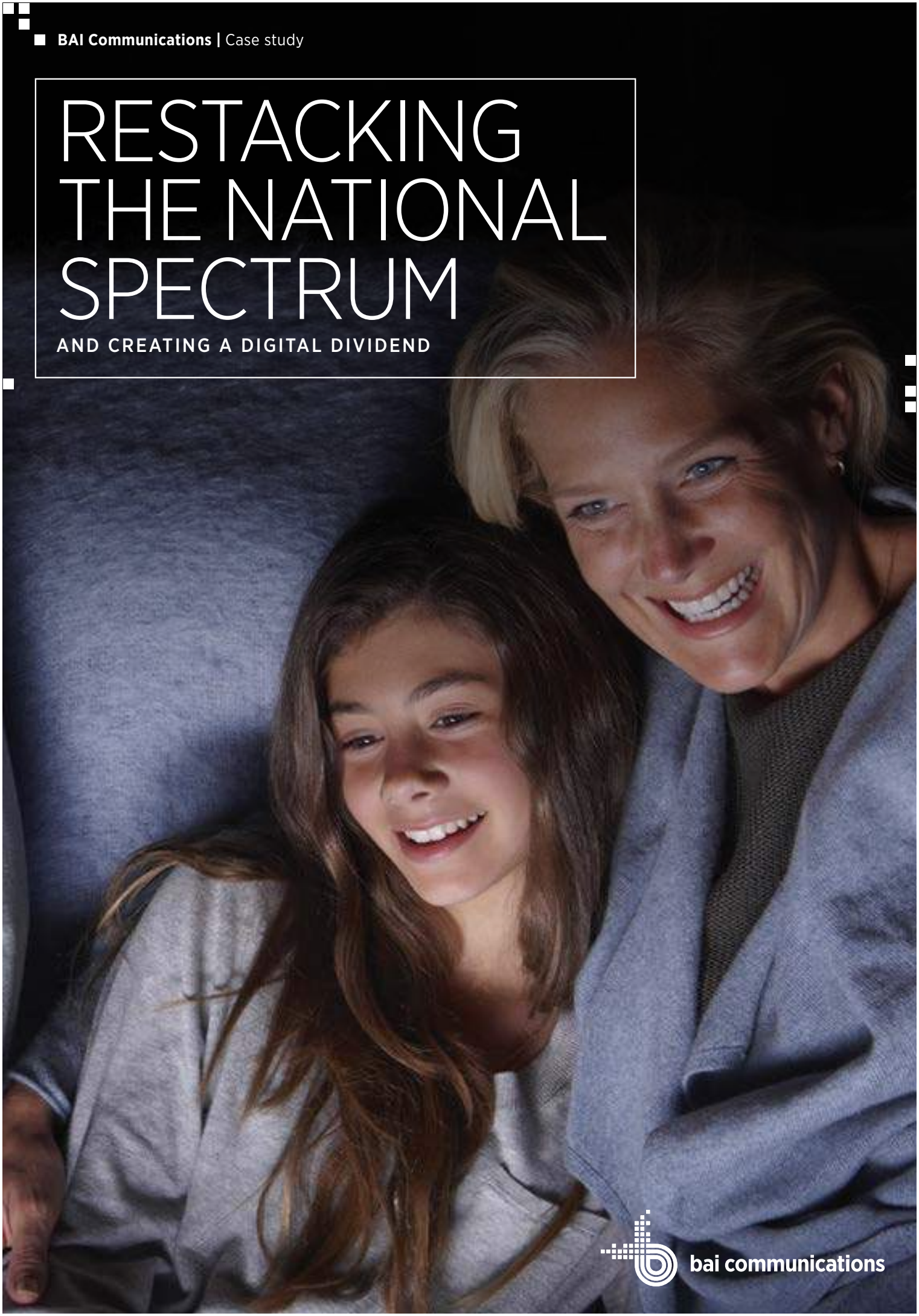
RESTACKING THE NATIONAL SPECTRUM

AND CREATING A DIGITAL DIVIDEND



bai communications

Summary

A successful combination of innovation, dedication and the highest level of safety

In October 2012, the Department of Communications engaged BAI Communications, to lead one of the most significant infrastructure transitions in Australia's broadcasting history. The project aimed to clear UHF television services from the Digital Dividend band (694-820 MHz) across Australia to make way for mobile broadband services. As the industry leader, BAI Communications was the best choice to lead the high-profile initiative which required careful coordination among multiple stakeholders, including national and commercial broadcasters, site owners, and contractors, to ensure minimal disruption to millions of Australians.

The project was delivered successfully—**ahead of schedule, within budget**, and with a perfect safety record.

- **Program Implementation Manager (PIM):** BAI established a specialised team to manage contractors, streamline communications, and maintain oversight with the Government. This independent team ensured that every stage of the project met rigorous standards.
- **Specialist tools and processes:** Custom-built software generated tailored scopes of work for each site, ensuring precise execution across 427 transmission sites nationwide.
- **Unmatched safety standards:** With over 346,000 work hours logged, the project recorded zero lost time due to injuries, showcasing BAI's uncompromising focus on safety.
- **Recognition of excellence:** The Project Management Institute (PMI) Australian Chapters awarded the project Project of the Year in 2015, celebrating its exceptional planning and execution. This recognition highlights BAI's commitment to technical excellence, robust project management, and delivering results that benefit the broader community.

DELIVERED
SIX
Weeks ahead of schedule

DELIVERED
Within **budget**

DELIVERED
with
ZERO
safety issues

AWARDED
Project of the year
2015

bai communications

Paving the way for new technologies and services

The digital television switchover represented a turning point for Australia's telecommunications and broadcasting industries. By freeing up 60 MHz of spectrum for 4G mobile broadband services, the project enabled significant advancements in connectivity and laid the groundwork for future technologies.

60MHz of the 700 MHz band was auctioned in May 2013 to Telstra and Optus, with licences coming into effect on 1 January 2015 for 4G mobile broadband services. The remaining 30MHz was sold in 2017 to TPG and VHA for a total of $1.3 billion.

BAI's role in restacking broadcasting services below 694 MHz involved complex logistical and technical planning, requiring meticulous execution at scale.

Key achievements included:

- **Nationwide expertise:** With 1,476 services reconfigured across 427 sites, the project showcased BAI's capability to handle complex multi-site operations with precision.
- **Service reliability:** Throughout the transition, broadcasting services remained largely uninterrupted, ensuring communities continued to receive critical programming and emergency information.
- **Timely delivery:** Strict deadlines tied to spectrum allocation for mobile broadband were met, allowing Australia's telecommunications providers to roll out services on schedule.

This strategic initiative not only benefited mobile network operators but also underscored the importance of collaboration between public and private sectors in delivering infrastructure projects.

Following 346,000 hours of effort and a peak workforce of 200 from four key contractor companies, BAI completed the project in less than two years, within budget and ahead of schedule (with zero downtime due to injury).

Strong governance assured project success

BAI's expertise in stakeholder management, procurement, and logistics played a central role in overcoming the complexities of the spectrum restack.

- **End-to-end project management:** From initial planning to final execution, BAI provided comprehensive oversight. The PIM team ensured that contractors, suppliers, and stakeholders operated in alignment with project goals.
- **Dynamic scheduling:** Advanced algorithms optimised work schedules, dynamically adapting to changing conditions and maximising efficiency. This algorithm made an important contribution to BAI's success in completing the project six weeks ahead of schedule.
- **Collaborative procurement:** Components sourced locally and internationally were delivered on time, even to remote and hard-to-access sites, using a combination of trucks, barges, and helicopters.

The project demonstrated the importance of strong governance and adaptive strategies in achieving large-scale infrastructure goals.

Supreme safety achieved

Safety remained a fundamental aspect of the project, with rigorous protocols ensuring the wellbeing of all personnel and the communities they served.

- **Comprehensive safety training:** All staff and contractors participated in advanced safety programs, including first aid training and risk management workshops tailored to the project's requirements.
- **Innovative tools for risk mitigation:** The Restack Automated Testing System (RATS) reduced on-site risks by automating complex commissioning processes. This tool enabled less experienced technicians to perform tasks safely and consistently, reducing reliance on highly skilled engineers.
- **Proactive risk management:** Measures such as restricted driving hours, mandatory team travel for remote sites, and stringent incident reporting ensured that potential hazards were identified and mitigated promptly.

The result was a project delivered with an unparalleled safety record, reinforcing BAI's reputation as a leader in operational excellence.

Keeping services running

One of the project's critical challenges was maintaining uninterrupted service for millions of Australians while transitioning broadcast services. BAI achieved this by combining meticulous planning, innovative technology, and close collaboration with stakeholders.

- **Seamless transitions:** Through precise scheduling and advanced tools, outages were minimised, and services were restored within hours when required.
- **Resilient systems:** Robust backup systems, including automated power solutions, ensured service reliability even during site upgrades.
- **Stakeholder collaboration:** Broadcasters, site owners, and government entities worked closely with BAI to align their operations, ensuring smooth handovers and minimal disruptions.

This commitment to continuity highlighted BAI's dedication to keeping communities connected during periods of change.

An award-winning success

The project's successful delivery earned BAI Communications the **Project of the Year** award from the **Project Management Institute (PMI) Australian Chapters in 2015.** This recognition celebrated the innovative approaches, rigorous governance, and collaborative efforts that defined the project.

Project impact and significance

The Restack project demonstrated BAI Communications' ability to deliver complex, large-scale infrastructure projects with precision, reliability, and a focus on safety. By leveraging advanced tools, fostering collaboration, and maintaining a commitment to excellence, BAI not only met but exceeded the project's objectives. These qualities position BAI as a trusted partner for organisations seeking innovative solutions to their connectivity challenges.

For more information about our
commitment to keep communities connected,
please visit **www.baicommunications.com**.

bai communications