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Enhancing Australia–ASEAN collaboration for the protection and resilience of submarine cables

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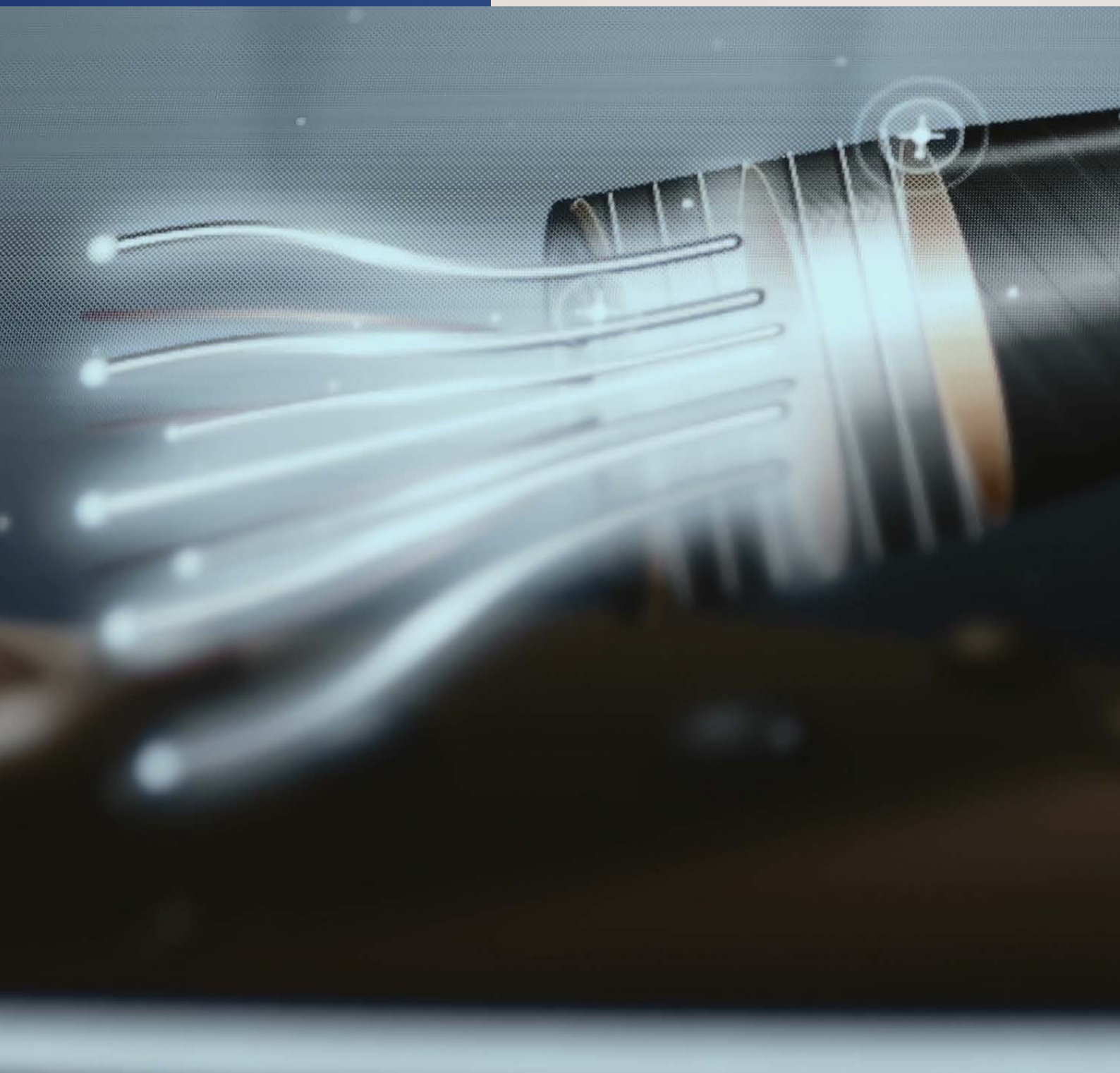


KEY MESSAGES

1. Submarine cables are vital to the digital and economic lifelines of Southeast Asia and the broader Indo-Pacific, making their protection a shared responsibility for Australia–ASEAN collaboration.
2. Designating submarine cables as critical national infrastructure and criminalising intentional physical damage and cyber interference are important steps in safeguarding global communications.
3. Strengthening regional capabilities, including repair capacity, is critical to ensuring the resilience and continuity of submarine cable systems.
4. Australia-ASEAN collaboration should prioritise capacity-building and public–private partnerships to more effectively safeguard critical undersea infrastructure.

Introduction

Submarine communication cables constitute the backbone of the global digital economy, carrying 99 per cent of international data traffic[1], including financial transactions and sensitive government communications.

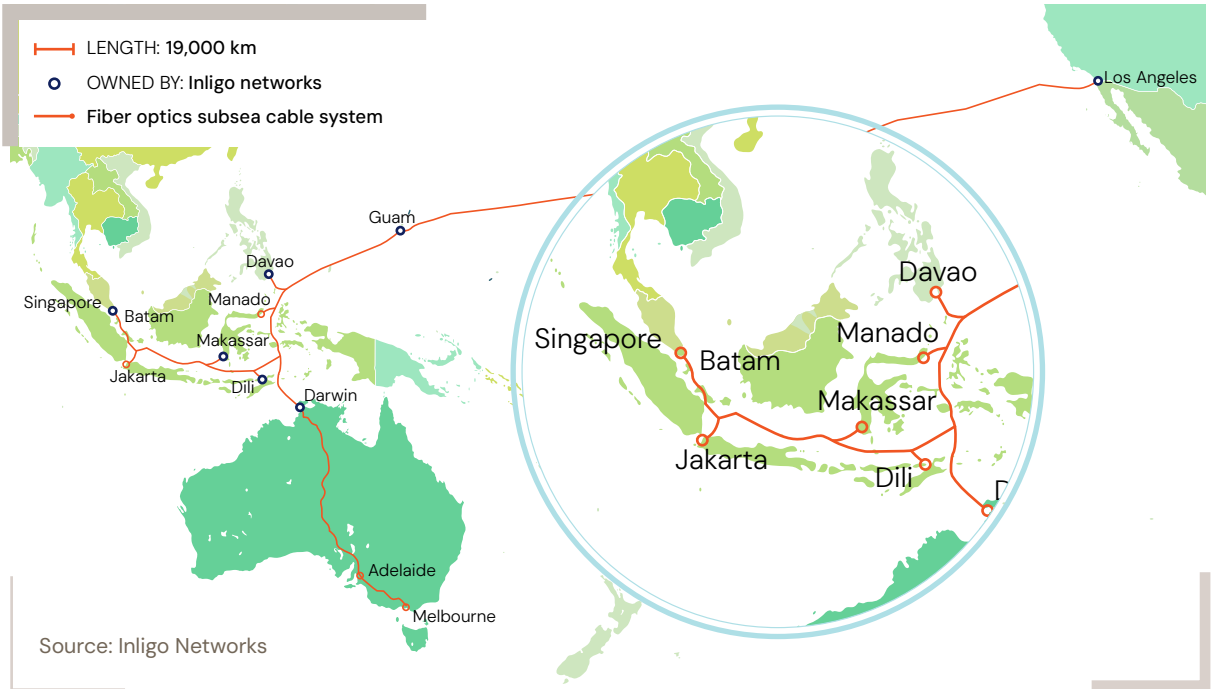
These undersea networks have evolved into mission-critical infrastructure that underpin the functioning of the contemporary global economy.

Disruptions to connectivity – whether caused by negligence, intentional cable damage, unauthorised access, or cyber intrusions by malicious actors – could have severe consequences for national security, economic stability and societal well-being. They can also have serious implications for economic security, disrupting trade, government services and digital connectivity.

Southeast Asia is a critical hub with numerous cable systems linking the countries in the region to Australia and the broader Indo-Pacific, making it strategically important to global digital connectivity. New infrastructure projects, such as the Asia Connect Cable-1 (ACC-1, see figure 1), are expected to further strengthen connectivity between Australia and several Southeast Asian states, including Singapore, Indonesia, the Philippines, and Timor-Leste.[2]

FIGURE 1: **The Asia Connect Cable-1 (ACC-1)**

A high-capacity subsea cable system connecting Australia, Guam, Indonesia, Singapore, Philippines, Timor Leste and the United States



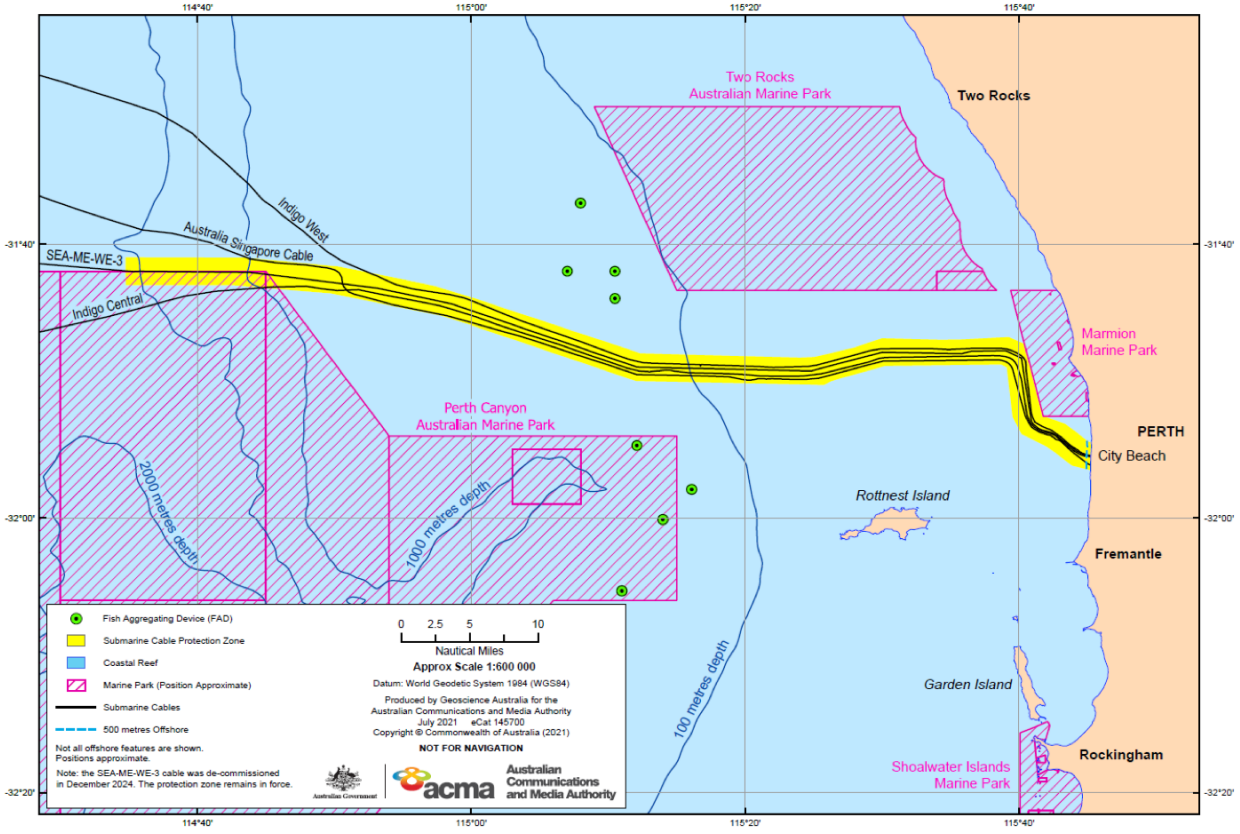
Source: Inligo Networks

Submarine cable faults are a routine occurrence with approximately 200 incidents reported annually, mostly caused by fishing activities and ship anchors.[3] Their impact is particularly severe in countries with limited network redundancy, where a single cable failure can disrupt international communications. Delays in obtaining permits for cable repairs, coupled with geopolitical tensions, can further prolong outages and expose vulnerabilities in the region's digital connectivity.

In recent years, incidents in the Red Sea[4], Baltic Sea[5], Taiwan[6], and Vietnam[7], have highlighted the growing vulnerability of submarine cable infrastructure. These risks are particularly significant in regions including Southeast Asia where multiple cables are densely concentrated along critical maritime chokepoints, such as the Strait of Malacca and the South China Sea.[8] It is therefore essential for Southeast Asian countries to recognise submarine cables as critical national infrastructure and prioritise their protection.

Australia is connected by 16 submarine cables[9] and has been a leader in establishing submarine cable protection zones. Despite these measures, it has experienced multiple cable damage incidents, including within designated protection zones. Most recently in August 2026, Australia experienced disruptions to two submarine cable systems located within the Perth Submarine Cable Protection Zone, connecting Perth with Sydney, Jakarta, and Singapore (see figure 2).[10]

FIGURE 2: **Submarine cable protection zone off Perth, Western Australia**



Source: Australian Communications and Media Authority

A similar undersea cable damage incident occurred in 2021 when the Australia–Singapore Cable (ASC) was severed off the coast of Western Australia within the Perth Submarine Cable Protection Zone (see Box 1).[11]

BOX 1 2021 Australia–Singapore Cable incident

On 1 August 2021, the container vessel Maersk Surabaya was reportedly anchored about 500 metres from the Perth Submarine Cable Protection Zone. During a period of high winds, the vessel allegedly dragged its anchor into the area, snagging and damaging the ASC. The vessel's master was the first person to be charged under section 37 of Schedule 3A of the Telecommunications Act 1997 for allegedly causing damage to the cable. This offence carries a maximum penalty of three years' imprisonment and a fine of up to AUD 40,000.[12] The case was eventually closed, with no further action taken against the captain.[13] This single incident resulted in approximately USD1.5 million in damages.[14]

While there is growing concern that some incidents may involve deliberate interference, the majority of cable faults are accidental, caused by anchors and fishing activities.[15] Beyond physical damage, increasing attention must also be given to the cybersecurity of cable landing stations and network management systems, which are vulnerable to cyber intrusions and hybrid attacks.[16]

As submarine cables underpin both economic resilience and national security, Australia and ASEAN should strengthen regional cooperation by establishing common standards and sharing best practices for their protection across the full cable lifecycle – from installation and maintenance to repair and decommissioning.

As economies become increasingly digital, submarine cables are more than communications infrastructure – they are vital to economic activity, government services and the stability and resilience of the region.

Existing legal and regulatory challenges

Spanning vast distances across the ocean floor, submarine cables traverse multiple maritime zones under different national jurisdictions. As a result, complex legal challenges arise when cables are damaged.

The United Nations Conventions on the Law of the Sea (UNCLOS) 1982[17] provides the primary international legal framework for the protection of submarine cables and outlines the jurisdiction of states impacted by cable damage. Under UNCLOS, states exercise full sovereignty over their territorial seas (up to 12 nautical miles from the coast), giving them the broadest authority to enact and enforce laws protecting submarine cables in this area. However, jurisdiction becomes significantly limited in a state's exclusive economic zone (EEZ) (up to 200 nautical miles from the coast) and in the high seas. In these areas, coastal states have restricted enforcement powers.

As most cables lie outside a state's territorial seas, no single state can protect the network effectively on its own, and regional cooperation is therefore vital.

Many Southeast Asian countries are yet to implement Article 113 of UNCLOS (which requires states to adopt domestic laws and regulations criminalising subsea cable damage) and still lack dedicated legislation to protect submarine cables. In addition, there are currently no binding mechanisms at the ASEAN level for the protection and resilience of submarine cables. This creates inconsistencies in enforcement and accountability across the region.

Furthermore, fragmented governance of submarine cables remains a major regulatory challenge. In Australia[18] and many ASEAN member states, responsibilities are dispersed across multiple government agencies. Singapore is a notable exception, where the Infocomm Media Development Authority (IMDA) serves as the lead agency responsible for the deployment, maintenance, repair, and landing of submarine telecommunications cables.[19]

Consequently, when a submarine cable is damaged or disrupted, many countries including Australia lack a single lead agency to coordinate the initial response among relevant stakeholders, including law enforcement authorities, telecommunications regulators, and cable owners and operators. Closing this governance gap is essential to improving coordination, streamlining responses to incidents and strengthening infrastructure resilience.

As a result of these challenges, legal and regulatory frameworks remain fragmented, creating gaps in the protection of this critical infrastructure.[20]

Areas of cooperation for Australia and ASEAN

Building on Australia's existing initiatives supporting regional efforts to strengthen cable resilience, such as Australia's Department of Foreign Affairs and Trade's Centre for Cable Resilience and Connectivity[21] and the Cables Futures Toolkit[22], Australia and ASEAN should deepen cooperation on submarine cable protection by focusing on the following three key priority areas:

I Strengthening legal frameworks and inter-agency coordination for improved submarine cable protection

Australia and ASEAN countries can work together to develop more harmonised legal and regulatory approaches for submarine cable protection at the regional level. This could include:

- strengthening the implementation of UNCLOS obligations, including through the criminalisation of intentional damage to submarine cables under Article 113[23];
- establishing a designated national point of contact for cable damage incidents – cyber or physical; and
- enhancing inter-agency coordination to streamline licensing and permitting processes.

Such measures would facilitate timely cable repair, reduce regulatory delays, strengthen deterrence and improve the overall resilience of submarine cable infrastructure. In the case of incidents between ASEAN states and Australia, greater coordination could also help mitigate some of the legal complications discussed earlier. By establishing more effective channels of communication and adopting more consistent legal frameworks, regional states would be better placed to investigate, respond to and deter cable damage.

II Developing regional capabilities for cable protection and resilience

Ensuring the resilience of submarine cables requires stronger regional capabilities and closer cooperation between Australia and ASEAN. Building capacity to address both physical and cyber threats should be a regional priority. Australia and ASEAN can advance this through joint training and tabletop exercises under the ASEAN Defence Ministers Meeting-Plus (ADMM-Plus) framework, bringing together defence, civilian agencies, regulators, and industry in a whole-of-government approach. As an ASEAN Dialogue Partner, Australia is well placed to support the implementation of the ADMM-Plus Concept Paper on Critical Underwater Infrastructure[24] and, together with members of the Guiding Principles for Underwater Infrastructure Defence Exchanges (GUIDE, a Singapore-led, cross-regional framework designed to address undersea security challenges and facilitate information sharing)[25], strengthen regional capabilities to protect submarine cables.

Moreover, joint investment in critical assets, such as cable repair vessels, would significantly enhance regional preparedness and resilience. Regional information-sharing and early warning mechanisms should also be strengthened. Leveraging existing platforms, such as the Information Fusion Centre[26] Singapore and the ASEAN Information Portal[27], would facilitate the timely sharing of information on potential threats to submarine cables, enabling faster responses and enhancing the resilience of regional cable infrastructure.

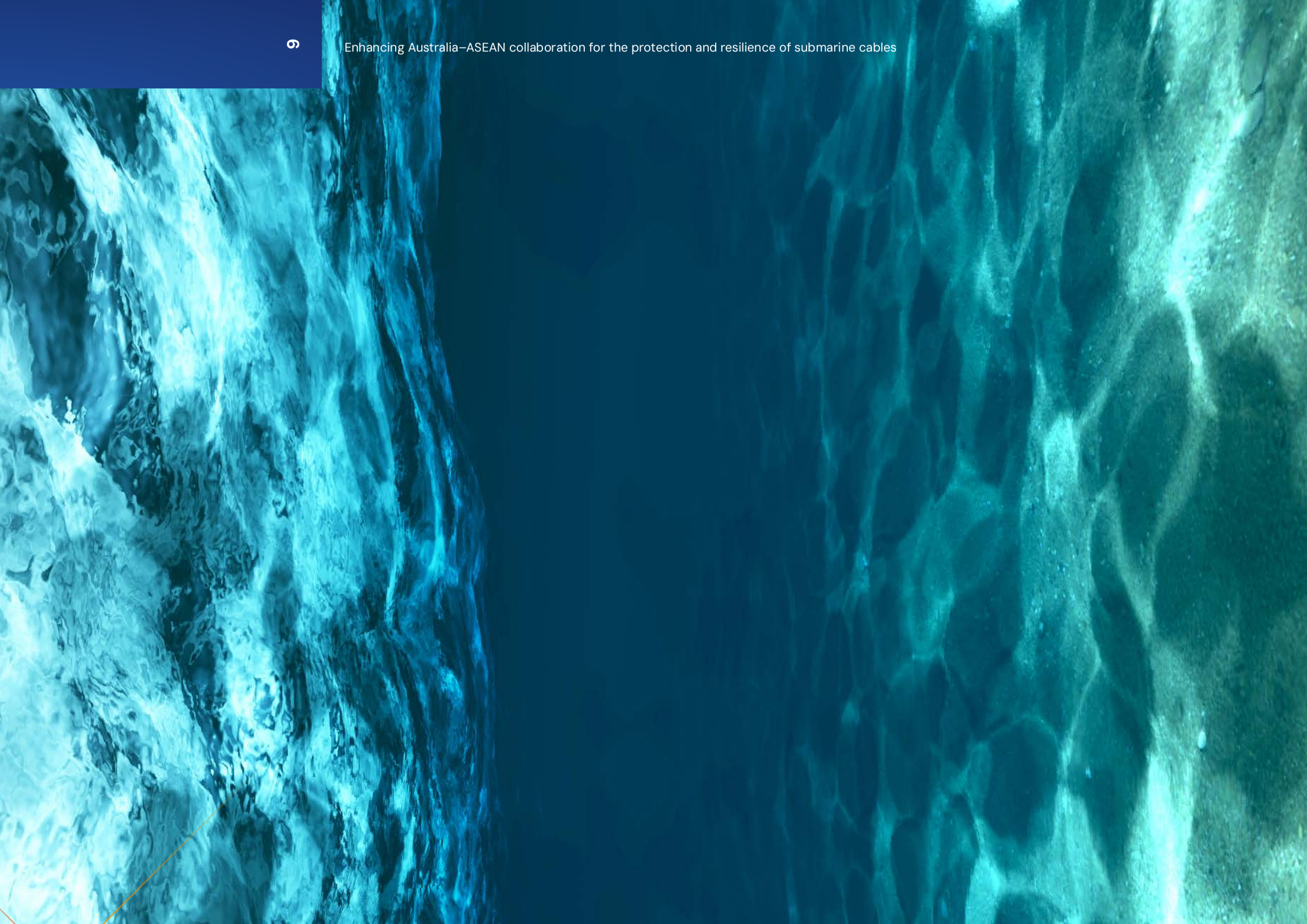
III Strengthening public–private collaboration and marine spatial planning

A strong public–private partnership is essential, as submarine cables are primarily owned and operated by private companies. Australia and ASEAN can strengthen public-private collaboration by:

- Strengthening coordination between governments and industry throughout the cable lifecycle, from route planning to decommissioning.
- Improving marine spatial planning to support efficient and sustainable cable deployment and reduce risks to cable infrastructure.
- Enhancing monitoring and surveillance capabilities through emerging technologies, including sea drones, sensors and artificial intelligence.
- Designating a lead government agency to coordinate with relevant private sector stakeholders and streamline responses to incidents.

Conclusion

In the absence of a dedicated international intergovernmental institution responsible for submarine cable protection, regional mechanisms among interconnected states are essential to bridge governance gaps and enhance collective resilience. Australia and ASEAN should therefore lead efforts to strengthen submarine cable resilience by institutionalising regular dialogue, establishing national coordinating authorities, and enhancing civil–military and public–private cooperation. Stronger and more resilient cable networks will support the connectivity, economic prosperity and security of Australia and Southeast Asia. As the region becomes more connected, protecting this critical infrastructure will only become more important.



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