



The role of South Australia's ports has never been more important, as the world's economy rebuilds and recovers. Having a reliable network of ports to enable two-way international trade for South Australian agriculture and aquaculture farmers, the mining industry and general commerce is essential. Without growth, sustainability and development at Flinders Port Holdings (FPH), that would not occur.

FPH has undergone significant changes as it recognises the need to incorporate smart technologies to streamline logistics and movements into and out of ports, as well as improving sustainability and embracing innovation.

Led by Chief Executive Stewart Lammin, who was recently re-appointed as Ports Australia Chair, there has been a recognition that the use of increasingly-sophisticated smart technologies will be essential moving forward – and particularly at the Flinders Adelaide Container Terminal (FACT).

FACT is working to meet growing demand by introducing artificial intelligence (AI) and data-led solutions to move containers through the terminal as efficiently as possible. For the past 18 months, FPH has been working with Complexica, a leading provider of AI software applications.

Complexica and FPH are collaborating to explore how AI can optimise the manual process of moving a container through FACT, putting FACT at the forefront of container terminal innovation. The AI application pre-empts and manages key decisions linked to a container's movement such as its contents, which berth it needs to go to, and timings linked to trucking arrivals. Using AI-based technology to rapidly collate and analyse these multiple data-points and respond represents

a step-change in container terminal management. This will enable FACT to keep well-ahead of managing growing volumes and complexities in containerised trade.

The volume of containerised trade flowing through South Australia is projected to grow significantly over the next 20 years. South Australia facilitates more than AUD\$25 billion in international two-way trade through its ports, and as that grows, effective movement has never been more important.

To facilitate growth in container and other shipping movements, FPH has purchased equipment and machinery which has long-term sustainability benefits, including in relation to fuel efficiency. FPH recently purchased five Noell Diesel Battery Hybrid Straddle Carriers, which will be the first Konecranes Noell Diesel Battery Hybrid Straddles in the Asia Pacific region.

Fitted with a battery module that will capture power during braking and lowering, the new straddle carriers generate fuel savings of approximately 32.5 percent without compromising on performance. Over the nominal life of the straddle (approximately 50,000 operating hours), the hybrid model provides an estimated 415 tonnes of carbon dioxide reduction when measured against its comparable diesel-electric model. The five new straddles will be delivered to FACT in late 2023.

Through its use of smart technology and hybrid straddles, FPH will reduce fuel consumption while also avoiding unnecessary lifts or movements, tying innovation to sustainability and increasing efficiencies.

FACT uses three state of the art Post-Panamax cranes, delivering efficient supply chain movement. It also plays host to an in-house crane simulator training facility, further

extending its strong safety culture and allowing it to deliver greater efficiency to clients.

Sustainability is a core component of FPH's business planning and operations, with the leadership team embedding sustainable practices across FPH from its ports to freight forwarding, logistics, warehousing and supply chain partners, on the water and on the wharves.

When it comes to the ports network in South Australia, the increasing movement of passengers cannot be overlooked. Commercial flights may have revolutionised passenger movements in the last century, almost consigning intercontinental travel via shipping to the history books, however cruising remains ever popular and is reaching new heights into and out of South Australia's ports.

There has been a boom in the post-COVID-19 world for cruising, especially in South Australia. Known as the festival state, South Australia has a vast offering of beautiful coastlines, world-class wineries and so much more, with cruising looking set to grow exponentially.

A record 104 cruise visits are scheduled for South Australia in the 2022-23 season, a 27 percent increase on the pre-COVID-19 2018-19 season where 82 visits represented what was then a bumper season. The cruise sector represents AUD\$145 million of the state's visitor economy, bringing new faces to the state and breathing life back into the tourism, travel, hospitality and retail industries.

As container movements increase, the mining and agricultural sectors grow and tourism gathers pace, FPH has upgraded the Port Adelaide Passenger Terminal in conjunction with South Australian Tourism Commission, undergone significant

channel widening to allow for larger and wider Post-Panamax vessels, upgraded berths at Port Adelaide, and made major improvements to its Port Pirie wharf facilities, including new asphaltting.

Upgrades to infrastructure have also allowed for greater collaboration with industry. FPH has begun working with the Hallett Group on its green cement project, which will significantly reduce carbon emissions within the Hallett Group's operations. In March, Hallett Group inflated a 42-metre dome at Port Adelaide, which will be used as a green cement storage and distribution facility for wider markets.

Flinders Ports has also formed strategic relationships and begun collaborating with partners Hawsons Iron Ltd on its 20 Mtpa mine south of Broken Hill to export magnetite via Myponie Port, and Venice Energy to build a AUD\$250 million LNG Import Terminal at Outer Harbor. Both of these projects are focused on sustainability.

Recognising growth is imperative to meet the increasing national and international demands on ports and logistics. FPH has embarked on several recent recruitment drives to ensure the business can service its clients and operate at optimum levels, adding to more than 700 staff currently employed across the state.

The new employees have been welcomed across the business in various departments, which will enable FPH to remain at the forefront of the Australian ports and shipping sector, leading innovation nationally, accelerating growth, and not just demonstrating resilience but growing in strength as a vital cog in the state's economy.