



ACN 009 253 187

**AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT**

**28 AUGUST 2019**

**EDENCRETE® - PORT OF SAVANNAH TRIAL**

Please see attached an ASX Announcement by Eden Innovations Ltd (ASX: EDE) for further details.

**Background**

Tasman through its wholly owned subsidiary, Noble Energy Pty Ltd, holds 624,334,707 fully paid shares in Eden representing 37.49% of the total issued capital of Eden Innovations Ltd and 14,814,815 EDEOB options (representing 21.26% of the issued EDEOB options).

A handwritten signature in black ink, appearing to read "Aaron Gates", with a long horizontal stroke extending to the right.

Aaron Gates  
Company Secretary



Innovations that work.™

ACN 109 200 900

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

28 August 2019

### EDENCRETE® - PORT OF SAVANNAH TRIAL

#### HIGHLIGHTS

- EdenCrete® to be trialled in concrete at the Port of Savannah in Georgia
- Port of Savannah is second busiest container port in USA after Los Angeles
- Significant expansion of Port of Savannah is planned

#### DETAILS

Eden Innovations Ltd (Eden) (ASX: EDE) is pleased to announce that the Port of Savannah (part of the Georgia Port Authority) has agreed to conduct a trial of EdenCrete® in a section concrete on one of its wharves that is subject to a very heavy loading and abrasion from the wheels of the large container cranes moving back and forth as containers are loaded and unloaded (known as the “runway”) (see Figures 1 and 2).



Figure 1. Container crane at Port of Savannah showing wheels on “runway”

The concrete runways at the port are exposed to both a salty environment and extreme rolling loads and abrasive wear that cause cracking and abrasion and breakdown of the concrete, requiring the worn concrete to be frequently ripped up and replaced under a highly disruptive, scheduled maintenance programme (see Figure 3).



**Figure2. Container cranes at Port of Savannah**



**Figure 3. Repairs being undertaken on the Port of Savannah wharf**

The details of the trial, including the date and precise location, are to be finalised over the next month, with the trial likely to occur early in 2020, after the heavy volume of container traffic usually experienced during the pre-Thanksgiving and Christmas periods has subsided.

Relevantly, EdenCrete® has been commercially used and successfully trialled on various occasions in a similar heavy duty wear situation in Georgia (see **Eden's ASX announcements (ASX:EDE) 18 April 2016 and 12 October 2017**) and also has been successfully trialled and commercially used in relation to its ability to assist concrete withstand the effects of salt, largely due to the improvements that EdenCrete® delivers in relation to both permeability (see **Eden's ASX announcements (ASX:EDE) 18 October 2018 and 12 October 2017**) and scaling of the concrete (see **Eden's ASX announcements (ASX:EDE) 20 February 2017 and 18 September 2017**).

## **The Port of Savannah**

**After the two ports in Los Angeles (Port of Los Angeles and Long Beach), the Port of Savannah is reported to be the next busiest US container exporter.<sup>1</sup>**

The port consists of two modern, deep-water terminals with over 20 PPX cranes, and handles 20,000 container moves daily and is presently being deepened to accommodate larger vessels, following the Panama Canal expansion that enables larger vessels with deeper draft to use it.

**Details of its recent growth are in container traffic at the Port of Savannah are:**

- During calendar year 2018 (CY18), Savannah's total container trade increased over CY17, to reach a record 4.35 million TEUs (Twenty-foot Equivalent Units).
- Savannah's total container trade grew, from CY14 to CY18, fuelled by growth in imports (up 36%) and exports (up 25%) grew 30%, at a 6.8% compound annual growth rate.<sup>2</sup>

**Importantly, the Georgia Port Authority plans to increase the capacity of the Savannah port from its current 5.5 million TEUs per year to 8 million TEUs per year by 2018, including:**

- **Expanding its ship-to-shore crane fleet from 30 to 42 cranes, including replacing older cranes, so the entire fleet will accommodate vessels greater than 14,000 TEUs, and**
- **Increasing the container handling fleet from 146 rubber-tired gantry cranes to more than 210.<sup>3</sup>**

1. <https://www.inboundlogistics.com/cms/article/top-10-us-container-ports/>

2. <http://gaports.com/Portals/2/Market%20Intelligence/CY18%20Annual%20Container%20Trade.pdf?ver=2019-06-17-164835-097>

3. <http://gaports.com/media/press-releases/articleid/200/artmid/3569>

4. <http://gaports.com/about/savannah-harbor-expansion-project>

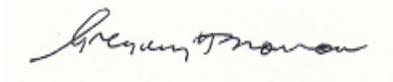
## **SUMMARY**

The planned Port of Savannah trial is the first trial for EdenCrete® in a marine or coastal environment. In addition to the potentially significant amount of work at the Savannah Port and other US ports that it could generate, it is considered likely to help open the growing, global coastal and marine infrastructure market, which includes both ports as well as an increasing level of other coastal works that are likely to be required if ocean levels continue to rise.

## **BACKGROUND**

*EdenCrete® is Eden's 100% owned, proprietary carbon-strengthened concrete additive that enhances a wide range of performance characteristics of the concrete including compressive strength, flexural strength, tensile strength, abrasion resistance, reduced permeability, increased modulus of elasticity, and reduced shrinkage, delivering stronger, tougher, more durable and longer lasting concrete.*

*One of the primary target markets for EdenCrete® is improving the performance of concrete used in the construction and maintenance of concrete roads, bridges and other infrastructure, particularly where it is subject to heavy wear, freeze/thaw weather conditions and/or high levels of added salt. Additionally, it has potential for use in most other concrete applications including high-rise building construction, marine and coastal applications, water storage and pipelines, hardstand areas, warehouses, shotcrete applications and pre-stressed and pre-cast concrete structures and products.*

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**Gregory H. Solomon**  
Executive Chairman