ASX ANNOUNCEMENT

28 March 2024



Sparc Enters Into Agreement with the SA Government to Undertake Field Trials of ecosparc®

HIGHLIGHTS

- Sparc Technologies and the South Australian Department for Infrastructure and Transport (DIT) have signed a binding agreement to undertake field trials of ecosparc®
- Key objective of the field trials is to evaluate the application and performance of an ecosparc® enhanced coating under real-world conditions
- Successful field trials will represent the final stage of testing ecosparc[®] ahead of commercialisation
- Strong interest in field trials registered from asset owners on the basis of the potential for maintenance cost savings, environmental and sustainability benefits

Sparc Technologies Limited (ASX: SPN) (Sparc, Sparc Technologies or the **Company**) is pleased to announce the execution of a binding agreement (**Trial Agreement**) with the South Australian Department for Infrastructure and Transport (**DIT**). The Trial Agreement details the terms and conditions under which Sparc and the DIT will conduct collaborative field trials involving the application of **ecosparc**® enhanced coatings on steel infrastructure. The DIT has approximately A\$45 billion in assets in South Australia (<u>www.dit.sa.gov.au/</u>).

The trials will involve incorporating **ecosparc**® which is produced at Sparc's manufacturing facility, into a market leading anti-corrosive coating. Supply of the **ecosparc**® enhanced coating to Sparc is expected imminently. The field trials with the DIT will take place at the West Beach Bridge in Adelaide and the Streaky Bay Jetty on the Eyre Peninsula.

Sparc Managing Director, Mr. Nick O'Loughlin commented:

"The Trial Agreement with the South Australian Department for Infrastructure and Transport marks a very significant milestone for Sparc, and we thank the DIT for the innovative approach they have shown by embracing this new technology which will improve asset performance and sustainability whilst lowering maintenance costs for steel assets.

We expect this agreement will be the first of several with asset owners representing a key step towards the global adoption and commercialisation of **ecosparc**® in anti-corrosive coatings."



The Trial Agreement with the DIT holds significant importance and is aligned with Sparc's strategy of working with asset owners to demonstrate the performance of **ecosparc**® in relevant real-world environments. The trial locations at West Beach Bridge in Adelaide and Streaky Bay Jetty on the Eyre Peninsula represent highly corrosive coastal environments (Figures 1 & 2). These are ideal pieces of infrastructure for the first field trials of **ecosparc**® enhanced anti-corrosive coatings. Successful field trials will represent the final stage of testing **ecosparc**® following over 4 years of research and development and >10,000 data points based on accelerated laboratory testing which has consistently demonstrated significantly improved anti-corrosive performance versus conventional coatings. Following assessment in real-world environments, Sparc believes commercial decisions can be made by asset owners and coatings companies to use **ecosparc**® enhanced coatings on steel infrastructure.

During the trials, performance of an **ecosparc**® enhanced coating will be compared with a control area coated with a market leading anti-corrosive paint. Application of the coatings in each trial will take place under the same conditions on equivalent steel structures to ensure comparability. The performance of the two coatings will be periodically assessed by an independent third-party expert according to industry inspection and testing protocols.



Figure 1: Trial infrastructure at West Beach Bridge, Adelaide, SA

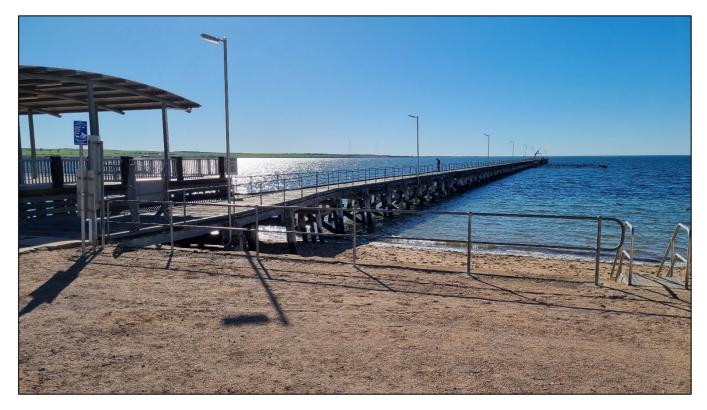


Figure 2: Trial infrastructure at Streaky Bay Jetty, Eyre Peninsula, SA

The primary objective of the field trials is to evaluate the application and performance of an **ecosparc**® enhanced coating under real-world conditions. Sparc has noted the strong demand for field trials of **ecosparc**® from asset owners as evidence that there is a market demand for better performing anti-corrosive coatings. Results from the independent life cycle assessment completed in Q3 2023 (see ASX Announcement 12 September 2023) indicated that **ecosparc**® enhanced coatings can reduce the CO_2 emissions and costs associated with the maintenance of steel assets by $18 - 21\%^1$ and $19 - 23\%^1$ respectively, when benchmarked against the same non-enhanced epoxy based protective coatings.² Sparc believes that successful field trials will encourage market demand for **ecosparc**® enhanced coatings from large steel infrastructure owners on a commercial basis.

Sparc's key obligations, as outlined in the Trial Agreement, are to supply the agreed quantities of **ecosparc®** enhanced and unmodified control coatings to the DIT at Sparc's cost, along with specified application instructions. The DIT's obligations include to provide and prepare the agreed steel infrastructure and to arrange for application of the **ecosparc®** enhanced and control coatings at its own cost. A summary of the material terms of the Trial Agreement is set out in an Appendix to this announcement. The financial impact of the Trial Agreement is negligible. However, the Trial Agreement is material on the basis it represents a key milestone in the testing of the Company's flagship graphene based additive product on key infrastructure.

¹ Bontinck, P, A (2023), Carbon footprint of **ecosparc**® graphene additive for protective coating applications, Lifecycles, Melbourne, Australia.

² Investors are encouraged to refer to the Company's ASX Announcement of <u>12 September 2023</u> for further information regarding the independent life cycle assessment.

About ecosparc® - A performance additive for Protective Coatings

Sparc Technologies has conducted over 4 years of research and development on **ecosparc**®, its flagship graphene based additive product. The addition of very small quantities of **ecosparc**® to conventional protective coatings, has demonstrated up to 40% anti-corrosion improvement in commercially available epoxy based coatings, ensuring the reliability, longevity, safety and cost-effectiveness of the steel infrastructure they cover.

In March 2023, the Company commissioned its **ecosparc**® commercial production facility. The facility enables Sparc to provide commercial quantities of graphene based additive product for the coatings industry. Multiple global coatings companies continue to undertake product evaluation of **ecosparc**® in their anti-corrosive coatings. Further to this, Sparc is progressing a campaign targeting asset owners with a view to conducting field trials utilising **ecosparc**® enhanced coatings on key steel infrastructure such as frames, tanks and structures in a variety of corrosive environments. Infrastructure owners being targeted include government, defence, mining, and oil and gas companies.



-ENDS-

Authorised for release by: Nick O'Loughlin, Managing Director.

For more information:

Nick O'Loughlin

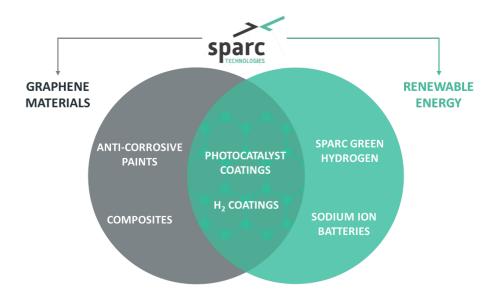
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About Sparc Technologies



Sparc Technologies Limited (**Sparc**, **ASX: SPN**) is an Australian company pioneering new technologies to disrupt and transform industry while seeking to deliver a more sustainable world. Sparc has established offices in Australia, Europe and North America and is focused on three core areas of technology development.

- 1. Sparc has spent over 4 years developing a **graphene based additive** product, **ecosparc**®, which has demonstrated up to 40% anti-corrosion improvement in commercially available epoxy coatings. Sparc recently commissioned a manufacturing facility to produce **ecosparc**® and is engaging with global coatings companies and asset owners to conduct field trials.
- Sparc is a majority shareholder of Sparc Hydrogen which is a company pioneering the development of
 photocatalytic water splitting (PWS) green hydrogen production technology. PWS is an alternative to
 producing green hydrogen via electrolysis, using only sunlight, water and a photocatalyst. Given lower
 infrastructure requirements and energy use, the process has the potential to deliver a cost and flexibility
 advantage over electrolysis.
- 3. Sparc is also developing **sodium ion battery technology** in partnership with Queensland University of Technology.

For more information please visit: sparctechnologies.com.au

For more information about **ecosparc**® please visit: <u>ecosparc.com.au</u>

For more information about Sparc Hydrogen please visit: sparchydrogen.com



Appendix: Material terms of Trial Agreement

Trial Locations:	West Beach Bridge: Bridge 6740 - Holdfast Shores, Barcoo Boat Ramp Jetty, Barcoo Rd, West Beach, South Australia 5024 Streaky Bay Jetty: 36 Alfred Terrace, Streaky Bay, South Australia 5680
Term:	24 months
Sparc's Obligations:	Supply of ecosparc ® enhanced coating and control coating to the DIT at its own cost along with application instructions.
DIT's Obligations:	At its own cost, preparation of relevant infrastructure and application of the ecosparc ® enhanced coating and control coating under the same conditions to ensure the comparability of results.
	Use reasonable endeavours to ensure the trials are not compromised and that the infrastructure is protected from unauthorised access or use, misuse, damage or destruction.
	Provide reports to Sparc in a form agreed between the parties.
	Allow access to Sparc and an independent expert to inspect the infrastructure and verify information in the reports provided by DIT.
Inspection and Testing Protocols:	Sparc will engage an independent expert in the field of coatings and inspections to provide inspection and testing services for the trials in accordance with agreed Inspection and Testing Protocols.
	The parties agree to comply with the Inspection and Testing Protocols at all times.
Future Trials:	In the event the parties agree to undertake further trials of ecosparc® such trials will be undertaken on the same terms and conditions unless otherwise agreed in writing.
Termination Provisions:	Either party may terminate the Trial Agreement by giving six (6) months' written notice.
	Sparc may terminate the Trial Agreement upon the occurrence of a specified event including, without limitation, the DIT ceasing, or indicating that it is about to cease, carrying on its business.
Confidentiality and Intellectual Property:	Customary provisions protecting Sparc's confidential information, inventions and intellectual property.
	Sparc will own all intellectual property which is created during the performance of the trials.
Liability:	No warranty is provided by Sparc in respect of the performance of the ecosparc® enhanced coating and any and all risk associated with its performance during the Trial rests with the DIT.

