Sparc Technologies

SPN.AX

MST Access
A research platform of MST Financial

08 January 2025

Sparc Hydrogen Stage 2 Go Ahead

NEED TO KNOW

- **Sparc Technologies (SPN) and Fortescue have agreed to proceed to Stage 2 of the Sparc Hydrogen project with a pilot plant to be constructed at the Roseworthy campus in Adelaide in 2025.**
- **ecosparc® trial with Santos announced together with memorandum of understanding for marketing and distribution of ecosparc® to CLC's customers in Southeast Asia**

We see the continued participation of Fortescue in the Sparc Hydrogen Joint Venture (JV) FEED for the photocatalytic water splitter (PWS) hydrogen production pilot plant (to be located at the University of Adelaide's Roseworthy Campus) as very positive. Under the terms of the JV Fortescue will contribute $1.45m to take its stake in the JV to 36%.

SPN's September cash position of $1.8m. A research and development tax incentive claim of ~$1.1m received in November, will fund SPN's $1.025m Stage 2 contribution to the Sparc Hydrogen JV. SPN's stake in the JV will then be 36%.

Investment Thesis

We think SPN has a unique position given its business technology mix. With the forecast commercialisation of ecosparc® in the next 12-18 months (MSTe first income in 2H FY26), we estimate that SPN will then be self funding and will be free to continue to progress the Sparc Hydrogen project without calling on its shareholders or debt providers for further capital. We see the decision to proceed to Stage 2 **as a strong endorsement by Fortescue** of the potential of Sparc Hydrogen's novel technology to unlock low-cost green hydrogen via photocatalytic water splitting (PWS).

Once the green hydrogen pilot plant has been commissioned and the operational metrics have been determined we believe the SPN board and management will then need to determine whether to hold on to its 36% ownership stake and progress commercialisation or whether to sell the stake; outright for cash or including some type of royalty arrangement.

We believe SunHydrogen (HYSR-USA); market capitalisation of ~US$146m (~A$233m), is the closest globally listed comparable company to Sparc Hydrogen. If Sparc Hydrogen traded at a similar value, SPN's 36% stake in Sparc Hydrogen would be worth ~A$84m.

Valuation

Our 12-month forward sum of the parts valuation for SPN is $0.37 (up marginally from $0.36 due to valuation roll forward) based on our discounted cash flow valuation of ecosparc®, the book value of SPN's contributions to Sparc Hydrogen post Stage 2 execution ($3.25m), with no contribution from SPN's Sodium battery technology.

If we include the potential Sparc Hydrogen valuation (~$70m) noted above, our valuation lifts to $1.01.

Key risks

Key risks include access to funding, technology commercialisation delays, significant increased research and development costs.

Equity Research Australia

Materials

David Fraser, Senior Analyst
david.fraser@mstaccess.com.au

Sparc Technologies Limited (ASX:SPN) is an Australian company pioneering transformative new technologies that will deliver sustainability gains. Sparc has established offices in Australia, Europe and North America and is focused on pioneering new technologies in coatings and composites, green hydrogen, and sodium-ion batteries.

https://sparctechnologies.com.au

Valuation	**A$0.37** *(from A$0.36)*
Current price	**A$0.31**
Market cap	**A$30m**
Cash on hand	**A$1.8m** *(30 Sep 2024)*

Upcoming Catalysts / Next News

Period	
CY2025	ecosparc® trials complete
Mid - CY2025	Construction of Hydrogen Pilot Plant

Share Price (A$)

Source: FactSet, MST Access

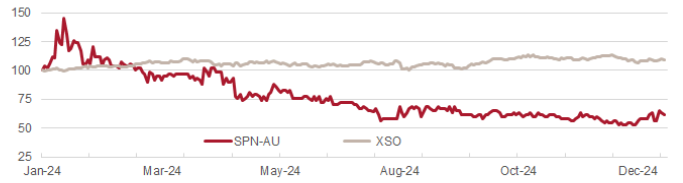
Figure 1: SPN Financial Summary

Sparc Technologies — **SPN-AU**

Year end June

MARKET DATA			
Price	**$**		**$0.310**
52 week high / low	$	$0.415	$0.150
Sum of the parts valuation (12 month forward)	**$**		**$0.37**
Valuation upside	**$**		**$1.01**
Market capitalisation	**$m**		**29.7**
Shares on issue (basic)	m		95.9
Performance rights	m		10.0
Options (Various exercise dates)	m		20.9
Current potential diluted shares on issue	**m**		**126.8**

12 month relative performance versus S&P/ASX Small Ordinaries Index (XSO)



INVESTMENT FUNDAMENTALS		FY23	FY24	FY25E	FY26E	FY27E
EPS (Reported)	¢	(5.4)	(4.9)	(3.9)	(2.5)	(0.6)
EPS Underlying	**¢**	**(4.4)**	**(4.1)**	**(3.9)**	**(2.5)**	**(0.6)**
Share Price (year end) / Spot	$	0.27	0.21	0.31	0.31	0.31
P/E EPS (Reported)	x	n/m	n/m	n/m	n/m	n/m
P/E (Underlying)	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**n/m**
Dividend	**¢**	0.0	0.0	0.0	0.0	0.0
Payout ratio	%	0%	0%	0%	0%	0%
Yield (Y/E/ spot)	**%**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Franking	%	n/a	n/a	n/a	n/a	n/a
Gross Yield (Y/E/ spot)	**%**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Operating cash flow per share Note 1	¢	(3.1)	(2.7)	(2.4)	(1.4)	0.5
Price to operating cash flow	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**56.8**
Free cash flow per share Note 1	¢	(2.8)	(2.4)	(3.7)	(1.9)	0.5
Price to free cash flow	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**82.4**
Book value / share	¢	4.1	3.1	2.7	1.8	2.3
Price to book (NAV)	**x**	**6.6**	**6.9**	**11.5**	**17.3**	**13.4**
NTA / share	¢	4.0	3.0	2.7	1.8	2.3
Price to NTA	**x**	**6.7**	**6.9**	**11.6**	**17.5**	**13.5**
Year end shares	m	85.6	95.9	112.0	126.1	126.1
Average shares on issue	m	83.4	87.5	101.2	119.1	126.1
Year end share price / Spot	$	0.27	0.21	0.31	0.31	0.31
Market cap (Y/E / Spot)	**$m**	**23**	**20**	**35**	**39**	**39**
Net debt / (Cash)	$m	(3)	(3)	(3)	(2)	(2)
Minority interests	$m	0	0	0	0	0
EV (Basic)	**$m**	**20**	**17**	**32**	**38**	**37**
Net debt / Enterprise Value	x	(0.1)	(0.2)	(0.1)	(0.0)	(0.1)
Gearing (net debt / EBITDA)	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**n/m**
EV/Sales		n/m	n/m	n/m	22.2	7.2
EV/EBITDA (Basic)	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**n/m**
EV/Adjusted EBITDA Note 1	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**n/m**
EV/EBIT	x	n/m	n/m	n/m	n/m	n/m
Interest cover (EBIT / Net interest)	x	n/m	n/m	n/m	n/m	n/m

PROFIT AND LOSS		FY23	FY24	FY25E	FY26E	FY27E
Sales	$m	0	0	0	2	5
Other income / R&D Incentive	$m	1	1	1	1	1
Total income	**$m**	**1**	**1**	**1**	**3**	**6**
COGS	$m	(1)	(1)	(1)	(2)	(3)
Gross margin	**$m**	**0**	**0**	**0**	**1**	**4**
Gross margin	*%*	*0%*	*0%*	*0%*	*42%*	*57%*
Operating expenses	$m	(4)	(4)	(5)	(5)	(5)
EBITDA	**$m**	**(3)**	**(3)**	**(4)**	**(3)**	**(1)**
Impairments / Associates	$m	(1)	(1)	0	0	0
Reported EBITDA	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**(1)**
Depreciation & amortisation	$m	(0)	(0)	(0)	(0)	(0)
EBIT	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**(1)**
Net interest	$m	(0)	(0)	0	0	0
Pretax profit	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**(1)**
Tax expense	$m	0	0	0	0	0
Group NPAT	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**0**
Miniority interest	$m	0	0	0	0	0
NPAT	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**(1)**
Underlying NPAT	**$m**	**(4)**	**(4)**	**(4)**	**(3)**	**(1)**

BALANCE SHEET		FY23	FY24	FY25E	FY26E	FY27E
Cash	$m	3	3	3	2	2
Receivables	$m	0	0	0	0	0
Inventory	$m	0	0	0	0	0
Other / Prepayments	$m	0	0	0	0	0
Current assets	**$m**	**3**	**3**	**3**	**2**	**2**
PPE	$m	0	0	1	1	1
Intangibles	$m	0	0	0	0	0
Right of use assets	$m	0	0	0	0	0
Other	$m	0	0	0	0	0
Non current assets	**$m**	**1**	**1**	**1**	**1**	**1**
Total Assets	**$m**	**4**	**3**	**4**	**3**	**3**
Accounts Payable	$m	0	0	0	0	0
Borrowings	$m	0	0	0	0	0
Lease liabilities	$m	0	0	0	0	0
Employee Benefits / Other	$m	0	0	0	0	0
Current liabilities	**$m**	**1**	**0**	**0**	**0**	**0**
Borrowings	$m	0	0	0	0	0
Lease liabilities	$m	0	0	0	0	0
Other	$m	0	0	0	0	0
Non current liabilities	**$m**	**0**	**0**	**0**	**0**	**0**
Total Liabilities	**$m**	**1**	**1**	**1**	**0**	**0**
Equity	$m	21	23	26	28	28
Retained earnings	$m	(26)	(30)	(34)	(37)	(38)
Reserves / Minority Interests	$m	8	10	12	11	13
Shareholder's equity	**$m**	**4**	**3**	**3**	**2**	**3**

Divisionals

Ecosparc Forecasts (Graphine based additives)	FY23	FY24	FY25E	FY26E	FY27E
Plant capacity (kg GBA)	140,000	140,000	140,000	140,000	140,000
Capacity paint dosed (mega litres (Ml))	7.0	7.0	7.0	7.0	7.0
GBA (kg / litre) paint	0.02	0.02	0.02	0.02	0.02
Forecast paint (Ml)	0.0	0.0	0.0	1.0	3.0
Kg GBA	0	0	0	20,000	60,000
Units GBA (20kg)	0	0	0	1,000	3,000
Sale Price (A$/unit)	0	0	1,650	1,691	1,734
Sales	**0.0**	**0.0**	**0.0**	**1.7**	**5.2**
COGS / unit (A$/20kg)	0	0	500	518	536
COGS	**0.0**	**0.0**	**0.0**	**(0.5)**	**(1.6)**
Gross margin	**0.0**	**0.0**	**0.0**	**1.2**	**3.6**

CASH FLOW		FY23	FY24	FY25E	FY26E	FY27E
EBITDA pre non cash op costs	$m	(2)	(1)	(3)	(2)	(0)
Change in working capital / Other	$m	(2)	(2)	(0)	(0)	(0)
Net interest	$m	0	0	0	0	0
R&D refund	$m	2	1	1	1	1
Tax paid	$m	0	0	0	0	0
Operating cash flow	**$m**	**(2)**	**(2)**	**(2)**	**(2)**	**1**
Stay in business capex	$m	0	0	0	0	0
Growth capex	$m	(0)	(0)	(0)	(0)	(0)
Investments in Associates	$m	(0)	0	(1)	0	0
Other	$m	(0)	(0)	(0)	(0)	(0)
Investing cash flow	**$m**	**(0)**	**(0)**	**(1)**	**(0)**	**(0)**
Change in Equity	$m	4	2	2	2	0
Increase / (decrease) in borrowings	$m	0	0	0	0	0
Lease liability repayments	$m	(0)	(0)	(0)	(0)	(0)
Dividends	$m	0	0	0	0	0
Other	$m	0	(0)	(0)	(0)	0
Financing cash flow	**$m**	**3**	**2**	**2**	**2**	**(0)**
Foreign exchange movements	$m	0	0	0	0	0
Change in Cash / FX	$m	1	(0)	(1)	0	0
Cash year end	**$m**	**3**	**3**	**2**	**2**	**2**

Notes: 1. Operating cash flow, free cash flow and EBITDA adjusted for lease liability repayments & interest

Source: Company presentations and MST Access

Sparc Technologies (SPN) has had a busy quarter

SPN has made a number of positive announcements since our last note in early November, link below:

Sparc Hydrogen - The key upside driver for SPN value in our view

For those readers who are unfamiliar with SPN we provide below the link to our initiation.

Disrupting and Transforming Industry

Key announcements over the month

- SPN and Fortescue have agreed to proceed to Stage 2 of the Sparc Hydrogen project with a pilot plant to be constructed at the Roseworthy campus in Adelaide in 2025.
- A binding trial agreement with Santos to trail ecosparc®.
- Test work has demonstrated significant corrosion improvement in graphene water-based acrylic epoxy coatings.
- SPN and a Chin Leong Construction Systems (CLC), a 100% owned subsidiary of CLP Group, have entered into a MoU with a view to marketing and distributing ecosparc® to CLC's customers in Southeast Asia. CLP Group, based in Singapore, is engaged in the distribution of basic and performance chemicals, construction materials, waterproofing & floor coating application and manufacturing.
- SPN received $1.12m research and development tax refund
- Simon Kidston (founder of Genex Power, recently taken over by J-Power) has joined the Board as Non-Executive Director.

Sparc Hydrogen Pilot Plant Stage 2 Go Ahead

Pilot plant construction and funding

The final investment decision by the Sparc Hydrogen board and shareholders to move to Stage 2 and commit the additional $2.5m investment to fund the construction of the pilot plant and ongoing lab work has been made.

We see the decision to proceed to Stage 2 as a strong endorsement by Fortescue of the potential of Sparc Hydrogen's novel technology to unlock low-cost green hydrogen via photocatalytic water splitting (PWS).

The pilot plant will be located approximately 50km north of Adelaide on the University of Adelaide's Roseworthy campus, which is still contingent on the execution of a formal lease agreement between the UoA and Sparc Hydrogen. The company believes the facility can be built and operational ~6 months from the funding being committed by the shareholders.

Stage 2 activities are focused on pilot plant construction and reactor testing along with ongoing laboratory testing of PWS reactors under a range of conditions.

Sparc Hydrogen believes that the pilot plant will represent a globally leading facility for R&D and commercialisation of PWS reinforcing Sparc Hydrogen's first mover position in this emerging direct solar to hydrogen technology

Due to its clean nature and advancement of the technology, we believe Sparc Hydrogen is well positioned to benefit from funding support from Australia, the US, EU and other jurisdictions with clean hydrogen policies becoming more prevalent as governments commit to emissions targets.

Sparc Hydrogen has funding for the pilot plant. Additionally, we note Sparc Hydrogen has recently received a $0.5m research and development tax refund (September 2024).

Sparc Hydrogen has submitted an application for AEA Innovate funding which if successful will provide additional funding for the pilot plant construction and R&D. Results for this application are expected later in early CY 2025. This would follow on from the successful AEA seed funding that was awarded in October 2023.

The Sparc Hydrogen pilot plant will produce green hydrogen using photocatalytic water splitting (PWS) reactor technology without using electrolysers.

Key advantages of PWS over electrolysers are:

- Photocatalysis does not use electricity to produce hydrogen from water thereby decoupling green hydrogen and energy costs,
- The simplicity of PWS, as a direct solar to hydrogen production system drives the potential for low cost operations given solar energy is the only energy input,
- Sparc Hydrogen uses concentrated solar infrastructure which is flexible and scalable,
- and has a comparative advantage over electrolysis in off-grid and remote locations.

Figure 2: Advantages of PWS over electrolysers

		Sparc Hydrogen Photocatalysis	Solar PV Electrolysis	Implications for potential end uses
Use case determinants	High solar resource	✓	✓	• Lowest cost production is suited to high solar (DNI) regions
	Remote and/or off-grid	✓	✗	• Photocatalysis can serve mine sites, remote power & refuelling, agriculture where electrolysis can't
	Flexible scale & modularity	✓	✗	• Photocatalysis is better suited to onsite / near site industrial uses
	Comingled gas product	✓	✗	• Suits combustion use cases assuming safety can be managed
	Industrial heat co-product	✓	✗	• Dual H2, heat product users may include alumina, paper & pulp, ammonia

Source: Company

Sparc Hydrogen aims to combine its PWS technology with concentrated solar to maximise the photocatalysis reaction in each reactor minimising the need for a large number of reactors. The benefits of Sparc Hydrogen's novel approach to PWS are as follows:

- Photocatalysis does not use electricity to produce hydrogen from water thereby decoupling green hydrogen and energy costs.
- Sunlight is the only energy input driving the process delivering emissions free hydrogen.
- Sparc Hydrogen utilises concentrated solar infrastructure which is inherently flexible and scalable.
- PWS has a comparative advantage over electrolysis in off-grid and remote locations.
  Lower photocatalyst use for given volume of hydrogen production.
- Incorporation of PWS into a modular, scalable concentrated solar field; Sparc Hydrogen is aiming to buy off-the-shelf linear Fresnel mirrors and retrofit the existing receiver (typically used to produce heat in the form of steam) with its patent-pending solar reactor,
- The potential to use the heat generated in the reactor for industrial uses or energy production provides the opportunity for a dual revenue source with hydrogen production,
- The production process also generates steam as a by-product which could hypothetically be used by nearby industries that require steam like chemical, pharmaceutical production and many more.

Pilot Plant Progress

Development of the pilot plant has been materially de-risked with the following key workstreams well progressed or complete:

- Front-end engineering and design (FEED) study by global engineering and commercial service provider Incitias Pty Ltd is complete validating the technical feasibility of the project.
- Site planning reports have been submitted to the Light Regional Council with approvals expected in January 2025.
- Procurement of long-lead equipment for the pilot plant including the linear Fresnel (LFR) concentrated solar system is underway with delivery expected late Q1 2025.
- Design of the pilot scale PWS reactors has been finalised with drawings submitted to manufacturing contractors for review.
- Agreement for the supply of photocatalyst materials for the pilot plant from Shinshu University is ready for execution.
- Lease agreement between Sparc Hydrogen and the University of Adelaide for the Roseworthy site is finalised and ready for execution.
- Engineering, procurement and construction management contract is under review.

Based on the current schedule provided by Incitias, **pilot plant construction completion is expected in mid 2025**. When built, the pilot plant will allow Sparc Hydrogen to independently and concurrently test different reactor designs and photocatalyst materials.

Key Pilot Plant Objectives

- Advance Sparc Hydrogen reactor from technology readiness (TRL) level 5 to at least TRL-6 1 via semi-continuous operation of an 'on-sun' pilot plant using concentrated solar mirrors. See ARENA Technology Readiness Levels.
- Real world demonstration of a concentrated solar field integrated with photocatalytic water splitting for green hydrogen production.
- R&D tool allowing on-sun testing of Sparc Hydrogen's PWS reactors, alternate photocatalysts and balance of plant.
- Benchmarking photocatalyst performance and durability under concentrated solar conditions against laboratory testing.
- Verify detailed optical, thermal and production modelling.
- Understand design and engineering issues to guide further scale up.
- Understand operability of key equipment.
- Establish safety protocols and operating procedures.
- Guide further patenting opportunities.
- Showcase technology to new and existing stakeholders and funding bodies.
- Facilitate engagement with key equipment suppliers.
- Solidify Sparc Hydrogen's leading position in the development of concentrated solar based PWS reactors with ability to test under real world conditions.

Sparc Hydrogen ownership structure

In February 2022, SPN announced a joint venture (JV) with the University of Adelaide (UoA) and Fortescue aimed at progressing the PWS reactor technology.

The JV comprised two stages, with the stages outlined below.

Stage 2 sees Fortescue and SPN invest further capital with Fortescue increasing its ownership in the JV through proportionately higher additional funding, as shown in Figure 3.

Now that Stage 2 has occurred, SPNs ownership in Sparc Hydrogen will reduce to 36%.

Figure 3: Sparc Hydrogen investment structure

Sparc Hydrogen JV	University of Adelaide	Sparc Technology	Fortescue
Stage 1	IP Contribution	Pays A$0.45m and issues 3m SPN shares	Pays A$1.8m for intial share
Ownership	**28%**	**52%**	**20%**
Stage 2	Remains the same	Pays A$1.025m and dilutes holding	Pays A$1.45m increasing share
Ownership	**28%**	**36%**	**36%**
Total value Stages 1 & 2 = A$9.1m	A$2.55m	A$3.275m	$3.275m

Source: Company

Promising commercial partnership with Fortescue

We view Sparc Hydrogen's commercial partnership with Fortescue as a strong validation of not only the PWS technology but also the management team's ability to engage an organisation of that calibre with and deliver a strategic partnership. This gives confidence for future commercial partnerships to be executed with similar efficiency.

Why is Fortescue interested in the PWS technology and willing to invest?

Although not stated anywhere, we believe Fortescue will be looking at whether it can utilise the technology at its sites as a source of energy for its steel operations.

As an example, we note that in a paper on the "Pathways towards full use of hydrogen as reductant and fuel " it was noted that direct reduced iron (DRI) steel production requires ~63 kg/t for steel production and 12 kg/t for heating.

The heating component requirement being a direct result of the endothermic process associated with the reaction between iron and hydrogen.

If Fortescue was to commit to using hydrogen for its steel making onshore (100 Mtpa), hydrogen demand for heating alone would be 1.2 Mtpa.

On the basis of 1 Mtpa steel production, hydrogen demand would be 12 million kg per annum or $25m -$60m of revenue per annum at $2/kg- $5/kg.

On the assumption that operating costs will be relatively low with the key ongoing inputs being free (sunlight) and the major operating cost being reactor catalyst, we forecast hydrogen production from PWS will be a high gross margin business allowing the plant capex to be repaid in a relatively short period of time.

ecosparc®

For a detailed report of SPN's ecosparc® technology and potential opportunities see our initiation:

"Disrupting and Transforming Industry"

ecosparc® is a graphene-based additive (GBA) for coatings and composites, designed to increase the anticorrosion capabilities of commercially available epoxy coatings.

SPN has performed a vast body of testing on the ecosparc® product over the last five years. Much of this work has been focused on incorporating ecosparc® into anti-corrosive paints and assessing the scribe creep improvement (effectively a mm measure of rust propagation) over 3 to 6-month accelerated corrosion testing to international standards. Announced results have consistently shown improvement in scribe creep of 26–73%. These results are significant, and in the company's assessment, it is the most advanced globally when it comes to its data package and commercial readiness for a GBA in the anti-corrosion coatings market.

In November SPN signed a trial agreement with energy company Santos to trial the company's graphene enhanced protective coatings. SPN and Santos will conduct a collaborative field trial with the application of an ecosparc enhanced coating at the Santos gas facility Port Bonython in the Upper Spencer Gulf of South Australia. Santos operates a gas fractionation plant and deep water export jetty at Port Bonython, with the conditions highly corrosive and an ideal use case for ecosparc enhanced coatings.

The results of the field trial will be used to assess ecosparc enhanced coatings for inclusion on Santos' coatings specification which, if successful, would allow their use by Santos on commercial projects.

SPN Managing Director Nick O'Loughlin said: *"The trial is being established with a view to specifying ecosparc enhanced coatings which would allow for commercial use. "This is a key step towards commercialising ecosparc".*

SPN and a 100% owned subsidiary of CLP Group (CLC) have entered into a MoU with a view to marketing and distributing ecosparc® to CLC's customers in Southeast Asia.

CLP Group, headquartered in Singapore, has been producing and distributing bulk chemicals and additives to the coatings industry for over three decades Sparc is a leading graphene based additive developer which is commercialising ecosparc® as a performance enhancement for marine and protective coatings The MoU describes the collaboration of the parties to secure interest from CLC's coatings customers ahead of negotiating a binding Distribution Agreement

SPN's Managing Director, Mr. Nick O'Loughlin commented: "*Sparc is very pleased to be working with CLP Group to market and potentially distribute ecosparc® to its customers in Southeast Asia. Sparc appreciates the time and eort spent by CLC in performing its due diligence and hopes to establish this partnership as a means to accelerate the commercial adoption of its market-leading graphene based additive in the Southeast Asian region which is a signicant market for marine and protective coatings*."

Over the September quarter field trials with the South Australian Department of Infrastructure and Transport (DIT) and 29Metals Limited progressed well. Steel sections within processing plant infrastructure at the Golden Grove mine site were coated and feedback from the applicator of the ecosparc® enhanced coating was very positive. Initial 6-month inspections at both Streaky Bay and Golden Grove are expected to occur in late Q1 CY2025 / early Q2 CY2025.

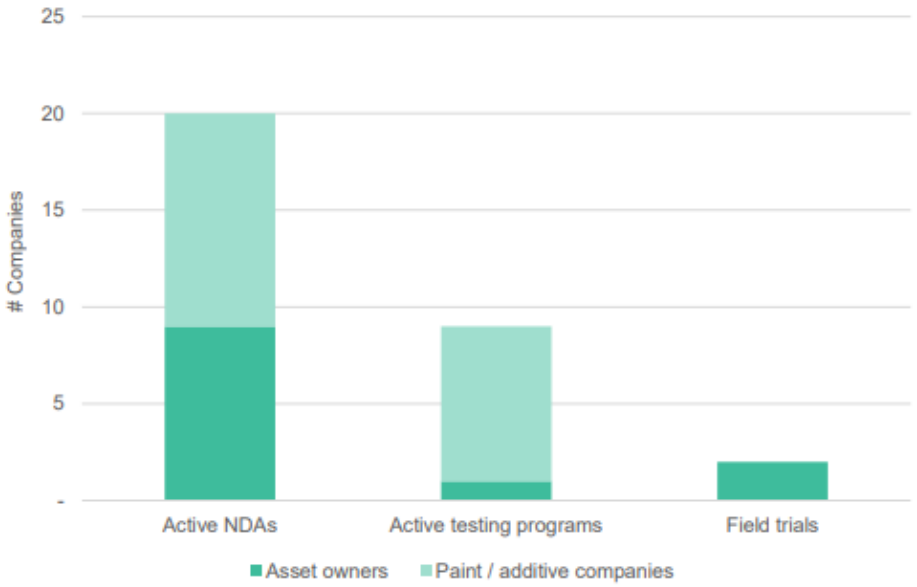
SPN is awaiting guidance on the timing of commencement of works for the second trial with DIT at West Beach Bridge in Adelaide. SPN expects this to commence next financial year but timing has not been confirmed yet.

SPN continues its dual-track approach to develop the market for ecosparc® in protective coatings, focusing on both major coatings companies and large asset owners (end users).

During the quarter, SPN successfully engaged with several additional coatings and additive companies, with testing programs either commenced or soon to commence.

SPN has also successfully engaged with several other large end users of protective coatings with a view to conducting field trials and specification testing. Discussions with new and existing collaborators are supported by recent in-house and external data, which validates ecosparc® in significantly improving the mechanical and anti-corrosion performance of commercially available protective coatings.

Figure 4: ecosparc® customer engagement continues to grow



Source: Company (November 2024)

ecosparc® has massive potential globally with an increased need for anti-corrosion products: Industry reports suggest the global anti-corrosion coatings market will grow to nearly US$50 bn by 2030, given the ageing infrastructure in developed economies and increased marine demand. ecosparc®'s ability to prolong the time between maintenance events will drive healthy uptake.

Valuation of A$0.37 with an upside valuation of $1.01

Our 12-month forward sum of the parts valuation (December 2025) Figure 5 for SPN of $0.37 is based on our discounted cash flow valuation of ecosparc® (Figure 6), the book value of SPNs contributions to Sparc Hydrogen post Stage 2 execution ($3.25m), with no contribution from SPNs Sodium Ion battery technology.

SPN currently has ~95.9m shares on issue. There are currently 26.3m options outstanding with exercise prices ranging from $0.35-$1.00, together with ~10m performance shares.

We are forecasting SPN will issue $4.8m of equity over the next two years at average prices of $0.16 per share, issuing ~30m shares.

For valuation purposes we assume all the performance shares issue, no options issue and 30m shares are issued taking the forecast share count to ~136m.

Figure 5: DCF Valuation for Sparc Technologies (ecosparc® contribution only)

Sum of discounted forecast cash flows	8.9	Target Debt / Enterprise Value Ratio	0.0%
Nominal long run growth rate	3.5%	Statutory Tax Rate	30.0%
Discounted terminal value	32.1	Risk Free Rate	5.0%
Enterprise Value	**40.9**	**Equity Beta**	**1.96**
Plus year end net cash / (net debt)	2.7	Expected Market Return	10.0%
Assumed option exercise	0.0	**Cost of Equity**	**14.8%**
Valuation of SPN (ecosparc® only)	**43.6**	**WACC**	**14.8%**

Source: MST Access

We believe **SunHydrogen (HYSR-USA)**; market capitalisation of ~US$146 (~A$233m), is the closest listed comparable company globally to Sparc Hydrogen.

SunHydrogen states that it has developed a breakthrough technology to produce renewable hydrogen. Utilising the science of water electrolysis at the nano-level, its photoelectrochemical technology uses sunlight to separate hydrogen from water.

If SPN's 36% stake in Sparc Hydrogen was to trade at a similar value, SPN's stake would be worth ~$84m.

If we include the potential value the market may ascribe to Sparc Hydrogen once the pilot plant has commissioned ($84m), our SPN valuation would lift to $1.01.

Figure 6: Sparc Technologies Sum of the Parts Valuation

A$m	Base case	Upside case
Valuation of ecosparc® only	44.1	44.1
Book value Sparc Hydrogen Investment	3.3	
Value Sparc Hydrogen based on SunHydrogen		83.9
Valuation Sparc Technologies	**47.3**	**127.9**
Forecast diluted shares on issue (m)	136.1	136.1
FY25 Value per share (A$)	**0.35**	**0.94**
12 month forward valuation (A$)	**0.37**	**1.01**

Source: MST estimates

Risks to our view

We think that the key risks to our valuation are one or a combination of the following:

- Execution risk associated with commercialisation and delivery of ecosparc® revenue due to one or a combination of the following elements:
- Market penetration to key coatings companies.
- Unforeseen problems and costs associated with the integration of the additive in the current anti-corrosive supply chain.
- Commercialisation timeline delays leading to further funding required.
- R&D costs are required to maintain and continue to develop the Sparc hydrogen and sodium-ion battery anode technologies.
- Funding risks associated with access to capital to support growth in the long term.
- A significant change in the key exchange rates as the majority of sales will likely be in US$.
- The market appetite for companies with sustainable technology solutions.

Personal disclosures

David Fraser received assistance from the subject company or companies in preparing this research report. The company provided them with communication with senior management and information on the company and industry. As part of due diligence, they have independently and critically reviewed the assistance and information provided by the company to form the opinions expressed in this report. They have taken care to maintain honest and fair objectivity in writing this report and making the recommendation. Where MST Financial Services or its affiliates has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid has, or will, directly or indirectly impact the content provided in this report.

Company disclosures

The companies and securities mentioned in this report, include:

Sparc Technologies (SPN.AX) | Price A$0.31 | Valuation A$0.37;

Price and valuation as at 08 January 2025 (not covered)*

Additional disclosures

This report has been prepared and issued by the named analyst of MST Access in consideration of a fee payable by: Sparc Technologies (SPN.AX)

Other disclosures, disclaimers and certificates

Methodology & Disclosures

MST Access is a registered business name of MST Financial Services Limited (ABN 617 475 180 “MST Financial Services”), which is a limited liability company incorporated in Australia on 10 April 2017 and holds an Australian Financial Services Licence (AFSL 500 557). This research is issued in Australia through MST Access, which is the research division of MST Financial Services. The research and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by MST Access is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a financial product you should read any relevant Product Disclosure Statement or like instrument.

ECM and corporate advisory services: MST Financial Services provides equity capital markets (“ECM”) and corporate advisory services through its capital markets division, MST Capital Markets (“MST Capital”). MST Capital provides these services to a range of companies including clients of MST Access. As such, MST Capital may in the future provide ECM and/or corporate advisory services and, accordingly, may receive fees from providing such services. However, MST Financial Services has measures in place to ensure the independence of its research division is maintained, including information barriers between its Capital Markets and Research teams. In addition, neither MST Access, nor any of its research analysts, receive any financial benefit that is based on the revenues generated by MST Capital or any other division of MST Financial Services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently certified. Opinions contained in this report represent those of MST Access at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of liability: To the fullest extent allowed by law, MST Access shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained in this report. No guarantees or warranties regarding accuracy, completeness or fitness for purpose are provided by MST Access, and under no circumstances will any of MST Financial Services’ officers, representatives, associates or agents be liable for any loss or damage, whether direct, incidental or consequential, caused by reliance on or use of the content.

General Advice Warning

MST Access Research may not be construed as personal advice or recommendation. MST Access encourages investors to seek independent financial advice regarding the suitability of investments for their individual circumstances and recommends that investments be independently evaluated. Investments involve risks and the value of any investment or income may go down as well as up. Investors may not get back the full amount invested. Past performance is not indicative of future performance. Estimates of future performance are based on assumptions that may not be realised. If provided, and unless otherwise stated, the closing price provided is that of the primary exchange for the issuer’s securities or investments. The information contained within MST Access Research is published solely for information purposes and is not a solicitation or offer to buy or sell any financial instrument or participate in any trading or investment strategy. Analysis contained within MST Access Research publications is based upon publicly available information and may include numerous assumptions. Investors should be aware that different assumptions can and do result in materially different results.

MST Access Research is distributed only as may be permitted by law. It is not intended for distribution or use by any person or entity located in a jurisdiction where distribution, publication, availability or use would be prohibited. MST makes no claim that MST Access Research content may be lawfully viewed or accessed outside of Australia. Access to MST Access Research content may not be legal for certain persons and in certain jurisdictions. If you access this service or content from outside of Australia, you are responsible for compliance with the laws of your jurisdiction and/or the jurisdiction of the third party receiving such content. MST Access Research is provided to our clients through our proprietary research portal and distributed electronically by MST Financial Services to its MST Access clients. Some MST Access Research products may also be made available to its clients via third party vendors or distributed through alternative electronic means as a convenience. Such alternative distribution methods are at MST Financial Services’ discretion.

Access & Use

Any access to or use of MST Access Research is subject to the Terms and Conditions of MST Access Research. By accessing or using MST Access Research you hereby agree to be bound by our Terms and Conditions and hereby consent to MST Financial Services collecting and using your personal data (including cookies) in accordance with our Privacy Policy, including for the purpose of a) setting your preferences and b) collecting readership data so we may deliver an improved and personalised service to you. If you do not agree to our Terms and Conditions and/or if you do not wish to consent to MST Financial Services’ use of your personal data, please do not access this service.