SOR Strategic Elements September Quarter Update

Perth, Australia – 31 October 2022 Strategic Elements Ltd (ASX: SOR) provides the following Company update to accompany the attached Appendix 4C lodged for the quarter ending 30 September 2022. Throughout the period, the Company implemented programs to effectively manage technology sector uncertainty in the unfortunate event that it extends throughout 2023. Net expenditure (after all rebates and services income) is expected to reduce to approximately $300k in the next quarter, Q4, 2022.

Strategic Elements Ltd ended the September quarter with $3.82M in cash. Across the group, net expenditure was $1m. Strategic Elements Ltd incurred expenditure of $445k; this included all corporate, end of year and AGM costs, internal costs incurred in operating the ASX listed entity and direct costs in providing management assistance to investee companies, principally Australian Advanced Materials (Energy Ink technology) Stealth Technologies (robotics and artificial intelligence) and Maria Resources (technology metals frontier exploration).

Australian Advanced Materials (AAM)

AAM previously applied to the Australian Research Council (**ARC**) for funding under a **$1,600,000 Project** to progress the Energy Ink™ for use in wearable technologies. AAM was informed that a new research and development agreement with The University of New South Wales was required for ARC grant funding to commence under the proposed Project. An agreement is close to finalisation and the Company intends to start the ARC Project in Q4, 2022.

The Project proposal contains **$486,640** in cash to be provided by ARC and **$554,178** in services and equipment (in-kind) to be provided by The University of New South Wales over three years. AAM will provide $350,000 in-kind and $220,000 in cash and maintain its current ownership of Energy Ink™ IP. The grant significantly increases Energy Ink funding without requiring shareholder dilution through capital raising.

The Energy Ink™ technology is still in early development, and the fundamental upper limit of aspects such as maximum power output, duration and energy density remains unknown. Significantly, the team continues to identify multiple avenues that increase performance. It is accepted that the imperative for more innovative, renewable energy creation and power sources will continue to grow. Printed graphene-oxide-based cells that generate energy from airborne water molecules could potentially directly power a device, complement a battery by extending device life or providing energy for battery storage.

To date, development has been focused on 36cm^2 battery cells relevant to the large electronic skin patch market. However, during the period, the Energy Ink™ cell size area was increased to 64cm^2 and then to 100cm^2 to test whether Energy Ink™ cell power output increases as the physical size of the cell increases. The 100cm^2 cell included some (but not all) of the technological breakthroughs made by the team since the beginning of the year. The investigation into whether Energy Ink™ cells generate more electrical charge as they increase in size was successful, with a single 100 cm^2 Energy Ink™ cell generating over 1400 mAh of electrical charge.

The Energy Ink team also investigated the ability to connect multiple Energy Ink cells together to indicate the potential to increase total capacity (mAh) that can be generated through moisture in the air from a pack of Energy Ink cells. The team fabricated and tested six (36 cm^2) Energy ink cells connected in a parallel connection setup to form an Energy Ink pack. The top and bottom electrodes of all six Energy Ink cells were connected in parallel with clips to a Keithley source meter with a resistive load whilst in a testing chamber to record the current capacity generated by the Energy Ink battery pack from moisture over a 14-day testing period.

Humidity was introduced into the chamber and adjusted to assimilate the humidity of a normal laboratory environment. Testing was done continuously, with the device generating energy continuously for the 14-day period under load. This assimilates an extremely harsh current draw scenario (most electronic devices are intermittent in usage and do not draw current continuously for an extended period). This demonstrated the ability to sustain a high current draw for an extended period. Over the 14-day testing period, the pack successfully generated more than **2.4 Ah** (2400 mAh) of charge.

However, during the period, new methods of fabricating Energy Ink cells were potentially discovered. If these prove to be successful in testing, these combined new methodologies would significantly improve performance and supersede those used in the Energy Ink pack completed during this period. Development during the period has opened a R&D pathway for larger-scale Energy Ink systems either through Energy Ink packs with multiple large cells connected or larger Energy Ink cell sizes. Testing has continued throughout the period and is intended to be completed in Q1, 2023.

Energy Ink – Skin Patch

All previous testing done on the Energy Ink cells has been with continuously high current draw. However, this is not typical of an electronic device used in the real world, where power consumption is intermittent rather than continuous. The result is that testing of the current output has been under extremely harsh conditions that exceed the power requirements for a commercial skin patch application such as the leading glucose-monitoring skin patch made by a major global Company.

A combined team from Stealth Technologies and AAM are working to conduct a demonstration to compare the power consumption required by the leading commercial glucose monitoring patch and the power generated by the Energy Ink. This will demonstrate the ability of the Energy Ink to power a commercial skin patch device and highlight the opportunity to reduce the Energy Ink cell to the smallest size needed to power that device. The extensive data captured from these tests will both inform the battery development work and form a data bank that can be used in future discussions with OEM development partners for different products. The first demonstrator from this work is on track to be available in Q4 2022.

Electronic Skin Patches are currently a large USD 10 billion market[1]. These products are used to provide sports and health information from devices attached to the human body and currently use rigid alkaline batteries or those with lithium materials. The market for skin patches is forecast to grow to USD 30 billion by 2031[1].

Stealth Technologies (Stealth)

During the quarter, automation and robotics Company Stealth signed an agreement with global software-industrial company Honeywell to progress commercialisation of Autonomous Security Vehicles (ASVs) for perimeter security.

Stealth will engage exclusively with Honeywell for customers in the correctional, telecommunications and defence industries in Australia, New Zealand and other countries, as agreed by the parties. Under the agreement, an ASV Pilot Deployment program will be conducted to establish a supportive engagement for innovative customers to deploy an ASV in their organisations and obtain hands-on insights into the perimeter security benefits of robotic automation and autonomous vehicles.

The Stealth and Honeywell teams have enabled real-time integration of the ASV with the Honeywell Enterprise Buildings Integrator product, which has thousands of systems deployed globally. ASV Pilot Deployments will further validate perimeter security use cases, model the return on investment with real-world customer feedback, explore the most effective ways of introducing robotics and autonomous vehicles, and direct customer feedback into engineering.

Stealth previously completed a comparison and detailed analysis of mapping data captured by the Stealth Sensor Pack from an underground mine in Western Australia as part of Phase 1 of a pilot investigation[2] with a mining Company. The Stealth Sensor Pack captured mapping data of a portion of a mine's underground environment to validate the technology solution's potential suitability for several potential product applications. Stealth supplied and installed a Stealth Sensor Pack containing sensor fusion and computer vision technology from Stealth's Autonomous AxV platform. The parties are discussing the potential to proceed to Phase 2 of the program.

Stealth also continued to enhance its sensor pack in preparation for an expanded live trial and validation of technology for 3D Mapping of agricultural weeds that will commence in Q4 2022**.** Stealth is collaborating with the Australian Herbicide Resistance Initiative, which are world-leading global research group in herbicide resistance and its management in cropping systems. Stealth technology was previously successfully deployed as pilot technology onto John Deere, CASE, New Holland, and MacDon combine harvesting equipment.

Maria Resources (Maria)
Maria focuses on technology metals (e.g. Ni, Cu, Au, PGE (platinum group elements) related to batteries and advanced technology and applying innovative geological models to unexplored terrains. The highly underexplored Madura Province on the Nullarbor is experiencing increased activity with exploration tenements held by companies including Rio Tinto, BHP Nickel West, Chalice Gold Mines (under JV with Sensore) and more recently by Northern Mineral Resources (NMR) and WA1 Resources (WA1). Maria Resources owns the Leviathan Project (technology metals) and recently expanded Cyclops Project (technology metals) as well as the Red Rock (technology metals) project.

The Company received notice during the period that it has been offered $220,000 of funding to drill the Leviathan carbonatite target from the Western Australian government. The Company is currently finalising the terms of the agreement. To be awarded the EIS funding the company's EIS application was reviewed and assessed against other applications by independent external exploration specialists from both within DMIRS and industry.

The Leviathan project was originally lodged over a large gravity anomaly surrounded by a field of up to 100 inferred volcanic pipes, as reported from previous diamond exploration. Previous Companies working in the area for diamonds were not aware of the gravity anomaly and thus, it has never been previously explored. The Leviathan gravity anomaly is postulated by the Company to be the top of an alkaline intrusion and potentially associated carbonatite surrounded by the field of volcanic pipes.[3] Volcanic pipes are associated with carbonatites and other types of intrusions that are highly prospective for rare metals and rare earths. The Mt Weld carbonatite in Western Australia is one of the world's richest sources of rare earths.

During the period, Maria commenced optical microscope analysis of drill cores from the previous drilling from other companies around the Leviathan target to identify the potential for an alkaline system (or associated carbonatite) in the area. Results are expected to be available in Q4, 2022.

Strategic Elements
The Company has reported payments of $174k to related parties and their associates at item 6.1 of the accompanying Appendix 4C. These payments comprise director's fees for Directors and salaries for Executive Directors. AAM incurred a net expenditure of $145k related to R&D development undertaken at UNSW, consultants and other costs incurred in developing and managing AAM's IP portfolio. An additional $68k was applied to AAM's R&D development costs due to the ongoing collaborative grant announced under the ARC Linkage project[7]. Stealth Technologies (Stealth) incurred $310k in direct expenses related to staff, consultants and R&D development costs across projects with Honeywell, Mining Industry, Defence Science and Technology Group and the Australian Herbicide Resistance Initiative/University of Western Australia. Cognition Engines incurred a net expenditure of $68k related to early technology evaluation costs. Maria Resources incurred $12k in costs associated with the evaluation of exploration projects. Strategic Materials incurred $24k in permit and consulting fees related to holding the Golden Blocks permit in New Zealand.

Net expenditure (after all rebates and income) is expected to reduce to approximately $300,000 in the next quarter Q4, 2022.

The Australian Federal Government has registered Strategic Elements as a Pooled Development Fund with a mandate to back Australian innovation. The Company supports leading Australian scientists and innovators in high-risk-high reward ventures. SOR majority funds the initial development of each Venture whilst seeking a major strategic investor/partner able to assist commercialisation. The Company is backing projects across robotics, artificial intelligence, printable technologies (battery, storage) and strategic technology metals.

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Footnotes
[1] IDC : Electronic Skin Patches 2021-2031 | [2] ASX Announcement 23/12/2021 | [3] ASX Announcement 27/11/2019

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity	
Strategic Elements Limited	
ABN	**Quarter ended ("current quarter")**
47 122 437 503	30 September 2022

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (3 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) research and development	(403)	(403)
	(b) product manufacturing and operating costs	-	-
	(c) advertising and marketing	(21)	(21)
	(d) leased assets	-	-
	(e) staff costs	(371)	(371)
	(f) administration and corporate costs	(217)	(217)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	4	4
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other	-	-
1.9	**Net cash used in operating activities**	**(1,008)**	**(1,008)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash used in investing activities**	**-**	**-**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from financing activities**	**-**	**-**

4.	**Net increase/(decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	4,824	4,824
4.2	Net cash used in operating activities (item 1.9 above)	(1,008)	(1,008)
4.3	Net cash used in investing activities (item 2.6 above)	-	-
4.4	Net cash from financing activities (item 3.10 above)	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**3,816**	**3,816**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	3,712	4,715
5.2	Term deposits	116	116
5.3	Bank overdrafts	-	-
5.4	Other (credit card)	(12)	(7)
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**3,816**	**4,824**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	174
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-

7.5	**Unused financing facilities available at quarter end**	-

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash used in operating activities (item 1.9)	(1,008)
8.2	Cash and cash equivalents at quarter end (item 4.6)	3,816
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	3,816
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	3.79

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: n/a

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: n/a

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: n/a

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 31-10-2022

Authorised by: Matthew Howard

(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.