



SMS Key Business & Operational Update

Structural Monitoring Systems plc (“SMS” or “the Company”) (ASX: SMN) is pleased to provide the following update in relation to the Company’s continuing operations, and the progress achieved in some of our benchmark programs conducted in conjunction with key global partners.

SMS management has continued the process of de-risking the Company – both operationally and financially - post the world first Boeing/FAA approval of our patented CVM™ technology. Recent advancements in financial de-risking included the Q1 \$3.7m strategic placement with prominent new, and existing, institutional shareholders. With the current expected proximity to material commercial revenue, ongoing technology sales, and present cash on hand, the Company does not expect any foreseeable need to issue any further shares at any time in the future. Further, the Board recently conducted one-on-one meetings with multiple institutional investors to introduce the Company, our technology and the strategic business model. In this regard, through April and May, close to 50 meetings were held with institutional investors. Importantly, the overwhelming majority of these accounts did not hold a current position in the Company’s shares.

As routinely discussed in these meetings, there are two likely paths for widespread global adoption of CVM™. The first is the retrofit model for existing aircraft for both fixed-wing and rotorcraft. SMS continues to work with our global partners to identify applications for CVM™ that reduce the burden of mandated inspections on aircraft by the global regulators. CVM™ represents a “first to market” engineering solution to these costly and burdensome inspections. Operators, via the adoption of CVM™, now have a significant and unique tool to dramatically impact utilization rates (revenue) of their respective global aircraft fleets.

The second path to adoption is the integration of CVM™ by the OEMs (Boeing, Airbus, Embraer etc.) on new aircraft. Based on our partner discussions, we believe that commercial aircraft operators/carriers, working with the OEMs, will demand an integrated, holistic solution to mandated inspections for metal cracking and composite de-bonding for new aircraft. Clear evidence suggests that OEMs have recognized this as an inevitable evolution of CVM™ and are advancing to approve our technology internally, and with their respective regulators, for integration on new aircraft. The Company is progressing on both adoption models in the US, Latin America and Europe simultaneously. SMS management believes that this will ultimately lead to approval for multiple CVM™ applications on commercial fixed-wing and rotorcraft by global regulators over the coming quarters.

Finally, perhaps the Company’s primary operational goal for 2016 is to negotiate an agreement, or multiple agreements, with an OEM, operator/carrier, or fully integrated global aerospace company that will definitively provide the scale and path to material global licensing/royalty revenue for CVM™ in fixed-wing and rotorcraft, both commercial and military. Such agreement(s) could be constructed unilaterally or multilaterally - with any number of our current, or potential, partners. The Board’s preference, at this juncture, is for a single, unilateral agreement.

The Company can now announce that we are formally in negotiations to execute this type of agreement with such a counterparty. These negotiations are evolving and ongoing, and given the complexity and importance of the agreement, the final execution will likely take a few months to finalize. The Company looks forward to providing key updates to shareholders in this regard as and when necessary.

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World Leading Inaugural Helicopter Programme:

Sandia National Laboratories Inc. ("Sandia") has now fully completed the testing regime for our CVM™ sensors related to this Programme. The stated goal of the Programme was to mature the integration of structural health monitoring ("SHM") solutions for rotorcraft structures with an emphasis on their use in Health and Usage Monitoring Systems ("HUMS"). Further, the Programme had three stated objectives:

- 1- to complete the validation process for one viable SHM system utilizing proven CVM™ sensors to detect representative rotorcraft structural damage,
- 2- propose an end-to-end process for the inclusion of structural health data into HUMS/SHM-based decision making processes, which could be used by the OEM, operator, and regulatory agencies to approve SHM-related maintenance credits, and
- 3- integrate results into rotorcraft to ensure safe adoption of SHM solutions.

We are pleased to announce that the testing was completed very successfully, and the sensors clearly exceeded the requirements for the probability of detection ("POD") measurements for the chosen Sikorsky test application. Sandia's Dr. Dennis Roach is now preparing the final comprehensive report for Sikorsky's review. Further, given the performance of the CVM™ sensors, and the success of the first application test, Sandia and Sikorsky are now in discussions regarding a second application for CVM™ sensors with Sikorsky rotorcraft.

The envisioned next steps to achieving meaningful commercialization of CVM™ sensors on rotorcraft are:

- 1- Sandia Labs, SMN and Sikorsky will schedule a 1:1 meeting at Sikorsky HQ to discuss the results,
- 2- Sandia will submit the results of the Programme to Sikorsky
- 3- submission of a "mock certification" to the FAA to determine the FAA's key criteria for validation, and
- 4- conduct interface with rotorcraft operators to plan an integration of CVM™ into routine maintenance programs.

Mike Reveley, SMS CFO/COO, commented: "We are very pleased with the performance of the CVM™ sensors during the rigorous testing programme overseen by Dr. Dennis Roach at Sandia's FAA Assurance Center. It is now clear that CVM™ can play a critical role in the next progression of the HUMS i.e. the periodic monitoring of the physical structure of the aircraft. SMS is excited to spearhead this world leading, inaugural helicopter programme in conjunction with the FAA Airworthiness Assurance Center at Sandia and Sikorsky, and we view this effort as a clear adjunct to our success in the fixed wing civilian business."

Dr. Roach commented: "Our extensive testing of CVM™ sensors continues to reveal performance levels which meet or exceed crack detection requirements for both fixed-wing and rotorcraft applications. The intent of this effort is to begin the process of incorporating on-board structural health monitoring sensors into routine use on rotorcraft. While stand-alone SHM systems will probably provide the initial deployment mode on rotorcraft, the long-term goal is to integrate this technology into the Health and Usage Monitoring Systems (HUMS) that are a key part of rotorcraft operations. The work completed thus far is a critical step in this path."

Overall, SMN Management are excited about the current state and maturity of the Programme and look forward to potentially multiple FAA approvals for applications on rotorcraft in the foreseeable future.

Military Rotorcraft In-Flight Pilot Programme:

SMN management is pleased to provide an update concerning our pivotal pilot programme involving the installation of SMN's CVM™ sensors on the Apache AH-64 attack helicopter fleet operated by one of the world's sovereign defence forces. SMS have garnered key support from an important third-party partner who have provided an optimal platform with which to install, assess and progress the expanded use of CVM™ across the full helicopter fleet. Recently, we have confirmed the completion of 10 successful installs and we expect a second progress report on the remaining installs within the next month.

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This programme highlighted several important implications for CVM™ technology. Firstly, the install was technically challenging and was successfully completed - without direct aid from SMS/AEM personnel - by an inexperienced operator in a location on the rotorcraft which presented significant access challenges. This highlighted one of the inherent strengths of the CVM™ technology – i.e. that sensor installs are straightforward and do not require any notable special expertise or training. Additionally, this was the *first* sensor install for an operational application by the operator. The ease of installation and effectiveness in monitoring the application area is a precursor to widespread adoption of CVM™ by maintenance personnel. Finally, the sensor design was the first to incorporate a “corner” sensor which was engineered with a 90deg angle at manufacture - rather than a “traditional” “flat” sensor design.

With this success achieved to date in this key programme, it is gratifying to witness how the SMS/AEM team of engineers have continued to improve, innovate and push the envelope for the evolution of CVM™ technology across aircraft types, and applications.

Dave Veitch, President of AEM commented: "This project with NLR provided several new, and unique, challenges. Ultimately, it has proved not only that CVM™ technology is fully ready for commercial use, it also shows SMS and AEM's ability to provide tailored, custom solutions for our customers' specific needs - however complex those needs might be."

Trevor Lynch-Staunton, Head of CVM™ Technology at AEM, offered the following remarks regarding the Apache Programme: "AEM and SMS now have the ability to directly monitor a potential crack location in a fillet. Fillets such as this are a common location for crack propagation due to the high stress localization that occurs. A new sensor manufacturing process was developed to support the demand for these applications. This new method produces a curved sensor that matches the target fillet radius. In order to reduce the complexity of installing and aligning this sensor, AEM also developed a unique installation tool that is customized for each fillet radius and sensor."

In summarizing the Company's activities through the first half of the year, Toby Chandler, SMS Managing Director, added: "Through 2016 to date, the Company continues to meet expected timelines, operate in accordance with our stated financial and capital structure parameter goals, and mature our unique and world-leading CVM™ technology along multiple fronts, with multiple programmes. As the year further progresses, we expect to solidify our expected commercial business model in a meaningful way – allowing this demonstrable maturing of our technology to evolve into a broad and readily visible commercial model. We look forward to keeping our shareholders abreast of these developments, and achieving the many commercial objectives that we have targeted in the short and medium term."

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