



## **SMS Broad Operational, Key Programme and Commercial Update**

### **Highlights**

- **SMS expects finalization of FAA IP in near-term, with critical STC designation soon thereafter**
- **AEM's legacy commercial platform continues to materially outperform forecast and budget**
- **Manufacturing quality and efficiency for all CVM™ equipment components continue to improve, while "base level" manufacturing is already dramatically ahead of prior years**
- **Company continues to fund general overhead and working capital requirements from operationally-generated free cashflow**
- **Company's key CVM™-related commercial programs are progressing well, and as expected**

Structural Monitoring Systems Plc ("**SMS**" or "**the Company**") (**ASX: SMN**) is pleased to provide the following update in regards to the Company's full platform YTD and forecast performance, commercial progress and strategic outlook, and milestone programs with the FAA, Delta Air Lines, Delta Engineering, Sikorsky etc.

As recently communicated, the Company was planning to hold a broad investor conference call at this time – to be hosted by SMS/AEM key Executive and management personnel, and also, importantly, representatives of the Company's key partner, strategic and commercial organizations.

Due to the present maturity of key CVM™ approval and validation programs underway, and the current highly sensitive process and commercial standing of these programs, our non-Company representatives were not able to gain the necessary clearance and permissions to participate in such a call at this juncture.

As detailed below – with particular reference to the Company's pending near-term expected FAA-provided Issue Paper ("**IP**") which would initiate the final commercialization requirement for the global use of CVM™ as an alternative compliance method to legacy inspection protocols on the world's largest narrow-body fleet aircraft type – the final stages to reach full commercial approval are expected to commence in the next few weeks, as we enter 2020.

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Further discussion concerning the remaining timing and work requirement related to the issuance of this all-important FAA IP will follow below, and SMS personnel, and partners, will seek to hold a broad-based investor call immediately subsequent to this critical event. Further, SMS/AEM Executive and management will be pleased to address pertinent questions at the upcoming AGM - to be held this week on Thursday 12<sup>th</sup> December 2019.

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### **SMS Financial and Platform Overview:**

**The Company's AEM vertical continues to achieve new record sales and EBITDA in the new financial year, following a record performance last year.**

AEM continues to perform above expectations. Revenue for the first 5 months of financial year **was \$C6.600 million, up 14% vs budget, and +22% for the same period in the previous financial year.**

Normalised EBITDA (*excluding* AEM platform-funded SMS R&D costs for ongoing sensor design, manufacturing etc.) for the 5-month period **was \$C1.200 million, 302% vs budget and +74% compared to the same period last year.**

Revenue for this month, based on current orders, will be on budget and AEM management have advised that the remainder of the full financial year (ending 30<sup>th</sup> June 2020) on forward orders looks solid.

R&D continues to be a focus for AEM, consistent with the strategy to expand the AEM legacy product-line IP portfolio, and in this regard, a number of new products are currently in development. Headcount has also been added in both R&D and sales/distribution in order to broaden the reach into Europe and Asia.

AEM is also continuing the Company's ongoing preparations for the material ramp-up in commercial production of CVM™ equipment - including design enhancements, production staff training and semi-automation of some critical assembly processes. These activities have materially improved yield on the initial production runs to well above 90%. In addition, a solid inventory of raw materials and sub-assemblies has now been built, and the supply chain for third party components has been strengthened. As a direct result of these activities, SMS management feel confident that foreseeable initial sensor production demands will be more than adequately met.

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Given the outlook for CVM™ equipment production, however, further expansion of the clean room, and other production facilities, remains under continuing review, such that production output can be rapidly ratcheted up once pending approvals for commercial CVM™ use by major operators is achieved.

### **Milestone Commercial Programs and Key Customer Outreach Activities:**

#### **Sikorsky Aircraft:**

The Company's most recent telecom with Sikorsky, hosted by Sandia Lab's Dr Dennis Roach, indicated a continuing strong interest in proceeding with CVM™ deployment. SMS and Sandia Labs have now completed an extensive series of general CVM™ performance tests for rotorcraft while working in concert with Sikorsky engineering. Multiple meetings have been held with Sikorsky Chief engineers and senior management to discuss the successful results and to take the next steps toward formal adoption of CVM™ solutions.

Sandia Labs and the FAA have provided Sikorsky with a template for a formal validation/certification plan. Sikorsky is currently using these guidelines to produce their validation plan to support specific applications and associated discussions with their FAA Aircraft Certification Office (“**ACO**”). *Three* distinct CVM™ commercial applications, that provide *both* tangible technical and economic benefits, have been identified on the Sikorsky S-92 aircraft. Near-term plans, expected to be underway in H1-2020 include both certification testing and flight testing by a key operator of Sikorsky rotorcraft. Completion of this phase will then pave the way for formal Regulator approval, and subsequent adoption/installation, of CVM™ equipment on Sikorsky rotorcraft immediately thereafter.

#### **Delta Air Lines B737 Aft-Pressure Bulkhead (“APB”) CVM Installations:**

Delta Air Lines (“Delta”) has now successfully completed seventeen (17) CVM™ APB Sensor Kit installations – and by year end, SMS will have installed CVM on nineteen (19) Delta aircraft. The program to date has been highly successful – with two separate MRO facilities becoming fully trained and self-sufficient in CVM™ sensor installation. These installations comprise less than 10% of Delta's total B737 fleet, and represent a minute fraction of the total global B737 fleet.

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### **Other Key Customer Activities:**

In addition to the Company's primary B737 APB and multi-fleet WiFi programs, throughout the year SMS has remained fully engaged with several major US and European carriers regarding the commercial deployment of SMS's CVM™ sensor technology. The level of interest in the industry remains very strong, and consistent feedback received regarding use of our sensor technology is highly indicative that once SMS receives any leading confirmation from the FAA that CVM™ is to be approved, these airlines will be immediately ready to discuss progression to key commercial applications.

SMS believes that once we have reached *Stage 3* (see Table below) to certification, we will be very well positioned to engage in commercial discussions with these airlines (expected to be in Q1-2020). The list of airlines with whom the Company continues to be engaged with includes; *Delta Air Lines, United Airlines, Republic Airways, Southwest Airlines, RyanAir, Air France, KLM, and others*. Although the Company could easily and readily expand our field of contact to include additional airlines, the strategy at this point is to remain focused on this core group of airlines until such time as *Stage 3* of our certification efforts have been achieved, as expected in Q1-2020.

### **Critical CVM™ Commercial Readiness Timeline:**

As communicated previously on several occasions, SMS – through its commercial partnerships with Delta Air Lines, Delta Engineering and Sandia Labs – has been working towards the full commercial approval for CVM™ use as applicable to the inspections governing the radome installation related to Ku and 2Ku installed WiFi systems.

By this time, SMS management had expected the final, and critical, Issue Paper (“IP”) to have been completed, effectively paving the way to an unfettered Supplemental Type Certificate (“STC”) approval for on-aircraft use whereby CVM™ would highly mitigate or replace the requirement for ground-based hangar inspections. At time of writing, finalization signatures at the FAA's originating Seattle ACO are pending, and already the New York ACO has seen and fully reviewed the IP, which led to only one minor question on interpretation of requirements. Dr Dennis Roach provided clarification verbiage in relation to this, and the finalization of the IP process will begin with the final signature process soon, culminating with the NY ACO's sign-off.

*The following (important) Table highlights the expected remaining sequence of steps to achieve full STC certification status for CVM™ related to WiFi installations on, initially, B737 aircraft types, with B757 and A-320 family aircraft fleets to follow in parallel, and sequentially, immediately thereafter:*

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STEPS COMPLETED	STEPS PENDING (Q4) CURRENT STATUS	ISSUE PAPER (Q1)	COMMERCIAL READY (Q2)
	↓		
SMS/Delta Air lines CVM™ technology Demonstrator installs on 737-700	Once FAA internal review is complete and all comments (from Policy, Transport Branch and ACO) are addressed the IP will be released to DE at Stage 2.	Delta Engineering performs first review of IP certification requirements then request technical input and support from SMS re formal compliance with the IP requirements	DE in conjunction with SMS releases test plan and performs necessary testing to satisfy the IP and certification to obtain initial STC approval
SMS OEM demonstrator installs on Embraer E170	In addition, once IP is issued by FAA, Boeing will, in parallel to the Wi-Fi STC process, begin their process to identify requirements for achieving a revision to the B737 APB Service Bulletin	DE will develop and submit Applicant Response to FAA via their NY ACO (Stage 3 of IP development)	Upon successful completion of certification testing in the laboratory DE issues, through its Organization Design Authority (ODA), the STC certification
B737 Aft Pressure Bulkhead identified as strong candidate for CVM™ inspections. Boeing Global Services engaged	SMS has contracted DE and Sandia labs to perform additional system POD development testing to support the Wi-Fi antenna certification requirements identified by the IP. DE is drafting test plan (80%+ complete).	Multiple rounds (2-3 or more) of questions/responses may evolve between DE and FAA regarding Certification Plan response developed by DE	Post complete laboratory testing and installation design analysis, the prototype CVM™ kit can be conformed to support Install "On Doc" at airline customer
Wi-Fi Application identified as strong CVM™ candidate inspection for multiple fleet types	SMS will initiate engagement with EASA approved European engineering firm approved by EASA to begin process of formal EASA APB and Wi-Fi application approval	After Compliance details are final, Certification Plan IP Stage 4 is released and established	Installation of prototype is conformed and functional testing is performed
Delta Engineering (on behalf of SMS) initiate Supplemental Type Certificate (STC) process to utilize CVM™ for Wi-Fi antenna inspections		FAA grants DE authorization to proceed with STC project via Project Notification Letter (PNL)	STC is then approved for specific Wi-Fi inspections and released. CVM™ is now commercially and technically ready for the industry
FAA determines that CVM™ is "new and novel" technology, therefore requires FAA Policy division to provide certification guidance via Issue Paper (IP) before DE can proceed with Certification Plan		Separately, re APB Program: Boeing will identify any testing or additional requirements to obtain a revision of the APB Service Bulletin	Separately, Boeing APB project is expected to be approved by Boeing
FAA ACO, Transport Branch and Policy office creates draft (IP) for internal review			
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Post the issuance of the FAA IP, the Company's marketing efforts for commercial sales will initially remain focused on the list of airlines provided above. SMS management is cognitive of executing a balance between an aggressive marketing push and the spooling up of our production capabilities to meet demand. However, with increasing production capabilities, SMS will further expand its efforts to offer CVM™ to all existing airlines who are utilizing the 2ku Wi-Fi system. In addition, the Company will also expand the customer base to airlines who have reached or are close to reaching the threshold to perform B737 APB inspections..

Once final certification of the STC is issued for the Wi-Fi antenna system, SMS will then begin to identify, along with its customers, additional applications targeting – initially - B737, B757 and A320 aircraft families, and Embraer E170 and E190 aircraft types.

### **Changes to Investor Relations and Forward-Looking Communication Strategies:**

With the expected full commercialization for CVM™ in H1-2020, we anticipate extensive shareholder initiatives for engagement including domestic and international investor roadshows targeting of different segments including retail, domestic and foreign institutional investors.

The Company also expects to have a fully revised and updated investor presentation available in the new year, along with additional upgrades to the website. SMS is also considering new technologies to increase engagement with investor groups - particularly retail investors via virtual road shows and new interactive platforms allowing for extensive investor Q&A.

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