



# 2020: LESSONS LEARNED AND OUTLOOK FOR 2021



**Rick Bacon, CEO, AMS**

For Aqua Metrology Systems (AMS), 2020 started with a celebration of its 10-year anniversary. As with so many individuals, communities and businesses, we have had to adapt and direct energy to the sudden and unpredictable shifts in the business environment. Minimizing health risks to our employees and clients posed by COVID-19 while guaranteeing business continuity for those who depend on our “mission-critical” instrumentation served as our North Star. The commitment and flexibility of AMS employees, combined with AMS clients’ and vendors’ recognition of AMS as an “essential business” has enabled our organization to deliver on these twin goals and to generate year-on-year growth in revenues.

As we enter 2021, we take with us the lessons learned from the past year that inform our strategy and outlook for AMS in 2021 and beyond.

## The 2020 Business Environment – Lessons Learned

### Real-Time Data

The market for real-time, remote water quality monitoring and data analytics continued to grow in 2020. Growth was driven, in large part, by increased awareness of the value of data for process control and optimization, regulatory compliance and risk management. Companies in several industrial sectors reduced water usage and improved the quality of their wastewater discharges. The actions of these companies supported sustainable development goals, and contributed to the growing demand for real-time water quality monitoring. Many companies, such as Samsung and Coca-Cola, and water utilities across the U.S. and Europe that we classify as “early adopters,” have seen value from real-time water quality instrumentation. These entities have enjoyed demonstrable financial returns from investment in our technology, which has been generated by our technologies’ ability to significantly reduce operating costs.

There were increased signs of a fundamental change occurring in the attitudes of end-user clients in the municipal drinking and wastewater, industrial and commercial markets toward treatment system vendors. Clients are demanding that vendors be held accountable for the cost and performance of their treatment system technologies. The days of ignoring the lifetime costs of treatment technologies, often many times their original capital cost, are gone.

Increasingly, engineers and their clients are specifying that investments in treatment systems include real-time monitoring of the system’s performance to minimize lifetime operating costs. There are also signs of regulators imposing the same requirement to ensure tighter compliance of treatment systems with regulatory standards. Thus, real-time monitoring and control are essential and technology vendors who do not adjust to this reality will do so at their peril.

### Knowledge Sharing

A dramatic but less widely recognized shift has taken place in 2020 whereby technology vendors, engineers, consultants, academics and end-user customers that traditionally relied on conferences and exhibitions to share knowledge of innovations found these platforms no longer available to them. This has placed a premium on the value of companies with an established brand name and on those companies able to reach their target audiences through creative approaches to marketing and communications.

In 2020, AMS participated in numerous online, interactive webinars and presentations and pro-actively shared its industry knowledge with a wide audience of thought-leaders – investors, engineers, regulators and end-user clients. It is clear that as an industry we must do a better job of bringing much-needed innovations to market much faster and reduce the product life cycle so the benefits of these innovations are delivered far sooner for the benefit of consumers’ health and the environment.

### A Commitment to Innovation

During 2020, we broadened significantly the markets served by AMS. Based on a suite of innovations in water and air treatment, we established a new division – AMS Environment — that is focused on the commercialization of AMS’ on-site stannous-based treatment system, [SafeGuard™ H2O](#). This technology has been proven to address a wide range of drinking water contaminants that include arsenic, hexavalent chromium, iron and manganese. SafeGuard H2O is a significant innovation; it will displace 20-plus- year-old technologies that are expensive and suffer severe limitations in the treatment of these toxic contaminants. This technology will dramatically reduce the lifetime costs of treating these contaminants that are detrimental to the health of millions of people and found in water supplies in the U.S. and across the globe. The scalability of the SafeGuard H2O system, from point-of-use to water sources for major cities, will bring to homes and small communities a cost-effective method to achieve safe drinking water.

In 2020, the efficacy of the disruptive SafeGuard H2O technology was demonstrated and proven using a unique approach to pilot testing. Contaminated water sent by clients in Alabama, California, Florida, Idaho, and Maine to our R&D centers in Wyckoff, New Jersey or Sunnyvale, California, were treated using AMS' SafeGuard H2O micro-pilot system. This innovative "lean" approach to demonstrate the efficacy of the technology has served to reduce significantly the costs of deploying these pilot systems as well as protecting the health of our employees and clients who would be otherwise present at on-site pilots.

Our innovations in AMS Analytics have also included a patented online real-time analyzer that addresses the global challenge of controlling corrosion and scale in cooling and heating systems. Current approaches for controlling these parameters are complex, expensive, manual and unreliable. AMS' [MetalGuard™](#) Scale Management System brings much-needed automation and predictive analytics to this market and delivers high-frequency, accurate and precise results that will permit timely interventions to protect the integrity of industrial and commercial cooling and heating systems.

AMS' growing footprint in the U.S. market for online contaminant monitoring and reputation for customer service represents an opportunity to maintain the expansion of our product offering whether through innovation in new products, acquisition or partnerships. In 2019, we launched the THM-RR from Foundation Instruments and in 2020, we added a range of online ammonia, fluoride, manganese, nitrate, nitrite, and phosphate analyzers sourced from our partners, Instrumentación Analítica.

## 2021 Outlook

In 2021, AMS will begin to roll-out its treatment technology into the Far East to address contaminated drinking water supplies prevalent in the region. In the U.S., we expect to move to the full-scale field deployment of the SafeGuard H2O technology which incorporates AMS' real-time remote monitoring and control capabilities to optimize performance and minimize lifetime costs.

## About AMS

[Aqua Metrology Systems Ltd.](#) (AMS) believes real-time water quality analysis and remediation are essential to environmental protection. AMS is a leader in the prediction, control and treatment of disinfection byproducts (i.e., THMs) and trace metals, across municipal and industrial sectors. AMS's online analytical instrumentation provides accurate and reliable data on water quality contaminants through continuous monitoring. AMS's SafeGuard H2O™ is an intelligent water treatment system integrating real-time sensing with an innovative approach for removing trace metals.

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