Together, we can do more to foster the adoption of AIDC and the effective use of these technologies than if we work alone...Being innovative in applying our technologies to solve new problems has the potential to not only enhance — but lead — global advancement from the Internet of Things to Blockchain and beyond…The core of AIM, in its past, present and future, remains the same — making the world we live in better for all.”

Chuck Evanhoe
Chair | AIM, Inc.
AIM members and industry executives travelled to Germany for AIM Summit 2019, a co-location with RFID & Wireless IoT Tomorrow, Europe’s largest event for RFID and wireless IoT technology. The Summit, held at darmstadtium outside of Frankfurt, was attended by nearly 100 industry professionals, representing 18 countries. This year’s event, How AIDC Enables Blockchain | IoT | Industrie 4.0, featured keynote sessions with leaders from the European Commission, Avery Dennison, Siemens, SICK AG, Zebra Technologies and RFID im Blick. Additionally, more than 20 industry, technology and innovation experts participated in sessions focused on Application and Tech Talk tracks.
At Aware Innovations, we believe that intelligent tracking yields powerful results. Our tracking and supply chain solutions give you item visibility, data, analysis and notifications that allow you to make informed, strategic business decisions. Working with multiple technologies and using intuitive software, we create solutions that fit your needs.

BlueStar is the leading global distributor of solutions-based Digital Identification, Mobility, Point-of-Sale, RFID, Digital Signage, Networking and Security technology. They offer In-a-Box Solutions, combining hardware, software, accessories and services into one easy-to-deploy bundle. They bring unequaled expertise to their market, award-winning technical support and an authorized service center for manufacturers.

Datalogic is a global leader in automatic data capture and process automation, designing and producing bar code readers, mobile computers, sensors for detection, measurement and safety, RFID vision and laser marking systems. Datalogic solutions increase the efficiency and quality of processes throughout the Retail, Manufacturing, Transportation & Logistics and Healthcare value chains.

SICK manufactures intelligent sensors for industrial automation and is recognized as the premier supplier of automatic identification solutions for material handling and supply chain operations. Its image, RFID and laser-based solutions maximize tracking efficiency and are backed by world-class support that ensures professional project oversight, commissioning and service.

Vista IT Systems provides RF & RFID software for multiple industries. With over 40 years of providing IT solutions, Vista is in a unique position to deliver proven solutions at effective cost. With our experience, we can bring proven management and integration processes to your solution.

Zebra empowers those on the front line in retail, healthcare, transportation and logistics, manufacturing and other industries to achieve a performance edge that translates to delighted customers, good patient outcomes and superior business results. Our products, software, services, analytics and solutions are used to intelligently connect your people, assets and data.

Avery Dennison RBIS is leading the industry in building physical to digital connections to achieve supply chain transparency, reduce supply chain friction and build consumer to brand connections. With over 2000 patents and applications worldwide relating to automatic identification and capture, Avery Dennison is the go-to partner for digital supply chain.

* Discover more about these AIM sponsors & industry leaders by clicking on the company logo.
ACSIS provides best-in-class product and asset traceability solutions to optimize business operations driving improved profitability, more informed decisions, and increased customer satisfaction. Our cloud solutions deliver a real-time view of supply chain execution—connecting legacy systems, partner networks, and assets on the edge for better insight and smarter forecasting.

CISC launches RAIN Xplorer Inline to ensure inlay and tag performance on a high level by enabling quality assurance in production process or offline with the RAIN Xplorer reel2reel tester. Customers will save time and cost, plus have the flexibility to create own performance metrics to meet the rising market demands.

Cognex Corporation designs, develops, and manufactures advanced barcode readers and verifiers as well as machine vision sensors and systems that are used in factories, warehouses, and distribution centers to guide, gauge, inspect, identify and assure the quality of items during the manufacturing and distribution process.

Laxcen Technology is one of the most experienced and qualified suppliers for RFID products and solutions. We provide different kinds of RFID tags, including UHF, HF, NFC, and on-metal tags for various applications. In addition, we also offer RFID smart products and solutions for Library, Apparel, Retail, Aviation, such as smart cabinet, RFID Robot, wearable reader and others.

Metalcraft, a leader in identification products, provides durable nameplates and labels to businesses and industries worldwide. Whether you need a barcoded metal tag to last for years in extreme conditions, RFID enabled tags or a cost-effective polymer label, we build products to fit any application.

Smartrac is a leading vendor of RFID products and IoT solutions, providing both ready-made and customized offerings. We make products smart, and enable businesses to identify, authenticate, track and complement products and solutions. Our portfolio is used in a wide array of applications, such as automotive, brand experience, logistics, retail, supply chain management, and more.

* Discover more about these AIM sponsors & industry leaders by clicking on the company logo.
Members of the Technical Symbology Committee actively work to ensure that complete technical specifications and standards are available to the market.

**2019 Highlights**

- Published DotCode Symbology Revision 4.0. The revised DotCode specification defines expanded symbology-specific print quality assessment (verification) parameters based on a more granular (1/10 of a point) scale. The revision also defines a fundamental encoding improvement based on extensive new testing of the original encoder algorithm and real-world experience in printing and reading DotCode in anti-counterfeit and traceability implementations in the European tobacco industry over the past several years. The revised DotCode specification (Rev. 4.0) also has updated encoding and mask scoring source code files.

- Published, in collaboration with GS1, AI (8009) 02 Cumulative Time-Temperature Exposure Indicator. The GS1 Application Identifier 8009 with AIM Sensor Descriptor Type 02 is used with a common type of colorimetric temperature sensor, Time-Temperature Indicators (TTI), which integrate the cumulative exposure. The progressive sensor color change on the barcode label is used as a proxy to forecast the remaining viable life (safe usage life) of labeled product.

- Published a revision to the AIM International Technical Standard Extended Channel Interpretations Part 3: Register. This revision updates and lists all currently assigned ECIs whose use is described in Part 1 of the ECI. It includes Interpretative ECIs (which include Character Set ECIs) and Transformation ECIs (excluding Closed System ECIs). This document is intended to serve as a companion document to Part 1; which specifies the protocol for extending the interpretative capabilities of basic 7-bit, 8-bit, multi-byte, and 16-bit codes when the data is encoded in data carriers.

- Published an update to AIM’s Symbology Identifier Document. This document is the maintenance document to ISO/IEC 15424. It includes all the changes and updates to the Symbology Identifiers identified up to the publication date. This maintenance document applies to automatic identification device communication conventions and standardizes the reporting of data carriers from bar code readers and other automatic identification equipment. It specifies a preamble message generated by the reader and interpretable by the receiving system, which indicates the bar code symbology or other origin of transmitted data, together with details of certain specified optional processing features associated with the data message.

The Track and Trace Industry Group is dedicated to educate and promote the adoption of automatic identification strategies designed to support global compliance of regulations related to product traceability across all vertical markets.

**2019 Highlights**

- Published Traceability Implementation Frequently Asked Questions, which outlines and answers the most common questions and implications that go into establishing a traceability system with automatic identification technologies.

- Hosted several panel discussions on traceability at numerous industry events including RFID Journal LIVE!, ProFood Tech, PACK EXPO and IDTechEx Show

- Developed a high-level demonstration for food, retail and pharmaceutical policy makers and other interested influencers to exhibit automatic identification and data capture technologies effectiveness in traceability of products throughout the supply chain.
The RFID Experts Group serves the industry by addressing standards and issues associated with the growth and demand of radio frequency identification (RFID) across all vertical markets such as retail, healthcare, distribution, transportation, logistics and supply chain.

2019 Highlights

- Published the whitepaper RFID in Auto ID; Encryption - A Primer. The focus of this primer is to explain to implementers of RFID why they need to be aware on encryption, how harmful unprotected tags can be and how encryption can assist with security issues.

- The REG Healthcare Initiative (HCI) is updating the FDA recognized AIM standard Medical Electrical & System Electromagnetic Immunity Test for the Exposure to RFID Readers. This standard provides test methods and test levels for the evaluation of the electromagnetic immunity of (non-implantable) medical electrical equipment and systems to electromagnetic emissions from radio-frequency-identification (RFID) readers.

- Developing a whitepaper discussing Chipless RFID tags. This paper addresses the cost benefit of these tags since they do not require a microchip in the transponder and some of the challenges with utilizing the tags; like encoding data and transmission issues.

- Continued development on a new standard on active implantable medical device electromagnetic immunity test for exposure to RFID readers. Currently members of the REG HCI are testing potential test methods and test levels for the evaluation of the electromagnetic immunity of implantable medical electrical equipment and systems.

“By making connections within the global community of AIDC experts and innovators, AIM has enabled new partnerships, technological advancements and growth for our company. Additionally, I’ve been afforded a great opportunity to form collegial relationships with industry thought leaders — to know & work with the people who impact industry and business worldwide.”

Elizabeth Sinclair | Global Director of Marketing
BarTender® by Seagull Scientific

“A key benefit of membership is the ability to participate in AIM Industry Groups. AIM members are professional and respectful of each other’s opinions, whether newcomer or lifetime contributor. The value is not only engaging with or learning from AIDC experts with many years of experience, but having a personal role influencing AIM efforts to educate and lead industry standards as new technologies emerge.”

Ray Vaughan | Solutions Engineering Manager
Omron Microscan
RAIN RFID is a wireless technology that connects billions of everyday items to the internet, enabling businesses and consumers to identify, locate, authenticate and engage each item. RAIN Alliance is a global organization promoting the universal adoption of RAIN technology solutions across many different vertical markets.

**2019 Highlights**

- Grew the Alliance to over 165 members worldwide in 2019, with a variety of companies and organizations using RAIN RFID in many industries.
- Hosted face-to-face meetings in Europe (Florence, Italy) and Americas (Memphis, Tennessee). The meetings include an “open” day for any interested party to attend. The open day presentations include end-users discussing how they use RAIN technology to address their needs.
- Addressed multiple projects through RAIN workgroups that included – Aviation | Developers | Healthcare | Intelligent Packaging | Internet-of-Things | RAIN Technology | Smart Products
- Promoted RAIN technology and the members at multiple trade shows around the world – Aviation, Healthcare, IoT, Logistics, Packaging, RFID, Retail, etc.
- Updated the What is RAIN RFID? E-Book twice, with detailed information about the technology, markets using RAIN RFID, and the Alliance. Over 1500 people have downloaded the E-Book.
- Developed tools to educate users and improve their solutions – the RAIN Reader Communications Interface (RCI) and the RAIN RFID Starter Kit.

AIM’s IoT Industry Group provides members with a forum to better understand and help shape the rapidly changing landscape of the interconnected world of products, services and information.

**2019 Highlights**

- Created a video for IoT Day that discussed AIDC’s role in IoT. The presentation outlined how AIDC enables the IoT and how IoT is rapidly changing the landscape of technology in all markets.
- The AIM Blockchain Council released a technical report AIDC in the Blockchain Community. This report is directed to help provide a better understanding of Blockchain and help with the development of a definitive action plan for companies, both vendors and practitioners, who want to engage in the rapidly accelerating Blockchain Economy. The ABC continues to meet and is dedicated to exploring the emerging technology’s place in the future of the automatic identification and data capture (AIDC) industry.
- Released the whitepaper IoT in the Purchasing Process, which provides a high-level overview of how IoT-based solutions can be used within retail environments to increase efficiency and enable new applications.
- The IoT industry group established an Industrie 4.0 work group. This Work Group is developing a Town Hall meeting for users and providers around the world with a focus on educating and discussing the latest trends in Industry 4.0. A main emphasis will be placed on how AIDC technologies are a critical piece in this revolution.
AIM acts as the administrator of the U.S. Technical Advisory Group (TAG) to the International Organization for Standardization (ISO) Sub Committee SC 31. The TAG serves as the delegate of the American National Standards Institute (ANSI) responsible within ISO for all work on standardization in automatic identification and data capture in the U.S. Members of ADC1 represent companies with technical knowledge in AIDC who work together providing input during the process of standardization to ensure both U.S. involvement and consensus on standards.

2019 Highlights

- Review and response to work on all standards related to:
  - Data carriers (TG1)
  - Data & structure (TG2)
  - Radio & communications (TG4)
  - Application of AIDC standards (TG8)

Registration Authority (RA)

In addition to its role as a U.S. TAG administrator, AIM also acts as the international Registration Authority (RA) for several ISO standards, including ISO/IEC 15459 Information Technology – Unique Identification which saw increased interest as the result of new European Union and Chinese regulations passed that require all tobacco and alcohol products to carry a unique identifier. As the RA for ISO/IEC 15459, AIM is responsible for the approval of applications from organizations requesting Issuing Agency Codes that are guaranteed to be unique and compliant with all aspects of the standard.

2019 Highlights

- Appointed RA for ISO/IEC 15961 Information Technology -- Data protocol for radio frequency identification (RFID) for item management and formed corresponding AFI Registration Committee to review applications.
- Enhanced operating procedures for approval of Issuing Agency Codes (IAC) for ISO/IEC 15459 to ensure uniqueness of each code issued.
- Worked on approval for status as Registration Authority for additional ISO standards.
Chapters

AIM China
Two AIM China members received high honors from the China International Science Exchange Foundation. Lu Qitao was awarded the Outstanding Engineer Award and Nanjing Longyuan Microelectronics Technology Co., Ltd. won the Outstanding Engineer Youth Award. The awards recognize engineers who have made outstanding contributions in the first line of production and construction in China.

In 2019, AIM China continued to unite with numerous government departments and trade associations to hold “label Link China” public welfare promotion and training activities. This project improves the recognition and utilization rate of standardized coding and label identification by Chinese enterprises and promotes the research popularization and application of RFID. AIM China continues to lead the special work of the unified code identification of auto parts. As a result of work by chapter members, Chongqing Lifan Automobile Engine Co., Ltd.’s engine traceability system is now the first production line in China to etch QR code through laser body etching, tracing the source of 200,000 engines per year.

AIM China continued its efforts in the creation of “SS (SERVICE) service social organizations” to support industry associations. In 2019, it approved the establishment of “intelligent application industry alliance”. One existing organization, the Jiangsu Intelligent Fisheries Technology Innovation Strategic Alliance held the “Intelligent Fisheries academic Summit Forum”, which was attended by more than 300 individuals.

AIM Denmark
Throughout 2019, AIM Denmark played a key role in major industry events. In April, the chapter hosted a Seminar for members and guests addressing EU’s “Tobacco Products Directive” and “Digital Twins”.

AIM Denmark was again co-organizing the annual RFID/IoT Conference in Copenhagen May 2019, the largest RFID conference in the Nordic countries. More than 160 were in attendance for this event, featuring RAIN Alliance President (Steve Halliday) as keynote speaker and AIM Denmark’s General Secretary (Henrik Granau) as host and speaker.

Throughout 2019, AIM Denmark has developed a new concept, “The Smart Company”, which was used for the first time at hi Tech and Industry Scandinavia 2019 in Herning October 1st-3rd with more than 20,000 visitors. The special Event had a Live Theatre demonstrating Tracking and Tracing, but also Real-Time Localization, Digital Twins and integration with ERP systems. The Theatre had 9 performances. In addition to the Live Theatre, AIM Denmark co-organized 3 conferences at the event.

Another highlight of the year was again the Serialization of Pharmaceuticals Forum, developed by the chapter. The forum included four meetings led by AIM Denmark members and associates representing pharmaceutical manufacturers, advisors, consultants and technology providers.

AIM Europe
Based on vote of the European Commission (EC) in favor of the efficient use of spectrum in the bands 870-876 AND 915-921 MHZ. Referred to as “Squeeze Option,” AIM Europe, supported by members, European Chapters and other stakeholders, is supporting the industry to push the Governments of some member states to adopt the new frequency bands. Foremost, Germany and Netherlands, since the frequency bands in these countries are allocated to other users.

We are collecting Letters of Support from important stakeholder groups and end-users to prove the demand of the markets. Meetings with the governments will follow.

Delegates from AIM Europe, as an ETSI & CEN member, actively participated in European Standardization meetings throughout the year to develop standards and harmonize the use of AIDC technologies.

In June AIM Europe founded the AIM Europe Benelux Regional Group as home of Members from the Benelux countries.
AIM Germany
AIM-D e.V. celebrated its 25th anniversary this year at a variety of special events, including member meetings in spring and autumn.

The Track & Trace Theatre (T&TT) was once again AIM Germany’s strongest asset: a scenario of processes in the areas of logistics and (digital) supply chain, material flow and production exposed at trade fairs like LogiMAT for more than ten years. In an unrivalled way it demonstrates the numerous ways of applications of AutoID systems: Barcode, 2D Code, RFID and NFC – extended by RTLS (Real-time Locating Systems) and industrial sensors. Consequently, the T&TT 2019 reflected the fundamental value of such enabling technologies for the growth of the Internet of Things (IoT / IIoT), Industry 4.0 and the Digitalisation of the Value Chain in general. The next T&TT will be held at the LogiMAT 10-12 March 2020 in Stuttgart, Germany.

As in past years, AIM-D e.V. was an AIDC partner for FachPack 2019, a fair on packaging machines, technologies and materials, held September 24 - 26, 2019, in Nürnberg, Germany. Members presented on several topics including “Intelligent Packaging: Connecting Packaging to IoT,” “Active Remote Labeling,” “Eco Labeling” and “How Next Generation Label Management Systems Can Help Improve Supply Chain Sustainability”

AIM Japan
AIM Japan was chartered in October 2019 to meet the needs of the growing international AIDC industry in the Asia Pacific region. Chapter leaders were welcomed by the AIM, Inc. Board and introduced at AIM Summit 2019 in Darmstadt, Germany.

Masaki EHARA will serve as Chairman of the AIM Japan Board of Directors. Nobuko UEDA has been named General Secretary and Kensuke TANAKA will be Chief Operating Officer. AIM Japan will offer opportunities to individuals and organizations affiliated with automatic identification and data capture technologies and innovation throughout Japan.

Part of AIM Japan’s initial focus will be education and training, cooperating with universities and research/test centers in Asia Pacific.

AIM North America
AIM North America’s board of directors are implementing a new strategy to grow and develop the association as the voice of all industry stakeholders in North America. The strategy will focus on five key areas: Collaboration, Networking, Education, Communications, Value.

The Public Policy Committee was active in educating the industry on the importance of AIDC applications in a variety of vertical markets. Member experts actively participated on panel discussions at ProFood Tech, RFID Journal LIVE!, GS1 Connect, UDI Conference, VARTECH, and the Food Safety Consortium. The panelists discussed how AIDC enables IoT and blockchain, supply chain traceability and standards. The association also made public verbal and written comments in response to the US FDA Public Meeting request on “A New Era of Smarter Food Safety.”

The chapter also recognized industry leaders for advancing the interests of AIDC technologies. The recipients included: Debangana (Debs) Mukherjee, Professional of the Year; Dick Fisher, AIT in Government and; NATO Allied Command Transformation, Organization of the Year.

AIM Russia
Throughout the year 2019, AIM Russia carried out standardization, advocacy and education activities.

AIM Russia, in conjunction with GS1 Russia, provides Secretariat to Russian and CIS Technical Committees on AIDC, and represents the Russian National Standards Body (GOST R) in ISO/IEC JTC1/SC 31. In 2019, experts from AIM Russia member companies participated in the work of GOST R Technical Committee 355 “Automatic Identification and Data Capture Techniques”, its two subcommittees (Subcommittee 2 “Optical media” and Subcommittee 4 “Radio frequency communications”) and Working group 2 “RTLS”. Working group 1 “RFID in libraries” completed the development of 4 national standards and disbanded having fulfilled its task.

As of September 2019, the Russian NB approved standards on Unique identification for the Internet of Things and Bar code print quality test specification for linear symbols.

AIM Russia forms part of an ad hoc working group that provides expert support to national projects on the use of AIDC technologies (UHF RFID, DataMatrix) for the identification of various categories of goods as a means to ensure traceability and optimize business processes in the logistics supply chain. The categories already covered by the projects include apparel, footwear, pharmaceuticals, tobacco, milk products and certain types of textiles.
Richard Dilling Award
2019 Recipient | Joseph White
Senior Vice President | Zebra Technologies
EMC
Since 1984, the Richard Dilling Award is the highest award given in the Automatic Identification and Data Capture (AIDC) industry. Named for Richard R. Dilling, an industry pioneer and former Vice President of AIM, it is presented to executives, scientists, and engineers in recognition of outstanding contributions that have furthered the growth of the industry.

Ted Williams Award
2019 Recipient | Josef Preishuber-Pflügl
EVP & CTO | CISC Semiconductor
Named in honor of Ted Williams, an industry innovator, collaborator, and long-time member of the AIM Global Technical Symbology Committee, the award was introduced in 2007 and is presented annually in recognition of innovative and exceptional contributions to the development of the automatic identification industry that can further the growth of the industry through their work as a teacher, researcher or entrepreneur.

Clive Hohberger Technology Award
2019 Recipient | Francesco Amato
Tor Vergata University
Created in 2018 to honor the lifetime contributions of Dr. Clive Hohberger, this award recognizes the scientists, engineers, software developers, or systems integrators for outstanding contributions that have furthered the growth of the industry through important applications and new technological developments.

Bert Moore Excellence in Journalism Award
2019 Recipient | Ken Traub (Posthumously)
Ken Traub Consulting
In 2007, the Bert Moore Excellence in Journalism Award was established to recognize a journalist or media representative in the automatic identification industry whose work exemplifies the qualities of honest, educational and unbiased reporting of the automatic identification and mobility industry. The award was renamed in 2012 to honor the late Bert Moore, long-time AIM contributor and industry expert.

Don Percival Award
2019 Recipient | Ted Prusik, PhD & Mohannad Abdo, PhD
TempTime Corporation
The Don Percival Award was established in 1982 to honor Don Percival, an early founder and pioneer in the development of bar code scanning. The award is presented each year to an individual or organization from the user community recognizing outstanding contributions to the application of automatic identification and data capture technologies.

Allan Gilligan Award
2019 Recipient | Leanne Kemp
Founder & CEO | Everledger
The Allan Gilligan Award was established in 2012 to honor a revolutionary developer of supply chain standards across multiple industries. The award is given to a member of the industry who has made outstanding contributions to the development of automatic identification and data communications (AIDC) applications in materials handling and logistics in the supply chain.

Now in its seventh year, AIM’s Case Study Competition honors leading organizations within the global AIDC community that are contributing to the faster adoption of new and innovative technologies, as well as to engage international industry collaboration while sharing success stories around applications commercially available in the marketplace today. To learn more, click on the company logo.

AIDC Winner | TEKLYNX
Aspen Medical Products Improves Labeling Accuracy, Reduces Label Approval Time & Simplifies Labeling Compliance

RFID Winner | DeRoyal
Improving Quality of Care & Reducing Cost Burdens Through NPWT Management Automation

Blockchain Winner | Infratab
RFID Tags & Blockchain for the AB Vassiliopoulou Seafood Cold Chain

IoT Winner | HID Global
Tasmanian Distillery Knocks Out Counterfeiters