RFID & IOT in the Nordics 2022

1 JUNE 2022 AT THE IT UNIVERSITY, COPENHAGEN

CONFERENCE CONTENT:

KEYNOTE PRESENTATIONS RFID & IOT USE CASES

IOT IN INDUSTRY AND IN PUBLIC

SUSTAINABILITY

EXHIBITION WITH DEMOS

KEYNOTE PRESENTATIONS:



MARK JOLLEY RFID & Location Solutions Strategic Role in Improving Supply Chain Visibility

With the dramatic rise in e-commerce sales sparking a huge growth in supply chain logistics; RFID and location solutions is playing a strategic role in the improvement of supply chain visibility.



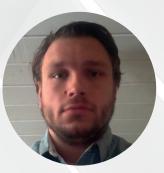
HENRIK STENER PEDERSEN
The importance of AIDC when
working with Sustainability

The sustainability agenda is in constant motion, and the urgency to take action is widely acknowledged. Having a solid evidence-base and relevant data are key to creating credible sustainability strategies and impact.



JOHNNY OLSSON Danish Hospitals are heavily investing in extended use of AIDC Technology

After 4 years implementing AIDC technologies at the New University Hospital in Aarhus, Johnny Olsson moved on to the New University Hospital in Aalborg



ROBERTH G. JOHANSEN Halden Kommune, Norway, has utilized sensor fusion by combining UHF RFID, GPS, Al based image

Learn how Halden Kommune, Norway, has utilized sensor fusion by combining UHF RFID, GPS, Al based image recognition to reduce costs, gather data, improve services to the public and make fraud difficult.

CO-ORGANIZERS:









RFID & IoT in the Nordics 2022 Conference

Since 2010, our annual Conference has established itself as the leading RFID event in the Nordic countries, and as we over the years have included more and more IoT based upon other technologies, the conference is known as the "RFID & IoT in the Nordics" conference.

Our aim is still, as it was from the very beginning, to learn companies – private as well as public – how they can increase efficiency and competitiveness by implementation of smart wireless identification, automatic data capture, tracking and tracing technologies.

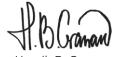
We want to make the possibilities, opportunities and successful implementations known to more organizations – and this is why we again after 2 years of cancellations due to the Pandemic, organize our annual conference – now for the 10th time.

In the mornings sessions you can from the keynote presentations learn from international updates and significant user cases.

In addition a new AIDC Maturity Model is announced and presented by AIDC Denmark.

In the afternoon, you can sit in and listen to a number of user presentations, or you can participate in the breakout sessions on 'BLE/UWB RTLS' or 'AIDC & Sustainability'. To learn more about current solutions and technologies you have a unique opportunity to explore our Trade show and Exhibition – we are welcoming several new vendors, and you will have a chance to see technologies in action as well!

Hope you will have a great time at the conference!



Henrik B. Granau
Founder and chairman of RFID i Danmark

SPONSORS:







SIEMENS







AIDC DENMARKS MISSION

Vi fremmer anvendelsen af automatisk identifikation og datafangst i Danmark.



AIDC DENMARKS VISION

Vi sikrer erfaringsudveksling og vidensdeling indenfor automatisk identifikation og datafangst

AGENDA:

08:30	Arrival, Registration and Coffee		
00.30	Plenum presentations		
	Auditorium 1		
09:00	Welcome and Introduction by AIDC Denmark and IT University		
09:15	O9:15 Highlights from RFID Journal Live 2022 in Las Vegas by Henrik Granau, AIDC Denmark RFID & Location Solutions Strategic Role in Improving Supply Chain Visibility by Mark Jolley, Zebra Technologies The importance of AIDC when working with Sustainability by Henrik Stener Pedersen, Rambøll Management Introducing AIDC Denmark's new Maturity Model by Gert Aagaard, AIDC Denmark Board Introduction to the Exhibition by AIM Denmark and the Exhibitors		
11:00	Coffee, Exhibition and Networking in Atrium		
11:30	Danish Hospitals are heavily investing in extended use of AIDC Technology by Johnny Olsson		
i	Halden Kommune, Norway, has utilized sensor fusion by combining UHF RFID, GPS, AI based image by Roberth Gundersen Johansen, Halden Kommune		
Introduction to breakout sessions by AIDC Denmark and Co-Organizers			
12:45	Lunch and Exhibition in Atrium		
Breakou sessions	· ·		BLE/UWB RTLS Workshop Auditorium 0
13:45	Technologies for keeping track of items in a circular supply chain by Martin Lindboe, Circle An ECO system that works and secures the earth's resources for future generations by Merete Skov Pedersen, MiCollect		Members of the AIDC Denmark workgroup will outline the User Requirements for RTLS Eberhard Wahl from Omlox will present the Omlox initiative as a proposed standard for RTLS Lyngsoe Systems will offer some insights regarding open standard initiatives and multi-vendor ecosystems
	green user case by TBA		like QUUPPA and WIREPAS Siemens will offer some insights regarding UWB
14:45	Coffee, Exhibition and Networking in Atrium		
Breakou sessions		AIDC and Sustainability Auditorium 2	BLE/UWB RTLS Workshop Auditorium 0
15:15	Intelligent Firearm Storage & Tracking System by Lucas Ahlstrom, Loxtore RFID Systems	GS1 Denmark will offer some insights regarding EU's Digital Product Pass Panel discussion on 'AIDC and Sustainability'	Workshop continued: Can we find Open Standards to avoid a 'vendor lock-in'?
	"Health 4.0" - Implementing GS1 and IOT in a Norwegian health-system by Bjørn Ravnestad, Helse Sørøst	with: - GSI Denmark - Rambøll Management	How can we mix and match products from various vendors? How can we integrate with the general IT infrastruc-
	RFID process in CAD/CAM technology for	- MiCollect - Circle	ture in the company? What are the benefits with BLE versus UWB?
_	automated dental machines by Yilmaz Benzer, Neosid	-?	What are the serious with BLE versus GWB.
	Plenum presentations Auditorium 1		
16.15	Wrap-up by AIDC Denmark		
16:45	Network reception in Atrium sponsored by Granau I	Т	All II. III IIII II' Vull DENMARK All MARIANA DE NAZAMA
	The agenda may be subjected to change.		

Keynote presentations in plenum at RFID & IoT in the Nordics 2022

(in English)

Keynote 1:

RFID & Location Solutions Strategic Role in Improving Supply Chain Visibility

With the dramatic rise in e-commerce sales sparking a huge growth in supply chain logistics; RFID and location solutions is playing a strategic role in the improvement of supply chain visibility.

We are delighted to announce the keynote speaker for RFID & IOT fair will be Mark Jolley, Zebra Technologies EMEA Solution Sales Director for Manufacturing, T&L and Retail).

Mark will be talking about how to gain benefits and improve inventory accuracy, traceability, productivity, processes and supply chain efficiencies in production, logistics and retail companies large and small. Join Mark for an insightful discussion of RFID and big data, sensors, robots and much more.

Kevnote 2:

The importance of AIDC when working with Sustainability

The sustainability agenda is in constant motion, and the urgency to take action is widely acknowledged. Having a solid evidence-base and relevant data are key to creating credible sustainability strategies and impact.

Presented by Henrik Stener Pedersen, Market director, Strategic Sustainability Consulting at Rambøll Management Consulting.

Keynote 3:

Danish Hospitals are heavily investing in extended use of AIDC Technology

After 4 years implementing AIDC technologies at the New University Hospital in Aarhus, Johnny Olsson moved on to the New University Hospital in Aalborg, where he now uses his experiences to establish a new hospital with identification and localization technologies to support the clinical staff, automation and logistics of the hospital. What are the lessons learned and what are important, when you have the opportunity to create hospital#2.

Johnny Olsson is an independent consultant, holds a Master in Computer Engineering and a Diploma in Business and Organization, and has worked with IT for hospitals for more than 20 years.

Keynote 4

Halden Kommune, Norway, has utilized sensor fusion by combining UHF RFID, GPS, AI based image

Learn how Halden Kommune, Norway, has utilized sensor fusion by combining UHF RFID, GPS, AI based image recognition to reduce costs, gather data, improve services to the public and make fraud difficult. Another takeaway for Halden Kommune has been the incredible reliability and lower cost of UHF compared to the more widespread LF technology being used in waste management. Presented by Roberth Gundersen Johansen, Halden Kommune.





ENABLING THE

Creating a Digital Identity for **Every Physical Object**

Learn more at identiv.com

User case presentations at RFID & IoT in the Nordics 2022

(in English)

Technologies for keeping track of items in a circular supply chain

Cirqle is trying to solve the problem of circular packaging. The ambition is to handle all types of packaging from takeaway to cups, but have started with the simpler problem of meal box subscriptions. When packaging is reused we can provide higher quality and there is also room in the budget for using technology that normally does not make sense in single-use packaging. In this talk we describe what a circular supply chain is, and how these requirements drive our technology choices. This is the tale of our experiments with RFID, NFC, BLE, and visual identification (2D barcodes) and how we ended up with a mix that involves the consumers as part of the supply chain.

An ECO system that works and secures the earth's resources for future generations

MiCollect have created a solution for Wehlers providing full transparency for Wehlers R.U.M. chairs.

MiCollect provides a digital platform enabling transparency for the good of circular economies – and the foundation is AIDC for digital tagging, traceability and transparency of products.

Intelligent Firearm Storage & Tracking System

Intelligent Firearm Storage & Tracking System is a case from Sweden with an RFID based integrated management system for the police.

"Health 4.0" - Implementing GS1 and IOT in a Norwegian health-system

To free up time, introduce new ways of working, and start harvesting the power of knowledge, the South-Eastern Norway Regional Health Authority is in the process of implementing traceability technology and GS1 EPCIS among other standards.

This will together with a wide variety of IOT technologies help current and future hospitals gain maximum control of their assets, digitized data capture and create a highly flexible and standardized sharing of data between systems.

The presentation will cover history and status of the initiative, implementation approach, various use-cases to be implemented, how standardisation is approached at a regional and national level

RFID process in CAD/CAM technology for automated dental machines

Industry 4.0 also increases the urge for strong development progress in dental technology. Optimum availability, fully documented manufacturing processes and tool management are the goals. Digital processes in CAD/CAM technology enable dental laboratories and dental centers to help patients in significantly less time. Dental machining centers produce individual dental products such as bridges, crowns, inlays, veneers, full dentures and abutments for implants at the touch of a button. And RFID is a key component.



AIDC

AIDC Denmarks Modenhedsmodel

Modenhedsmodellen opfordrer til at dataopsamling og kontinuert forbedring anses som et PROGRAM der udvikler sig over tid, i modsætning til et projekt der er begrænset i tid og omfang.

AIDC Denmarks model har 6 modenhedsniveauer. Niveau 5 Niveau 4 Predict and Adapt Niveau 3 Be Responsive Prognoser og proaktiv Niveau 2 Integrate udnyttelse af data Fokus er på næste forbedring og Niveau 1 Connect beslutningstagen Større udnyttelse baseres på data af virksomhedens Niveau 0 Improve aktiver igennem Højere teambedre synlighed effektivitet og Unaware Højere effektivitet ensartethed i arbejdsprocesser for den enkelte For hvert niveau overvejes Intet focus på Hvilken datafangst sker på det enkelte niveau? Hvordan analyseres de opsamlede data? Hvilke handlinger gennemføres på basis af data? Hvilke forbedringer kan lede til næste niveau? Hvad er værdien af forbedring?



Workshops: How to avoid Vendor lock-in with BLE/UWB RTLS and AIDC and Sustainability

(in English)

HOW TO AVOID VENDOR LOCK-IN WITH BLE/UWB RTLS

AIDC Denmark has a workgroup with special interest in Real Time Locating Systems based upon Bluetooth or UWB.

Can we find Open Standards to avoid a 'vendor lock-in'? How can we mix and match products from various vendors? How can we integrate with the general IT infrastructure in the company?

What are the benefits with BLE versus UWB? To kick off the discussions, the Workshop will be based upon a list of presentations;

Members of the AIDC Denmark workgroup will outline the User Requirements for RTLS, including how IT Architects from Danish Hospitals could see RTLS mapped to the National Referential Architecture for Localization and Identification.

The Omlox initiative is a proposed standard for RTLS (both BLE and UWB), and especially the common API is of interest. We have invited Eberhard Wahl, from Omlox, to present the initiative Lyngsoe Systems will offer some insights regarding open standard initiatives and multi-vendor ecosystems like QUUPPA and WIREPAS.

Siemens will offer some insights regarding UWB
The Workshop is open for all attendees. Maybe you can contribute with other insights, but for sure you can learn a lot from participating. It will be a workshop – and we hope the attendees

AIDC AND SUSTAINABILITY

Moderated by Mads Kibsgaard, GS1 Denmark, and picking up from the topic of the morning's keynote "The importance of AIDC when working with Sustainability" by Rambøll, this workshop will continue the discussion of AIDC technology's role in digitization and sustainable development efforts.

Starting with an introduction to the European Union's recently unveiled concept of a "Digital Product Passport", GS1 Denmark will offer insights into how AIDC technology is instrumental in reaching the European Commission's ambition of a circular Europe – all a part of EU's "Circular Economy Action Plan", under the EU Green Deal.

Following this, the workshop will open to a plenum discussion, where the audience can openly discuss the topic and ask the all-important questions to keynote Henrik Stener Pedersen, Rambøll, and the user case presenters from Cirqle and MiCollect. Be it AIDC's ability to enable transparency, traceability, security, authenticity, connecting vital data, or reducing manual labor and resource-heavy processes, this workshop strives to underline the necessity of technology to achieve sustainability, and perhaps outline future areas of business for AIDC solution providers.







Udvikling skal baseres på standarder

GS1 Standarder er et fælles sprog for unik identifikation, automatiseret datafangst - fx via RFID - og datadeling. Det fælles sprog skal til for at understøtte alle anvendelser af RFID fra Business-to-Business til Business-to-Consumer.

GS1s standard for RFID hedder Electronic Product Code (EPC). EPC er en unik produktidentifikation, der indkodes i en RFID-tag, og er baseret på de allerede eksisterende identifikationsnøgler som fx GTIN, GLN og SSCC.

Hvem er GS1 Denmark?

GS1 er en global not-for-profit organisation, som udvikler standarder, der effektiviserer forsyningskæder. GS1 Standarderne giver unik produktidentifikation, automatiseret datafangst (stregkoder/RFID) og datadeling. Benefits inkluderer gennemsigtighed i forsyningskæden, bedre sporbarhed og høj datakvalitet.

Hvad kan vi hjælpe jer med? Kontakt os på telefon 39 27 85 27 eller info@gs1.dk eller besøgwww.gs1.dk



Nearly every industry—from healthcare and retail to manufacturing, transportation and logistics—is being challenged to connect technologies with assets and workers into a consistent, fully-scaled operational ecosystem. Only intelligent-edge technologies like RFID can do that.

RFID solutions give you the real-time visibility and data-driven insights you need to connect your operations and transform your business ahead of your competitors.

Why RFID Now

Until now, the promise of RFID had not been realized. RFID solutions in the past were piecemeal solutions requiring components from multiple third-party providers. Today, the full promise of RFID is not only possible, it's practical.

- More comprehensive with optimized interoperability to connect assets, people and operations
- · More granular to deliver actionable data to drive efficiencies, productivity, and save costs
- Easier to customize for your use cases to future-proof your operations

Why Zebra RFID

The time to implement RFID is now. You just need the right partner to help you make it successful. Powering RFID from the start, Zebra is the only provider of complete, end-to-end RFID solutions. We deliver one platform for less complexity and greater returns. With Zebra, you transform your business with trust, insights and ease.



Trust

- Zebra's market leadership and decades of RFID expertise, design thinking and software development gives you maximum RFID efficiency.
- RFID or barcode? We make sure you get the right solution to fit your needs so you can realize a positive ROI.



Insights

- Zebra RFID delivers credible data with higher accuracy and consistent performance.
- Our integrated analytic platform makes is easy to access data for deeper operational analysis.



Ease

- We minimize the pains of multivendor solutions to create a simple platform that elevates every system, device, tag, and worker.
- You're in command, but never on your own with support from Zebra's service teams and partners to help overcome environmental challenges for easier integration and implementation.

Benefits of RFID



Reduce time, increase accuracy of inventory counts,



Automate processes, reduce worker hours for manual tasks



Augment workers, free their time for higher value work



Use data-insights to reveal new opportunities and act on



Tailor RFID to overcome challenges in your specific workflows

Zebra RFID Solutions

RFID is complex and can be unreliable if not done right. Rely on the industry's deepest, field-proven portfolio to drive full-scale transformation without the risks.



Handheld RFID Readers and RFID-Enabled Scanners

Empower workers with greater visibility, from warehouses and loading docks to indoor customer-facing environments.



Fixed RFID Readers and Infrastructure

Streamline asset visibility and pinpoint the location of all of your tagged assets, even if they are on the move.



RFID Printers

Print and encode RAIN RFID labels, tags and cards where and when you need them, and leverage factory- or fieldinstallable RFID encoding capabilities to meet your evolving needs.



RFID Labels and Supplies

Choose from the widest selection of in-stock RFID labels and tags made with the highestperforming inlays and chips, ready to ship within 24 hours.



RFID Antennas

Quickly and accurately track inventory and assets with the high performance and range needed for precision in high-traffic environments.



RFID Reader Software

Optimize your RFID reader with Zebra software tools, whether you need to do a proof of concept or develop a fully featured application with RFID readers.



RFID Design

The gains of RFID are easily lost in poor design and integration or missed opportunities. Improve the profitability of any RFID project regardless of the scale, with Zebra RFID Design, a Zebra Signature Service



and consumer applications successfully connected with **RAIN RFID**

Source: RAIN RFID Alliance, 2019

Within a year,

of retailers plan to implement case or pallet-level RFID, 68% item-level RFID

Source: 2020 Shopper Study, Vol. 2, Zebra Technologies, 2019

Global RFID in healthcare market: \$1.9M in 2019, expected to rise to

by end of 2026

Source: RFID in Healthcare Market, Facts and Factors, 2020

Nearly

of manufacturers plan to implement RFID during the next 5 years

Source: 2017 Manufacturing Vision Study, Zebra Technologies, 201

For more information about how Zebra's RFID Solutions, visit www.zebra.com/rfid



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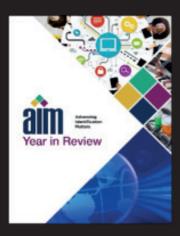
AIM:

AIM is the trusted worldwide industry association for the automatic identification industry. For nearly half a century, AIM has provided unbiased information, educational resources and standards to providers and users of these technologies.

AIM membership provides access to an insider's perspective on trends and opportunities along with a voice in shaping the growth and future of the industry. Member benefits include education, advocacy and community, as well as a role in creating industry standards through collaboration.

AIM actively supports the AIDC industry through the work of its industry groups as well as through participation at the industry, national (ANSI) and international (ISO) levels. In addition, AIM has established Liaison Relationships with several international organizations.

To learn more visit www.aimglobal.org and/or the local danish chapter: www.aimdenmark.dk





GS1 Denmark:

GS1 Denmark is one of more than 111 national GS1 organizations. GS1 Standards is the most widely used supply chain standards system in the world.

GS1 is a neutral, not-for-profit, global organization that develops global standards and solutions to improve the efficiency, security and visibility of supply chains across industries. GS1 is driven by close to two million user companies, which execute more than six billion transactions daily in 150 countries using GS1 Standards.

GS1 Standards provide:

- Unique identification of items, shipments, assets, locations etc.
- Automatic data capture via barcodes and RFID tags
- Electronic data exchange, for example via EDI and master data pools (in Denmark: GS1Trade Sync).

For more information, visit www.gs1.dk



IT University:

The IT University of Copenhagen (ITU) was established in 1999 and is Denmark's leading university focusing on IT research and education. We deliver state-of-the-art teaching and research within computer science, business IT and digital design. Our ambition is to create and share knowledge that is profound and leads to ground-breaking information technology and services for the benefit of humanity.

The university collaborates closely with industry, the public sector and international researchers and is characterized by a strong entrepreneurial spirit among students as well as researchers.

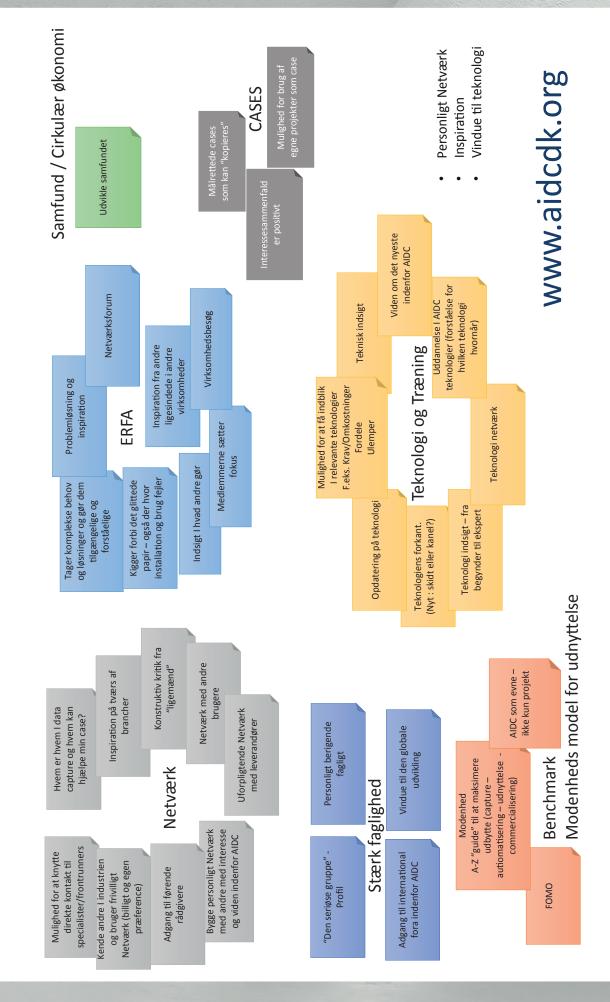
ITU's modern campus in central Copenhagen is designed by the world-renowned Danish architect Henning Larsen.

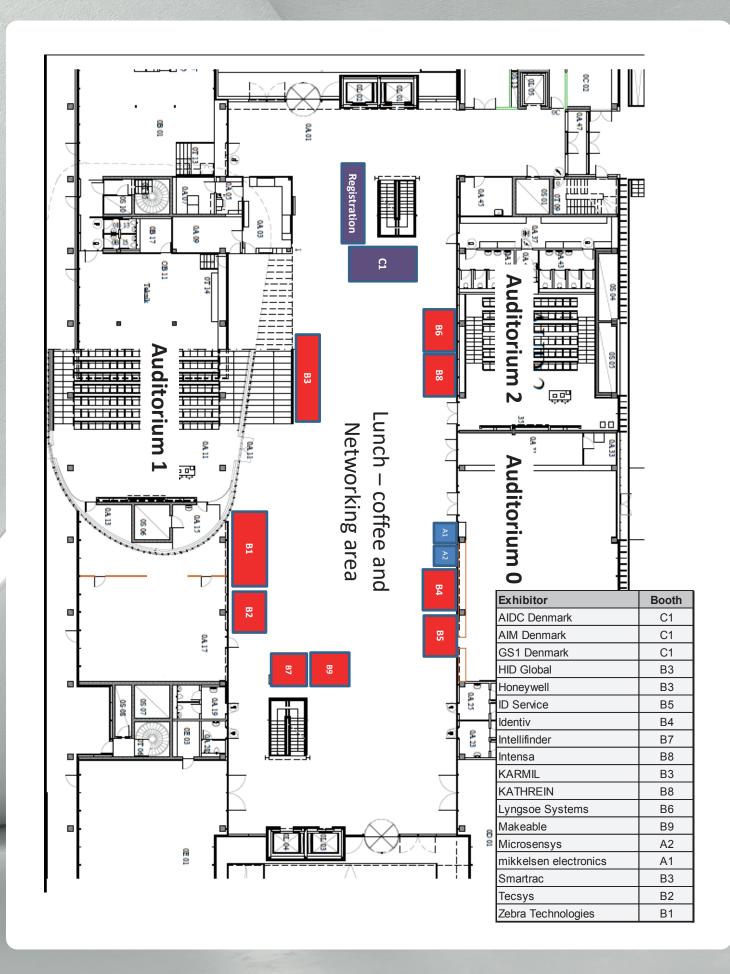
ITU in numbers:

- 2,300 students
- 330 staff members (full-time equivalent)



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- Årlig netværksmiddag

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- virksomhedsbesøg ✓ Deltage i årlig RFID &
- IoT konference

 ✓ Årlig netværksmiddag
- ✓ Rådgivning fra sekretariatet
- ✓ Medlemskab af AIM Denmark, AIM Europe og AIM Global
- ✓ Lead generering
- ✓ Discount på udstillerpakke på årlig RFID & IoT konference
- ✓ Promovering af cases

- * Virksomheder med under 10 ansatte kan være med på halvt kontingent, men så kan kun 1 person deltage i møder, konference og netværksmiddag
- Studerende og deres undervisere kan få gratis medlemskab
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EXHIBITORS:





















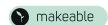






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