

DECT NR+ GAINS SUPPORT OF GLOBAL BUILDING AUTOMATION LEADERS

Establishing NR+ as the interoperable connectivity for digital building



Why DECT is the technology of choice for Shure MXW neXt



Features:

VIDEO INTERVIEWS

DECT TODAY MEETS BUILDING AUTOMATION SIG MEMBERS

- ▶ BRUNO VULCANO, LEGRAND
 - Legrand is a global specialist in electrical and digital building infrastructures.
- ▶ BEN EATTS, SCHNEIDER ELECTRIC
 - Schneider provides integrated end-to-end lifecycle AI enabled Industrial IoT solutions.
- ▶ KLAUS WAECHTER, SIEMENS SMART INFRASTRUCTURE
 - Talking with Siemen's Global Standardisation Manager.

HOW DO ACADEMICS SEE DECT NR+?

- REPRESENTATIVES OF THE ACADEMIC COMMUNITY COMMENT ON NR+
 - María Dolores Pérez Guirao, Professor in Network and Communication Technologies at Ostfalia University of Applied Sciences.
 - Dr Joonas Sää, Staff Scientist, Tampere University.
- DECT CLASSIC AND PRO AUDIO
 - Barclay Milne of Shure explains why DECT is still the technology of choice for his company.

Plus:

- NR+ AND WIREPAS 5G MESH
 - Exploring the potential of decentralized connectivity.
- THE ROLE OF DECT IN MODERN RETAIL
 - The retail sector is up against a perfect storm of challenges.

From the DECT Forum:

- Regulatory Working Group update
- DECT welcomes more new members
- DECT World 2025
- Embedded World show report

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DECT TODAY ISSUE 23

Chairman's introduction

What a diverse issue this is! Those people who say that DECT is an old technology, doomed to expire with the cordless landline phone, need to think again. This issue of DECT Today reinforces the view that DECT has a very bright future. We deal – of course! – with developments taking place in the IoT and smart building landscape with DECT NR+, while at the same time we learn of exciting new applications for DECT in the worlds of retail and Pro Audio.

Since the last issue of DECT Today was published, we have seen the announcement of a very important new interest group that is operating under the umbrella of the DECT Forum. This is the Building Automation SIG, which will tackle critical challenges in providing ultra-resilient and interoperable wireless connectivity everywhere in buildings using the new NR+ standard. The SIG will not only be supported by established NR+ champions such as Nordic Semiconductor, Wirepas and Last Mile Semiconductor, but also sees industry giants Legrand, Schneider Electric and Siemens join the push to establish and proliferate the NR+ standard. We have

video interviews with execs from all three of these companies in this issue, and so you will be able to hear exactly what they feel about DECT NR+ and how they will contribute to the SIG. The importance of this group of companies lending their support cannot be underestimated, and I feel that major progress will be made through 2025 and beyond.

Staying with DECT NR+ for a moment, we have been keen not to become too blinkered and self-centric. Within the DECT Forum, we believe that DECT NR+ has great potential, but then, we would, wouldn't we? We see what is happening every day inside our



Watch our video interviews with members of the academic community



community, but what do industry observers outside of DECT think? To find out, we have stepped outside of our industry and canvassed the views of super-perceptive people within the academic community. People with extensive experience of the whole wireless ecosystem, people with the ability to judge the potential of DECT NR+ without the need to toe a corporate line. In this issue you will be able to watch two interviews with representatives of Ostfalia University of Applied Sciences and Tampere University. I would say that their viewpoints are positive, but I suggest you watch and make your own minds up!

Stepping away from IoT and smart buildings, we have input from two companies who are successfully blazing trails based on the strengths of what, for convenience sake, we call Classic DECT.

First we have VoCoVo, who's Founder and CEO Rob Gamlin was approached by a leading UK retailer with a problem. This was to improve customer experience, reduce queues at the tills and unite their workforce to be better organised and operate safer. Rob knew they needed a bespoke communication tool to solve their team's problems. Working with its retail partners, the company evolved to create the VoCoVo Headset. VoCoVo believes that this changed the way hundreds of retailers talk to each other and help customers on the shop floor every day. Colleagues can have natural, two-way conversations with full-duplex speech, and more

VoCoVo, improving experiences for retail customers



customers can move through the self-checkouts. No waiting required. And what wireless technology is behind this? Well, DECT, of course.

Another area in which DECT continues to demonstrate its talents is Pro Audio. For many years, Shure has been one of several companies that have utilised DECT's strengths to provide customers with outstanding audio products to be used in both the corporate and programme making and special events (PMSE) environments. Shure has recently launched a portfolio of new products that demonstrate just how capable DECT-based products are in audio for hybrid events. Shure's Director of Engineering – a gentleman I have known for many years, and a very familiar face at DECT Forum events – talks us through just why Shure is committed to DECT, and explains the USPs of both the technology and his company's new products.

I will mention that we do now have details of the next DECT World event, our annual get-together for the DECT community. Every year this event gets better, and, more than ever, this is the crucible for all things DECT-related. We would very much like to see you in Munich in November, so why not use the link in this issue to register?

And before I go, I should say that this will be the last time that I write this introductory piece for DECT Today. After an extremely enjoyable 13 years in this role as Chairman of the DECT Forum, I am now stepping down, and the role will be filled by Christian Schepke from Gigaset Technologies. I have known Christian for many



Christian Schepke

years and I am fully confident that he will take the DECT Forum forwards as the organisation continues to grow and develop.

Thank you for all of your support during my time in this role.

Andreas Zipp
Chairman, DECT Forum

Welcoming new DECT Forum members

DSR Corporation

[Full Member]



DSR is a professional software development and consulting company specialising in enterprise-grade software development, mission-critical applications, consumer-market-ready products, and complex multi-component systems.

www.dsr-corporation.com

Legrand

[Full Member]

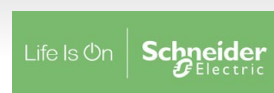


Legrand is a global specialist in electrical and digital building infrastructures offering solutions for residential, commercial, and datacenter markets.

www.legrand.com

Schneider Electric

[Full Member]



A global industrial technology leader bringing expertise in electrification, automation and digitization to smart industries, resilient infrastructure, future-proof data centres, intelligent buildings, and intuitive homes.

www.se.com

Siemens Smart Infrastructure

[Full Member]



Siemens Smart Infrastructure intelligently connects energy systems, buildings and industries to adapt and evolve the way we live and work.

www.siemens.com

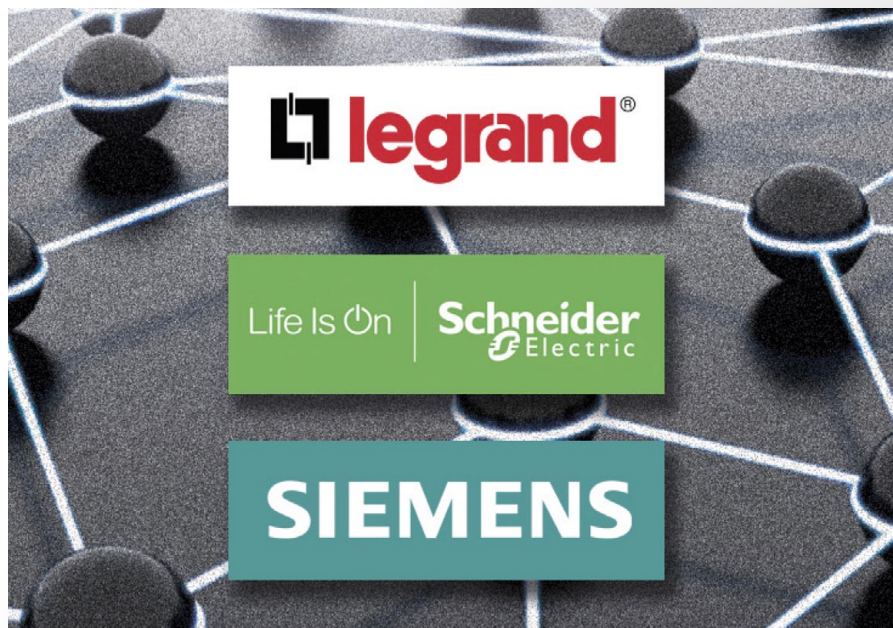
Kudelski IoT

[Associate Member]



Kudelski designs trust & control into your IoT products and ecosystem from the start, so you can secure your most important IoT applications and use cases.

www.kudelski-iot.com



Page 6 - DECT NR+ takes important steps forward in IoT.



Page 10 - Klaus Waechter, Global Standardisation Manager at Siemens Smart Infrastructure explains his company's interest in DECT NR+.



Page 8 - Legrand has solutions to ensure offices are future proofed and flexible.

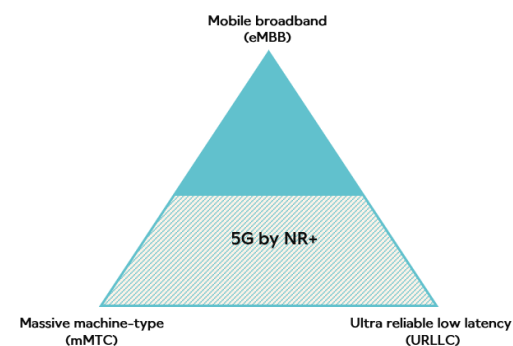


Prof. Dr.-Ing. Maria Dolores Pérez Guirao - Ostfalia University

Page 12 - DECT Today finds out how the academic community sees DECT NR+.



Page 9 - DECT Today talked with Ben Eatts, 5G & emerging Technologies Architect, Innovations & Technology / CoEE, Energy Management Business at Schneider Electric.



Page 14 - Wirepas 5G Mesh operates as a fully decentralized system where each device functions as both a node and a router.



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NR+ Interest Group Formation

The DECT Forum made a very important news announcement in February, and for those people that did not see the press release, we are reproducing the full text here. On the pages following this press release, DECT Today has created video interviews with representatives from each of Legrand, Schneider Electric and Siemens.

Press release text follows:

"Global leaders in smart building technology, namely Legrand, Schneider Electric and Siemens Smart Infrastructure have announced the formation of a strategic interest group (SIG) to tackle critical challenges in providing ultra-resilient and interoperable wireless connectivity everywhere in buildings using the new NR+ technology standard. Supported by wireless industry experts such as last mile semiconductor, Nordic Semiconductor ASA, DSR Corporation and Wirepas, and embedded security expert Kudelski IoT, these companies aim to establish NR+, the new technology standard purpose-built for IoT, as the interoperable connectivity for digital buildings. This sets a new global standard for long range wireless infrastructure in smart buildings. Recognizing the limitations of current siloed building management systems,

the group will collaborate under the hosting of the DECT Forum.

Today, 75% of buildings are not energy efficient; they account for 30% of global energy consumption and are responsible for much of the inefficiency within the built environment. The NR+ interest group sees an urgent need for robust connectivity solutions like NR+ that enable cost-efficient, scalable, and reliable digital transformation. The demand for wireless devices in buildings is expected to grow to hundreds of millions annually in the coming years. By implementing NR+ as a global standard, the group seeks to facilitate a transformation toward more sustainable, more energy-efficient buildings capable of adapting to user needs in real-time.

"DECT Forum is proud to host the NR+ interest group, which represents a ground-

breaking step toward addressing the connectivity challenges in buildings. NR+ is purpose-built for large-scale, dense sensor networks, capable of adapting to various systems while meeting high standards for scalability, cost and reliability. Bringing together global leaders in technology and wireless innovation confirms the potential of NR+ to set a new standard in buildings," said Andreas Zipp, Chairman of the DECT Forum.

The NR+ interest group will be working closely with silicon vendors, stack vendors, access point providers and smart building standards organizations as well as advocating regulatory adoption to bring the NR+ standard to the forefront of the smart building sector. By aligning technology development with the needs of smart buildings, this initiative will drive a new level of digital transformation for building owners, operators and system integrators.

About NR+

NR+, the world's first non-cellular 5G, is an IoT connectivity standard designed to enable massive, long range, scalable, and dense device networks even in the most challenging environments. It offers ultra-resilient, reliable and low power communication over license-free spectrum. It empowers industries with unparalleled flexibility by enabling devices to form decentralized, self-healing mesh networks, without reliance on centralized infrastructure, drastically reducing operational costs and extending network lifespans.

About Legrand

Legrand is the global specialist in electrical and digital building infrastructures. Its

comprehensive offering of solutions for residential, commercial, and data-centre markets makes it a benchmark for customers worldwide. The Group harnesses technological and societal trends with lasting impacts on buildings with the purpose of improving life by transforming the spaces where people live, work and meet with electrical, digital infrastructures and connected solutions that are simple, innovative and sustainable. Drawing on an approach that involves all teams and stakeholders, Legrand is pursuing a strategy of profitable and responsible growth driven by acquisitions and innovation, with a steady flow of new offerings that include products with enhanced value in use (energy and digital transition solutions: datacenters, digital lifestyles and energy transition



offerings). Legrand reported sales of €8.6 billion in 2024. The company is listed on Euronext Paris and is a component stock of the CAC 40, CAC 40 ESG and CAC SBT 1.5 indexes. (code ISIN FR0010307819).

About Schneider Electric

Schneider's purpose is to create Impact by empowering all to make the most of our energy and resources, bridging progress and sustainability. At Schneider, we call this Life Is On.

Our mission is to be the trusted partner in Sustainability and Efficiency.



We are a global industrial technology leader bringing world-leading expertise in



electrification, automation and digitization to smart industries, resilient infrastructure, future-proof data centers, intelligent buildings, and intuitive homes. Anchored by our deep domain expertise, we provide integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation, software and services, delivering digital twins to enable profitable growth for our customers.

We are a people company with an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders. We embrace diversity and inclusion in everything we do, guided by our meaningful purpose of a sustainable future for all.

About Siemens Smart Infrastructure

Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization



and climate change by connecting energy systems, buildings, and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions, and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2024, the business had around 78,500 employees worldwide.

About last mile semiconductor

Last Mile Semiconductor GmbH is a fabless semiconductor company based in Dresden, Germany, at the centre of Silicon Saxony, Europe's leading hub for microelectronics



innovation. We specialize in advanced wireless connectivity solutions, with a strong focus on security, reliability, and efficiency.

Our mission is to enable the future of IoT through our NR+ System on Chip (SoC), providing scalable and secure Smart Edge Connectivity. By integrating state-of-the-art wireless technologies with low-power, high-performance processing, we support the

development of digitally sovereign and future-proof IoT ecosystems. With a commitment to high-quality semiconductor design, long-term reliability, and sustainable innovation, we provide cutting-edge solutions that empower businesses and industries to build secure, efficient, and connected systems for the future.

About Nordic Semiconductor

Nordic Semiconductor is a global leader in low power wireless connectivity solutions. Renowned as the market leader in Bluetooth



NORDIC
SEMICONDUCTOR

Low Energy, we are an emerging leader in

cellular IoT, DECT NR+, Wi-Fi, Matter, Thread, Zigbee, and power management. Our innovative, low power wireless solutions power millions of IoT devices worldwide, enabling smarter, safer, and more sustainable solutions. Nordic's cutting-edge and multi-award-winning hardware, software, and development tools are among the most advanced in the world. Recognizing AI and ML as integral to the future of IoT, Nordic excels in meeting the demands for high processing power and low power consumption. We take pride in providing a comprehensive developer experience, delivering ultra-low power wireless solutions that are both easy to implement and backed by world-class support. Nordic was established in 1983 in Norway, has about 1300 employees globally, and is a proud member of the ANT+ Alliance, Bluetooth SIG, Thread Group, Connectivity Standard Alliance, Wi-Fi Alliance, and GSMA.

About DSR Corporation

DSR Corporation (DSR) is a professional software development firm headquartered in Denver, Colorado. Founded in 1998, the company has been developing products in wireless technology since



2001, releasing cloud and Internet of Things (IoT) systems since 2006. DSR serves as an end-to-end IoT partner for many companies worldwide across various IoT verticals. The company has delivered solutions for enabling wireless communications in products, embedded software for gateways and sensors, integrating application layers, cloud backends, end-user apps (mobile and web), and general technology consulting with niche expertise. DSR excels in developing solutions covering the entire

product spectrum - from the lowest level (hardware layer) to the top-level user apps. As an advocate of open standards and flexible development, DSR is technology and vendor-agnostic, understanding that not all solutions fit all use cases and business models. The company's extensive experience in different areas and commitment to quality are particularly recognized in the Japanese market. For more information on DSR Corporation, visit: <https://dsr-iot.com/> or follow DSR Corporation on LinkedIn.

About Wirepas

Wirepas is a global leader in IoT connectivity, providing ultra-resilient, infinitely scalable mesh networks for large-scale industrial and commercial deployments. Its technology connects millions of devices worldwide, including the largest network of more than a million smart electricity meters. With proven 99.99% reliability and a team of deep experts guiding projects from planning to maintenance, Wirepas ensures unmatched business continuity. Wirepas is also the main contributor to and first implementor of the first non-cellular 5G standard NR+, purpose-built for massive IoT and using a free global spectrum. Wirepas operates globally across smart tracking, smart building and smart metering sectors.



About Kudelski IoT

Kudelski IoT, the Internet of Things division of Kudelski Group (SIX:KUD), delivers end-to-end IoT solutions and full-lifecycle security technologies and services. Leveraging over 30 years of expertise in digital business models, hardware and software design, ecosystem testing and security lifecycle management, Kudelski IoT helps semiconductor manufacturers, device makers, ecosystem creators, and enterprises to achieve compliance and protect their revenue and reputation.

[This is a link to the NR+SIG Q&A](#)



Over the next few pages we feature video interviews with members of the Building Automation SIG.

Legrand

Legrand joined Schneider Electric and Siemens as key partners within the DECT Forum Building Automation SIG. Legrand is a global specialist in electrical and digital building infrastructures. Its comprehensive offering of solutions for residential, commercial, and datacentre markets makes it a benchmark for customers worldwide.

The Legrand Group harnesses technological and societal trends with lasting impacts on buildings, with the purpose of improving life by transforming the spaces where people live, work and meet with electrical, digital

infrastructures and connected solutions that are simple, innovative and sustainable. Drawing on an approach that involves all teams and stakeholders, Legrand says that it is pursuing a strategy of profitable and responsible growth driven by acquisitions and innovation, with a steady flow of new offerings that include products with enhanced value in use (energy and digital transition solutions: datacentres, digital lifestyles and energy transition offerings).

For this issue of DECT Today, Vince Holton spoke with Bruno Vulcano, R&D manager at

Legrand, to learn more about his company and just why Legrand was keen to support the DECT NR+ Building Automation SIG.

Click on the movie screen to watch the video interview.



Video interview

Bruno Vulcano believes that DECT NR+ is well-positioned to provide a long-range solution.



Schneider Electric

Schneider Electric is one of the key partners within the NR+ Building Automation Interest Group, and is a global industrial technology leader bringing expertise in electrification, automation and digitization to smart industries, resilient infrastructure, future-proof data centres, intelligent buildings, and intuitive homes. In its corporate statement, Schneider Electric says that its mission is to be the trusted partner in Sustainability and Efficiency.

Schneider provides integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation,

software and services and has an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to its customers and stakeholders.

The company brings expertise in electrification, automation and digitization to smart industries, resilient infrastructure, future-proof data centres, intelligent buildings, and intuitive homes, and provides AI enabled Industrial IoT solutions with connected products, automation, software and services.

DECT Today talked with Matt Eatts, 5G & Emerging Technologies Architect, Innovations & Technology / CoEE, Energy Management Business at Schneider Electric.

Watch the interview by clicking on the screen below, or at the [DECT Forum YouTube channel](#).

Life Is On

Schneider
Electric

Video interview

Matt Eatts, 5G & emerging Technologies Architect, Schneider Electric.



Siemens

Joining the DECT NR+ Building Automation Interest Group is Siemens Smart Infrastructure. The company intelligently connects energy systems, buildings and industries to adapt and evolve the way we live and work, working together with customers and partners to create an ecosystem that intuitively responds to the needs of people and helps customers to better use resources. It helps customers to thrive, communities to progress and supports sustainable development. Siemens does this from the macro to the micro level,

from physical products, components and systems to connected, cloud-based digital offerings and services. From intelligent grid control and electrification to smart storage solutions, from building automation and control systems to switches, valves and sensors.

Siemens will undoubtedly be a major contributor to the Building Automation SIG, and so DECT Today talked with Klaus Waechter, Global Standardisation Manager at Siemens Smart Infrastructure.

Watch the interview by clicking on the screen below, or at the [DECT Forum YouTube channel](#).

SIEMENS

Video interview

Klaus Waechter – Siemens Smart Infrastructure.





Put the dates for DECT World 2025 in your calendar!

DECT World is the largest event of the year for the DECT Forum and for DECT technology updates. If you are involved in the world of DECT, IoT, Building Automation, Pro Audio and any other market that DECT touches, you need to be at DECT World.

The event takes place November 12 – 13, 2025* at the Hotel Eurostars Grand Central, Arnulfstrasse 35, 80636 Munich, Germany.



As usual, there will be multiple networking opportunities and chances to connect, collaborate and share ideas with members of our global community.

SO, DON'T MISS THIS CHANCE!
[To register to attend DECT World, please use this link](#)

AGENDA HIGHLIGHTS INCLUDE:

- Opening Remarks by the Chairman
- Keynote Address
- Updates on Global Spectrum
- DECT's Pioneering Role in IoT
- The NR+ Standard: Enabling Large-Scale Industrial IoT
- NR+ Innovations in Building Automation and Smart Metering
- The Impact of DECT on Professional Audio
- Exhibition: Demonstrating Real-World Applications

** To make your attendance at DECT World 2025 extra useful, it is worth knowing that Wireless Congress will also take place on November 11 - 12, 2025, in Munich.*

The academic's view of DECT NR+

Alternative perspectives. A very valuable commodity if one is to have a healthy, balanced view on life. It's quite easy to disappear down a rabbit hole of introspection, even when we are considering projects that involve not just each of us as an individual, but also those situations where we are working as part of multi-person teams.

Over the last several years, the DECT Forum and key member organisations have had their heads down, working flat out on DECT NR+. It's entirely fair to say that it has been an all-

consuming project. It has also been very much a wireless/IoT/technology industry project. The focus has all been about developing technologies to help sell products, whether

those products are semiconductors, software stacks, testing and services and all the way through to end products for commercial and retail customers. So, is it possible to achieve



Ostfalia University of Applied Sciences

María Dolores Pérez Guirao is a Professor in Network and Communication Technologies at Ostfalia University of Applied Sciences, with a focus on the Industrial Internet of Things (IIoT). With about 11,000 students, twelve faculties and 21 departments, Ostfalia counts among the biggest universities of applied sciences in Lower Saxony, Germany. As a state institution of higher education, it is represented by personnel of around 1000 – including more than 200 professors – at its Salzgitter, Suderburg, Wolfenbüttel, and Wolfsburg branches.

The university's mission statement counts building knowledge and sparking enthusiasm among its most essential objectives. As a reliable partner in education and research, the university is involved regionally and internationally within a network of diverse members with backgrounds in research and practice.

Ostfalia cooperates with more than 100 universities all over the world, offering its students and teaching personnel an opportunity to gain international experience.

Research at Ostfalia is application-oriented and characterised by close research collaborations with business and industry. In line with this thinking, Maria has attended a number of DECT events in order to gain an insight into how DECT NR+ technology is developing, how the regulatory situation is panning out and in order to build a contact network with key players in the industry.

Click on the movie screen to watch the video interview.



Video interview

María Dolores Pérez Guirao is a Professor in Network and Communication Technologies at Ostfalia University of Applied Sciences.



that balanced, open-minded viewpoint, when all of the players involved have a vested interest in both the technology and its success?

In these circumstances, it's a good idea to bring in the thinking of external parties. Ideally, those parties should have a broad perspective, while they should also have a degree of impartiality resulting from detachment from the commercial imperative.

It might already be obvious that a good partnership to build is one with academics. Clever people who are involved with learning and research, but who aren't trying to grow a

company with a view to selling it and making a fortune.

Across the decades, and across the technology sector, there has been a long history of technology organisations partnering with academia. The DECT Forum has been no exception, and long-term members of the DECT community will probably remember collaborations with organisations such as Fraunhofer Institute for Integrated Circuits, to name just one example.

This tradition is maintained today.

Here at DECT Today we thought we would

invite some of our recent academic partners to give us their views on the current state of the DECT NR+ art. We reached out to two academic spokespersons who have spent time monitoring what has been going on in the world of DECT NR+, all the way through to involvement in related research projects.

The two people we interview here for DECT Today represent Ostfalia University of Applied Sciences and Tampere University. We hope that you enjoy our video interviews, which can be watched by clicking the screens on these pages or by going to the [DECT Forum YouTube channel](#).

Tampere University

Dr Joonas Sää is a Staff Scientist at Tampere University, one of the most multidisciplinary universities in Finland, a country widely accepted to be a technology development hot-bed. The university brings together research and education in technology, health and society and is known for its excellence in teaching and research collaborating with hundreds of universities and organisations worldwide. Its community consists of about 22,500 students and around 4,200 staff members from more than 80 countries.

The University was created in 2019 through a

merger between the University of Tampere and Tampere University of Technology. Almost all internationally recognised fields of study are represented.

The university's Faculty of Information Technology and Communication Sciences (ITC) provides a multidisciplinary environment for research and education. The faculty is said to bring together a strong tradition and recognised expertise in the humanities, natural sciences, engineering, social sciences, and theatre and drama.

As part of his work, Joonas has participated in the Ultra Scalable Wireless Access (USWA) project. This studies how to best utilize the ETSI DECT-2020 new radio (NR) standard/DECT NR+ and related first products in various industrial use cases and what kind of enhancements are beneficial in the standard's evolution towards 6G. The project focuses on using and further developing the technology for both massive machine type and ultra-reliable low latency communication.

Click on the movie screen to watch the video interview.

Video interview

Dr Joonas Sää is a Staff Scientist at Tampere University and has participated in the Ultra Scalable Wireless Access (USWA) project.



NR+ and Wirepas 5G Mesh: Exploring the potential of decentralized connectivity

Wireless connectivity is rapidly evolving to meet the increasing demand for scalable, reliable, and cost-effective solutions in industrial and commercial networks. This shift is particularly important for large-scale sensor deployments and command-and-control type applications, where centralized networks can be costly and limiting.

Cellular networks, while effective for many applications, have struggled to efficiently support massive machine-type communications (mMTC) due to infrastructure costs, un-scalable subscription business models, spectrum constraints, and network congestion. Furthermore, resolving coverage blackspots in cellular networks can be prohibitive due to the cost and time needed to secure additional business opportunities, real estate, and permits required for installing new cell infrastructure to address coverage gaps.

Alternative wireless solutions have emerged, but many have lacked global standards or faced challenges in accessing clean spectrum, leading to fragmented adoption and deployment difficulties.

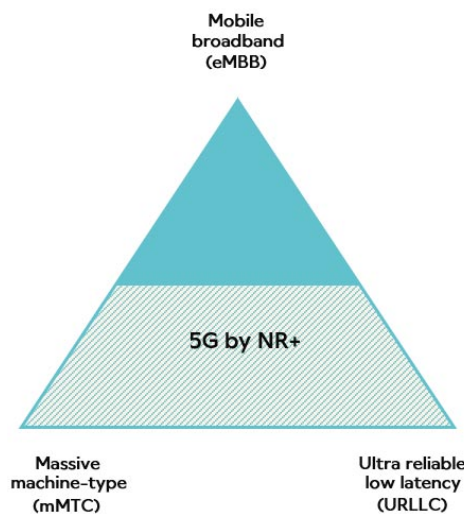
Wirepas 5G Mesh, built on the NR+ standard, offers an alternative approach by enabling large-scale IoT networks without relying on traditional cellular infrastructure. By utilizing a decentralized architecture, it provides a flexible and cost-effective solution for supporting mMTC at scale.

A new approach to 5G without cellular

While 5G is often associated with high-speed broadband and ultra-low latency, another pillar — massive IoT connectivity — has been more challenging to implement.

Traditional cellular networks rely on centralized base stations and licensed spectrum, which can make large-scale deployments inherently more complex and expensive whilst also limiting control to the whim of a few operators. Wirepas 5G Mesh

offers a different approach, operating as a fully decentralized system where each device functions as both a node and a router. This self-healing, self-optimizing mesh enables reliable, large-scale communication without the need for base stations or dedicated infrastructure.



The NR+ standard operates in the globally available, license-exempt 1.9 GHz band, enabling easier and more cost-effective deployment across industries worldwide. Its ability to scale without requiring additional infrastructure makes it particularly well-suited to applications where large numbers of devices need to connect autonomously and securely. In addition to the global 1.9 GHz support, the U.S. has also introduced an additional sub-GHz implementation of NR+, establishing a much-needed IoT standard in this ISM frequency band further expanding options for reliable, large-scale IoT deployments.

Scalability, Resilience, and Cost-Efficiency in One Solution

Unlike traditional networks that depend on fixed infrastructure, Wirepas 5G Mesh allows networks to expand dynamically. Devices route data independently, reducing reliance on centralized hubs and enabling seamless scalability. If one device goes offline, the network automatically adjusts by rerouting traffic through other active nodes, ensuring continuous operation and the reliable delivery of data packets.

Operating in the 1.9 GHz band provides additional advantages by reducing interference compared to more congested frequencies, such as 2.4 GHz. This improves network efficiency and extends battery life in low-power IoT applications. Without the need for licensed spectrum, deployment costs are lower, making it a practical solution for organizations looking to implement large-scale connectivity without the financial and logistical challenges of traditional cellular networks.

Security and energy efficiency are also central to the system's design. End-to-end encryption safeguards data integrity, and the decentralized architecture minimizes key points of vulnerability. Designed for long-term reliability, it supports mission-critical applications that require secure and continuous connectivity with minimal maintenance. Energy efficiency is equally critical, particularly for large-scale IoT deployments where battery life directly impacts operational costs and sustainability. Wirepas 5G Mesh optimizes power consumption through intelligent routing, allowing devices to communicate using the shortest and most efficient paths. Unlike traditional cellular networks that require



REGULATORY WORKING GROUP UPDATE



DECT in the 1910–1920 MHz band in Europe

The Working Group FM (Frequency Management) in CEPT has tasked the System Engineering (SE) group to investigate the possibility of allowing DECT in the 1910–1920 MHz band. The DECT Forum has provided an input to SE noting that there are a number of earlier studies available that show that use of the 1910–1920 MHz band is compatible with FRMCS (Future Railway Mobile Communication System) in the 1900–1910 MHz band as well as with MFCN systems above 1920 MHz and that for this reason no further studies are required.

In view of the formal processes in CEPT, it will take some time to come to a final decision but the expectation is that we will be able to deploy DECT in this band starting at some time in 2026. This is a very positive development which showcases the commitment of the DECT Forum and CEPT to foster innovation within regulated bands.

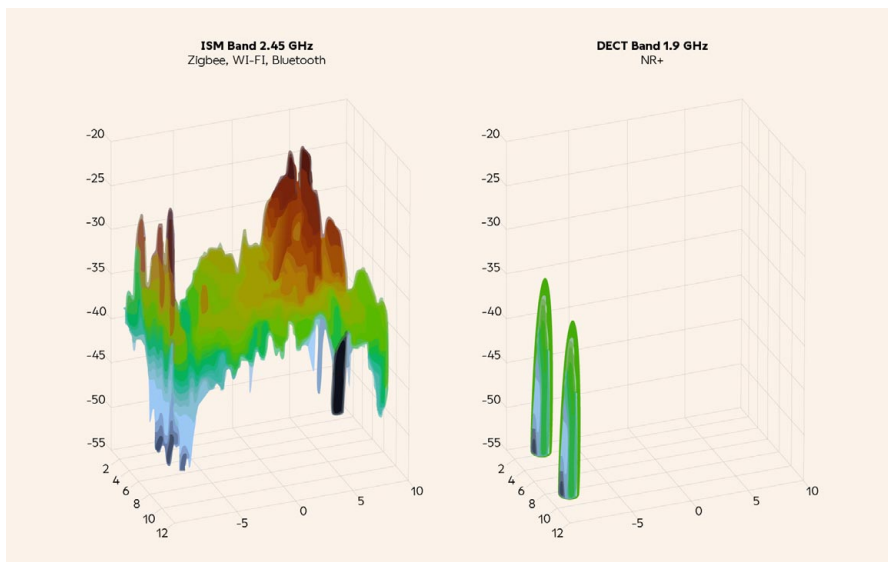
Private 5G in the 3.8–4.2 GHz band

As covered extensively in previous editions of DECT Today, DECT Forum members have put great effort into getting the DECT NR+ technology approved by CEPT for use in the 3.8–4.2 GHz band. This band has been allocated by the European Union for the deployment of Wireless Broadband Low-end Medium Power (WBB LMP) networks.

FM60, the working group in CEPT responsible for this topic, is now working on a set of recommendations that Regulators can use when handling the coordination between WBB LMP networks in the 3.8–4.2 GHz band.

The latest contribution from the DECT Forum provides more detail on DECT's spectrum management protocols which enhance coexistence between WBB LMP networks and ease the coordination effort.

The DECT Forum will remain dedicated to the goal of ensuring that DECT NR+ will become the technology of choice for the 3.8–4.2 GHz band.



devices to maintain constant connections with power-hungry base stations, the self-organizing nature of the mesh allows nodes to operate with minimal energy usage.

These optimizations make Wirepas 5G Mesh a viable solution for long-term IoT applications, enabling sustainable and cost-effective connectivity across industrial and commercial deployments.

Expanding Adoption

The adoption of decentralized connectivity is growing across a range of industries and is being led by numerous top industrial and commercial building automation brands through the NR+ working group that was announced in late February 2025. In smart metering, utilities are using large-scale wireless networks for real-time data collection and grid management, avoiding reliance on cellular infrastructure. Building automation is benefiting from wireless control systems for lighting, HVAC, and security, reducing the need for costly upgrades. In logistics and supply chain operations, decentralized networks are improving real-time asset tracking, particularly in environments where traditional networks struggle to maintain coverage. Industrial IoT applications are also leveraging mesh networks for predictive maintenance and operational efficiency.

A significant factor for adoption is in an open standard approach. By supporting interoperability across different vendors, Wirepas 5G Mesh allows businesses to build private networks without being tied to cellular or proprietary systems. This flexibility provides greater control over connectivity infrastructure, eliminating dependence on external telecom providers.

As wireless connectivity continues to evolve, decentralized solutions are filling a critical gap by solving the unique issues seen in large-scale IoT deployments which often go un-noticed in small-scale consumer networks. By leveraging the open NR+ standard, industries can deploy networks that are more flexible, cost-effective, and scalable without the limitations of traditional infrastructure.

With global support in the 1.9 GHz band and expanded options in the U.S. through sub-GHz NR+, this approach introduces a much-needed standard to previously fragmented frequency ranges. As adoption grows, decentralized mesh networking is poised to become a key enabler of reliable and efficient connectivity across industrial, commercial, and smart infrastructure applications.

www.wirepas.com

Shure

For 100 years Shure has been making people sound extraordinary, excelling with innovative audio solutions for all professional environments: from the world's biggest stages, broadcast studios and content creation to conference rooms, boardrooms, and educational institutions. For conferencing, its cutting-edge products ensure superior audio clarity, confidentiality, ease of use, straightforward installation and seamless integration with leading AV and video conferencing platforms and AI productivity tools. Shure's focus on

collaboration, reliability, advanced technology and enhanced security has made it a trusted partner for IT and AV professionals, driving high-quality, efficient communication and collaboration for business, corporate and educational organizations.

To learn the latest developments at Shure, and to understand how the company continues to push DECT to new levels in the Pro Audio area, Vince Holton spoke with Barclay Milne, a very well-known figure in

the DECT Forum. Barclay is Director of Engineering at Shure, and is famous for having a fanatical level of interest in high standards of audio quality. Barclay told about Shure's latest DECT-based Pro Audio products, and his company's continuing support for DECT Evolution.

Click on the movie screen to watch the video interview.

SHURE

Video interview

"Thanks to the reserved DECT spectrum, and the DECT sharing rules, we can provide users with amazing audio quality," Barclay Milne, Director of Engineering, Shure.



DECT Forum enjoys successful presence at Embedded World 2025 in Nuremberg



had the pleasure of exhibiting at Embedded World 2025, which took place in Nuremberg from April 8–10. As one of the leading international trade fairs for embedded systems, Embedded World brings together thousands of professionals from across the globe to explore the latest innovations in hardware, software, and connected technologies.



Our booth in M2M Hall 3 attracted significant attention over the course of the three-day event. With a modern and inviting design, it stood out on the exhibition floor and drew a constant stream of visitors - many of whom we were able to engage in meaningful, in-depth conversations.

The spotlight was clearly on DECT technologies, especially the new NR+ standard, which generated a great deal of interest among industry professionals and technology enthusiasts alike. Visitors were eager to learn about the unique capabilities of NR+, particularly in the context of reliable, low-latency wireless communication.



Our professional audio products, also showcased at the booth, sparked enthusiastic discussions and drew praise for their performance and innovative design. Another highlight was a live demonstration of an NR+ Smart Meter installation, which gave visitors hands-on insight into practical applications of the technology.

With many valuable new contacts made and numerous follow-up discussions already underway, our participation at Embedded World 2025 was a resounding success. We look forward to building on the momentum and continuing the conversations beyond the show floor.

For news of further events that the DECT Forum will attend, please check the Events page at our website:
<https://www.dect.org/events.aspx>



The role of DECT in modern retail: Driving collaboration, efficiency and effective customer service

By Olivia Robinson, Head of UK & EU, VoCoVo

The retail sector is up against a perfect storm of challenges. Rising customer expectations combined with persistent worker shortages have made it more difficult for team members to handle customer queries during the busiest times of the year and provide an effective experience. To add to the pressure, the increasing prevalence of both abuse and shoplifting incidents have impacted colleague morale and wellbeing. However, the right tools can empower retailers to better navigate stressful periods, maintain high morale and foster a safe environment where colleagues feel connected with those around them.



Olivia Robinson,
VoCoVo

Encouraging collaboration between colleagues

To ensure that customer expectations continue to be met during the most hectic times for retail, team members need to feel connected and not isolated. Voice communication technology is essential to building a collaborative environment because it allows team members to remain connected with each other, even in the largest stores where help may be located far away.

Importantly, these communication tools are powered by DECT technology – which offers superior audio clarity and minimal latency, ensuring reliable and high-definition sound quality whether users are on a noisy shop floor or in the car park. This ensures uninterrupted, real-time conversations that keep operations running smoothly, even during peak trading hours or in complex store layouts.

For example, if long queues are forming at in-store pickup stations, team members might need assistance in handling a customer query. With a headset in place, they are empowered to communicate with colleagues and ensure that customer needs are met. And with happy customers comes happiness among team members.

Voice communication technology, integrated with smart integrations around the store, can also empower team members to keep track of inventory levels. Where stock may be running low of a certain item, colleagues can suggest alternatives to reduce the risk of a



customer walking away without completing a purchase.

Efficiency can often be much harder to achieve during staff shortages, but the power of voice is key to allowing more senior colleagues to share knowledge and train new team members so they get quickly up-to-speed on a number of tasks. In the busy seasonal periods, even temporary staff can hit the ground running by instantly asking questions to experienced employees from their first day, ensuring that the customer experience isn't impacted.

Safety in connected numbers

Connecting team members with each other can also help them navigate abusive behaviour from customers and identify incidences of shoplifting. For example, if they feel uncomfortable, under threat or notice a crime taking place, they can ask for help

when they need it via their device, whether it's to talk to another member of staff or the emergency services.

With worker shortages such a critical factor for retailers today, any measures to enable colleague safety will help increase their happiness in their roles and also encourage others to join the sector. Communication tools can offer a competitive hiring advantage, with staff now often choosing to work at technology-focused retailers.



A better experience for customers and staff in an industry where speed, service and safety matter more than ever, technology that supports team communication is essential. By equipping retail staff with the right tools to stay connected, retailers can foster stronger collaboration, improve efficiency even during staff shortages and create safer, more supportive working environments. The result is a better experience for both customers and the people serving them, ensuring the store remains a place where both employees and customer service shines.

www.vocovo.com

2025 DECT Forum webinar programme

Throughout 2023 and 2024, the DECT Forum hosted a very popular and well attended series of webinars. This will

continue through 2025 and so far there have been two events. For those of you that were unable to take part in the

webinars, we have included here links to the 2025 webinars which can be watched at the DECT Forum YouTube channel.

Webinar 1: Release 2 of the DECT NR+ standard



DECT NR+ webinar series



- Welcome from the DECT Forum
- First of a new series of webinars in 2025
- Topic: Release 2 of the standard



Roel Ottink
DECT Forum

Juho Pirskanen
Wirepas

Webinar 2: Application and access profiles



DECT NR+ Access and Application Profiles

- Juho Pirskanen, Wirepas

08-04-2025

DECT NR+ Webinar: Application and Access Profiles

Further webinars are planned through the rest of this year.
Details can be found at the [Events page](#) at the DECT Forum website – www.dect.org.

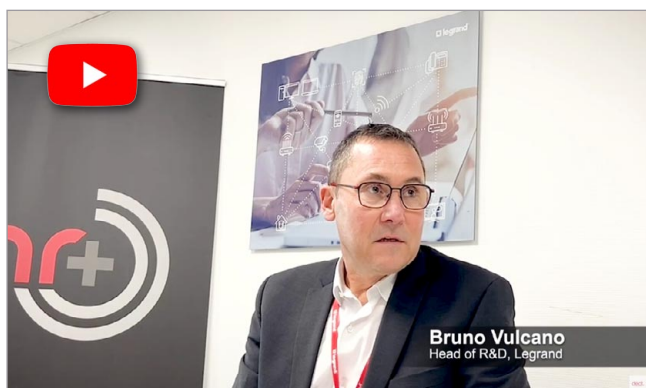
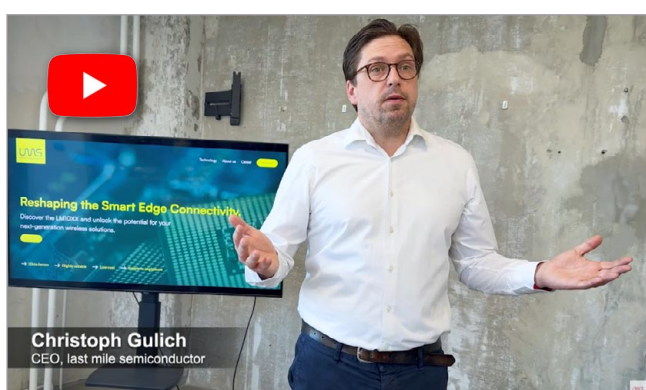


YOUTUBE SHOWCASE

As part of the recent announcement of the DECT NR+ Building Automation SIG, a series of videos were made by companies that have joined and which will support the SIG.

These companies were Last Mile Semiconductor, Legrand, Nordic Semiconductor, Schneider Electric, Siemens, and Wirepas.

Watch these presentations here by clicking on the individual movie screen.

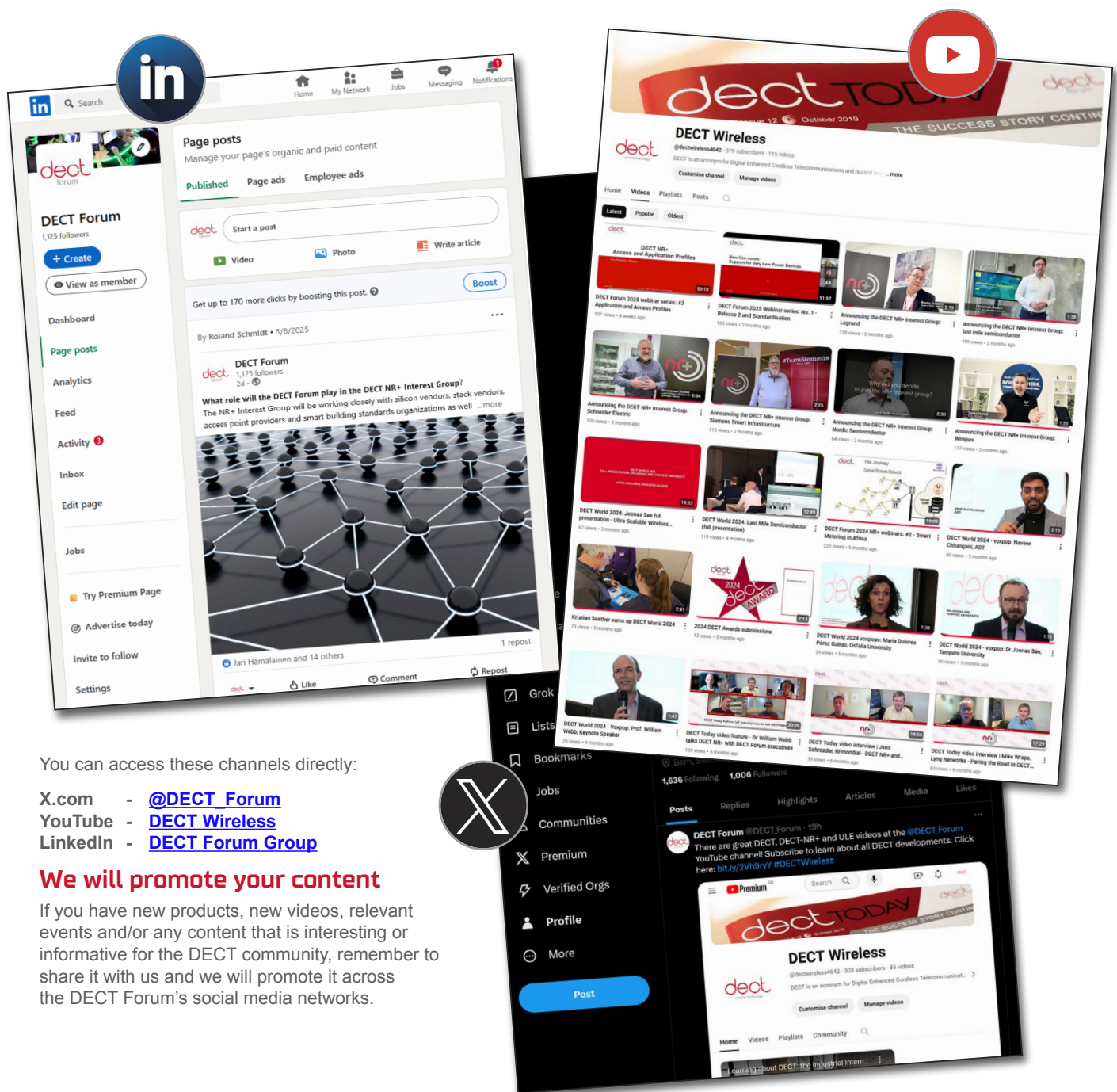


While you are here, why not **Subscribe** to the DECT Forum YouTube channel to make sure that you see all of our video updates?

Connect with us as we drive our global social media programmes!

The DECT Forum continues to put a major focus on online marketing and social media net-works to help boost global awareness of DECT technology and to encourage the cooperation of DECT Forum member companies.

We are continuously active across X.com, LinkedIn and at the DECT Wireless YouTube channel:



You can access these channels directly:

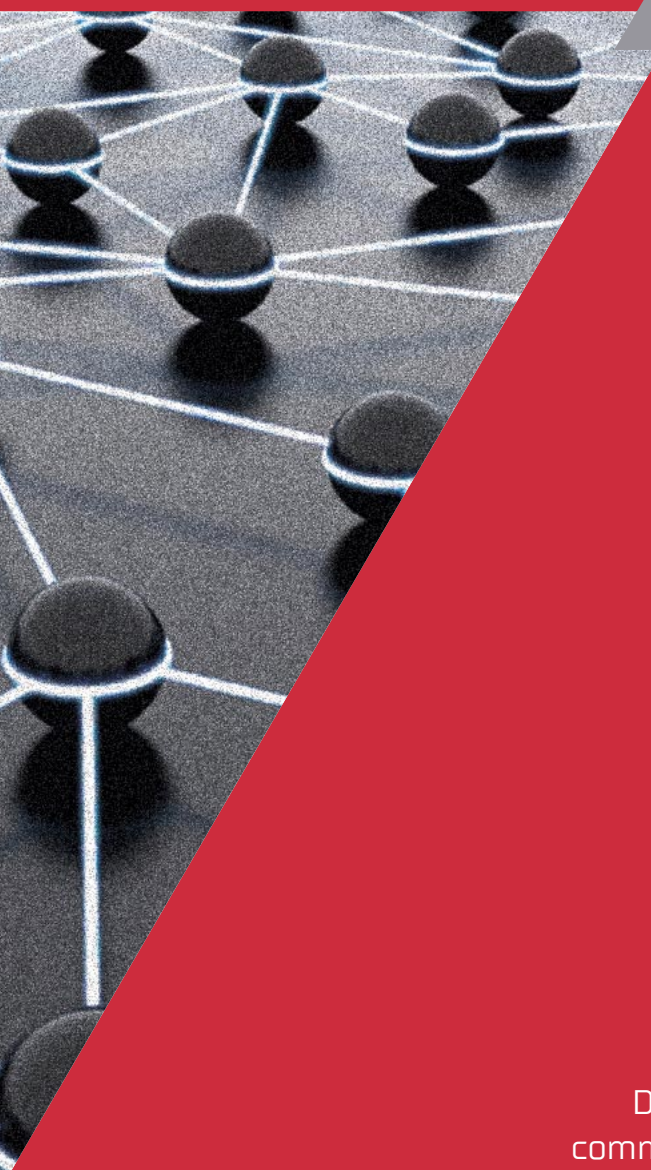
X.com - [@DECT_Forum](#)
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We will promote your content

If you have new products, new videos, relevant events and/or any content that is interesting or informative for the DECT community, remember to share it with us and we will promote it across the DECT Forum's social media networks.

Social media networks spread messaging and can make businesses more informed about their target audiences in order to create a better marketing strategy

THE SUCCESS STORY CONTINUES



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