



Peter Duine
Product manager
connectivity

Work with us to make **connected lighting mainstream**

Connected lighting applications are growing in popularity globally. In future, they'll be mainstream, opening vibrant new markets for the lighting industry. So what are the opportunities – and how can we accelerate them? We believe growth lies in finding inspirational new use cases that go beyond energy saving to offer compelling benefits to businesses. By collaborating as an industry, we can uncover these use cases and switch on new value beyond illumination.



The search is on for new use cases

We've invested deeply to develop connected lighting use cases. But we're still just one company. Although we're committed to using our reach and innovation power to explore a multitude of use cases, there are too many for one company to explore alone, so we're focusing on three things:

1

Building a thriving ecosystem for connected lighting

We're working with an array of partner companies who use our components as building blocks to make 'connect-ready' lighting products. Each brings its own unique technical background, industry perspective and customer relationships. Their in-depth understanding of their customers' challenges often pushes them to explore new territory. Sometimes, this leads to value creation beyond illumination.

2

Creating standardized foundations for partners to build on

To accelerate innovation, we've developed standardized products and components. Inside the luminaire, our SR driver functionality is being standardized in DiiA, ANSI and in future also in IEC as part of the DALI standards. Creating an open-standards-based proposition gives our customers confidence that our technology is accepted industry wide. Outside the luminaire we use wireless technology based on the success of Zigbee and Hue. An example is our EasyAir wireless sensor, which provides presence and daylight sensing in a single unit and forms an easy-to-integrate building block for any lighting manufacturer who wants to move into this space.

3

Sharing our expertise

By sharing knowledge openly across our partner ecosystem, we want to supercharge innovation. This approach saw amazing success with Philips Hue, which helped democratize the idea of the smart home. Crucial insights from our partners and an army of app developers helped us evolve Hue to become one of our most talked-about innovations ever, opening new use cases along the way.

Unlocking new value in indoor lighting

In schools, hospitals, offices and warehouses, we're already seeing global take-up of connected lighting. So far, the big use cases focus on energy savings and convenience, with wireless control sensors embedded in light fixtures. These help businesses to reduce power consumption via occupancy sensing, daylight harvesting, granular dimming fixture groups and wireless wall switches.

To enter these markets, your product line needs to include fixtures that can use wireless protocols to report power consumption. The next step for customers is to add a gateway. This enables energy monitoring and insight via a dashboard. With energy bills on the rise, these use cases are starting to drive vigorous new business for early movers in the industry.

Also gaining momentum are more advanced use cases, like conference room scheduling or HVAC optimization, that

use the occupancy data that the lights provide to optimize business operations and energy use. A promising use case is using sensors and Bluetooth Low Energy (BLE) beacons in the lighting infrastructure for asset tracking and reporting.

Where to next? As connected lighting infrastructure matures as a framework for improving business operations, an explosion of new use cases is possible. To help you capitalize on these growth opportunities, we're creating standardized products like the EasyAir SNS300 fixture-based control product line, which can be configured by a standard Zigbee controller. These wireless sensors can be incorporated into luminaires and connected to Z3.0 gateways. If you're interested in this space, check out the sensors section of this catalog. And stay tuned for our new EasyAir partner ecosystem program, coming soon on our website.

The next wave of use cases for outdoor lighting

In outdoor lighting for roads, streets and parking lots, we have already developed a standout use case for connected lighting that's maturing fast: asset management. This offers an immediate opportunity for you to enter this emerging market.

Large customers worldwide are already adopting asset reporting to simplify management and maintenance of large outdoor lighting installations. With a dashboard view of fixture type, light output, color temperature and light distribution, they can greatly improve efficiency. Control units to enable these capabilities are only a field upgrade away, making adoption relatively simple. Now that the ANSI C137.4 committee provides a standard for asset data, it is specified in tenders across the world. This all adds up to a massive opportunity.

To help you enter this market without the upfront cost of developing your own software, we've created a MultiOne

configurator that lets you store asset information during luminaire production.

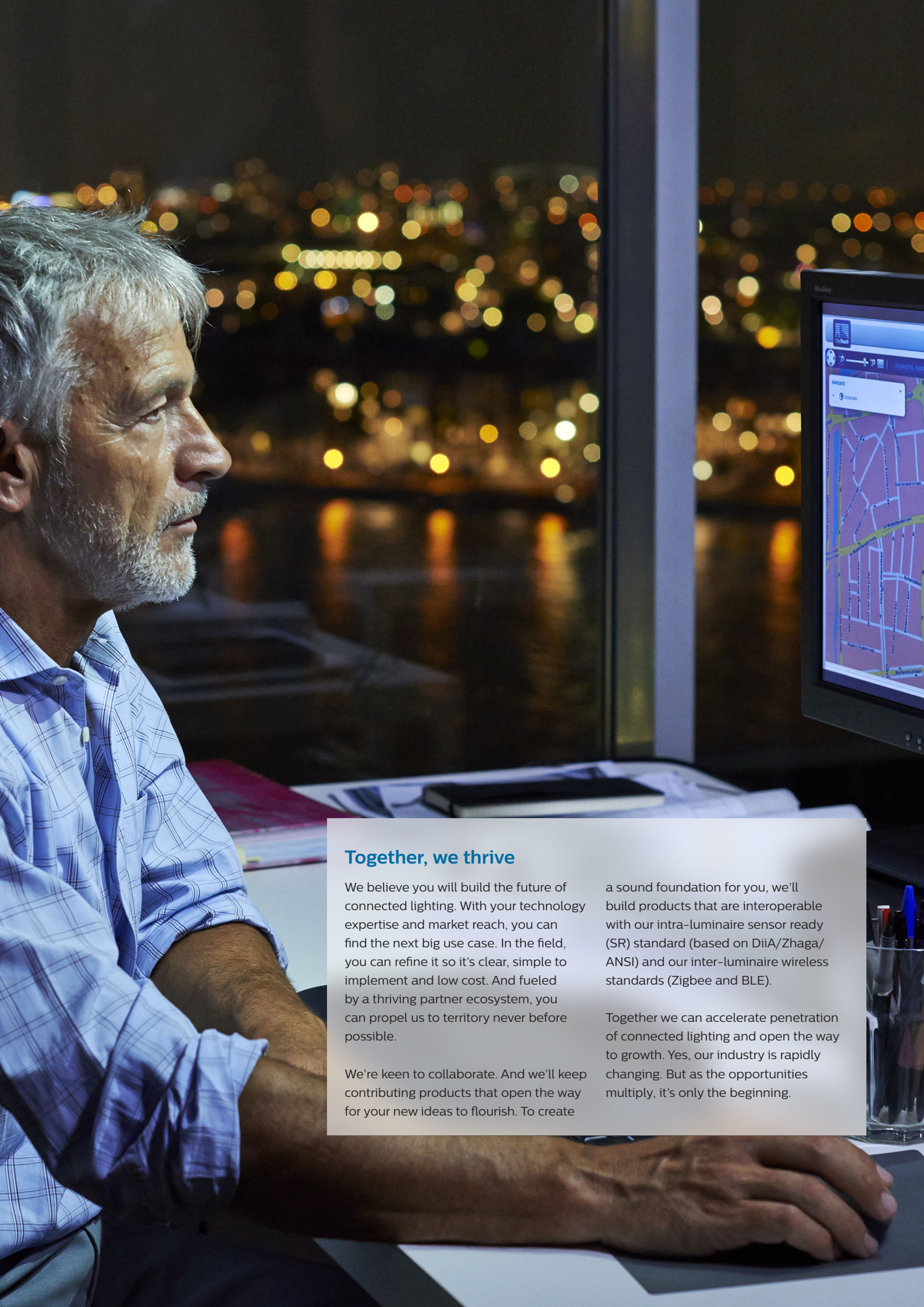
We're also laying a strong foundation for you to innovate with an EasyAir node based on standard wireless communication: the EasyAir SNO110. It uses BLE communication secured by our own cloud infrastructure to do encryption key exchanges in the field. The use case is to set dimming schedules accurately by indicating time and location through a GPS connection.

These use cases are just the beginning. As the market develops, we're looking, together with all our partners, to explore powerful new use cases that extend the value of the lighting infrastructure. Think flood detection or empty parking space indicators. By trying new ideas, you can test the value that can be created and help us drive future product development.

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Together, we thrive

We believe you will build the future of connected lighting. With your technology expertise and market reach, you can find the next big use case. In the field, you can refine it so it's clear, simple to implement and low cost. And fueled by a thriving partner ecosystem, you can propel us to territory never before possible.

We're keen to collaborate. And we'll keep contributing products that open the way for your new ideas to flourish. To create

a sound foundation for you, we'll build products that are interoperable with our intra-luminaire sensor ready (SR) standard (based on DiiA/Zhaga/ANSI) and our inter-luminaire wireless standards (Zigbee and BLE).

Together we can accelerate penetration of connected lighting and open the way to growth. Yes, our industry is rapidly changing. But as the opportunities multiply, it's only the beginning.