Next-generation handhelds combine speed, durability, and responsible device usage.

Datalogic Memor™ 35 strengthens parcel logistics at PostNL

To handle the daily flow of hundreds of thousands of parcels without disruption, PostNL relies on a fleet of thousands of handheld terminals. When the existing equipment approached end of life, the company launched a thorough evaluation of new hardware. The choice ultimately fell on the Datalogic Memor 35, an industrial Android™ handheld that combines speed, ruggedness, and user-friendliness with modern features such as wireless charging and extended battery life.

"Our previous generation of devices was nearing end of life," says Bart te Winkel, Product Owner Hardware at PostNL. "We also wanted to add new functionality, such as built-in navigation on the handheld. Choosing Datalogic gave us the option to adopt a future-proof device and work with a partner with a clear, forward-looking strategy."

RATIONALE: TIME FOR RENEWAL

PostNL uses around 14,000 handhelds for parcel distribution. The initial trigger for replacement was practical: the existing devices had reached the end of their lifecycle, and the supplier would no longer develop the product or its associated Android™ platform. The transition also offered ample opportunities to implement improvements.

Beyond integrating navigation directly into the handheld, battery capacity, wireless charging, responsible device usage, and ease of maintenance played major roles. "Our couriers must be able to complete an entire working day on a single battery charge, even with navigation active," says Max Visser, Senior Logistics Designer at PostNL. "A more powerful battery and the ability to wirelessly top up inside the vehicle were therefore essential."

RIGOROUS TESTING AND SELECTION PROCESS

The selection process began at the end of 2023 with an internal inventory of requirements. A formal market inquiry followed in April 2024, to which several suppliers responded. PostNL tested various models under identical conditions.

“It was a highly structured process,” te Winkel explains. “We compared devices on hardware specifications, operating system, manageability, usability, and price-performance ratio. We also examined how easily our own applications could be migrated.”

During an extensive pilot, more than 80 routes were tested by 25 different users—couriers, subcontractors, and IT teams from the Netherlands and Belgium. “The Datalogic Memor 35 came out on top unanimously,” says Edwin Gerde, Sales Director Benelux at Datalogic. “We stand behind the quality of our product and weren’t surprised, but it’s quite rare for such a diverse group of testers to reach unanimous agreement.”

ROBUSTNESS AND ERGONOMICS IN REAL-WORLD USE

The Memor 35 is specifically designed for intensive use in logistics environments. The handheld is dust- and waterproof with IP65/IP68 ratings and drop-resistant up to 2.4 meters. Visser tested that himself: “In the test phase I literally threw it, put it in water, and even had a delivery van drive over it. It just kept working.”

To prevent further damage, PostNL developed a Kevlar lanyard in collaboration with accessory supplier Mobilis. “This prevents the device from falling or getting lost,” Visser says.

The replaceable protective housing also simplifies maintenance: a damaged exterior can be swapped without retiring the entire device.

WIRELESS CHARGING INCREASES AVAILABILITY

One of the most noticeable improvements is wireless charging. At distribution depots, older devices often suffered from worn or contaminated charging contacts, resulting in dozens of unusable scanners per day at some locations.

“At locations that have already switched to the Memor 35, we have 20 to 25 more scanners available every morning out of a total of around 250,” Visser explains. “That’s nearly ten percent higher availability, purely thanks to wireless charging.”

The robust charging stations also prevent charging issues caused by dust and vibration.

“With the old equipment, scanners sometimes loosened from the charging contacts, preventing them from charging,” te Winkel adds. “That issue is now resolved.”

PERFORMANCE AND USER EXPERIENCE

The new handheld runs Android™ 13 Enterprise and is upgradeable up to Android™ 18. Datalogic has also developed its own software layer on top of the operating system, which includes features for battery management, scanner optimisation, and Mobile Device Management (MDM).

“That enterprise layer is crucial,” says Gerde. “It allows us to automatically dim the display when the battery drops, reduce GPS accuracy, or shift a device from 5G to 4G to conserve power. This ensures couriers can always finish their route.”

The scan engine—developed entirely by Datalogic—responds faster and more accurately than previous devices. Couriers notice the difference immediately: “In processes requiring rapid consecutive scanning, this device is significantly faster,” Visser says.

COLLABORATION BETWEEN IT AND OPERATIONS

The project was initiated by IT but broadly supported from the start. “The collaboration between our IT department, logistics design, and operations was intensive,” te Winkel explains. “For devices like these, all stakeholders need to be involved—from management to the couriers themselves.”

Mobile Device Management is handled via SOTI, enabling PostNL to remotely deploy updates and applications.

RESPONSIBLE DEVICE USAGE AND LIFECYCLE

While electronic devices with large batteries can never be considered fully environmentally friendly in an absolute sense, responsible device usage plays a key role in PostNL’s and Datalogic’s approach.

Within that context, the Memor 35 offers clear advantages:
- The device has a longer lifecycle than is common in the market, meaning fewer replacements over time.
- Datalogic provides long-term component and security update support, further extending usable life.
- Through proactive monitoring, batteries are replaced only when truly necessary, rather than on a fixed schedule—something many suppliers still prescribe multiple times per year.

“This prevents unnecessary waste as well as unnecessary cost,” te Winkel emphasises.

PostNL also ensures that older devices are processed and recycled through a certified partner wherever possible.

RESULTS AND OUTLOOK

Since the rollout, the Memor 35 has fully met expectations. Minor accessory and software optimisations are still underway, but the hardware performs consistently, reliably, and above expectations.

In 2026 and 2027, PostNL will phase in the new devices across the remaining locations, with pauses during the year-end peak season. By mid-2027, the entire network should be equipped with the Memor 35.

The next step is integrating navigation so couriers will only need a single device. “The hardware is ready,” te Winkel says. “We are now exploring with partners how best to implement this. Ultimately, we want the Memor 35 to become the central hub for our daily logistics.”

CONCLUSION

By switching to the Datalogic Memor 35, PostNL has not only adopted a modern and rugged device—it has also chosen a solution that supports responsible, long-term device usage within operational realities. Higher availability, faster scanning, and reduced maintenance immediately translate into measurable operational gains—and couriers who can work efficiently and confidently throughout the day.

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