INTERSYSTEMS IMPACT AWARDS WINNER



OPPORTUNITY

Public libraries in Japan are challenged by shrinking staff, growing collections, and increased demand for digital and community services. They need innovation to streamline, lower costs, and enhance services.

INNOVATION

In response, the unified ELCIELO platform, enhanced by the AI-based SHELF EYE, was introduced, integrating traditional library tasks with modern services, within staffing and budget constraints.

SOLUTION

The ELCIELO platform delivers school collaboration, digital reading, and inclusive access. SHELF EYE employs employs advanced image recognition to automate shelf inspection and inventory management.

IMPACT

The Project delivers transformative efficiency gains, lowering operating expenses while freeing staff to focus on patrons and expand digital services that directly benefit their communities.

Reinventing Public Libraries with AI-Powered, Fully Integrated Digital Ecosystems

Public libraries in Japan face mounting operational pressure, from shrinking workforces to expanding collections and rising expectations for digital access and community-centered services. Traditional processes—especially inventory management—remained manual and resource-intensive, limiting libraries' ability to meet evolving user demands. Existing costly, complex automation approaches such as RFID pose barriers to adoption for many municipalities with tight budgets. The gap between rising demand and limited resources sparked a critical need for a smarter, more accessible model that could simplify operations, reduce costs, and expand services without major infrastructure investments.

Integrated, Efficient, AI-Driven Library Services & Inventory Management

The Public Library Innovation Project pairs the ELCIELO platform with the AI-driven SHELF EYE. Scalably founded on **InterSystems IRIS®**, these together integrate core tasks like circulation management with such next-generation services as digital reading and inclusive access, and efficiently connects once-siloed functions into one. SHELF EYE's advanced image-recognition automates shelf inspection and inventory management. Camera- and AI-based analysis replaces manual workflows and delivers real-time insight into book placement and availability. Inwardly and outwardly, libraries have been remade: driven by data, centered on users, and scaled by evolving community needs.

Expanding Library Services Beyond the Library at Reduced Cost and Staff Burden

KYOCERA Communication Systems' innovation delivers transformative efficiency gains, reducing inventory-checking time by more than 60% and achieving RFID-equivalent performance at roughly half the cost. This dramatic improvement lowers operational expenses while freeing staff from repetitive tasks, enabling them to focus on higher-value services that benefit communities. Beyond efficiency, the solution expands access and inclusivity through integrated digital services such as self-checkout, 24-hour pickup, and remote access options.

InterSystems®
Creative data technology

Key Innovations in of the Public Library Innovation Project

- **AI-Powered Shelf Management** with SHELF EYE leverages advanced image recognition to automatically detect book placement and discrepancies with greater speed and accuracy, eliminating the need for manual inventory checks and greatly reducing labor and resources needed.
- **Unified Digital Platform** (ELCIELO) connects all core library operations and services into a single, scalable system. Everything from circulation and self-checkout to digital content access and community engagement tools co-operates seamlessly, securely, efficiently, and sustainably.
- **Efficient Innovation Model** delivers RFID-equivalent performance at approximately 50% lower cost by eliminating specialized hardware requirements. Libraries benefit from reduced upfront investment and ongoing expenses, making advanced automation accessible to more municipalities.
- **Expanded Accessibility and Services**, like 24-hour pickup lockers, non-visit services, and digital reading platforms, extend the library beyond physical locations. Inclusive tools further support users with limited mobility or unique needs, creating a community-centered, always-available experience.

About the Winner: KYOCERA Communication Systems Co., Ltd.

KYOCERA Communication Systems Co., Ltd. is a forward-thinking technology leader driving digital transformation across public-sector services in Japan. By combining advanced data platforms with practical, scalable innovation, the company empowers organizations to modernize operations while enhancing user experiences. Its solutions blend efficiency, accessibility, and sustainability to deliver measurable impact in real-world environments.

About the InterSystems Impact Awards, Selected by an MIT Panel

Each year, select client organizations are recognized at the InterSystems READY conference for projects driving positive change. Nominations are evaluated by independent judges from MIT on three criteria:

- **Makes a significant difference**
- **Breaks new ground**
- **Sets an example**

To learn more about the InterSystems Impact Awards visit
https://www.intersystems.com/intersystems-impact-awards-2026

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*For information regarding InterSystems approach to AI, visit **InterSystems AI Guidelines**.*

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