



# Crane Authentication™

Case Study

Government Revenue & Compliance Solutions

## CSET

Enhancing authenticity and traceability through a secure homologation program for communication goods

CSET, a leading technical solutions provider working on behalf of INCM – Mozambique's regulatory authority for communications – partnered with Crane Authentication to develop a comprehensive solution to enhance transparency and security in type-approved import operations. Together, they created a program that homologates the equipment and ensures complete supply chain visibility and control for all communications equipment.

### Challenge

As part of Mozambique's 1992 communications reform process, the National Communications Institute of Mozambique (INCM) was established as the independent regulatory authority for all communication equipment and services across the region.

Since the inception of CSET, INCM has spearheaded numerous government initiatives to ensure more citizens have reliable, safe, and affordable access to communication devices and services.

Following an open international tender process, INCM awarded CSET a multi-year contract to optimize authentication label security and enhance the national homologation program, which ensures imported goods can be traced and meet regulatory and safety standards.

The enhanced program would allow manufacturers and importers to request high-security authentication labels online while enabling customs officers to track and verify incoming goods using mobile technology.

Additionally, the program would improve consumer safety and transparency by enabling them to verify the authenticity of products such as mobile phones and laptops before purchase.

Implementing this national program required developing highly customized processes and software from the ground up. To ensure they could meet all INCM's requirements, CSET turned to Crane Authentication, their technical partner, to support in designing and distributing robust authentication labels; as well as creating an integrated software solution to streamline INCM's supply chain operations.



## Solution



**Crane Authentication Product Integrity:** Next-generation digital printing technology enabled the production of highsecurity authentication labels featuring banknote-level security with overt, covert, and forensic features.



**Crane Authentication Traceability:** Each authentication label is printed with an Crane Authentication Insight unique identifier and QR code at Crane Authentication's UK facility, under ISO9001 and ISO14298 conditions, before being shipped to a secure CSET facility in Mozambique. Upon approval of manufacturer and importer order requests, the authentication labels are further personalized with specific product metadata, including the homologation number, brand and model data details, and importer information.

Crane Authentication leveraged advanced digital print technology to develop and supply specialized authentication labels designed to overcome durability challenges. Made from sturdy materials, these secure labels feature robust anti-tamper properties and a lifespan of up to eight years in the field. Each label includes unique, customizable traceability and security elements that can be printed rapidly, securely, and with minimal lead time.

To ensure labels are properly tracked and import declarations efficiently managed, Crane Authentication worked with CSET to develop Caju, a custom ERP system. Caju seamlessly integrates with both Crane Authentication's Insight digital cloud platform and INCM's existing e-import software, automating the processing of all import declaration requests.

Once approved, orders are automatically transferred from Caju to the Insight platform for label printing and tracking. The labels are then sent to CSET's secure facility for further personalization before being distributed to relevant manufacturers or importers. The entire process, from request to distribution, and personalization, is completed within 72 hours, ensuring a smooth supply chain.

## Results

Crane Authentication's innovative printing and tailored software solutions spearheaded the creation of a homologation marking program, now recognized as the most secure in the world. INCM officials and customs officers at the border can now verify the legality and provenance of imported communications equipment within seconds.

Retailers and consumers benefit from greater transparency and confidence in the communications products they purchase, with hundreds of mobile authentication scans recorded each month. Additionally, Crane Authentication's hands-on training for CSET's production team ensures the continued growth of the project across Mozambique.

CSET chose Crane Authentication as our technology partner due to its proven expertise in the two primary elements of the project: advanced optical and material security labels, and experience in managing complex government traceability programs. Perhaps just as importantly, Crane Authentication and CSET formed a true technical partnership, digitally integrating systems to develop the ideal solution for the Republic of Mozambique without compromise.

**Faruk Remane, Managing Director at CSET**

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