

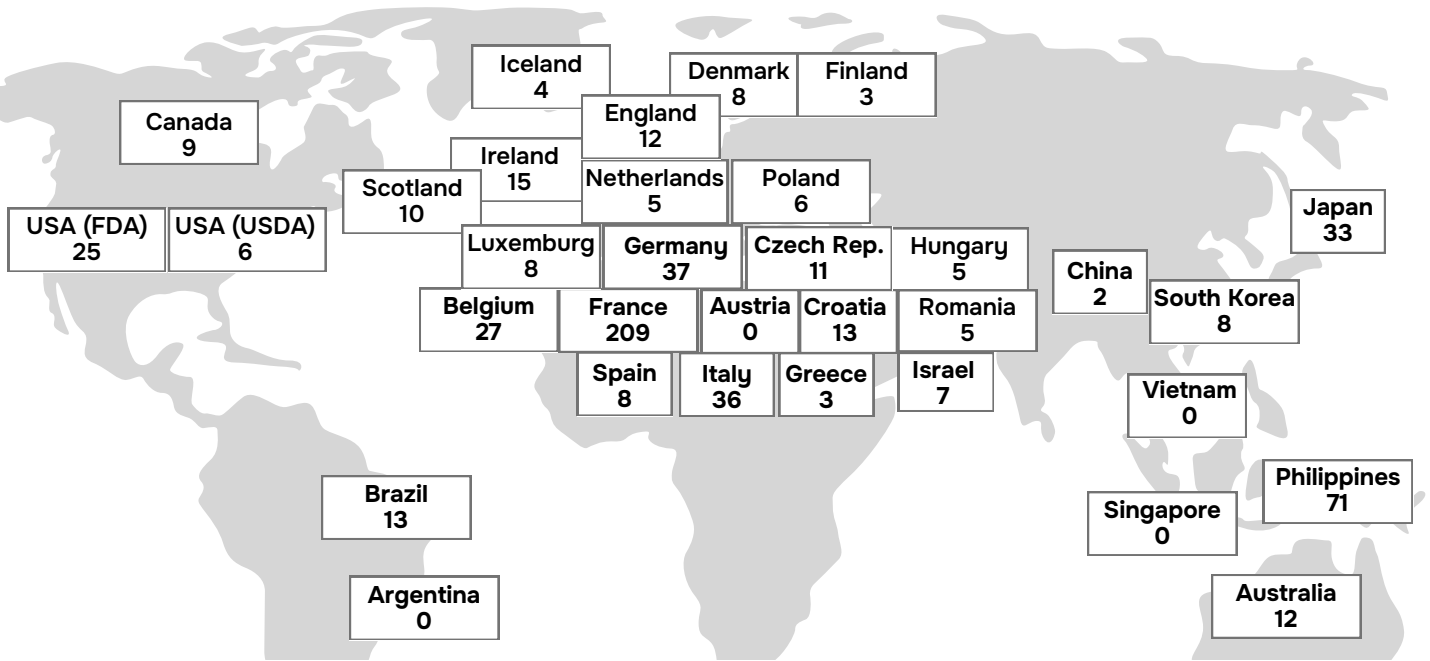
KSMVISION

INSPECT 360+ LI RS

**1st Self-learning & Auto-calibrated
Label Inspection System for FMCG**



Global product rejections due to mislabeling



IFS Trend Risk Report - July 2024 alone

New challenges of global FMCG producers

Missing ingredients required on the product label by local law?
Incorrect label language of the exported product?
Missing allergens?

Currently, quality control systems for packaging label inspection are manually configured by line operators, leading to human errors and potential downtimes.

The challenge gets escalated by **high rotation of production labor** lacking related expertise and **ever-changing local market regulations**.

These issues become more and more frequent causing operation and financial losses, and hindering zero-waste sustainability goals of FMCG exporters.



1st worldwide self-learning & auto-calibrated FMCG label inspection system

Cutting-edge
features for
label control
full digitization
& automation



✓ Remote Setup of System for New Label Control by QA or Marketing Department

- with a label artwork sent directly onto the production line to the KSM system. The label's content is double-checked during remote setup process by the sending department.

✓ System Self-Learning & Auto-calibrated for New Label

- after new artwork gets set remotely, the system commences 'self-learning' process upon scanning on the production line 30 products newly labelled. The process automatically recalibrates the system for new label.

Turnkey quality control system



Fully automated IT system for label inspection

KSM Vision assures accuracy and efficiency with stand-alone systems and modules ready to be integrated with your packaging lines.

Flexibility of systems allows to adapt them to the needs of different types of packaging, including:



Closure inspection
& fill-level control
as an option:



The Inspect 360+ LI RS system ensures **full quality inspection of the label**, including:

- ✓ BATCH, EAN, UFI # verification
- ✓ any obligatory content indicated as ROI (Region of Interest) - ingredients, allergens, expiry date, language, etc.
- ✓ full label quality check (missing, upside down, skewed, peeling off, wrinkled, displaced labels, fuzzy print, multiple labels)

The system is fully prepared for integration with the factory's IT systems, in terms of **user permissions, reporting, data exchange**.

Downtimes & waste caused by mislabeling finally solved

Inspect 360+ LI RS architecture is built upon advanced AI algorithms enabling training system AI models for new label ROI (Region of Interest).

Where OCR and smart cameras are not enough KSM machine vision deep learning AI is irreplaceable.



- peeling off label
- laminates quality control
- fuzzy text
- label placement on the pack
- UFI, BATCH code inspection
- obligatory ingredients/allergens
- EAN code verification
- wrinkles



Advantages

- ✓ Remote Configuration of the new label upon product artwork uploaded by Marketing or QA Department.
- ✓ Input of new product formats and labels and remote configuration of ROIs are supported by automatic conversion of settings into 3D products.
- ✓ Auto-Calibration & 'Self-learning' features of the system simplify the process of reformatting for new label on the production line. Different formats & labels - the same software.
- ✓ 100% control of production ensures that only flawless products leave your production.
- ✓ Centralized qualitative and quantitative product inspection ensures traceability of all products and provides global defect database.
- ✓ Tested and easy integration of a system into any production line.
- ✓ Customized lighting technology for the avoidance of reflections and false rejects.
- ✓ Immediate rejection of products with incorrect or damaged labels.



Options

- ✓ separation system (wedge conveyor)
- ✓ soft rejection unit (multi-segment rejector)
- ✓ defined trend values and set alarms enabling the line crew to take action at an earlier stage
- ✓ detailed inspection reports providing information about the delivery quality at any time

At KSM Vision, we've positioned ourselves as a trusted partner of the quality control industry.

Serving a diverse range of sectors – including woodworking, pharmaceuticals, cosmetics, and food – we bring the reliability and precision you need.

By fusing advanced machine learning algorithms with customized hardware, our solution isn't just an alternative to manual inspection; it's a superior approach.

We have made quality inspection systems:

- ✓ **compact** - easy to implement in limited space and on existing production lines,
- ✓ **AI-powered with neural network architecture** - enabling adaptations to the changed requirements, or product formats,
- ✓ **optimized with real-world data** from production lines resulting in better accuracy,
- ✓ **hardware-agnostic** - offering flexibility in choosing hardware components.

since
2012

Trusted by European EIT Manufacturing and backed by Intel's oneAPI for Startups, our solution is built on a foundation of reliability.

We're ISO9001 compliant, ensuring our standards meet global benchmarks for quality and trust.



Ask for details

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At **KSM** Vision, we strongly believe in the power of connecting scientific minds to run the constant change.

In partnership with **EIT Food** (Europe's leading food innovation initiative) and **Campden BRI Hungary** (independent non-profit R+D+I institute serving the needs of the food and agriculture industries) we are co-making the food industry more sustainable, healthy and trusted, advancing innovations in the quality inspection tools.

Inspect 360+ LI RS '100% automated label quality control' system is developed under EIT Food (European Institute of Innovation and Technology) R&D project, in a consortium with Campden BRI Hungary - non-profit R+D+I institute, and Maspex - a leading EU food manufacturer.



Co-funded by the
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