

Case Study

Food Industry Automation Solution for SAP Business One



About Client

Client : Mid-to-large food manufacturer / FMCG processor

Industry : Food Processing & Manufacturing

Products/Services : Batch-produced packaged food products with defined shelf life

Geography : GCC / India

Customers : Distributors, retail chains, supermarkets, modern trade

Business Requirement

The client was running core finance and inventory on a generic ERP setup that was not built for food manufacturing. This created recurring operational risk across the plant and the supply chain:

- **No batch-level traceability** — raw material batches from suppliers could not be reliably traced through production into finished-goods batches, making recalls slow and audits difficult.
- **Manual, inconsistent quality checks** — inspections for incoming raw materials, in-process goods, and finished products were tracked on spreadsheets and paper, with no standard acceptance criteria or approval workflow.
- **Expiry and shelf-life leakage** — without FEFO (First-Expiry-First-Out) enforcement or expiry alerts, near-expiry stock was often missed, leading to wastage and forced discounting.
- **Disconnected production planning** — production schedules were built without a clear link to sales orders, MRP, seasonality, or shelf-life constraints, causing over-production of slow movers and stockouts of fast movers.
- **Limited visibility into true profitability** — costing was tracked at a general ledger level, not by batch, so the client could not tell which production runs or products were actually profitable once yield loss, rework, and scrap were factored in.

CCS Solution

CCS designed and implemented a **Food Industry Automation solution built on SAP Business One**, extending the core ERP with food-specific controls across the operational chain:

- **Batch and expiry-controlled inventory** — food-specific item attributes (allergen classification, cold-storage requirements, shelf life), warehouse classification (QC, Quarantine, Cold Storage, Non-Saleable), and bin-level tracking, with FEFO validation and automated near-expiry alerts.
- **QC-gated procurement** — vendor rating and compliance-document tracking, vehicle inspection, and goods receipt that stays blocked until required inspections are completed, preventing non-compliant material from entering stock.
- **Structured quality control framework** — configurable testing templates, inspection plans, acceptance criteria (including AQL and defect classification), a dedicated QC screen for raw materials, WIP, and finished goods, and CAPA workflows for recurring failures.
- **Demand- and shelf-life-aware production planning** — production scheduling driven by open sales orders and MRP, recipe/formula-based BOMs with expected-vs-actual yield tracking, customer-specific BOM versions, and stage-wise tracking of rework, co-products, by-products, and scrap.
- **FMCG-ready sales and distribution** — scheme and discount management, batch-wise sales tracking with backward traceability to production, and structured handling of expired and damaged returns through QC.
- **Batch-wise costing and profitability reporting** — raw material, processing, and packaging costs rolled up to the batch level, with actual-vs-standard variance and product-level profitability analysis.
- **Integration with plant and lab systems** — weighing scales, barcode/QR generation and scanning, and laboratory/LIMS systems feeding directly into SAP Business One, removing manual re-entry at the shop floor and lab.

Business Benefits

- **Faster, more confident recalls** — full forward and backward batch traceability from supplier receipt through production to customer invoice means an affected batch can be isolated and traced in minutes rather than days.
- **Reduced expiry-related wastage** — automated FEFO enforcement and near-expiry alerts help the client move stock before it becomes a write-off.
- **Consistent, auditable quality control** — every inspection, acceptance decision, and deviation is captured against a batch, replacing paper-based checks with a structured, reportable QC trail.
- **Production planning aligned to real demand** — batch-wise scheduling tied to sales orders, MRP, and shelf life reduces both over-production and stockouts of key SKUs.
- **Clear batch-level profitability** — finance can see which batches and products are genuinely profitable once yield loss, rework, and scrap are accounted for, instead of relying on plant-wide averages.
- **Less manual, error-prone data entry** — direct integration with weighing scales, barcode systems, and lab equipment cuts down duplicate entry between the shop floor, lab, and ERP.



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