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# VectorMind AI for Tourism

**From booking to balance sheet: accurate billing, smoother operations, and happier guests.**

Accelerate reconciliation, billing, and guest care with auditable, industry-specific automation. Contact / call to action



Tourism operators manage high volumes of bookings across OTAs and direct channels, complex supplier settlements, seasonally variable capacity, and strict safety and regulator obligations. Fragmented systems, manual reconciliation, and slow exception handling increase costs, cause lost revenue and harm guest experience. CohesionX's VectorMind applies enterprise-grade Gen-AI across the tourism value chain to extract authoritative data from documents and streams, link provenance across records, automate allocation and reconciliation rules, and surface explainable recommendations in tenant-isolated, auditable deployments suited to global operators.

# Booking Aggregation, Channel Reconciliation & Revenue Recovery

Bookings come from many channels and formats; mismatches, duplicate reservations and failed preauthorisation leak revenue and frustrate operations. VectorMind centralises bookings, reconciles channel and PMS records and automates recovery and refund workflows to protect yield.

## How it works

- **Ingest:** Iris collects channel exports (OTAs, GDS, direct bookings), email confirmations, vouchers and payment gateway reports.
- **Extract & Normalise:** Iris extracts reservation attributes (booking ID, channel, rate components, passenger counts, add-ons, payment status) and normalises dates, currencies and tax treatments.
- **Reconcile & Enrich:** Neuroflow reconciles channel bookings against the operator PMS/booking engine and payment records, applying tolerance rules for duplicates, overbookings and failed preauthorisations. Atlas links booking confirmations, vouchers and payment receipts to build provenance for every reservation.
- **Recover & Orchestrate:** Neuroflow automates recovery actions (re-authorise cards, trigger chargebacks where appropriate, notify channel managers), updates availability, and opens exception cases with prefilled evidence where manual review is needed. Business GPT drafts standardised guest or channel communications supporting recovery and retention.
- **Write & Report:** Validated adjustments and recovered amounts are written to the finance ledger/ERP. Synaptic Search provides rapid queries into booking anomalies and historical resolution outcomes.



business GPT

## Gains

- **Faster detection and remediation** of failed preauthorisation and duplicate bookings.
- **Reduced revenue leakage** via automated recovery and channel adjustments.
- **Lower operational load on reservations teams** through automated reconciliation and templated communications.
- **Clear provenance for OTA disputes** and finance audits.
- **Improved availability management** and fewer guest-facing errors.



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# Supplier Billing, Cost Allocation & Accurate Customer Billing

Tourism margins depend on correct billing of supplier costs and accurate pass-through to customers; misallocation of municipal, supplier or activity costs causes margin erosion and disputes. VectorMind ingests supplier and service bills, applies lease or contract allocation rules and ensures ERP-accurate billing to customers.

## How it works:

Iris ingests supplier invoices, municipal bills, activity provider statements and runtime logs; Atlas links charges to contract clauses or booking rules and Neuroflow applies allocation formulas (per pax, per booking, fixed apportionment), validates totals, writes charge lines to ERP and issues accurate invoices or supplier settlements; Business GPT drafts dispute communications where exceptions arise.



**Accurate customer invoices | Faster end-to-end processing from bill receipt  
| Fewer disputes | Reduced manual reconciliation**

## More Tourism Use Cases



### Personal Concierge

Knowledge Nodes conducts the conversational intake, capturing traveller preferences, constraints & consent while Synaptic Search queries availability across flights, hotels & activities & surfaces matched options. Once the customer approves, Neuroflow executes bookings, writes confirmations to the PMS/CRM/ERP & manages change/cancellation workflows so travellers can book & manage trips through the same secure conversational channel.



### Capacity Planning & Yield Optimisation

Variable demand, supplier capacity and seasonal constraints make dynamic pricing and capacity decisions difficult. Iris and Synaptic Search consolidate booking patterns, supplier availabilities and historical demand; Business GPT recommends yield strategies and Neuroflow automates rate-change or allocation actions across channels with provenance.



### Safety, Incident Reporting & Regulatory Compliance

Safety incidents and regulatory obligations (licensing, passenger manifests) require rapid, auditable evidence assembly and action. Iris ingests incident reports, manifests, and inspection certificates; Atlas builds provenance graphs linking incidents to staff, vehicles and prior checks; Neuroflow enforces response workflows and reporting SLAs while Business GPT prepares regulator-ready narratives.



### Supplier Contract & Commission Management

Complex commission schedules, amendment tracking and supplier disputes cause revenue leakage and reconciliation overhead. Iris extracts clauses and commission terms; Atlas links amendments and historical settlements; Neuroflow automates commission calculations and reminders, posts settlements to ERP and opens exception cases for disputes.



### Fraud Detection & Payment Reconciliation

Chargebacks, fraudulent bookings and payment mismatches increase costs and operational risk. Iris ingests payment gateway reports and booking records; Neuroflow applies rule-based and signal-driven detection for anomalies and opens cases; Business GPT summarises potential fraud indicators and suggested next steps for investigations.



### Guest Experience & Complaint Resolution

Guest complaints across channels (email, social, in-destination) are handled inconsistently and slowly, harming reputation and repeat business. Iris ingests guest messages, reviews and incident reports; Atlas links these to booking and guest history; Neuroflow opens triage cases and routes tasks with SLA tracking; Business GPT drafts empathetic, policy-aligned responses and suggests compensations.



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VectorMind provides an affordable, easy-to-integrate Gen-AI solution, giving your employees access to the magic of all the top global commercial Gen-AI platforms, without exposing IP and sensitive data.



Get rid of tedious tasks & human error



Automate actions & set alerts



Always ensure factual AI answers



Homegrown affordable South African software

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