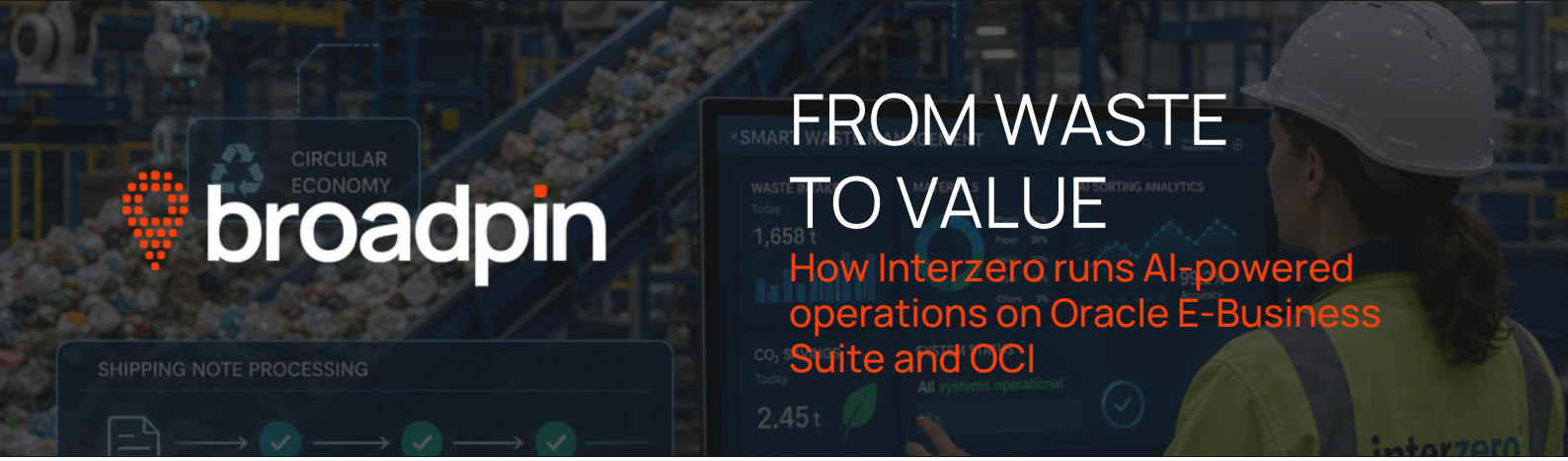

FROM WASTE TO VALUE

How Interzero runs AI-powered operations on Oracle E-Business Suite and OCI

20 yrs
On Oracle E-Business Suite

2M
Orders processed per year

35,000
Shipping notes now AI-assisted

›€100K
Legacy manual cost reclaimed

Interzero is one of Europe's leading circular-economy service providers. Together with Broadpin, they have turned a mature Oracle E-Business Suite footprint — running on Oracle Cloud Infrastructure since 2020 — into a platform for continuous, AI-driven improvement. This paper walks through three production use cases that share the same EBS + APEX + OCI foundation: self-service reporting through natural-language queries, internal chatbots and agents for contract management and glossary lookup, and multimodal document analysis for the daily flow of shipping notes. None of them is a standalone experiment. Each was delivered with the same end-to-end discipline — clean interfaces, governance, observability — that separates a proof of concept from a service people depend on.

The Customer: A World Without Waste

Interzero Europe GmbH is a pan-European service provider in the circular economy. Every day, Interzero's teams coordinate collection, sorting, recycling, and reporting across thousands of customer sites and supplier partners. The operational surface is large and heterogeneous: seven distinct business areas each run variants of the same core processes inside Oracle E-Business Suite.

The Foundation: EBS and APEX on Oracle Cloud Infrastructure

The Oracle E-Business Suite platform has been in production at Interzero for twenty years. Around 250 users work in it daily across Order Management, Purchasing, Inventory, and Financials. Two million orders flow through EBS each year, and many of Interzero's processes are non-standard enough to require substantial customization.

A large portfolio of Oracle APEX applications — for contract management, core data administration, reporting, mass-action, tooling, and IT monitoring — extends EBS directly from the same database.Since 2020, the entire stack has been running in Oracle Cloud Infrastructure. That migration was not the end goal; it was the starting point for everything that followed. Cloud modernization at Interzero has meant more than consolidated infrastructure — it has meant standardized processes, accelerated integration, fewer technical dependencies, and a stable foundation on which new capabilities can be released quickly.

The cloud has become, in Broadpin's own words, not just IT infrastructure but an enabler of continuous optimization of business operations.

That framing matters for the three use cases that follow: they were possible because the underlying platform had already been modernized and was being operated with cloud-native habits. They did not require a new platform — only a platform that was ready.

Three AI Use Cases in Production

1. Self-Service Reporting with Natural-Language Queries

Business users at Interzero need answers from EBS data without having to wait for a developer to write SQL. Broadpin implemented a natural-language query (NLQ) layer using Oracle Select AI inside an Autonomous Database. Users ask a question in plain natural language such as German, English or Spanish; Select AI generates the SQL, executes it against EBS data, and can narrate the result back. The familiar "show", "run", and "narrate" modes are all supported.

A deliberate architectural choice keeps this safe: only metadata (table structures and semantic comments written for the LLM) is stored in the Autonomous Database. The operational data remains in the EBS database; the NLQ user has read-only access to synonyms and, where appropriate, Virtual Private Database policies on top. Adding a new reporting domain takes roughly one day, end-to-end.

2. Chatbots and Agents on Oracle Generative AI

Interzero now runs several internal agents on Oracle Generative AI Agents. "AMI" answers business users' questions about contract management by combining two tools: a RAG tool over internal documentation, and a SQL tool that queries contract data directly. A routing layer decides which tool, or which additional agent, such as PortaleAI for customer- and supplier-portal questions, handles each request.

"LexiBot" is a stricter variant: a glossary assistant explicitly instructed never to answer from general knowledge, only from the connected knowledge base. If multiple departments define a term differently, LexiBot surfaces each definition separately with its source. If no definition exists, it states as much and points to the responsible team.

Both agents are multilingual, exposed as REST endpoints, and use Oracle-managed ingestion for chunking and embedding. Only metadata is held in the agent's vector store. Implementation time, as with NLQ, is measured in days.

3. AI-Driven Document Analysis for Shipping Notes

The highest-volume process sits in the mailbox. Interzero receives shipping notes (Lieferscheine) as email attachments from hundreds of partners. Formats differ by partner; scans can be hard to read; multiple delivery notes are often combined with an invoice in a single PDF. Before automation, every receipt meant opening the file, finding the relevant pages, reading the shipping note number, the order number, the quantity, and the unit of measure, then passing the result to the downstream booking process. At roughly two minutes per receipt and 35,000 receipts per year, Interzero was spending about 145 person-days and well over €100,000 on this step alone.

Broadpin built a cloud-native pipeline on OCI that now handles the workflow end-to-end. Mail arrives; the PDF is captured through middleware; an AI step splits the document into its constituent shipping notes, identifying which pages belong to which shipping-notice number; a second AI step extracts the fields that matter (po_number, shipping_notice_number, quantity, uom) into a strict JSON schema. Exceptions are logged and surfaced for review in the APEX application. Hard-to-read scans, handwritten corrections, and mixed PDF content—cases that used to break rigid OCR rules—are now reliably handled by multimodal large language models, with validation and fallback logic at every step.

Since Google's Gemini 2.5 family became available in Oracle Generative AI in the Frankfurt region, Interzero has been able to run this multimodal recognition regionally, which matters for both latency and data-residency considerations.

Model selection matters: a transparent comparison

Much of the business case for document analysis comes down to choosing the right model for the job. Broadpin benchmarked seven candidates against Interzero's document mix. The spread is striking — the most cost-efficient option delivers the required accuracy for roughly 4% of the cost of the most expensive one.

Model	Provider	Input $/1M	Output $/1M	€ / doc	€ / year
google.gemini-2.5-flash-lite	Oracle	0.093	0.372	0.00128	**44.92**
gpt-4.1-nano	Azure	0.12	0.444	0.00165	57.71
google.gemini-2.5-flash	Oracle	0.279	2.325	0.00409	143.22
gpt-4.1-mini	Azure	0.444	1.776	0.00613	214.45
gpt-5	Azure	1.404	11.196	0.02049	717.19
gpt-4.1	Azure	2.22	8.844	0.03063	1,072.01
google.gemini-2.5-pro	Oracle	2.325	13.95	0.03302	1,155.53

Interzero does not apply one model to every document. Routine cases go to Gemini 2.5 Flash-Lite; harder or ambiguous scans are escalated to a stronger model. The cost of that escalation is a rounding error against the original €100,000+ manual baseline.

What Interzero Got

- **Self-service analytics.** Business users answer their own questions against EBS data; reporting tickets that used to queue for a developer now resolve in seconds.
- **Grounded internal agents**. Front-line staff get precise answers about contracts, glossary terms, and portals from agents anchored to Interzero's own documents and data—not a generic model.
- **Automated shipping-note processing.** The document pipeline runs with validation, exception handling, logging, and observability. Manual effort drops sharply; data quality and process visibility rise.
- **Fast time-to-value.** Each use case went live in days rather than months, because the EBS + APEX + OCI foundation was already in place.

Broadpin's Approach: End-to-End, Not Bolt-On

A single "AI block" dropped into a workflow tool looks easy, but it rarely scales. Ad-hoc automation, built in isolation regardless of the low-code platform or workflow engine, tends to fail without a deliberate process architecture, governance, and quality mechanisms around it.
What works at Interzero is an architecture designed end-to-end—from data capture, through validation and approval, to booking and monitoring with:

- clean interfaces between each step;
- versioning on prompts, models, and schemas;
- testability and observability built in from day one;
- clear ownership for each component;
- governance that makes model selection an explicit, reviewable choice.

That is how a proof-of-concept becomes a production service and how a cloud migration becomes a platform for continuous improvement rather than a one-time project. Broadpin leverages deep expertise in Oracle EBS, APEX, OCI, and the AI services that enhance their daily operations. Schedule a conversation with our experts to define what a similar transformation could look like in your environment—and identify the concrete steps to get there.

Why This Matters for Your Organization

If you are running Oracle E-Business Suite, especially with a substantial APEX footprint, the pattern here is reproducible. A stable OCI foundation is the enabler; Oracle Select AI, Oracle Generative AI Agents, and multimodal large language models (now including Gemini in Frankfurt) are the building blocks; a disciplined delivery partner turns them into services your business can rely on.

Where You Can Start Your AI Path

For Oracle EBS customers looking to start their journey, three steps typically de-risk the first release:

- Confirm the foundation. Before any AI investment, verify EBS and APEX are on a cloud-native footing (OCI or equivalent) with predictable integration and release processes.
- Pick one high-volume, high-friction process. As an example, the Interzero shipping-note workflow was an ideal first target because the pain was quantified, the data was structured enough to validate, and the ROI was unambiguous.
- Design end-to-end from day one. Treat prompt, model, schema, and pipeline as first-class software artifacts. Version them, test them, monitor them.

About Broadpin

Broadpin is a trusted Oracle partner with global reach and deep local expertise, supporting 650+ clients across 30+ countries and 15+ industries. We help enterprises turn Oracle's AI, ERP, cloud, and industry-specific technologies into lasting business value, backed by best-in-class managed services.

About Interzero

Interzero Europe GmbH is a pan-European service provider in the circular economy, coordinating collection, sorting, recycling, and reporting for thousands of customers and suppliers. Seven business areas operate on a shared Oracle E-Business Suite and APEX platform — in OCI since 2020.

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Your solution is here.