

OptyAgent

The live intelligence layer for industrial optimization

When reality changes faster than planners can react, OptyAgent senses the change, triggers re-optimization, and explains the best next move.



Our Specialization and Strength



CT CORE PILLAR



Open AI
Powered
Industry
Copilots



Industry
Data
Model



SAP
Extend
&
Innovate



Migrations
&
Lakehouse
(non-SAP)



Low Code – No Code Platform



Containerization



Infrastructure



Security

THE CHALLENGE

Your optimizer is not broken. Your inputs are going stale.

The real problem is not bad math. It is that disruption signals arrive from too many places, too late, for late, for planners to keep the model current.



Operating conditions shift shift after the last solve

Maintenance changes, train delays, weather, supply events, crew constraints, and market moves can all invalidate a plan within hours.



Critical context is fragmented

Some signals come from IoT, systems and APIs. Others come from emails, notes, messages, and field handoffs.



Planners become manual integration engines

Teams spend time monitoring, reconciling, and explaining changes instead of making the next operating decision.



Optimization ROI gets diluted

The model may be sound, but stale inputs and slow reaction reduce the value the organization expects to capture.

The cost is not bad optimization. The cost is late reaction.

WHY OPTYAGENT

Beyond dashboards, copilots, and static optimization

OptyAgent combines visibility, decision rigor, and action into one operating layer for live operations.

Control Tower	Chat Interface	Traditional Optimizer
 Sees issues Dashboards and monitoring tools surface alerts and statuses. Good at visibility Weak on decision execution Usually stops at alerting	 Talks about issues Copilots answer questions and summarize information for users. Good at interaction Weak on optimization rigor Often disconnected from the model	 Solves the math Optimization engines produce the best plan, but only from the inputs they are given. Good at rigorous decisioning Weak on live signal intake Usually periodic, not event-driven

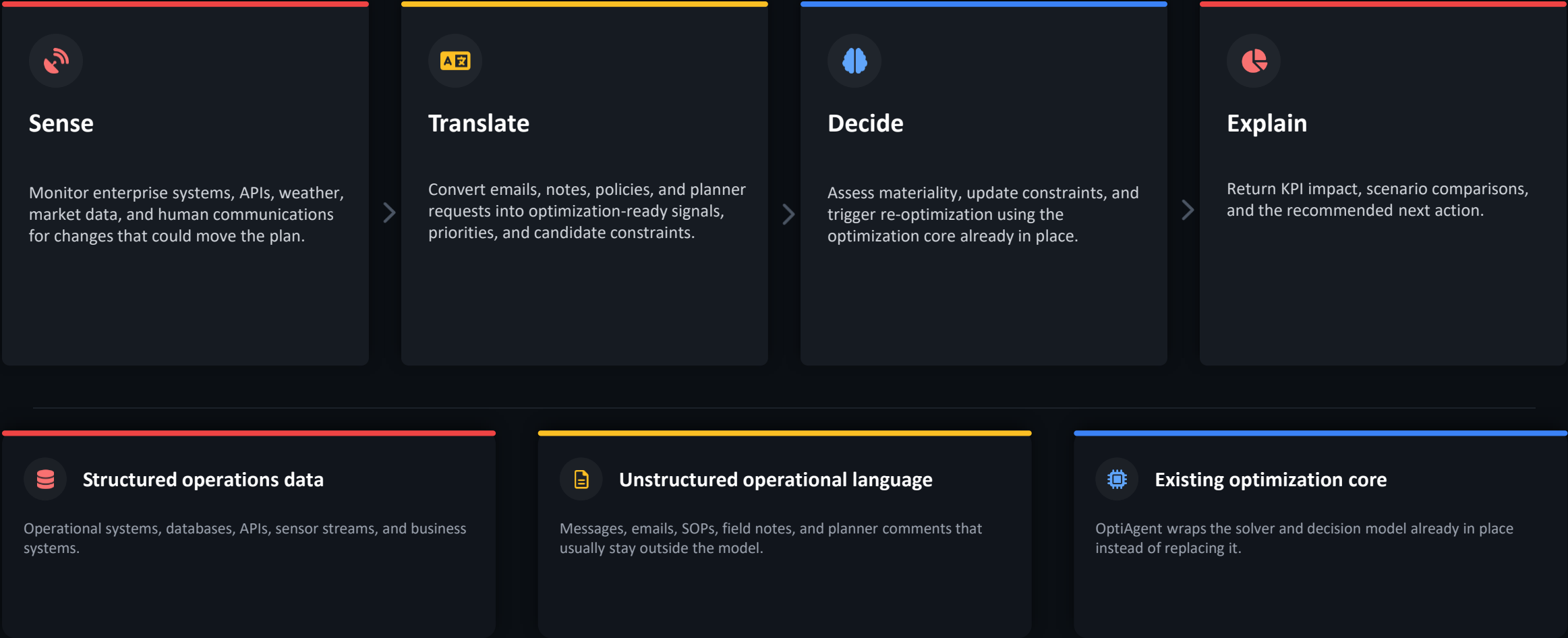
OptyAgent combines visibility, reasoning, and optimization.

It listens to live operational signals, decides whether the plan needs to change, triggers the optimizer, and explains the business impact in language operators trust.

HOW OPTYAGENT WORKS

Sense. Translate. Decide. Explain.

OptyAgent converts operational reality into optimization-ready decisions and user-ready actions.



Case Studies



Case Study – Oil and Gas Downstream Scheduling

Refinery copilot: disruption to decision in one loop

In refinery operations, small disruptions can quickly cascade into throughput, margin, inventory, and demurrage impact. OptyAgent closes the gap between disruption detection and corrective action.

DISRUPTION

Maintenance and logistics changes alter feed availability

A loading delay, port issue, crude quality exception, or maintenance event changes what the current refinery schedule can realistically support.

DETECTION

Signals are pulled from systems and communication channels

OptyAgent monitors operational feeds, external APIs, and human messages to identify whether the event materially affects the active schedule.

DECISION

The optimizer reruns with updated constraints

The schedule is regenerated using new timings, availability, blending, or inventory assumptions.

OUTCOME

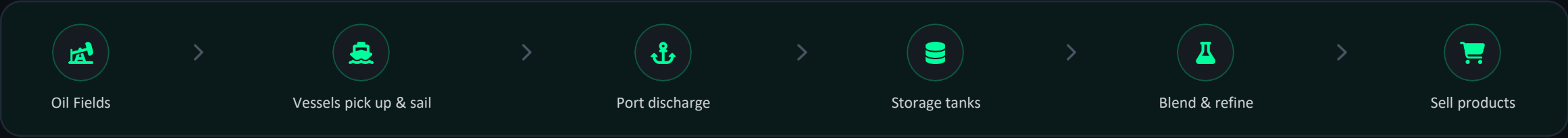
The planner gets KPI impact and a recommended response

Users see the effect on throughput, margin, demurrage, and inventory along with the recommended actions and stakeholder notifications.



Case Study : Oil and Gas Downstream Scheduling

Downstream process



What we built

Blend planning Mixed crude grades daily to maximize profit per barrel, within plant processing limits.	Vessel routing & scheduling Assigned each ship a route and pickup date — cutting heavy demurrage cost.	Inventory management Kept tank levels safe every day — never overflowing or running dry, with a 5-day lead time.
AI agents – reading & acting Agents monitored emails and live feeds. When anything changed, they re-ran the plan automatically.	Chat-based what-if analysis Planners typed questions like "What if this ship is late?" and got a new schedule in under 3 minutes.	Disruption management Ship delayed or oil unavailable? A new plan was ready in minutes — no manual rework needed.

Key outcomes

+ 1.2 % Annualized Profit Margin uplift*	+ 2.5 % Crude Throughput Increase*	Days to Minutes Planning Cycles Shift	- 55 % Reduction in Demurrage*
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*Expected Outcome

Case Study – Oil and Gas Downstream Scheduling

Refinery Copilot

Operational disruption workflow

Show me exactly how this will affect our current schedule.

Here is the projected impact on your current schedule:

CDU throughput drop: 286 kb in 40 days
Profit margin drop: -7.7%
Extra demurrage: \$480K

Would you like me to generate an optimized schedule to minimize these losses?

Show me the impact on my KPIs.

Avg CDU rate: **88.1 kb/d (Target 93 kb/d)**
Total crude margin: **\$46.8M**
Demurrage cost: **\$560K**
Net profit margin: **\$45.7M (-\$11.2M vs target)**

Optimize the schedule to reduce these losses.

Running optimizer... Done.

Throughput loss reduced: **286 Kb → 213 Kb**
Margin drop contained to: **-4.8%**
Extra demurrage: **\$0**

Would you like to review the detailed changes?

Projected Impact

[View report](#) [Summary](#)

Issue	Specifics	Status
CDU throughput rate	286 kb lost in 40 days	Warning
Profit margins	-7.7% projected drop	At risk
Extra demurrage	\$480K additional cost	At risk

ForecastIQ Widgets

Live

Crude Processing

Inventory Management

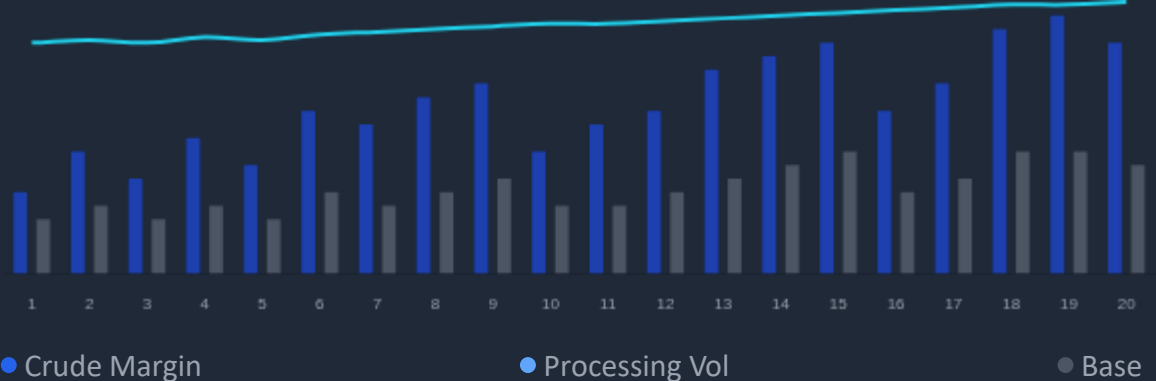
Vessel Schedule

CDU-1 Crude Margin & Processing Trend

Chart

Show Details

Breakdown



Case Study – RAIL YARD OPTIMIZATION

Rail yard optimization: live signals into a better switch list

The same operating pattern applies in rail: live signals improve the quality, speed, and reliability of switch-list decisions.

DISRUPTION

Train delays, crew timing, and yard exceptions change the feasible plan

The best switch list changes as inbound trains slip, crew windows move, or field priorities shift.

DETECTION

Signals come from feeds plus notes and field updates

OptyAgent converts both system data and soft operational context into optimization-ready planning inputs.

DECISION

The optimizer regenerates the switch list

The yard planning model reruns with the latest operating picture and current exceptions.

OUTCOME

Users get a new plan, rationale, and KPI effect

Planners can inspect the switch details, ask follow-up questions, and understand the business logic behind the recommendation.

70–80%

Faster planning*

40–50m

Saved per plan*

Sub-1m

Validated solve time*



Thank You
