

CM LABS SIMULATIONS INC.

comprehensive, data-driven simulation training management system enabling high-fidelity, zero-risk operator development

the challenge

Ports worldwide continue to struggle with a persistent safety-performance paradox: growing cargo volumes demand faster operations, while operator inexperience increases the likelihood of high-risk incidents and subpar operational performance. At Hanseatic Global Terminals' San Vicente Terminal Internationale (SVTI), located in Chile, this challenge was amplified by a workforce composed of 49% temporary labour and a steady inflow of new operators with limited experience on Mobile Harbour (MHC) and Ship-To-Shore (STS) cranes. In addition, equipment failures and a lack of standardization in operator training put pressure on productivity and threatened safe execution of cargo handling during vessel operations.

SVTI needed a solution that would:

- Build operator competency rapidly without compromising operational safety
- Reduce inexperienced operator errors
- Move mid-level (Tier-2) operators into higher-level Tier-1 roles safely
- Provide a consistent training methodology that accounted for individual learning curves
- Reduce over-reliance on high performers to meet productivity goals
- Improve reliability and customer trust through a standard, measurable training program

Installing the Intellia Training System with CM Labs' high-fidelity crane simulation training technology allowed SVTI to confront these challenges head-on. Intellia's data-driven operator assessment and structured curriculum transformed training from reactive and experience-based to proactive, measurable, and safe.

the innovation

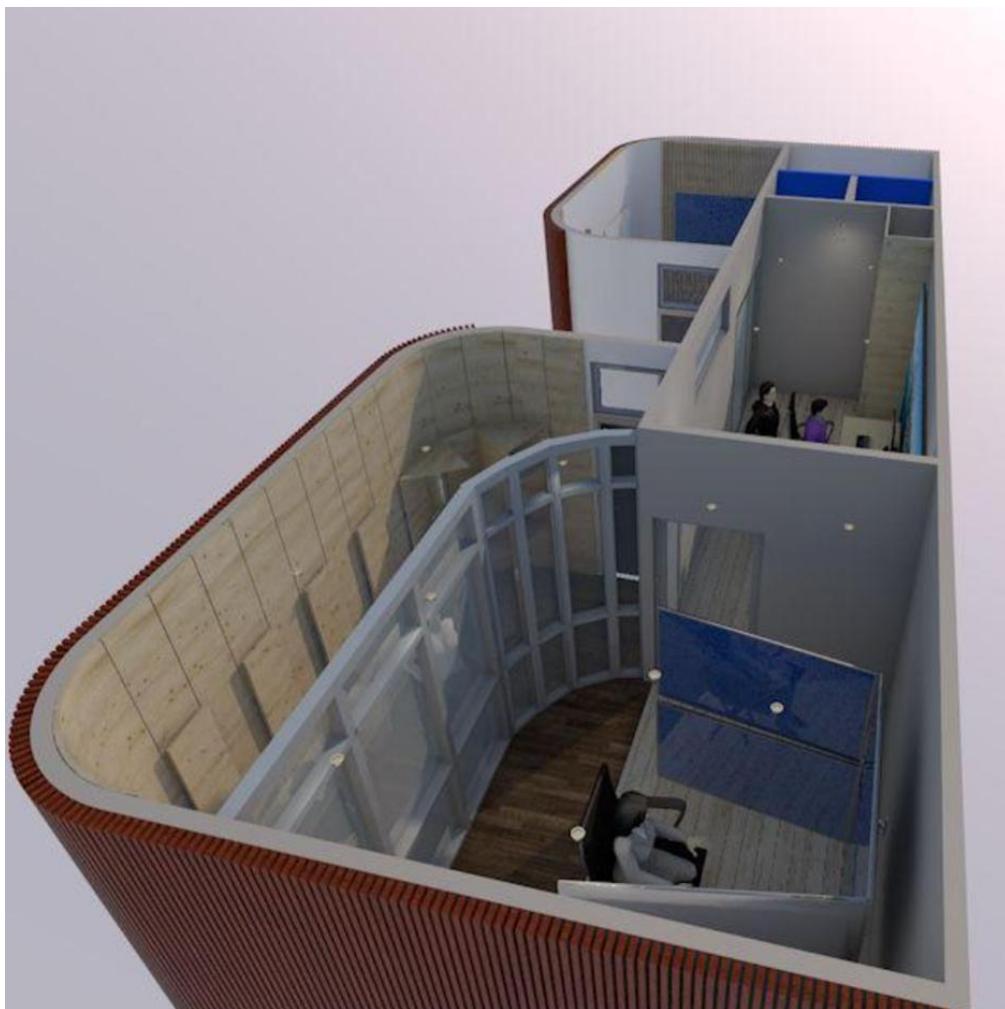
SVTI deployed CM Labs' Intellia Training System, a comprehensive, data-driven simulation training management system enabling high-fidelity, zero-risk operator development for MHC and STS cranes. The innovation integrates three core elements:

- **A Scalable, Structured Training Program** – The curriculum established by SVTI and CM Labs reinforces safe operation first, followed by progressive productivity gains. Intellia's data engine ensures that improvement is documented objectively and shared easily with internal stakeholders.
- **Intellia Training Management** – Analytics that provide detailed operator scoring, learning-path tracking, competency benchmarking, and error detection, all enabling



instructors to tailor training to each operator's profile. Intellia provides measurable, consistent evaluations of productivity, safety behaviours, and quality of execution.

- **Advanced Training Simulators** – CM Labs' true-to-life crane physics and immersive environments mirror the operational behaviour of the heavy equipment, enabling operators to train safely on complex manoeuvres and hazardous scenarios that cannot be introduced in live operations.



Together, this innovation allowed SVTI to train new and cross-trained operators in a controlled, measurable way, reducing risk, accelerating learning, and reinforcing a culture of safe, reliable crane operation. The focus on mid-tier operators ensured the biggest operational gains, elevating the performance of the workforce segment that drives day-to-day productivity and safety outcomes.

how it was implemented

SVTI collaborated with CM Labs Simulations experts to deploy the Intellia Training System as the foundation for a multi-phase operator-development initiative. Implementation included:

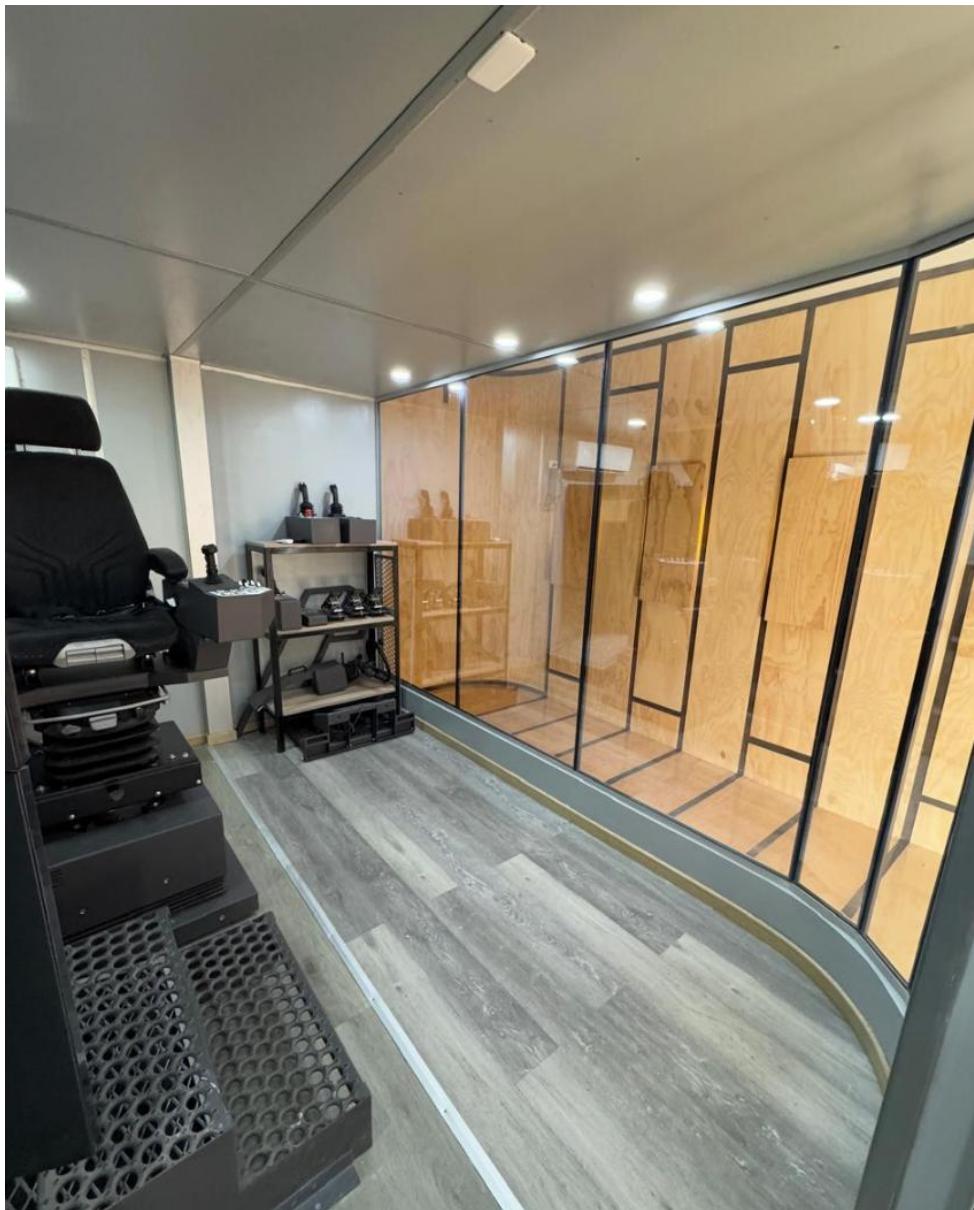
- Designing a training progression that prioritised safe execution and high-level performance
- Installation of Intellia simulators and crane simulation curriculum for MHC and STS



- Configuration of operator profiles, training paths, KPIs, and performance analytics
- Running baseline assessments for all participating operators
- Establishing regular simulator sessions aligned with vessel schedules and shift rotations
- Using Intellia reporting to compare performance to planned productivity and safety benchmarks

SVTI implemented training for both inexperienced operators and those transitioning from MHC to STS. Intellia's analytics made it possible to identify regressions early, track differences in individual learning rhythms, and confirm operator readiness before stepping into live operations.

This structured, data-informed approach ensured that the training effort aligned directly with SVTI's operational needs, maintenance realities, and productivity targets.



what was the result

The Intellia-enabled simulator training program produced clear, measurable safety and productivity improvements:

For MHC operators:

- 16 new operators trained
- 41 targeted simulator exercises completed
- 5.13% productivity improvement
- 11% improvement in first-operation quality (zero-error rate)

For STS operators:

- 7 operators trained (new to STS)
- 8 simulator exercises completed
- 14.5% productivity improvement
- 14% improvement in zero-error quality

The program also reduced performance variability between operators, enabling SVTI to confidently elevate Tier-2 operators into Tier-1 roles — directly supporting safe, consistent vessel operations.

Business outcomes were also substantial:

- 2024 container transfer volume increased 43% YoY
- Export traffic rose 30%
- Import traffic rose 26%
- Simulator-based training reinforced customer confidence by demonstrating a commitment to operational safety and performance reliability.

Overall, Intellia established a permanent, scalable training capability that continues to reduce errors, shorten learning curves, and safeguard operations in one of the region's busiest terminals.

conclusion

SVTI's adoption of the Intellia Training System represents a decisive shift toward a safer, more data-driven workforce development model in the ports industry. By combining high-fidelity crane simulation with deep operator analytics, SVTI created a training environment where safety is measurable, reproducible, and directly connected to business results.

This innovation not only improved operator readiness but also strengthened terminal reliability during a period of rapid cargo growth. Intellia's structured insights help SVTI

continuously refine training plans, reduce operational variance, and maintain alignment with service-level expectations from global shipping partners.

The system is now a permanent component of SVTI's workforce strategy. It is a scalable asset that supports long-term operator development and strengthens day-to-day safety across the terminal. Its consistent use has also created a more sustainable approach to training: one that reduces operational strain, preserves equipment, and provides a dependable path for building skills over time. As a result, SVTI can demonstrate to its customers that it has the people, processes, and capacity to handle their cargo safely and reliably, reinforcing trust in the terminal's performance.

LINK: <https://www.cm-labs.com/en/>



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