Integrating Business Simulations into Operations Management Education

A Case Study from Corvinus University of Budapest

Executive Summary

Corvinus University of Budapest, a leading institution in business education, has successfully integrated the EDUardo business simulation platform into its Operations Management course, providing students with practical, decision-based learning experiences.

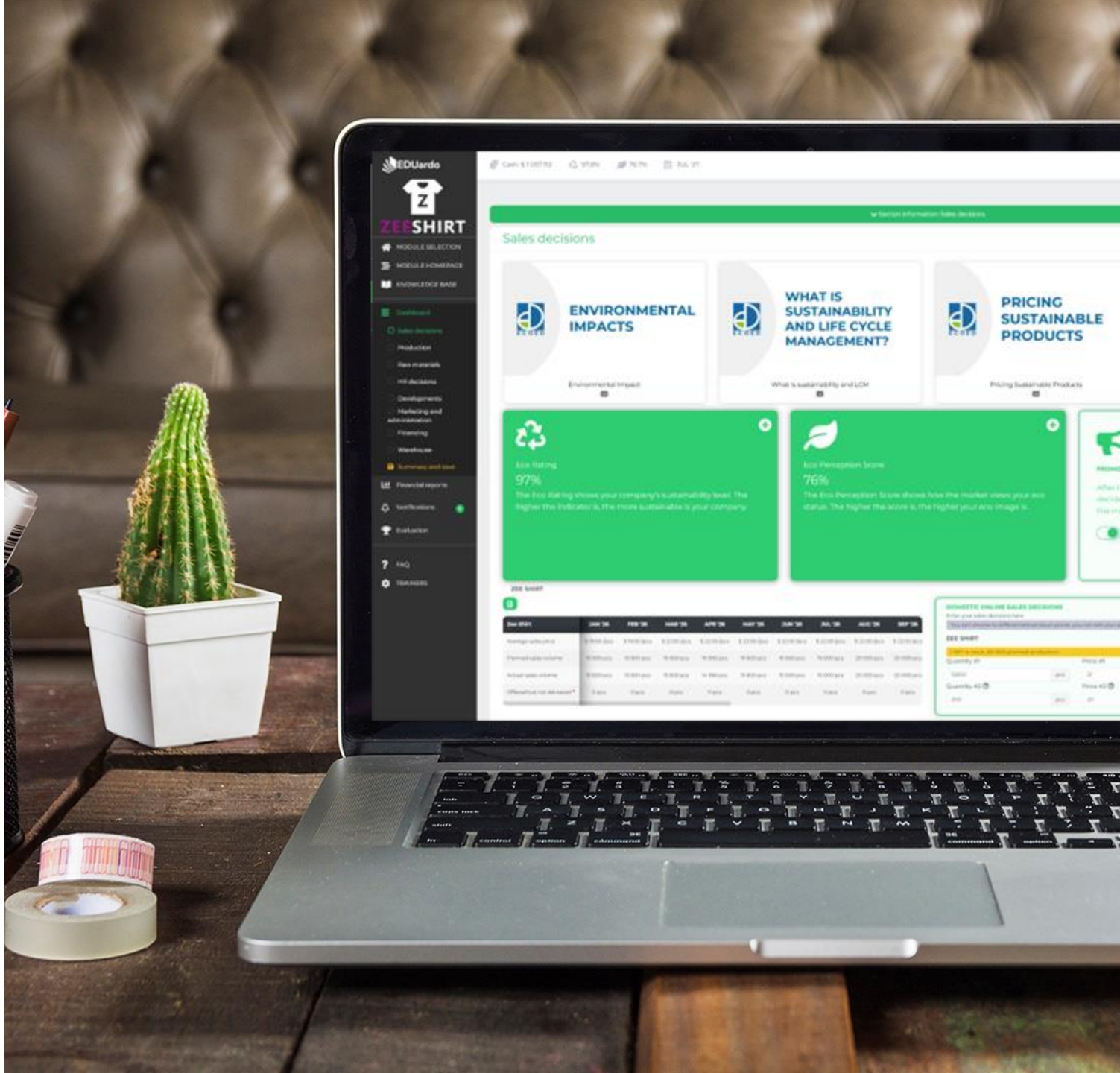
The course was delivered by a team of six university lecturers.

The course employed EDUardo's Sustainability Module (co-developed by EDUardo and EcoEd) to enhance theoretical knowledge with real-world challenges.

This case study outlines how the simulation was embedded into the curriculum, the educational approach, the outcomes observed, and the student feedback gathered during the program.

The results demonstrate the value of simulations in improving student engagement, understanding of complex processes, and strategic thinking.

EDUardo



Background & Context

At Corvinus University, the Operations Management course forms part of the fourth-semester curriculum within the Business Management BSc program.

As students encounter operations management for the first time, the course introduces them to essential concepts of process-oriented thinking, where inputs are transformed into outputs through resource utilization and transformation mechanisms.

The curriculum covers a wide range of topics, including operations design and performance, layout decisions, supply chain management, capacity management, inventory control, quality management, and lean management.

To complement these theoretical foundations, the lecturers introduced the EDUardo Sustainability Simulation Module, under the coordination of **Prof. Zsolt MATYUSZ**.

Zsolt MATYUSZ, Ph.D Habil.
Habil. Associate professor
Institute of Operations and Decision Sciences,
Department of Supply Chain Management
Program director of MSc in Supply Chain Management

Corvinus University of Budapest

The primary goals were to:

- Help students experience the complexities of operations management decisions in a safe, controlled environment.
- Allow students to face real-world dilemmas, trade-offs, and resource allocation challenges.
- Integrate sustainability considerations into operations thinking, reflecting growing industry relevance.

While the simulation schedule was not fully synchronized with the textbook chapters, it served as an "eye-opener" early in the course, exposing students to concepts they would explore in greater depth later in the semester.

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Implementation & Experience

The EDUardo simulation was embedded directly into the course schedule, forming a significant component of the students' overall evaluation. The grading breakdown included:

- Quizzes and final exam: 50%
- EDUardo simulation: 30%
- Class participation and activities: 20%

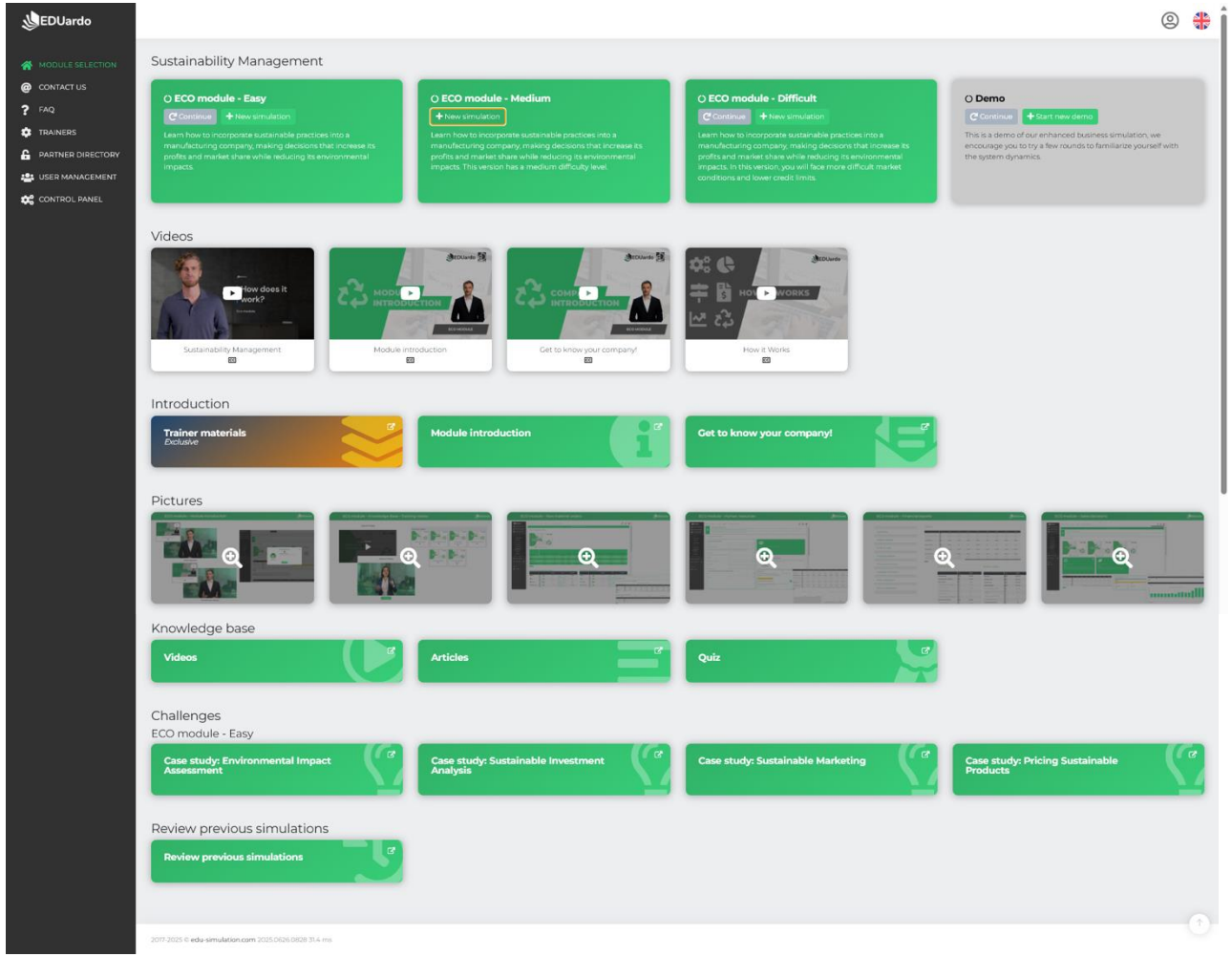
Phase 1: Individual Practice

Each student received individual access to the simulation platform. The module consisted of three sub-modules reflecting different difficulty levels: easy, medium, and difficult.

During the practice period, students explored the simulation individually, using their own access credentials to complete the easy and medium levels.

These practice runs allowed students to familiarize themselves with the interface, key decisions, and overall logic of the simulation.

Joint classroom sessions were also conducted to provide live demonstrations, Q&A opportunities, and additional support.



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Phase 2: Main Stage - Team Collaboration

At the main stage of the course, students were asked to form teams of three. Each team collaborated to develop a strategic approach for the simulation, which now used the difficult version of the module. Teams accessed the simulation using one selected team member's account for the live sessions.

Prior to starting the live rounds, teams submitted a detailed strategic plan outlining their objectives, chosen sustainability focus, and intended decisions. They were allowed to run the live simulation up to a maximum of two times. The better result of the two attempts was used for evaluation.

Teachers were able to monitor students' activities both through a dedicated team report and by viewing individual runs, allowing for effective oversight and support throughout the process.

To accommodate diverse learning paths, students were allowed to choose from multiple strategic directions:

- Full sustainability focus (green strategy)
- Semi-sustainability (balanced approach)
- Conventional high-volume, low-sustainability mass market strategy
- Optional inclusion of "greenwashing" elements as a strategic choice

In total, more than 180 students participated in the simulation. They were assigned to 6 seminar groups, coordinated by the university lecturers involved in the course delivery.

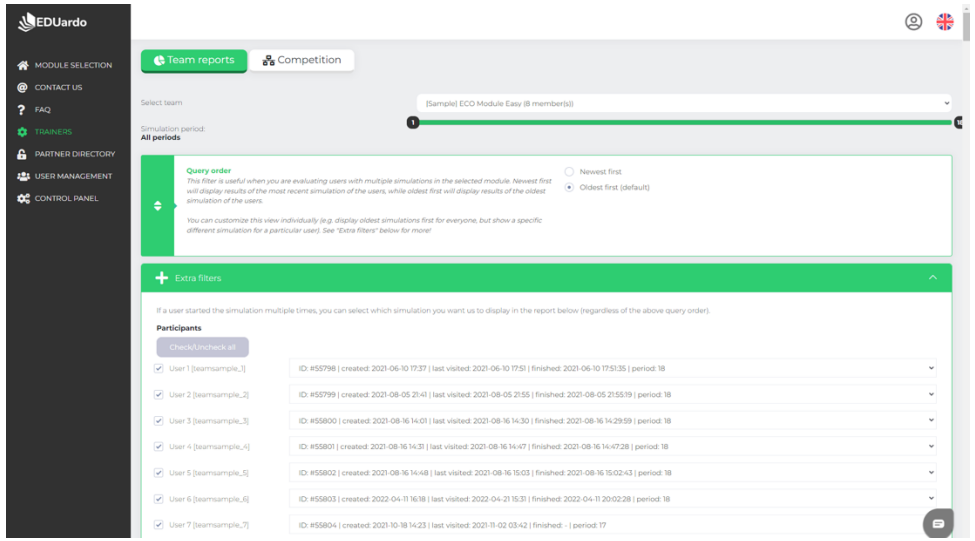
Within these seminar groups, students formed over 60 working teams, with each team consisting of 3 members collaborating throughout the simulation.

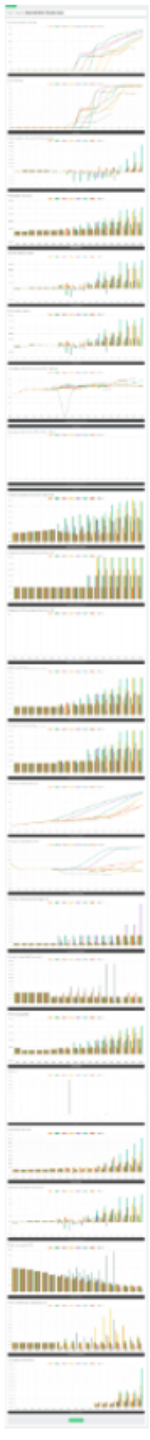
Phase 2: Main Stage - Team Collaboration (cont.)

The simulation platform supported flexibility, allowing both large cohort introductory sessions and detailed seminar-based discussions.

Instructors could manage up to 60+ groups simultaneously, significantly reducing administrative complexity compared to many competitor platforms that require strict cohort segmentation.

The faculty team, including both experienced and newly involved instructors, coordinated closely, using common templates for strategy submissions and evaluation matrices to ensure consistent grading standards.





Eco Perception Score

Eco Rating

Cash level at the end of the period

Net sales revenue

Profits before taxes

Profit after taxes

Average sales price (Zee Shirt - Basic)

Average sales price (Zee Shirt - Pro)

Factory headcount (end of period)

Capacity of the production line "A"

Capacity of the production line "B"

Sales summary (All products, All channels)

Production summary (All products)

Product awareness (%)

Product reputation (%)

Monthly Marketing Budget (€)

Current overdraft amount

Working capital

EBIT %

Acid test ratio (%)

Return on assets (ROA) (%)

Debt-to-equity (%)

Own warehouse capacity (%)

Company valuation

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Learning process

Introduction and Training

Students receive introductory materials and demonstrations of the simulation platform

Practice

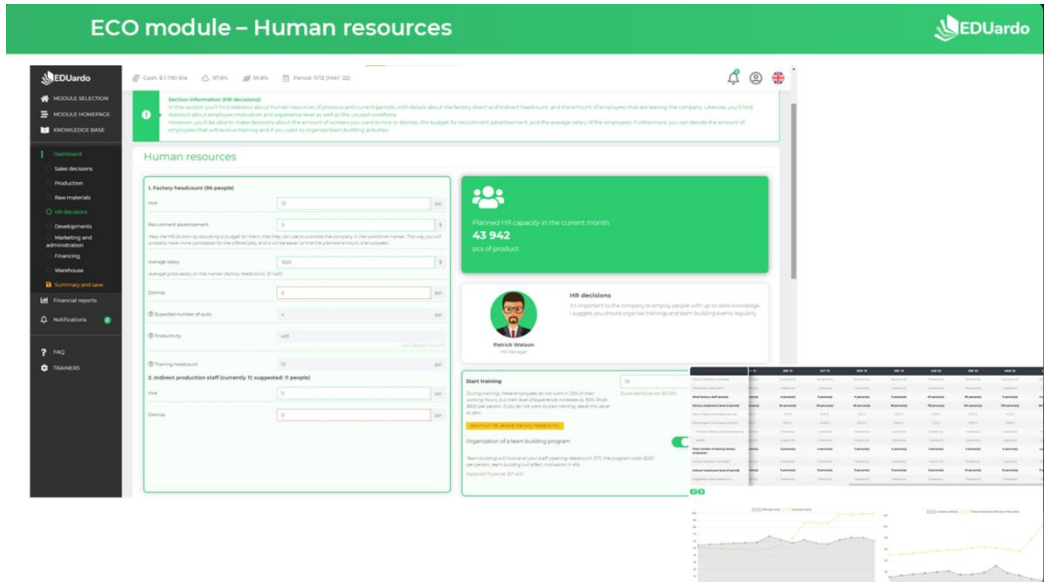
Students explore the simulation individually at multiple difficulty levels

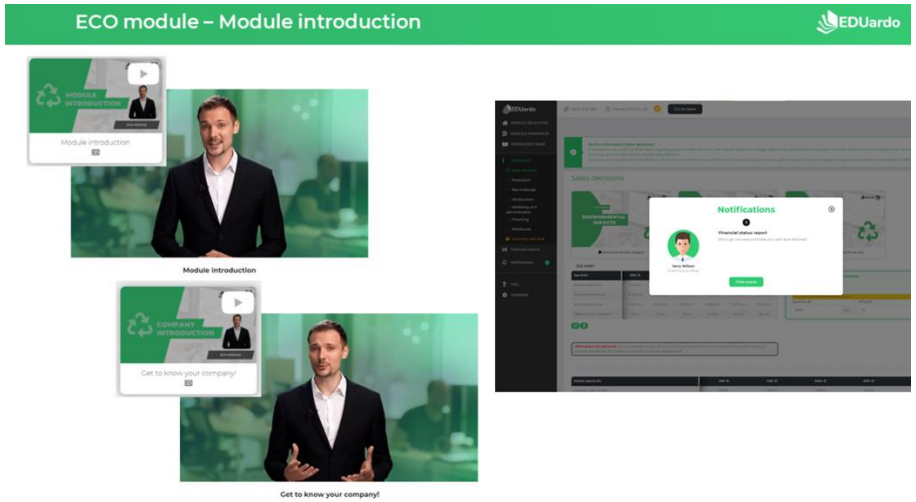
Live Simulation

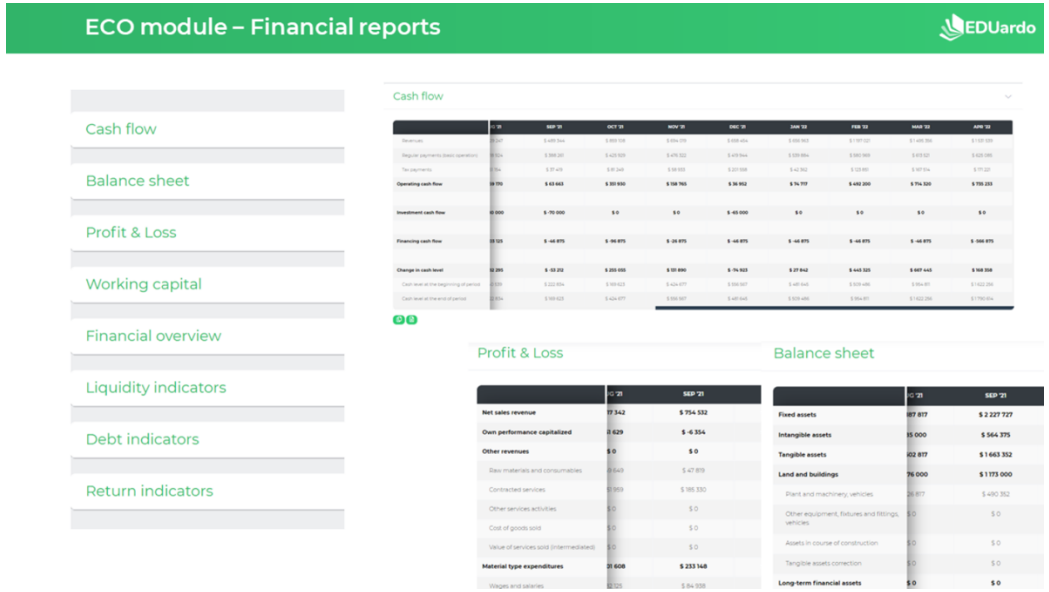
Students collaborate in teams to run the simulation at full difficulty

Reflection and Analysis

Students reflect on their strategy and the outcomes of the simulation





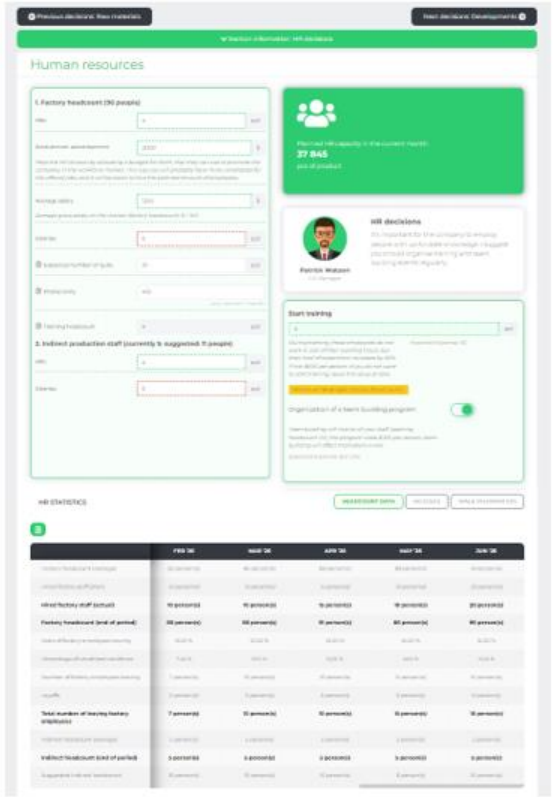


Outcomes & Benefits

The simulation experience yielded highly positive feedback from both students and instructors:

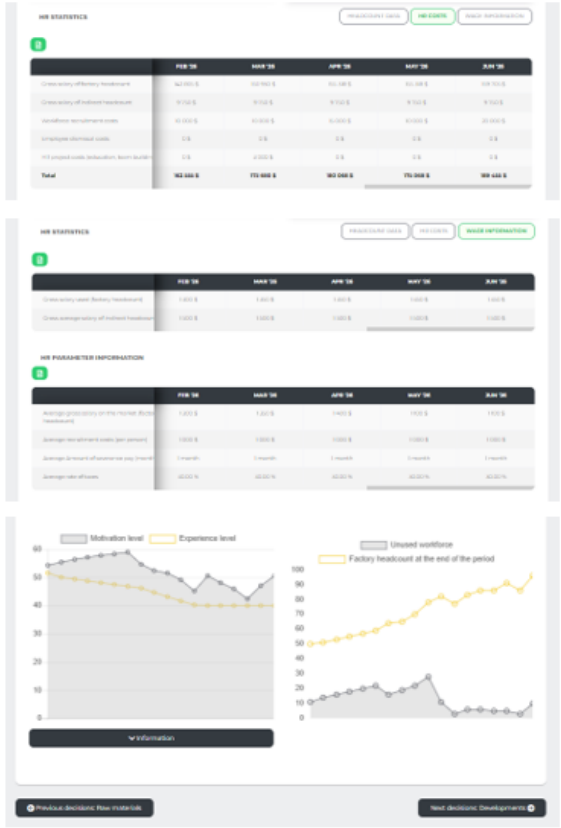
- Increased Engagement: Students appreciated the practical, hands-on nature of the simulation, which helped them understand how theoretical concepts interconnect in real business scenarios.
- Enhanced Learning Retention: Through trial-and-error decision-making, students internalized lessons about capacity, inventory, resource allocation, pricing, and sustainability trade-offs.
- Diverse Strategic Thinking: Students successfully adopted varied strategic approaches, demonstrating both creative and analytical thinking.
- Clearer Expectation Management: The introduction of standardized templates for strategic plans and evaluation improved submission quality and made grading more efficient and transparent.
- Positive Student Feedback: Students expressed enthusiasm for the simulation's real-world relevance, with many requesting even more extensive use of simulations in future courses.

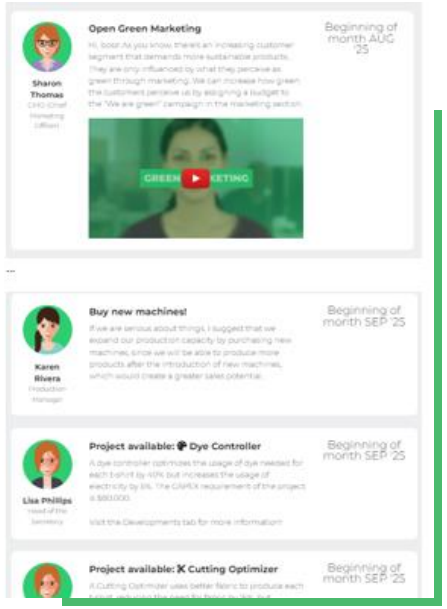
Professor MATYUSZ emphasized that the flexibility of EDUardo allowed him to focus grading not merely on absolute financial outcomes but on the coherence and execution of each team's declared strategy. This approach helped reduce student anxiety and supported more meaningful learning outcomes.


Human resources
HR decisions
Start training
HR STATISTICS


Developments
Available projects
Product care instructions
Completed projects
Cutting Optimizer
Expired projects


MARKET RESEARCH
Sales and marketing organization decisions
Set an organizational budget
PRODUCT REPUTATION (%)
PRODUCT AWARENESS (%)
MONTHLY MARKETING BUDGET (€)

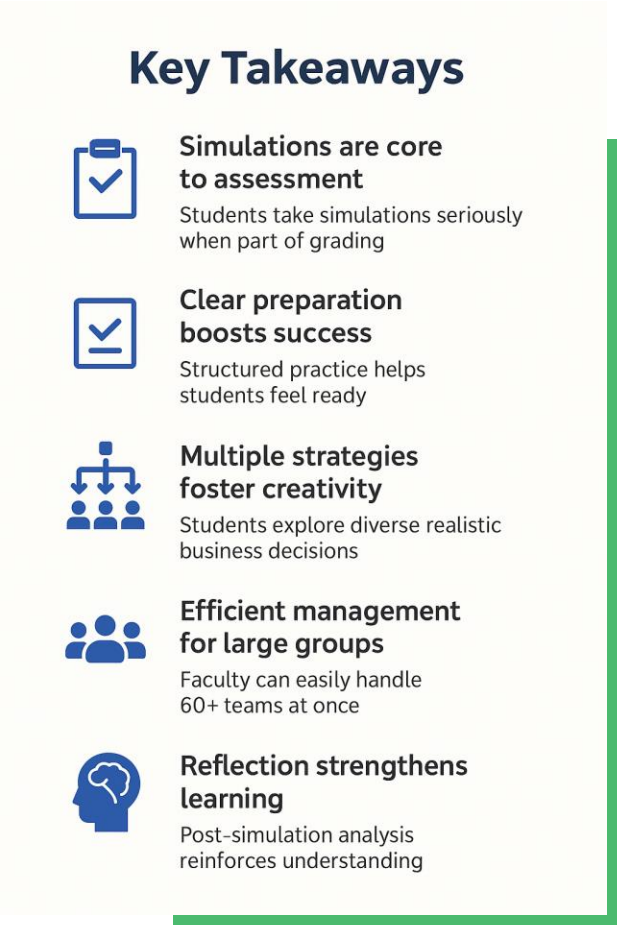

HR STATISTICS
HR PARAMETER INFORMATION
Motivation level
Experience level
Unused workforce
Factory headcount at the end of the period


Open Green Marketing
Beginning of month AUG '25
Buy new machines!
Beginning of month SEP '25
Project available: Dye Controller
Beginning of month SEP '25
Project available: Cutting Optimizer
Beginning of month SEP '25

Key Takeaways

The case of Corvinus University's Operations Management course highlights several best practices for successful simulation integration:

- Embedding simulations as a core, weighted component of course evaluation increases student commitment and seriousness.
- Providing structured preparation, practice rounds, and clear expectations sets students up for success.
- Allowing multiple strategic paths encourages creativity while reflecting real-world business variability.
- Scalable simulation platforms like EDUardo enable efficient management of large cohorts without compromising learning quality.
- Reflection assignments deepen student learning by reinforcing the connection between theory and practice.



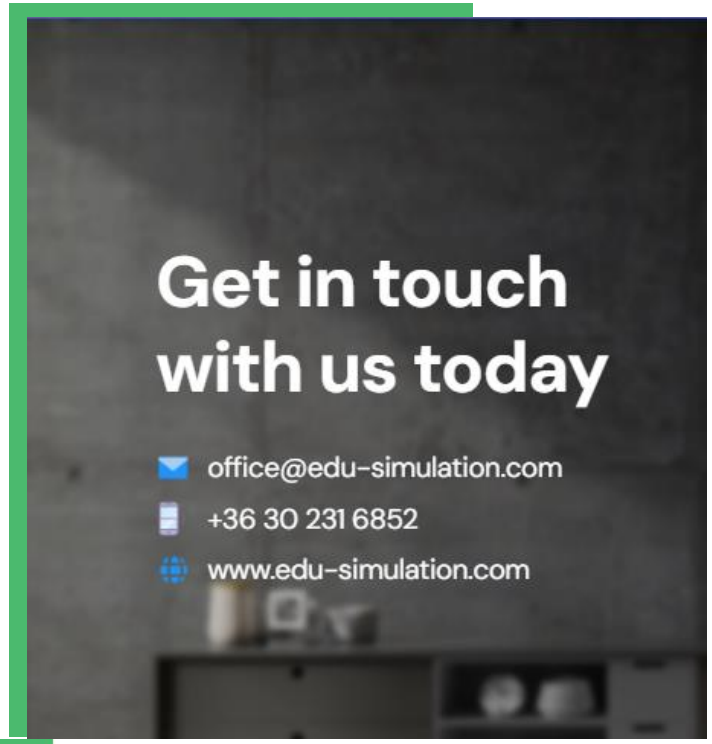
As business education continues to evolve, simulations like EDUardo offer institutions a powerful tool to bridge the gap between academic theory and practical application, enhancing both student engagement and employability.

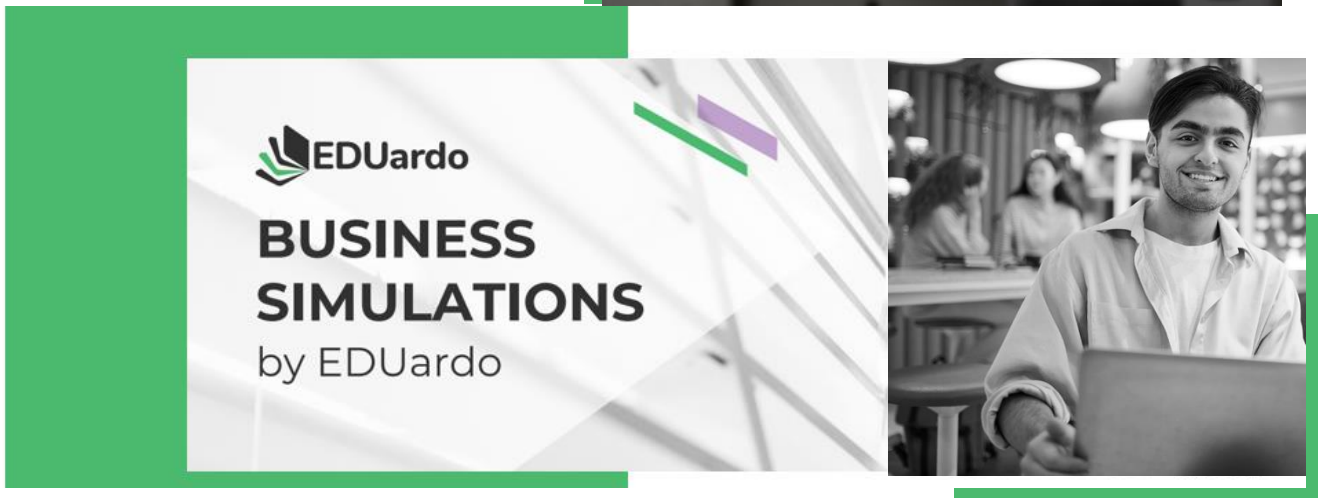
EDUardo

Danilo Granato,
EcoEd

Working with EDUardo team is fantastic. They are incredibly talented; they implemented many features that seemed hard to us. Moreover, I loved the collaborative way of working. We shared and discussed ideas and reached a consensus which was much better than I originally thought.

The platform overall is groundbreaking for modern education. It encompasses all the characteristics for fast, yet profound learning.





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