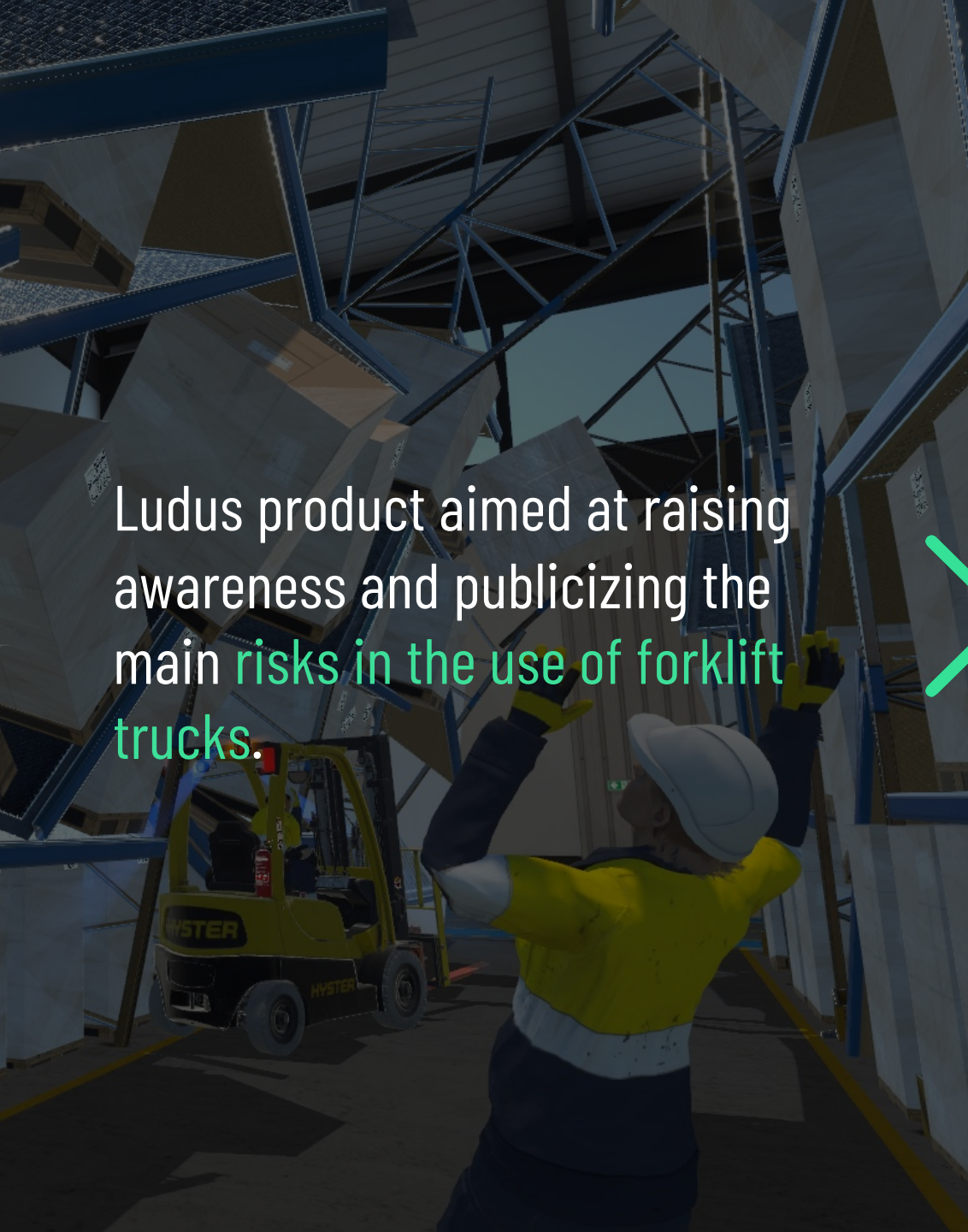


# Technical Sheet



*Forklift risks*



Ludus product aimed at raising awareness and publicizing the main **risks in the use of forklift trucks**.



## ***Forklift risks***

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- The objective is to offer the trainer a virtual scenario in which the student can learn about the **most common risks** in the use of forklift trucks and experience the consequences.
- The student must witness different risk situations, as well as perform routine tasks by themselves in which there may be risks.
- The student may be evaluated through questions related to the accidents or situations that he/she has experienced.
- **This product includes risks related to EPI, general safety and signaling regulations.**





01

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## Simulation Content

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# Exercise description

## Simulation content

.....

This product offers the trainer different **risk situations** in which the student must:

Perform tasks related to the **use of forklifts**



Experience different **risk situations in first person**



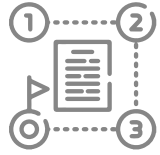
**Observe** how other workers deal with risk situations



**Answer questions** related to accidents or situations you have experienced







## Product Description

### Dynamic

This product is ready to be used following this **dynamic**:

1

The trainer selects the risk situations that he/she wants to work on in the classroom.

2

The student puts on the virtual reality glasses and **completes the tasks** for each risk situation that the trainer has selected.

3

After each risk situation, both the student and the rest of the classroom are offered some **conclusions**.

4

The trainer can use these conclusions **to reflect** on the risk and/or open a group discussion.



## Exercise Description

### Forklift type

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One of the most common forklift types will be included in the first version of this product:

Electric Counterbalanced Front End Truck





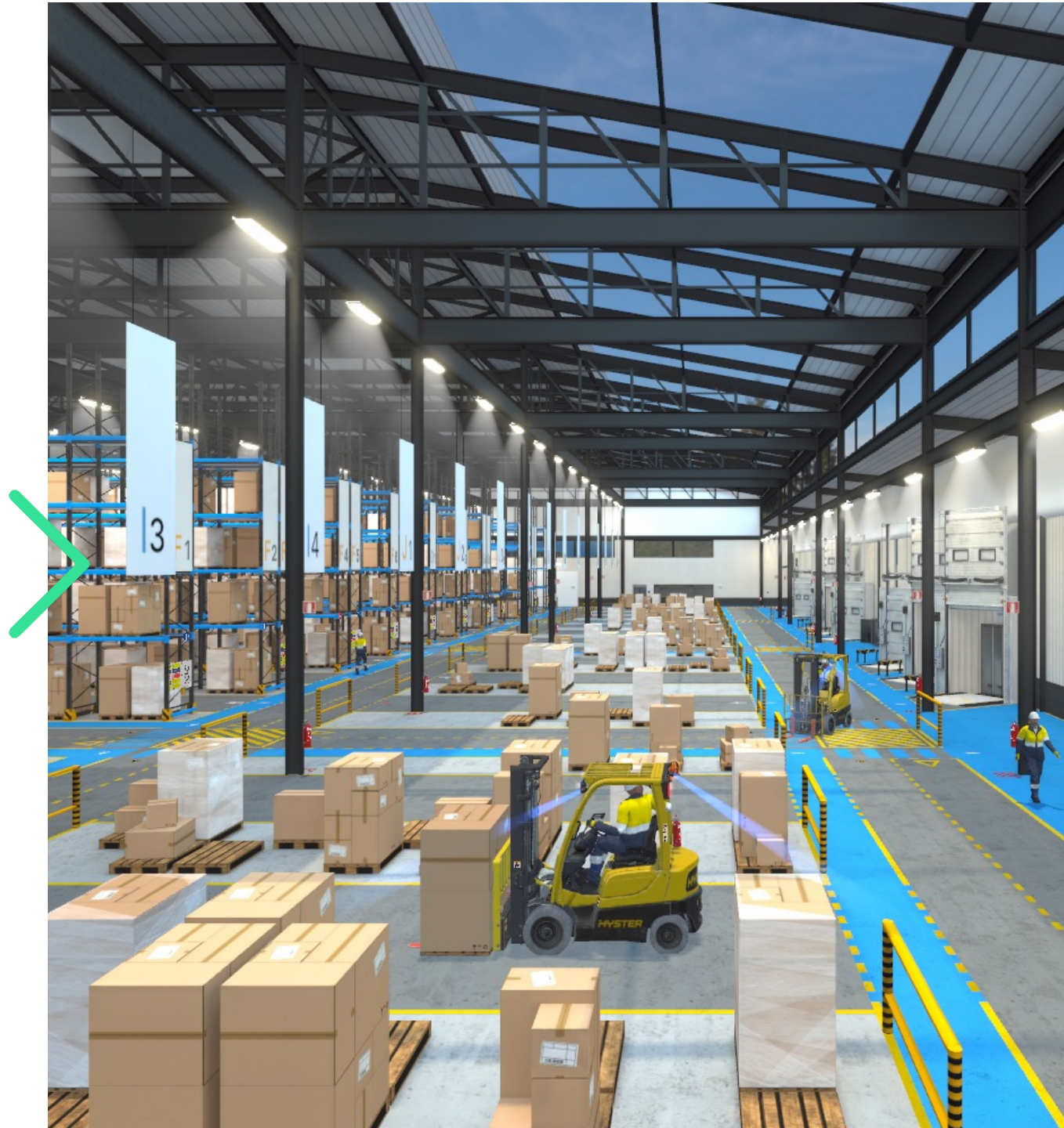


## Exercise Description

### Scenario

.....

In the first version of this product, an **industrial warehouse** scenario with different associated risk situations will be included.







## Risk situations included

### Run over for backing up without looking

An operator is run over by another operator who is driving the forklift backwards **without looking**.

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### Hit or run for failing to slow down or stop at an intersection or gate

An operator is run over because another operator has not complied with **safety regulations**.

### Running over of the forklift for not driving in reverse with a freight that does not allow visibility

An operator drives with **a freight that does not allow visibility**. Instead of going backwards, it starts to go forward and runs over another operator.

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### Overtuning when driving down a ramp and turning on the slope

The operator lowers the ramp with the load at the top of the ramp. Before leaving the ramp, it turns and **overturns**.

### Run over for trying to avoid an obstacle

In one of the paths of the stage there is a **box blocking**. A pedestrian trying to avoid it leaves the safe zone and is run over.

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### Incident due to falling loads

During the unloading of a side truck, an operator **overloads** the truck. When reversing with the mast tilted, the load comes forward and **loads fall**.



## Risk situations included

Collision and overturning against a door due to carrying the mid-mast raised

Reversing through a door causes a collision with the upper part of the door, producing a forward overturn.

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Shelving collapse

An operator hits a shelf that had one of the uprights **unprotected**. The rack collapses on the operator.

The driver falls for not wearing the seat belt and the truck falls on top of the driver

The operator is going too fast and when turning he falls from the truck (without a belt) and the truck falls on him..

---

Entrapment due to overweight and counterweight

To lift a very long load, a person gets on the truck from the rear to try to counterbalance it. A second person tries **to hold** the machine from below. The load suddenly falls and the truck catches the leg of the operator who was supporting it from the ground.

Falling object on the head due to leaning out

An operator is lifting a **badly shrink-wrapped load**. During the manoeuvre, he decides to look out from the side and an object that comes off hits him in the head.

---

Use of EPI

The student must choose the **appropriate EPI** to access the forklift.



## Inspection Checklist

.....

In addition to risk situations, there is an **additional inspection task**.

- In this task, the student must **pass the inspection checklist** of a forklift prior to its use. The objective is for the student to become familiar with the checklist and the inspection of the machine and its components.
- The student must look at the elements of the truck and mark all the elements of the checklist.

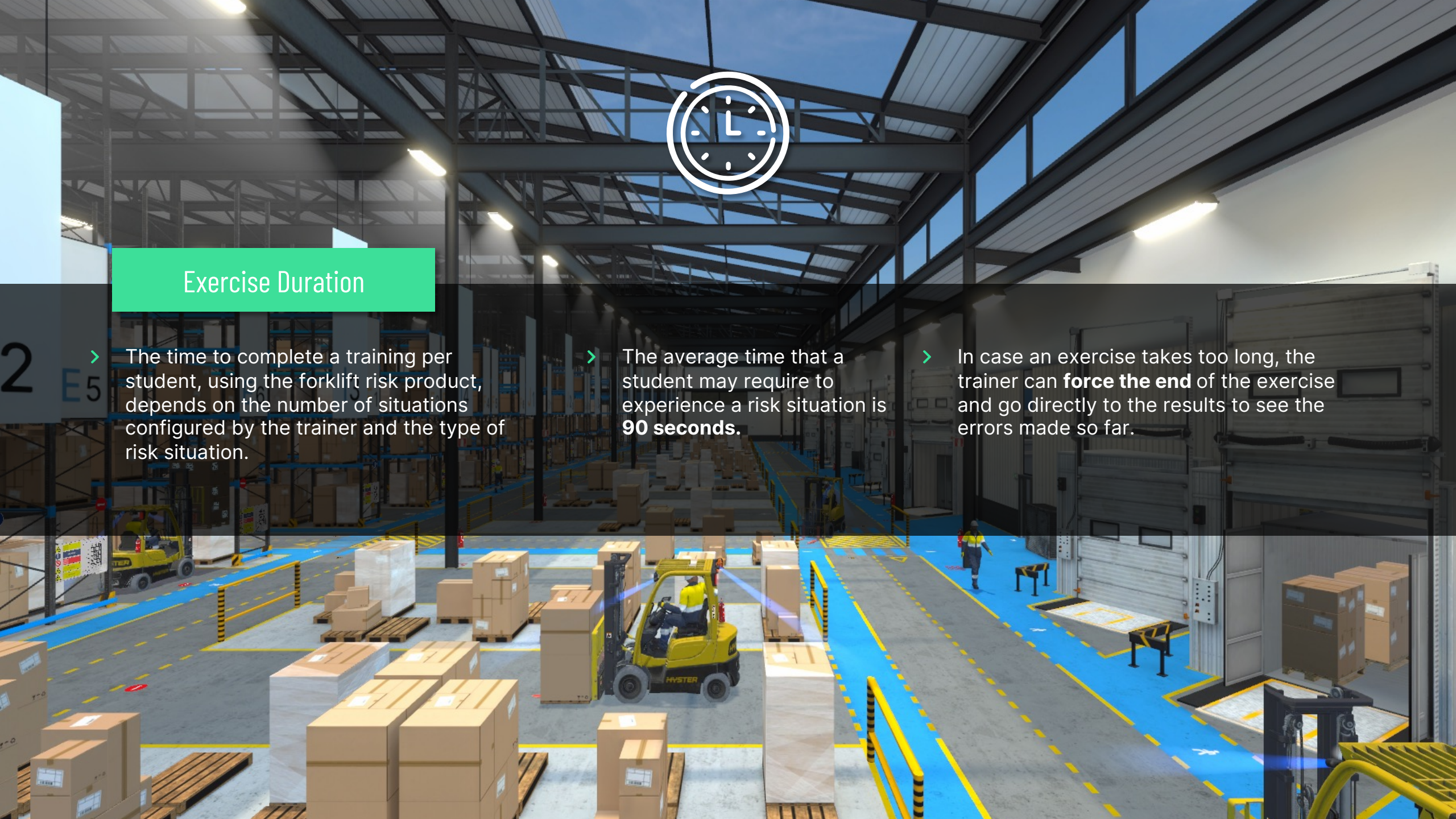






## Exercise Duration

- > The time to complete a training per student, using the forklift risk product, depends on the number of situations configured by the trainer and the type of risk situation.
- > The average time that a student may require to experience a risk situation is **90 seconds**.
- > In case an exercise takes too long, the trainer can **force the end** of the exercise and go directly to the results to see the errors made so far.





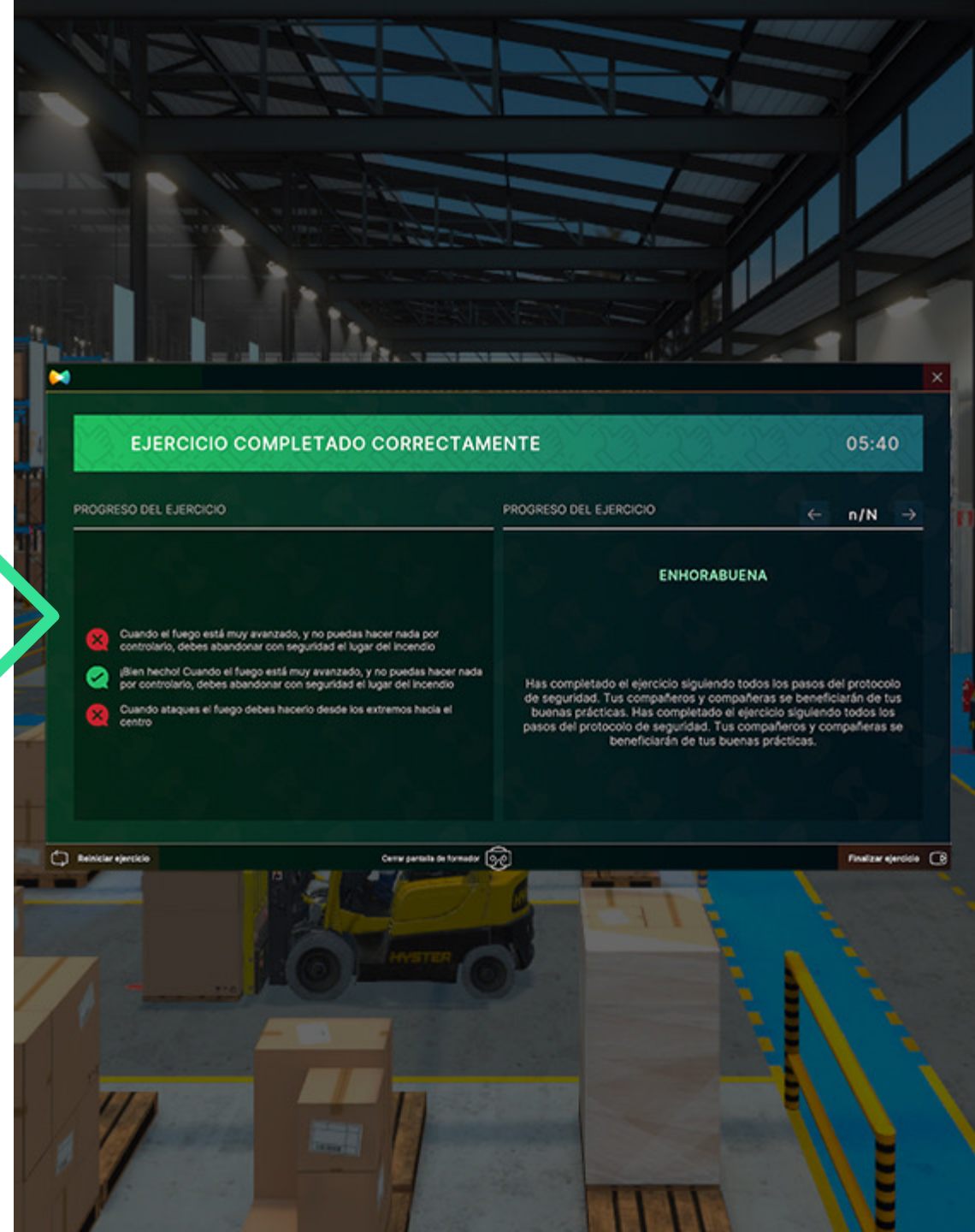


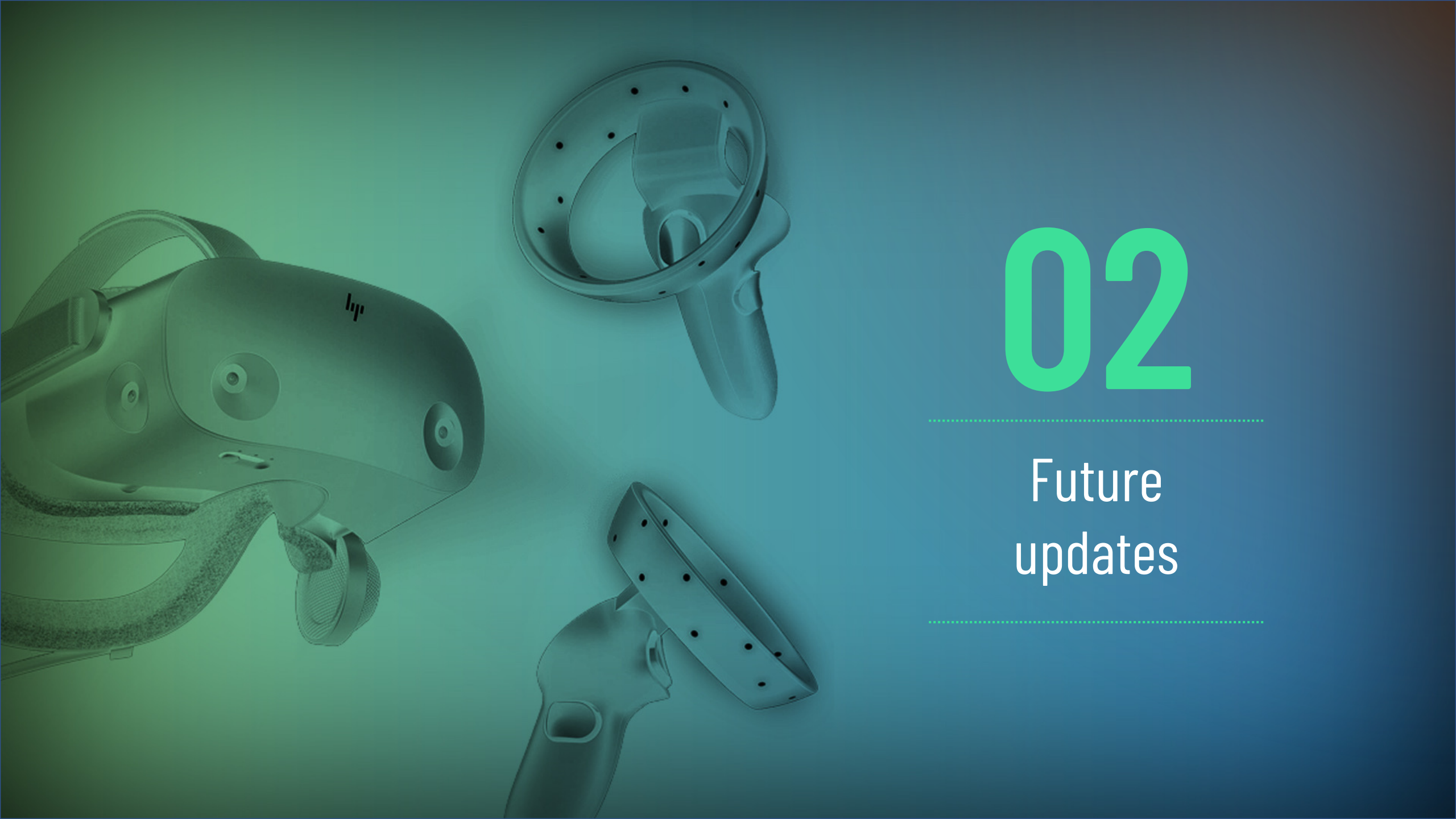
## Statistics system

### Simulation content

Basic statistics shown to the user at the end of the simulation:

- Exercise duration time
- List of mistakes made





02

Future  
updates





Future updates

## New risk situations

New risk situations will be included in the warehouse scenario:

- **Area Collision** of two forklifts due to narrowing of the aisle due to an obstacle.
- Fall due to carrying a **co-pilot** during empty transport (or two passengers).
- Accident due to not correctly interpreting the **signals** made by the signalman in an environment with a lot of noise and bulky cargo.
- Run over a distracted operator with the **mobile**.
- Improperly used implement and falling material.
- Risk situations related to **electric batteries**.





Future updates

## New scenarios

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New scenarios with associated risks will be included in the product:

- > Construction scenario
- > Industrial scenario







Future updates

## New types of forklift

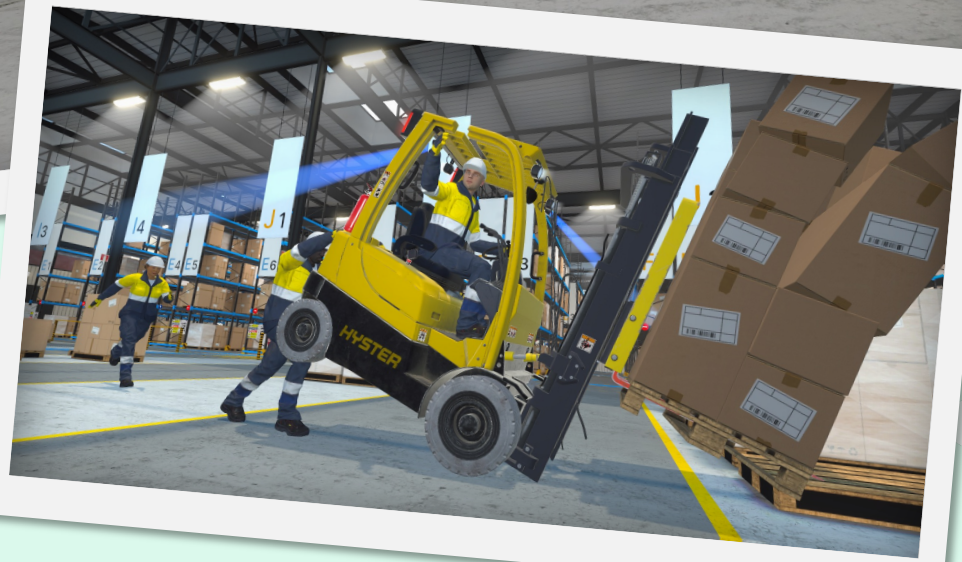
.....

New types of forklift will be included in the product:

- > Order picker
- > Pallet truck
- > Retractable
- > Trilateral











# 03

All trainings,  
one platform

# First European Platform

for realistic training in **labor and health security** with  
Virtual Reality

## Platform advantages



### **Content access**

Living products in  
continuous improvement



### **Teacher training**

Pedagogical support for  
teachers in the use of VR



Hardware  
at **cost price**

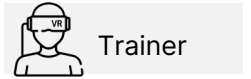
*Learn by Living*

**Improve your classes on  
safety and health**, adding an  
immersive component to the  
trainings





**19 complete products** with more than 500 exercises.  
25 products by the end of 2022.



- > Road safety
- > Plant risk prevention
- > Fall protection
- > Safety officer at heights
- > CPR
- > Overhead Crane
- > PPE. Personal Protective Equipment
- > Warehouse safety
- > Plant risk assessment
- > Electrical hazards
- > LOTO
- > Fire safety
- > Confined Spaces
- > Safety in construction
- > Mobile elevating work platforms
- > Postural ergonomics
- > **Forklift risks**
- > Hand Injury Prevention
- > Use and Handling of FHCs

We are continually adding **new updates** and content to the platform



## Calendar

of incorporation to Ludus

01

### Demo

Product demonstration.  
Financial proposal  
presentation.

02

### Suscription

Platform hiring.  
Reception of the material.

03

### Onboarding

Welcome pack.  
Commercial arguments.  
Graphic resources.  
Marketing sheets.  
Video tutorials.  
Training for trainers.

04

### VR training

Unlimited use of the training  
resources available on the  
platform.  
Platform maintenance and  
update.

# Why VR?

The impact that virtual reality has on learning is **remarkable**



Active learning

Based on Edgar Dale's Pyramid of Learning

Those who learn in VR are...



**4x**

**Faster learning** than in a conventional class



**3.7x**

**More connected** to content than students in a classroom



**2.3x**

**More connected** with the content than the students in e-learning



**4x**

**More concentrated** and focused





*Learn by Living*

[ludusglobal.com](http://ludusglobal.com)