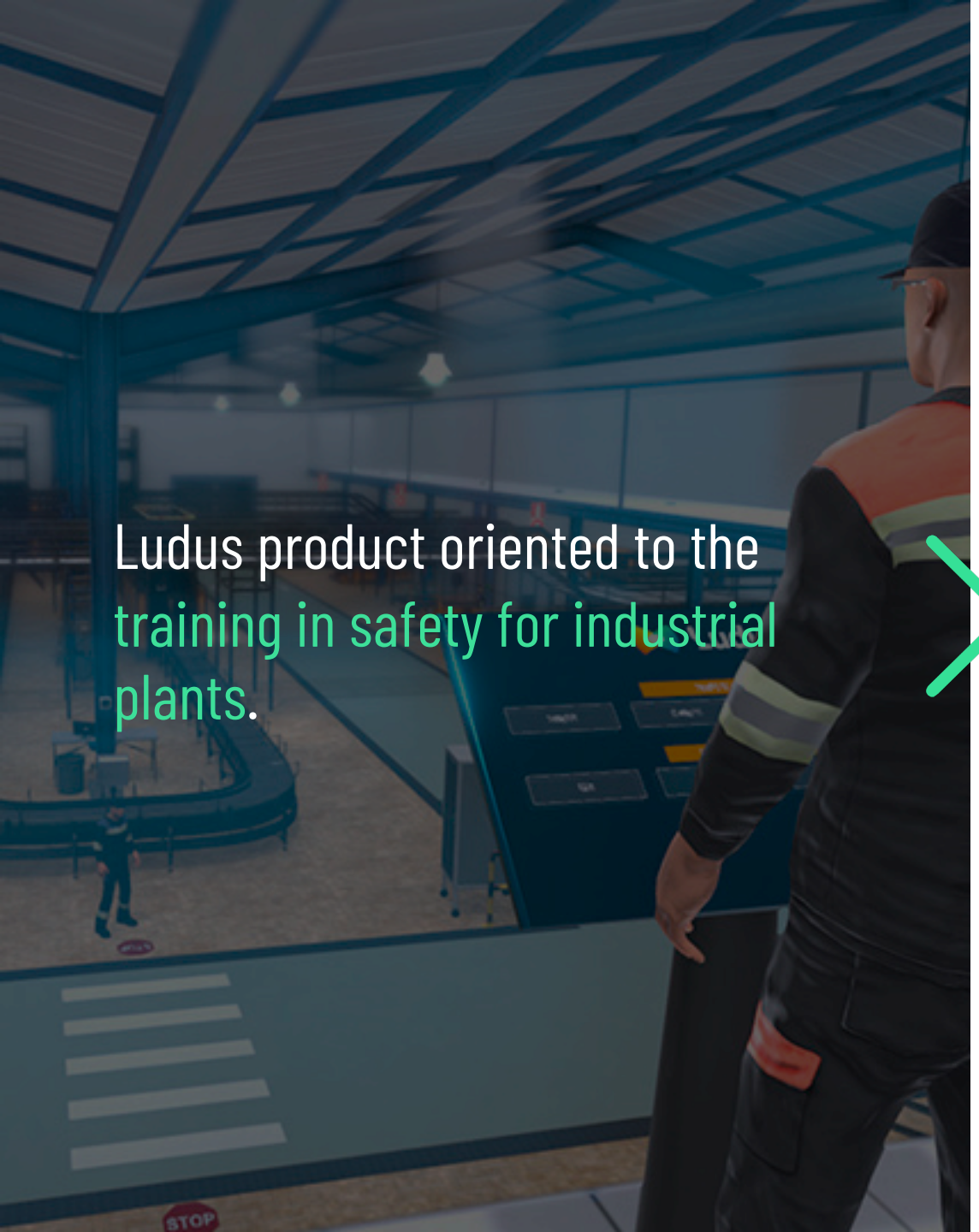
Technical Sheet

Ludus

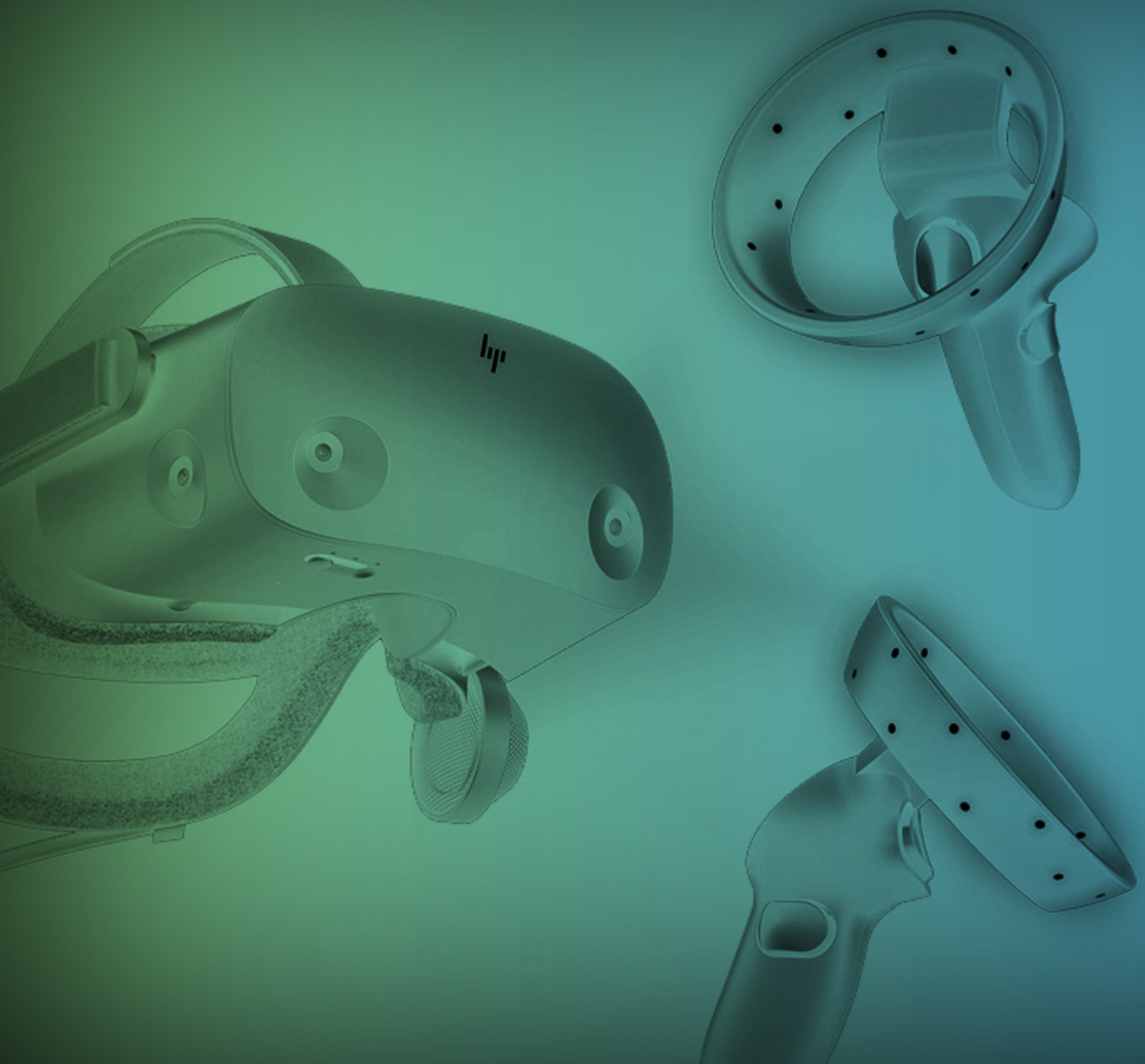
Plant risk prevention



Ludus product oriented to the training in safety for industrial plants.

Plant risk prevention

- The purpose of the user is to carry out the work that is asked of him/her **safely and avoiding risks.**
- The simulation serves both **to explain the use and safety methods**, as to **test the user** in relation to the knowledge learned.
- The simulation has several exercises that cover **different types of risks in important areas of a plant.**



01

Simulation content

Simulation content

CLEANING COMMON DIRT

Approximate exercise duration: 1 minute.

- **LEARNING GOAL**:
  It is a simple exercise in which non-chemical dirt is distinguished on the ground and must be cleaned with water.
  This exercise will need a change in the location of common dirt to prevent water from touching the conveyor belt.

- **EXERCISE GOAL**:
  Awareness: Depending on the PPE selected and placed, the user may suffer consequences, generating conscious workers.

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - The exercise will be taken as correct if the user cleans the dirt stain with the hose and at the same time carries the appropriate protective equipment.
  - Not having the protective mask placed will be a consequence that can be seen on the results screen.

Simulation content

BELT CONVEYOR

Approximate exercise duration: 1’30” to 2’30”

- **LEARNING GOAL**:

  In this exercise the user will be induced to do an incorrect operation, in which he or she will be assessed if he/she uses the appropriate gloves to prevent injury despite this.

- **EXERCISE GOAL**:

  - **Awareness:** Whatever the outcome of the exercise, it is designed to raise awareness of the importance of wearing suitable gloves.
  - **Evaluation:** Exercise is able to assess whether the user is able to determine the type of gloves to wear.

Simulation content

BELT CONVEYOR

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - The exercise will be taken as correct if the user follows the instructions of the locution and has the anti-corrosion gloves on. While it is a mistake to do that action with the tape in motion, the intention of the exercise is to raise awareness of the importance of such gloves.
  - Not having the anti-corrosion gloves placed will involve suspending the exercise, the user will be returned at the beginning and will have a results screen indicating the error and consequences.

Simulation content

FORKLIFT

Approximate exercise duration: 1 minute.

- **LEARNING GOAL**:

  Teach the user the perspective of a forklift operator. Those who have never used it never know the difficulties of vision and perspective, making them more aware of the importance of complying with road safety rigorously.

- **EXERCISE GOAL**:

  - **Awareness:** The exercise is able for the student to put the student in the shoes of a forklift driver, so that he/she is much more aware of the risks involved in incorrect circulation through the plant on foot.

Simulation content

FORKLIFT

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - The exercise is awareness-oriented, so it is taken as valid when the user gets on the wheelbarrow. To do this the user will see that the seat has a marker to go to.
  - The exercise does not have a possible failure, since as long as it complies with crosswalks traffic rules, everything is carried out in a safe environment.

Simulation content

CLEANING DIRT WITH CHEMICALS

Approximate exercise duration: 1 minute.

- **LEARNING GOAL**:

  It is an exercise where the user has to have his/her personal protective equipment very well selected to prevent serious damage.
  - It will have a modification by adding a data sheet of the product type.

- **EXERCISE GOAL**:
  - **Awareness:** Exercise is able to show consequences on the spot if the user does not use the appropriate PPE, generating chemical burns.

Simulation content

CLEANING DIRT WITH CHEMICALS

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - Exercise is given as valid if the user uses the chemical cleaner hose on the stain that appears, as long as he or she is using the appropriate PPE for this practice.
  - Cleaning the stain without protective goggles or chemical-valid plastic gloves would have an immediate culmination and a consequence of failing the exercise.

Simulation content

MAINTAINANCE-OKFIRSTPART

Approximate exercise duration: 3 to 5 minutes.

- **LEARNING GOAL**:

  Blocking and checking a press machine where user errors can be detected in a safe environment.
  - This exercise will have modifications to make a more intuitive guide for the user.

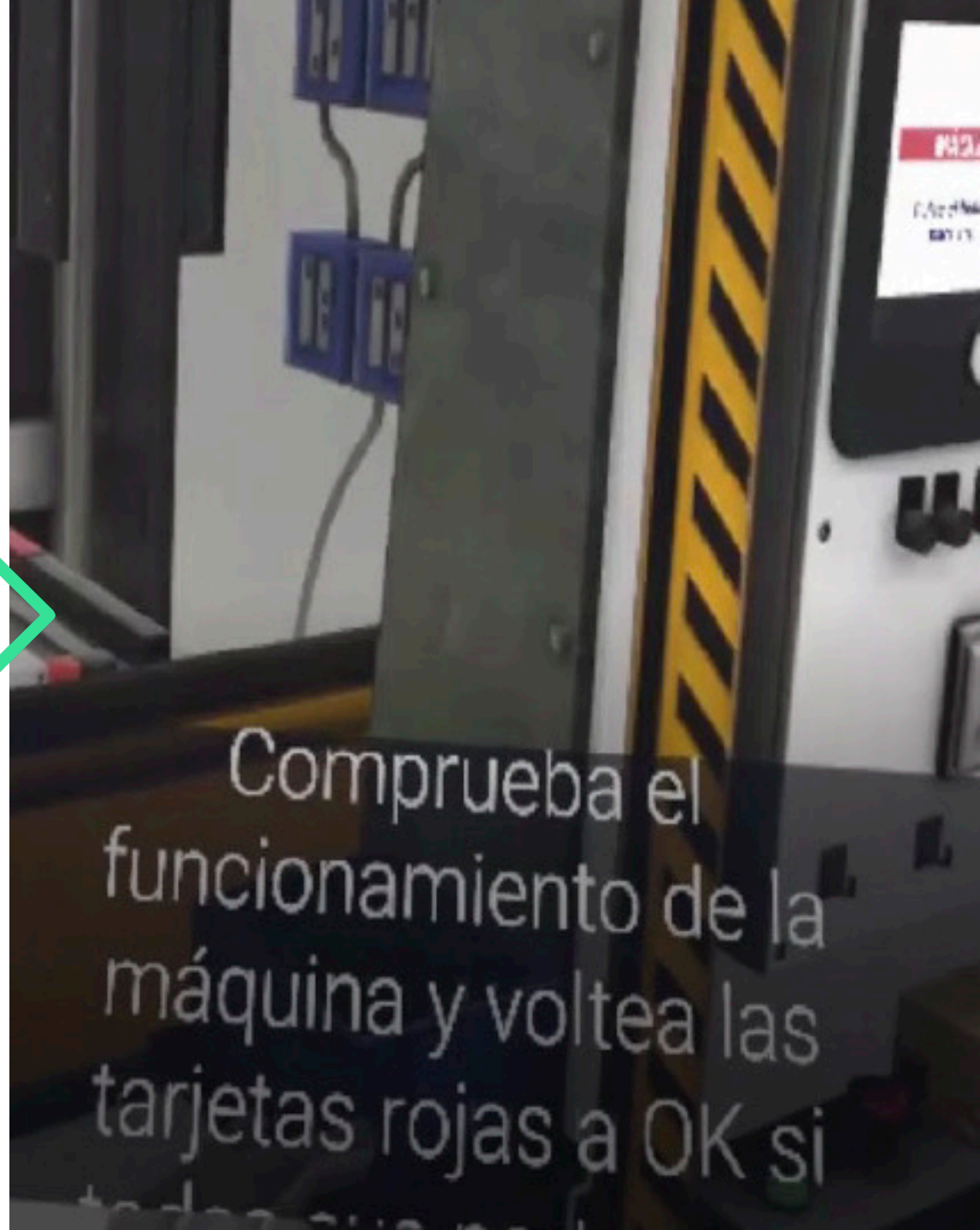
- **EXERCISE GOAL**:

  - **Evaluation:** With this exercise the trainer can determine if the user knows and implements risk prevention, being able to give he or she immediate feedback.
  - **Awareness:** Any error in this process allows the user to end the practice with the consequences of an incorrect action on his/her memory, so when acting in the real world he or she does not suffer accidents.

Simulation content

MAINTAINANCE-OKFIRSTPART

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - The exercise is passed when the user follows the process of checking the machine without suffering any accident or consequence.
  - If the exercise is not successful, there is a possibility that the user will have an accident. In that case he or she will be transported at the start of the simulation and he/she will see the results screen with information about the error and consequences.



Simulation content

DIRT SIGNALING

Approximate exercise duration: 1 to2 minutes.

- **LEARNING GOAL**:

  This exercise is an awareness for the user to prevent others from also suffering accidents.

- **EXERCISE GOAL**:

  - **Awareness:** The protection not only of oneself but of the other employees of the plant is the objective pursued by this exercise. Placing the signs correctly so that no one can step on a puddle of dirt and get injured is the ultimate goal of exercise.

Simulation content

DIRT SIGNALING

- **Activating the exercise:**
  - The exercise can be activated automatically. It will be the system that starts it randomly.
  - Manual activation is possible, so the trainer, with his/her supervisor view, who can activate it by pre-selecting the camera that focuses on the location of the exercise.
- **How the user gets through the exercise?**
  - The successful achievement of this exercise ends once the user has signaled the area, leaving the rest of the plant employees protected from the risk involved.
  - The only risk arising from exercise is a circulation without following safety standards, such as crossing outside the zebra crossing or doing so without looking both ways before crossing.

Simulation content

CROSSOVER

- **LEARNING GOAL**:

  The exercise is apparently simple, it's about moving from one side of the conveyor belt through crossovers. However, it is essential that to do so without accidents, the user does so using his/her hands on the railings, highlighting the importance of doing these steps by helping his/her hands.

- **EXERCISE GOAL**:

  - **Awareness:** The user will have consequences when performing the crossover without using his/her hands, emphasizing it so that in his/her day to day, avoid having accidents for not doing so.
  - **Evaluation:** The user will have his/her immediate evaluation if he or she does not use his hands, since he/she will have an accident and end the tour.

Simulation content

CROSSOVER

- **Activating the exercise:**
  - Exercise does not require activation. Whenever the user wants to cross at different level above the conveyor belt, he or she must do so using the knob as a manual grip of the railing.
- **How the user gets through the exercise?**
  - Each of the times the user crosses through the crosswalk, he or she will be evaluated. It is the only area by which teleportation cannot be used. If it were done, it's understood that he or she did not cling to the railings with his/her hands, he or she will suffer a fall.
  - In case of a fall, the user will be returned to the start zone, seeing the results on screen and the reason for the accident and the mistake made.

Simulation content

TRANSIT SAFETY

- **LEARNING GOAL**:

  It does not appear as an exercise, but user movement is always being assessed safely. The chance of an accident will be very high if he or she cross without first looking at a zebra crossing, and almost inevitable if he or she cross anywhere there is no zebra crossing.

- **EXERCISE GOAL**:

  - **Awareness:** At any time, if the user is hit, he or she will be taken to the beginning and will be able to see on the results screen the reason why he or she has suffered an accident, seeing the consequences of moving without safety measures.
  - **Evaluation:** The product observes and evaluates in real time whether the user's transit through the plant is correct.

Simulation content

TRANSIT SAFETY

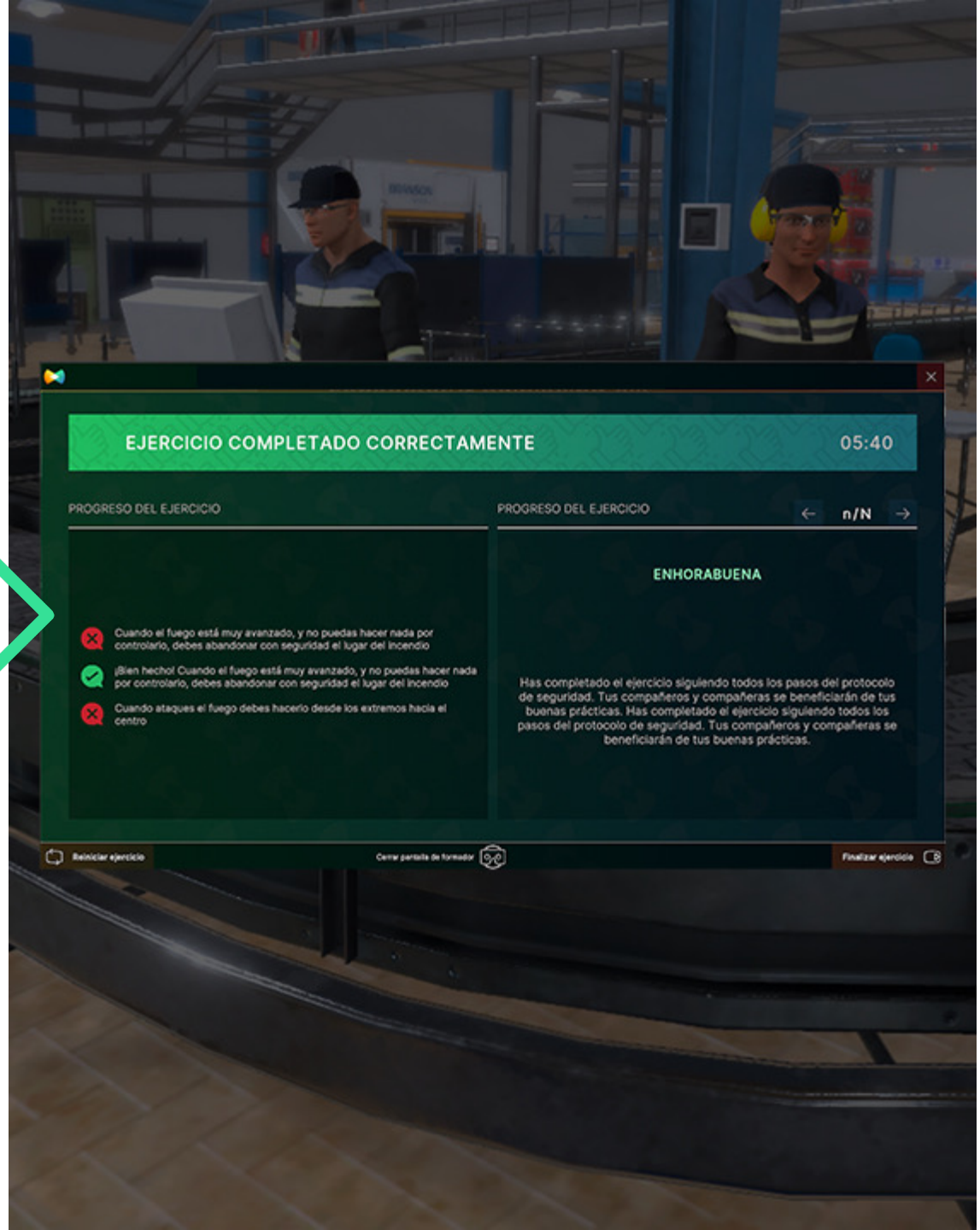
- **Activating the exercise:**
  - Exercise does not require activation. The correct movement of the user through the plant is constantly observed and if he or she does so in compliance with road safety standards.
- **How the user gets through the exercise?**
  - The exercise is passed by being consistent in compliance with road safety standards.
  - If the user crosses a zebra crossing, he/she must look from left to right to observe that no vehicle comes. If not, there's a high chance of having an accident. If an area other than a zebra crossing is crossed, there would be a very high chance to be run over.

Basic statistics

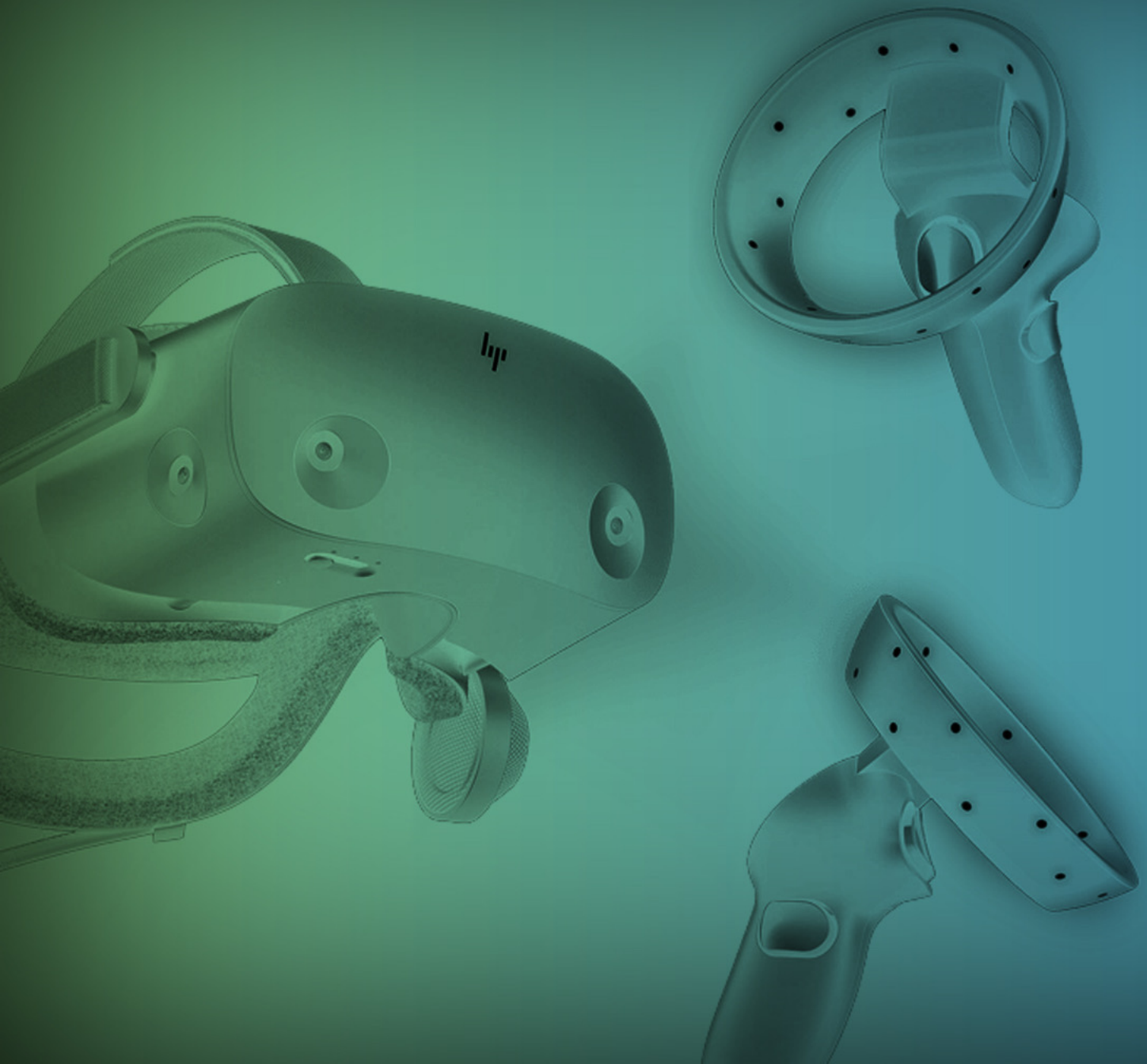
Statistics system

Basic statistics displayed to the user at the end of the simulation

- Duration of the exercise.
- Errors committed.




CAUTION
TRIPPING HAZARD



02

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 inmersive component to the trainings

20 complete products with more than 500 exercises.

Trainer

- 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
- First aid

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

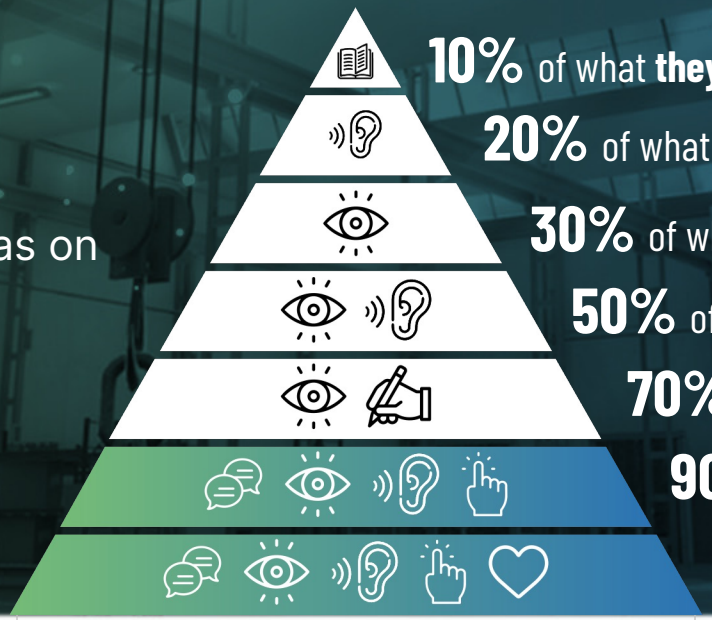
VR training

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**

People remember...



10% of what **they have read**

20% of what **they have listened**

30% of what **they have seen**

50% of what **they have seen and listened**

70% of what **they have seen and written**

90% of what **they have done**

95% of what **they have done and felt**

Active learning

Based on Edgar Dale's Pyramid of Learning

VR learners are...

4 times

Faster at learning than in a conventional classroom

3.7 times

More connected to the content than learners in a classroom

2.3 times

More connected to the content than learners in e-learnings

4 times

More concentrated and focused


Ludus
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