

INDUSTRY 5.0: TECHNOLOGIES AND USE CASES TRAINING SCENARIO

ACTIVITY SUMMARY

The activity is conducted as a collaborative serious game in which participants explore the industrial applications of Industry 4.0 technologies. Working in teams, they identify and match the largest possible number of industrial use cases with the appropriate technologies. The activity highlights the importance of collaboration between domain experts and technology specialists to successfully implement digital transformation initiatives. Participants also evaluate how each technology enhances workers' well-being, safety, collaboration, and empowerment through concrete industrial use cases.

TEACHING APPROACH



**GAME BASED
LEARNING**



**PROBLEM BASED
LEARNING**



**CHALLENGE
BASED
LEARNING**



**INTERACTIVE
TEACHING**

LEARNING OBJECTIVES

Knowledge

- Explain the industrial applications of Industry 4.0 technologies.
- Understand that technologies create value only when linked to concrete industrial use cases.
- Recognize the complementary roles of operational experts and technology specialists.
- Understand how Industry 5.0 technologies create value for people through human-centered industrial applications.

Technical skills

- Identify appropriate use cases for different Industry 4.0 technologies.
- Analyse industrial needs and match them with digital technologies.
- Develop technology-based solutions for industrial challenges.
- Evaluate how Industry 5.0 technologies improve both industrial performance and workers' well-being.

Interpersonal skills

- Collaborate effectively across multidisciplinary teams.
- Develop communication between operational and technology experts.
- Strengthen analytical and decision-making skills.
- Promote collaborative innovation.

MATERIELS

"UNLOCKING INDUSTRY 4.H" SERIOUS GAME

TECHNOLOGY AND ACTION CARDS

SERIOUS BOARD GAME

RESPONSABILITY

- The Operational Expert can take responsibility for identifying industrial needs and operational challenges.
- The Technology Expert can take responsibility for proposing appropriate Industry 4.0 technologies.
- Both experts collaborate to identify the most valuable industrial use cases and maximize business performance.

INDUSTRY 5.0: TECHNOLOGIES AND USE CASES

TRAINING SCENARIO

SPECIFICATIONS OF THE ACTIVITY

INTRODUCE THE TRAINING AND GAME ENVIRONMENT

Recommended duration : 10 min

The trainer introduces the objectives of Industry 4.0 and explains that digital technologies only create value when they address real industrial needs. The game materials and rules are presented before the activity begins.

TECHNOLOGIES CREATE VALUE ONLY WHEN THEY SOLVE REAL INDUSTRIAL PROBLEMS.

START THE TECHNOLOGY EXPLORATION ROUND

Recommended duration : 15 min

Players take turns drawing one Technology Card and placing it in the Activation Zone. This card becomes the active technology for the round. All participants focus on this same technology and prepare to identify possible related use cases from their own Use Case Cards.

FOCUS ON ONE TECHNOLOGY AT A TIME TO EXPLORE ITS FULL INDUSTRIAL POTENTIAL.

MATCH USE CASES WITH THE ACTIVE TECHNOLOGY

Recommended duration : 70 min

For each active Technology Card, all participants review their Use Case Cards and identify those that are relevant to the technology. When a valid match is found, the participant places the Use Case Card in the appropriate factory area and justifies the link between the technology, the use case, and the expected value. The game continues with a new Technology Card until all technologies have been explored. They also explain how the selected technology supports workers by improving safety, ergonomics, collaboration, decision-making, skills, or working conditions.

THE OBJECTIVE IS TO EXPLORE THE MAXIMUM NUMBER OF RELEVANT USE CASES FOR EACH TECHNOLOGY.

PRESENT AND DISCUSS THE TECHNOLOGY-USE CASE MAPPING

Recommended duration: 20 min

At the end of the game, teams review the factory layout and count the number of validated Use Case Cards. Participants present the most relevant technology-use case combinations, explain the factory areas concerned, and discuss how collaboration between business experts and technology specialists helps create value from digital transformation. Each team presents the selected technology, the identified use cases, and explains how the technology improves workers' daily activities, responsibilities, and overall working conditions.

SUCCESSFUL DIGITAL TRANSFORMATION REQUIRES MATCHING TECHNOLOGICAL CAPABILITIES WITH REAL BUSINESS NEEDS.

INDUSTRY 5.0: TECHNOLOGIES AND USE CASES

TRAINING SCENARIO

EVALUATION

Knowledge assessment

- Assess trainees' understanding of how Industry 4.0 transforms industrial professions.
- Evaluate their ability to associate technologies with profession-specific use cases.
- Measure their capacity to identify new responsibilities and competencies.
- Assess their ability to justify digital transformation strategies for different industrial functions.
- Assess trainees' ability to explain the human-centered value of Industry 5.0 technologies in industrial environments.



Perception assessment

- Gather trainees' feedback on the role-playing experience.
- Evaluate the perceived usefulness of the game for understanding job transformation.
- Assess participants' engagement, collaboration, and professional reflection.
- Collect suggestions for improving the training scenario and profession-specific use cases.