

CHANGING JOB IN INDUSTRY 4.0 TRAINING SCENARIO

ACTIVITY SUMMARY

The activity is conducted as a collaborative serious game in which participants explore how industrial jobs evolve with Industry 4.0 technologies. Each participant takes the role of a professional responsible for a specific industrial function and identifies the technologies, use cases, new responsibilities, and competencies that are transforming their job. Teams collaboratively analyse digital transformation and present the future evolution of their professions.

TEACHING APPROACH



**GAME BASED
LEARNING**



ROLE-PLAYING



**CHALLENGE
BASED
LEARNING**



**INTERACTIVE
TEACHING**

LEARNING OBJECTIVES

Knowledge

- Explain how Industry 4.0 transforms industrial professions.
- Identify emerging technologies and their impact on different job functions.
- Understand the evolution of roles and responsibilities in smart factories.

Technical skills

- Analyse industrial use cases related to a specific profession.
- Select Industry 4.0 technologies that support job transformation.
- Identify new competencies required for future industrial jobs.

Interpersonal skills

- Defend professional choices using industrial use cases.
- Collaborate with colleagues representing different business functions.
- Develop communication and presentation skills.
- Promote interdisciplinary understanding of Industry 4.0 transformation.

RESPONSABILITY

- The Production Engineer can take responsibility for integrating Industry 4.0 technologies to improve manufacturing performance and operational efficiency.
- The Maintenance Engineer can take responsibility for implementing predictive and intelligent maintenance solutions using digital technologies.
- The Quality and QSE Engineer can take responsibility for improving quality assurance, safety, and environmental performance through digital transformation.
- The Logistics and Supply Chain Engineer can take responsibility for optimizing material flows, inventory, and logistics operations using smart technologies.
- The Managers can take responsibility for supporting workforce transformation, digital competencies, and organizational change.

MATERIELS

"UNLOCKING INDUSTRY 4.H" SERIOUS GAME

TECHNOLOGY, ACTION AND CATEGORY CARDS

SERIOUS BOARD GAME

CHANGING JOB IN INDUSTRY 4.0

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 how digital transformation is changing industrial professions. The game materials, including the board, Technology, Action, Category, and profession-specific Use Case Cards, are presented. The trainer explains the game objectives, player roles, and game rules before the activity begins.

ENSURE THAT TRAINEES UNDERSTAND HOW INDUSTRY 4.0 IS TRANSFORMING INDUSTRIAL PROFESSIONS AND THE OBJECTIVES OF THE GAME.

DEFINE THE DIGITAL TRANSFORMATION STRATEGY FOR EACH PROFESSION

Recommended duration : 15 min

Each participant is assigned an industrial profession or functional area (e.g., Production, Maintenance, Quality, Logistics, Supply Chain, HR, Finance, or Training). Teams select six Industry 4.0 technology categories that best support the digital transformation of their profession. These categories form the roadmap for the rest of the activity.

ENCOURAGE PARTICIPANTS TO DEFINE A DIGITAL TRANSFORMATION STRATEGY TAILORED TO THEIR PROFESSIONAL ROLE.

MATCH TECHNOLOGIES WITH PROFESSIONAL USE CASES

Recommended duration : 70 min

Each participant draws Technology Cards, Action Cards, and profession-specific Use Case Cards (purple cards). During each round, participants choose one of four actions: Explore, Pre-activate, Activate, or Discard. They identify the best matches between technologies and professional use cases while progressively activating their selected technology categories. Participants justify why each technology is relevant for their profession and discuss its expected impact on daily activities and responsibilities.

DEVELOP THE ABILITY TO LINK INDUSTRY 4.0 TECHNOLOGIES WITH REAL PROFESSIONAL TASKS AND BUSINESS NEEDS.

PRESENT THE FUTURE OF THE PROFESSION

Recommended duration: 20 min

Each participant presents the evolution of their profession by explaining the selected technologies, associated use cases, new responsibilities, required competencies, and expected benefits. Teams compare how different professions evolve within the same smart factory and discuss the importance of interdisciplinary collaboration in Industry 4.0.

PROMOTE REFLECTION ON HOW DIGITAL TRANSFORMATION CREATES NEW RESPONSIBILITIES, NEW SKILLS, AND NEW WAYS OF COLLABORATING IN THE FACTORY OF THE FUTURE.

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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.



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.