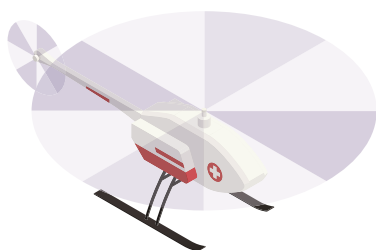
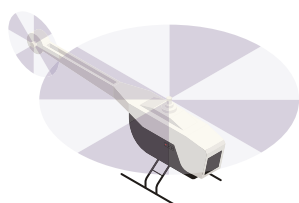




Methodology Manual

4COMMUNITY - smart city



1. Introduction and Objectives of the Workshops

Objective of the workshops and presentation of the Smart City game

Welcome to the workshops as part of the Erasmus+ project, where the main attraction is the board game „Smart City”. Our meeting aims not only to acquaint you with the dynamically developing world of smart cities but also to draw attention to key aspects related to ecology and technology. The Erasmus+ project has always focused on innovation in education, and the use of games as a teaching tool opens new possibilities for learning through experience. The „Smart City” game allows participants to take on the role of urban planners tasked with managing a city in a sustainable manner. Through interactive gameplay, we learn how important renewable energy sources, efficient waste management, or innovative transportation solutions are. These workshops aim not only to develop ecological awareness but also to show how technology can be used to improve the quality of life in cities. Our goal is to equip you with knowledge and skills that will enable active action for sustainable development, both at the local and global levels. We invite you to actively participate in the workshops, during which each of you will have the opportunity to express your ideas and share them with others. This is not only a great opportunity for learning but also for making new acquaintances and exchanging experiences. Together, through fun and discussion, we will strive to understand how we can contribute to creating better, smarter, and greener cities of the future.





Objective:	Ecological and technological education through the interactive game ,Smart City’.
Materials:	Board game ,Smart City’, multimedia presentations, additional materials about smart cities.
Audience	High school students, college students, teachers, everyone interested in sustainable development.
Workshop Duration:	About 3 hours, adjustable depending on the number of participants and discussion.
Methodology:	Group work, discussions, interactive gameplay, presentations, and case study analysis.
Detailed Objective:	Development of skills for planning sustainable city development, understanding the impact of technology.
Results:	Increased awareness of sustainable development, inspiration to act, development of teamwork skills.
Evaluation Form:	Participation in the discussion, engagement in the gameplay, presentation of group conclusions.



Discussion on the concept of smart cities and their impact on the environment, technology, and social life.

The concept of 'Smart Cities' is gaining popularity worldwide, serving as a response to the growing challenges related to urbanization, environmental protection, energy efficiency, and improving the quality of life for residents. Smart Cities utilize advanced information and communication technologies (ICT) to optimize city functioning, resource management, municipal services, and interactions with residents.

Examples of Smart Cities:

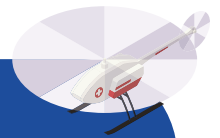
- Barcelona - A pioneer in the field of Smart Cities, applied 'smart parking' systems, LED street lighting, and a waste management system, improving efficiency and reducing CO₂ emissions.
- Singapore - One of the most advanced examples of a smart city, uses technology to manage transportation, public health, and the safety of residents.
- Amsterdam - Focuses on smart energy solutions, including smart energy meters and developing 'green roofs' to support biodiversity.

Impact on the environment, technology, and social life

Smart Cities have a significant impact on the environment, technology, and social life. Through intelligent resource management, such as water, energy, and waste, these cities contribute to the reduction of natural resource consumption and emissions of harmful substances. Technological innovations, such as the Internet of Things (IoT), artificial intelligence (AI), and big data analysis, enable the optimization and automation of urban processes, improving the efficiency of public services and the quality of life for residents. In the social dimension, Smart Cities increase civic participation, offering residents platforms for co-decision-making on local matters, which builds a sense of community and engagement in city life.

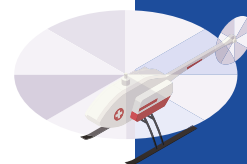


In summary, Smart Cities represent the future of urbanization, combining technological development with sustainable development to face the challenges of the modern world. Examples such as Barcelona, Singapore, or Amsterdam show that an integrated approach to city management can significantly impact improving the quality of life, energy efficiency, and environmental protection, while promoting innovation and community development.



Interesting facts:

- **Internet of Things (IoT):** This is a concept that refers to connecting everyday use devices to the internet, allowing them to collect, send, and receive data. This enables them to „communicate” with each other and with users, automating various processes and facilitating life. For example, an internet-connected refrigerator can monitor its contents and send information about missing products directly to your phone.
- **Big Data:** This term refers to vast, complex data sets that are so large that traditional data processing methods are unable to handle them efficiently. Big Data can be analyzed to discover patterns, trends, and relationships, especially relating to human behaviors and interactions. An example of Big Data use is analyzing the shopping habits of customers in large retail chains, which allows for a better understanding of consumer preferences and optimization of the offer.



2. Preparation for the Game

Based on the „Smart City” game instructions and the methodological manual, below are instructions for dividing participants into groups, reviewing the game instructions, and presenting the game objectives.

Dividing participants into groups

Maximum number of players: The „Smart City” game is designed for up to **6 players**.

Space organization: When organizing the classroom space for the „Smart City” game with groups of, for example, 4 people each, the proper arrangement of tables will ensure comfort and efficiency. Tables should be arranged so that each group has its own area with sufficient space for all game components and easy access for all participants. Setting tables in separate groups will allow each team to work focused and will facilitate better communication and cooperation. In such an arrangement, each group will have its own „mini area” for the game, which will ensure comfort and minimize disturbances between groups, allowing for full focus on strategy and game objectives.

Reviewing the game instructions

1. Component description: We start by presenting the contents of the game: the board, pawns, dice, virtual currency „SmartCoin”, „Innovation” cards, „Ecological Challenge” cards, ownership deeds for sustainable development projects, innovation, and mega-innovation markers.

2. The aim of the game is to promote urban sustainable development by investing in ecological and innovative projects. Players aim to transform the city into a „Smart City” model.

3. Moves and actions: Explain how to make moves, buy properties, invest in innovations, and deal with ecological challenges.

4. End of the game: The game ends when only one player, who has not gone bankrupt, remains, or after 90 minutes of play. The winner is the player with the highest number of „SmartCoins”.





Presenting the game objectives

When presenting the game objectives, it is important to emphasize the significance of urban planning decisions for the environment, community, and technology. Participants should be explained that the game aims to:

- Understand the impact of sustainable development on the future of cities.
- Learn the basics of financial management and investing in sustainable development projects.
- Highlight the importance of ecology and environmental protection.
- Show how technologies and innovations can support sustainable development.
- Raise awareness of social responsibility and ethical decisions.

These points will help students understand the game objectives and encourage active participation and reflection on the decisions made.

3. Gameplay



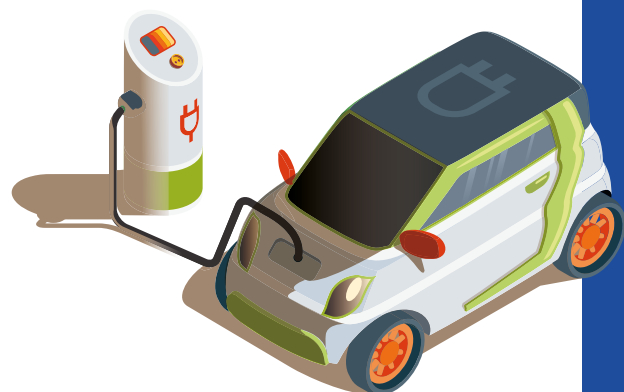
The „Smart City” game is based on mechanics similar to Monopoly, where players move around the board, buying and developing properties (sustainable development projects), with the goal being wealth accumulation and the elimination of competitors through financial management and investments. Players use in-game currency to purchase properties, pay for challenge cards, or invest in innovations. Gameplay requires negotiation among players, strategic planning, and economic decision-making, with elements of randomness introduced by dice rolls and event cards.

4. Evaluation

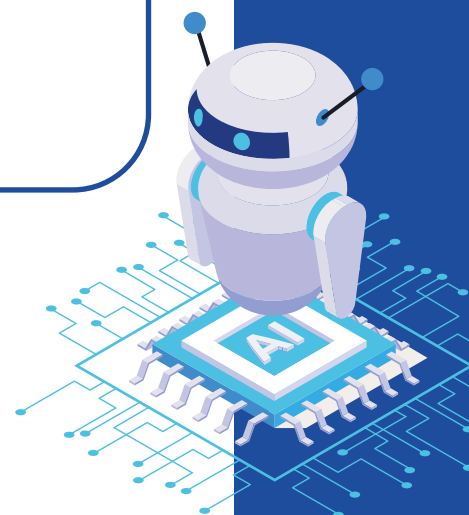
Concluding the „Smart City” workshops is an important moment for both participants and facilitators. It is a time for reflection on the knowledge and skills acquired, as well as considering how new experiences can be applied in the future. Ecological and technological education plays a key role in forming conscious civic attitudes, understanding sustainable development, and promoting innovations supporting environmental protection. Workshop participants now have the opportunity to continue learning and engage in sustainable development activities, both in their local communities and on a broader scale.

Participants are encouraged to deepen their knowledge of smart cities and sustainable development through various sources, such as online courses, webinars, professional literature, and participation in projects and local initiatives. Everyone has the opportunity to contribute to building a better future through conscious decisions and actions.

Below is an evaluation form that will help us improve future workshops. Please fill out each section honestly. Your feedback is incredibly important to us and will allow us to better tailor our educational activities to the needs of participants.



Question	Very Poor	Poor	Good	Very Good
How do you rate the overall organization of the workshops?				
Were the workshop objectives achieved?				
How do you rate the level of interaction and engagement of participants?				
Were the contents presented during the workshops understandable?				
Were the work methods applied effective?				
How do you rate the usefulness of the workshops for your personal and professional development?				
Would you recommend participating in the workshops to others?				



5. Summary:

1. Introduction and Purpose of the Workshops

Educational objectives: Explain to participants the objectives of the workshops, such as understanding the principles of sustainable development, the impact of urban planning decisions on the environment and society, and the role of technology in shaping the future of cities. **Significance of the game:** Emphasize how the 'Smart City' game can serve as a tool for learning through experience, allowing participants to experiment with different city management strategies.

2. Team Building and Game Preparation

Integration activities: Start with team-building exercises to help participants get to know each other better and feel comfortable in their groups. **Group division:** Organize participants into teams, paying attention to balance skills and interests, so everyone can contribute something valuable to the game.

3. Game Rules and Strategies

Rule explanation: Discuss the game rules in detail, using examples and simulations to ensure everyone understands how the game works. **Game strategies:** Encourage discussion about potential strategies and approaches to city management in the game, which will stimulate creative thinking and strategic planning.

4. Conducting the Game

Roles: Assign each participant a specific role within the team, so everyone has defined tasks and responsibilities. **Support and moderation:** Be available to participants during the game to answer questions and help solve problems.

5. Ending

Discussion of experiences: After the game ends, conduct a debriefing session where participants can share their experiences, successes, and challenges. **Application in reality:** Ask reflective questions about how lessons learned from the game can be applied in real city management and sustainable development actions.

6. Conclusion

Summary: Highlight the key takeaways from the workshops and emphasize the importance of the decisions made in the context of sustainable urban development. **Inspiration for further action:** Encourage participants to continue learning about smart cities and sustainable development and to get involved in local ecological and technological initiatives.

