

JETFORCE TECHNOLOGY EVALUATION TOOL

USER MANUAL

The following provides step-by-step instructions on how to use the JETforCE Technology Evaluation Tool effectively. It explains how to navigate the assessment process, interpret results, and apply insights to support informed decision-making. The tool guides users through a structured set of questions covering key indicators, including socio-procedural justice, energy performance, and financial viability. The responses are weighted to provide a well-rounded decision-support framework, helping stakeholders evaluate the potential benefits and trade-offs of different energy investments.

By following the instructions in this guide, users can effectively leverage the JETforCE Technology Evaluation Tool to make well-informed, socially just, and sustainable investment decisions.

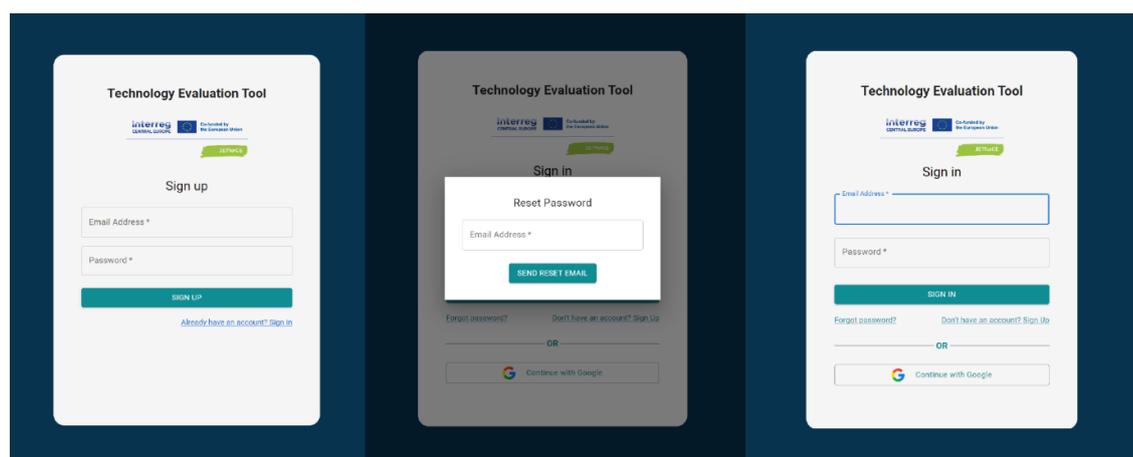
Technology Evaluation Tool - Step-by-step User Manual

 **JETforCE Technology Evaluation Tool - User Manual - Supporting Policymakers in Implementing Just Sustainable Solutions**

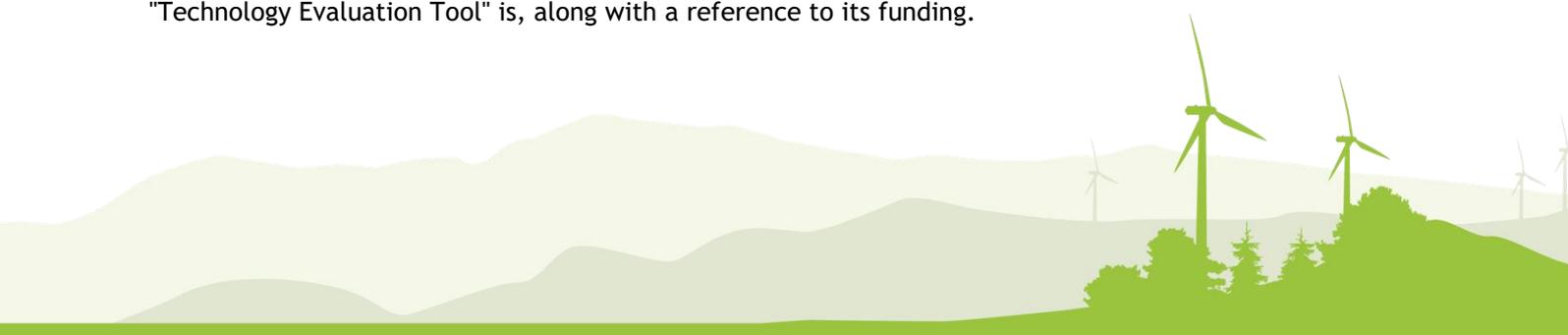
 **Access the Tool:** <https://jetforce-1d009.web.app/>

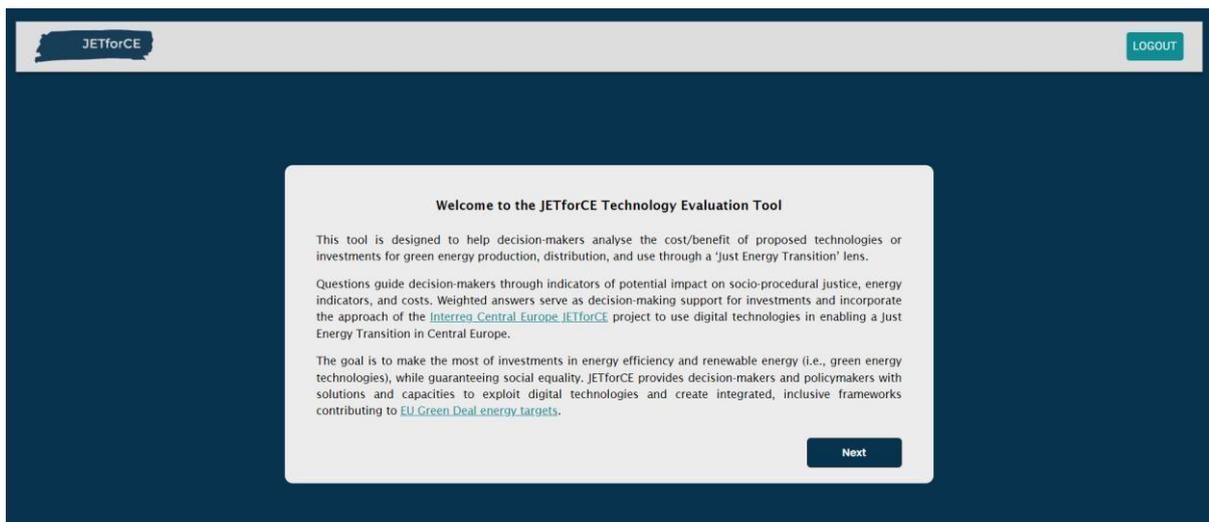
STEP 1: Initially, the user must create an account to access the application. Once the account is created, they can sign in and enter the application. A secure sign-in option via Google is available if the user has a Gmail account.

If the user forgets their password, a reset link is sent to their email, allowing them to create a new password.



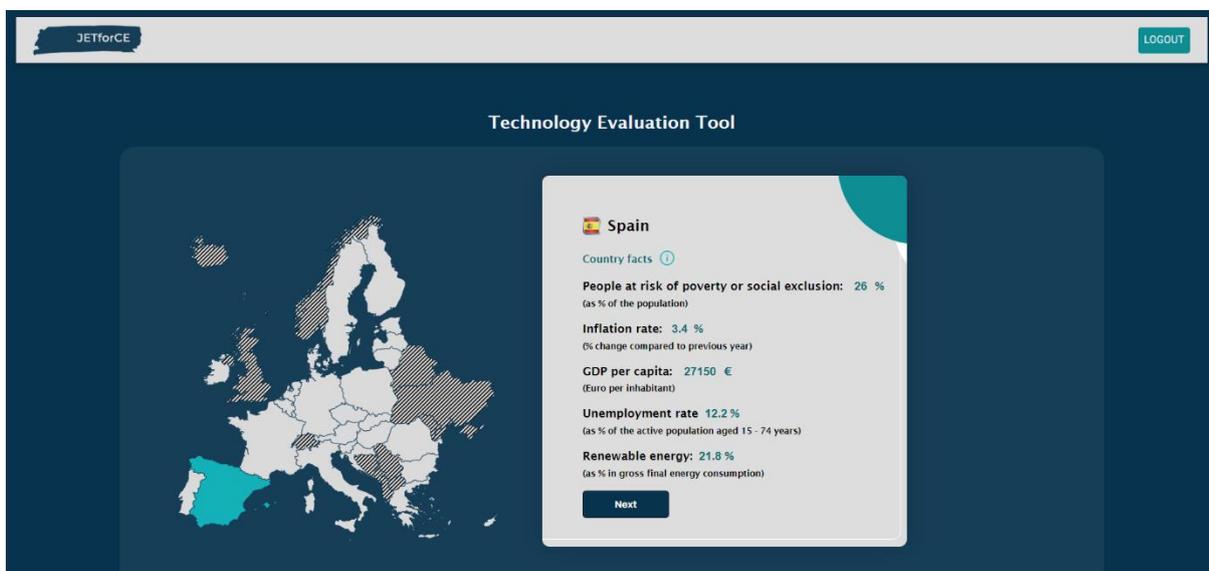
STEP 2: Upon entering the application, the user is greeted with a welcome message explaining what the "Technology Evaluation Tool" is, along with a reference to its funding.





STEP 3: Next, the user sees a map of the European Union on their screen. Through this map, they can select a country and view specific data related to it. This data is sourced from the Eurostat database, which is continuously updated.

If the user has more up-to-date data for their country, they can edit the respective fields.



STEP 4: In the next step, the user is required to provide a "description of investment," marking the beginning of the evaluation process for their responses.

At the top right, a progress bar is visible, allowing the user to track their progress throughout the process until all questions are completed and the final score is displayed on the screen.

JETforCE LOGOUT

Progress 0%

Please provide a concise description (max. 3000 characters) of the investment you plan to make, highlighting its key environmental, social, and economic features. Clearly specify the type of renewable energy technology involved, if any (e.g., photovoltaic, hydro, biomass, geothermal, etc.). ⓘ

Back
Next

STEP 5: In the following stage, the user answers questions related to the environmental, social, and economic impact of their investment. Weight indicators are applied to the user's responses. Each answer is assigned a specific scoring coefficient based on the importance of the question being answered.

Environmental Impact Progress 71%

Questions

What is the estimated percentage decrease in carbon emissions for the implementation of the given technology or investment/project? %

By what percentage is electricity usage expected to decrease due to the implementation of this technology or project? %

By what percentage is heat usage expected to decrease as a result of implementing this technology or project? %

By what percentage is waste generation expected to be reduced due to this technology or project? %

By what percentage is water usage expected to decrease as a result of this technology or project? %

By what percentage is fuel consumption expected to decrease due to this technology or project? %

Does the technology or investment in your country/region incorporate renewable energy sources such as hydroelectric energy, biofuels, geothermal energy, or wind power?
 Yes No

By what percentage is fossil energy consumption expected to decrease due to this technology or project? %

Does the technology promote long-term environmental benefits, such as ensuring a sustained reduction in emissions, improving air quality, or mitigating climate change impacts?
 Yes No

Back Next

Social Impact Progress 34.3%

Questions

Are there specific measures to ensure that the benefits of the technology are equally distributed across different social groups (e.g., gender, age, ethnicity)?
 Yes No

Does the technology or investment contribute to increased community engagement and participation in the design and implementation of the technology/investment (e.g. number of NGOs involved in the investment)?
 Yes No

Does the technology or investment contribute to an increase in public consultations and feedback?
 Yes No

Does the technology or investment contribute to increased accessibility of the technology/investment to marginalised groups?
 Yes No

Will there be increased education of stakeholders about the new technology/investment?
 Yes No

Does the investment support the development of affordable, inclusive, and efficient transport solutions in rural or remote areas?
 Yes No Not applicable

Does the technology or investment contribute to an increased number of strategic partnerships and joint ventures in the design and implementation of the technology/investment?

Economic Impact Progress 21.4%

Questions

What are the total implementation costs of the project? %

What is the expected payback period of the project or investment? years

What is the return on investments (ROI)? % ⓘ

What is the estimated incremental revenue growth rate of the given technology or project/investment? %

By what percentage are energy costs expected to decrease as a result of implementing this technology or project? %

Is there potential for local value chains to benefit from the technology or investment (e.g., will local suppliers be used for materials, services, or support)?
 Yes No

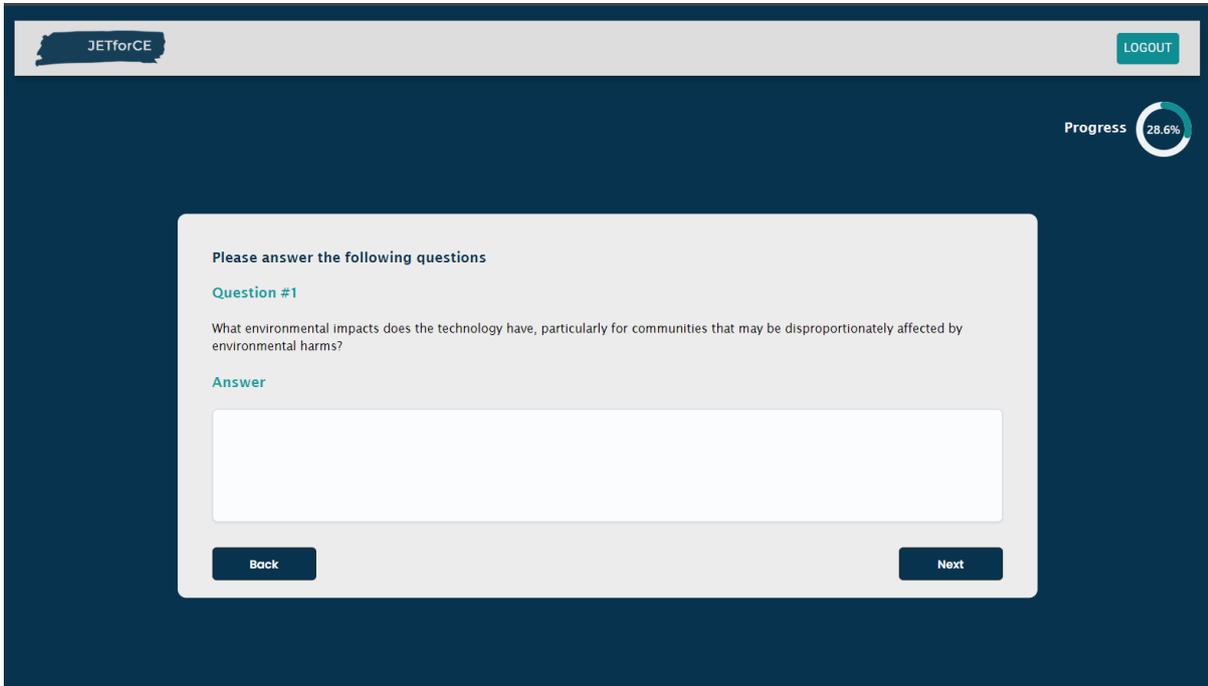
Is this technology/investment expected to create new jobs?
 Yes No

Is this project or investment related to training & education?
 Yes No

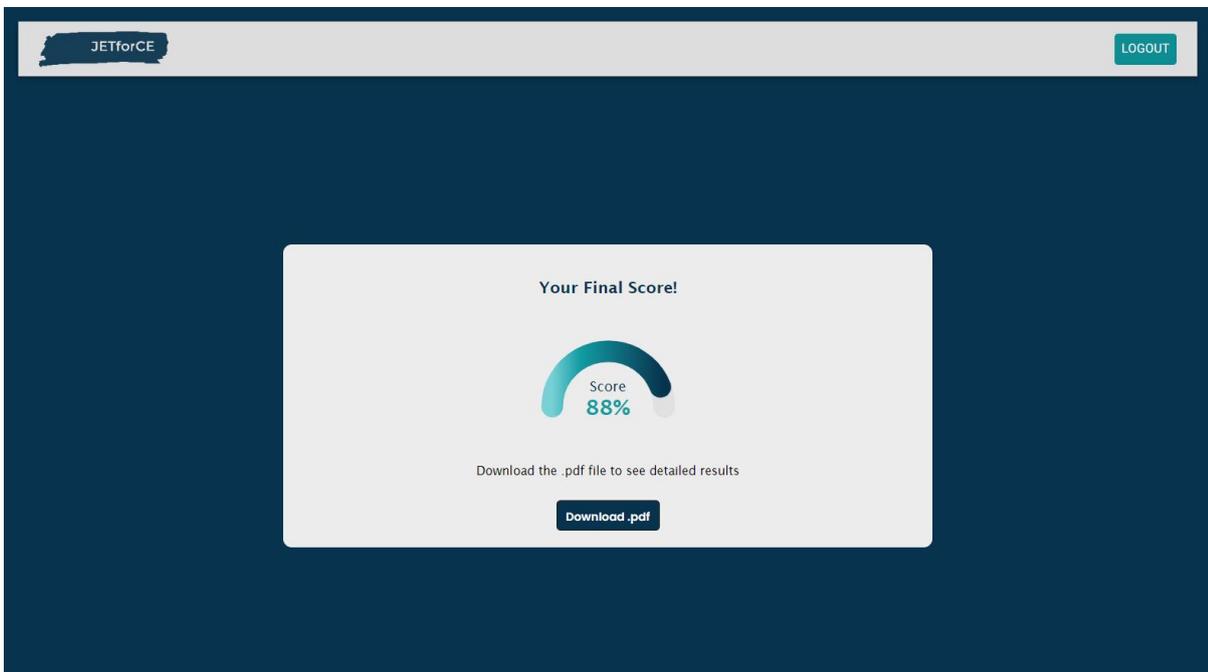
Does the project encourage skills development or capacity building that will enhance the workforce and economy in the region specifically?

STEP 6: Next, the user must answer a series of 10 questions. The responses at this stage are evaluated and scored by an AI model.

All data from the application is stored in a database to facilitate further development and improvement of the application, as well as to enhance the scoring algorithm based on the results.



The screenshot shows the JETforCE application interface. At the top left is the 'JETforCE' logo, and at the top right is a 'LOGOUT' button. A progress indicator in the top right corner shows 'Progress 28.6%' with a circular gauge. The main content area contains a white box with the text 'Please answer the following questions'. Below this is 'Question #1' with the prompt: 'What environmental impacts does the technology have, particularly for communities that may be disproportionately affected by environmental harms?'. Underneath is an 'Answer' label and a large white text input field. At the bottom of the white box are two buttons: 'Back' on the left and 'Next' on the right.



The screenshot shows the final results screen of the JETforCE application. At the top left is the 'JETforCE' logo, and at the top right is a 'LOGOUT' button. The main content area features a white box with the heading 'Your Final Score!'. Below the heading is a circular gauge showing a score of '88%'. Underneath the gauge is the text 'Download the .pdf file to see detailed results' and a 'Download .pdf' button.

STEP 7: Once the user has answered all 10 questions, the final score is displayed on their screen. The user also has the option to download a .pdf file containing the questions asked, their responses, and the score assigned by the AI evaluation model.

Technology Evaluation Tool

Total Score: 79%

Question #1

What strategies can your organization implement to mitigate and reverse the environmental impacts caused by coal mining and burning in the region?

Answer

LEAG can mitigate the environmental effects of coal mining and burning in Lusatia by accelerating its transition to renewable energy, supported by large-scale battery storage systems. By investing in advanced battery technologies, LEAG can enhance the reliability of renewable sources like solar and wind, ensuring consistent energy supply even during periods of low generation. This shift will reduce reliance on coal-fired power plants, cutting carbon emissions and improving air quality. Moreover, integrating battery storage will help stabilize the regional grid, balancing supply and demand fluctuations and preventing blackouts, thus fostering a more resilient energy system.

Additionally, LEAG can leverage battery storage to repurpose former mining sites for renewable energy projects, creating "energy hubs" that combine solar farms and wind turbines with storage facilities. This will not only support the decarbonization of the energy sector but also stimulate local economic growth through job creation and investment in clean technology.

Based on the criteria given, the answer would receive a score of 80%. The response is relevant to the question, specific to the region of Lusatia, and demonstrates expertise in renewable energy and battery storage technologies. The proposed strategies can effectively mitigate and reverse the environmental impacts of coal mining and burning, offering value by promoting clean energy and economic development. The suggestion of repurposing mining sites for renewable projects shows innovation and commitment to sustainable solutions. The answer is clear, professional, and expedient in addressing the issue at hand.

Question #2

What are the most effective methods for developing sustainable production and supply of heat in the region?

Environmental Impact

Question	Answer
What is the estimated percentage decrease in carbon emissions?	5%
By what percentage is electricity usage expected to decrease?	12%
By what percentage is heat usage expected to decrease?	13%
By what percentage is waste generation expected to be reduced?	13%
By what percentage is water usage expected to decrease?	13%
By what percentage is fuel consumption expected to decrease?	3%
Does the technology incorporate renewable energy sources?	Yes
By what percentage is fossil energy consumption expected to decrease?	13%
Does the technology promote long-term environmental benefits?	Yes

Social Impact

Question	Answer
Are there specific measures to ensure equal benefits distribution?	Yes
Does the technology contribute to increased community engagement?	No
Does the technology contribute to increased public consultations?	Yes
Does the technology increase accessibility for marginalized groups?	Yes
Will there be increased education of stakeholders?	Yes
Does the investment support transport solutions in rural areas?	No applicable
Does the technology contribute to strategic partnerships?	Yes
Will the technology reduce pollution or prevent environmental injustices?	Yes

Economic Impact

Question	Answer
What are the total implementation costs of the project?	13%
What is the expected payback period of the project or investment?	3 years

Tips for Stakeholders

- **Public Authorities:** Use structured evaluations to guide sustainable energy policies and investments.
- **Businesses & Investors:** Assess the long-term feasibility of renewable energy projects before committing resources.
- **NGOs & Advocacy Groups:** Leverage the tool's social impact scoring to push for equitable energy solutions.
- **Researchers:** Utilise the database to analyse trends and improve technology assessments.

Contact

For technical support and partnership opportunities: **European Institute for Innovation - Technology e.V.**

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Let's drive an equitable energy transition together.

- *Smart decisions. Just solutions. A sustainable future.*

Technology Evaluation Tool - Capacity Building Workshops

The successful development and implementation of the JETforCE Technology Evaluation Tool has been supported by a series of capacity-building activities aimed at strengthening partners' expertise in technology evaluation. These activities have ensured that stakeholders can effectively apply the tool in decision-making processes for green energy investments through a Just Energy Transition lens.

More information and resources can be found in the [JETforCE Online Capacity Enhancing Kit](#), which includes local campaign materials developed by project partners during the first pilot testing phase of the project in order to promote the JETforCE Challenge Mapping Tool.