



ETIP *Bioenergy*

European Technology and Innovation Platform

TRUSTxBio Innovation Challenge 2024

Challenge Description

As part of the European Technology Innovation Platform for Bioenergy (ETIP-Bioenergy), the [Center for the Study of Democracy](#) (CSD) and [Research Institutes of Sweden](#) (RISE.) are organising a biofuels and bioenergy innovation challenge (addressed in the document as Challenge).

The **TRUSTxBio: Empowering Trust and Innovation in Biofuels and Bioenergy Challenge** will provide participants with the valuable opportunity to learn how to increase the stakeholder engagement with their concept or a product and train how to pitch their innovative concepts to potential investors.

The Challenge aims to stimulate the development of solutions that capitalize on the synergistic potential of diverse digital technologies and innovative practices in the field of bioenergy and biofuels. This encompasses a wide range of technologies, such as artificial intelligence (AI), big data analytics, location-based technologies, and augmented reality solutions, all of which are focused on addressing the crucial aspects of bioenergy feedstock transparency and public trust.

The application of such technological solutions holds the potential to revolutionize operations, optimizing resource management and minimizing environmental impact. By providing transparent insights into the entire bioenergy supply chain, from feedstock sourcing to distribution, these technologies can enhance accountability, bolstering public trust and facilitating the transition to sustainable energy systems.

1. Agreement

Participant(s) are required to adhere to the Challenge Rules as set in this document, published also on the Challenge's website ([link](#)). By submitting a Concept to the Challenge, the participant(s) confirm their acceptance of the Challenge Rules. Failure to agree to the Challenge Rules will render the participant(s) ineligible to submit a Concept or ineligible for the prizes outlined in this document.

2. The goal of the Challenge

Innovation in bioenergy stands as a crucial imperative in today's landscape, especially as we navigate the complex challenges of sustainability and energy security. With the escalating concerns over climate change and the urgency to transition towards renewable energy sources, bioenergy emerges as a promising alternative. Integration of AI and digital solutions in bioenergy technologies offers transformative potential, facilitating efficient biomass conversion processes, predictive modelling for optimal resource utilization, and real-time monitoring of bioenergy systems.

The primary goal of the Challenge is to foster the development of fresh innovations that incorporate digital technological solutions in a way that enhances transparency and fosters public trust in the field of bioenergy and biofuels. The Challenge is purposefully designed to streamline the progression of Concepts while identifying and aligning funding opportunities to encourage their further development.

As a result, the Challenge has a dual focus:

1. Engaging researchers to create innovative technological proposals that address trust and transparency issues in bioenergy and biofuels within Europe.
2. Connecting external innovators, who possess innovative solutions, with potential funding opportunities and a network of stakeholders with cross-sectoral expertise.

Interdisciplinary teams are encouraged as they bring together a variety of perspectives, expertise, and approaches, fostering creativity and innovation in addressing complex challenges. By harnessing diverse skill sets from fields such as biology, information technology, engineering, economics, and sociology, these teams can develop holistic solutions that not only meet technical requirements but also consider social, environmental, and economic impacts.

3. Stages

3.1. Concept submission

Concepts should be submitted between July and September 2024. The application should include:

- Detailed concept description (up to 1500 words);
- Technology readiness level (TRL) of the concept (to be selected for the challenge, concepts should be at least at TRL 3);
- Use of information technologies (e.g. artificial intelligence, big data analytics, location-based technologies, augmented reality solutions etc) (up to 250 words);
- Contribution to the reduction of GHG emission, depletion of natural resources and waste by-products or increase in biodiversity. (up to 250 words);
- Risk towards public acceptance (up to 250 words).

The full application form is available at this [link](#). All Concepts must address the European market to be eligible to participate in the Challenge.

3.2. Concept screening

All applications will be reviewed by an internal selection committee, which will assess the relevance of the concepts against the Challenge goals on a rolling basis. Submissions will be evaluated according to their perceived potential and capacity based on submitted information. Upon completion of the application form, all applicants will gain early access to an online library of materials to further enhance their ability to present and promote their concepts.

3.3. Virtual kick-off

The Challenge platform will be launched through a virtual kick-off event. The event will inform the participant(s) about the rules of participation, schedule of the competition, jury members and

program logistics. They will have the possibility to present their short-listed concepts and connect with the other participants.

3.4. Concept acceleration

Two virtual workshops will be scheduled to support the participant(s) in further developing the short-listed concepts. The Virtual Workshops will be focused on the themes of science communication and fundraising. After the workshops, the participant(s) will have a 2-week period to upgrade their concepts before they pitch them to the Jury.

3.5. Evaluation and winner announcement

The accelerated concepts are presented by the participant(s) to the jury to enable further dissemination of the Challenge results. The Jury will evaluate the accelerated concepts based on pre-defined criteria and will announce the winner.

3.6. Award ceremony

The winner(s) will be recognized and awarded by ETIP Bioenergy and invited to present their innovation during an international conference on 12 March 2025 in Brussels, Belgium. The winner will have the opportunity to pitch their concepts to financing institutions such as the European Commission, the European Investment Bank or angel investors.

3.7. Networking and project development

After the challenge is completed, participants will receive additional benefits facilitated by the organizers including:

- Connections with mentors who are well-positioned to accelerate each innovation's development. Potential partners include JRC (Joint Research Centre) and INSAIT (Institute for Computer Science, Artificial Intelligence, and Technology).
- Joining a dedicated working group focused on pressing issues identified by the participants during the workshops.

3.8. Dissemination and scale-up events

Participant(s) will be informed about further opportunities to connect, share insights, and establish crucial partnerships for advancing and scaling up their projects. Dates, locations, and other details about the follow-up events with industry players will be disseminated well in advance in the period of September – December 2024.

4. Concept screening

The Challenge is open to all innovative concepts, including products, technologies and solutions, that are developed beyond the research stage, while not yet being established industrially. The integration of information technologies, including artificial intelligence, big data analytics, location-based technologies, and augmented reality solutions will be considered an advantage in the assessment process. All applicants must be registered in the EU.

The organisers will select the most promising and innovative concepts to enter the Challenge, based on their:

- relevance to the ETIP value chains;
- technological readiness level (based on the [European Technology Readiness Level \(TRL\) scale](#));
- participant's organisational structure;
- sustainability of the concept;
- social readiness level (based on several evaluation models, such as the [Societal Readiness Levels \(SRL\) criteria](#) of Innovation Fund Denmark);
- use of information technologies (based on [KTH Innovation Readiness Level™](#)).

The decisions made regarding the selection of Concepts for participation in the Challenge are final and binding. These decisions cannot be appealed and hold authority over all matters concerning the Challenge.

5. Virtual workshops

The primary objective of this model is to ensure meaningful interaction and learning during the events, as well as to create opportunities for the concepts to evolve and improve. The concepts submitted by the participant(s) will be evaluated step-by-step in relation to the workshop themes of focus, namely:

- Communicating Better: Translating Science to the Public
- Fundraising: How to Pitch to Investors like a Pro

The outcomes and insights gained from participating in the virtual events can be beneficially utilized during the final submission of the concepts for evaluation. Participating in the virtual workshops is highly encouraged, yet not mandatory. Non-participation does not diminish the chances of success in the Challenge.

6. Final Evaluation

The Concepts that have participated in the Challenge will undergo a final evaluation by the Jury consisting of representatives from the Organisers and external experts. This Jury will assess the Concepts based on the following criteria:

1. **Goal of the Challenge:** The extent to which the proposed Concept incorporates fresh

- innovations that involve digital technological solutions in a way that enhances public trust and fosters innovation in bioenergy and biofuels in the European market.
2. **Value Chain Contribution:** The extent to which the Concept adds value to the overall chain of activities and processes involved in delivering a product or service.
 3. **Innovation Height:** The degree of originality, novelty, and creativity demonstrated by the Concept, specifically in incorporating digital technologies in the final solution.
 4. **Business Viability:** The feasibility and potential for commercial success of the Concept as a viable business venture.
 5. **Scalability:** The ability of the Concept to be expanded, replicated, or adapted to larger markets or different contexts without compromising its effectiveness or efficiency.

Participant(s) are required to submit their final concept and deliver a presentation that addresses these criteria. It is the responsibility of the Participant(s) to provide all the necessary information for the evaluation of their Concept. The decisions made by the Jury in the Challenge, including the selection of the winning Concept, are final and binding. They cannot be appealed and hold authority over all matters concerning the Challenge.

7. Reward

The Challenge aims to provide significant opportunities for all participant(s):

1. **Accelerated Concept Development:** Participant(s) will have the chance to expedite the development of their Concepts through the Challenge.
2. **Dissemination, Matching with Funding Opportunities:** The Challenge Organisers will assist in creating high level dissemination and networking channels for the Participant(s), ultimately connecting the Concepts with appropriate matchmaking and funding opportunities.
3. **Access to Resource Library:** Challenge Organisers will provide ongoing access to a library of resources and tools related to public, social and stakeholder engagement, and science communication, among others.

All Participant(s) who participate in the Challenge will have the eligibility to join virtual events and undergo a criteria-based evaluation of their Concept, as explained in the previous section. The winning Participant(s) will be awarded a Seal of Excellence, recognizing the Concept's potential in terms of its value chain contribution, innovation height, business viability, and scalability.

Furthermore, all Participant(s) will receive a written assessment of their Concepts, including their ranking in comparison to other participating Concepts. This assessment can be used for further communication with potential stakeholders, funding agencies, and potential investors and customers.

Participant(s) are eligible to engage in activities organized by the Challenge's Organisers to find suitable funding opportunities for their Concepts. Additionally, all Participant(s) can benefit from the exposure gained through their involvement in the Challenge and are free to highlight their participation to any extent in media communications.

8. Right of ownership

The participant(s) will maintain full ownership of all Intellectual and Industrial Property Rights, including Moral Rights, related to their Intellectual Property that is utilized or incorporated into the developed Concept and its accompanying documentation submitted to the Challenge.

By participating in the Challenge, the participant(s) acknowledge and agree that any of the Organisers might possess or be working on materials or ideas that are similar or identical to the participant(s)'s Concept. The participant(s) relinquish any claims they may have arising from any resemblances to their own Concept.

9. IPR infringement

By entering a Concept into the Challenge, the participant(s) affirm that all materials and other information (such as source code, user interface, music, video, and images) included with the Concept are free from any infringement of intellectual property rights. Furthermore, if any third-party materials are involved, the participant(s) confirm that they have obtained permission to use such materials.

The Organisers maintain the right to modify, cancel, or revoke any and all rewards granted to the participant(s) in the event of infringement upon the intellectual property rights of third parties.

10. Confidentiality

The participant(s) have the option to share confidential information regarding the submitted ideas with the Organisers during the Challenge. Similarly, the Organisers may provide the participant(s) with confidential information related to their operations to facilitate the Challenge. In order for information to be considered "Confidential Information," the disclosing party must clearly indicate its confidential nature either through marking or in writing at the time of disclosure or within five (5) days thereafter. Alternatively, the information must be inherently understood to be confidential.

Both parties agree to maintain the confidentiality of any Confidential Information shared between them during the Challenge and for a period of five (5) years afterwards. Each party commits to taking reasonable measures to uphold the confidentiality of the information.

Without explicit approval from the disclosing party, the receiving party is prohibited from disclosing Confidential Information to third parties or transmitting such information to them, unless:

- 1) The receiving party can demonstrate that the information was already in their possession (in this context, the participant(s) understand that the Organisers are seeking ideas within their specific industry and may already possess similar ideas related to distribution and transportation functions).
- 2) The information was lawfully obtained from a source other than the other party and can be

- proven.
- 3) The information has become publicly known through means other than a violation of this agreement.
 - 4) The disclosure of the information is mandated by legal obligations beyond the control of both the disclosing and receiving parties or due to a court order.

11. Right to withdraw

The Organisers maintain the authority to cancel, terminate, modify, or suspend the Challenge at their complete discretion, without incurring any liability towards the participant(s) or any third parties associated with the participant(s) or their Concepts.

If the participant(s) wish to withdraw from the Challenge, they are required to promptly notify the Organisers and provide a reason for their cancellation. However, once the evaluation preceding the Final Event has taken place, the participant(s) will no longer be able to withdraw their participation.

The participant releases and agrees to indemnify CSD and the directly involved partners, mentors and judges from any and all claims, demands, actions, liabilities, losses or damages, costs and expenses of any kind, whether personal or proprietary, or whether direct or indirect, in connection with the conduct of the Challenge or the participant's participation therein and/or caused by or arising out of the participant's acceptance, possession, use, misuse or non-use of the Prize (where applicable). This release extends to any and all claims, demands, actions, liability, losses or damages, costs and expenses of any kind, whether to person or property, that may arise directly or indirectly with respect to the conduct of, or the participant's participation in the Challenge, and/or caused by or resulting from the participant's acceptance, possession, use, misuse or non-use of the Prize (where applicable).

To the extent permitted by applicable law, and notwithstanding any contrary provision, this Challenge and the Prize are provided on an "as is" basis without any warranty from CSD. CSD disclaims all warranties in relation to this Challenge and the Prize, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose, as well as any express warranties provided elsewhere in relation to this Challenge and the Prize. CSD shall not be held liable to the participant or any other party for any claim for loss, including without limitation, time, money, goodwill, any lost or damaged data (including, without limitation, the loss of or damage to any user content) and any consequential damages, which may arise from the participant's participation in this Challenge or the Winner's use, operation or misuse of the Prize. This is regardless of whether CSD has been advised of the possibility of such damages.

12. Privacy

In order for participant(s) to take part in the Challenge, the Organisers are required to handle the personal data of the participant(s), such as their name, email address, phone number, and photos. This personal data will be managed by CSD and will be processed for the purpose of organizing and

administering the Challenge. The personal data will be retained for a maximum of 16 months following the completion of the Challenge, after which it will be deleted.

For further details on how CSD handles personal data in relation to participant(s) involved in research projects, additional information can be found [here](#).

13. Publicity

The participant(s) also consent to allow the Organisers to utilize their name, images, and all of their Concepts in association with the marketing, sale, or promotion of the Challenge. Although the Organisers possess these rights, they are not obligated to utilize any Concept for any purpose, even if it has been chosen as a winning Concept.

14. Taxation

Any tax imposed due to any prize received under the Challenge shall be borne by the participant receiving the prize. All taxes, levies, and charges of any kind related to the prize, whether imposed by state, or local government bodies, shall be borne by the winners. It is the responsibility of the winner to ensure that acceptance of the prize does not contravene any laws or regulations, including, but not limited to, any conflict of interest or gift policies in effect at the winner's company or organisation of employment or public office. Should the winner be unable to accept the prize due to a lack of authorisation from their employer, the promoter shall request that the winner appoints a charity of their choice so that the prize can be donated directly to that charity on the winner's behalf. Should the winner fail to respond or satisfy the aforementioned requirements, the promoter reserves the right and sole discretion (without liability) to select and award the prize to another winner.

15. Governing law and arbitration

The Challenge and the Challenge Rules are governed by Bulgarian law, without considering conflict of law's provisions. Any dispute, controversy, or claim arising from or in connection with this contract, including its breach, termination, or invalidity, shall be resolved through arbitration in accordance with the Rules for Expedited Arbitrations (Rules on Expedient Procedure in arbitration cases) of the Arbitration Institute (the Court of Arbitration at the Bulgarian Chamber of Commerce and Industry) of the Bulgarian Chamber of Commerce and Industry. The arbitration proceedings shall take place in Sofia, Bulgaria. Bulgarian shall be the language used in the arbitration proceedings.