

SET4BIO

RENEWABLE FUELS AND BIOENERGY FOR A LOW-CARBON EUROPE - ACCELERATING THE IMPLEMENTATION OF THE SET-PLAN ACTION 8

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EXECUTIVE SUMMARY

As part of catalysation and implementation of the SET Plan Action 8 - Renewable Fuels and Bioenergy in Europe, the SET4BIO Innovation Challenge has been developed and mobilised to support creation of innovations that stimulate increased production and use of bioenergy and renewable fuels. Thus, contributing to the implementation of the EU Green Deal vision.

This report provides an account of the design and preparation of the SET4BIO Innovation Challenge anno 2021, from early development and design to the launch of engaging participating teams. It focuses on the architecture of the SET4BIO Innovation Challenge, the decisions made, efforts performed to design the structure and events for the challenge, as well as marketing activities to attract participants to contribute in the Innovation Challenge.

For the SET4BIO Innovation Challenge, a staged-process has been developed including contest rules, outreach plan, challenge prize, event approach, assessment criteria as building blocks. This repeatable process developed for the SET4BIO Innovation Challenge can further be re-used to mobilise support for the SET Plan Action 8.

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Statement of Originality

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Introduction

The aim of D3.1 “Innovation Challenge in SET4BIO“ is to provide an account of the design and preparation of the SET4BIO Innovation Challenge anno 2021, from early development and design to the launch of engaging participating teams. It constitutes a description of the activities that has been performed in Work package 3 (WP3) “Innovation Challenge” during M1-M12 in the project, with a focus on the challenge design and launch performed via Task 3.1 “Design SET4BIO Innovation Challenge” and associated to Task 3.2.1 “Registration to enter challenge”.

The document focuses on the architecture of the SET4BIO Innovation Challenge and the design decisions that were made, as well as the efforts performed to attract participants through systematic outreach activities. In the parallel report, D3.4 “Identification of topics for SET4BIO Innovation Challenge”, an account of the model used to set the objectives for the challenges is presented as well as the topics for the challenge’s virtual events used to support external innovators to match their ideas towards the overall objective for the challenge.

This report is structured as follows. Chapter 1 focuses on the drivers and reasoning behind the utilisation of innovation challenges as means to catalyse innovation by interacting with external innovators. Using this as a basis, Chapter 2 explains four potential formats that can be used to organise an open innovation effort following a contest-driven approach. In this chapter motives are presented for why the project selected the staged innovation challenge as type for challenge process in SET4BIO. Chapter 3 presents an account of the work activities performed during M1 until M11 in the project to design and prepare the SET4BIO innovation challenge, and is followed by 1) an overall description of the process that will run from M13 to M20 in the project (Chapter 4), 2) a detailed description of the engine in the process, i.e. the event based activities that support the external innovators enrolled in the project to transform their initial ideas into elevated concepts for solutions. Chapter 5 provides an account of the launching of the challenge with a focus on how the challenges were operationalised into a formal document displaying the rules for participation as well as description of activities performed to attract the target group to enrol to the challenge program.

The report is finalised prior to the operation of the challenge and, accordingly, it does not include any account of the output from the challenge. It serves as a display of the architecture of the SET4BIO Innovation Challenge anno 2021 and is presented as a repeatable model to be re-used to further mobilise support to the implementation of the SET Plan Action 8 - Renewable Fuels and Bioenergy in Europe.

Chapter 1 - Why an Innovation Challenge?

As presented in the application for funding for the SET4BIO, the project will follow the model to organise open innovation contests presented in the book “Open Digital Innovation: A Contest Driven Approach (Hjalmarsson et al. 2017). The main purpose with innovation contests that is organised over time (i.e. an innovation challenge) is to stimulate the development of mature concepts and prototypes beyond ideas (Hjalmarsson et al. 2017), and therefore they constitute a special case of contests and competitions in open innovation. In general, such contests aim to produce any kind of product or service or even just an idea or a design sketch. Many different words and phrases are used for talking about innovation contests, e.g. innovation competition, innovation tournament, idea jam, design contest and design price. These words do not have a

fixed meaning and different people use them in different ways. However, they do indicate important differences between innovation contests that have to do with purpose, time and the degree of inclusiveness (Hjalmarsson et al. 2017).

As explored in Hjalmarsson et al. (2017), the organisational format contests are used for many purposes. From the organiser's perspective, they can help to generate more ideas that can be transformed into products and services. They can help to select from among competing ideas and filter out those that are the most promising. They can also help to improve the visibility and image of the organiser by creating a buzz and drawing attention to the organiser and its brands. Yet another purpose is to strengthen the size and dynamism of an innovation community in which the organiser participates. For innovation, a related purpose is to investigate the opportunities that open accessible organisational resources, e.g. an open data platform, can offer an innovation community. Feedback from an innovation contest can help the organiser to understand which of the data offered is seen as the most useful by the external developers, what additional data or other organisational resources could be valuable, and which delivery channels are most appropriate (Hjalmarsson et al. 2017).

Innovation contests can offer important advantages for their organisers. By involving external developers, the results of a contest can help to reduce costs associated to research and development for the organiser. External developers and innovators can also provide fresh and original ideas that would not have been developed within the organisation, thereby increasing the chances for radical innovation (Hjalmarsson et al. 2017). Additionally, there is a potential for synergy between internal and external developers. This synergy can be particularly valuable for an organiser with limited digital experience and competence, as a digital innovation contest can bring in developers with complementary competences. Another kind of advantage is that an innovation contest can strengthen the status or brand of the organiser, by providing visibility and projecting an image of openness and innovation. The format of an open contest also enables viral marketing, as the word spreads among developers and innovators who could be interested in participating in the contest or in future open efforts and programs arranged by the organisers (Hjalmarsson et al. 2017).

There are, however, also potential risks and disadvantages with a contest driven format. One is that the organiser incidentally reveals information that is not intended for sharing. This could, in some cases, even result in losing a competitive advantage due to revealing intellectual property. More generally, the organiser can lose control by inviting external developers into its own innovation processes (Hjalmarsson et al. 2017). Such disadvantages could be prevented using sound rules for participation and a systematic approach not only to design the challenge but also to manage the contest. However, compared to other forms of open innovation, an innovation contest offers the organiser the means to regulate and incorporate external innovation, thereby strengthening the innovation capability.

Chapter 2 - Types of Innovation Challenges

The time-period of a contest-driven innovation process can vary (Hjalmarsson et al. 2017). Some contests are held during a very limited, intensive, period of time - maybe only a few days during which developers meet, create and present their contributions and get them evaluated. Innovation contests can also go on during an extended period of time - weeks or months - during which developers produce their ideas, designs and prototypes. Such long running contests may also include multiple rounds of evaluations. This means that weak contributions can be filtered out at an early stage, while stronger ideas can be developed and evaluated more carefully.

Innovation contests can also be more or less inclusive with respect to participation (Hjalmarsson

et al. 2017). The most open form accepts anyone to enter the contest. A closed form would only include invited participants. Then there are also all forms in between these poles, for example, restricting participation to certain kinds of people (individuals, companies, public sector organisations, etc.) or people with specific qualifications (educational degree, competence in an industry, etc.).

Four types of innovation contests can be distinguished by combining the dimensions of the time period and the degree of inclusiveness (Hjalmarsson et al. 2017), see Figure 2.1.

An innovation jam is only for a short time and very inclusive; it is therefore useful for generating many new ideas. An innovation cup is also inclusive, but the time is extended; it is helpful for strengthening an innovation community. An innovation battle is short and non-inclusive; it can be used for quickly identifying strong opportunities for novel digital services based on the open digital and/or physical resources available at the contest. An innovation challenge is long and exclusive; it can help an organiser to decide whether to build, procure or invest. Consequently, the innovation challenge may be used as part of a procurement process or as an initiator to a development process with the objective of creating a new service, product or solution to be launched on an end-user market.

	Inclusive recruitment	Exclusive recruitment	
Short contest	<p>“Innovation Jam” <i>Promote and stimulate</i></p>	<p>“Innovation Battle” <i>What is possible?</i></p>	Short contest
Long contest	<p>“Innovation Cup” <i>Strengthen and catalyze</i></p>	<p>“Innovation Challenge” <i>What should we buy, build or invest in?</i></p>	Long contest
	Inclusive recruitment	Exclusive recruitment	

Figure 2.1. Types of open innovation contests (Hjalmarsson et al. 2017)

The SET4BIO Innovation Challenge is in its first version (as of 2021) directed towards creating innovations that stimulate increased production and use of bioenergy and renewable fuels. It is not only about stimulating idea development or to strengthening an innovation community, it aims to 1) engage external innovators in developing innovative proposals for solutions that stimulate and increase the possibility of using renewable fuels and bioenergy in Europe; and 2) match external innovators with innovative solutions with potential funding opportunities. Consequently, the most promising format for this first version is to organise a long contest and promote exclusive recruitment of teams to engage as external innovators in this challenge.

Chapter 3 - Designing the SET4BIO Innovation Challenge

This approach supports organisers’ ambitions to involve external developers in the innovation of digital services based on digital resources made available to them. A contest will involve several stakeholders and the approach promotes shared understanding of the contest process. Moreover, organising innovation as a contest requires a focus at the nexus of innovation, performed by others

while retaining control over the innovation process (Hjalmarsson et al. 2017).

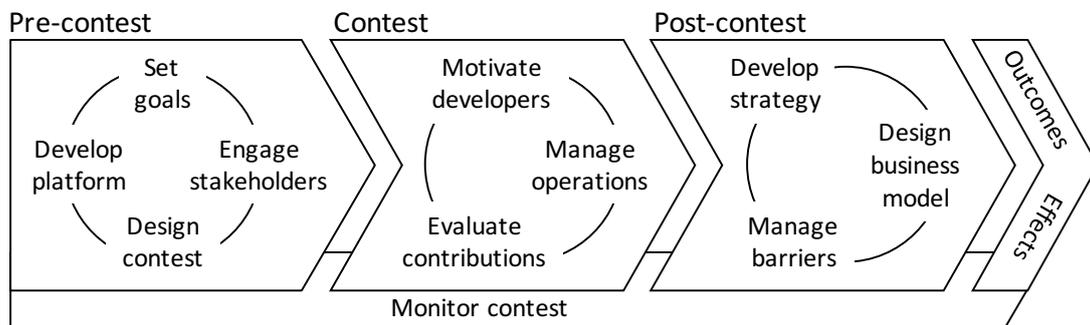


Figure 3.1. Approach for organising open digital innovation contests (Hjalmarsson et al. 2017)

The key message of the model to organise innovation as a contest can be summarised as follows: *Open innovation challenges provide a complement to traditional models for development by distributing the innovation practice to networks of developers external to the contest organisers.* The success contest driven innovation challenges require an organisational form that both stimulates external developers to participate and supports the organisers to keep control over the innovation process and its outcomes.

Following the management approach presented in figure 3.1, the SET4BIO consortia organised WP3 in three distinct phases. This report as well as D3.4 “Identification of topics for SET4BIO Innovation Challenge” provides an account of the activities performed in the pre-contest phase, i.e. M1-M11. The guidelines provided in Hjalmarsson et al. (2017) were used to design a workshop-driven model to define and set up the SET4BIO Innovation Challenge (as depicted in figure 3.2)

Utilising the consortia agreement as a basis, three workshops were organised to determine which type of innovation challenge to use and how to transform the idea of a SET4BIO innovation challenge into a manageable process to attract external innovators to contribute to the projects’ vision. A core WP3 staff was put together with members from RISE (innovation management), ETA (communication), Circe (funding opportunities), FNR (industry connections, anchoring with IWG8), VTT (anchoring with IWG8) and SINTEF (funding opportunities).

The purpose of the core staff was to both ensure momentum in the design and launch of the challenge, but also to ensure collaboration with adjacent WPs to link the challenge process to activities in these WPs to both facilitate input to the design as well as output to promote the success of these WPs.

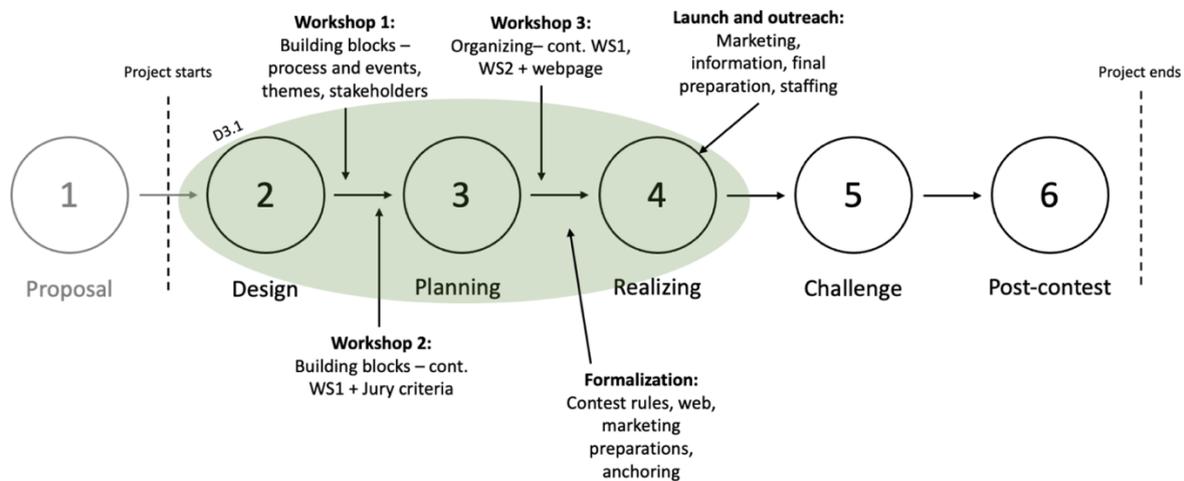


Figure 3.2. Process to form the SET4BIO Innovation Challenge

Workshop 1 (performed in M1) focused on the building blocks for the Innovation Challenge providing the basis to turn the idea of a challenge into an actual setup for the program.

- **Challenge process:** it was determined that the SET4BIO challenge should be organised as a staged acceleration process that facilitate participating teams to transform ideas to testable concepts for solutions. The program should retain a contest approach but downplay the competition feature in favour for support and guidance. However, it should retain the inclusion of contribution ranking and prizes.
- **Challenge theme and topics:** it was determined that the challenge should be anchored in the identified prioritized value chains for renewable energy and biofuel, firstly formulated by European Bioenergy Industrial Initiative (EIBI) in 2009, reviewed and further developed from then until 2020 (see D3.4). This to ensure that the output from the challenge is directed towards the strategy for Europe to mobilise a cost-competitive world class bioenergy and renewable fuels market.
- **Challenge stakeholders:** it was determined that the shift toward support and guidance required the engagement of additional stakeholders (non-participating teams) to operate the challenge, acting as mentors, expert jury and providers of information of funding opportunities.

The output from workshop 1 initiated in-between work (M2-M3) that refined the original proposal for the SET4BIO challenge. In addition to an improved staged process and the initiation of the definition of the challenge theme and topics, work was also performed to develop criteria for screening interesting participants as well as criteria to perform assessment of the contributing teams throughout the innovation challenge. This output was elaborated on during workshop 2 (M4) with a focus on:

- **Challenge prize:** it was determined that the SET4BIO Innovation Challenge was not able to provide a monetary based prize. Rather, the consortia decided that the prize should be multi-faceted including the actual award to be enrolled to the challenge, the value created through guidance and network development during the events, and also, as main

- prize the chance to win a “seal of excellence” i.e. be top-ranked through the evaluation performed by an expert jury.
- **Criteria to be used during the challenge:** in the wake of determining the challenge prize both in terms of entrance and final assessment, the project decided that two set of criteria should be developed to support systematic assessment of teams and their contributions. The first set of criteria aimed to support the screening of interested teams for participation. The utilisation of a criteria-based approach for selecting interesting participants enable the perception that if you are selected to participate then you are singled out and thus become a winner. The second set of criteria aim to support gradual assessment of the teams as the progress through-out the innovation challenge program.
 - **Challenge outreach:** the second workshop also included revision of the first version of the contest platform to be provided on the ETIP Bioenergy webpage with a discussion about what information to provide, how for teams to enrol, a communication plan as well as a launch date.
 - **COVID-19 adaption:** at this stage during 2020, the impact of COVID-19 became evident and a decision was made to not move forward or cancel the SET4BIO Innovation Challenge. Instead, as the main objective with WP3 is to develop and validate a repeatable model for catalysing the development of technological solutions that support the value chains and development paths defined, a bold decision was made to adapt the challenge to a virtual setup and adjust the expectations in terms participants to be able to test-run the challenge throughout 2021 as planned.

After workshop 2, the core team began to transform the architecture of the challenge program into a formal set of rules for participation (see Appendix 1) moving towards the possibility to organise and launch engagement of teams to the project. The opening of team enrolment was determined to October 2020 with prior marketing beginning in September 2020. The timeline for the SET4BIO Innovation Challenge was finally decided on the third workshop, which was organised at the beginning of September 2020:

- Engaging participants October 2020 to Mid-March 2021 - possibility to apply for participation via the ETIP Bioenergy webpage.
- Screening of applications and information to enroll participants Mid-March to end of March 2021.
- Virtual kickoff of the challenge: beginning of April 2021.
- Virtual events to catalyse, support and gradually assess the participating teams Mid-April to Mid-November 2021.
- Final event (physical if possible) with expert jury assessment and announcement of winner of “seal of excellence” - November/December 2021.

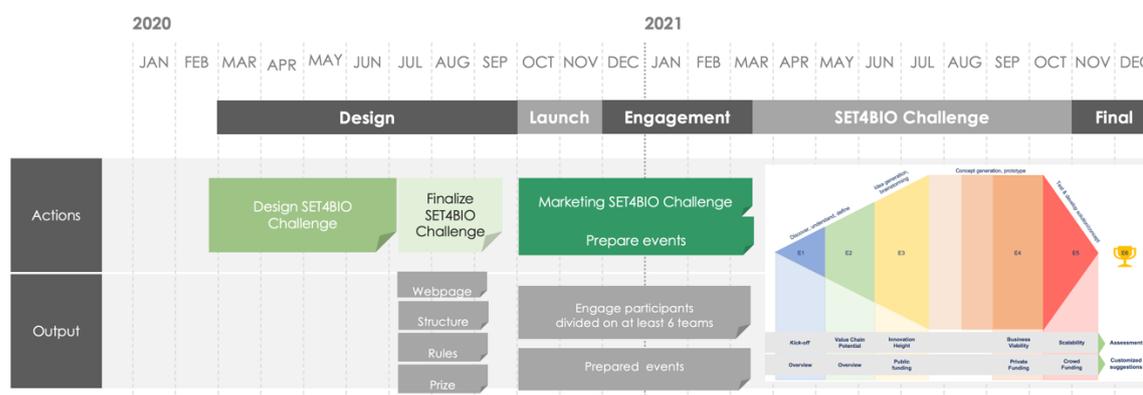


Figure 3.3. Moving from Challenge design to Challenge launch and engagement

The finalisation of the SET4BIO Challenge in terms of setting up a web page, structure, formalised rules and prize ended the design of the program. This in turn enabled the project to move into the bridge phase between the design and the actual operation of the innovation challenge (as depicted in Figure 3.3). From M8 until M12 activities have included the marketing of the challenge and the preparation of events including the outline of the events, the logic between events as well as staffing of jury and board of mentors. The outcome of these activities will be further elaborated on in Chapter 4 and 5.

Chapter 4 - The SET4BIO Innovation Challenge anno 2021

The design process described in Chapter 3 generated the process as depicted in figure 4.1. It constitutes of sequential pre-challenge, accelerating and beyond the challenge phase, with the main purpose to mobilise the development of novel solutions that increase the production and use of renewable fuels and bioenergy in Europe. Contributing to implement the EU Green Deal vision.

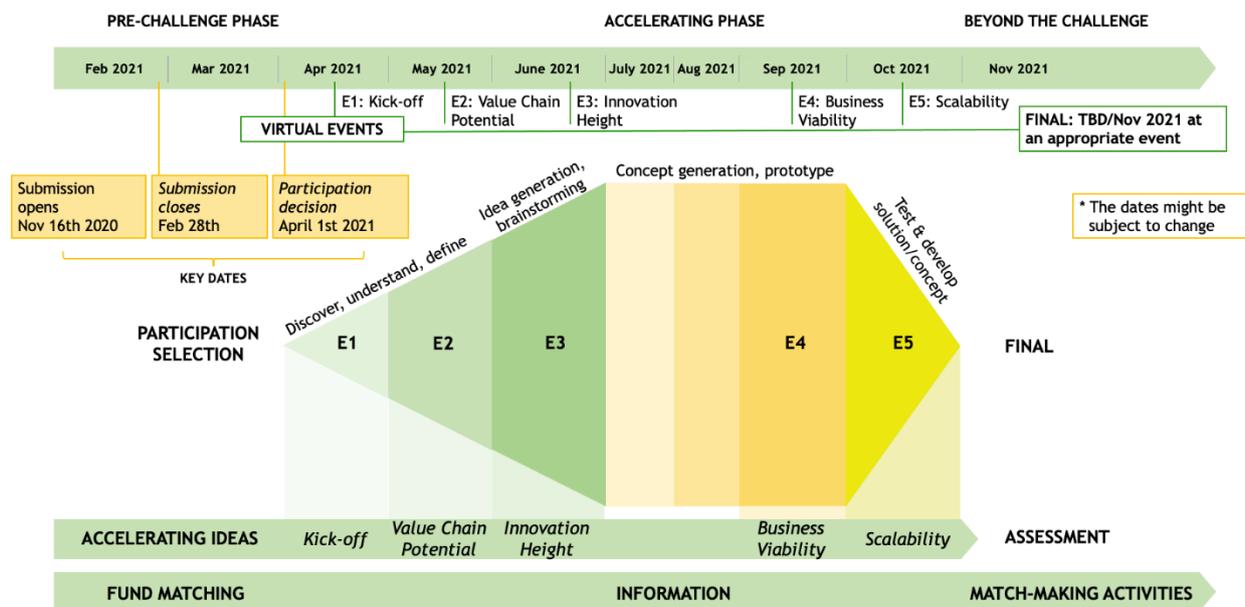


Figure 4.1. SET4BIO Innovation Challenge anno 2021

PRE-CHALLENGE PHASE

The pre-challenge phase consists of two major activities: marketing (engagement and onboarding) and preparation. Marketing (engagement and onboarding) was initiated during September (one month prior to launch of the onboarding site). The launch of the onboarding site enables teams to apply for participation. The process to apply follows a structured form that include the description of team members and team capacity, a brief account of the idea that the team want to accelerate during the program, a statement how the idea adheres to the 6+2 value chains that are used to anchor the SET4BIO Innovation Challenge to the SET Plan Action 8 - Renewable Fuels and Bioenergy in Europe (see D3.4 “Identification of topics for SET4BIO Innovation Challenge” for a comprehensive introduction to the selection of the prioritized value chains in the innovation challenge as mean to scope and frame the challenge).

In addition to these items, the teams are asked in the application phase to provide a self-assessment of the maturity of the contribution that the team aim to accelerate through the program, and a declaration of how the team currently fund their effort with their contribution. The items that the team submit is based on 1) the screening criteria used for selecting and approving teams, 2) the aim to utilise the input to tailor fund matching activities throughout the accelerating phase.

When applying for involvement, the teams accept the rules for participation (see chapter 5) and this in turn initiates the screening process. The selected teams receive information that they are accepted for participation two weeks prior to the kick-off, and in parallel teams that are not selected receive information that their application has been rejected with a motivation for the reasons why that decision was made. Upon acceptance, a procedure to onboard the selected teams starts, which include information about the program, expected input during different events and program logistics necessary for participation.

ACCELERATING PHASE

Participation in the SET4BIO Innovation Challenge requires that the team is driven and persistent to transform their idea to a concept that can be demonstrated and ranked by the mentors and the jury. To facilitate and support the teams to develop their different concepts and thus prepare their presentations for final assessment the program includes four events that make up the core of the *accelerating phase*. As displayed above in figure 4.1 these events (excluding the kick-off) focus on four different topics that aim to help the teams to develop their contribution in line with the assessment criteria that will be used on the final event. The topics for each event after the kick-off correspond to the four overall criteria used for final assessment:

- **Event 1 - Kick-off:** *the purpose is to inform about the program, rule of participation, introduction to contributing participants, jury members, program logistics, schedule and online. The ambition is that the participants after the initial event should feel inspired, prepared and chosen.*
- **Event 2 - Value Chain Potential:** *the event provides information about the value chains as well as the challenges Europe faces to pursuit the different value chains. The aim with the event is to support the teams to connect their contributions to the value chains to improve relevance and adherence to the value chains. Support will be provided through mentor-based individual feedback on the presentations performed by the teams. The event will also include information about public funding opportunities. The ambition is that the participants after the event should feel anchored in the value chain(s), seen and acknowledged and competitive between the teams.*
- **Event 3 - Innovation Height:** *the third event aims to support the teams to ensure novelty in the contribution and facilitate that the teams avoid reinventing the wheel. The board of mentors will put effort in stimulating the teams to advance on the TRL scale as well as position the team's contribution to benchmarks and existing offers. The event will also include information about private funding opportunities. The ambition is that the participants after the event should feel enlightened with a broader perspective on their proposed contributions and forward-looking.*
- **Event 4 - Business Viability:** *this event aims to inform about existing and potential business models for solutions involving renewable energy and biofuels. The event will provide tools to visualise the business potential in the contributions put forward by the teams. It will also provide an arena and opportunity for the teams to argue and defend the business sustainability in their specific solutions. The funding opportunity session will*

provide hands-on tips and guidelines for how to fund solutions in a second step. The ambition is that the teams should feel challenged in terms of business viability, prepared for the last mile in the accelerating program and supported.

- **Event 5 - Scalability:** this last event prior to the final aim to guide the teams to develop an appropriate strategy for technology diffusion. This includes the introduction to different technology diffusion models and support in utilisation of a toolbox for strategy development. The function of the board of mentors is provide feedback on the draft strategies for growth presented by the teams. In addition, the event will offer funding co-creation sessions to the teams to support the development of a draft for a funding plan.
- **Final:** the ambition is that the final event can be co-organised with a larger EU event. The motive is that this will enable further dissemination of the value from organising innovation challenges with a focus on renewable energy and biofuel. The event will include criteria-based pre-assessment of contributions, team presentations and final ranking and announcement of winners.

BEYOND THE CHALLENGE PHASE

The Beyond the challenge phase will follow the acceleration phase. The *beyond the challenge* phase has the purpose to bridge the output from the SET4BIO innovation challenge to fund matchmaking activities organised by WP4 in the project. It will also include assessment activities related to the acceleration program and dissemination of lessons learned.

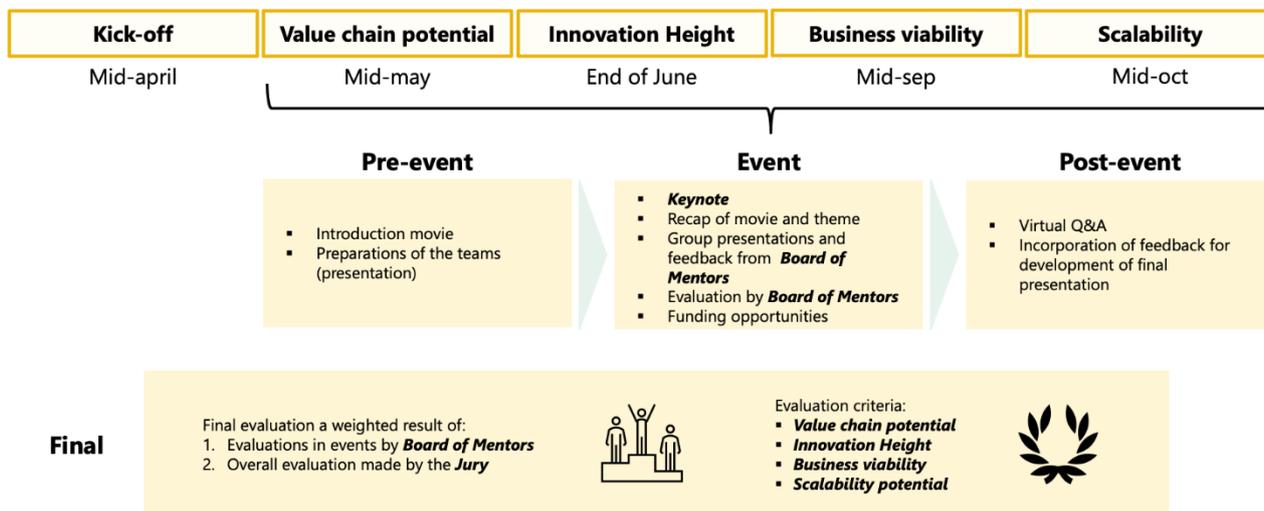


Figure 4.2. The Acceleration Phase – An Event-driven Approach

AN EVENT-DRIVEN APPROACH

The SET4BIO Innovation Challenge anno 2021 will follow an event-driven approach, as is depicted in figure 4.2. Each of the four core events in the challenge will consist of pre-event as well as post-event activities. Each event will follow a four-week cycle and is structured following a generic event model developed within WP3 for the SET4BIO Innovation Challenge, se figure 4.3.

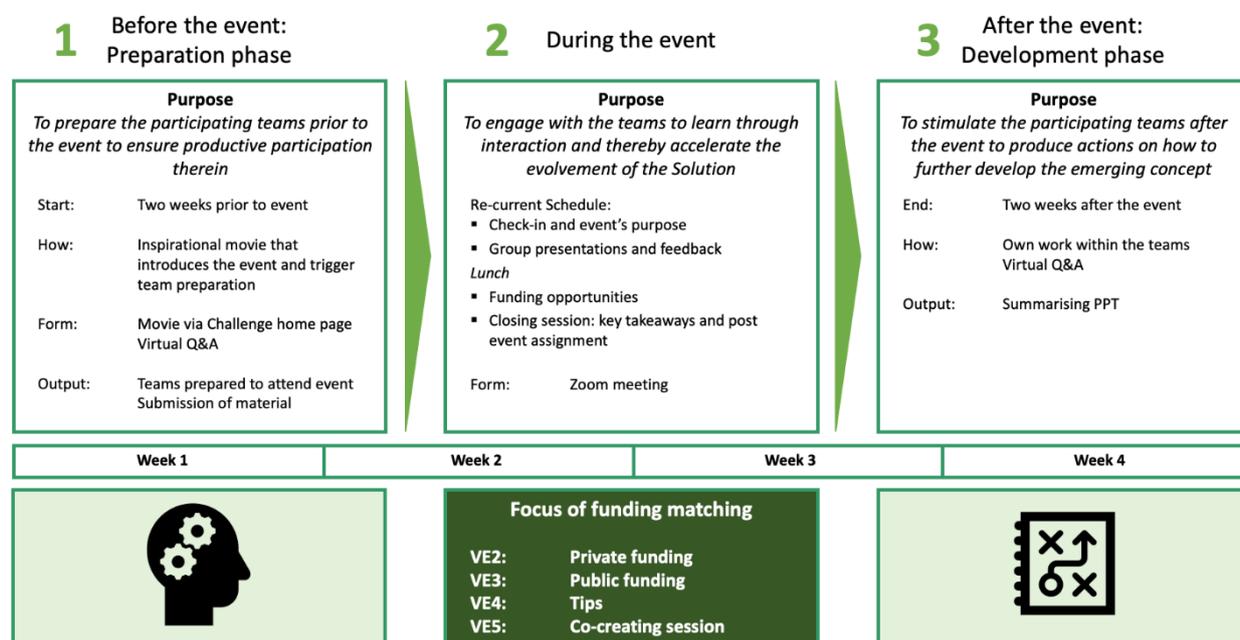


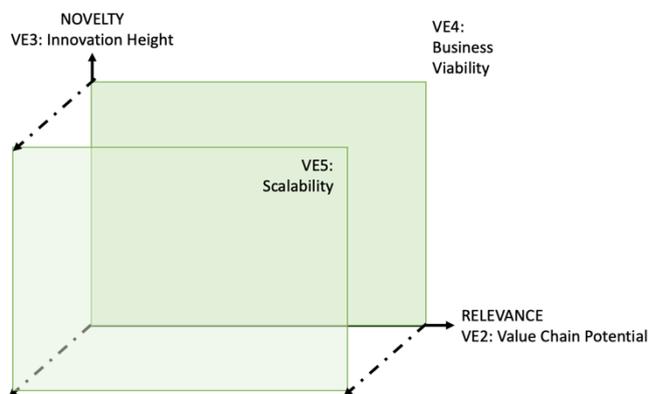
Figure 4.3. A Generic Event Model

Two weeks prior to the event, the participating teams will be requested to prepare input to be presented on the event. The purpose is to prepare the participating teams prior to the event to ensure productive participation therein. This is triggered by an inspirational movie that introduces the event and instructs the team how to prepare. A virtual Q&A is provided to support the team during the two-week preparation phased. Material is submitted prior to the event to support the board of mentors assigned to the event to prepare feedback to the teams. Each event will involve a board of mentors that will be involved based on their expertise related to the specific theme for the event.

The board of mentors will consist of four to six mentors during each event. Most mentors will only participate in one event as they are engaged based on their expertise on a specific topic. The head of the board of mentors will be a regular participant on the board and attend all events with a specific objective to create a red thread between the events in terms of the gradual assessment of the teams.

Each of the four events will include a brief introduction to the event followed by a keynote that address the specific theme in relation to renewable energy and biofuel. The plan is to utilise one of the mentors as keynote presenter. The logic between the events is that the first one, after the kick-off, will focus on the relevance that the proposed concept has in relation to the prioritized value chains that constitute the scope for the challenge. The events thereafter aim to stimulate innovation height in the solution, followed by business viability and scalability. Utilizing these criteria it will then be possible to place the different contributions within the challenge “box” (see below) to differentiate them and also rank them. It will also be possible to trace how the contributions evolve over time.

Each of the teams is invited to present individually to the board of mentors while the other teams are waiting in the lobby. Throughout this first version of the challenge this individual model for presentations will be utilized. An ongoing-assessment will be performed to investigate the interest and possibility to alter to a presentation with the other teams as audience; this in order to facilitate cross-team learning and contribution.



The individual presentations by the team are followed by questions from the board and which are prepared based on the submitted material as well as the presentation given. The board of mentors ranks the contributions provided by the teams. This is done after all presentations are given during the funding opportunity activity that follows the presentation session. Each event is closed by key takeaways from the day and information what will happen after the event. The ranking, which gradually will evolve after

each event, will be summarised on a leaderboard that only will be accessible by the participants in the SET4BIO Innovation Challenge, working as a trigger to foster further development efforts.

Each of events will be followed by a post-event phase with the purpose to stimulate the participants to organise actions that enable them to develop their contributions based on the feedback provided during the events and through the tools and knowledge acquired. This work will be stimulated through written comments from the board of mentors to each team, summarizing the feedback, as well as the provision of link and open resources related to the methods and tools introduced prior to and during the specific event. Virtual Q&As will be offered to the participating in order to ensure and facilitate that the teams do not lose momentum between the coordinating events.

Chapter 5 - Launching the SET4BIO Innovation Challenge

IMPLEMENTATION

Launching of the SET4BIO Innovation Challenge was performed as a roll-out process. In September 2020 the main design of the challenge was approved by the project management team. This design was in addition presented at the IWG8 work session in September 2020 with the purpose to both anchor the approach chosen and engage stakeholders to start marketing the official launch of the challenge in October 2020. This was followed up by a final decision to start recruiting teams to the challenge.

The actual launch in October 2020 was operationalised through the opening for teams to enroll using the systematic form to apply for participation. Beside enabling that functionality, the final set of participation rules was published together with the form to register teams. The rules, which are included in the Appendix, cover 16 sections:

- Challenge description
- Agreement



- The Challenge
- Stages
- Participation selection
- Virtual events
- Evaluation
- Reward
- Right of ownership
- IPR infringement
- Confidentiality
- Right to cancel
- Privacy
- Publicity
- Tax
- Governing law and arbitration

The section *challenge description* provides a short summary account of the SET4BIO challenge and in addition state the organisers of the challenge. The section *Agreement* function as binding contract to ensure that Entrant(s) in the challenge agree to follow the Challenge Rules as published. It is also stated in this section that organisers may amend the rules over time. The section *The Challenge* state the overall aim with the SET4BIO Innovation Challenge anno 2021 and also the two objectives with the program: 1) to engage external innovators in developing innovative proposals for solutions that stimulate and increase the possibility of using renewable fuels and bioenergy in Europe; and 2) to match external innovators with innovative solutions with potential funding opportunities. *Stages* provide an overview of the activities that constitute the challenge process. It is an overview of the process as described in chapter 4 in this report.

The challenge components *Participation selection*, *Virtual events* and *Evaluation* is more in detail described in the rules focusing on the criteria used to screen applicants aiming to enter the challenge as well as the criteria to be used by the jury when evaluating the Concepts as the final event is reached. The engaged Jury will evaluate the competing Concepts based on the following criteria:

- Value Chain Contribution;
- Innovation Height;
- Business Viability;
- Scalability.

The section *Reward* state the prizes and benefits that the SET4BIO Innovation Challenge 2021 comprise. The winning Entrant(s) will receive a Seal of Excellence, articulating the potential of the Concept in terms of its value chain contribution, innovation height, business viability and scalability. All Entrants will receive a written assessment of their concepts, also including their ranking in relation to the other participating Concepts, which can be used in further communication with potential stakeholders, funding agencies and potential customers.

The sections *Right of ownership*, *IPR infringement* and *Confidentiality* is related to the teams concepts. Key of the SET4BIO Innovation Challenge anno 2021 is that the entering teams shall retain ownership of all intellectual and industrial property rights (including moral rights) in and to its Intellectual Property used and/or incorporated in the developed Concept, including documentation, submitted to the Challenge. However, at the same time Entrants acknowledge and agree that any of the organisers of the challenge may have or may be developing solutions of similar or identical character as the concept provided. In addition to these regulations the rules

also include guidelines for canceling participation, privacy and GDPR, publicity, tax and governing law and arbitration.

PARTICIPATION IN THE CHALLENGE

We are searching for engaged Teams with innovative Concepts to join the SET4BIO Innovation Challenge 2021

After an initial **selection**, the most promising submissions will be accepted to participate in the SET4BIO Innovation Challenge, setting out to **accelerate the development and deployment of sustainable solutions**, contributing to the implementation of the **EU Green Deal** vision

Apply if you are an innovator currently in the stage of

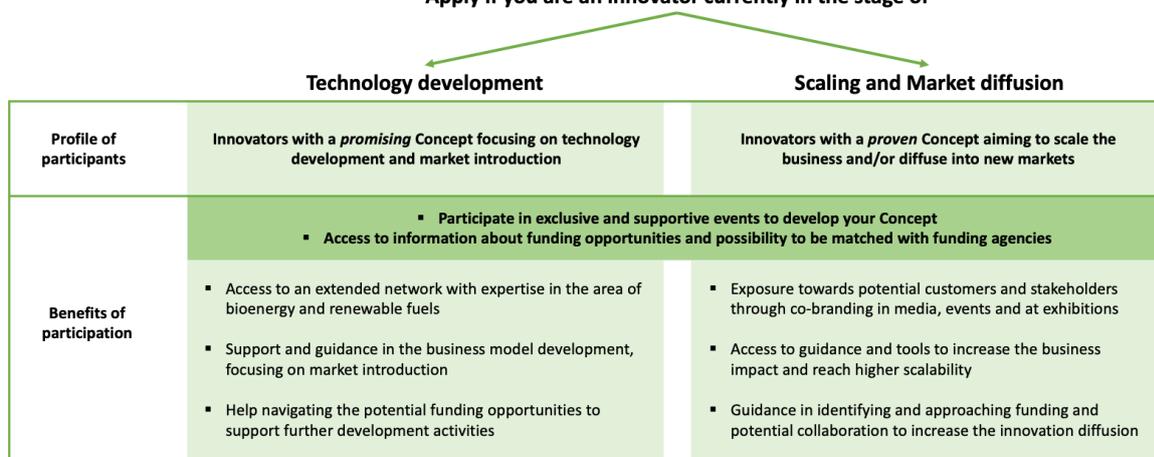
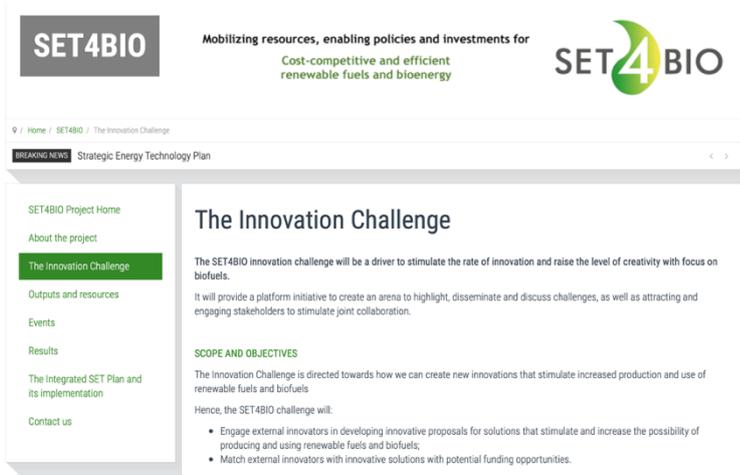


Figure 5.1. Team profiles

OUTREACH

The second aspect of launching the challenge in September 2020 was to set up and perform outreach, i.e. to market and engage potential teams to send in applications for participation in the SET4BIO Innovation Challenge. A first step in this process was to define the target group for the challenge. Through elaboration WP3 defined profiles for the target groups to engage.

External innovators with a promising concept focusing on technology development and market introduction was deemed as one group of candidates to reach and attract to the challenge. The benefits of participation are that this group through the acceleration process receives access to an extended network with expertise in the area of renewable energy and biofuels that support development and market introduction. The second hands-on value is that participation provide support and guidance in developing a sound business model with a focus on market introduction. A third benefit is that the acceleration program through the events supports the teams to inform about and understand potential funding opportunities that if enabled will support the teams to take further steps in developing their solution.



The second profile for target group was defined as innovators with a higher technology readiness level with a proven concept aiming to scale the business and/or diffuse into new markets.

For this target group benefits of participation include exposure towards potential customers and stakeholders through co-branding in media, events and at exhibitions throughout the challenge. Also, the challenge provide success to guidance and tools to increase the business impact and reach higher scalability.

For both groups participating in the challenge will proceed exclusive supportive events that facilitate the development of their submitted concept. In addition, access to information about funding opportunities and the possibility to be matched with funding agencies to have an impact on the European market.

Utilizing the ETIP Bioenergy web page [www.etipbioenergy.eu/set4bio/innovation-challenge] as the core communication platform, WP3 with the project partner ETA as lead, have applied multiple communication channels to reach out with the SET4BIO Innovation Challenge. This includes newsletters, LinkedIn, short movies and distribution of flyers. The marketing activities will continue throughout March 2021.

These snapshots are examples of the outreach activities performed to market and engage teams to apply for participation in the challenge



Chapter 6 – Final notes

This report provides an account of the design and preparation of the SET4BIO Innovation Challenge anno 2021, from early development and design to the launch of engaging participating teams. The report was finalised prior to the operation of the challenge and thus does not include any account of the output from the challenge. It serves as a display of the architecture of the SET4BIO Innovation Challenge anno 2021 and is presented as a repeatable model to be re-used to further mobilise support the implementation of the SET Plan Action 8 - Renewable Fuels and Bioenergy in Europe.

For preparing this report, the following deliverable/s have been taken into consideration:

D#	Deliverable title	Lead Beneficiary	Type	Dissemination level	Due date (in MM)
D3.4	Identification of topics for SET4BIO Innovation Challenge	RISE	Report	Public	M12

References

Hjalmarsson, A., Juell-Skielse, G., Johannesson, P. (2017): Open Digital Innovation: A Contest Driven Approach. Springer-Verlag, Berlin Heidelberg, Germany.



Appendix – Rules for Participation



SET4BIO Innovation Challenge 2021 Rules for Participation



Challenge description

The SET4BIO Innovation Challenge 2021 (the “Challenge”) is directed towards accelerating the creation of new innovations that stimulate increased production and use of renewable fuels and bioenergy. RISE Research Institutes of Sweden AB (RISE) is together with SINTEF Energi AS (SINTEF), Fachagentur Nachwachsende Rohstoffe e.V. (FNR), Fundación Circe Centro de Investigación de Recursos y Consumos Energéticos (CIRCE), VTT Technical Research Centre of Finland Ltd (VTT), and ETA Florence Renewable Energies (ETA), (together the “Organisers”) arranging the Challenge.

Agreement

In order to enter the Challenge, the Entrant(s) must agree to the Challenge Rules, as published and eventually amended from time to time¹ on <https://www.etipbioenergy.eu/set4bio/innovation-challenge>. The Entrant(s) agree that submission of a Concept in the Challenge constitutes agreement to the Challenge Rules. The Entrant(s) may not submit a Concept to the Challenge and are not eligible to receive the prizes described in the Challenge Rules unless the Entrant(s) agree to the Challenge Rules. The Challenge Rules form a binding legal agreement between the Entrant(s) and the Organisers with respect to the Challenge.

The Challenge

The aim of the Challenge is to accelerate the creation of new innovations that stimulate increased production and use of renewable fuels and bioenergy. Thus, the objective with the Challenge becomes two-fold, being:

- 1) to engage external innovators in developing innovative proposals for solutions that stimulate and increase the possibility of using renewable fuels and bioenergy in Europe; and
- 2) to match external innovators with innovative solutions with potential funding opportunities.

The Challenge is accordingly designed both to accelerate and facilitate the development of the Concepts, as well as to identify and match funding opportunities in relation to these Concepts to stimulate further development.

¹ In case of amendment, those who have already agreed on the previous version will receive a notification and a request for approval of the modified agreement.

Stages

The Challenge is divided into the following stages:

1. Submittal of Concepts (initial ideas)

All Concepts ready for submission should be submitted using the form at <https://www.etipbioenergy.eu/set4bio/innovation-challenge>. The application should include necessary information about the Concept and the Entrants, including a description of the Concept, its relation to the value chains and a brief overview of the experience and competences of the team members. All Concepts must address the European market in order to be eligible to participate in the Challenge.

2. Screening of Concepts

A screening of Concepts will be made by the Organisers to select the most promising Concepts to be accepted to enter the Challenge. Participation selection is based on evaluating the submissions in accordance to their relevance, perceived potential and capacity based on the submitted information.

3. Virtual Kick-off

At this stage, information to the Entrants, including more information about the challenges to be addressed in the SET4BIO initiative, the value chains in focus, and general information about the Challenge will be provided through a dedicated event.

4. Virtual Events

Four virtual events to support the Entrants in developing the Concepts will be scheduled. The Events are focused on value chain contribution, innovation height, business viability and scalability, respectively. Each virtual event is preceded by a preparation phase and followed by a post-event phase to ensure concept acceleration.

5. Final Event

The presentation of Concepts by the Entrants to the Jury will be done. The evaluation of best Concepts will be performed by a Jury and the winners will be officially presented.

Dates, locations and other details about the Events will be published beforehand on:

<https://www.etipbioenergy.eu/set4bio/innovation-challenge>

Participation selection

The Concepts submitted to the Challenge will be evaluated to be selected for participation in the Challenge. The participation selection will be made by the Organisers. The evaluation of the Concepts will be based on the relevance of Concept to the challenge scope, its



potential and the Entrants capacity. The participation selection decisions are final and binding in all matters regarding the Challenge and cannot be appealed.

Virtual Events

The participation in the virtual events is encouraged since a majority of value from participating in the Challenge for the Entrants is provided via the events. Joining the virtual events requires engagement before, during and after the event, in accordance to a three-phase model, including a preparation phase before the event, and a development phase after. The objective is both to ensure fruitful interaction and learning in the events and enable opportunities for accelerated development of the Concepts. The Concepts will be assessed step-by-step in relation to the themes in focus. The outcome of the virtual events can beneficially be used for the final submission of the Concepts for evaluation. Nonetheless, participation in such events is not mandatory and it does not preclude Entrants the chance to get success in the Challenge.

Evaluation

The gradually assessed Concepts which have participated in the Challenge will be evaluated at a final event by a jury (the “Jury”), which will be composed of representatives of Organisers and Stakeholders of the Challenge. The Jury will evaluate the Concepts based on the following criteria:

- Value Chain Contribution;
- Innovation Height;
- Business Viability;
- Scalability.

The Entrants are obliged to submit and perform a presentation of their Concept in relation to these criteria. The Entrants are responsible for including the information required to evaluate the Concept.

The Jury’s decisions in the Challenge, including the Jury’s decision regarding the winning Concept, are final and binding in all matters regarding the Challenge and cannot be appealed.

Reward

The Challenge sets out to provide all the participating Entrants with two major opportunities:

1. accelerating the development of the Concept;
2. matching the Concepts with suitable funding opportunities



All participating Entrants in the Challenge will be eligible to participate in the virtual events and to a criteria-based evaluation of the Concept, as described in the previous section. The winning Entrant(s) will receive a Seal of Excellence, articulating the potential of the Concept in terms of its value chain contribution, innovation height, business viability and scalability. All Entrants will receive a written assessment of their Concepts, also including their ranking in relation to the other participating Concepts, which can be used in further communication with potential stakeholders, funding agencies and potential customers.

All participating Entrants are eligible to participate in activities pursued by the Organisers to match the Concepts with suitable funding opportunities. All participating Entrants are also eligible to benefit from the exposure gained through participation in the Challenge and can to any degree accentuate their participation in the Challenge in media communications.

Right of ownership

The Entrant(s) shall retain ownership of all Intellectual and Industrial Property Rights (including Moral Rights) in and to its Intellectual Property used and/or incorporated in the developed Concept, including documentation, submitted to the Challenge.

By entering the Challenge, Entrant(s) acknowledge and agree that any of the Organisers may have and/or may be developing or commissioning materials and/or ideas similar or identical to a Concept. Entrant(s) waive any claims Entrant(s) may have resulting from any similarities to Entrant(s)'s Concept.

IPR infringement

By submitting a Concept into the Challenge, Entrant(s) confirm that all material and other information (including but not limited to source code, both open source and third party sourced, user interface, music, video and images) provided with Concepts are free of intellectual property right infringement and, if a third party is involved, that Entrant(s) has secured permission to use such materials.

The Organisers reserve the right to amend, cancel and withdraw any and all rewards of Entrant(s) where the intellectual property rights of third parties are infringed.

Confidentiality

The Entrant(s) may provide the Organisers with information of a confidential nature relating to the ideas submitted in the Challenge. Further, the Organisers may for the purpose of facilitating the Challenge provide the Entrant(s) with information of a confidential nature relating to its operations. To be regarded as "Confidential Information" the (a) disclosing party must mark or otherwise inform in writing of its confidential nature at the time of the



disclosure or within five (5) days thereafter at the latest; or (b) information must be obviously understood to be confidential.

Confidential Information provided by one party to another shall be kept confidential during the Term of the Challenge and for a period of five (5) years thereafter, and each party agrees to take such measures as may be reasonably required to maintain confidentiality.

Consequently, the receiving party is not, without special approval by discloser, allowed to disclose Confidential Information to third parties or transmit such information to third parties unless:

- The receiving party/parties can demonstrate that the information was already in the possession of the receiving party/parties (in this context the Entrant(s) understand that the Organisers are seeking ideas within their fields of business and that the Organisers are already in possession of many ideas related to functions within the area of distribution and transportation);
- The information was lawfully and demonstrably obtained from someone else than the other party;
- The information has become publicly known other than through a breach of this Agreement;
- The information is disclosed pursuant to legal obligations beyond the control of the disclosing and receiving parties or due to a court order.

Right to cancel

The Organisers reserve the right to cancel, terminate, modify and suspend the Challenge at their absolute discretion and without any liability whatsoever to any Entrant(s) or third party connected with the Entrant(s) or Concepts.

If the Entrant(s) want to cancel their participation in the Challenge, they are obligated to inform the Organisers without delay, also providing an explanation for their cancellation. Once the evaluation prior to the Final Event is performed, withdrawal by the Entrant(s) is not possible.

Privacy

For Entrant(s) to be able to participate in the Challenge, the Organisers need to process personal data of the Entrant, e.g. name, e-mail, phone number and photos. The personal data will be managed by ETA Florence Renewable Energies (ETA), processed for the purpose of conduct and to administer the Challenge and will be deleted no later than 16 months after the Challenge final.

More information regarding how ETA processes personal data related to participants in research projects can be found here:



<https://etipbioenergy.eu/privacy-policy-disclaimer-copyright>

Publicity

Entrant(s) further agree to permit the Organisers to use Entrant(s)'s name and likenesses and all of its Concepts, to feature the Concept and all its content in connection with the marketing, sale, or promotion of the Challenge. While the Organisers reserve these rights, the Organisers are not obligated to use any Concept for any purpose, even if it has been selected as a winning Concept.

Tax

Any tax imposed due to any prize received under the Challenge shall be borne by the Entrant receiving the prize.

Governing law and arbitration

The Challenge and the Challenge Rules are governed by Swedish law without regard to conflict of laws provision. Any dispute, controversy or claim arising out of or in connection with this contract, or the breach, termination or invalidity thereof, shall be finally settled by arbitration in accordance with the Rules for Expedited Arbitrations of the Arbitration Institute of the Stockholm Chamber of Commerce. The seat of arbitration shall be Stockholm, Sweden. The language to be used in the arbitral proceedings shall be English.



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