

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

Deliverable 4.4 builds on Deliverable 4.3- Support activities to project coordinators, by presenting the best practises in supporting project developers all along the project duration.

On the basis of the provided assistance, it also develops some ideas and makes recommendations on how to better structure a support programme for project developers in the area of bioenergy and renewable fuels.

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Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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Content

Introduction.....	5
1. Follow-up project consortia	5
2. Seeking for additional information.....	6
a. Programme Managers	6
b. Project developers.....	7
3. What is needed.....	8
a. Financial support	9
b. Regulatory support.....	11
c. Technical support	11
d. Market-related support.....	12
4. What is missing?	12
5. Conclusions.....	12

List of Figures

Figure 1- Areas of support for project developers	9
Figure 2- Funding instruments classified according to their TRL.....	10
Figure 3- The Innovation challenge process.....	13

Introduction

SET4BIO Work Package 4 *Realisation of bioenergy project ideas* aims at supporting the realisation of project ideas developed under the Innovation Challenge approach in Work Package 3, by connecting stakeholders, as identified in Work Package 2, and by facilitating their access to the financing and funding opportunities, as identified in Work Package 1.

The aim of *Task 4.4- Monitor acceleration approach and analysis of the results: best practices and lessons learnt* is to monitor the process and results related to the assistance provided to project developers in terms of proposals' preparation and identification of the best suited funding instruments.

This *Deliverable 4.4 Best practices and recommendations for project implementation support programmes* presents the main results related to the support process provided to the Innovation Challenge teams, as well as to other stakeholders, and, based on this, presents some ideas on how to build an effective support programme to project developers in the area of bioenergy and renewable fuels.

1. Follow-up project consortia

Continuous support has been provided to the [project developers teams](#), which have been involved in the events organized during the SET4BIO project:

- Six teams involved in the Innovation Challenge have received thorough support in terms of:
 - General information related to the financing instruments relevant for their projects presented during the Innovation Challenge match-making events, which took place from April to October 2021.
 - Tailor-made information related to the most-suited financing instrument to support their project up to the commercialization phase. This information is available in *Deliverable 2.2- Matchmaking between bioenergy project ideas and relevant funding instruments*, submitted in 2022.
 - Additional follow-up via email to provide further support:
 - One of the teams received financial support from the EIC Accelerator Programme.
 - One of the teams made itself available to participate in the SET4BIO LiveStage presentation, which took place at EUBCE2023, in order to share their experience on project development.
 - One of the teams submitted a project to the Swedish Energy agency Pilot & Demo, as well as to the EU Innovation Fund (call which closed in March 2023).
- Three more project developers, which attended the EUBCE2022 online event, were also provided general information on existing funding instruments.
- Four more project developers, which participated in the Brokerage event, which took place in Brussels in June 2022, in terms of brainstorming to start defining the project idea on the basis of the identified calls for proposal.

- Project developers, which attended the national brokerage events were followed up directly by the responsible organizations: VTT (FI) and RISE (SE).
- Six project developers, which attended the SET4BIO LiveStage brokerage event at EUBCE2023 in Bologna in June 2023 were provided overall information about existing financing instruments to support their project, with a tailor-made follow-up on the most suited financing instrument for their project.
- We are currently in contact with a company met at EUBCE2023, which is willing to develop a demo project on bio-methanol in the South of Spain (Extremadura), and which is seeking for more detailed support on the different options.
- Support provided in terms of providing extensive information on the existing financing instruments during the Innovation Challenge light, which took place on 27th June 2023 in Brussels.

More information on the type of support provided by SET4BIO is available in Deliverable 4.3.

2. Seeking for additional information

In order to complement the information received with the support to the Innovation Challenge teams and those involved in the SET4BIO brokerage events, it was decided to set up two dedicated surveys to be circulated to:

- **Programme Managers:** country representatives involved in Implementation Working Group 8 (IWG8), and able to provide information on existing support programmes in their country specifically dedicated to bioenergy and renewable fuels.
- **Project developers:** a specific survey was prepared and uploaded on the SET4BIO website to get feedback from project developers on the effectiveness of existing support programmes in the area of bioenergy and renewable fuels.

The proposal to the consortium was made at the beginning of March 2023.

Consequently, two targeted surveys were drafted and circulated with a view to collecting relevant information by end of April 2023, on time to prepare a first draft Deliverable 4.4 to be presented during EUBCE2023.

a. Programme Managers

The survey for Programme Managers was finalized on 6th March 2023, and was circulated by Patrik Klintbom from RISE, as representative on the SET4BIO project, and in charge of the main contacts with IWG8, on 31st March 2023, with a deadline to collect feedback by 28th April 2023.

The text of the survey, as agreed by the SET4BIO consortium, was:

Dear IWG8 members,

We need your input for work in the CSA SET4BIO that supports IWG8.

One of the objectives of the SET4BIO project is to make suggestions and recommendations to set-up a support programme for project developers in the area of bioenergy and alternative fuels.

With this respect, we would like to ask you to answer to the following questions that would allow us to understand whether such programmes are already available at national and local level, and what is missing. It should take you around 30 minutes to reply to the five questions below.

*Please, reply by **28th April 2023** by sending an email to Paola Mazzucchelli (pmazzucchelli@fcirce.es) in c/c to this email, who is in charge with this Task.*

- *Does your country have any national/local support programme to project developers in the area of **clean energy**? If yes, could you, please, mention what these are and provide a link. Whenever possible, also specify what TRL (Technology Readiness Level) is covered by these programmes.*
- *Does your country have any national/local support programme to project developers specific to **bioenergy and alternative fuels**? If yes, could you, please, mention what these are and provide a link. Whenever possible, also specify what TRL (Technology Readiness Level) is covered by these programmes.*
- *What do you think is missing and/or could be improved in the current support programmes to facilitate projects development in the area of bioenergy and alternative fuels?*
- *Is there any support which is specific to projects developed in the area of bioenergy and alternative fuels, with respect to other forms of clean and sustainable energy (e.g. wind, solar...)?*
- *When/if you are approached by project developers, what is the main type of requested support (e.g. technical, financial, related to the regulatory environment)?*
- *Would you be interested in co-organising a brokerage event at national level with the SET4BIO project to facilitate project development in this field? Do you already organize this type of events? Are you aware of other organisations in your country which organize this type of events? If yes, please, provide their names, and, if possible, a weblink.*

We would like to thank you in advance for your assistance with this Task.

The following countries directly participated in the exercise, by replying to the email: DE, TR.

It is likely that other countries decided to reply via the anonymous online survey for project developers (see below).

This feedback provided additional relevant input for the preparation of this Deliverable, since several support programmes are already in place at national level, and it must be carefully evaluated whether a new specific support programme is needed, or whether it would be more convenient to improve and make the existing ones more relevant.

b. Project developers

The survey for Project Developers was also prepared at the beginning of March 2023, and was made anonymous, in order to attract more replies.

An EU survey was prepared with the support of project partner ETA Florence, and put online at the end of March 2023, with deadline for replies on 28th April 2023:

<https://www.etipbioenergy.eu/set4bio/news-and-media/set4bio-questionnaire-for-project-developers>. Moreover, it was distributed to ETIP-Bioenergy members, and promoted via the main SET4BIO communication channels, such as LinkedIn and Twitter.

The text of this targeted survey was:

The SET4BIO project is developing a support programme for project developers active on bioenergy and alternative fuels.

In order to devise such a programme, we are looking for input from project developers and national/local support agencies to better understand what their needs are.

With this respect, we would like you to answer to this anonymous survey:

- *Are you aware of any national/local support programme to project developers in the area of clean energy? If yes, could you, please, mention what these are and provide a link.*
- *Are you aware of any national/local support programme to project developers in the area of bioenergy and alternative fuels? If yes, could you, please, mention what these are and provide a link.*
- *What are the main obstacles you normally encounter when developing your project? (e.g. technical, financial, related to the regulatory environment?)*
- *Have you ever heard of business accelerators? Have you ever contacted one? If yes, what is your feedback on the received support?*

3. What is needed

As a general result, both **technical, financial, and regulatory supports** are requested, however the focus is different for programme managers and project developers.

- **Financial support**, both in terms of making budgets available to support projects in the area of bioenergy and renewable fuels, and in terms of thoroughly informing project developers on the existing funding instruments, at national and EU level.
- **Regulatory support**, mainly in terms of clarifying the meaning and concrete applications of rules, and in terms of ensuring that a stable regulatory framework is in place to support the development of bioenergy and renewable fuels related projects.
- **Technical support** is less needed, given that the majority of times, project developers have a technical background, and are well aware of the type of technology they want to develop.

An additional area of support, which was highlighted in the replies, is **market-related support**. It is believed that once the technology has reached a high TRL, and is ready to be introduced on the market, knowledge on the way a product is placed on the market (e.g., business viability studies) should be provided by external experts.

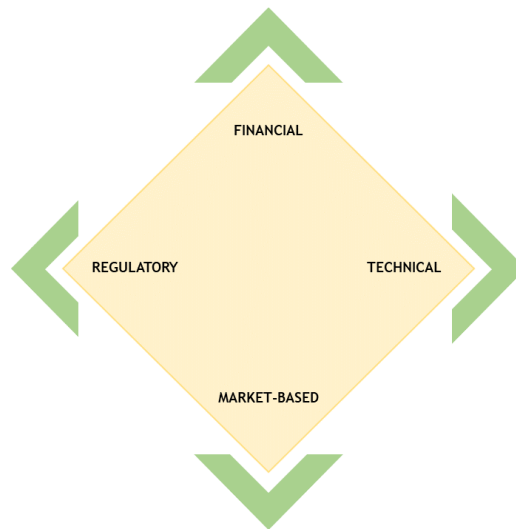


Figure 1- Areas of support for project developers

a. Financial support

Financial support is highlighted by project developers as being the main area where support is needed, in terms of availability of the appropriate funding instruments to support the project development, as well as in terms of providing a tool to easily inform project developers on the available funding instruments, and their appropriateness with respect to the main features of the project being developed.

More specifically, the following points are highlighted:

- Financial support should be made available for **different technologies** (technology-neutrality) all along project lifecycle and including the whole supply chain.
- There should be a certain balance between **targeted support to certain types of developers** (e.g., targeted support for SMEs, and spin-offs, which is different from the type of supported needed by large companies or academia), **targeted support to specific topics** (e.g., Sustainable Aviation Fuels is a topic which is becoming more and more important and should receive targeted support), and **bottom-up approach**, which allows for creative and innovative ideas to be funded.
- Financial support is also considered in terms of the identification of the most suitable funding instruments for a project.

Programme managers are also aware of the importance of financial support, as highlighted above, and, in their replies, have mainly presented the available funding instruments at national level, as being the major type of support currently provided.

With this respect, SET4BIO project has developed a thorough support activity to project developers as part of **Work Package 1- Funding and financing roadmaps and investments**.

As part of Task 1.3 *Identification of competitive (public) funding opportunities*, CIRCE prepared **Deliverable 1.3 Report on private financing opportunities to support the realisation of the SET Plan IP8**. This Deliverable is conceived as a guide for project developers to inform them about the main existing funding instruments to support their project up to market uptake and commercialization.

The figure below has been developed, as part of Deliverable 1.3, to provide a visual support to orient project developers to select which funding instrument is better suited according to the project Technology Readiness Level (TRL). An interactive figure is also available on the project website (<https://www.etipbioenergy.eu/set4bio/outputs-and-resources/financing-opportunities-for-bioenergy>), where, by clicking on the funding instrument name, people are redirected to the funding instrument’s main webpage. Moreover, Deliverable 1.3 also presents Tables in Annex where some relevant information per funding instrument is presented (TRL; topics supported by the instrument; budget range; timing for disbursement; specific conditions related to the disbursement...).

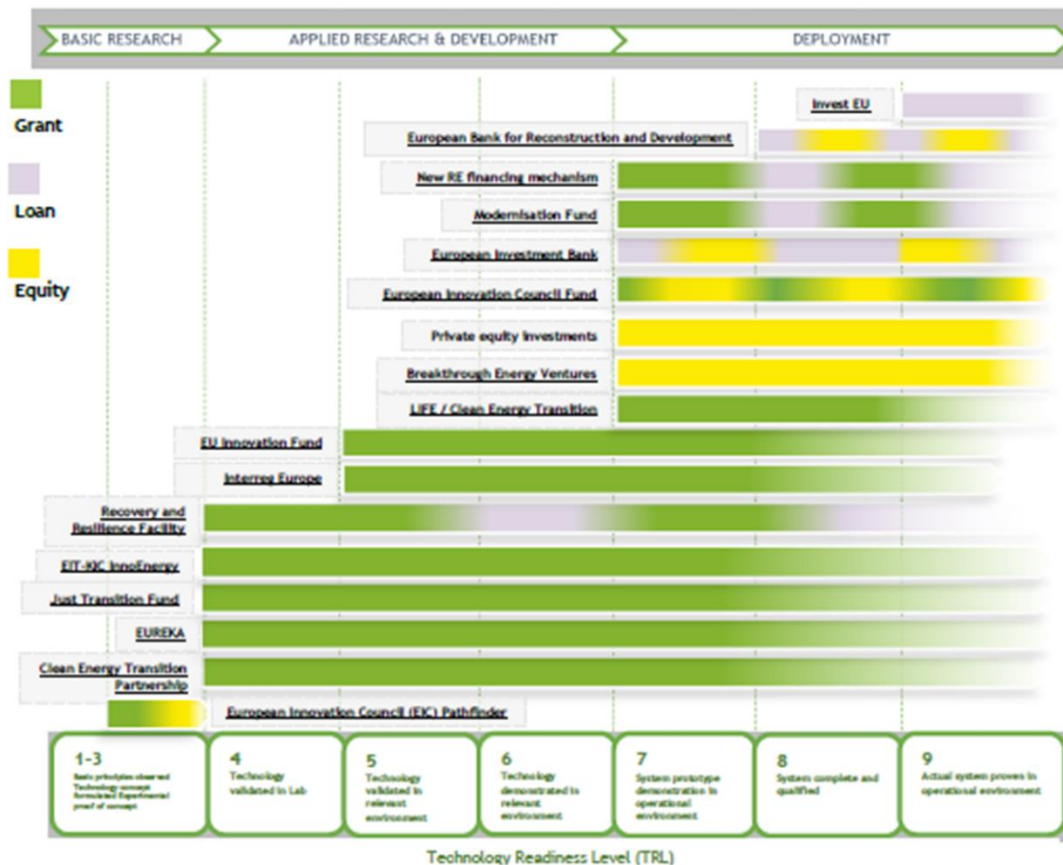


Figure 2- Funding instruments classified according to their TRL

b. Regulatory support

For project developers, the main support needed in this area concerns assistance in understanding the main rules to support their project development (e.g., whether there are any rules in place limiting the possibility of growth for their technology).

Having in place a supportive regulatory framework is also mentioned as important factor for Programme Managers, who have also highlighted the importance to better understand other types of legal rules in place, such as those related to state aids, since they could limit the possibility for Member States to support project developers in their country.

In general, regulatory support is out of the scope of the SET4BIO project. Normally, this type of support is extensively provided by industrial associations, both at national and EU level, to their members.

c. Technical support

Given that project developers normally have a technical background and are interested in developing a new technology or service of their conception, they do not need to be supported from this point of view.

Limited support can be provided in the identification of the Technology Readiness Level (TRL), the developed product or technology belongs to in order to further support the identification of the most suited funding instrument.

Other types of technical support, related to the preparation of any proposal for a research, pilot, demonstration, or firstofitskind project is at own risk and at own expenses, or specific paid services can be bought from specialized companies (e.g., consultancy companies).

In a first attempt, there was an idea for SET4BIO to provide this type of services as well. However, given that the organizations involved in the SET4BIO consortium also compete for funds at EU and in their respective country, it is not possible to offer this type of services, unless the SET4BIO organization is also directly part of the consortium. In general, there might be a conflict of interests between the SET4BIO organization and external parties, which are not willing to share their idea with external parties.

Moreover, as previously mentioned, there are specialized consultancy companies which offer this type of service for a fee. Some associations can also help their members with this type of service and also offer specific brokerage events.

The SET4BIO project organized this type of events as well. However, this was successful when done in combination with industrial associations or national funding agencies to better connect and attract with their members/networks.

What was successful is the calls and topics identification, specific for IWG8.

It could be imagined as a follow-up to SET4BIO project that a website is in place where interesting calls and opportunities from funding instruments of relevance (e.g., those identified

in Deliverable 1.3) are regularly identified and highlighted. With this respect, an online match-making tool could also be proposed. This could be implemented in the future as part of the services offered by ETIP Bioenergy or by a specific provider, identified via a call or a tender.

d. Market-related support

Both project developers and programme managers have highlighted a more and more urgent need to provide services related to market validation and business model development that can help project developers in moving their technology forward to market uptake and commercialization.

However, this type of services is often offered by business accelerators and advisory hubs, which assist companies in scaling up their idea.

4. What is missing?

- Some project developers have highlighted the need for tailor-made funding programmes to support large-scale demonstrators beyond TRL9. This normally can be done via loans or equity, rather than grants. However, it is felt that, in some cases, the scaling-up of a technology would still require some grants, since the risk is still too high in the early stages of development of a specific market for the industrial partner to take up the investment risk. In some areas, companies are reluctant or not aware of the possibilities offered by business angels and venture capitalists. Together with the TRL level, a Commercial Readiness Level could be introduced to further help companies in scaling up their production.
- Market development support services, and business development models need to be offered more consistently. This could also reduce the risk, as mentioned in the above bullet point.
- Technical changes imply that new topics should be open to receive grants. For instance, given the importance that Sustainable Aviation Fuels (SAF) are gaining, this needs to be translated in an increase in the funding opportunities in this area, for instance, via specific calls and support.
- Additional support measures, such as tax incentives should also be offered in a more consistent way, since they represent important incentives to reduce the investment cost and associated risk.

5. Conclusions

A series of support programmes are already available both at national and EU level to assist project developers in implementing their project ideas. Normally, these programmes cover the whole sustainable energy sector and related technologies, including bioenergy and renewable fuels.

On top of this, Advisory Hubs and business accelerators are also available to support project developers with specific services, especially related to business development, and market validation support.

The SET4BIO Innovation Challenge represents a very good starting point to provide some tailor-made assistance to project developers who want to accelerate ideas related to bioenergy or renewable fuels forward. It has provided expert advice in the following areas:

- Value chain potential,
- Innovation height,
- Business viability, and
- Scalability.

The figure below summarizes its organization:

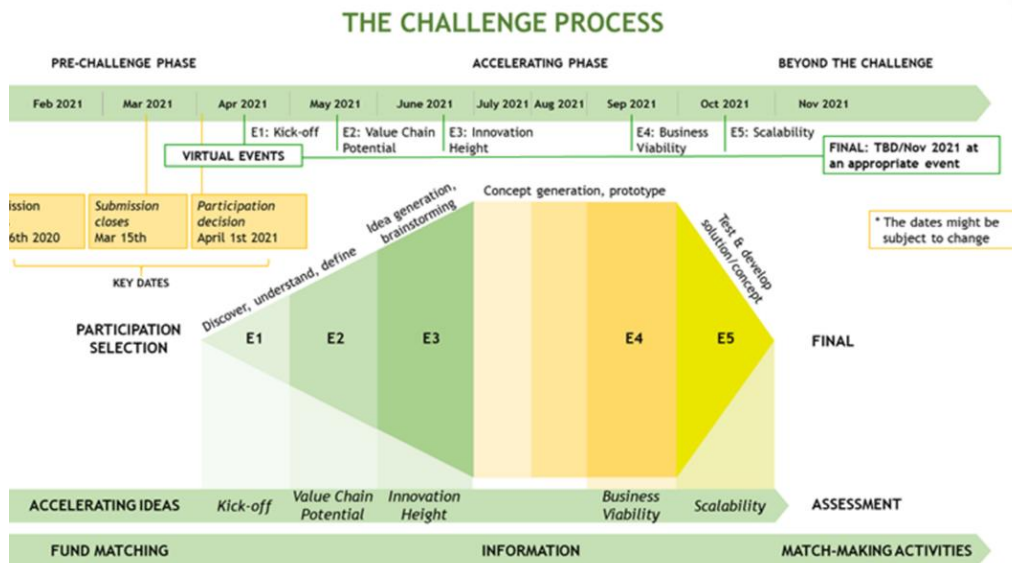


Figure 3- The Innovation challenge process

Fund match-making activities are also part of the SET4BIO Innovation Challenge. Moreover, to further support this fund match-making work, the SET4BIO project has drafted specific guidelines for project developers to help them easily find information related to existing funding instruments that can be used for their projects in the area of bioenergy and renewable fuels. These guidelines have been conceived also to help them identifying the most suitable funding instruments available to bring their project to market uptake and commercialization.

This is the type of support that such an EU-funded project can bring to project developers.

However, it would be necessary to further bring this type of work forward, since information related to existing and new funding programmes need to be updated regularly. A dedicated website with an interactive tool could be of help to project developers. Moreover, possibilities for online brokerage events could also be organized. This can be further discussed with ETIP Bioenergy, since SET4BIO project ends in August 2023.