



# BIKE

BIOFUELS PRODUCTION  
AT LOW - ILUC RISK  
FOR EUROPEAN SUSTAINABLE  
BIOECONOMY

**D 8.5**

**PROJECT FOLLOW UP STRATEGY**

**Dissemination level:**

**PU**

### *Document control sheet*

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<i>Authors</i>	Andrea Salimbeni
<i>Contributors</i>	All partners
<i>Reviewer(s)</i>	David Chiamonti
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## Executive Summary

The present report contains a proposal strategy for the BIKE project Follow-Up, based on the project achievements, and stakeholders' feedback. The objective of the Follow-Up strategy is to connect target groups in order to provide the supplementary steps needed to support the low ILUC-risk biofuels market uptake. The document proposes a list of stakeholders, classified by relevance, and a roadmap, so that to promote the implementation of BIKE outcomes and to support the development of new industrial initiatives for low ILUC-risk biofuels production in Europe.



*This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 952872*

# 1 Introduction

The overarching goal of the BIKE project is to facilitate the market uptake of European low ILUC-risk feedstocks for the production of biofuels, bioliquids and biomass fuels from 2020 to 2030. The BIKE project follows a *value chain approach* that covers land use, feedstock provisioning, conversion processes, and end-product outputs. This approach combines top-down modelling estimates, based on statistical data and recent research, with bottom-up analysis of actual case studies, with profiles matching the current definition of low ILUC-risk biofuels, bioliquids and biomass fuels.

The activities of BIKE are organized around two ILUC-risk pathways: 1) Cultivation in unused, abandoned or severely degraded lands and 2) Productivity increases from improved agricultural practices. The first value chain involves biomass feedstock options that can be cultivated on unused, abandoned or severely degraded lands. The second includes biomass feedstock options that can be grown with a sequential cropping practice<sup>1</sup>. The BIKE project has identified two case studies per each value chain, i.e. four in total, where low ILUC-risk biomass feedstocks are used for the production of three types of biofuels: cellulosic ethanol, renewable diesel (HVO and biodiesel) and biomethane. Two case studies refer to cultivation on unused lands and are: i) perennial grasses to advanced (lignocellulosic) ethanol, and ii) castor beans to renewable diesel (HVO). The other two case studies refer to implementation of sequential cropping systems and are: iii) brassica carinata for renewable diesel production and iv) the Biogas Done Right (BDR) model for biomethane-to-liquid fuels.

BIKE worked to examine the sustainability and to facilitate the market uptake of the four identified case studies. The assessment activity, distributed over 7 work packages, led to the creation of an ISCC system certification module for certifying low ILUC-risk biofuels production sites. This module was validated through on-site audits conducted on the identified case studies. Additionally, the assessment led to the recognition of market opportunities and the potential for replicating the identified low ILUC-risk biofuels case studies throughout the EU territory. Moreover, an environmental, social, and economic sustainability assessment of low ILUC-risk advanced biofuels production routes was performed for each case study. In parallel, an analysis of the EU and national policy framework was conducted, in order to identify the existing barriers and support the implementation of future regulation.

To facilitate industrial actors, a first low ILUC-risk certification methodology has been developed by the ISCC system and tested on real case studies. In the future, the methodology could be adopted by stakeholders as a standard procedure recognized by the European institutions.

The case studies showed different profitability and uncertainty factors. To support both stakeholders, investors and institutions, BIKE project estimated the potential replicability of low

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<sup>1</sup> Sequential cropping (also referred to as multi-cropping, double cropping or growing a “harvestable cover crop”) is the cultivation of a second crop before or after the harvest of the main food or feed crop on the same agricultural land during an otherwise fallow period.



ILUC-risk case studies in Europe and their potential impact on the EU transport sector. Moreover, BIKE project has shown that Low ILUC-risk biofuels value chains represent a promising alternative to fossil fuels for transportation. The additionality of biomass feedstock derived from the low ILUC-risk practices improves both the sustainability of the value chain, and the economic profitability for farmers. Moreover, the identified cultivation practices represent an opportunity to restore the European unused and degraded lands, increasing soil carbon content and reducing the use of inorganic fertilisers.

The benefits of low-ILUC agricultural practices couples with the readiness of the technologies involved in the value chain. Indeed, the value chains identified by BIKE project are built upon the application of established and mature technologies and procedure, like seed pressing, feedstock transportation, and the conversion and refinement of vegetable oil.

During the project, critical aspects have been identified in the existing regulation, and in the development of an effective value chain involving all key actors. However, the existing case studies have shown significant potential both within the EU and on a global scale. Addressing the identified challenges will assist farmers and biofuel producers in formulating sustainable, long-term business strategies. As a result, an effective follow-up strategy is regarded as beneficial for maximizing the utilization of project outcomes.

## 2 BIKE follow up prospects and objectives

In general, the primary objective of the BIKE follow-up is to accelerate and facilitate the market uptake of low ILUC-risk biofuels in Europe. In more detail, the specific goals can be summarized as follows:

1. Enhance the impact of project outcomes by involving stakeholders interested in low ILUC-risk feedstocks;
2. Provide support to institutions for improving existing regulations and facilitating participation of industrial actors;
3. Innovate and optimize strategies for low ILUC-risk biofuels production based on existing plants and refinery technologies;
4. Contribute to the classification and definition of degraded lands to ensure sustainable initiatives for low ILUC-risk feedstock production.

Achieving these objectives necessitates continuous efforts and knowledge exchange among the key actors in the value chain. The target groups for these efforts are outlined in the following paragraph.

### 3 Target groups

The target groups to be involved in the BIKE follow-up strategies are summarized in the table below. Groups are also classified by relevance on the low ILUC-risk development.

Table 1. Target groups of BIKE follow Up strategy.

Group	Interest	Relevance	Motivation
Biofuels industries	Producers of biofuels for road and aviation transport	High	Great investment capacity, drivers of the economic change
Farmers/Land owners	Producers of the low ILUC-risk feedstock as additional source of income, obtained from unused lands or as additional product	High	Key actors of the first step of the value chain, hold significant influence over the market potentials
EU policy makers	Low ILUC-risk biofuels can strongly contribute to the decarbonisation of the EU transport sector	Medium-high	The are responsible of the regulation concerning target production, incentives, and certification systems
Activists	Low ILUC-risk biofuels represent a key solution for decarbonising aviation sector	Medium-high	They can influence the institutions and the companies in taking sustainable decisions
Local policy makers	Assess and validate the permissions for new cultivation and refinery initiatives	Medium-high	They can facilitate the development of business initiatives in a region
Scientific community	Implement the project outcomes to innovate and develop new knowledge	Medium	New practices, business solutions and biofuels value chain could be developed based on BIKE outcomes
Chemical industries	Users of low ILUC-risk feedstock for biobased chemicals production	Medium	Although constituting a smaller market volume compared to transportation fuels, the chemical industry demonstrates a strong interest in green biobased polymers.



## 4 Roadmap

The Follow-Up roadmap will follow two parallel activities:

- ❖ Communication with scientific community and institutions;
- ❖ Discussion and support to industrial stakeholders.

A scheme of the roadmap is reported below:

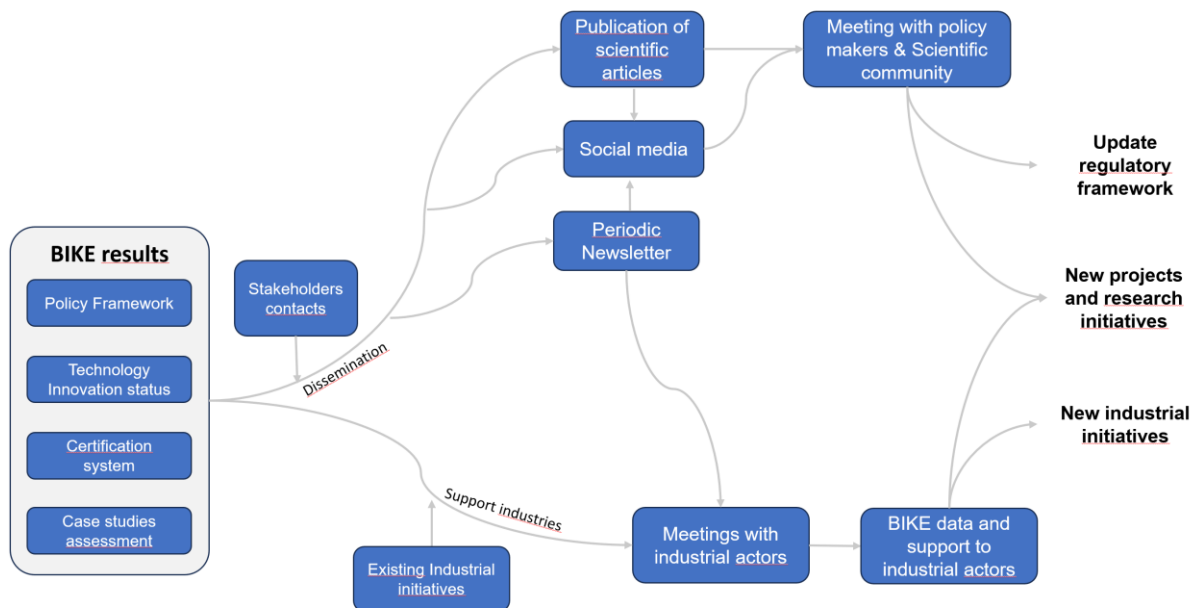


Figure 1. BIKE follow up roadmap.

The roadmap will include various steps, all directed towards two primary objectives: updating the regulatory framework and promoting new industrial initiatives. The starting point is established by the outcomes of the BIKE project.

## 5 Dissemination: maintain, engage, and establish connections

Sending emails is a common method for follow-up, although relying solely on it might not be effective. Thus, the dissemination activity will include a strategy to engage all key target groups.

Initially, the coordinator and dissemination manager will develop a database containing connections established through the BIKE project. This database will incorporate:

- ❖ Contacts from general BIKE inbox;
- ❖ Consortium partners;
- ❖ Participants to the events and webinar who declared their interest in receiving update;
- ❖ Participants to BIKE bilateral meetings and round-tables;
- ❖ Contacts of BIKE social networks.

After having re-organized the Stakeholders' contact, BIKE coordinator and dissemination manager will cooperate with biofuels technology platform, international conferences and working groups to ensure a continuous, gradual, and effective communication of BIKE project outcomes and prospects. After the project's conclusion and until December 2023, a periodic dissemination will be performed by two main channels: social media, and newsletter. Moreover, scientific articles will be published based on BIKE results in peer reviewed journals, in order to share the outcomes with institutions, experts, and scientific community. The wide dissemination activity set to continue until the 31st of December 2023 is expected to facilitate the connection with industrial actors interested in low ILUC-risk feedstock and, thereby supporting new industrial initiatives. The dissemination activity will be based on three principles:

- **Publish activities and gathering proposals:** activities related to BIKE follow-up and publications will be communicated and disseminated keeping the visual identity of BIKE project. The coordinator will reply to the relevant emails received at BIKE general inbox;
- **Maintain email cadence:** newsletter and emails to interested stakeholders will be sent periodically;
- **Keep BIKE visibility:** events and initiatives based on BIKE outcomes will feature the BIKE logo and will be communicated to all BIKE stakeholders.

## 6 Support to industries: clarify and provide support regarding BIKE outcomes

A parallel activity to be performed after the project consists in supporting industrial actors in the implementation of BIKE results and, thus, in the development of new industrial initiatives based on low ILUC-risk biofuels. As a first step, all existing industrial initiatives carried out at EU level and related to low ILUC-risk biomass feedstock and biofuels will be identified and integrated with those already identified during the project. Moreover, the industrial actors involved in the sector will be contacted through social media, or by email, and informed about BIKE outcomes. In this phase, a link to BIKE public deliverables will be provided. Afterwards, bilateral meetings and presentation will be done with those industries interested in BIKE outcomes, in order to explain the obtained results and provide support to new industrial initiatives. Moreover, the Toolkit developed within the WP3, and described in the Deliverable D3.5, will be available on the BIKE website as a support tool for all stakeholders.

## 7 Conclusions

The proposed follow-up strategy will be performed without any additional budget and all the initiatives will be based on the engagement and availability of project partners. However, thanks to the interest demonstrated by the institutions and by industrial actors in the sector of biofuels and biochemicals, follow up activities have been already identified by the coordinator related to the development of low ILUC-risk biofuels industrial initiatives. The BIKE outcomes concerning biofuels production potentials and case studies replicability in Europe will be published as a scientific journal to maximize the project impact and knowledge transfer. Moreover, the coordinator will ensure that all BIKE public results will be clearly available on BIKE website.

The results of this study only reflects the author's view. CINEA is not responsible for any use that may be made of the information it contains



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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

AKI AGRARKOZGAZDASAGI INTEZET NONPROFIT KFT, AKI, Zsil Utca 3-5, 1093, Budapest, Hungary, Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Dr. Pál Goda

Managing director



Date 31/08/2023



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 952872



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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

'Cerulogy', the trading name of Christopher Malins, Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Christopher Malins

Date 31/08/2023



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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

CIB (Consorzio Italiano Biogas e Gassificazione), Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5 also involving CIB members

Yours sincerely,

Date 11/09/2023



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Att.

BIKE Project coordinator

Object: Approval of BIKE Follow Up strategy

As a result of BIKE project, a Follow Up strategy was developed and published in order to maximize the impact of BIKE project results after the end of the project. The proposed follow-up strategy will be performed without requiring any additional budget. The initiatives carried out during the follow up strategy will consist in:

- Communication and dissemination of results to the scientific community and institutions,
- Discussion and support to industrial stakeholders in implementing Low ILUC risk practices.

ENI, industrial partner of BIKE project, recognizes and approves the BIKE Follow Up strategy, already described in the public deliverable D8.5 – Project Follow Up Strategy.

Yours sincerely,

Eni SpA  
Research & Technological Innovation  
Renewable, New Energies and Material  
Science Research Center  
Il Responsabile  
Paolo Pollesel



Date 07/11/2023



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BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

ETA Florence, Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Angela Grassi

Managing Director

ETA s.r.l.  
Società unipersonale  
Via Garzanti 25 - 50132 Firenze  
Tel. +39 055502174 - Fax +39 05573425  
www.etaflorence.it - via.florence@eta.it  
CCIAA 463281 Reg. Imp. 116107

Date 31/08/2023



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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

The European Technology and Innovation Platform Bioenergy, due to its interest in BIKE project results, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Patrik Klintbom

Chair of ETIP Bioenergy

Date 31/08/2023



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Att.

BIKE Project coordinator

**Object: Support on BIKE Follow Up strategy**

The Executive Committee of the European Biomass Conference and Exhibition (EUBCE), due to its interest in BIKE project results, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Stefano Capaccioli

EUBCE Executive Committee

Date 31/08/2023



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BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

EXERGIA Energy and Environment Consultants S.A., Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Dr. George Vlondakis  
Managing Director  
EXERGIA Energy and Environment Consultants S.A.

Date 31/08/2023



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BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

Imperial College London (ICL), Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

*Rocio Diaz Chavez*

Dr Rocio Diaz-Chavez  
Senior Research Fellow  
Centre for Environmental Policy  
Imperial College London

Date 31/08/2023



*This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 952872*



ISCC System GmbH · Hohenzollernring 72 · D-50672 Köln

Att.

BIKE Project Coordinator

**ISCC System GmbH**

Hohenzollernring 72

D-50672 Köln

Tel: +49 221 5080 2010

Fax: +49 221 5080 2099

Email: [info@iscc-system.org](mailto:info@iscc-system.org)

Internet: [www.iscc-system.org](http://www.iscc-system.org)

Geschäftsführer:

A. Feige, Dr. N. Schmitz

USt-Nr.: DE 815 138 724

Amtsgericht Köln, HRB 68185

Köln, den 31.08.2023

**Object: Support on BIKE Follow Up strategy**

ISCC System GmbH, Partner of BIKE project, confirms its support to the project Follow Up strategy as reported in Deliverable D 8.5

Yours sincerely,

Andreas Feige,

Managing Director

ISCC System GmbH



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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

Miscanthus Nursery Ltd, due to its interest in BIKE project results, confirms its support to the Low ILUC risk biomass feedstock and its interest in BIKE project Follow Up activities.

Yours sincerely,

Mike Cooper

Managing Director (On behalf of Miscanthus Nursery Ltd)

Date 31/08/2023



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Att.  
BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

PEFC Italia, due to its interest in BIKE project results, confirms its support to the Low ILUC risk biomass feedstock and its interest in BIKE project Follow Up activities.

Yours sincerely,

Antonio Brunori

PEFC Italia Secretary general



Date 30/10/2023





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Att.

BIKE Project coordinator

Object: Support on BIKE Follow Up strategy

UPM, Partner of BIKE project, confirms its collaboration and support to the project Follow Up strategy as reported in Deliverable D 8.5.

Yours sincerely,

LIISA RANTA

Date 31/08/2023

