Marginal lands for Growing Industrial Crops

Deliverable reference number and title:

# D8.9 – Final Report on Dissemination Activites

Due date of deliverable: December 31st 2021
Actual submission date: January 29th 2022

**Lead beneficiary**

nova-Institute GmbH

Beneficiaries website

**Responsible Author**

| | | | |
|---|---|---|---|
| Dusica Banduka | nova-Institute GmbH | Dusica.banduka@nova-insitut.de | +49 173899 39 47 |

**Additional Authors**

| | | | |
|---|---|---|---|
| Dr. Efi Alexopoulou | CRES | ealex@cres.gr | +30 2106603300 |


**Type**

| | | |
|---|---|---|
| **R** | Document, report | ☐ |
| **DEM** | Demonstrator, pilot, prototype | ☐ |
| **DEC** | Websites, patent fillings, videos, etc. | ☐ |
| **OTHER** | | ☐ |

**Dissemination Level**

| | | |
|---|---|---|
| **PU** | Public | ☒ |
| **CO** | Confidential, only for members of the consortium (including the Commission Services) | ☐ |


This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No. 727698.

# Table of content

## List of figures



## List of tables

# 1 Publishable executive summary

Industrial crops can provide valuable resources for high value products and bioenergy. The MAGIC project therefore aims to promote the sustainable development of resource-efficient and economically profitable industrial crops grown on marginal lands.
In order to achieve this goal, four databases were developed. An up-to-date database of existing resource-efficient industrial crops provides relevant information on agronomic crop characteristics, input requirements, yield performance and quality traits for various end use applications (WP1). Meanwhile, the Decision Support System (DSS) actively involves farmers and end users and supports their decision process depending on the specifics of the individual surroundings. In parallel, a third database maps current and future marginal lands in Europe. These are characterized and analyzed, in order to provide a spatially explicit classification that serves as a base for the development of sustainable best-practice options for industrial crops (WP2). An additional a Bio2Match tool support practicioners in identifying suitable opportunities by collecting information on conversion technologies for various biomass crops growing on European Marginal Lands. The four MAGIC-databases aim at maximizing the economic benefits of marginal lands by integrating sustainability aspects (covering environment, society and economy) of the value chains (WP6). Success stories of industrial crops in EU regions address technical, environmental, economic and social issues to produce policy recommendations and best-practice guidelines for their promotion at local/regional level (WP7). All project results, databases, maps and the DSS- and Bio2Match-tool serve as dissemination tools in order to increase the awareness of farmers and various other stakeholder groups and establish strong links with the EIP AGRI (WP8) and related partner projects like PANACEA, BIKE and BECOOL.
The following report introduces all executed dissemination activities of the project months 1-48 in order to introduce the project's objectives and its results to a broad international audience and maximize the positive socioeconomic and environmental impact. These summarize the achievements and tasks of WP8.

# 2 Introduction

This document provides a full overview of all dissemination activities executed in the project months 1-48 in order to introduce the MAGIC projects and its results to a broad and international group of stakeholders. It further serves as an evaluation tool for the dissemination work conducted within the frame of the MAGIC project following the strategies and instruments developed in Deliverable 8.1 Dissemination plan. The dissemination activities conducted in the MAGIC project activities targeted various relevant stakeholder groups, while still focusing on farmers, farmer's associations, agricultural companies and agricultural industry, policy makers, investors, media and the general public.

MAGIC intends to provide knowledge on the optimized cultivation of industrial crops on marginal lands in Europe, in order to contribute to resource efficiency, innovation, climate mitigation and to a more sustainable bioeconomy in Europe. In addition, the insights gained in the project on industrial crops growing on marginal land will help to reduce the competition on agricultural land suitable food production. To achieve this, all partners involved in the project worked intensely and closely together. This report presents the main dissemination achievements and activities executed within the framework of the MAGIC project and combines provided data of all deliverables listed in WP8. The report further includes information of the updated second version of the general dissemination strategy described in D8.1 dissemination plan as well as the three technical periodic reports. Dissemination activities were conducted by all consortium partners under the lead of WP8 leader nova.

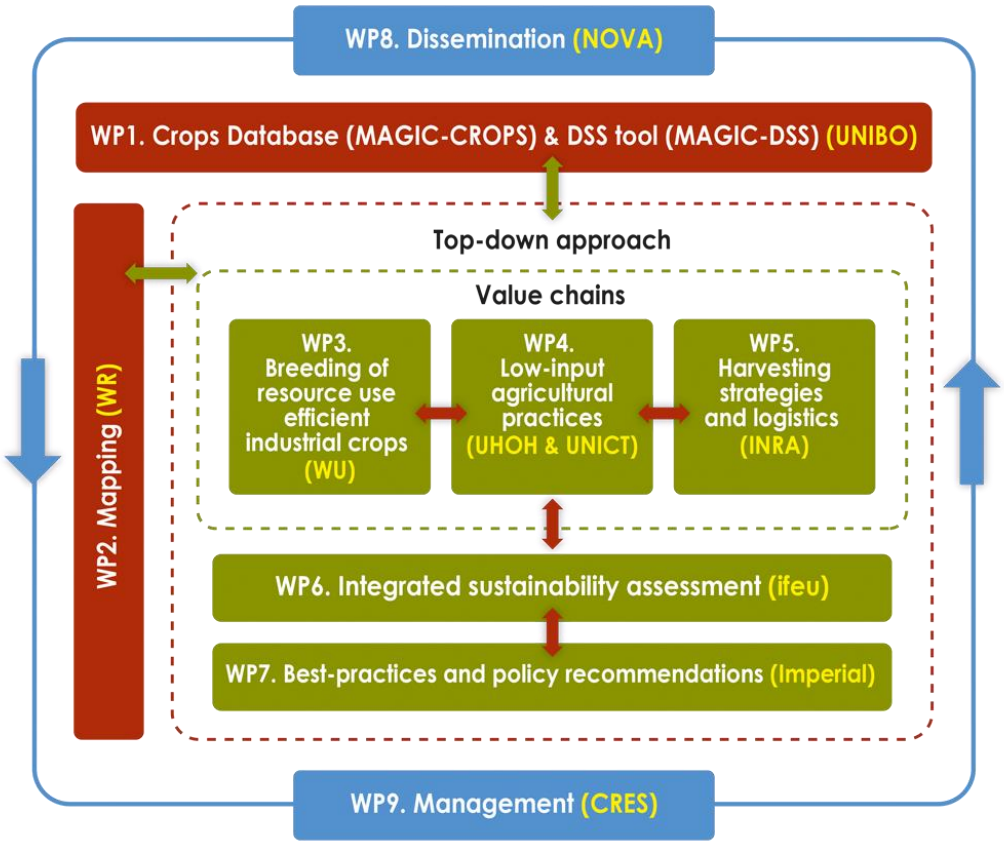


Figure 1: Overview MAGIC workpackages and responsible parties

The project's dissemination activities all target the overarching goal of transferring the gathered knowledge to broad groups of stakeholders who can make use of it and translate it into practice. This objective can be realized by implementing these insights in their business practices, further improvements through additional research or further developments in agricultural policies, that reflect the newly acquired knowledge in order to create a more conducive environment for an effective use of marginal land.

In this context, WP8 focuses on the external communication of the project, its outcomes and its impacts to a range of audiences. It involves all partners and is led by nova together with Spanish Co-ops and CRES. For the project and its outcomes, a detailed communication strategy is essential in order to inform relevant stakeholders (e.g. scientists, farmers and policy makers) and to enhance the impact of the project activities and its outcomes. MAGIC and its results are communicated and disseminated through all media channels provided by nova as well as through the networks of the consortium partners and the European Union. The results achieved in MAGIC are disseminated in the form of practical abstract on the platform of the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP AGRI) through Spanish cooperation to reach specific interest groups such as farmers.

Work package WP8 covered the following deliverables, to be executed by the listed parties.

| Tasks | Title | Months | Leader | Participants | Status |
|---|---|---|---|---|---|
| **8.1** | Dissemination plan | 1-6 | NOVA | Spanish Co-ops, CRES | Updated |
| **8.2** | Highlights of the first value Chain event | 25 | CRES | All partners | Finalized |
| **8.3** | Highlights of the second Value chain event | 37 | CRES | All partners | Finalized |
| **8.4** | Highlights of the Demo Days | 48 | CRES | All partners | Finalized |
| **8.5** | EIP and Operational Groups interaction National workshops and demo days targeted to farmers and industry | 48 | Spanish Co-Ops | All partners | Finalized |
| **8.6** | Final list with practice abstracts following the EPI Agri common format | 48 | Spanish Co-Ops | All partners | Finalized |
| **8.7** | Highlights of the findings of the national workshops | 48 | Spanish Co-Ops | NOVABIOM, CRES, AUA, UNICT, FCT UNL | Finalized |
| **8.8** | Report on multi-actor networking | 48 | Spanish Co-ops | All partners | Finalized |
| **8.9** | Final Dissemination Report | 48 | NOVA | All partners | Finalized |
| **8.10** | List with practice abstracts Following the EPI common format | 18 | Spanish Co-ops | All partners | Finalized |

Table 1:overview deliverables and responsible parties WP8

According to the Grant Agreement, these deliverables covered the following tasks:

Task 8.1 Dissemination Plan (M1-M6)

Task 8.2: Dissemination material and activities (M3-M48)

Task 8.3 EIP and Operational Groups interaction (M7-M42)

Task 8.4 Multi-Actor networking (M1-48)

Task 8.5 National workshops and demo days targeted to farmers and industry (M24-48)

Task 8.6 Interactive EU value chain events & final brokerage event (M24-48)

Task 8.7 Training of the farmers and students (M36-48)

The key results of the project to be disseminated included the following positions:

- MAGIC-CROPS: A database of existing resource-efficient industrial crops with information on their agronomic characteristics, input requirements and yield performance.
- MAGIC-MAPS: An online mapping system of current and future marginal lands facing natural constraints in Europe, including the identified characteristics and analysis of

lands to provide spatially explicit classifications as basis for sustainable best-practice options for industrial crops.

- MAGIC-DSS: A decision support tool based on both MAGIC-CROPS and MAGIC-MAPS that will at minimum enable the choosing of the most promising industrial crop at any geo-location in Europe.
- MAGIC-Bio2Match-Tool: The Bio2Match tool collects information on conversion technologies for various biomass crops growing on marginal land in Europe. The tool guides users to an optimal match between biomass resources and conversion technologies. The conversion technologies have specific requirements for the biomass input while biomass varies widely in composition and characteristics. In order to find an optimal match for each biomass and technology, the tool uses 2 databases.
- New breeding tools, identification of appropriate agronomic practices with limited input requirements as well as of sustainable harvesting and logistics systems to optimize biomass supply chains.
- Success stories of the resource-efficient use of industrial crops on marginal lands and policy recommendations
- Project-information to serve as guidelines and decision support for policy makers.

The dissemination of the MAGIC-project related information sets a strong practical focus. Its overarching goal is to reach end users and practicioners of the developed tools and motivate identified stakeholder groups to apply these techniques their daily practice. A more detailed overview of the main target groups and of dissemination activities, which have already been carried out, is provided in the following chapter. At this project-stage Magic accumulates a broad range of research results.

# 3 Targeted Stakeholder Groups

Depending on the intended purpose of the chosen dissemination activity, different stakeholder groups were first identified and then targeted and actively involved in the executed dissemination efforts of the MAGIC project. While the selection of relevant and targeted stakeholder groups was steadily refined, the 2nd update of the Dissemination plan D8.1 offers a detailed overview of the targeted groups according to the disseminated key assets. All project partners actively addressed and engaged their networks and identified appropriate stakeholders for each activity throughout the entire project-duration.

## 3.1 Farmers & farmers‘ associations

The stakeholder group of farmers & farmer's associations includes farmers' unions, cooperatives, agricultural chambers and similar organizations. According to MAGIC's overarching purpose to increase the adoption level of the Magic-DSS (Decision Support System) and a practical integration of gathered insights, they represent the first and paramount target group of the MAGIC project.

## 3.2 Agricultural Companies and Extended Agricultural Industries

This group includes companies and all industrial branches active in the production-field of bio-based materials such as biodiesel, bioethanol, lubricants, paints, ink, coatings, polymers, polymer additives textiles, paper and pulp, timber board and panels, resins, advanced biofuels. This stakeholder-group also includes extended agricultural industries like agricultural machinery manufacturers, who can also significantly benefit from the gathered project results and function as multipliers as well as end users.

## 3.3 Authorities and Policy Makers

The stakeholder group of authorities & policy addresses representatives of agricultural authorities (ministries, departments) related to Common Agricultural Policy (CAP), EARDF Regional Development Programs and experts on regulatory issues related to the use of the MAGIC databases for the agricultural industries. It also related to standardization and certification bodies and institutions, Public Environmental Monitoring Authorities as well as bio-based and agricultural industry representatives. The promotion of the MAGIC database by policymakers and other authorities related to the agricultural industry follows the best interest for a positive advancement of the bio-economy within the EU, resource efficiency and environmental challenges of EU's economy. Such authorities can play key roles in the promotion, recommendation and integration of project-proven best-practice strategies, while they can also function as multiplier agents for all sorts of dissemination efforts.

## 3.4 Scientific Community

While gained project-results do focus on practical use, they at the same time aim to inspire and motivate related scientific research as well as follow up projects and future co-operations. They also aim to encourage additional future research of relevant aspects and key-results that were not sufficiently investigated within the framework of MAGIC but would be interesting investigation topics for the academic scientific community.

## 3.5 Investors

The MAGIC project also addresses potential investors and motivates them to take advantage of identified investment opportunities or to develop their own individual approaches in order to realize economically viable use of marginal land and industrial crops.

## 3.6 Broader Public and Media

This definition of the broader public includes the general public as well as the mass media, who can both be considered as a target group of MAGIC. While they mainly serve communication- and publication-purposes, they can contribute to introduce the topic to a broad public through additional promotional publication and activities channeled through mainstream and specialized media.

| Key asset | Stakeholder group | Role | Information needs | Dissemination strategies (tools and activities) |
|---|---|---|---|---|
| MAGIC-CROPS | Farmers | Users | Knowledge about database's existence; how to use it | -Web portal,<br>-Digital newsletter,<br>- Social media,<br>-Target mailing campaigns,<br>- nova-Communication and Dissemination Tool (nCDT)<br>-MAGIC events: Presentation and network events (congresses, conferences etc.)<br>- Press releases on milestone events in scientific magazines and specialised mass media,<br>-Practice abstracts for EIP-Agri |
| | Farmers' associations | Multipliers | | |
| | Agricultural companies | Users, multipliers | | |
| | Agricultural machine companies | Users, multipliers | | |
| | EIP-AGRI | Multipliers | | |
| MAGIC-MAPS | Farmers | Users | Knowledge about database's existence; how to use it | |
| | Farmers' associations | Multipliers | | |
| | Agricultural companies | Users, multipliers | | |
| | Agricultural machine companies | Users, multipliers | | |
| | EIP-AGRI | Multipliers | | |
| MAGIC-DSS | Farmers | Users | Knowledge about tool's existence; how to use it | |
| | Farmers' associations | Multipliers | | |
| | EIP-AGRI | Multipliers | | |

| | | | | |
|---|---|---|---|---|
| New breeding tools, agronomic practices, harvesting and logistics systems | Farmers | Users | Knowledge about tools' existence; how to use them; training | -Publicity materials: Project identity package (brochure, Roll-up Banner, templates). |
| | Farmers' associations | Multipliers | | |
| | Agricultural companies | Users, multipliers | | |
| | Agricultural machine companies | Users, multipliers | | |
| | EIP-AGRI | Multipliers | | |
| Success stories and policy recommendations | Farmers | Recipients | Broad or more detailed understanding of success factors and political framework conditions, depending on the specific target group | |
| | Farmers' associations | Multipliers | | |
| | EIP-AGRI | Multipliers | | |
| | Policy makers | Implementers of recommendations | | |
| | Broader public / media | Recipients, multipliers | | |
| | Investors | Implementors, Multipliers | Economical scale | |

Table 2:activities targeting specific stakeholder groups

# 4 Dissemination Activities

## 4.1 Dissemination plan (D8.1)

In order to establish and develop suitable long- and short-term dissemination strategies for MAGIC, a detailed dissemination plan was developed and submitted in month 10 by nova. This first version of the deliverable was reviewed by Spanish Co-ops and CRES (D8.1 – Dissemination Plan). The dissemination plan was treated as a living document and received regular updates. In order to allow an accurate update of the document, all executed dissemination activities of the partners were monitored via the ECAS tracking document on a quarterly basis by nova.

The outcomes of this task were summarized in the third version of deliverable **D8.1** that received updates in M30 and M48 and was submitted in M49. Due to the delay of single tasks, this deliverable suffered a three-month delay.

## 4.2 Dissemination Material and Project Identity

This task aimed to design and produce suitable and effective dissemination materials in order to generate a certain corporate identity. In the first project period, nova successfully designed the corporate identity of the project including all associated materials like the project Logo, templates for word and ppt, the project website, digital and physical leaflets, posters and roll-up banners in order to pursue and guarantee a clear and effective communication strategy. However, the development of dissemination material represented an ongoing task, that was constantly updated and renewed throughout the project in the form of updated brochure texts and online content. Task 8.2 is closely linked to the previous task 8.1, as much of the communication infrastructure is outlined and describe in the dissemination plan.

Figure 2: MAGIC Project Logo

## 4.3 Project Website

In the first project months (April 2018) NOVA further set up a project website which is available under (http://magic-h2020.eu). The MAGIC website is hosted and maintained by NOVA in coordination with CRES and offers a structured overview of the MAGIC project and its objectives for all interested stakeholders. The website contains a variety of relevant project information and lists the partners involved, key goals and objectives, recent achievements as well as upcoming events. It also includes a section for public deliverables and reports.

In order to provide a sufficient internal communication, NOVA further set up an internal login area, which allows an easy management of internal procedures, called nCDT (nova Communication and Dissemination Tool), tailor-made to the project needs. The internal communication is implemented via a platform, where access is restricted to the consortium partners only. For a more detailed description of the internal area as well as for the external structure of the project website, see also the first version of the Deliverable D8.1 Dissemination plan.

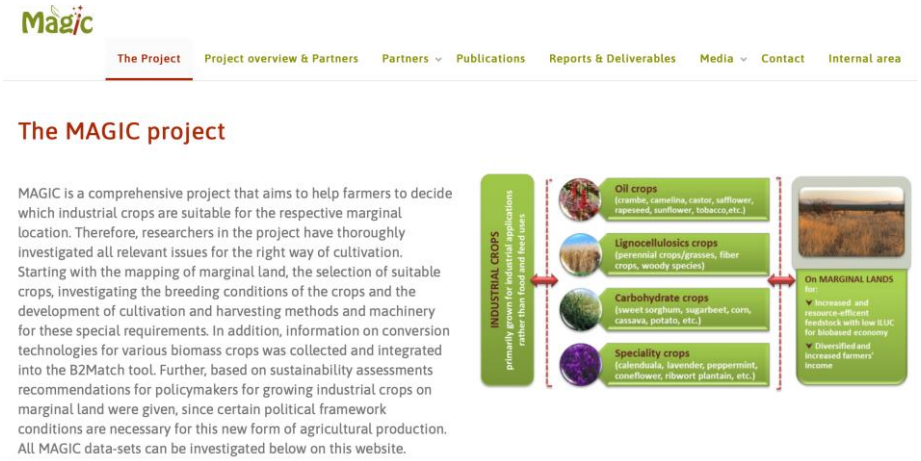


Figure 3: Impressions MAGIC website

Furthermore, it offers access to all recent MAGIC databases, among them the MAGIC Decision Support System, which allows end-users to learn more about the resource-efficient crops growing on marginal land areas, the MAGIC-maps database, which supports end users and practicioners in identifying suitable marginal lands in their own European surroundings, and MAGIC-crops which introduces 37 industrial crops and their characteristics. A second version of the MAGIC DSS went online in the final projects weeks and went along with an introduction of the Bio2Match Tool as well as a redesigned frontpage.

# Databases

The MAGIC website hereby finally offers access to the following four MAGIC-databases:

1. MAGIC-Maps
2. MAGIC-Crops

3. MAGIC-DSS
4. MAGIC-Bio2Match Tool

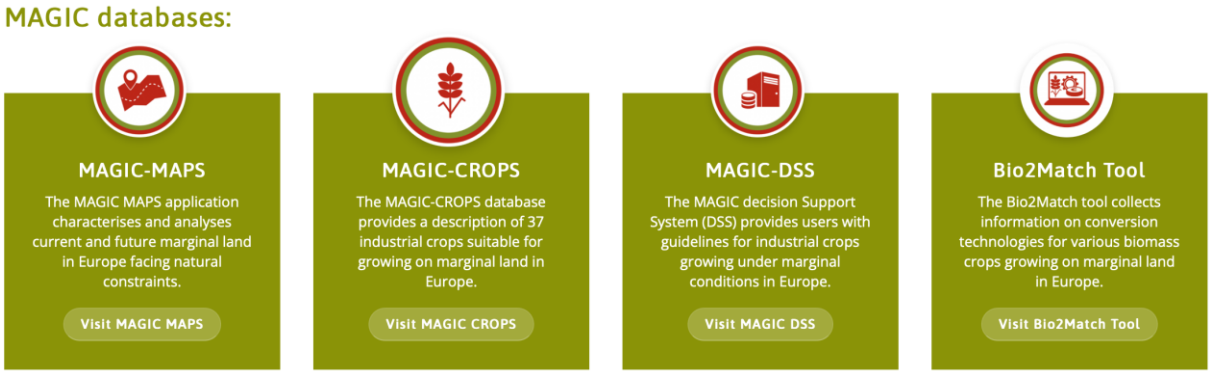


Figure 4: Four available MAGIC databases

### 4.3.1 Final Website Updates

While the MAGIC-Maps, MAGIC-Crops and MAGIC-DSS were available in earlier project stages, the MAGIC-Bio2Match Tool represents the final database-update and was connected to an updated frontpage-design. It includes the following additions and transfers the user to the connected Bio2Match database.

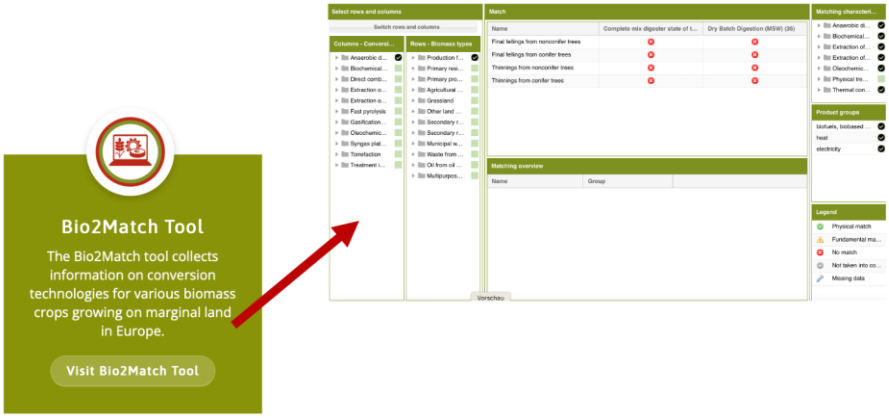


Figure 5: New Bio2Match Tool

Matching user support for end-users is provided through the “Bio2Match user-guide” and the “Bio2Match tutorial video”. Both instruments will ensure a sufficient information base for the practical transfer of the Bio2Match information for end-users and practicioners.


Figure 6: Additional Bio2Match User-Guide and Bio2Match-Tutorial

Clicking on the Bio2Match User Guide button transfers the user to a downloadable instruction manual, which provides all necessary information in order to secure an easy use of the Bio2Match tool.

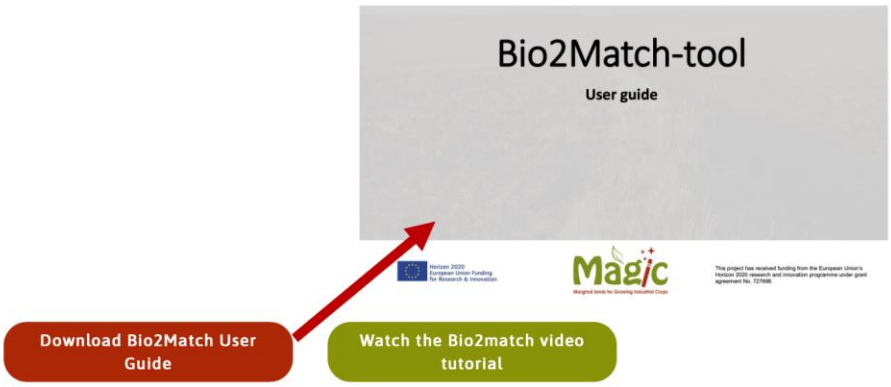


Figure 7: Link to Bio2Match User Guide

Meanwhile, clicking on the tutorial video button transfers the user to the YouTube channel of the BTG World, offering supporting information in a simplified and visualized video form.


Figure 8: Bio2Match Video Tutorial

## Videos

In the final project weeks, nova created an additional section for project videos, offering access to a variety of webinar recordings, on-site training and demonstration day videos, that inform visitors about harvesting techniques and provide useful tips. These were created by the project partners CIEMAT and Spanish Co-ops. This section is available via http://magic-h2020.eu/videos/.


Figure 9: Impressions MAGIC video section

The website further offers access to all to date published publications, press releases, articles in popular magazines, conference presentations and proceedings, scientific posters and related scientific training material of various sorts. All to date available scientific publications are available under the following link http://magic-h2020.eu/scientific-publications/ .


Figure 10: MAGIC website publications section

The website will continue to be maintained and updated with new videos material, additional scientific publications as well as the finalized versions of the public deliverables, even after the project has ended.
Up to this point in time (January 2022) the available scientific content of the website has been downloaded 1.139.389 times.

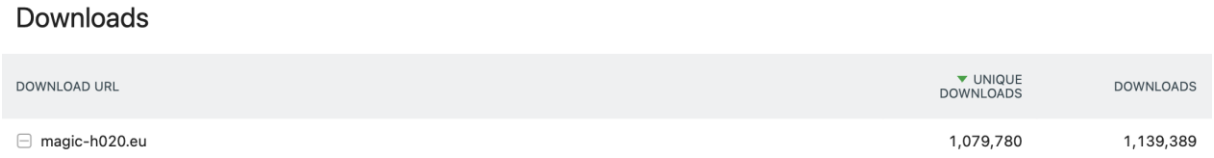


Figure 11: Downloads since website-start

The website was further used to actively promote events and project participations and, in most cases, included a direct registration link for interested website visitors.

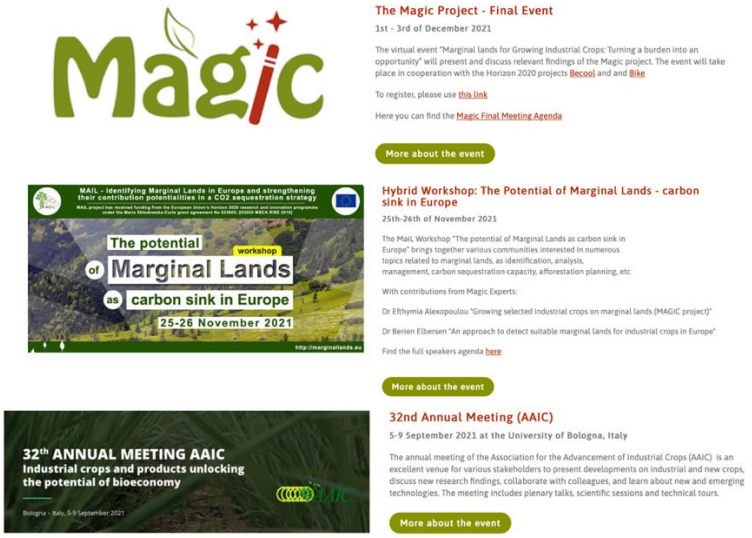


Figure 12: impressions event section on the MAGIC-website

### 4.3.2 Website Statistics

The MAGIC website went online in April of 2018. First increases of visitor numbers are therefore registered in January of 2019. These are connected to the integration of new content, the promotion of the first events and conference participations of the project partners as well as the presentation of first project results.

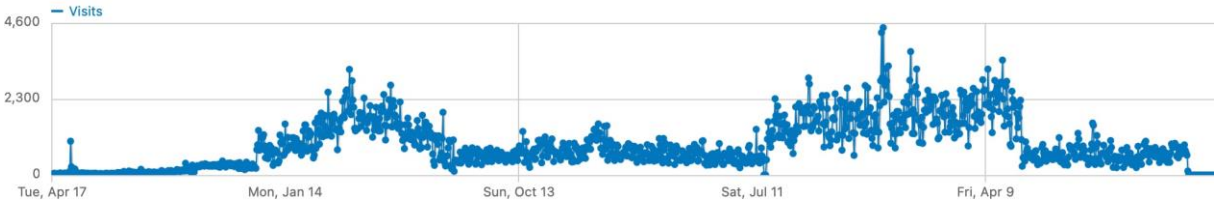


Figure 13: Visitor development since project start (2018-2021)

Since the start of the project, the website registered 9.628.101 pageviews resulting from 1.231.427 single website visits. While the term “visitors” refers to persons who visit a website (different IP addresses), the term “pageviews” describes the number of times a particular website is accessed by using the same web browser.

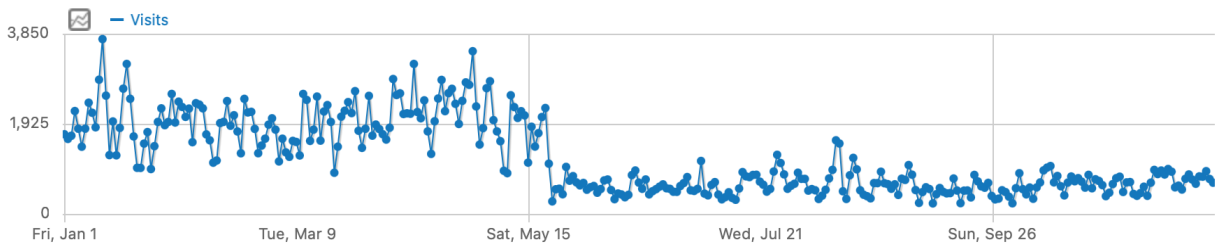


Figure 14: Visitor development 2021 (Jan – Nov)

The numbers of page-views and page visits are closely connected to the ongoing project activity and promotion. Accompanying the first finishing of WPs and the hereby provided and published project results, which were promoted through various conference participations, publications and frequent social media activity, the page registered an increase in visits in the fall period of 2020. Since may of 2021 the numbers show a decrease due to lower supporting project activity and the limited amount of project news.

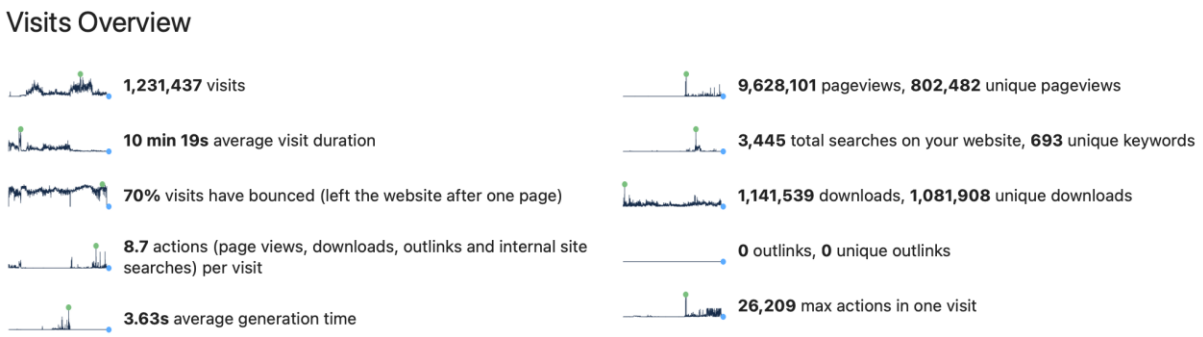


Figure 15: Visitor statistics since website start

A very positive figure is the average visit duration, this figure implies that visitors in average spend 10 minutes and 19 seconds actively searching for content on the project website.

## Visitors Locations

Taking a look at the visitors' locations, the biggest number of visitors (575.383) was located on the European continent. While a majority came from the countries of project partners like Germany (155.845), France (117.443), The Netherlands (81.508) and Spain (39.509). Meanwhile, other countries that ran field trials and MAGIC related demo days like Greece, Portugal or Ukraine do not appear among the top spots of website visitors. In total a majority of the website visitors came from the USA (506.853).

| | |
|---|---|
| United States | 506,853 |
| Germany | 155,845 |
| France | 117,443 |
| Netherlands | 81,508 |
| United Kingdom | 76,251 |
| Singapore | 47,918 |
| Spain | 39,509 |
| Japan | 20,999 |
| Unknown | 15,531 |
| Italy | 15,449 |
| **Totals** | **1,230,716** |

Figure 16: Visitors locations (global overview)

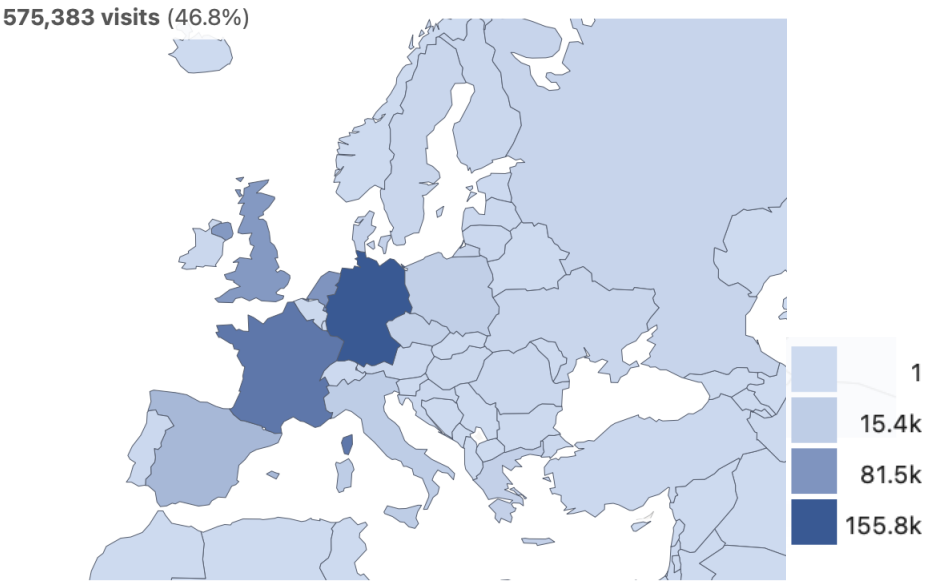


Figure 17: Visitors locations (overview Europe)

## 4.4 Press Releases

Within the first project period nova published two press releases about the project objective and strategy. These were promoted by all participating project partners through social media, as well as the well-established online news platforms bio-based News (www.news.bio-based.eu/) and Renewable Carbon News (https://renewable-carbon.eu/news/). While the nova newsletter reaches 16.000 monthly readers, the Renewable Carbon News portal reaches 150.000 monthly readers from industry and related scientific fields. NOVA further uses the well-known and very established press distribution network Zimpel, reaching relevant contacts in media and press, while also allowing a precise targeting of specific scientific fields and related publishing mediums. Press releases were additionally promotion via the project website and other newsletters of consortium partners.

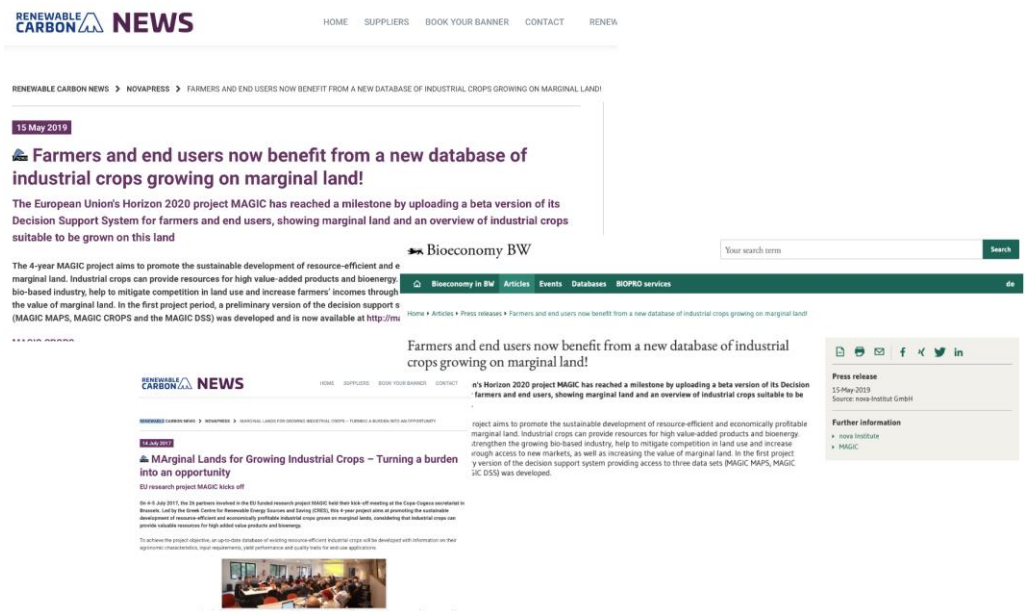


Figure 18: Samples of PR promotion via Renewable Carbon News and other news portals

Further press articles were also published by other project partners, informing the public about the implementation of MAGIC-MAPS, MAGIC-CROPS, MAGIC DECISION SUPPORT SYSTEM (DSS) and the MAGIC-Bio2MatchTool on the project website. Some of these were written in Spanish language, targeting specifically regional and national farmers and agricultural organizations. All to date published press releases -17 in total- were uploaded in the press release section of the project-website, which is available under the following link (http://magic-h2020.eu/press/ ).

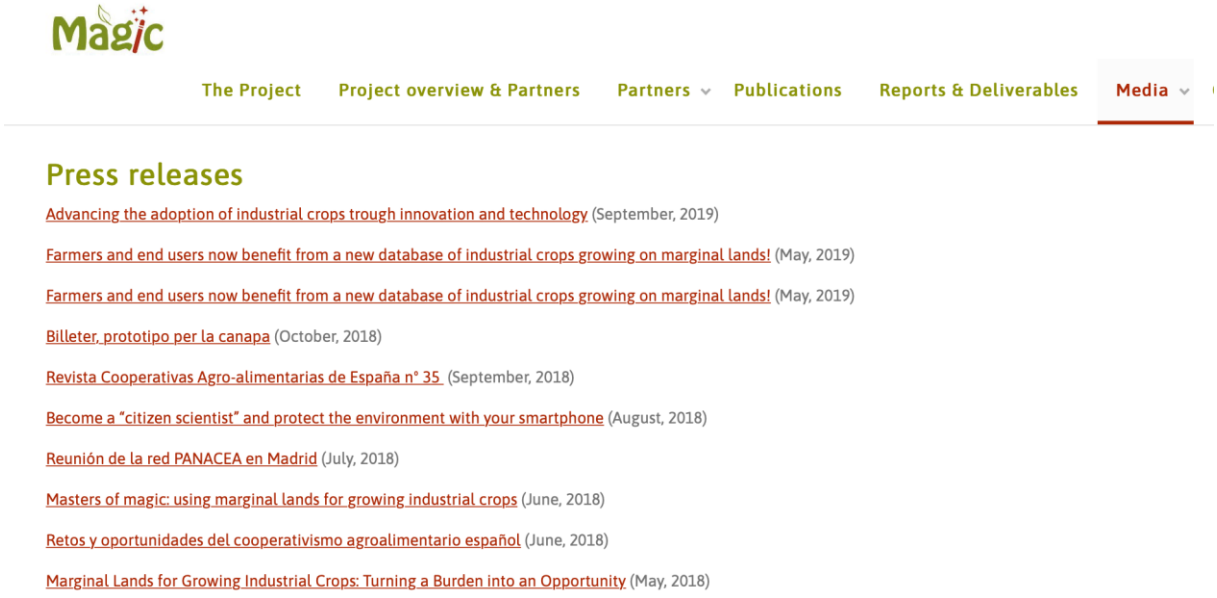


Figure 19: Impression PR section MAGIC website

A full overview of official press releases with dates and titles is listed below:

- July 14th 2017: EU research project MAGIC – Marginal Lands for Growing Industrial Crops: Turning a burden into an opportunity kicks off (→ announcement of the project start and a project introduction to the broad public)
- August 24th 2018: Become a "citizen scientist" and protect the environment with your smartphone ( → call for the public to submit information on marginal lands in order to support the creation of MAGIC maps)
- April 29th 2019: Farmers and end users now benefit from a new database of industrial crops growing on marginal land! (→ announcing the availability of the new DSS database)
- January 2022: The final version of the MAGIC database for identifying suitable industrial crops grown on marginal land is online (→ summarizing all project achievements)

A final press release summarizing all project achievements and introducing all available MAGIC databases is planned for January 2022. A draft was already sent to all consortium partners and is currently awaiting final confirmation and approval.

| PR Titel | PR Link |
|---|---|
| El CEDER participará en un proyecto de la UE sobre cultivos rentables | http://soriatv.com/13/01/2017/el-ceder-participaran-en-un-proyecto-de-la-ue-sobre-cultivos-rentables/ |
| El CEDER de Lubia (Soria) estudiará la introducción de cultivos rentables en tierras agrícolas marginales | http://soriatv.com/13/01/2017/el-ceder-participaran-en-un-proyecto-de-la-ue-sobre-cultivos-rentables/ |
| Nuevo proyecto de investigación de la UE para el CEDER de Lubia | http://sorianoticias.com/noticia/2017-01-13-nuevo-proyecto-investigacion-ue-ceder-lubia-36884 |
| El CEDER de Lubia (Soria) estudiará la introducción de cultivos rentables en tierras agrícolas marginales | https://noticiasdelaciencia.com/art/22635/el-ceder-de-lubia-soria-estudiara-la-introduccion-de-cultivos-rentables-en-tierras-agricolas-marginales |
| De Gregorio se reúne con la responsable de Energía del CIEMAT ( | http://sorianoticias.com/noticia/2017-03-01-de-gregorio-se-reune-responsable-energia-ciemat-37934 |
| Cultivos rentables en tierras marginales | https://www.ambientum.com/ambientum/agricultura/cultivos-rentables-en-tierras-marginales.asp?hilite=%27magic%27 |
| Daliba Apvarsbis 2020 pojekta MAGIC sapulce | http://www.silava.lv/sakums.aspx |
| EU research project MAGIC – Marginal Lands for Growing Industrial Crops: Turning a burden into an opportunity kicks off | http://news.bio-based.eu/eu-research-project-magic-marginal-lands-for-growing-industrial-crops-turning-a-burden-into-an-opportunity-kicks-off/ |

| | |
|---|---|
| EU research project MAGIC – Marginal Lands for Growing Industrial Crops: Turning a burden into an opportunity kicks off | https://www.clib2021.de/news/news-der-mitglieder?id=410 |
| Lanzamiento del proyecto europeo de investigación MAGIC: tierras marginales para producir cultivos industirales | http://www.agronewscastillayleon.com/lanzamiento-del-proyecto-europeo-de-investigacion-magic-tierras-marginales-para-producir-cultivos |
| Notiks monogrāfijas par plantāciju mežiem Latvijā atvēršanas pasākums | http://www.silava.lv/73/section.aspx/764 |
| La Convención de Cooperativas Agro-alimentarias analizará las tendencias en producción, industria, comercialización y consumo | http://www.agro-alimentarias.coop/noticias/ver/Nzg2Mw== |
| Marginal Lands for Growing Industrial Crops: Turning a Burden into an Opportunity | http://www.besustainablemagazine.com/cms2/marginal-lands-for-growing-industrial-crops-turning-a-burden-into-an-opportunity/ |
| Reunión de la red PANACEA en Madrid | http://www.agro-alimentarias.coop/noticias/ver/ODA0OA== |
| Become a "citizen scientist" and protect the environment with your smartphone | http://news.bio-based.eu/become-a-citizen-scientist-and-protect-the-environment-with-your-smartphone/ |
| Cooperativas Agro-alimentarias e INTIA organizan una jornada sobre cultivos no alimentarios el 12 de marzo en Madrid | http://www.agro-alimentarias.coop/noticias/ver/ODM3Mw== |
| Cooperativas Agro-alimentarias e INTIA organizan una jornada sobre cultivos no alimentarios el 12 de marzo en Madrid | http://www.agro-alimentarias.coop/noticias/ver/ODQwOA== |

Table 3:list of all press releases since project start

## 4.5 Social Media

Social media platforms in today's society represent an important channel for the share and dissemination of relevant content and reaching a broad audience. As many of the consortium partners own a LinkedIN profile, some have joined specific groups within this very well-established social media business platform. The LinkedIN accounts of project partners were used as multipliers for the sharing of MAGIC related content with other members as well as within suitable groups. With this objective, the project partners identified suitable MAGIC related groups (e.g. agriculture, agronomic, Bioeconomy, etc.). MAGIC content was also shared via nova-Institute's own company LinkedIN profile (500 nova-Institute followers, 6000 followers of nova-Institute's CEO).

The same strategy was applied to the platform Twitter. Rather than establishing a Twitter list, the MAGIC consortium agreed it would have greater impact to gather project related and relevant hashtags that are highly suitable to the project. Therefore, a MAGIC hashtag (**#magich2020**), which is also printed on all communication materials was established. In order for #magich2020 to become a highly established indexation on the social media platform for crop projects in general, it was frequently used by all Twitter accounts connected with MAGIC. In addition, nova created a list with highly frequented hashtags, such as

#marginallands, #industrialcrops or #bioeconomy, related to the project. Moreover, nova and the project partners regularly retweeted relevant partner tweets related to the project with their relevant accounts (@novaInstitut around 1000 followers; @biobased_News around 2000 and @mkarus around 1000). In order to increase the attention of the project and to link the social media accounts of the consortium partners with MAGIC, nova recommended the use of relevant hashtags like #MAGIC or #magich2020 into the own profile description. While twitter itself shows lower interaction rates in comparison to other social media platforms, it is proven to increase the recognition of the presented information on other channels such as LinkedIN newsletters or website content.
During the entire project time frame the participating project partners executed 89 promotional activities through social media, a majority of which used the platform Twitter. The full list with links is included in the final ECAS- sheet for the tracking of dissemination and communication activities.


Figure 20: Impressions of MAGIC Social Media activities

The reach and impact of all executed Twitter activities is monitored through the analytical service “Twitter Analytics” which offers information on tweet impressions, active interactions as well as the registered interaction ratio. Two examples of a magic related twitter analytics output are provided in the following figure.

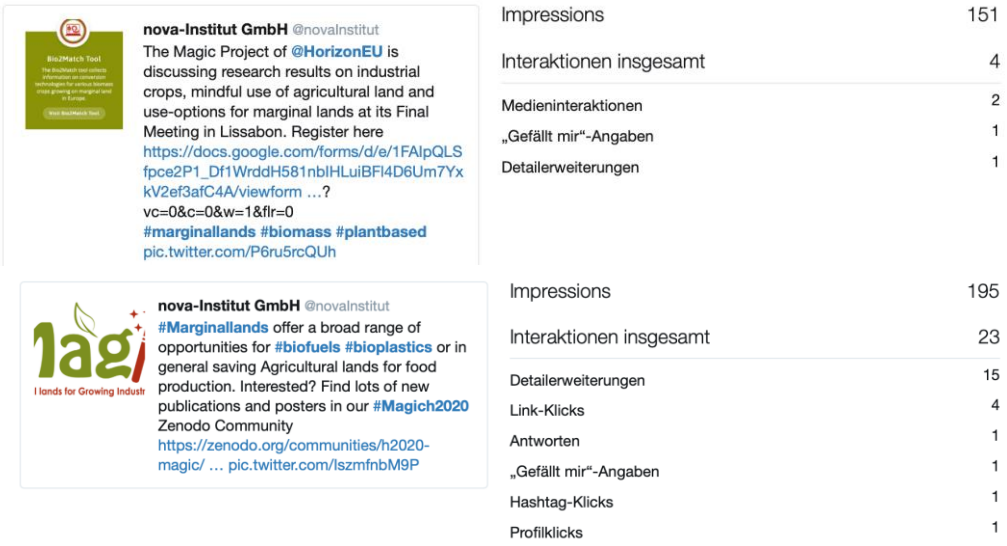


Figure 21: impressions of Twitter analytics output for two promotional tweets

## 4.6 Publications

In addition to the specific prior mentioned dissemination routes for project related information, the scientific community was actively targeted by scientific publications of various sorts. These publications address relevant research findings resulting from the MAGIC project by submitting peer reviewed articles to relevant journals as well as topic related magazines. Publication paths further include publications in conference proceedings, chapters in monographs or books, dissertations as well as scientific posters and flyers. All instruments were aiming to spread gathered project-information among interested stakeholder groups. All publications were made available via open access and hereby follow the regulations of §29 of the Grant Agreement. They further mention the GA-number of the European Horizon 2020 program.

All scientific publications are available at the publications section of the project website and were also uploaded in the MAGIC community of the online repository ZENODO. During the final project stage various partners have submitted new scientific publications to relevant journals and magazines, which are currently pending, as well as continued their efforts to publish related books. These contributions will as well be continuously updated on the website and the ZENODO online repository.

Up to this point in the project participating project partners contributed 31 articles in journals, 13 publications in conference- and workshop-proceedings, 13 chapters in books or monographs, 1 dissertation and one publication in a popular magazine, resulting in a total of 58 publications related to the MAGIC project.

| | |
|---|---|
| Article in Journal | 31 |
| Publication in conference proceedings/workshop | 13 |
| Books/Monographs | 0 |
| Chapters in books | 13 |
| Thesis/dissertation | 1 |
| Other (publication) | 1 |
| Total publications | 58 |

Figure 22: Overview all publication activities

A full list of realized project related publications is to be found in the Annex of this document.

### 4.7 ZENODO-community

According **to § 29.2** of the GA all partners are obliged to follow the legal requirements on open access (OA) to scientific publications for projects funded within the frame of the European Horizon 2020 program. In consequence, all beneficiaries must deposit a machine-readable electronic copy of the published version or a final peer-reviewed manuscript accepted for publication in a repository for scientific publications. Furthermore, each beneficiary must ensure open access to all peer-reviewed scientific publications relating to the project's results. This must be done as soon as possible and at the latest upon publication. To meet this requirement, each beneficiary must, at the very least:

- Ensure that any scientific peer-reviewed publications can be read online, downloaded and printed.
- Since any further rights - such as the right to copy, distribute, search, link, crawl and mine, which make publications more useful, beneficiaries should make every effort to provide as many of these options as possible.

## The two pathways of open access (green and gold):

After depositing publications each partner must ensure open access to those publications via the chosen repository. Beneficiaries can choose one of two main pathways to meet this requirement:

- **Self-archiving** / **'green' OA:** beneficiaries can deposit the final peer-reviewed manuscript in a repository of their choice. They must ensure open access to the publication within at most 6 months (12 months for publications in the social sciences and humanities). To provide support concerning compliance with Horizon 2020 embargo periods the Commission offers a model amendment to publishing agreements[1], which are often signed between authors and publishers. This model is

[1] https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/oa-pilot/h2020-oa-guide-model-for-publishing-a_en.pdf (20 January, 2020)

not mandatory but reflects the obligations for the beneficiary under the H2020 grant agreements. It can be supplemented by further provisions agreed between the parties, provided they are compatible with the Grant Agreement. The Commission/Agency takes no responsibility for the use of this model.

- **Open access publishing** / **'gold' OA**: researchers can also publish in open access journals, or in hybrid journals that both sell subscriptions and offer the option of making individual articles openly accessible. Monographs can also be published either on a purely open access basis or using a hybrid business model. 'Article processing charges' are eligible for reimbursement during the duration of the project (as other costs defined in Article 6.2.D.3 of the Model Grant Agreement). As stated, the article must also be made accessible through a repository upon publication.

The **costs** of 'gold' open access publications incurred once a project is completed cannot be refunded from that project's budget.

In order to fulfil the open access requirements of the EU, a so-called “community” on ZENODO was created for the MAGIC project, which is available through the following link (https://zenodo.org/communities/h2020-magic/). This community allows access to all project-related publications and other published scientific material such as project presentations, posters, brochures, flyers and conference proceedings.
ZENODO is a general-purpose open-access repository developed under the European Commission’s OpenAIRE[2] program and operated by CERN[3]. It allows researchers to deposit publications, data sets, reports, and other research related digital artefacts. For each submission, a persistent digital object identifier (DOI) is minted, which makes the stored items easily citeable. The ZENODO Magic community contains all to date published materials and continues to be updated and maintained. Links to these ZENODO-stored publications are further provided through the project website. This approach simplifies the publication process and ensures that any knowledge gained within the project remains accessible to the public even after the project ends.
Up until this point, partners contributed a variety of scientific works. These range from articles in journals, chapters in books to several conference proceedings and scientific posters. On a very positive note, a majority of these publications chose gold open access.

[2] https://www.openaire.eu (20 January, 2020)
[3] Peter Suber (2012). “10 self-help”. Open Access (the book). MIT. ISBN 978-0-262-51763-8.

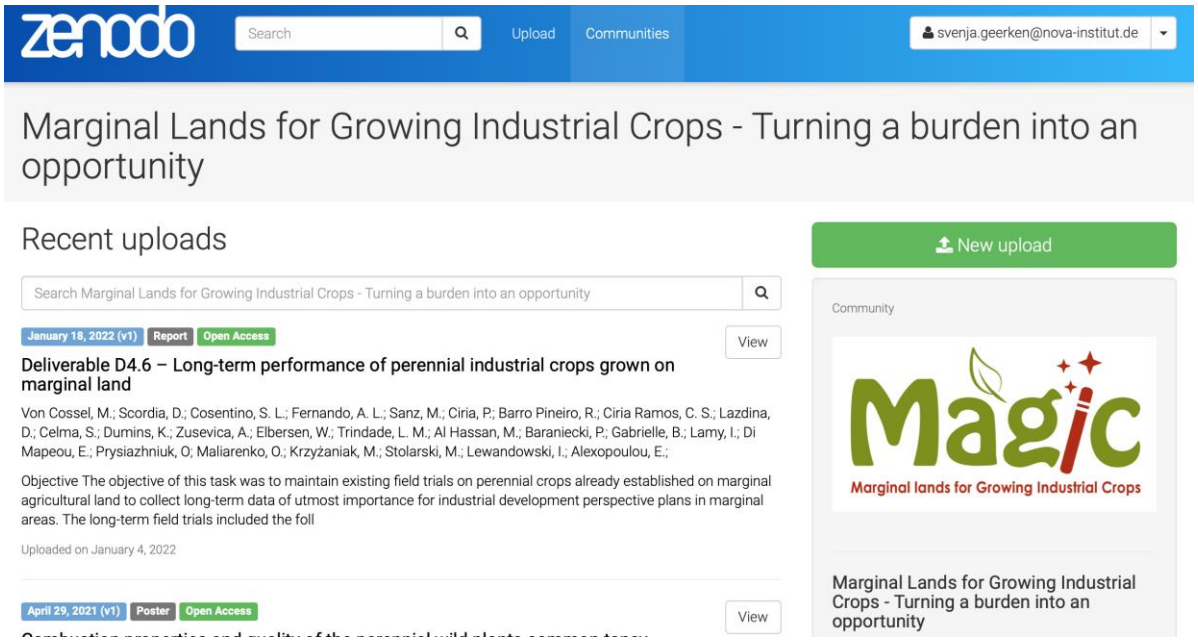


Figure 23: Magic community in the online repository ZENODO

The ZENODO MAGIC community currently offers access to 71 publications. The community will remain updated in the final project days and also continue to be updated once the project has ended, in order to include all project-related published materials. Figure 24 shows the currently available amount of 71 publications, which visitors since the start of the community have downloaded over 5000 times.

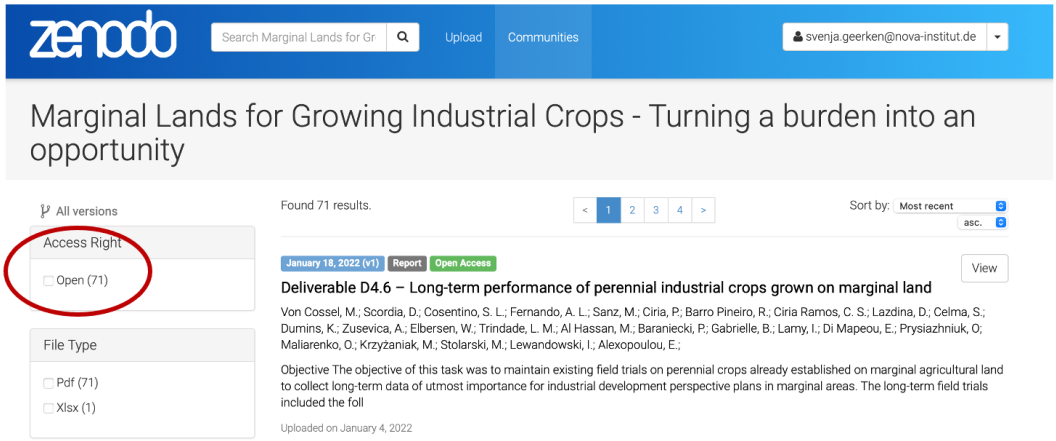


Figure 24: Available Material in the ZENODO MAGIC- Community

## 4.8 European Commission Project Site

A majority of the project related peer reviewed scientific publications was further uploaded on the MAGIC project site of the European Commission, which is available under the following link: https://cordis.europa.eu/project/id/727698/results While the ZENODO community and project website also include conference presentations, promotional activities in popular magazines, promotional material and abstracts in conference proceedings, the uploads on

the EC project site solely focus on the peer reviewed scientific articles in relevant scientific journals.

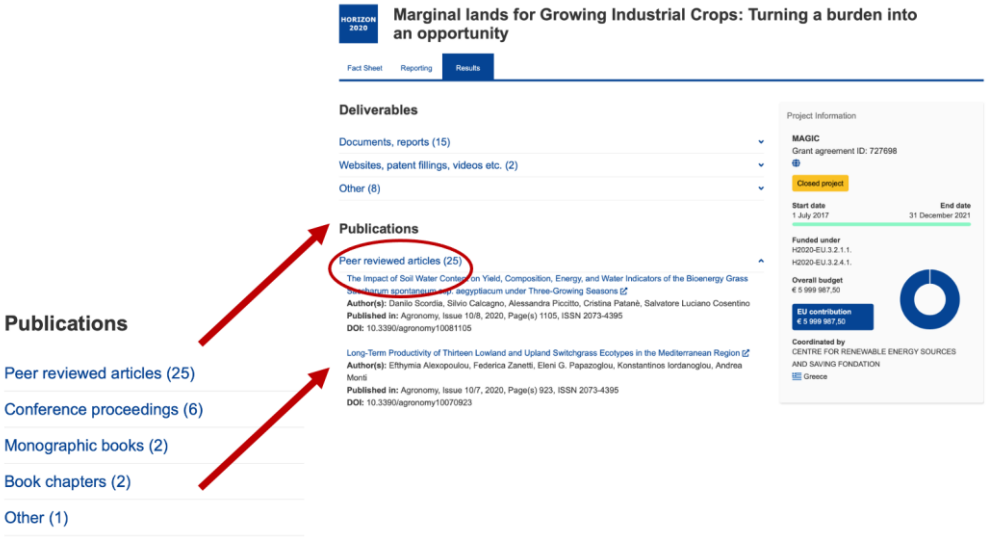


Figure 25: Available peer reviewed publications EC site

## 4.9 Events (Conferences, Workshops, Value Chain Events, Final Event)

The presentation of the MAGIC project and the attendance at different events outside the project framework enabled an efficient and broad exchange of know-how and experience as well as a comprehensive transfer of project outcomes based on direct contacts with representatives of the project target groups.
The consortium actively promoted major results gained in the MAGIC project at numerous conferences. For this purpose, partners delivered a multitude of presentations at scientifically and topically related conferences and trade-fairs, explaining and introducing the project-activities as well as the results obtained within the project in order to target relevant stakeholder groups. These included especially farmers, farmer associations and other end-users as well as policy maker, the scientific and academic community and authorities active in the agricultural sector.

### 4.9.1 Conferences

The nova-Institute has great experience in the organization of trade conferences and provides great experience in the disseminating at trade events, as do the other project partners. During the entire project duration, a steadily updated list of relevant project-related events was drawn with the intention of attending them and presenting generated results.

A list of the conferences attended during the final project period is to be found below, while full lists of all conference participations, divided by project period, are to be found in the ECAS main sheet

- 33rd International Agroindustrial Exhibition (4th June 2019, Kyiv, Ukraine)
- 13th Rostocker Bioeconomy Forum (13th June 2019, Rostock, Germany)
- 9th International Conference on Life Cycle Management (3rd September 2019, Poznan, Poland)
- 31st Meeting of the Association for the Advancement of Industrial Crops (8th – 11th September 2019 in Tucson, USA)
- 6th International Conference and Workshop 'Plant – the source of research material (10th – 13th September 2019, Naleczow, Poland)
- Panacea Conference "Non-food crops as source of energy and high value products" demo days (23rd -24th September 2020 in Olsztyn, Poland)
- International Conference on Biomass Conversion and Renewable Material (12th – 15th October 2019, Guilin, China)
- XVI Optima Meeting, University of Athens (2nd – 5th May 2019, Athens, Greece)
- Copa-Cogeca's Cereals and Oilseeds and Protein Crops Working Party (24th October 2019, Brussels, Belgium)
- 32nd Meeting of the Association for the Advancement of Industrial Crops in Bologna, Italy (5th – 8th September 2021)
- Scientific Forum of the European Bioeconomy University, online conference (22nd – 23rd September 2021, online)
- AGROinLOG Conference: "Promoting the development of bioeconomy in rural areas" (30th June 2020, online)
- NRW-Biokraftstofftagung 2020 (26th November 2020, Bad Sassendorf, Germany)
- 4th International Conference on Global Food Security (7th – 9th December 2020, online)
- EUBCE 29th European Biomass Conference and Exhibition 2020 (26th - 29th April 2021, online)
- Webinar of the Association for the Advancement of Industrial Crops (3rd September 2020, online)
- RRB Renewable Resources and Refineries (6th – 9th September 2021, Ghent, Belgium)
- International Conference "Biomass for Energy" (30th September 2021, Ukraine)
- Webinar: Non-food crops for European marginal areas (2nd November 2020, online)
- EUBCE 28th European Biomass Conference and Exhibition 2020 (6th – 9th July 2020, in Marseille, France and online)
- EUBCE 30th European Biomass Conference and Exhibition (26th -29th April 2021, online)

- Demonstration Days of Industrial Crops and Collection of Perennial Species (26th of October, Soria, Spain)
- The potential of Marginal Lands as carbon sink in Europe (25th – 26th November 2021, online)

During the entire project duration representatives have presented the MAGIC project in 83 participations at conferences, while the organization of conferences was realized 10 times. Additional event activities were executed through the organization of 10 work-shops, participations at 8 work-shops as well as 10 participations at events other than a conference or a work-shop.

| Conference Title | Date | Place |
|---|---|---|
| International Conference on Industrial Crops and 29th Annual Meeting of the Association for the Advancement of Industrial Crops (AAIC), Industrial Crops and Products: Renewable Feedstocks for a Sustainable Bioeconomy | 10-13.09.2017 | Ames, Iowa, USA |
| 4th International Conference: WASTES: Solutions, Treatments and Opportunities | 25-.26.09.2017 | Porto, Portugal |
| 26th European Biomass Conference and Exhibition, Setting the course for a Biobased Economy | 14.-18.05.2018 | Copenhagen, Denmark |
| EIHA International Conference of the European Industrial Hemp Association | 12.-13.06.2018 | Cologne, Germany |
| Regional HELIX'18, International Conference on Innovation, Engineering and Entrepeneurship | 27.-29.06.2018 | Guimarães, Portugal |
| Presentation day about MAGIC on 26th Biomass Conference | 31.06.2018 | Kopenhagen,Denmark |
| International Conference in Industrial Crops and 30th Annual Meeting of the Association for the Advancement of Industrial Crops (AAIC) | 23.-26.09.2018 | London, Ontario, Canada |
| Revolution in Food and Biomass Production | 01.-02.19.2018 | Cologne, Germany |
| Webinar: Non-food crops for European marginal areas | 02.11.2020 | Spain |
| Magic Final Event | 02.12.2021 | Lisbon, Portugal |

Table 4:List of conferences organized by MAGIC partners

### 4.9.2 Workshops

In order to introduce the project findings to end users and practitioners and encourage a transfer of gathered information into agricultural practice, numerous consortium partners organized work-shops as well as on site work-shops in various countries. A full list of work-shops organized during the duration of the MAGIC project is to be found below.

| Workshop title | Date | Place |
|---|---|---|
| Biomass & agricultural sector | 07.03.2018 | Thessaloniki, Greece |
| Industrial Crops in the area of Evros | 02.05.2018 | Orestiada, Greece |
| Industrial Crops | 07.05.2018 | Serres, Greece |
| A Reutilização de Águas Residuais em Portugal (Reuse of wastewaters in Portugal) | 22.05.2018 | Caparica, Lisbon, Portugal |
| National Workshop "Sustainable exploitation of biomass for bioenergy from low-production lands" SEEMLA - Horizon 2020 | 06.11.2018 | Yaltushkiv, Chereshneve, Ukraine |
| III International Scientific and Practical Conference prospects of bioenergy development in Ukraine organized by support of the State Agency of Energy Efficiency (Kyiv, Ukraine) and International Foundation ENERGY FARM, was held at the Salyvonkivske Experimental Farm of IBC&SB | 28.11.2019 | Oslo, Norway |
| Seminario nuevos cultivos zonas baja productividad | 13.10.2020 | Spain |
| MAGIC event at AAIC 32nd Annual Meeting | 06.09.2021 | Bologna + ZOOM |
| Non-Food Crops as a source of energy and high-value products (workshop at partner event Magic/Panacea) | 23-24.09.2020 | Olsztyn, Poland |
| Growing Bioenergy Crops on Low-Productive Lands | 8.-9.12.2021 | Kyiv, Ukraine |

Table 5:List of workshops organized by consortium members

### 4.9.3 Interactive Value chain events (D8.2 and D8.3)

The dissemination plan foresaw the organization of two value chain events, which were supposed to take place in parallel to the 3rd and 4th project meeting. The term 'Value chain event' indicates the involvement of stakeholders from each stage of a certain agricultural-industrial value chain, in order to improve interaction, collaboration and exchange. While the 1st value chain event took place during the 3rd project meeting and focused on stakeholders from the oil and specialty crops value chain, the 2nd value chain event during the 4th project meeting will include stakeholders from the lignocellulosic and carbohydrate crops value chains. Both events aimed at presenting success stories and target farmers, agricultural co-operations and potential investors. Both events included members of the Multi Actor Advisory Board. Due to ongoing covid 19 pandemic the realization of the second value chain event was changed from an in-person event to a digitalized form of an online webinar.

The "1st Value chain event on oil crops successfully took place at the London Imperial College on the 27th of March 2019, where various experts from the project presented their results and actively discussed them with the workshop participants. The event was organized in cooperation with PANACEA and reached a broad international audience. While 110 people registered for the event, 40 participants actually participated on site.

Due to the global outbreak of Covid 19, related travel restrictions and security measures, a reliable planning of future events became impossible. While a majority of events were either postponed or cancelled, the organization of digital or hybrid events has established itself as a promising alternative, allowing the participation of various stakeholder groups that might otherwise not have been able to participate in person. In consequence, the 2nd value chain event was held in the form of a free online webinar and covered the following agenda.


Figure 26: Agenda 2nd MAGIC value chain events

The event focused on Carbohydrates and Specialty Industrial Crops and was held on 20th of January 2021 (14:00 to 17:00). It was actively promoted online via Social Media, LinkedIn and project website, using the following banner. A realization was executed in co-operation with the partner project Panacea. While 110 people registered and confirmed the broad interest, more than 80 people actually participated.
The completion of both events marks the successful execution of Deliverables D8.2 and D8.3.


Figure 27: Promotional Banner for the 2nd value chain event, which was held as an online webinar

### 4.9.4 Final Magic Event

The final project event took place alongside to the final project meeting and presented the gathered results and findings to a broad group of stakeholders, ranging from the scientific academic community to industry and media. This event as well took place in hybrid mode and was partially attended in person as well as online via zoom. Promotion activities were taken through social media as well as through the project website, which provided immediate access to the registration form. The final event was organized by CRES and AUA and presented the topics of the following agenda. In order to use synergies with related projects and broaden the reach of potential stakeholders and related networks, the event was realized in cooperation with the projects BECOOL (https://www.becoolproject.eu) and BIKE (https://www.bike-biofuels.eu/the-project/).

The event covered the following agenda:

Marginal lands for Growing Industrial Crops

**Final Event of MAGIC**
**"Marginal lands for Growing Industrial Crops: Turning a burden into an opportunity"**

**2nd December 2021**

**NOVA School of Science and Technology, NOVA University Lisbon**

**Auditório da Biblioteca, FCT NOVA, *Campus* Caparica, Lisboa and online**

*in cooperation with BECOOL and BIKE Horizon 2020 projects*

BECOOL BIKE

| | | |
|---|---|---|
| 8:30 | Registration | |
| 8:50 | Welcome - Set the scene of the event (Ana Luisa Fernando) | |
| | Session 1: The MAGIC project, *Chaired by Efthymia ALEXOPOULOU (CRES)* | |
| 9:00 | Overview of the MAGIC project | Efthymia ALEXOPOULOU (CRES) |
| 9:20 | Marginal lands in Europe, their extend and main characteristics influencing on the barriers and opportunities for industrial crop production | Berien Elbersen, Michiel van Eupen (WR) and Ian Mcallum (IIASA) |
| 9:40 | How to achieve low-input cultivation of industrial crops on marginal agricultural land? | Luciano Cosentino & Danilo Scordia (UNICT) |
| 10:00 | The resilience of the multi-purpose industrial crop camelina [*Camelina sativa* L. (Crantz)] on marginal soils in Europe | Federica Zanetti (UNIBO) |
| 10:20 | Camelina and castor oil harvesting strategies | Luigi Pari (CREA) |
| 10:40 | Which MAGIC tricks are needed to optimise the sustainability of bioenergy carriers and bio-based products from marginal land | Nils Rettenmaier (ifeu) |
| 11:00 | Questions | |
| 11:15 | *Coffee break/poster break* | |
| | Session 2: Projects on marginal and/or contaminated lands, *Chaired by Ana Luisa Fernando (FCT UNL)* | |
| 11:30 | The BeonNat project: Innovative value chains from tree and shrub species grown in marginal lands as a source of biomass for bio-based industries | Carlos Martin, CIEMAT |
| 11:50 | Growing fiber crops on contaminated lands for phytoremediation purposes and biobased products – FORTE project | Eleni G Papazoglou (AUA) |
| 12:10 | Combating desertification and promoting ecosystem restoration in the Mediterranean - MediOpuntia project | Ana Luisa Fernando (FCT UNL) |
| 12:30 | Growing energy crops on contaminated lands for biofuels and soil remediation – GOLD project | Efthymia Alexopoulou (CRES) |
| 12:50 | Questions | |
| 13:00 | *Lunch break* | |
| | Session 3: Low ILUC risk biomass for biofuels and the bioeconomy, BIKE project, *Chaired by Maurizio Cocchi (ETA)* | |
| 14:20 | Additional feedstock from productivity increases for European biomass crop options | Calliope Panoutsou (ICL) |
| 14:40 | Perspectives of low ILUC risk biofuels production systems in Europe | Andrea Salimbeni (RECORD) |
| 15:00 | Discussion | |
| 15:15 | *Coffee break/poster break* | |
| | Session 4: Innovative cropping systems and logistics of lignocellulosic value chains for advanced biofuels, BECOOL project, *Chaired by Andrea Monti (UNIBO)* | |
| 15:30 | Integrated rotations of food and energy crops for advanced biofuels value chains | Andrea Parenti (UNIBO) |
| 15:50 | Optimized logistics for lignocellulosic value chains – Case studies | Berien Elbersen (WR) |
| 16:10 | Discussion | |
| 16:30 | Wrap up | |
| 16:50 | End of workshop | |

**Registration is free but mandatory. Please register at the following link:**
**https://docs.google.com/forms/d/e/1FAIpQLSfpce2P1_Df1WrddH581nbIHLuiBFl4D6Um7YxkV2ef3afC4A/viewform?vc=0&c=0&w=1&flr=0**

**After registration you will receive a confirmation by e mail. The link for the online access will be sent on the 1st December.**
**There is a limit number for in-person participation. In case you want to attend in person, you will be notified of its acceptance.**

**FCT NOVA informs that the treatment and privacy of personal data complies with the provisions of the Data Protection Regulation [Regulation (EU) 2016/679], applicable from 25 May 2018. If you don't want to authorize the use of the data provided for the electronic dissemination of FCT NOVA initiatives, please inform us of this intention via e-mail dctb.secretariado@fct.unl.pt.**

Figure 28: Agenda Final Project Event Lisbon, Portugal

While many project partners managed to be present besides the difficulties caused by the travel restrictions due to covid 19, numerous attendees participated online. The event counted 56 online participants and 39 on site at the university of Lisbon.

Figure 29: Impressions Final Event Lisbon

### 4.9.5 EIP Agri and Operational Group interaction (D8.5)

The primary objective of this task was to establish a strong relation with the EIP Agri. According to the Grant Agreement the goal is to achieve coordinated actions between the project and EIP-Agri, MAGIC accounts with a seat in the EIP-Agri subgroup of innovation, through Spanish Cooperatives-COGECA. 56 European organizations are represented in the Subgroup on Innovation. This is the body within the EIP that plans future activities, seminars, workshops and focus group. Taking advantage of the seat on the group, MAGIC actively fostered the interaction with it. A major target was the creation of one specific focus group on industrial crops on marginal land.
Therefore, project partner Spanish Co-ops presented focus group proposals in this line at the EIP-Agri Subgroup of Innovation. One was finally jointly agreed on and chosen as an interesting topic for a focus group at the end of 2019. As a result, a new focus group was created and announced at the EIP-Agri website at the beginning of 2020 under the title: "Sustainable industrial crops in Europe: new market opportunities and business models which do not replace food production". In this context, the "related content" section lists an explicit reference to the MAGIC project, that strongly implies the project related creation of this group. In addition, the task directly involved project member organizations through the participation of their members (CRES, CREA, AUA & FCT)

The task identified twelve Operational Groups that hold common activities to the ones defined by the MAGIC project. These Operational Groups were contacted twice on January 14th (2019) and on June 12th (2020). These contacts included a leaflet and linked to the website. The interaction attempts received two positive replies, which led to an exchange of project information.
The identified Operational Groups working on related issues are:

- **CÁÑAMO (Spain):** Normalización del cáñamo industrial en España, cultivo y transformaciones (Normalisation of the industrial hemp in Spain, cultivation and transformations). Leader: Caña y Retama S.L.
- **GUAYUL-LR (France):** Implantation de parcelles de démonstration de culture de guayule (Parthenium Argentatum) en Languedoc-Roussillon (Implementation of guayule (Parthenium Argentatum) demonstration fields in Languedoc-Roussillon Region). Leader: CIRAD.
- **MACARENA (Italy):** Mais, canapa, frumenti e ortive per la riduzione degli input esterni e dei nitrati nelle acque (Maize & vegetables using hemp as a trap crop, reduction of cropping inputs also with triticum spp). Leader: Azienda Agricola Cenacchi Andrea.
- **CABIOS (Italy):** Implementazione di tecniche di agricoltura conservativa e fasce tampone bioenergetiche per il miglioramento della qualità dell'acqua e del suolo (Conservation agriculture and bioenergy buffer strips for soil and water quality improvement). Leader: Università Cattolica del Sacro Cuore (UNICATT).
- **(United Kingdom):** Alternative forage systems for marginal land. Leader: ADAS.

- **CARD (Italy):** Cardo: una coltura a basso impatto ambientale per la riqualificazione delle aree marginali (Cardoon: a low environmental impact cultivation to redevelopment of marginal areas). Leader: Impresa Verde Toscana
- **(Latvia):** Inovatīvi risinājumi industriālo kaņepju apstrādē un pārstrādē (Innovative solutions in treatment and processing of industrial hemp). Leader: SIA "Jumis Geo"
- **CAMELINA (Spain):** Valorización de la Camelina (Camelina valorisation). Leader: IMIDRA.
- **(Spain):** Identificación de nuevos cultivos de alto valor añadido y con elevada carga de trabajo manual adaptadas a la agroecología social (Identification of new crops with high added value and with high manual workload adapted to social agro-ecology). Leader: Centre de Jardinería l'Heura S.L.L.
- **FINAICONST (Spain):** Fibra natural para la industria y la construcción (Natural fibre for industry and construction). Leader: Actisa S.L.
- **(Spain):** Planta piloto innovadora para obtención de goma de ládano y aceites esenciales de especies vegetales (Innovative pilot plant for obtaining lava gum and essential oils from plant species). Leader: Azcatec Tecnología e Ingeniería S.L.

The task successfully completed the creation of specific focus groups on industrial crops on marginal land and the interactive exchange of information with these identified operational groups and the EPI Agri. A detailed report is provided in Deliverable 8.5 of the project.

### 4.9.6 Practice Abstracts in the EPI Agri Common Format (D8.6)

Following the previously mentioned objectives of the MAGIC Project to maximize the stakeholder mobilization and enhance the impact of the project activities and outcomes for promoting the cultivation of industrial crops on marginal land, Deliverable 8.6 provided a collection of practice abstracts, respecting the EPI Agri common format. The term practice abstracts (PAs) describes short summaries that provide relevant information based on practical experience, that can support the practical realization of end users in their daily practice. Following the guidelines of the EIP- AGRI and their common format, the MAGIC project produced a set of practice abstracts across the duration of the entire project in order to optimize the dissemination of the gathered information. During the project life, these practice abstracts have been added to the webpage of EIP-AGRI, providing easily understandable practical knowledge that is expected to reach a broader public but mostly agricultural practitioners. The deliverable includes presents forty-nine PAs that summarize the results of previous deliverables as well as the outcomes provided by the long-term field trials, small-scale trials, long-scale trials, and additional papers related to MAGIC.

## 4.10 National Work-Shops and Demo Days (D8.4, D8.5 and D8.7)

A multitude of project partners took charge of organizing different events in order to disseminate the project results and maximize the involvement of multiple groups of relevant

stakeholders. These events took place in the form of national workshops, value chain events as well as on site and theory-based trainings. While some of these were already executed in the first half of the project, a majority was realized in the second half of the project and covered the final project months in order to present and introduce more elaborate project results. All demo days required by task 5.1, were successfully organized and executed. These aimed to offer at least one event per marginal agro-ecological zone (M-AEZ) and addressed primarily farmers and industry, while they also motivated the participation of other stakeholder groups.
While the following section will provide a rough draft of the executed activities, more detailed information is provided in the deliverables D8.4, D8.5, D8.6, D8.7 and D8.8.

MAGIC's national workshops and demo days aimed to spread the knowledge acquired within the project to specific groups of stakeholders. For this purpose, the developed MAGIC's tools (MAPS, CROPS, DSS and Bio2Match) were presented together with the numerous factsheets created during the project life. In order to present relevant machinery aspects regarding the harvest and baling as well as crops and the quality of the resultant biomass, various partners organized demo days.

These events were initially planned as in-person events, but due to the ongoing COVID 19 pandemic most of the workshops finally were conducted using online formats.

Since some demo days were executed at an early project stage and took place before the pandemic start, these were successfully accomplished in a face-to-face modality. Given the circumstances, some countries offered the demo days a hybrid mode. Interested parties could attend via internet or in person. This approach was chosen in order to increase the attendance rate as much as possible.

All the entities involved in this task (covering a total of nine countries) carried out at least one workshop and/or demo day, while others were able to perform several. In this sense, farmers, industry representatives, scientists, and other interested stakeholders were invited to join all of them.

### 4.10.1 Demonstration days – Highlights (D8.4)

The demo days had been affected by the COVID-19. Three demo harvesting days had been planned (one in each M-AEZ). Some preliminary demo harvesting days had been carried out by CREA in Spain in June 2019 (on camelina fields) in collaboration of CREA & CCE. In September 2021 two demo harvesting days had been carried out in Greece on two castor bean trials (the 1$^{st}$ in Xanthi on 9$^{th}$ & 10$^{th}$ of September and the 2$^{nd}$ in Volos on 15$^{th}$ and 16$^{th}$ of September 2021) in collaboration of CREA & CRES. In June 2021 several demo harvesting trials had been organized in Bologna on camelina fields (collaboration between CREA & UNIBO). Moreover, a harvesting demo day on perennial lignocellulosic trials (woody species and perennial grasses) had been organized by CIEMAT in Spain on 26$^{th}$ of October 2021. Last but not least, field days for farmers had been organized by CIEMAT (in 2021) and by CRES in collaboration of BIOS in July 2020 and in July 2021. In Spain the farmers had the

possibility to visit demo fields of woody species and perennial grasses, while in Greece the farmers visited fields for three oilseed crops namely camelina, crambe, safflower and castor.

### 4.10.2 National Work-Shops (D8.7)

Deliverable D8.7 offers a detailed overview of the national workshops and demo days that were performed during the MAGIC project. The seminars and conferences show the way in which all participating countries channelled the information obtained within the MAGIC project to end users. In addition, field visits offered a unique opportunity to gain first-hand information about crops, machinery or the final features of the harvested products. These actions supported the overall main objective of the MAGIC project to spread the project-generated knowledge.

The countries that participated were France, Germany, Greece, Italy, Latvia, Poland, Portugal, Spain, and Ukraine.

The national workshops were executed on the following occasions:

- France, January 6th, 2022
- Germany, December 2021
- Italy, September 6, 2021
- Latvia, October 26th 2021
- Poland, September 23rd and 24th, 2020
- Portugal, April 17th 2019
- Portugal, November 27th 2019
- Portugal, January 7th 2020
- Portugal, November 26th 2020
- Spain, October 13th 2020
- Spain, October 26th 2021
- Ukraine, December 8th and 9th 2021
- Greece, March 14th 2018
- Greece, May 2nd 2018
- Greece, December 10th 2019
- Greece, October 30th 2019
- Greece, January 31st 2021

A detailed description of this dissemination activity is provided in the Deliverable 8.7.

### 4.10.3 Multi-Actor networking (D8.8)

The objective of this dissemination task aimed to propagate the project results, databases, maps and DSS tool in order to enhance farmers' knowledge and establish a strong link with the EIP AGRI.

In order to achieve this goal, the MAGIC network took efforts were necessary in order to achieve and validate the defined goals through a multi-actor approach. A detailed description of the task progress and evaluation of realized goals is listed in Deliverable 8.8. The task

covered various interactions between MAGIC project partners and the COPA-COGECA, which is the overarching organization representing farmers and cooperatives at a European level.

First attempts for the realization of this multi-actor network have been taken throughout the first two reporting periods and were intensified throughout the third period. Presentations of the MAGIC project at Copa-Cogeca's Innovation Working Party took place in September of 2019 as well as at the Copa-Cogeca's Cereals and Oilseeds and Protein Crops Working Parties in October 2019. A third presentation of the MAGIC project to COPA-COGECA took place on November 2, 2020. The presentations were performed by CRES and Wageningen University staff speakers, while members of Spanish Co-ops moderated the event. These interactions were held to update COPA-COGECA's related Working Groups (WGs) about the expected outcomes and the gathered results of the MAGIC project. In addition, the involvement of Spanish Co-ops at the EIP-AGRI Subgroup of Innovation (SoI), representing COPA-COGECA, allowed a joint support and update of the MAGIC activities.

Besides of the interaction held with COPA-COGECA's WGs, MAGIC project's members participated at EU level events and had the chance to interact with related project members taking advantage of Spanish Co-ops network and its presence at the EIP-AGRI Subgroup of Innovation (representing COPA-COGECA).

One of these events was organized by the EIP-AGRI in Vilnius on February 6 and 7, 2019. There, the coordinator of MAGIC and PANACEA projects (CRES), had the chance to summarize the outcomes in an open interview (see *Figure 8*) with the support of FCT-UNL and LAMMC staff.

On July 3, 2019, a European Network of Rural Development (ENRD) event took place in Brussels (see *Figure 9*). The session was titled: "Bioeconomy: Seizing the opportunity for rural Europe" counted with the participation of Spanish Co-ops staff and intended to continue the strategy analysis for the advancement of a sustainable and circular bioeconomy in the European Union. The event was attended by more than 200 professionals from various European countries.

In order to round up the collaboration, members of COPA-COGECA were also invited to the Final Event of the Magic project, which was held on December 2nd 2021 in Lisbon, Portugal

## 4.11 Co-operations with partner projects

Throughout all dissemination activities synergies with topic-related partner projects such as PANACEA, BECOOL, BIKE or UNTWIST, were actively used, introducing the gathered project results to additional partner-project networks and interested stakeholders, especially from the bio-fuel and biomass community. Also, the final MAGIC event held at the 2nd December 2021 in Lisbon, Portugal was realized in cooperation with the related projects BIKE and BECOOL.


Figure 30: Logos of cooperating partner projects

# 5 Conclusions and Results

Throughout the duration of the MAGIC project, all partners have actively and frequently executed various dissemination activities in order to read various groups of relevant stakeholders. A clear focus was set on the transfer of project-generated knowledge and information into agricultural practice. Activities of sort were executed in the form of demo days, national workshops as well as on-site training days and work-shops, which targeted specifically farmers, farmers' associations and agricultural co-operations. In order to increase the impact a strong interaction and cooperation with EPI Agri was established. Further activities followed the same goal and included the co-operation with COPA COGECA.

Practice abstracts following the formal requirements of the EPI Agri estimated and evaluated all executed on field trials and results, while numerous publications introduced and made these results available to the scientific community. All publications mentioned the grand agreement number and the project and respected the requirements of §29 of GA by offering open access options. In order to ensure a future availability of all materials, these were uploaded on the project website as well as in the open access repository ZENODO and the project page pf the European Commission.

The website remained steadily updated and now offers access to all four MAGIC databases:

1. Magic Crops
2. Magic Maps
3. Magic DSS
4. Magic Bio2Match Tool

The participation at numerous events, trade fair and conferences supported the dissemination of project generated results and introduced the project to relevant stakeholders.

Two value chain events ensured, that all parties of the identified value chains were taken into consideration and integrated into the executed efforts.

A quantitative overview of all dissemination activities carried out throughout the MAGIC project, is shown in the following figure.

| Dissemination & Communication Activities for the Project: | | |
|---|---|---|
| Magic | **Activities** (select the activitiy from the drop-down list) | Total No. of activities |
| Number of Dissemination and Communication activities linked to the project | Organisation of a Conference | 10 |
| | Organisation of a Workshop | 10 |
| | Press release | 17 |
| | Non-scientific and non-peer-reviewed publication (popularised | 3 |
| | Exhibition | 6 |
| | Flyer | 4 |
| | Training | 1 |
| | Social Media | 89 |
| | Website | 18 |
| | Communication Campaign (e.g. Radio, TV) | 8 |
| | Participation at a Conference | 83 |
| | Participation at a Workshop | 8 |
| | Participation to an Event other than a Conference or a Workshop | 10 |
| | Video/Film | 2 |
| | Brokerage Event | 0 |
| | Pitch Event | 0 |
| | Trade Fair | 1 |
| | Participation in activities organized jointly with other H2020 pro | 3 |
| | Other (dissemination/communication activity) | 4 |
| Number of persons reached, in the context of all dissemination and communication activities | Scientific Community (Higher Education, Research) | 3068 |
| | Industry | 2599 |
| | Civil Society | 1137 |
| | General Public | 867 |
| | Policy Makers | 217 |
| | Media | 116 |
| | Investors | 116 |
| | Customers | 210 |
| | Other | 60 |
| Scientific Publications | Article in Journal | 31 |
| | Publication in conference proceedings/workshop | 13 |
| | Books/Monographs | 0 |
| | Chapters in books | 13 |
| | Thesis/dissertation | 1 |
| | Other (publication) | 1 |

Figure 31: Overview all dissemination activities

## References

[1] https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/oa-pilot/h2020-oa-guide-model-for-publishing-a_en.pdf (visited on January 20th 2020)

[2] https://www.openaire.eu (January 20th 2020)

[3] Peter Suber (2012), “10 self-help”. Open Access (the book). MIT, ISBN 978-0-262-51763-8.

# Annex

Table 6:Overview of all publications published throughout the MAGIC project

| Type of publication (choose from drop down menu) | Title (article/chapter) | Link to the publication | Authors | Year of publication |
|---|---|---|---|---|
| Publication in conference proceedings/workshop | Nitrogen Use Efficiency Of Long-Term Plantations Of Arundo donax And Miscanthus x giganteu | https://zenodo.org/badge/DOI/10.5281/zenodo.2586835.svg | Danilo Scordia, Giorgio Testa, Venera Copani, Silvio Calcagno, Andrea Corinzia, Giovanni Scalici, Giancarlo Patanè, Sebastiano Scandurra, Cristina Patanè, Salvatore L. Cosentino | 2018 |
| Chapters in books | Plantaciju mežu augšanas gaita, produktivitāte un ietekme uz vidi" Plantation forest, productivity and impact on environment | https://zenodo.org/record/2636498#.Ycm4NS9Xbq0 | Mudrite Daugaviete, baiba Bambe, Andis Lazdiņš, Dagnija Lazdiņa | 2017 |
| Publication in conference proceedings/workshop | A Follow Up Study Of Biomass Yield Of Saccharum spontaneum ssp. aegypticum Under Water Regimes | https://zenodo.org/record/2586910#.YcnXGC9XZmA | Danilo Scordia, Giorgio Testa, Venera Copani, Alessandra Piccitto, Silvio Calcagno, Andrea Corinzia, Giancarlo Patanè, Santo Virgillito, Giovanni Scalici, Cristina Patanè, Salvatore L. Cosentino | 2018 |
| Publication in conference proceedings/workshop | Evaluation Of The Methanogenic Potential Of Two Lignocellulosic Crops | https://zenodo.org/record/2586932#.YcnWGC9XZmA | Giorgio Testa, Alessandra Piccitto, Danilo Scordia, Sebastiano Andrea Corinzia, Silvio Calcagno, Salvatore Luciano Cosentino | 2018 |
| Publication in conference proceedings/workshop | Natural Colorants From Safflower Florets In Response To Sowing Time And Plant Density | https://zenodo.org/record/2629588#.YcnVJC9XZmA | Cristina Patanè, Silvio Calcagno, Giancarlo Patanè, Andrea Corinzia, Laura Siracusa, Luana Pulvirenti, Salvatore L. Cosentino | 2018 |
| Publication in conference proceedings/workshop | PENNYCRESS (Thlaspi arvense) A NEW NON-FOOD CROP FOR OIL-BASED BIOFUEL PRODUCTION IN EUROPE AND USA | https://zenodo.org/record/5806055#.YcnUDC9XaRs | Federica Zanetti, Terry A. Isbell, EfthymiaAlexopoulou, Roque Evangelista, Russ W. Gesch, Bryan Moser, Andrea Monti | 2018 |
| Publication in conference proceedings/workshop | EFFECT OF SEEDING RATE ON PENNYCRESS AGRONOMIC PERFORMANCES ACROSS CONTRASTING ENVIRONMENTS | https://zenodo.org/record/2595078#.YcnSMC9XaRs | Federica Zanetti, Terry Isbell, Russ W. Gesch, Roque Evangelista, Angela Vecchi, Andrea Monti | 2018 |
| Chapters in books | Combining Harvest Date and Cutting Height to Optimize the | https://zenodo.org/record/2586655#.YcnQ_C9XaRs | Fernando AL | 2017 |

| | | | | |
|---|---|---|---|---|
| | Sustainability of Miscanthus Production for Energy in the Mediterranean Region | | | |
| Chapters in books | Phytoremediation Potential of Heavy Metal Contaminated Soils by the Perennial Energy Crops Miscanthus Spp. and Arundo Donax L. under Low Irrigation | https://zenodo.org/record/2586679#.YcmnRi9XaRs | Fernando AL, Barbosa B, Boléo S, Duarte MP, Sidella S, Costa J, Cosentino SL | 2018 |
| Chapters in books | A toolbox to tackle the technological and environmental constraints associated with the use of biomass for energy from marginal land | https://zenodo.org/record/2586807#.Ycmncy9XaRs | Gomes L, Fernando AL, Santos F | 2018 |
| Chapters in books | Production of nanocellulose from lignocellulosic biomass wastes: Prospects and Limitations | https://link.springer.com/chapter/10.1007/978-3-319-91334-6_98 | Pires JRA, Souza VGL, Fernando AL | 2018 |
| Chapters in books | Environmental and socio-economic impact assessment of the production of perennial crops when irrigated with treated wastewaters | https://zenodo.org/record/2586781#.Ycmn-S9XaRs | Costa J, Barbosa B, Fernando AL | 2018 |
| Chapters in books | Aided Phytostabilization of Mine Waste | | Barbosa B, Fernando AL | 2018 |
| Chapters in books | Production of Energy Crops in Heavy Metals Contaminated Land: Opportunities and Risks | https://link.springer.com/chapter/10.1007/978-3-319-74536-7_5 | Barbosa B, Costa J, Fernando AL | 2018 |
| Publication in conference proceedings/workshop | Evaluation of an Hemp Genotype (Futura 75( For a Dual Purpose Production in A Semi-Arid Mediteranean Environment | https://zenodo.org/record/2586936#.YcmonS9XaRs | | |
| Chapters in books | Plantation forests-guarantee of sustainable management of abandoned and marginal farmlands; Book title: Energy Efficiency and Sustainability in Outdoor Lighting - A Bet for the Future (ISBN 978-1-78985-960-7) | https://zenodo.org/record/4030825#.X5Akfi1XbOQ | Nudrute Daugaviete, Dagnija Lazdina, Baiba Bambe, Andis Lazdins, Kristaps Makovskis and Uldis Daugavietis | Apr 19 |

| | | | | |
|---|---|---|---|---|
| Article in Journal | Identification of arable marginal lands under rainfed conditions for bioenergy purpose in Spain. Sustainability 11, 1833; https://doi.org/10.3390/su11071833 | https://zenodo.org/record/4030453#.X5AjUC1XbOQ | Carlos S. Ciria, Marina Sanz, Juan Carrasco and Pilar Ciria | March 2019 |
| Article in Journal | Environmental and socio-economic impact assessment of the production of perennial crops when irrigated with treated wastewaters | https://zenodo.org/record/2586781#.YYvU2i_37uQ | J. COSTA, B. BARBOSA, Ana. Luisa FERNANDO (University of Lisbon), | March 2019 |
| Article in Journal | RNASeq analysis of giant cane reveals the leaf transcriptome dynamics under long-term salt stress | https://zenodo.org/record/5669620#.Ycmo-y9XaRs | Angelo Sicilia, Giorgio Testa, Danilo Fabrizio Santoro, Salvatore Luciano Cosentino & Angela Roberta Lo Piero (University of Catania) | Aug 19 |
| Article in Journal | Harvesting of fiber hemp: experience in Emilia Romagna with Billeter prototype. http://www.gruppo-panacea.it/home/en/special-magazines/file/42-ricerca-e-innovazione-per-l-economia-circolare | https://zenodo.org/record/4030422#.X5AioS1XbOQ | Luigi Pari, Antonio Scarfone*, Vincenzo Alfano, Simone Bergonzoli, Alessandro Suardi, Sandu Lazar, Renzo Gobbo, Stefano Vecchi, Alessandro Zatta | Aug 19 |
| Article in Journal | How to Generate Yield in the First Year—A Three-Year Experiment on Miscanthus (Miscanthus x giganteus (Greef et Deuter)) Establishment under Maize (Zea mays L.) | https://zenodo.org/record/3553599#.X5AjAS1XbOQ | Moritz von Cossel, Anja Mangold, Yasir Iqbal, Jens Hartung, Iris Lewandowski, Andreas Kiesel | July 2019 |
| Article in Journal | Marginal Agricultural Land Low-Input Systems for Biomass Production; https://www.mdpi.com/1996-1073/12/16/3123 | https://zenodo.org/record/3372093#.X5Alfi1XbOQ | Moritz Von Cossel, Iris Lewandowski , Berien Elbersen, Igor Staritsky, Michiel Van Eupen, Yasir Iqbal, Stefan Mantel, Danilo Scordia, Giorgio Testa, Salvatore Luciano Cosentino, Oksana Maliarenko, Ioannis Eleftheriadis, Federica Zanetti, Andrea Monti, Dagnija Lazdina, Santa Neimane, Isabelle Lamy, Lisa Ciadamidaro, Marina Sanz, Juan Esteban Carrasco, Pilar Ciria, Ian McCallum, Luisa M. Trindade, Eibertus N. Van Loo, Wolter Elbersen, Ana Luisa Fernando, Eleni G. Papazoglou and Efthymia Alexopoulou | July 2019 |
| Publication in conference proceedings/workshop | HOW MUCH IS SOLE-CROPPING SYSTEM SUSTAINABLE FOR CAMELINA AND | https://zenodo.org/record/4030893#.X5Alvy1XbOQ | Federica Zanetti, Angela Vecchi, Efthymia Alexopoulou, Arianna Borghesi, Barbara Alberghini, Terry Isbelc, Myrsini Christou, Andrea Monti | Sep 19 |

| | | | | |
|---|---|---|---|---|
| | CRAMBE? | | | |
| Article in Journal | Improving the Ecological Performance of Miscanthus (Miscanthus × giganteus Greef et Deuter) through Intercropping with Woad (Isatis tinctoria L.) and Yellow Melilot (Melilotus officinalis L.) | https://zenodo.org/record/4032322#.X5AnBS1XbOQ | Moritz von Cossel, Yasir Iqbal, Iris Lewandowski | Sep 19 |
| Article in Journal | Prospects of Bioenergy Cropping Systems for A More Social-Ecologically Sound Bioeconomy | https://zenodo.org/record/3629525#.X5An7i1XbOQ | Moritz von Cossel, Moritz Wagner, Jan Lask, Elena Magenau, Andrea Bauerle, Viktoria von Cossel, Kirsten Warrach-Sagi, Berien Elbersen, Igor Staritsky, Michiel van Eupen, Yasir Iqbal, Nicolai D. Jablonowski, Stefan Happe, Ana L. Fernando, Danilo Scordia, Salvatore L. Cosentino, Volker Wulfmeyer, Iris Lewandowski, Bastian Winkler | October 2019 |
| Article in Journal | Methane Yield Potential of Miscanthus (Miscanthus × giganteus (Greef et Deuter)) Established under Maize (Zea mays L.) | https://zenodo.org/record/4032304#.X5AmdC1XbOQ | Moritz von Cossel, Anja Mangold, Yasir Iqbal and Iris Lewandowski | Nov 19 |
| Chapters in books | PAPEĻU (POPULUS SPP.)STADĪJUMU IERĪKOŠANA UN APSAIMNIEKOŠANA | https://zenodo.org/record/3567767#.X5A2ri1XbOR | Šēnhofa; S.; Lazdiņa; D.; Jansons; A. | December 2019 |
| Chapters in books | Plants suitable for biomass production in a sustainable bioeconomy | https://zenodo.org/record/5806083#.YcmrAy9XaRs | Lewandowski I., Von Cossel M. | 2019 |
| Article in Journal | Marginal Lands to Grow Novel Bio-based Crops: a Plant Breeding Perspective | https://zenodo.org/record/3750986#.X5Aq8i1XbOQ | Francesco Pancaldi, Luisa M. Trindade | March 2020 |
| Article in Journal | Biomass yield of Siberian elm under different crop conditions on marginal agricultural land | nicht in Zenodo konnte meine ich nicht eingepflegt werden! Prüfen! | Marina Sanz, Juan E. Carrasco, Javier Pérez, Pilar Ciria | 2020 |
| Article in Journal | Long-Term Productivity of Thirteen Lowland and Upland Switchgrass Ecotypes in the Mediterranean Region | https://zenodo.org/record/4030935#.X5Ar0S1XbOQ | Efthymia Alexopoulou , Federica Zanetti , Eleni G. Papazoglou , Konstantinos Iordanoglou and Andrea Monti | June 2020 |
| Article in Journal | Long-Term Yield and Quality Performance of Perennial Energy Grasses (Agropyron spp.) on Marginal Land | https://zenodo.org/record/4032399#.X5A65S1XbOR | C.S. Ciria; R. Barro; M. Sanz; P. Ciria | June 2020 |

| | | | | |
|---|---|---|---|---|
| Article in Journal | The Impact of Soil Water Content on Yield, Composition, Energy, and Water Indicators of the Bioenergy Grass Saccharum spontaneum ssp. aegyptiacum under Three-Growing Seasons | https://zenodo.org/record/4032379#.X5BBQy1XbOR | Danilio Scordia; Calcagno, S.; Piccitto, A.; Cristina Patanè | July 2020 |
| Article in Journal | Environmental and Economic Assessment of Castor Oil Supply Chain: A Case Study | https://zenodo.org/record/5060286#.Ycmrti9XaRs | Luigi Pari, Alessandro Suardi *, Walter Stefanoni, Francesco Latterini and Nadia Palmieri (CREA) | June 2020 |
| Article in Journal | Herbaceous Oil Crops, a Review on Mechanical Harvesting State of the Art | https://zenodo.org/record/5060371#.Ycmr8S9XaRs | Luigi Pari *, Francesco Latterini and Walter Stefanoni (CREA) | June 2020 |
| Article in journal | TOLERANCE TO DROUGHT AND WATER STRESS RESISTANCE MECHANISM OF CASTOR BEAN | https://zenodo.org/record/4269600#.YcmsJi9XaRs | Eleni G. Papazoglou, Efthymia Alexopoulou, George K. Papadopoulos, Garifalia Economou-Antonaka | Sep 20 |
| Article in Journal | Evaluating the Suitability of a Combine Harvester Equipped with the Sunflower Header to Harvest Cardoon Seeds: A Case Study in Central Italy | https://zenodo.org/record/5052866#.YcmtGi9Xbq0 | Latterini, Francesco; Stefanoni*, Walter; Sebastiano, Simone; Baldi, Gian M.; Pari, Luigi (CREA) | October 2020 |
| Thesis/dissertation | Evaluación de alternativas agrícolas con especies de gramíneas perennes para biomasa en tierras marginales | https://zenodo.org/record/5785453#.YcmtRS9Xbq0 | Carlos Sixto Ciria Ramos (CIEMAT) | 2020 |
| Article in Journal | Deciphering substrate-specific methane yields of perennial herbaceous wild plant species | https://zenodo.org/record/4749255#.Ycmtci9Xbq0 | Moritz von Cossel, Lorena Agra Pereira, Iris Lewandowski | 2021 |
| Article in Journal | Camelina, an ancient oilseed crop actively contributing to the rural renaissance in Europe. A review | https://zenodo.org/record/5785259#.YcmtrC9Xbq0 | Federica Zanetti, Barbara Alberghini, Ana Marjanović Jeromela, Nada Grahovac, Dragana Rajković, Biljana Kiprovski, Andrea Monti (University of Bologna) | 2021 |
| Chapters in books | Extending LCA Methodology for Assessing Liquid Biofuels by Phosphate Resource Depletion and Attributional Land Use/Land Use Change | https://zenodo.org/record/5806126#.YcmvSy9Xbq0 | H. Keller, H. Fehrenbach, N. Rettenmaier, M. Hemmen | 2022 |

| | | | | |
|---|---|---|---|---|
| Publication in conference proceedings | MAGIC - Marginal Lands for Growing Industrial Crops.<br>Turning a Burden into an Opportunity | https://ec.europa.eu/eip/agriculture/en/find-connect/projects/magic-marginal-lands-growing-industrial-crops | E.G. Papazoglou, E. Alexopoulou | 2018 |
| Publication in conference proceedings | Cultivation of non-food industrial crops on marginal and contaminated land: Turning a burden into an opportunity. | https://ec.europa.eu/eip/agriculture/en/find-connect/projects/magic-marginal-lands-growing-industrial-crops | E.G. Papazoglou, E. Alexopoulou | 2019 |
| Article in Journal | Environmental and Economic Assessment of Castor Oil Supply Chain: A Case Study | https://zenodo.org/record/4085198#.YZYzH9DMKUk | Luigi Pari, Alessandro Suardi *, Walter Stefanoni, Francesco Latterini and Nadia Palmieri | 2020 |
| Article in Journal | Herbaceous Oil Crops, a Review on Mechanical Harvesting State of the Art | https://zenodo.org/record/5060371#.YZYzb9DMKUk | Luigi Pari *, Francesco Latterini and Walter Stefanoni | 2020 |
| Article in Journal | Evaluating the Suitability of a Combine Harvester Equipped with the Sunflower Header to Harvest Cardoon Seeds: A Case Study in Central Italy | https://zenodo.org/record/5052866#.YZYzrtDMKUk | Latterini, Francesco; Stefanoni*, Walter; Sebastiano, Simone; Baldi, Gian M.; Pari, Luigi | 2020 |
| Publication in conference proceedings/workshop | Seed Losses Evaluation During Hemp Harvesting With A Modified Combine Header | https://doi.org/10.5281/zenodo.5710666 | Luigi Pari, Vincenzo Alfano, Giammaria Magagnini, Gianpaolo Grassi | 2020 |
| Publication in conference proceedings/workshop | CASTOR BEAN CULTIVATION IN ROMANIA: A CASE OF STUDY | https://doi.org/10.5281/zenodo.5710682 | Walter Stefanoni *, Alessandro Suardi, Nadia Palmieri, Simone Bergonzoli, Vincenzo Alfano, Sandu Lazar, Luigi Pari. | 2021 |
| Publication in conference proceedings/workshop | Camelina seeds harvesting: evaluation of work performance of a combine harvester in two experimental fields in Italy and Spain | https://doi.org/10.5281/zenodo.5710718 | Stefanoni W*., Bergonzoli S., Latterini F., Alfano V., Suardi A., Palmieri N., Lazar S., Pari R | 2021 |
| Article in Journal | El proyecto MAGIC proporciona herramientas para la identificación de los cultivos industriales más adecuados en condiciones de marginalidad | https://zenodo.org/record/5785462#.YcmyBS9Xbq0 | Pablo Fernández | 2021 |
| Publication in conference | PHYSIOLOGICAL TOLERANCE OF | https://zenodo.org/record/5783619# | Barbara Rachele Ciaramella, Sebastiano Andrea Corinzia, Danilo Scordia, Cristina | 2021 |

| | | | | |
|---|---|---|---|---|
| proceedings/workshop | PERENNIAL GRASSES TO HEAVY METAL CONTAMINATED SOILS | .YcmyNi9Xbq0 | Patanè, Salvatore Luciano Cosentino, Girogio Testa (UNICT) | |
| Publication in conference proceedings/workshop | THE RESPONSE OF LIGNOCELLULOSIC PERENNIAL GRASSES TO DIFFERENT SOIL WATER AVAILABILITY | https://zenodo.org/record/5783579#.YcmyYS9Xbq0 | Sebastiano Andrea Corinzia, Barbara Rachele Ciaramella, Alessandra Piccitto, Giorgio Testa, Cristina Patanè, Salvatore Luciano Cosentino, Danilo Scordia (UNICT) | 2021 |
| Article in Journal | Adapting syntropic permaculture for renaturation of a former quarry area in the temperate zone | https://zenodo.org/record/4746284#.YcmykS9Xbq0 | Moritz von Cossel, Heike Ludwig, Jedrzej Cichocki, Sofia Fesani, Ronja Guenther, Magnus Thormaehlen, Jule Angenendt, Isabell Braunstein,Marie-Luise Buck,Maria Kunle, Magnus Bihlmeier, David Cutura, AnnSophie Bernhard, Felicitas Ow-Wachendorf, Federico Erpenbach, SimoneMelder,Meike Boob, BastianWinkler | 2020 |
| Article in Journal | Implementing miscanthus into farming systems: A review of agronomic practices, capital and labour demand | https://zenodo.org/record/4749029#.Ycmyti9Xbq0 | Bastian Winkler, Anja Mangold, Moritz von Cossel, John Clifton-Brown, Marta Pogrzeba, Iris Lewandowski, Yasir Iqbal, Andreas Kiesel | 2020 |
| Article in Journal | Yield performance of dedicated industrial crops on low-temperature characterized marginal agricultural land in Europe – a review | https://zenodo.org/record/5783461#.Ycmy6i9Xbq0 | Jana Reinhardt, Pia Hilgert, Moritz von Cossel | 2021 |
| Article in Journal | Deciphering substrate-specific methane yields of perennial herbaceous wild plant species | https://zenodo.org/record/4749255#.YcmzCy9Xbq0 | Moritz von Cossel, Lorena Agra Pereira, Iris Lewandowski | 2021 |
| Article in Journal | Bridging the gap between biofuels and biodiversity through monetizing environmental services of miscanthus cultivation | https://zenodo.org/record/4749161#.YcmzRi9Xbq0 | Moritz von Cossel, Bastian Winkler, Anja Mangold, Jan Lask, Moritz Wagner, Iris Lewandowski,<br>Berien Elbersen, Michiel van Eupen, Stephan Mantel, Andreas Kiesel | 2020 |
| Article in Journal | A review of industrial crop yield performances on unfavorable soil types | https://zenodo.org/record/5783305#.Ycmzfy9Xbq0 | Jana Reinhardt, Pia Hilgert, Moritz von Cossel | 2021 |
| Article in Journal | Biomass yield of selected herbaceous and woody industrial crops across marginal agricultural sites with shallow soil | https://zenodo.org/record/5783249#.YcmzsC9Xbq0 | Jana Reinhardt, Pia Hilgert, Moritz von Cossel | 2021 |

Figure 32: Magic logo and colour code


**RGB colour codes:** **GREEN: 137 / 147 / 0**
**RED: 176 / 41 / 4**
**100% BLACK: 0 / 0 / 0**
**70% BLACK: 85 / 81 / 78**