



Available financing tools in EU agriculture – 2nd update

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Abstract

The AgroFossilFree project focuses on Fossil-Energy-Free Technologies and Strategies (FEFTS) with reference to address clean energy production and use in agriculture. The overall project goal is to create a framework under which critical stakeholders will cooperate to evaluate and promote the currently available FEFTS in EU agriculture. This report focuses on identification and registration of financing mechanisms to promote the use of existing financing tools for de-fossilising activities.

This document is a structured report in which the results of the Financing Mechanisms submitted in the survey are analysed based on the methodology described in D2.1. This report is the updated report of D.2.14 and D.2.15 as it contains all new Financing Mechanisms submitted during the 2nd and 3rd FEFTS collection processes, together with the analysis.

After the completion of the third phase of the survey and an initial screening process, the AgEnergy platform repository contained in total 150 Financing Mechanisms out of which 129 were further analysed. In detail, during the 3rd FEFTS collection process 39 new Financing Mechanisms were submitted and after screening 34 were chosen to be further analysed. The whole consortium worked together in order to find financing mechanisms covering a wide range of technologies, applications and initiatives.

Records submitted are about supporting schemes for farmers, companies, industry, producers' associations, energy generators, contractors, advisory services, policy makers and universities. From the analysis it may be concluded that a majority of the financing mechanisms offer possibilities for support to various groups of users. Most of the financing mechanisms offer possibilities for applying for multiple activities, but there are also some targeted to more specific areas (e.g. agricultural field practices). Overall, the dominate focus area of the financing mechanisms is energy efficiency improvements which count for 64.1% of the schemes while 25.2% focus on clean energy supply and 10.7% focus on soil carbon sequestration.

This report is organized in four chapters. The first chapter sets the base for the identification of FEFTS as well as the methodology used. The second chapter focuses on the conducted survey. Chapter three is the analysis of the results. The last chapter is the conclusion on the results.

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1. Initial Identification

Fossil-Energy-Free Technologies and Strategies (FEFTS) refer to the tools that are required to address clean energy production and use in agriculture including Renewable Energy Sources, Energy Efficiency Technologies, Agricultural Constructions Management Systems, Biofuel production and use, Agricultural Machinery using biofuels, electrified implements, Smart Farming Technologies, Conservation agriculture methods and Best Energy Management Practices for rational use of energy and reduced GHG emissions.

A questionnaire has been developed and serves as an operative tool for an inventory creation survey regarding FEFTS. Through this tool, users have the ability to register and classify FEFTS by filling certain information about specific fields concerning the imported FEFTS.

The first group of questions referred to general information about the identified FEFTS and the person submitting the survey: organisation, contact email, FEFTS category. The second group of questions was more specific such as FEFTS title, language, applicable countries and short description of the mechanisms. Section 3 regarded FEFTS specifications such as its purpose and application field. Section 4 consisted of specific information depending on the type of FEFTS: Clean energy production, Energy efficiency improvement or Soil carbon sequestration, followed by specific sub-categories. The last one, section 5, grouped questions referring to FEFTS assessment – environmental and socioeconomic - provided by the person submitting.

The identified FEFTS regarding financing mechanisms are categorised into 3 main groups, FEFTS on global level, FEFTS on EU level and FEFTS on national level. In this report the FEFTS categories and subcategories on financing mechanisms are presented in Figures 1-24 and a short description is provided.

1.1. Definition of Financing Mechanisms FEFTS

This report refers to Financing Mechanisms identified in Task 2.6 by the task leaders and the project partners. In this context, a financing mechanism is defined as grant schemes or support measures that provide financial subsidy for current technologies or initiatives within the area covered by AgroFossilFree (i.e., financial assistance for FEFTS adoption in EU's agricultural sector). The support may be national funding, EU funding or private funding. The level of the subsidy can be a percentage of the cost or a fixed/maximum funding. Facilities, equipment, material and labour cost may be covered by the financing mechanisms. The FEFTS deal with schemes and subsidies with a focus on both farmers, producers' associations, energy generators, contractors, advisory services, policy makers and companies and the subsidies may be offered for both software, hardware, methodologies, procedures and complete solutions.

1.2. Methodology

The reported FEFTS are a collection of information related with FEFTS on funding mechanisms. The FEFTS are identified, described and uploaded by the project participants. The search of FEFTS is done by internet search or based on internal knowledge among the project participants.

The methodology consists of three phases.

- Phase 1 – Initial identification
- Phase 2 – Survey for FEFTS inventory creation
- Phase 3 – Data Aggregation

During Phase 1 (Initial Identification), all participants conducted an initial identification of the FEFTS in order to create the AgroFossilFree database in a user-friendly way. The core strategy behind this effort was to split the search process regarding the scope and the application site of the financing mechanisms. In this context, the Task Leaders and the 3 European associations that are part of AgroFossilFree consortium focused on finding financing tools of a European scope, while the rest partners would focus on financing mechanisms existing in their countries. In this way we would construct a more complete depiction of the current status of available financing mechanisms on EU.

The aim of Phase 2 (Survey for FEFTS inventory creation) was to collect all needed data into a detailed database (Google Forms questionnaire) containing all necessary information that will be used in analysis in later steps of the project. It should be mentioned that with the official launch of the AgEnergy platform, the Google Forms questionnaire was discontinued. Instead, all interested users can now access the AgEnergy platform and directly submit their FEFTS.

Finally, during Phase 3 (Data aggregation), the survey results and collected metadata from previous phases are cleared from malicious, duplicate and incomplete entries in order to ensure data integrity and unbiased analysis in later phase of the AgroFossilFree project.

In detail the methodology is described in the Deliverable 2.1 "*Report on methodology and standards*". Here, the overall structure as well as the specific content of the questionnaires are described.

2. Survey

The conducted survey consisted of four sets of questions described initially in Chapter 4. of Deliverable 2.1.

In the first set of questions, users state the FEFTS name, the organization and the email of the user who registers FEFTS, as preliminary identification of FEFTS. In the following question, users have to select the FEFTS category (1-scientific paper, 2-research project, 3-commercial product, 4-training material, 5-financing mechanisms). This report is dedicated to financing mechanisms.

Information regarding the FEFTS type (clean energy production, energy efficiency, soil carbon sequestration) is given. Clean energy production selection summarises renewable energy supply and therefore leads either to energy production or energy storage systems with sub questions to further determine this FEFTS characteristics. Energy efficiency improvement leads to the selection of a specific energy type improvement. Soil carbon sequestration is an auxiliary topic of relevant FEFTS and leads to a question regarding the determination of carbon sequestration type/strategy/method respectively. All the questions of the current section are followed by specific questions, where users select the most appropriate option, aiming to a proper assessment and categorization of the FEFTS.

Finally, an assessment process of the FEFTS (general, environmental and socioeconomic) accompanies the specification and categorization of FEFTS, aiming to evaluate the FEFTS and its impact of the above-mentioned topics, as well as its applicability and efficiency. Users are able either to select from a multiple selection list of possible options, or to score several arguments/concepts based on their perception regarding the FEFTS, using a Likert scale (1-totally disagree, 2-disagree, 3-neutral, 4-agree, 5-totally agree). In case that a FEFTS has no impact on a specific field, the neutral option is selected (3).

Both the structure of the survey as well as the analysis of the FEFTS that will be done in Chapter 3, are based on the structure established on Deliverable 2.1. A basic schematic of this structure is presented in Table 1. It should be mentioned that the survey done in the AgEnergy platform follows the same structure with the Google Forms questionnaire.

Table 1. FEFTS categories and level 1 and level 2 subcategories

FEFTS category	Level 1 sub-category	Level 2 sub-category
Energy User/Consumer	Agricultural technology applications	heating and cooling of buildings
		process heat/cold
		lighting
		agricultural field practices
		vehicles
		tools
Clean Energy Supply	Renewable Energy Sources	energy sales to external consumers
		solar
		wind
		hydro
		geothermal
		bioenergy
	Energy types	free energy
		heating
		cooling
		electricity
		mechanical energy
		chemical energy
	Energy Technologies	photovoltaics
		solar thermal
		windmills
		hydropower
		heat pumps
		geothermal
		solid biomass conversion
		biogas / biomethane production
		liquid biofuels production
	Energy Storages	heat storage
		electricity storage
		cold storage
		intermediate bioenergy carriers
Energy Efficiency Improvement	Energy savings	efficient buildings
		efficient vehicles
		efficient tools
		precision agriculture

Carbon sequestration	Carbon sequestration	precision livestock farming
		conservation agriculture
		soil organic cover
		tillage (Conservation Agriculture + CTF)
		nutrient management
		crop diversification
		soil and water conservation techniques
		fire management
		grassland management

2.1. Data Collection – Partners’ Role

All project participants have been responsible for the collection and reporting of financing mechanisms regarding FEFTS. As Task Leaders, AU and CERTH have been primarily responsible for gathering financing mechanisms of FEFTS that can be applied on European level. In addition, in this effort for financial mechanisms/tools available in EU, AU and CERTH had also on their side the 3 European associations that are part of AgroFossilFree consortium. The rest of the partners were assigned under their hub frame to identify financial mechanisms/tools already existing in their countries (national scope). By the end of August 2023, 2102 FEFTS were collected in total, of which 1959 were published on the AgEnergy platform after the FEFTS quality check screening process. Among these, 129 Financing Mechanisms were published. Table 2 shows the number of FEFTS collected and published per category for the three batches.

Table 2. Overview of FEFTS collection status

	Scientific Papers	Commercial Technologies	Training Material	Financing Mechanisms	Research project	Total
Target	1000	600			100	1700
Collected	1001	601	149	150	200	2102
Published	977	542	131	129	180	1959

The whole identification and registration process was supported by an online thread for Task 2.6, which was created in Microsoft Teams platform to host Q&As about financing tools, between the Task Leader and partners.

2.2. Screening of Financing Mechanisms/tools about FEFTS

As it is commonly stated to the rest reports of WP2 (D2.2, D2.5, D2.8, D2.11), after the beginning of FEFTS registration process and the successful achievement of our first internal milestone of submitted financing mechanisms about FEFTS in the inventory (until the end of September 2021), the screening process begun before the launch of the platform. In this way, the AgEnergy platform would be filled with high quality and relevant innovative financing tools. However, a first step had already been done, as all records were screened in order to delete duplicate, malicious and incomplete entries. “Incomplete entries” were considered those lacking an exhaustive description and information, thus making their evaluation

impossible. For these records, partners were asked to insert additional information. If not available, those entries were completely deleted from the inventory. This initial screening round was carried out for each FEFTS category by the corresponding Task Leader. In the case of financial mechanisms, AU and CERTH were responsible for the procedure.

In order for all the Task Leaders to complete the screening process, acceptance and exclusion criteria had to be set. To do so, frequent meetings between the Task Leaders were arranged (through Microsoft Teams platform), in order to discuss this matter and agree on the screening procedure. During these meetings, it was decided that a FEFTS Quality Committee consisting of the Task Leaders of WP2 would be set for the afore-mentioned purpose. The main role of this Committee is the screening of all the FEFTS submitted on the platform.

It should be mentioned though, that the FEFTS submitted from each Task Leader (and by all financing mechanisms) were already checked for their appropriateness, to be uploaded in the inventory, based on the methodology followed by each Task. However, our database is open for public entry so that interested stakeholders are able to input additional data. Their entries are unpublished until they are validated by the FEFTS Quality Committee. By doing so, the accuracy and reliability of the platform's information regarding its relevance to the objectives of the AgroFossilFree project is guaranteed.

The screening procedure has also been implemented for all the new FEFTS gathered during the 2nd and 3rd collection process.

2.2.1. Acceptance Criteria

Financing mechanisms with a clear agricultural application potential supporting research and development projects, innovative energy saving or RES technologies, relevant to the current EU state that can (or could) be used by a farmer, producers association, energy generator, contractor, advisory services, policy makers, companies and universities are accepted. No financing tool is going to be registered unless it supports/promotes adoption of technologies or strategies that could eliminate (or even diminish) the use of energy produced by fossil fuels in EU agriculture (directly or indirectly). Any financing mechanisms which do not follow the aforementioned criteria and do not clearly provide an alternative solution on the fossil fuel use in agriculture, are excluded from the inventory.

2.3 Clarification of this report and its analysis

This report is the final update of D.2.14 and differs from the previous reports (D.2.14 and D.2.15- 1st update report) in terms of the final number of FEFTS presented. The screening process for all FEFTS has been completed and only qualified ones have been published on the website, allowing for a clearer overview. Besides the additional number of FEFTS that have been added, some FEFTS were rejected after the previous reports' completion, as they were found to have issues upon reevaluation (e.g. websites taken down, broken links or incomplete entries), thus the difference between the numbers. The AgEnergy platform is continuously monitored to address incomplete entries or broken links, ensuring that only the best FEFTS are published and maintained on the platform.

3. FEFTS Analysis of financing mechanisms about FEFTS

A total of 46 FEFTS on Financing Mechanisms was identified at the end of the first screening process. This number consists of 35 applicable on country level and 10 on European level and 1 “other” (a program centred on Greece but initiatives from the Balkans are also eligible).

After the first update September 2022 additional 60 FEFTS on Financing Mechanisms was submitted. With the removal of 2 duplicate entries, a total of 104 FEFTS are registered. This number consists of 84 applicable on country level and 17 on European or Global level and 3 “other” (The Balkan program mentioned above, an OECD program and a special German support program which is not specific to German projects).

After this second update August 2023 additional 39 FEFTS on Financing Mechanisms were submitted. With the removal of 3 duplicate entries and 4 entries which did not meet the stated requirements, a total of 129 FEFTS are published. This number consists of 99 applicable on country level and 28 on European or Global level and 2 “other” (a program for investments in Central America and a special Spanish program for farms located in the region of Navarra).

The language of the FEFTS on European and Global level are all English and for some of the schemes both English, German and France. For the FEFTS on national level the language is the native language for the actual country and for some also English. Thus, the language of the FEFTS is 21 in Greek, 21 in Danish, 13 in Spanish, 12 in Polish, 12 in German, 11 in Dutch and 8 in Italian.

The identified financing mechanisms comprise a wide range of FEFTS in terms of different types of projects, application field, type of energy reduction possibilities, applicants etc.

An explanatory description of all the registered FEFTS including graphs with the most important information which can be derived from the results (type of FEFTS - clean energy supply or energy efficiency improvement or soil carbon sequestration -, type of technology, type of energy, application field) can be found below.

3.1. Financing mechanisms general analysis

When it comes to FEFTS' users to whom specific financing mechanisms are dedicated, the largest group constitute farmers (84.4%), during the 1st collection process. A majority of the financing mechanisms offer possibilities for support to various groups of users; therefore, a multiple choice was possible in the case of this question. Specific numbers of user addressed are shown in Figure 1.

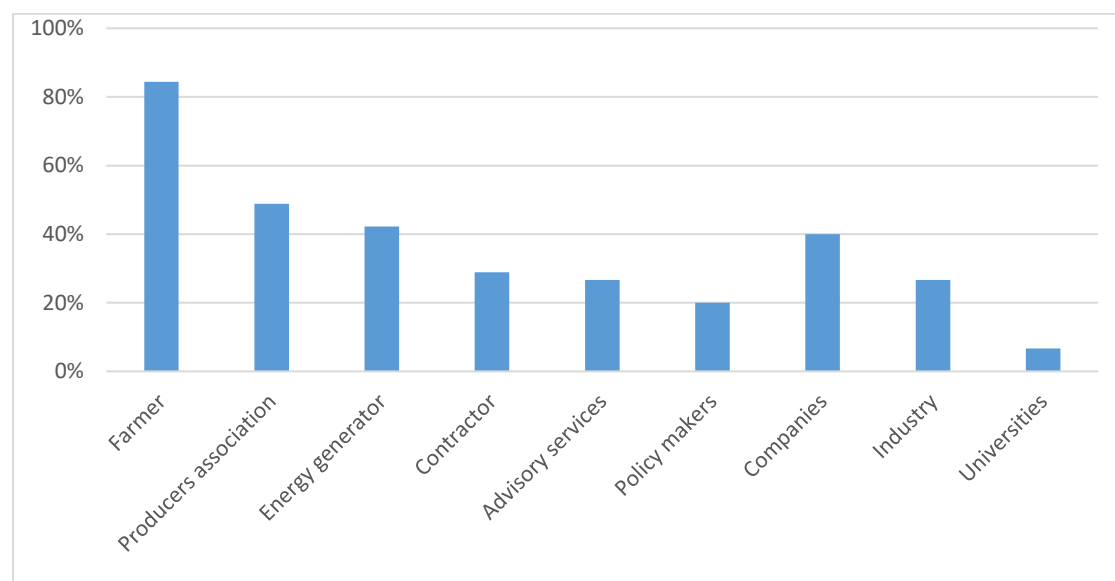


Figure 1. Classification of identified financing mechanisms according to users addressed (1st collection process)

The results in Figure 1 are based on 1 round of recorded FEFTS. After the second round, where 60 new financing mechanisms were submitted, an update of the results took place. The updated results on classification of identified financing mechanisms according to users addressed are shown in Figure 2. It appears that the overall trend is unchanged. After the first update it can be seen that still the majority of the financing mechanisms offer possibilities for support to various groups of users and largest group constitute farmers (86.5%).

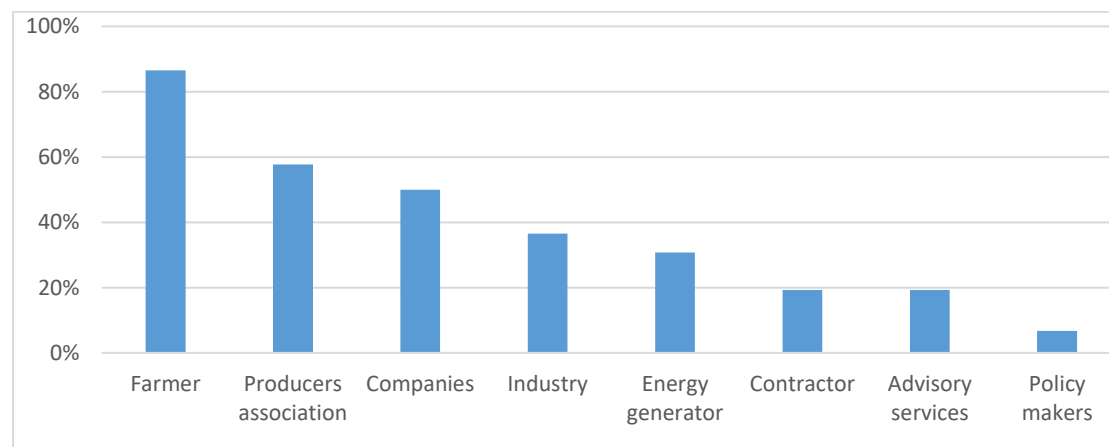


Figure 2. 1st updated results on the classification of identified financing mechanisms according to users addressed.

After the third round, where further 34 financing mechanisms were submitted, a new update of the results took place. The second round updated results on classification of identified financing mechanisms according to users addressed are shown in Figure 3. It appears that the overall trend is unchanged. However, no new financing mechanisms for contractors were found and thus the percentage for that group was reduced. After the update, it can be seen

that still the majority of the financing mechanisms offer possibilities for support to various groups of users and largest group constitute of farmers (88,0%).

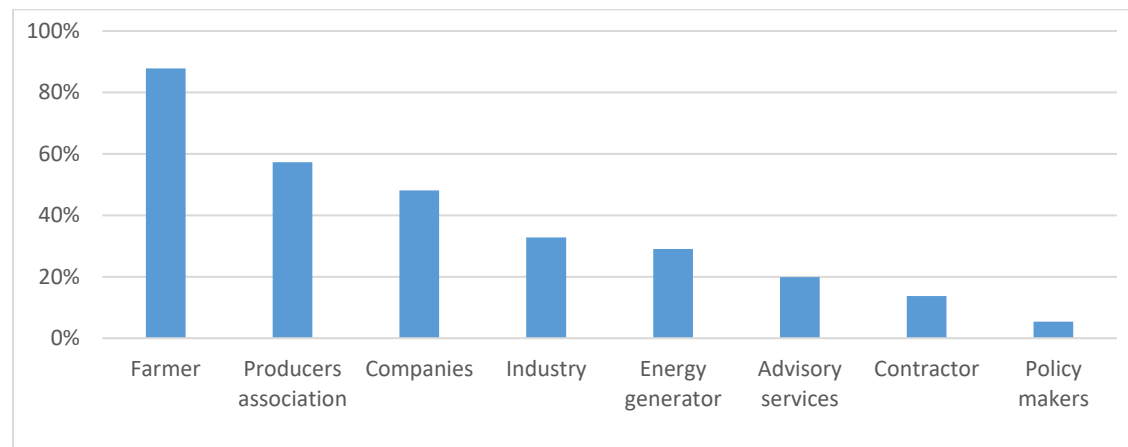


Figure 3. 2nd updated results on the classification of identified financing mechanisms according to users addressed.

The financing mechanisms applicable on European level are for the most EU based. Among the national financing mechanisms, most of the identified schemes were applicable to Greece and Poland, during the 1st collection process, see Figure 4.

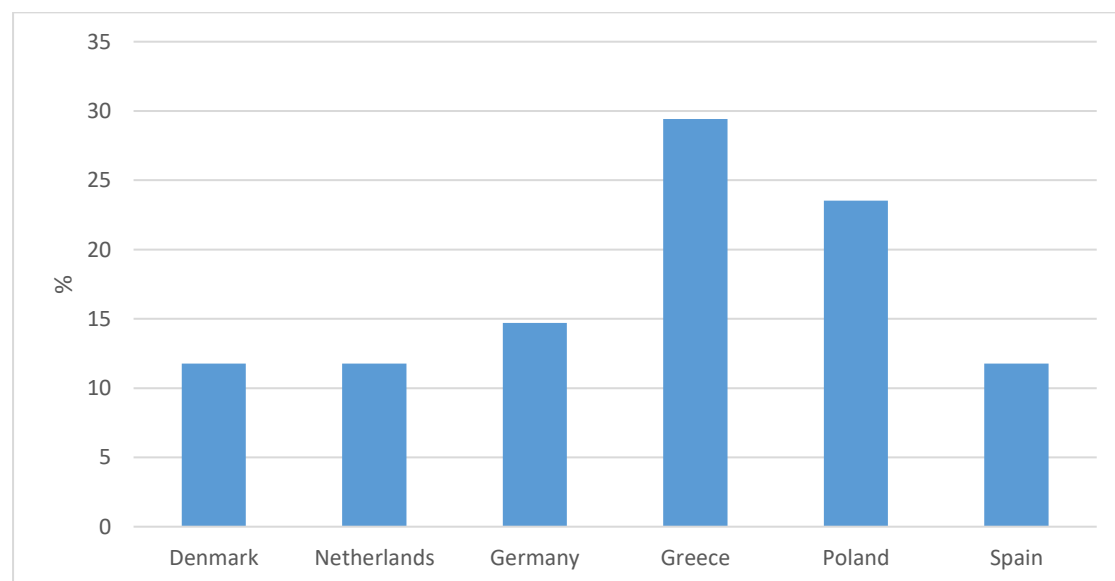


Figure 4. Classification of the national financing mechanisms based on the country of the FEFTS (1st collection process)

The first updated results on the classification of the national financing mechanisms based on the country of the FEFTS are shown in Figure 5. After this first update 31% of the identified schemes were applicable to Greece. Also in Spain, Poland, The Netherlands, Denmark, Germany, and Italy national financings schemes were identified. From this it is evident that during the 2nd collection process lots of financing mechanisms apply to Spain as it was the 2nd biggest category.

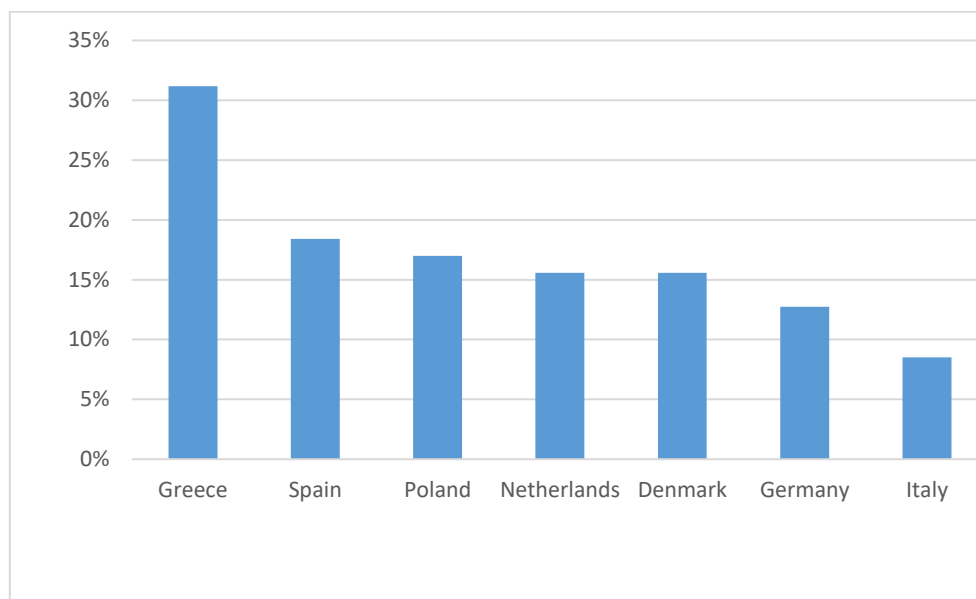


Figure 5. Classification of the national financing mechanisms based on the country of the FEFTS (1st update)

After the 3rd collection process, a total of 99 national supporting schemes were identified. The results after the second update on the classification of the national financing mechanisms based on the country of the FEFTS are shown in Figure 6. During the 3rd collection process there were identified relative many Danish national supporting schemes, so that after this second update 21% of the identified schemes were applicable to Denmark and also 21% were applicable to Greece. The percentage distribution between Spain, Poland, Germany, The Netherlands, and Italy - has not changed significant. New supporting schemes were identified in Ireland and United Kingdom. "Other" refers to countries outside Europe.

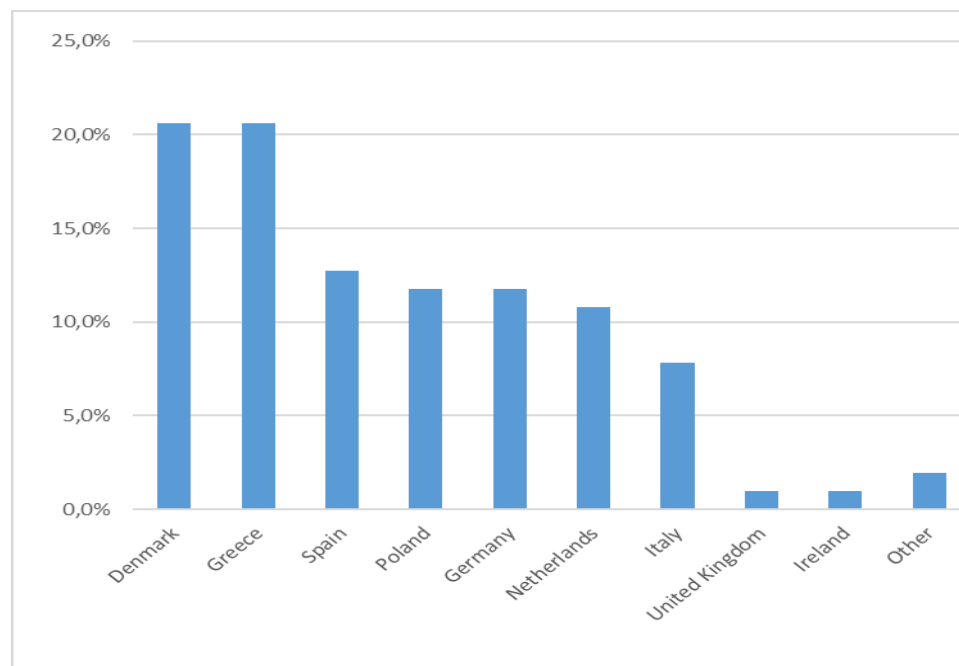


Figure 6. Classification of the national financing mechanisms based on the country of the FEFTS (2nd update)

The financing may be based on either a maximum funding or a percentage of the funding rate. During the 1st collection process, among the identified FEFTS 68.6 % of the subsidy mechanisms was on a percentage of the expenses while 31.4 % had a maximum funding.

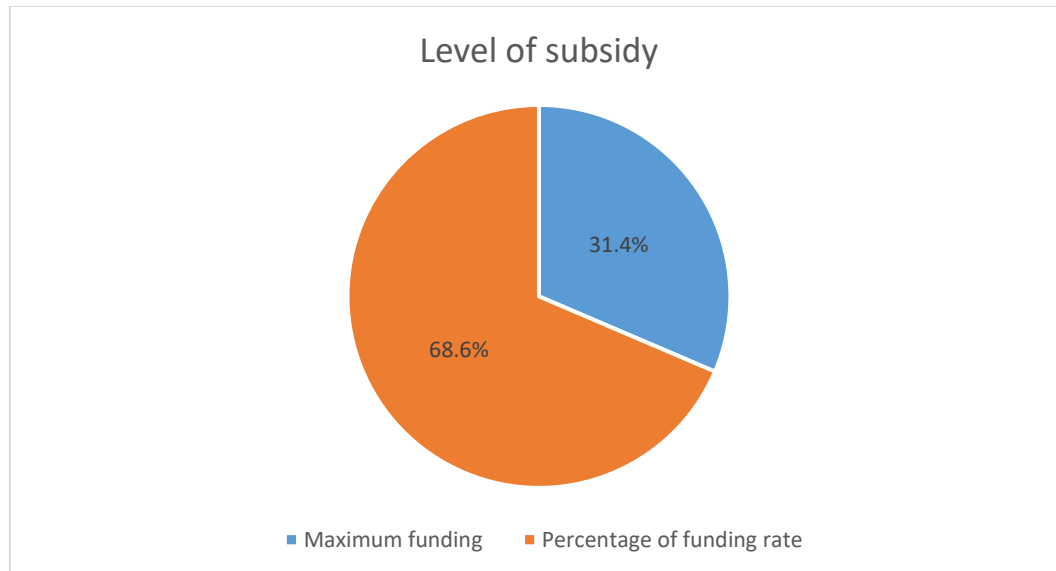


Figure 7. Type of subsidy, maximum of percentage of funding rate (1st collection process)

After the second collection round the updated results on type of subsidy, maximum of percentage of funding rate are shown in Figure 8. For this partitioning the trend was unchanged after the first update. Among the identified FEFTS 69.6 % of the subsidy mechanisms was on a percentage of the expenses while 30.4 % had a maximum funding.

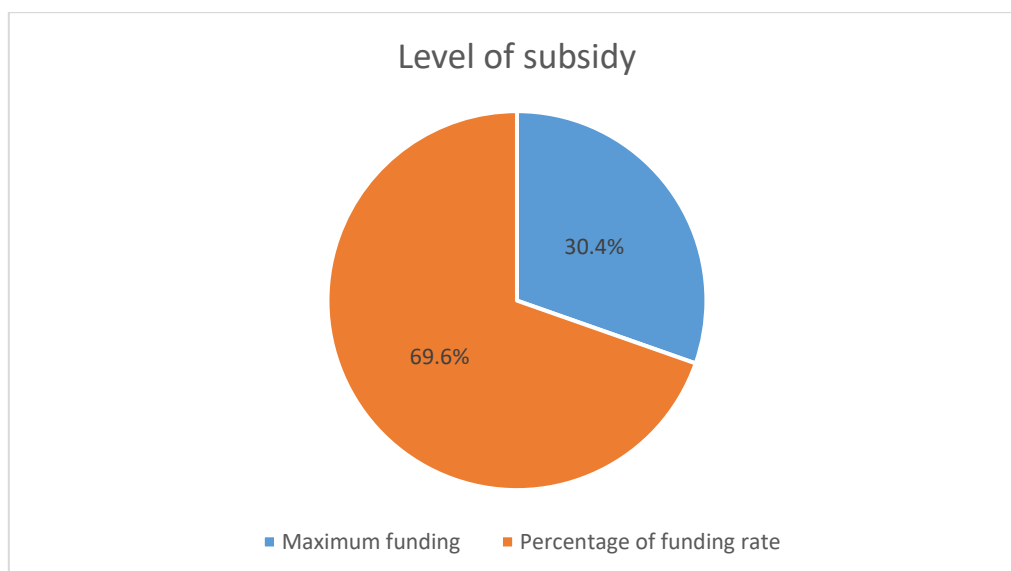


Figure 8. Updated results on type of subsidy, - maximum of percentage of funding rate (1st update)

After the third collection round a second updated was completed. The results on the type of subsidy, maximum percentage of funding rate are shown in Figure 9. The trend was still

unchanged after this second update. Among the identified FEFTS 67.3 % of the subsidy mechanisms was on a percentage of the expenses while 32.7 % had a maximum funding.

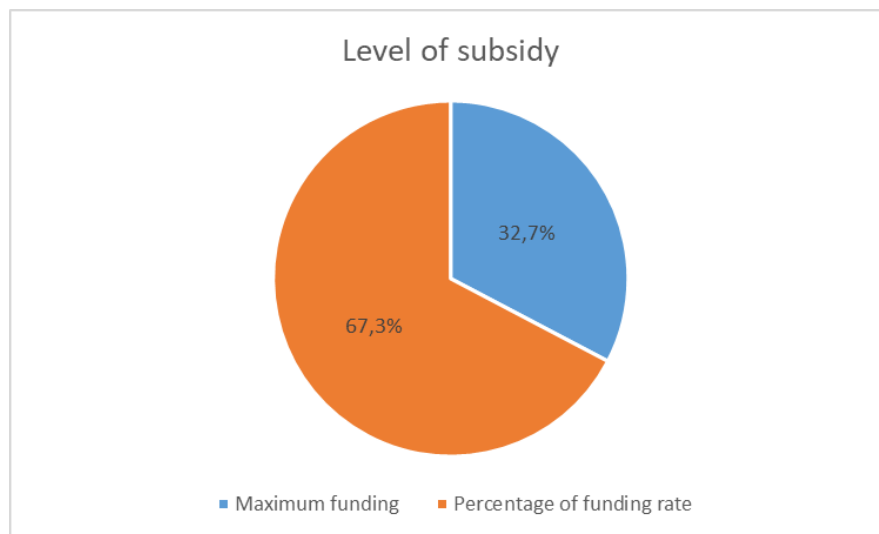


Figure 9. Updated results on type of subsidy, - maximum of percentage of funding rate (2nd update)

3.2. Financing mechanisms application field

During the 1st collection process, most of the financing mechanisms (76.1%) offered possibilities for applying for multiple activities, but there were also some targeted to more specific areas i.e. agricultural field practice (8.7%), energy provision (8.7%) or heating and cooling (4.3%). An overview is given in Figure 10.

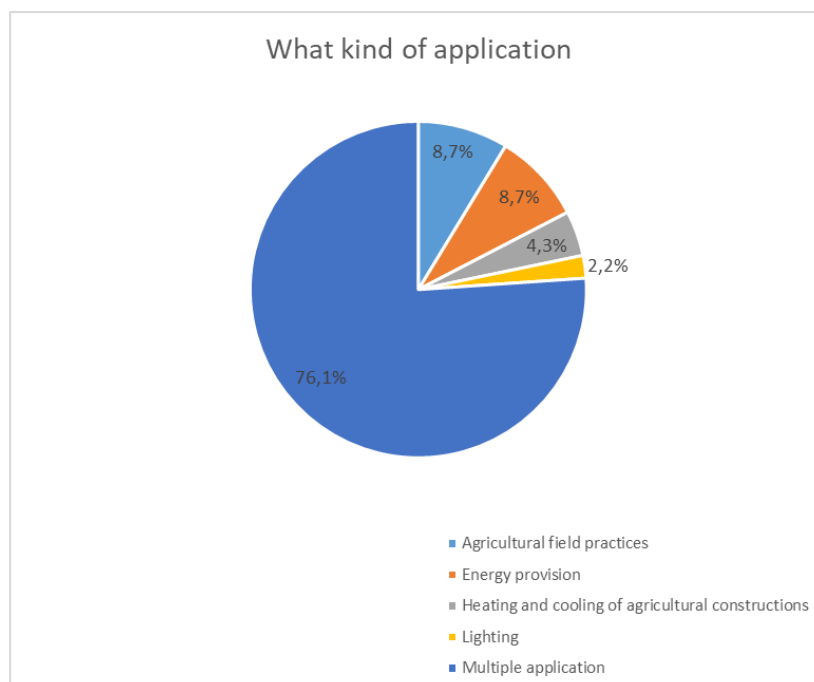


Figure 10. Classification of the identified financing mechanisms on agricultural application (1st collection process)

The updated results on identified financing mechanisms according to the financing agricultural application after second collection round are shown in Figure 11. After the update, still most of the financing mechanisms (76.9%) offer possibilities for applying for multiple activities. The category “Energy provision” is still dominating within the specific areas (13.3%) followed by “Agricultural field practice” (6.7%).

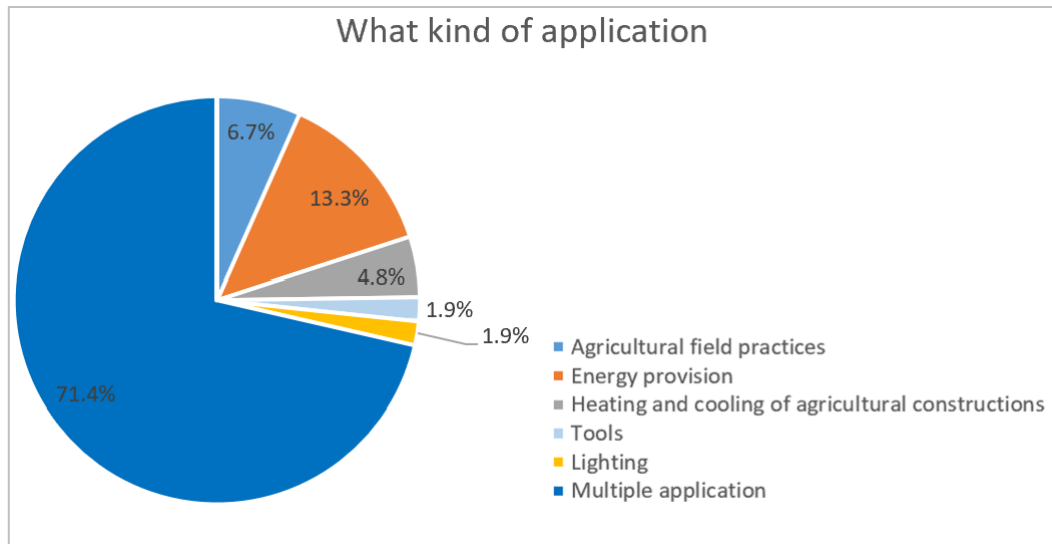


Figure 11. Update on classification of the identified financing mechanisms on agricultural application (1st update)

The updated results after the third collection process are shown in Figure 12. After this second update still most of the financing mechanisms (59.7%) offer possibilities for applying for multiple activities. Also the categories “Energy provision” and “Agricultural field practice” are dominating within the specific areas covering 15.3% and 14.5% respectively.

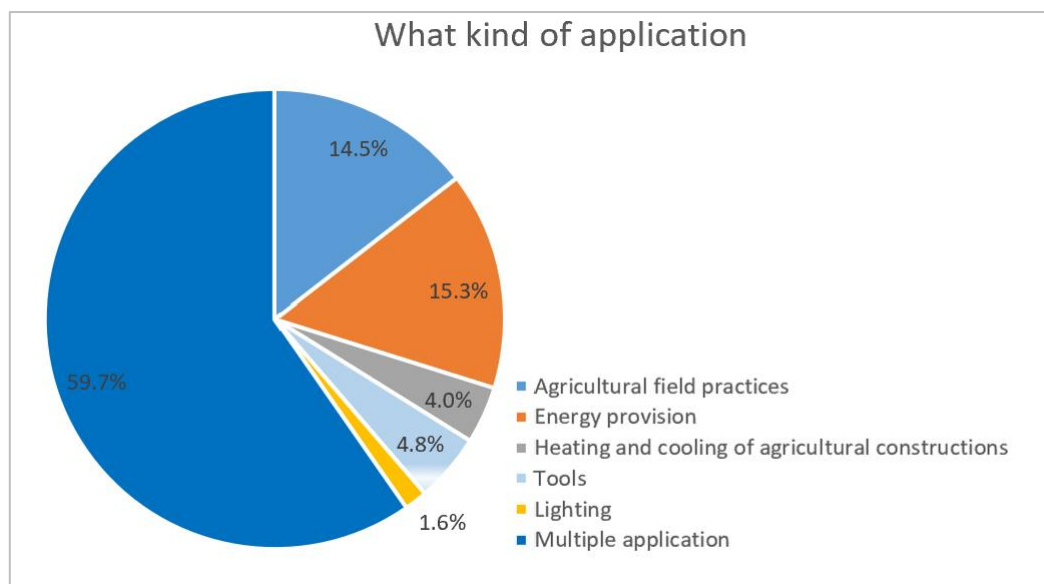


Figure 12. Update on classification of the identified financing mechanisms on agricultural application (2nd update)

3.3. Financing mechanisms type

The identified FEFTS were targeting energy efficiency improvements, clean energy supply, and soil carbon sequestration. During the first collection process, the dominant area was energy efficiency improvement which counted for 18 out of 46 of the collected schemes, 13 out of 46 of the financing mechanisms were focusing on clean energy supply and 3 out of 46 were focusing on soil carbon sequestration. The distribution is shown in Figure 13.

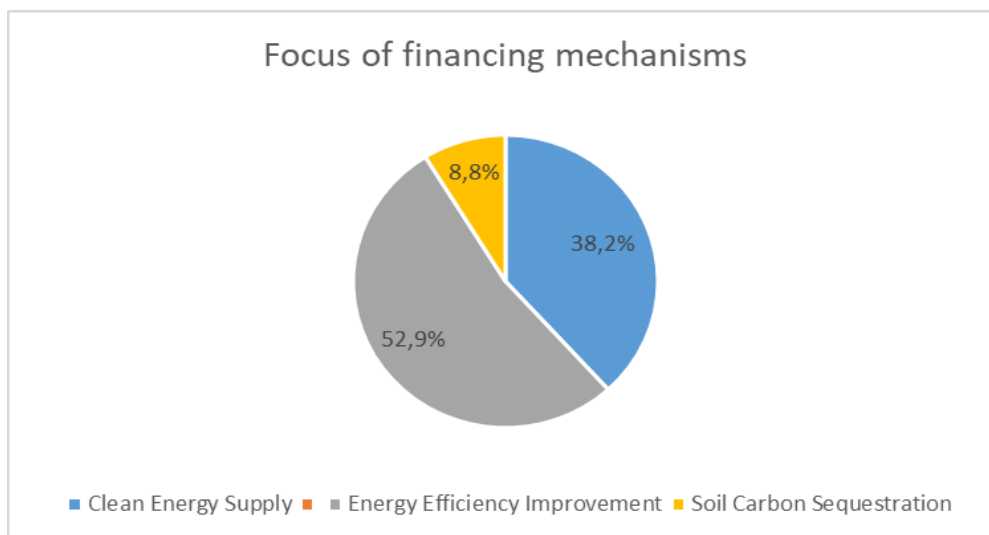


Figure 13. Classification of identified financing mechanisms according to the target effort area (1st collection process)

Regarding the financing mechanisms on energy efficiency improvement, by analysing the results it can be seen that 7 financing mechanisms were dedicated to efficient buildings (such as efficient lighting, building wall insulations, roof and cellar insulations and windows). There are 6 financing mechanisms on efficient tools such as irrigation (pumps, drip systems), conveyors, milking machines, refrigerators, feeding and other mechanisms. Lastly, this category also includes 3 precision farming financing tools (precision agriculture and livestock farming).

The results on identified FEFTS targeting energy efficiency improvements, clean energy supply, and soil carbon sequestration after the first update are shown in figure 14. After the update still the dominant area is energy efficiency improvement which counts for 67 out of 104 of the collected schemes, whereas 27 were focusing on clean energy supply and 9 focusing on soil carbon sequestration.

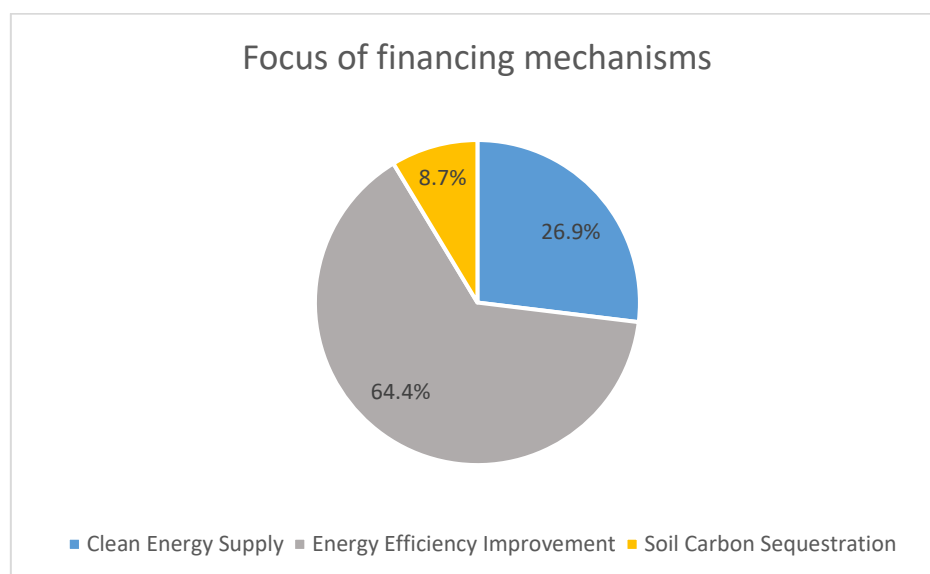


Figure 14. Update on classification of identified financing mechanisms according to the target effort area (1st update)

The results on identified FEFTS targeting energy efficiency improvements, clean energy supply, and soil carbon sequestration after the second update are shown in figure 15. Still the dominant area is energy efficiency improvement which counts for 82 out of 129 of the collected schemes, whereas 33 were focusing on clean energy supply and 14 focusing on soil carbon sequestration.

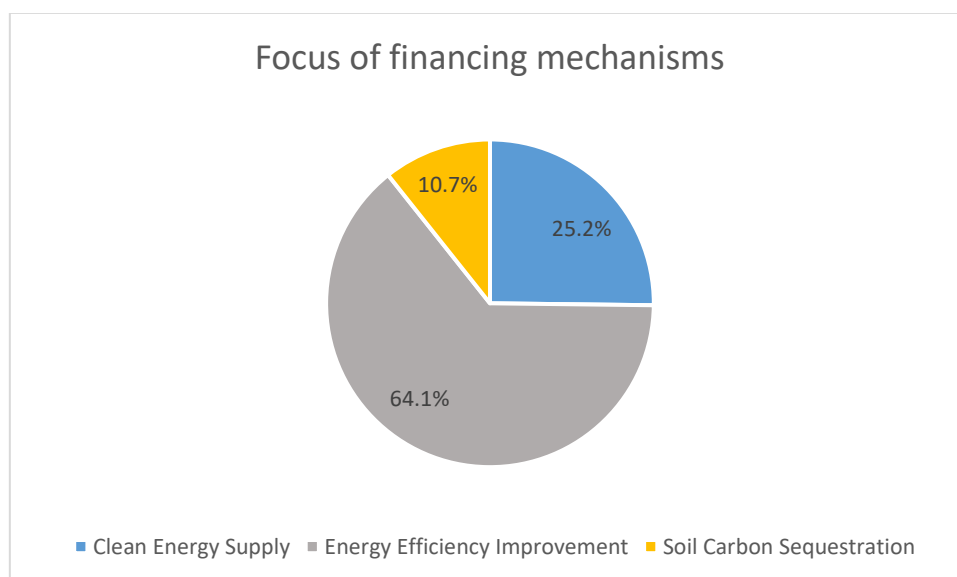


Figure 15. Update on classification of identified financing mechanisms according to the target effort area (2nd update)

According to the clean energy supply sector a breakdown analysis of the 13 tools provided in first round of registration of the financing mechanisms are presented in Figure 16. Following, 2 of them were about biomass as energy source, 1 about biogas, 6 about solar energy and 4 under the label “Other” provide funding for all kinds of RES.

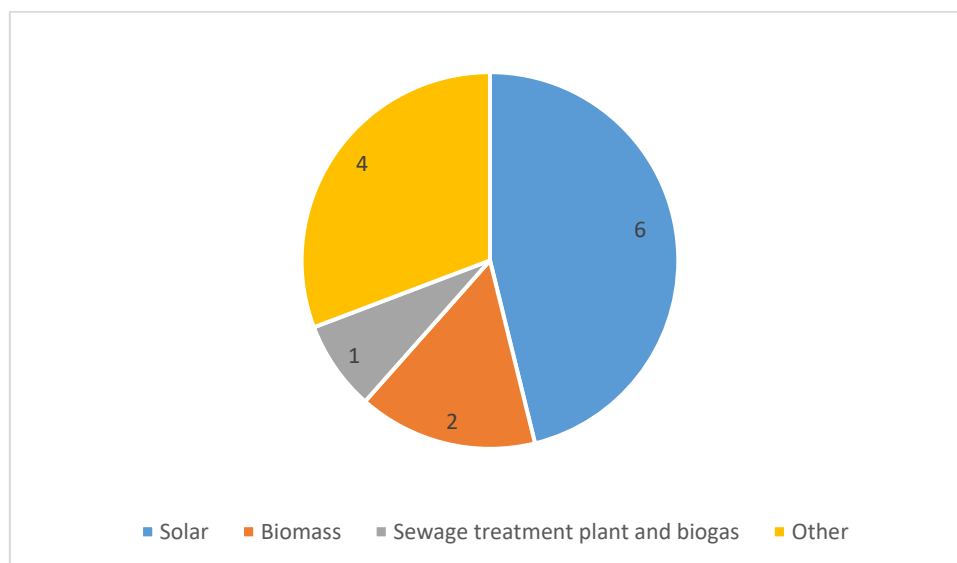


Figure 16. Classification of the identified financing mechanisms according to the Clean Energy Supply Sector breakdown (1st collection process)

The first update of the breakdown analyses of the financing mechanisms applying the clean energy supply sector is presented in Figure 17.

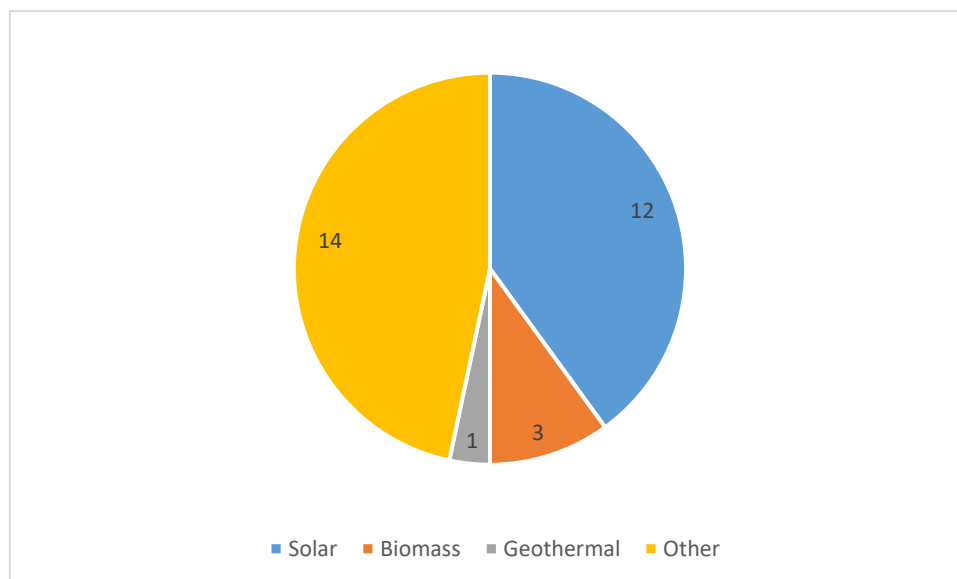


Figure 17. Update on classification of the identified financing mechanisms according to the Clean Energy Supply Sector breakdown (1st update)

After the first update the largest specific area still concern solar energy, 12 FEFTS, while 3 FEFTS concern exclusively biomass and 1 FEFTS concerns exclusively geothermal energy. "Other" provide funding for all kinds of projects within the clean energy supply sector. In the updated version the subcategories "Biomass" and "Sewage treatment plant and biogas" are merged under the heading "Biomass".

An update of the breakdown analysis of the financing mechanisms applying the clean energy supply sector after the second collection process is presented in Figure 18. After the second update the largest specific area still concern solar energy, 14 FEFTS, while 6 FEFTS concern

exclusively biomass, 1 FEFTS concerns exclusive wind energy and 1 FEFTS concerns exclusively geothermal energy. As mentioned, the “Other” category provides funding for all kinds of projects within the clean energy supply sector.

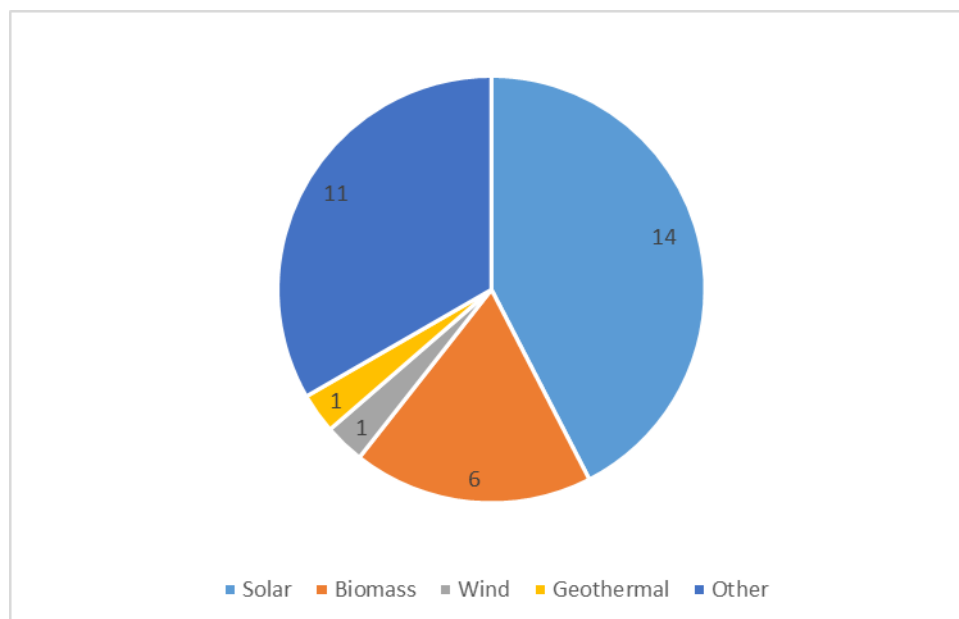


Figure 18. Update on classification of the identified financing mechanisms according to the Clean Energy Supply Sector breakdown (2nd update)

After the first registration round the last group which is Soil Carbon Sequestration consisted of 3 financing mechanisms, with 2 being about tillage methodologies (Conservation agriculture and Control Traffic Farming tools) and the remaining 1 solution was about soil organic matter.

After the first update 9 financing mechanisms had specific focus on soil carbon sequestration. For 6 of these FEFTS, there was an overall requirement to store CO₂ in the soil. This storage can then be done by various tillage methodologies or alternative sustainable use of the land. 3 FEFTS were targeted at nature conservation, ecology or biodiversity.

After the second update a total of 14 financing mechanisms within soil carbon sequestration were identified. For 10 of these FEFTS, there was an overall requirement to store CO₂ in the soil by various tillage methodologies or alternative sustainable use of the land (grassland management, crop diversification etc.). 4 FEFTS were targeted at nature conservation, ecology or biodiversity.

Following this, the identified FEFTS were classified into three categories depending on their application field within the supported activities - open field agriculture, livestock, or greenhouses. A multiple choice of categories was possible in this case.

During the first collection process, the majority of the financing mechanisms covered all application fields (79.5%), but in some cases they were only targeting 1 or 2 of the applications fields. A percentage of 11.4% of the financing mechanisms were only targeting the category open field agriculture, and overall the largest group were dedicated to open field agricultural

activities (95.5%). The number of FEFTS devoted to livestock farming or greenhouses was slightly lower (88.6 and 81.8 % respectively). Results are shown in figure 19.

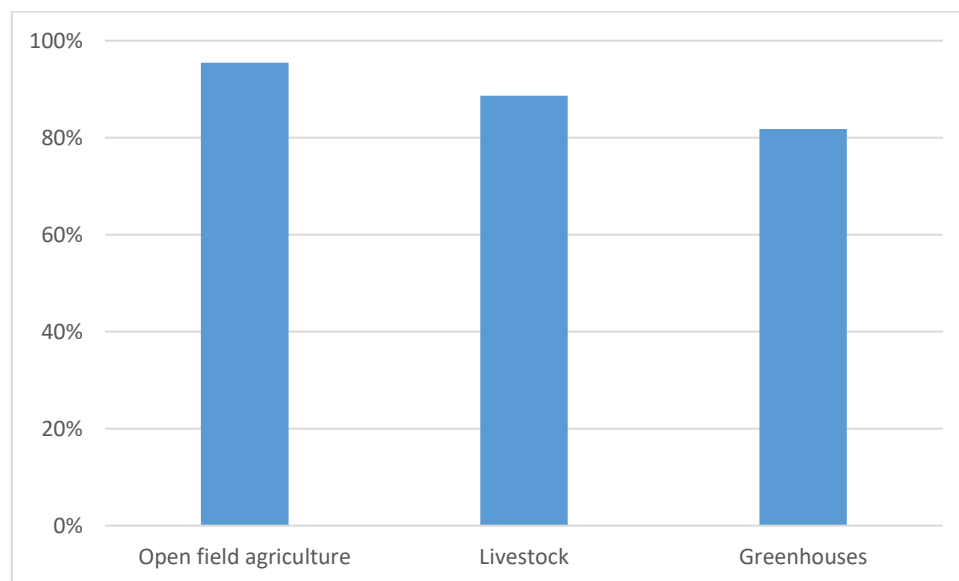


Figure 19. Classification of identified FEFTS according to application field (1st collection process)

The updated results are shown in Figure 20. The trend concerning the application field was almost unchanged after the first update. The majority of the financing mechanisms covered all application fields (68.3%), but in some cases they were targeting 1 or 2 of the applications fields. 11.5% of the financing mechanisms were only dedicated to open field agriculture, and overall the largest group were dedicated to open field agricultural activities (88.5%). The number of FEFTS devoted to livestock farming or greenhouses was slightly lower (87.5 and 78.8 % respectively).

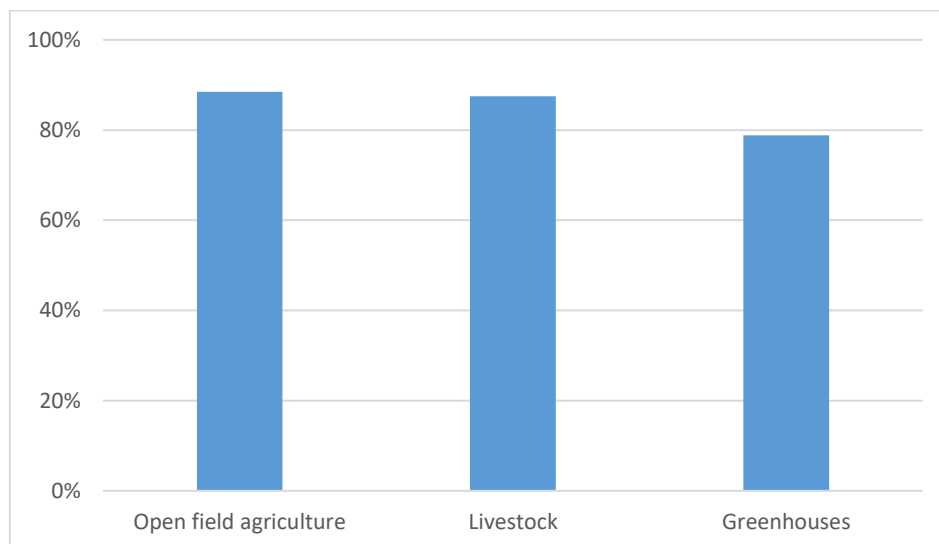


Figure 20. Update on classification of identified FEFTS according to application field (1st update)

The results after the second update are shown in Figure 21. Again, the trend concerning the application field was almost unchanged after the second update. The majority of the financing mechanisms covered all application fields (64.9%), but in some cases they were targeting 1 or 2 of the applications fields. Overall, the largest group were dedicated to open field agriculture (88.5%), while the number of FEFTS devoted to livestock farming and greenhouses was slightly lower (74.8 and 71.8 % respectively). 14.5%, 4.6% and 1.5% of the financing mechanisms were only dedicated to open field agriculture, livestock and greenhouses respectively.

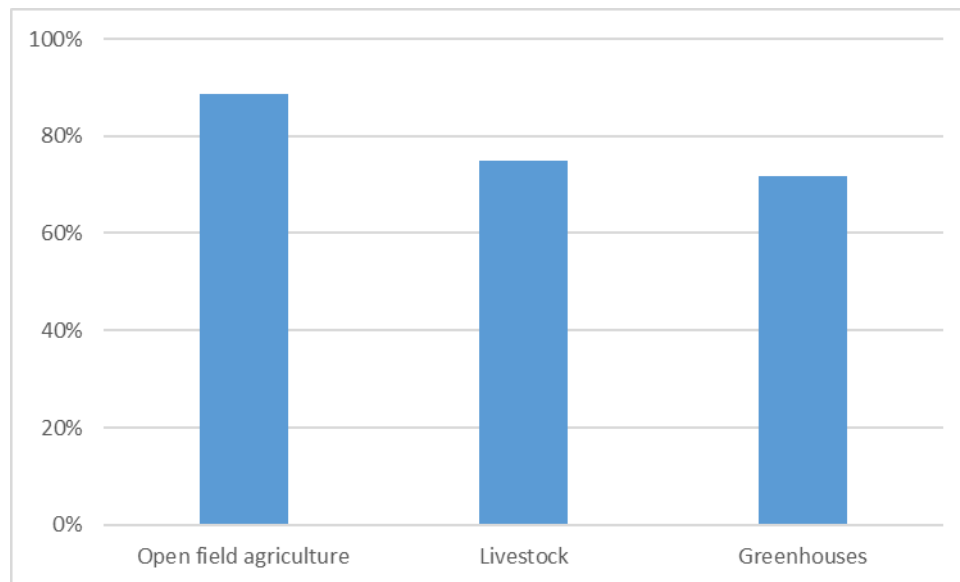


Figure 21. Update on classification of identified FEFTS according to application field (2nd update)

There are differences in the structure of the individual support schemes. In some cases, support is provided for both equipment, materials, facilities, employees, consulting etc. while others are more specific, e.g. only provide support for equipment. An overview of what the identified FEFTS are offering, during the first collection process, is shown in Figure 22. The column marked "Other" comprises a total of 8 FEFTS and the kind of the given support is for example, tax reduction, price reduction, guaranteed minimum price etc. The aforementioned examples are mainly referring to photovoltaic installations and especially net-metering. Moreover, in 4 of the financing schemes the support is given in terms of economic incentives for the produced energy (such as guaranteed price, tax reduction, price surcharge etc). In 3 schemes, support is given to establishment and operation costs (financing, low-interest loans, or leasing) and at least there is 1 financing mechanism for consulting services.

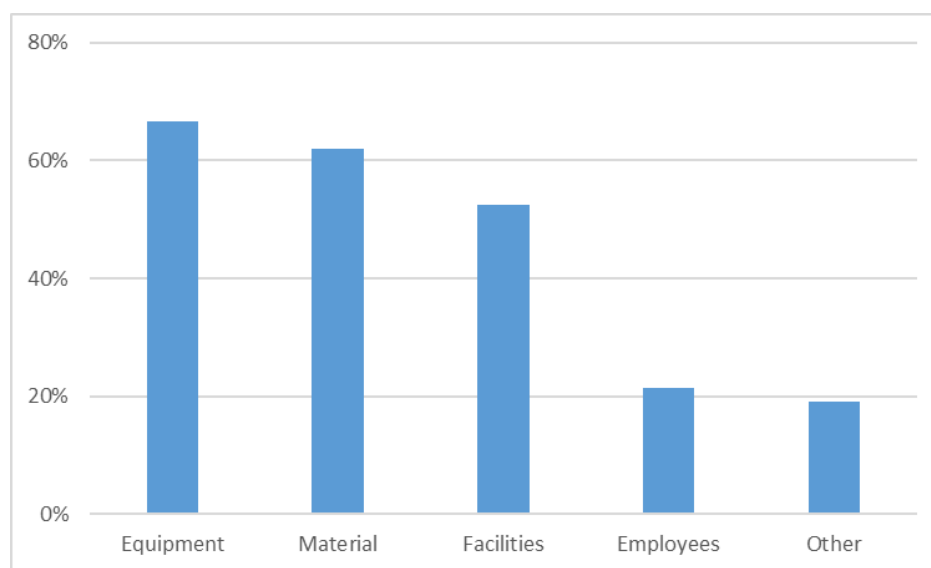


Figure 22. Classification of the financing mechanisms according to what are the offerings of the mechanism. (1st collection process)

The results after the first update are shown in Figure 23. In many cases the support schemes offer support for both equipment, materials, facilities, employees, consulting etc. The trend concerning what are the offerings of the mechanisms is almost unchanged except for the category “Other”.

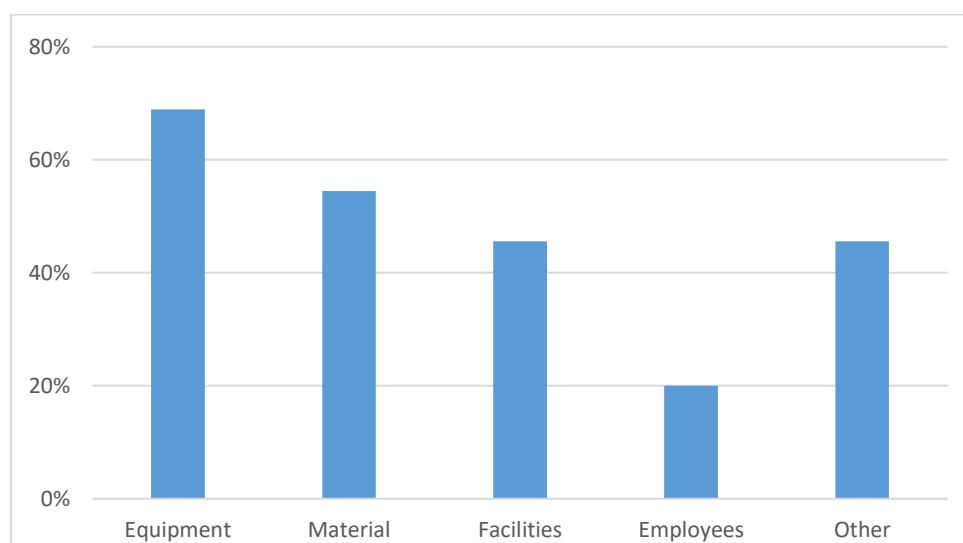


Figure 23. Update on classification of the financing mechanisms according to what are the offerings of the mechanism (1st update).

The column marked “Other” comprises a total of 41 FEFTS. For 19 of these FEFTS, it is stated that the support is given for both “Other” and one or more of the categories - Facilities, Equipment, Material or Employees. For the remaining 22 FEFTS where only “Other” is indicated the support is given for, for example, tax reduction, price reduction, guaranteed minimum price etc.

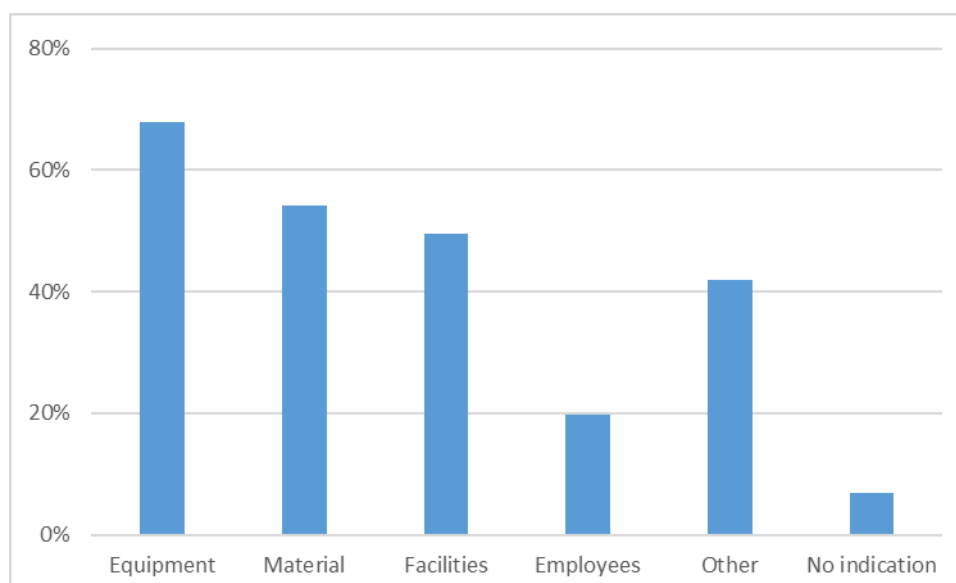


Figure 24. Update on classification of the financing mechanisms according to what are the offerings of the mechanism (2nd update)

The results after the second update are shown in Figure 24. As seen after the first collection round and the first update, in most cases the support schemes offer support for both equipment, materials, facilities, employees, consulting etc. The trend concerning what are the offerings of the mechanisms is almost unchanged except an extra category have been added, - “No indication”. This category covers support schemes where no specific information has been found about what is supported. A total of 55 FEFTS are offering support for “Other”. For 30 of these FEFTS, it is stated that the support is given for both “Other” and one or more of the categories - Facilities, Equipment, Material or Employees. For the remaining 25 FEFTS where only “Other” is indicated the support is given for, for example, tax reduction, price reduction, guaranteed minimum price etc., or it is not clear what the support is meant for.

It appears from the results that in general, most of the supporting schemes focus on support for equipment, facilities and materials and only a smaller part provides support labour costs for employees. Only about 20 percent of the schemes provide support for employees.

The budget for the individual financing mechanisms is very different as they involve widely differing FEFTS ranging from smaller national support schemes to the major EU programs. The budget frame varies from 5,000 euros up to 200 billion euros and this is something quite expected. The reason for this is that some of the registered financing mechanisms refer to the amount of support that an individual stakeholder (farmer, energy producer etc.) could benefit while some others are complete funding national or EU strategies (a state derived fund targeting/promoting specific agricultural activities).

4. Conclusions

There is a wide variety of national and European funding mechanisms to promote a fossil energy free EU agriculture. So far, 28 FEFTS have been identified at European level and 101 are national schemes.

The majority of the financing mechanisms offer possibilities for support to various groups of users. Overall, the largest group constitute farmers (88.0%) but there are also financing mechanisms that target producers' associations, energy generators, contractors, advisory services, policy makers, companies, industry and universities.

Most of the financing mechanisms offer possibilities for applying for multiple agricultural applications, but there are also some of them that target to more specific applications like agricultural field practices (tilling/ploughing, planting/seeding, fertilizing, pest control (crop protection), irrigation, harvesting, etc.).

Most of the supporting schemes focus on support for equipment, facilities, and materials. About 20 percent of the schemes provide support for employees.

Last but not least, as it is commonly stated in all WP2 Deliverables (D.2.2, D.2.5, D.2.8, D.2.11), the consortium worked as a unified partnership with all beneficiaries contributing with their maximum effort. With the completion of the 3rd FEFTS collection process and screening of the FEFTS we achieved in total 131 registered financing mechanisms with 129 being published in the AgEnergy platform. Given the KPI of 1700 FEFTS (of any type) for our repository until the end of the project, both the initial goals that had been set and the vivid reaction of all partners, led to the collection of 2102 FEFTS in total, exceeding by far the original target set.

Annexes

In this section the material used for the registration is provided in order to support what has been described in the above chapters.

Annex 1: Financing mechanisms retrieved from survey

The following link is the online spreadsheet which contains all the financing mechanisms retrieved from the survey from all three FEETS collection processes.

<https://docs.google.com/spreadsheets/d/1pu-yQRCg1xHgXnSTXdjVwpm7soJp1BQTzs81jb1qe9M/edit?usp=sharing>

Annex 2: Financing Mechanisms Survey

As it is mentioned in this report, with the official launch of the AgEnergy platform the use of the Google Forms questionnaire was discontinued. Instead, interested users can now access the platform and directly submit their FEETS in the dedicated section by simply creating a free account first. The following link is the AgEnergy platform link.

<https://platform.agrofossilfree.eu/en>