EUROPEAN COMMISSION
RESEARCH EXECUTIVE AGENCY

FP7-SME Actions
Head of Sector

Brussels,
REA.B2

TEAGASC - AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

BY E-MAIL ONLY

Subject: **Interim payment information letter**
Reporting Period Nr 1 from 01/01/2013 to 31/03/2014
Grant Agreement FP7-SME-2012-314879-AUTOGRASSMILK

Dear ,

The Research Executive Agency (REA) has approved the periodic report and the financial statements submitted by you, subject to further checks that will be performed at the time of processing the final payment (see below). We confirm that they are in accordance with the provisions of the grant agreement.

You will find enclosed:

- an assessment report including, where appropriate, recommendations and comments

The total accepted EU financial contribution amounts to EUR 833129,09.

The payment results from the reimbursement of the eligible costs submitted and accepted without prejudice to Article II. 22 and II. 23 of the grant agreement , taking into account the interests generated by the pre-financing .

We are pleased to inform you that we have started the procedure for transferring the amount of EUR 681823,98 to the bank account indicated in Article 5.3 of the grant agreement.

Please inform the other beneficiaries about the results of the assessment for this reporting period and proceed with all appropriate payments to them without unjustified delay, as indicated in Article II 2.3 of the grant agreement.

Agence exécutive pour la recherche / Uitvoerend Agentschap Onderzoek, B-1049 Bruxelles / Brussel - Belgium.
Office: Telephone: . Fax .

E-mail:

Please be informed that in the context of the assessment of the final reports the REA will implement a check of the eligibility of some costs covering the whole of the project: any beneficiary that has claimed costs related to the transaction will be required to provide, together with the reports and deliverables specified in Article II.4.2 of the grant agreement, copies of the invoices of the RTD performers, and proof of their registration in the accounts of the concerned beneficiary(ies) and of their payment. Details about the additional checks that will be performed at the time of assessing the final reports are provided in Annex I to this letter.

Yours sincerely,

Enclosures: - Assessment report

- Annex I: Modalities for checks that will be performed at the time of assessing the final reports

Annex I – Modalities for checks that will be performed at the time of assessing the final reports

The costs of an FP7 project must be qualified as eligible in order to be reimbursed by the European Union. For the "Research for the benefit of SMEs" projects, eligibility rules are outlined in Articles II.14 and III.4 of the Grant Agreement. The main rules are that costs must be actually incurred for implementing the project, incurred within the project duration, used for achieving the project objectives and recorded in the beneficiary's accounts.

Following the information note of 1 July 2013 (http://ec.europa.eu/rea/manage_your_project/sme/index_en.htm), the REA will check the eligibility of the costs that the SMEs /SME Associations claimed in their Forms C in relation to the invoices of the RTD Performers.

When submitting the reports and deliverables for the final payment, the REA requires from all the SMEs and SME Associations of the consortium to provide:

- copies of the invoice(s) received from the RTD Performer(s) ***throughout the whole project duration and claimed in any of the reporting periods;***

- a proof of the registration of these invoice(s) in the SME/SME Association's accounting (e.g. accounting journal and vendor line detail),

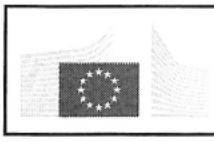
- a proof of the payment of this(ese) invoice(s) (e.g. copy of the bank account)[1],

In case some more recent invoices from RTD performers have not yet been paid at the time of submitting the Form C (in particular for invoices relating to activities of the last reporting period), and notwithstanding the obligation to provide proof that the invoices have been duly recorded in their accounting system, the SMEs/SME Associations concerned should clearly state that delaying the payment is in accordance with their normal business practices.

Failure to provide the additional information may result in the ineligibility of the related costs.

[1] In exceptional cases, where all or part of the costs for subcontracting to RTD Performer(s) declared by the participant mentioned above were paid by your organisation as the coordinator, acting on behalf of the [SME participant][SME Association], the proof of the payment and the proof of registration of this invoice by the participant mentioned above can be replaced by:

- the authorisation of payment given to the coordinator by that participant,
- a copy of the bank statement for the payment from the coordinator's bank account.
- a copy from the accounting journal of the participant mentioned above demonstrating that the amounts receivable from the coordinator relating to that participant's share in the EU grant (that has been used to pay the RTD performer) has been offset against the amounts payable to the RTD performer.



EUROPEAN COMMISSION
Research Executive Agency
SME Actions

Project No: 314879

Project Acronym: AUTOGRASSMILK

Project Full Name: Innovative and sustainable systems combining automatic milking and precision grazing

Research for the benefit of SMEs

Assessment Report

Period covered: from 01/01/2013 **to** 31/03/2014

Start date of project: 01/01/2013

Project coordinator name: [redacted]

Date of Review Meeting:

Name of Project Officer: [redacted]

Date of preparation: 11/05/2016

Duration: 36

Project coordinator organisation name: TEAGASC - AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

Name of Expert(s): [redacted]

Version: 3

Assessment Report performed by Project Officer

1. Overall Assessment

a. Executive summary: Comments, in particular highlighting the scientific/technical achievements of the project, its contribution to the State of the Art and its impact.

AUTOGRASSMILK aims to contribute to sustainable dairy farming systems by optimising integrated grazing with Automatic Milking (AM). It involves 6 countries (Ireland, Netherland, Denmark, France, Sweden, and Belgium) each of which has significant impact on dariy farming in the EU. It is structured on a holistic approach and its results have a good potential for implementation all across the Europe and contributing to sustainable and economically viable farming. See 2b below for details on the achievements during the first reporting period.

b. Overall assessment / Progress.	Project has achieved most of its objectives for the period with relatively minor deviations.

Comments

Grass supply and quality, dominant breeds/types of cows, average herd size, feeding and milking strategies/habits vary from country to country, and one of the main challenges of the project is developing tools, which will assist farmers in making decisions on optimising grassland management strategies together with sustainability and economic variables, that are capable of producing accurate results in each individual farm in these countries when put into practice.

The project has achieved most of its objectives for the period with minor deviations. The scale of the project is huge considering the amount of data to be generated. Several studies have been undertaken simultaneously in different regions. Despite each of them focuses in different parts of the research, there are also similarities in between them and it is possible to extract hidden information making cross-study evaluations.

Since the data obtained by the sensors and from the results of the experiments will be used in modelling of tools to generate daily advice on the management of a cow herd in an integrated grazing and AM system, and also the parameters under investigation are subject to change by many extrinsic factors (such as climate, other environmental conditions, etc.), it is expected that the tool that will be used by the farmers is constructed in a way that is capable of analysing trends, learn from new information and produce results accordingly.

2. Objectives and Workplan

a. Have the objectives for the period been achieved? In particular has the project as a whole been making satisfactory progress in relation to the description of work (annex I to the Grant agreement).	Yes

Comments

As stated above, the project has achieved most of its objectives for the period with minor deviations. Several studies have been undertaken in each Work Package during the first reporting period. Progress made in each WP is coherent with the individual objectives and with the overall objectives of the project.

b. Has each work package been making satisfactory progress in relation to the	Yes

Description of Work (Annex I of the grant agreement)?

Comments

Each work package has been making satisfactory progress in relation to the DoW.
The achievements covered in this reporting period are summarized as follows:
WP1: Optimum feeding strategies for dairy cows incorporating grazed grass with AM for various production systems.
Task 1.1 focuses on experiments structured to understand the effect of certain parameters on the milk output.
2 different studies have been carried out in Ireland and Sweden.
In the Irish study of a 70-cow herd, grass constituted 85% of the cow diet and AM system was used. The final results showed that it is possible to reach milk output results which is as good as those achieved in conventional milking systems. The study is planned to be advanced to understand the effect of cow herd size which also has an effect on the milking frequency and hence the output.
In Sweden the study showed that there was no difference between 10% and 25% of grazed grass in terms of milk yield and solids per cow.
Task 1.2 aims to develop best practice feeding strategies to meet variations in the grass supply. This task also aims to find the optimum proportion of grass in the cow diet.
4 different studies have been performed in Ireland, Denmark, France and Belgium.
In Ireland, the results showed that milking intervals are significantly longer during a high grass proportion diet comprising of 93% grass than that of low grass proportion diet comprising 75% grass. It was also stated that feeding more concentrate might have had increased milk yield and milk solids.
In the study undertaken in 3 different organic farms in Denmark, it is shown that pelleted commercial concentrate gives more promising results over home-grown supplement of rolled or crushed cereals in terms of milk yield and milking frequency. This was attributed to the higher attractivity of pelleted feed than feed given as a meal.
In France, the study has shown that the milk yield is the highest in transition feeding which involves grazed grass together with concentrate and maize silage compared to indoor feeding (no grazed grass) and outdoor feeding (no maize silage). Milk yield obtained in outdoor feeding was the lowest among them which was contributed to the use of lower amount of concentrates in the cow's diet. Another important finding of the study is that the cost of feeding reduced significantly (66%) in outdoor feeding compared to indoor feeding: grazing can be combined with AM (even to the level of 100% pasture) and, though it will result in reduced milk yield, the cost of feed per litre is significantly reduced.
In Belgium, it is shown that higher amount of concentrate has a positive effect on milk yield and milking frequency. The consortium is advancing the research at the moment to produce country specific guidelines on the optimum proportion of grass and strategies on how to handle variation in pasture supply in MonitorFarms in different countries.
Task 1.3 aims to find out the effect of cow breed/type on optimization of grazing with AM systems. The preliminary results show that there are differences between breeds which affect milk production. The consortium has concluded that breed specific milking distribution is a factor that requires further investigation and planned a full lactation study during the second reporting period.
WP2: Optimise the integration of AM systems with cow grazing using new technologies.
Task 2.1 aims to develop a Decision Support Tool (DST) which is capable of mapping, capturing relevant grass measurement parameters (pre-post grazing), and automatically transmitting data to a smart phone via an application. The DST (Grasshopper) has been developed. Its calibration has been optimized according to the results obtained from the preliminary tests. The DST has been attached to an existing commercial product to obtain a hybrid which allows the comparison and validation of the results at first hand. It will be tested in Belgium, the Netherlands, and France during the second reporting period.
Task 2.2 aims to evaluate technologies to support integration of grazing and AM systems such as technologies that assist farmers in motivating cows to visit AM unit regularly and obtain data from the herd such as cow behaviour. A practical tool for use by farmers will also be developed. In order to obtain information from the herd, appropriate sensors were investigated, chosen, purchased and tested. Data obtained by the sensors will be used in modelling to generate daily advice on the management of a cow herd in an integrated grazing and AM system. The results obtained in the first reporting period show that linear correlation exists between activity of cows and milkings/day with a strong correlation factor; visual observation has a higher success rate over the activity index for

identifying cow heat and it is possible to estimate grazing time/cow with the two technologies successfully.
Task 2.3 aims to evaluate the potential use of AM-carousel system with grazing. Results are preliminary and more research will be performed during the second reporting period.
Task 2.4 focuses on the potential use of mobile AM systems for fragmented farms. Several studies have been undertaken by different partners. The results show that it is possible to increase milk yield and Milking Frequency (MF) by implementing a different cow traffic management system that involves two grass allocations in different plots which decreased the waiting time of cows in the yard.

WP 3: Increase the sustainability of an integrated AM and cow grazing milk production system.
In Task 3.1 which aims to identify quantifiable sustainability indicators, key stakeholders have been identified and 28 interviews via phone or face-to-face meetings have been carried out. In parallel a web-based questionnaire has been developed. A registry of indicators was established and weightings of each indicator were identified in each country to understand country specific sustainability priorities.
Task 3.2 involves registration of Monitor Farms. So far, the selection criteria have been identified, a schedule for registration of monitor farms and data management has been developed and farms have been identified that will serve as a Monitor Farm in each country.
Task 3.3 deals with the assessment of sustainability data. An evaluation process (RISE-Response Inducing Sustainability Evaluation) will be tested during the second reporting period.
Task 3.4 aims to develop a sustainability assessment tool for farmers. Dash-board model has been identified as a suitable template to compare key sustainability performance indicators. Model development will be carried out during the second reporting period.

WP 4: Economic assessment of integrated grazing and AM technologies.
This Work Package will mainly take data as an input from the output of the previous WPs. Finally a DST will be developed which is capable of assisting farmers to make optimal grazing and AM system decisions. DST is planned to developed and tested on farms during the second reporting period.

WP5 and WP6 are dissemination and management WPs respectively and the work being performed under these WPs are on schedule.

One of the main products of AUTOGRASSMILK will be the DSTs to be developed for farmers which will generate advice to them in making sustainable and economic decisions in the implementation of grazing with AM systems. The accuracy of the data is hence of utmost importance to result in a functional and effective DST which generates legitimate and valuable advices to farmers. Considering that these DSTs will generate advices by processing the data generated in the experiments conducted in WP1, 2, and 3; the accuracy and precision of the experimental data in these WPs gets more significant.

The six monitor farms in Denmark agreed to allow database access to their animal registration database, production database, field and fertilizer application data, financial accounts and feeding planning software which guarantees that the data collected from these Farms would be of high quality, reliable and can be collected without delay.

Databases from France, Denmark & the Netherlands containing animal performance and economic data for the years between 2011 and 2013 were obtained.

c. Have planned deliverables (and milestones) been achieved for the reporting period? Yes

Comments

A request has been made on setting the date of the D1.1 and D1.2 to 35th month instead of 32nd month. It is acceptable, howeve,r considering that with the new date there is only 1 month left for testing and validation activities, extra effort should be given to complete them.
Another request is on setting the date of Milestone 1 further from 30 April to 31 October, which is also acceptable considering that more experimental studies should be made in the second reporting

period.
There has been an amendment in the delivery date of the Deliverables 2.1 and 2.2, they have been switched dates according to their chronologic order; which is also acceptable.

d. Are the objectives for the coming period(s) (i) still relevant and (ii) still achievable within the time and resources available to the project?

d.i) still relevant?	Yes
d.ii) still achievable?	Yes

Comments

The objectives for the upcoming period are still relevant and achievable.

e. Have any corrective actions been implemented since the last project review?	Not Applicable

Comments

N/A

3. Resources

a. To the best of your estimate, have resources, i.e. personnel resources and other major cost items, been i) used for achieving the objectives of the project, ii) For real cost categories, in a manner consistent with the principle of economy, efficiency and effectiveness. Please cover both aspects i) and ii) in the comments below.

a.i) To achieve objectives?	Yes
a.ii) For real cost categories – are the resources used in a manner consistent with the principle of economy, efficiency and effectiveness?	Yes

Comments

The resources have been utilised in line with the GA.

b. If applicable, please comment on large deviations with respect to the planned resources.

There has been no significant deviations with respect to the planned resources.

c. When required - are certificates on the financial statements (CFS) submitted?	Not Applicable
d. Are there any rejected costs in the CFS?	Not Applicable

Comments

4. Implementation of the Project

a. Has the project management been performed as required?	Yes

Comments

The project management is pro-active and has been performed as required.
The tools and implementation methodologies for successful management of the project have been put into practice properly.

b. Has the collaboration between the beneficiaries been effective?	Yes

Comments

AUTOGRASSMILK involves 6 different countries and many different tasks have been performed synchronously in these countries. Since the RP1 activities mostly involve RTD partners, the project have fostered collaboration particularly between research organizations. Additionally SME associations have successfully included their farmer members to the research and prepared a platform that will allow more collaboration in the second part of the project.

c. Do you identify evidence of underperforming beneficiaries, lack of commitment or change of interest of any beneficiaries?	No

Comments

Each partner is active in the project and the project is on schedule.

5. Use and Dissemination of the Foreground

a. Impact: Is there evidence that the project has/will produce significant scientific, technical, commercial, social, or environmental impacts?	Yes

Comments

The project is highly likely to produce significant impact in many ways.
At first hand, the studies that will be carried out during the project will reveal many important findings on the factors affecting milk production and hence will contribute to agricultural sciences.
The DSTs that will be developed within the project has high potential to create significant commercial impact. Firstly, they will assist farmers to optimize grazing implemented together with AM systems which in turn results in a decrease in production and feeding costs. Secondly, DSTs will be highly competitive as final products in the dairy farming market.
The project will also create environmental benefit as it aims to minimize the resources (such as feeds) used, foster sustainable dairy farming and also contribute positively to cows' welfare.

a.1. Is there an impact on participating Small and Medium Entreprises (SMEs)?	Yes

Comments

Should the objectives be achieved, there is a great potential that AUTOGRASSMILK will cause significant impact on dairy farming in Europe and hence on the SME farmers as well as the SME associations. The impact will be in two different ways. The SME farmers will have a chance to evaluate their own AM/cow grazing system with the sustainability assessment tool and also with the web based DST and be able to optimize their economic efficiency in a sustainable way. The other impact will be generated from the commercialization of these tools.

a.2. Is there an exploitation potential for the participating SMEs?	Yes

Comments

The sustainability assessment tool and the web based DST will be tested and used in SME farmer partners and also in dairy farms that have participated to Monitor Farms.

b. Is the plan for use and dissemination of the foreground, including any update	Yes

appropriate? Please comment on this plan for the consortium as a whole, or for individual beneficiaries or groups of beneficiaries and its progress to date.	

Comments

The plan for use of foreground has been explained in detail in Section 8 of Consortium Aggreement. The plan is legitimate, implementable and fair. Equal and joint ownership rights are given to the SME-AG partners. The background is also given in detail in terms of know-how and equipment, which leaves no ambiguity of the ownership and usage of them.

c. Has/Have the beneficiary/ies disseminated project results and information adequately (e.g. publications, conferences, etc.)?	Yes

Comments

The relevant WP and the plan involve different activities with different target audiences.
During the RP1 a very effective dissemination process has been implemented.
A website has been designed and developed. Information on the project has also been given as a link or uploaded to other relevant websites.
Visits have been organized to farms incorporating AM systems. The members have participated in many conferences and fairs organized events (open days, conferences, educational meetings, etc.) relevant to the scope of the project.
Publications have also been made in this reporting period.

d. Has there been suitable communication with potential users or stakeholders of the project/research results?	Yes

Comments

The Monitor Farms community have been planned to be involved in the project activities successfully.

6. Other Issues

a. Have policy- related and or regulatory issues been properly handled?	Not Applicable
b. Have ethical issues been appropriately handled?	Yes
c. Have safety issues been appropriately handled?	Not Applicable

7. Calculation of the next payment

Total requested EU contribution

	Net payment	Requested contribution based on Form C	Of which certified costs (if applicable)	Interests
pre-financing	1364127.60	0.00	0.00	0.00
1st period	681823.98	833129.09	0.00	239.82
Total	2045951.58	833129.09	0.00	239.82

a. Comments (explain any rejection of costs etc.).

The maximum EU funding contribution established in the Grant Agreement is: 2 273 546,00 €
The Contribution based on Forms C for this period is equal to: 833129,09€

The net amount to be paid to the coordinator related to the 1st reporting period is equal to 681823,98 € (90% of the EU contribution minus the pre-financing).
Please note that the 5% of the "Guarantee fund"(113 677,30 €) is included in the pre-financing of (1 364 127,60 €).

b. Recommendations (e.g. on overall modifications, corrective actions at WP level, or re-tuning the objectives to optimise the impact or keep up with the State of the Art, or for other reasons, likesuch as best use of resources, re-focusing etc.).

N/A

8. Result

Reports approved	Yes
Reject reports and, if appropriate, start the procedure for termination of the grant agreement in whole or in part	No
Partial approval leading to reduced payment (see explanations under "comments" or "recommendations"	Yes

9. Flag the Project - Not related to the 'certified as correct'

Flag(s) for the project	No

Comments

10. Extraction to other systems - Not related to the 'certified as correct'

I declare that I have reviewed the publishable summary, the project web site address and the related attached documents submitted by the Project Co-ordinator / mono beneficiaries and I find them suitable for publication, i.e. on CORDIS, etc ... No information marked as "confidential" has been found neither in the publishable summary nor in the other attached documents.

I am aware that the electronic version of the project assessment submitted via this IT application is the valid version substantiating the 'certified as correct'. This electronic document will be filed and registered automatically.

Attachments

Name of the PO: [redacted]

Date [redacted]

This declaration was visaed electronically by [redacted] (ECAS user name [redacted]) on 11/05/2016