

## D – Engagement with stakeholders, end-users, policymakers and the public

### No. 1 WUR

#### **D1. Number of meetings organised with stakeholders**

1. May 2022 presentation and discussion with farmers and policymakers Province Brabant about housing systems in relation to emissions and animal health
2. March 2023 presentation and discussion with group of farmers and advisors in Province Utrecht about housing systems in relation to emissions and manure quality

#### **D2. Number of meetings organised by stakeholders that you contributed to:**

1. Januari 2023 about Collecting green grass from manure storage (passive digesting) with local policy makers from three Provinces
2. Presentations about results measurement and future housing systems in three workshops organized by Resilience for Dairy (November 2021, June 2022, februari 2023)
3. Presentation at meetings with group of farmers of specific Province:  
November 2022 West Netherlands,  
February 2021 Provenca Groningen,  
June 2021 Provenca Gelderland and Friesland
4. May 2023. Presentation at Conference of Netherlands and Belgium at Den Bosch about emissions and manure quality
5. September 2021; Caseus Venti workshop in Italy, 80 participants
6. September 2021 Presentation in Olanda about Developments in dairy farming
7. November 2023: Webinar SULAWE conference- Sustainable Cattle Farming and Milk Production in Ukraine; 100 participants
8. Invited presentation: Trend on sustainable cattle farming and animal welfare in the European Union

#### **D3. Individual significant stakeholder involvement in your project:**

1. Discussion with group of 5 advisors from “Belgische boerenbond” about strategies to reduce emissions
2. Discussion with farmers group (30) from Austria about reducing emissions
3. Discussion with 4 advisors (Seges) from Denmark about reducing emissions

#### **D4. Particular and significant dissemination activities to stakeholders:**

1. Presentation for 30 students in Italy about future cattle housing
2. Discussion with 2 researchers from Japan about CowToilet
3. Online presentation for farmers in Latvia (exhibition)
4. Webinar for researchers in 8 European countries (total 15) about reduction of emissions
6. Webinar about for researchers and farmers in 8 European countries (total 70) about rethinking methane

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

1. Podcast about how to reduce ammonia emissions by feeding strategies
2. Video about research at Dairy Campus about several techniques to separate feces and urine

**No 2 – UNIFI**

**D1. Number of meetings organised with stakeholders**

1. Presentation of the Project's goals in a technical class for farmers entitled "Dairy barn ventilation: innovation and research results" – 9<sup>th</sup> May 2022
2. Discussion of the Project's activities in a virtual Workshop organised with the Federal University of Acre, Brazil. The Workshop entitled "Dairy cows housing systems" was addressed to university students and researchers – 24<sup>th</sup> May 2021
3. Farm tour within the final workshop of the Project held in Lombardy, Italy. Discussion about the Project's activities with farmers and local consultants – 24-25<sup>th</sup> May 2023
4. Course for Brazilian students organized by Federal University of Viçosa (Brazil), entitled "Compost barn: an alternative housing system for dairy cows". Discussion of the Project's activities. – 5,12,19 October 2022
5. Interviews with farmers collaborating to the Project and consultants of local retailers (companies) of products for dairy farming (additives for feed and manure). The interviews were carried out to evaluate the application of the products as practices to reduce emissions – April 2023

**D2. Number of meetings organised by stakeholders that you contributed to:**

1. High-school Workshop entitled "Agenda 2030" addressed to students and teachers, held in Tuscany, Italy. The activities of the project were presented in a video on greenhouse effect, climate changes and agriculture – May 2021
2. Discussion of the Project's activities in a Workshop organised by the Federal University of Lavras, Brazil. The Workshop entitled "Research opportunities in Biosystems engineering" was addressed to university students and researchers – 29<sup>th</sup> November 2022
3. Discussion of the Project's activities in a Workshop organised by the Federal Technological University of Paraná (UTFPR), Brazil. The Workshop entitled "Research on dairy housing" was addressed to university students and researchers – 8<sup>th</sup> November 2022

**D3. Individual significant stakeholder involvement in your project:**

1. Engineering Company (Florence, Italy) that contributed to the development of the drone-based monitoring system in Task 2.4.3 through a continuative collaboration by sharing technical knowledge. The scale of the involvement is regional

**D4. Particular and significant dissemination activities to stakeholders:**

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

1. Video about the activities carried out in Task 2.4.3 (6 minutes). The video was published on the Project's website on July 2022

**No 3 – LLU**

**D1. Number of meetings organised with stakeholders**

1. CCC Farming seminar, during international exhibition "Ramava 2023" for national farmers, 13.04.2023
2. CCC Farming project presentation and discussion with visitors of Exhibition Ramava, 2021, 2022.
3. Estonian University of Life Sciences. XIX Baltic animal breeding conference. Presentation of the project during XIX Baltic animal breeding conference. Conference organiser Tartu university of Life sciences, on 14th of December 2022
4. Latvia University of Life Sciences and Technologies, Faculty of Agriculture, 05.11.2020., Seminar "Ražas svetki 2020", project presentation
5. Latvia University of Life Sciences and Technologies International conference 17.12.2020., European Green Course for the Development of the Bioeconomy, project presentation.
6. Latvia University of Life Sciences and Technologies, Faculty of Agriculture, 02.11.2023, Seminar "Ražas svetki 2023", project results presentation

**D2. Number of meetings organised by stakeholders that you contributed to:**

1. Meeting in Vecauce, during „100th anniversary of native dairy breed cows Latvian brown “, 15.07.2022

**D3. Individual significant stakeholder involvement in your project:**

**D4. Particular and significant dissemination activities to stakeholders:**

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

Videos:

1. Climate care cattle farming systems project: objectives and tasks.  
<https://www.youtube.com/watch?v=oQr925mdEwE&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=1&t=197s>
2. Knowledge and opinion of the project farms about the impact of animal husbandry on climate change. <https://www.youtube.com/watch?v=dk-r9aZLXEU&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=2>
3. Climate-saving conditions in the preparation and feeding of rough fodder.  
<https://www.youtube.com/watch?v=vfD7VZSV6WY&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=5>
4. Use of tools for estimation of emissions from agricultural production in Europe.  
[https://www.youtube.com/watch?v=e2DsDoo\\_JN0&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=7](https://www.youtube.com/watch?v=e2DsDoo_JN0&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=7)
5. Simulation results of emission-reducing measures in project farms in Europe.  
<https://www.youtube.com/watch?v=OlP8V8u8Mjo&list=PLYyI9AZIEBxQ-QIEHqwPyCNsb2wPY3S7O&index=8>

<b>D1. Number of meetings organised with stakeholders</b>
1. Dual-purpose Cattel Breeding Day; Meeting for practical farmers; Frankenhausen; 4.12.2023
<b>D2. Number of meetings organised by stakeholders that you contributed to:</b>
1. German Breeding Organisations and scientific institutions organized by the German Society for Animal Production; Kiel; 20.-22.9.2022
2. German Ministry for Agriculture; National Congress for Cattle and Pig Husbandry and Breeding with theme sessions for emissions; Berlin; 6.-7.10.2021
3. German Ministry for Agriculture; National Congress for Local Breeds and new traits; Breeding organisations and scientists; Bonn; 26.-28. Sept. 2022
4. Congress Ecological Dairy Cattel Breeding for scientists and practical breeds; Grub; 27.10.2021
5. Uelzener Catte Workshop; Breeders and scientists; 10.-11.3.2023; Bad Bevensen
<b>D3. Individual significant stakeholder involvement in your project:</b>
<b>D4. Particular and significant dissemination activities to stakeholders:</b>
<b>D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)</b>

#### No 5 - PULS

<b>D1. Number of meetings organised with stakeholders:</b>
1. Farmers, farm demonstration 4.10.2022 Cow nutrition and methane emission – a demonstration on a farm
2. Farmers, students, presentation of the results of the CCCFarming project 15.11.2023 Smart Feed company, meeting "Sustainable cattle nutrition in economic and environmental aspects
<b>D2. Number of meetings organised by stakeholders that you contributed to:</b>
1. Nutrition companies, farmers, scientists, presentation of the goals of the CCCFarming project, 7.10.2022 Bydgoszcz European Green Deal - practical feeding of cows and real protection of the natural environment
2. Agricultural Advisors presentation of the goals and first results of the CCCFarming project, 15.12.2022, Agricultural Advisory Center in Brwinów. Branch in Radom Trainings within the framework "Practical aspects of implementing scientific achievements in plant production" / "Practical aspects of implementing scientific achievements in animal production"
3. Farmers, veterinary farm inspection units, presentation of the goals and first results of the CCCFarming project, 24.03.2023 Bydgoszcz European Green Deal - practical feeding of cows and real protection of the natural environment
4. Farmers, presentation of new feed preparation technologies 27.04.2023 John Deere Polska Training for farmers in the field of modern technologies used in feeding dairy cows, which can reduce GHG emissions
5. Farmers, presentation of the results of the CCCFarming project 13.07.2023 Smart Feed company, meeting "Sustainable cattle nutrition in economic and environmental aspects"

**D3. Individual significant stakeholder involvement in your project.**

1. Smart Feed company, Scale: regional, collaboration, participation in workshop
2. John Deere Polska Training, Scale: national, collaboration, participation in workshop

**D4. Particular and significant dissemination activities to stakeholders:****D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

1. Students, presentation of the goals of the CCCFarming project; XXII Student Symposium of Scientific Associations, Poznań 11.04.2022,
2. Students, scientists, presentation of new feed preparation technologies 11.05.2022, First International Scientific Conference for Students "Animal Science and Aquaculture - challenges and research", Section of Animal Nutrition „Using long cut length chaff technology in cattle feeding and its effect on a milk yield” SGGW Warszawa
3. Scientists, Working visit, Presentation of assumptions and results of the CCCFarming project, 12-17/12/23 Luke Institute MTT Finlandia, Animal nutrition group, seminar

**No 6 – LUHS****D1. Number of meetings organised with stakeholders**

1. Seminar “Innovative solutions for increasing the activity and competitiveness of meat cattle farms” Presentation of CCCFarming activities. LSMU Animal Science Institute, Baisogala, October 20<sup>th</sup>, 2023
2. Seminar “Innovative solutions for increasing animal breeding value and productivity” Presentation of CCCFarming activities. LSMU Animal Science Institute, Baisogala, May 20<sup>th</sup>, 2022
3. Farmers group meeting, of EIP project "Increasing the activity and competitiveness of cattle farms by applying innovative reproduction monitoring", " Presentation of CCCFarming activities. Agrovizija, Dotnuva, June 2022
4. Farmers group meeting of EIP project "Use of microelement balanced slurry for fertilization and application of nitrogen saving technologies in livestock farms" " Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala, May 2022
5. Farmers group meeting, of EIP project, "Increasing the activity and competitiveness of cattle farms by applying innovative reproduction monitoring"" Presentation of CCCFarming activities. Kvédarna, Šilalés distr. June 2022 Conference "
6. Workshop "Use of microelement balanced slurry for fertilization and application of nitrogen saving technologies in livestock farms" " Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala, October 2022
7. Field day for farmers "Use of microelement balanced slurry for fertilization and application of nitrogen saving technologies in livestock farms" " Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala, May 2022
8. Field day for farmers and consultants at Training Center "Agroakademija" Academy, Presentation of CCCFarming activities. Kédainiai distr. May 2022

9. Workshop "Increasing the activity and competitiveness of cattle farms by applying innovative reproduction monitoring" Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala, October 2021
10. Workshop "Implementation of nitrogen-saving technologies released from slurry in cattle and pig farms. " Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala June 2021
11. Workshop "Use of microelement balanced slurry for fertilization and application of nitrogen saving technologies in livestock farms" " Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala, October 2022
12. Seminar of Erasmus+ project PROANIM. Presentation of CCCFarming activities. LUHS Animal Science Institute, Baisogala November 20th, 2020

**D2. Number of meetings organised by stakeholders that you contributed to:**

1. Seminar- open day of Lithuanian Academy of Sciences "Globalization and climate change challenges and future tasks" in Anykščiai, Municipality, September 29, 2020.
2. 6th meeting of Agriculture and Forestry Decarbonization Working Group. Discussion with stakeholders, Vilnius, 31.03.2022
3. Farmers, researchers and companies group meeting for experience sharing and discuss the results of demonstration projects. LUHS Animal Science Institute, Baisogala October 2022

**D3. Individual significant stakeholder involvement in your project:**

1. Chamber of Agriculture of the Republic of Lithuania, collaboration by sharing knowledge, participation in the workshops. The scale of the involvement is national
2. Lithuanian Agricultural Advisory Service, collaboration by sharing knowledge. The scale of the involvement is national

**D4. Particular and significant dissemination activities to stakeholders:**

1. Conference "Sustainable livestock production and opportunities for science". 05.05.2023, Discussion on GHG emissions reduction, LUHS Animal Science Institute Baisogala, (Heads of agricultural organizations, farmers, scientists, policy makers), 54 participants.
2. Internationale Conference "Challenges and Prospects for the Implementation of the Common Agricultural Policy in the New 2023-2027 Period ", discussion on the challenges of the green course with leaders of farmers' self-government and agri-policy makers, 06.12.2023, Birštonas, 100 participants.
3. Meeting of the Agricultural Science Council. Discussions on impact of the Green Deal on national and European agriculture sector. Vilnius 17.02.2022. (Heads of agricultural organizations, scientists, policy makers, officials) 60 participants.

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

Lithuanian LRT TV show "Atspindžiai" - presented the activities of the LUHS Animal Science Institute, ongoing projects, including CCCFarming. October 3<sup>rd</sup>, 2021.

**No 7 – SRUC**

**D1. Number of meetings organised with stakeholders**

1. Meeting with Farmers for Farms 1 and 2 – Explaining CCC Farming and collecting data (21-07-2020) – Virtual meeting
2. Meeting with Farmers for data collection (5-10-2023) – Virtual meeting
3. Meeting with Farmer about attitudes to GHG and data collection (08-02-2021) – Virtual meeting
4. Meeting with Farmer about attitudes to GHG and data collection (10-02-2021) – Virtual meeting
5. Farmers meeting about attitudes to GHG and data collection (12-02-2021) – Virtual meeting
6. Farmers meeting about attitudes to GHG and data collection (16-02-2021) – Virtual meeting
7. Farmer meeting about attitudes to GHG and data collection (17-02-2021) – Virtual meeting
8. Farmer meeting about GHG and data collection (25-02-2021) – Virtual meeting
9. Farmer meeting data collection (21-04-2021) Face to face meeting.
10. Webinar on soils and sustainability (around 50 people, industry, students and researchers – 11-01-2022). Farmer meeting data collection (08-07-2022) – Face to face meeting
11. Farmer meeting data collection (21-07-2022) – Face to face meeting
12. Farmer meeting on farm for data collection and dissemination of results (20-12-2022) – Face to face meeting.
13. Agricultural consultants' seminar – Sustainability, forage and mixed swards (approximately 20 people – 13-10-2022) Face to face meeting
14. Farmer meeting for data collection and dissemination of results (31-01-2023) – Face to face meeting

**D2. Number of meetings organised by stakeholders that you contributed to:**

1. Glasgow vet students workshop/discussion – Soil sustainability and mixed swards (27-10-2021)
2. AHDB workshop – Mixed swards (19-05-2022)
3. Dairy Carbon event – Dissemination of research to farmers groups (around 50 people – 29-09-2022)

**D3. Individual significant stakeholder involvement in your project:**

**D4. Particular and significant dissemination activities to stakeholders:**

1. Discussion around the mixed sward plots with 3year animal nutrition undergraduate students from SRUC Barony (Regional, number people reached 12, 05-10-2021)
2. UK Government advisor meeting to access the project (national – face to face (15-11-2022)
3. Farmers on farm workshop on soils and sustainability (30 people - regional) (25-04-2023) – Face to face meeting

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**

**NO 8 – IDELE**

**D1. Number of meetings organised with stakeholders**

1. Presentation method of measurements to farm advisers, 2021.
2. Measurements protocols for Indonesians researchers. Rennes, 2021

**D2. Number of meetings organised by stakeholders that you contributed to:**

1. Visit at the Teagasc. Discussion on models EF calculations, July 2022

**D3. Individual significant stakeholder involvement in your project:**

Scale: National

Purposes:

1. Short presentation of the project CCCFarming
2. Discussion around environmental issues
3. Presentation of what is gas emission measurements
4. Screening interested farms to be part of the study
5. On-farm measurements
6. Farmer's understanding of the environmental issues

Involvement: interview, data sharing, gas measurements

Partners involved: commercial farms

**D4. Particular and significant dissemination activities to stakeholders:**

Scale: European

Type: practice brief. Presentation of the gas measurement method adapted to open barns

Nr of recipients: 3

Partners: Companies selling agricultural products designed to mitigate gas emissions in livestock buildings

**D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)****No 9 – INRAE (all three partners)****D1. Number of meetings organised with stakeholders****D2. Number of meetings organised by stakeholders that you contributed to:**

1.

**D3. Individual significant stakeholder involvement in your project:****D4. Particular and significant dissemination activities to stakeholders:****D5. List other outreach activities (e.g. videos, websites, interviews, TV appearances, public debates etc.)**Webinar organised by the Joint Technology Network. Title: Levers for reducing the environmental impact of livestock farming (the CCCFarming project, 4<sup>th</sup> May 2023 (Edouard N)[https://www.youtube.com/watch?v=IH\\_Kzxf1\\_6k](https://www.youtube.com/watch?v=IH_Kzxf1_6k)

Public: livestock sector