



## Report

### Task:

Task 1. Organisation of mobilities

Task 2. Subsidising participation in international conferences

### Participant's first and last name, academic degree and title:

Beata Sitkowska, PhD, PBŚ professor

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### University name:

Bydgoszcz University of Science and Technology

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### Faculty/Department name:

Faculty of Animal Breeding and Biology / Department of Animal Biotechnology and Genetics

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### Implementation period:

14/06/2021-26/06/2021 and 19/07/21-30/09/2021

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### Description of actions implemented within the task:

Strengthening international cooperation conducted as part of the EcoSET NAWA project. Expanding knowledge in the field of bioinformatics, biostatistics, genetics and computer science. Genotypic data analysis, learning how to use programs used to create, collect and process databases.

During the internship, regular meetings and webinars were organized in the team formed on MS Teams and consultations were conducted also via WhatsApp. During the internship, the classes focused on getting acquainted with several programs and applications that allow for the creation, collection and processing of databases. During this time, I underwent training in the use of MySQL to create and modify databases, create, modify and manage a website created to collect and archive data from breeders. For this purpose, training in the basics of using HTML and ASP languages was conducted. In addition, the use of two programs / applications for estimating the breeding value of

animals - GenSel (provided by the iPlant Collaborative) and the WOMBAT program was presented. The imputation of genetic data, which is to be further processed during the visit of representatives of the foreign partner to Poland, has also started.

During the internship, the tutor prof. Hasan Önder delivered a lecture as part of the open meeting of PTZ in Bydgoszcz, which the professor did on 06/18/2021. Moreover, the professor issued an invitation to participate free of charge in the international conference, of which he was a co-organizer.

During the internship, work was also done on the creation of articles, reports / presentations / posters for international conferences. The possibility and details of the visit of representatives of Ondokuz Mayıs University in Bydgoszcz in October 2021 were also discussed.

Prof. Önder was invited to participate in the international conference "Environment-Animal-Human" organized as part of the 20th Anniversary of the Acta Scientiarum Polonorum Zootechnica journal, an article was also prepared to appear in a special issue of Acta Scientiarum Polonorum Zootechnica.

**Description of results obtained during the implementation of the task:**

<p><b>Short-term:</b></p>	<p>Participation in meetings, seminars and a lecture given by prof. Önder at the PTZ meeting. Learning new issues related to biostatistics, genetics and computer science. Organizing an open lecture by prof. Önder during the open meeting of PTZ circle in Bydgoszcz (18/06/2021).</p> <p>Preparation of a tamplate to collect data from breeders. Conducting joint research and analyzes, as a result of which the results were developed and summaries, reports for international scientific conferences and scientific articles were prepared, some of which have already been accepted for publication.</p>
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The results of the collaboration were presented at an international conference organized by the training party. Conference name: The International Congress on Domestic Animal Breeding Genetics and Husbandry September 27-30, 2021 (ICABGEH-21).

1. **Kolenda M.**, Sitkowska B., Lewicz Ł., Rzańska J., Önder H., Şen U., Talaska M., 2021. Polymorphism in mitf gene and milk performance of polish holstein-friesian cows. V. International Congress on Domestic Animal Breeding, Genetics and Husbandry - 2021 (ICABGEH-21) Odessa, Ukraine, 27-30 September 2021, in press. **(oral presentation)**
2. Sitkowska B., **Kolenda M.**, Piwczyński D., Lewicz Ł., Rzańska J., Talaska M., Önder H., Şen U., 2021. The relationship between the breeding value of bulls and milk yields of their daughters milked in automatic and conventional milking systems. V. International Congress on Domestic Animal Breeding, Genetics and Husbandry - 2021 (ICABGEH-21) Odessa, Ukraine, 27-30 September 2021, in press.
3. Aerts J., Piwczyński D., **Kolenda M.**, Sitkowska B., Önder H., 2021. Forecasting milking efficiency cows milked in an automatic milking system using decision tree technique. V. International Congress on Domestic Animal Breeding, Genetics and Husbandry - 2021 (ICABGEH-21) Odessa, Ukraine, 27-30 September 2021, in press.
4. Aerts J., Piwczyński D., Sitkowska B., **Kolenda M.**, Önder H., 2021. Factors responsible for high daily milk yield in an automatic milking system, 2021. V. International Congress on Domestic Animal Breeding, Genetics and Husbandry - 2021 (ICABGEH-21) Odessa, Ukraine, 27-30 September 2021, in press.

**Long-term:**

Information on publications or articles prepared for printing:

1. Aerts J., Piwczyński D., Ghiasi H., Sitkowska B., Kolenda M., Önder H., 2021. Genetic Parameters Estimation of Milking Traits in Polish Holstein-Friesians Based on Automatic Milking System Data. *Animals*, 11(7), 1943. <https://doi.org/10.3390/ani11071943>
2. Şen U.; Şirin E.; Gül FİLİK A; Önder H; Piwczyński D; Kolenda M. Growth and Slaughter Characteristics of Weaning Male Kids of Turkish Native Goat Breeds. *Animals* 2021, 11, 2788 . <https://doi.org/10.3390/ani11102788>
3. Burcu KURNAZ, Hasan ÖNDER, Dariusz PIWCZYŃSKI, Magdalena KOLENDA2 Beata SITKOWSKA. Determination of the Best Model to Predict Milk Dry Matter in High Milk Yielding Dairy Cattle – in special issue made for the Conference „Environment-Animal-Human”, Szczecin 14.10.2021
4. Aerts J., Sitkowska B., Piwczyński D., Kolenda M., Önder H. Optimal level of factors for high daily milk yield in automatic milking system. – in press
5. Aerts J., Kolenda M., Piwczyński D., Sitkowska B., Önder H. Forecasting milking efficiency of dairy cows milked in automatic milking system using decision tree technique – under preparation

Further possibilities for the preparation of scientific articles are discussed.

Other achievements:

Strengthening cooperation with a partner from Turkey as part of the EcoSET NAWA project, inviting 2 representatives of the Partner to Poland as part of the EcoSET NAWA program, discussing the visit plan.

12.10.2021,   
date, Beneficiary signature

12.10.2021,   
date, Project Manager signature