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## Project “Improving skills in laboratory practice for agro-food specialists in eastern Europe» (Ag-Lab)

Program Erasmus +, project KA2 n° 586383-EPP-1-2017-1-SI-EPPKA2-CBHE-JP (2017-2978/001-001)

### Minute of the study visit to VetAgroSup Lyon

VetAgroSup Lyon, 8 – 12

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April 2019

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#### Participants from partner countries

1. Zurab Kuchukashvili, Tbilisi state university (Georgia)
2. Ana Gulbani, Laboratory of the ministry of agriculture of Georgia
3. Irakli Guledani, Laboratory of the ministry of agriculture of Georgia
4. Elena Scripnic, State agrarian university of Moldova
5. Larisa Caisin, State agrarian university of Moldova
6. Liviu Volconovici, State agrarian university of Moldova
7. Sergey Batanov, Republican veterinary diagnostic centre of Moldova
8. Tatiana Iacimova, Republican veterinary diagnostic centre of Moldova
9. Natalia Usachenko, State scientific and research institute of laboratory diagnostic and veterinary – sanitary expertise
10. Viktoria Vasilyeva, State scientific and research institute of laboratory diagnostic and veterinary – sanitary expertise
11. Natalia Lapai, State centre of certification and expertise of agricultural products (Ukraine)
12. Natalia Sivachenko, NUBiP of Ukraine
13. Ludmyla Stepura, Agroosvita (Ukraine)

The content of the study visit was based on the participants' suggestions formulated at the previous study visit to VetAgroSup Lyon in 2018 and had the practical character.

The training classes were held in the classroom and in two laboratories: the metrology laboratory of VetAgroSup and Departmental veterinary reference laboratory.

Taking into account the complexity of the subject the training was provided in French with the translation into Russian.

### Monday, 08.04.2019

After a short presentation and a quick visit of the Lyon national veterinary school (a part of VetAgroSup) the training session was organized in the classroom. It was devoted to the application of Excel for the laboratory and namely for the metrology purposes.

The session was provided by **Mr. Robert Gerard**, professor head of the metrology service of VetAgroSup. The trainees studied the application of Excel for the metrology purposes: creation of the data base of measuring equipment in laboratory, monitoring of measuring equipment verification and calibration, calculation of the uncertainty in the metrology, edition of cards of control.

Every explanation was followed by the practical exercises performed by trainees and checked by Mr. Robert Gerard.



### Tuesday, 09.04.2019

The second session provided by **Mr. Robert Gerard**, professor head of the metrology service of VetAgroSup was devoted the verification of laboratory balances and weights. The procedure of the verification was explained, the educative film created by the specialists of VetAgroSup was presented and the calculation of the measurement uncertainty for balances and weights was explained. The trainees performed several exercises applying the Excel software that were bases on the knowledge received at the previous session.

### Wednesday, 10.04.2019

The third session provided by **Mr. Robert Gerard**, professor head of the metrology service of VetAgroSup was organized according to the scheme of the previous one and was devoted the verification of temperature and volume measurement equipment. The procedure of the verification for thermometers and pipettes, the calculation of the measurement uncertainty were explained. The trainees performed several exercises applying the Excel software for the calculation of uncertainty. The NF EN ISO 8655 related to piston-type volume measuring devices was studied as well.

### Thursday, 11.04.2019

This session was organized at the Departmental veterinary reference laboratory. The trainees visited the laboratory and its director **Mr. Michel Pepin** presented different services acting in it: serology analysis service, parasitological and bacteriological service, PCR-analyses service.

The visit was followed by two presentations. The presentation of Mrs. .... Was devoted to the validation of PCR-real time method. She presented the qualitative PCR method that is applied in for the diagnostic in the veterinary medicine. It was decided to organize the training session devoted to the validation of the quantitative PCR-methods applied in the food safety field.

Then Mr..... presented the automate-robot purchased by the laboratory for preparation of different samples. The trainees could see how it worked. Further Mr. ... did the presentation where he explained how the robot was validated at the laboratory.



Friday, 12.04.2019

The last day of the study visit was organized in the metrology laboratory of VetAgroSup. Under the direction **Mr. Robert Gerard**, the practical exercise of the verification of the water bath with use of the etalon thermometer was done.

This exercise was followed by different questions and the conclusion of the training session.



Among different questions and topics the application of the Monte Carlo method in the metrology was mentioned. So, the decision to envisage the possibility to organize the next study visit to VetAgroSup in 2020 devoted to the Monte Carlo method as well as to the validation of the quantitative PCR-methods was taken.