

---

**STSM Report: Short Term Scientific Mission in Bologna 12-16 December 2016 on Evaluation of One Health in a case study**

**REFERENCE: Short Term Scientific Mission, COST TD1404 NEOH**

**Beneficiary**

Sara Savic, PhD, DVM  
Senior Research Associate, Department for serology, immunology and biochemistry  
Scientific Veterinary Institute "Novi Sad"  
Rumenacki put 20  
Novi Sad, Serbia

**Host**

Prof. dr Maurizio Aragrande / Prof. dr Massimo Canali  
University of Bologna, The Department of Agricultural and Food Science and Technology (UNIBO-DISTAL)  
Via Fanin 50, Bologna (40127),  
Italy

**Period:** from December 12<sup>th</sup> – 16<sup>th</sup>, 2016

**Case study name:** "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view".

**Reference code:** COST-STSM-ECOST-STSM-TD1404-121216-081844

**1. Purpose of the visit**

My participation in NEOH COST action TD1404 has started at the very beginning of the action. I have been involved in the activities of WG2, as a WG2 leader and also as one of two leaders of a case study "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view". The goal of our STSM was to do the application of NEOH framework to case-study but also to look into the Economic evaluations and parameters needed for that kind of evaluation to be done. The task of the participants in WG2 was primarily to nominate case studies that include (or are meant to be) integrated One Health approach. At the second stage the case studies were to be evaluated by using the Evaluation framework developed by the WG1 of NEOH during previous year. The idea of comparison of two studies came up when we realized that there were two similar proposals for a case study – eradication of brucellosis – one in Malta and one in Serbia. After discussion we identified that the process was done in both countries rather successfully but with two different approaches. In Serbia the eradication was lead by the Directorate of veterinary medicine, belonging to the Ministry of agriculture and the whole process has a predominant veterinary point of view. In Malta the leader of eradication was Ministry of Health with a predominantly medical point of view.

Prof. Sandra Buttigieg has experience in human health as a Public Health Physician with position at the Department of Health in Malta. She has also worked as a hospital doctor for five years and Family Physician for 20 years prior to her role in Public Health. On the other hand, I have experience in veterinary medicine, as I work in Scientific Veterinary Institute "Novi Sad", in laboratory for diagnostic of zoonotic diseases and also experience with public health because of dealing with zoonoses at the Department of serology and immunology. Therefore, in view of our diverse medical backgrounds, namely human health and animal health, we believe that the comparative case study would provide far richer findings than if we had to present evaluation of each case study separately. That is why our STSM was planned as a joint one, with the leader of case study for Malta – Prof.dr Sandra Buttigieg, with the help and guidance of the "mentor" for our case study from WG1, our host, Prof. dr Maurizio Aragrande and also Prof. dr Massimo Canali. The discussion was on various strategies adopted by the two countries that have led to eradication of Brucellosis. Our experience in this kind of work would represent the One Health way of working and collaborating, including team

working, transdisciplinarity, interdisciplinarity, and engagement. In this STSM, we worked on the methodologies for the evaluation of One Health that are needed to fulfil our tasks taken in WG2 – Evaluation of a case study.

The aim of this STSM in Bologna was to enable us to jointly work with our hosts in applying the tools for evaluation of One Health from the NEOH Handbook for evaluation to our case study. This was done in order to succeed in a report that will be presented in Malta at the annual meeting of COST action. TD1404. This STSM was indeed a great opportunity for both of us to establish collaboration among ourselves but also with colleagues at the University of Bologna.

## **2. Description of the work carried out**

Prof. dr Sandra Buttigieg worked on a chapter in NEOH Handbook dealing with transdisciplinarity, unexpected outcomes of transdisciplinary research and evaluation of transdisciplinary research, leadership of transdisciplinary teams. So the main tool during our evaluation was transdisciplinarity. Upon our arrival, on the first day, we (Prof. dr Sandra Buttigieg and myself) had a meeting with our host and mentor (Prof. dr Maurizio Aragrande) to inform him about our case study and how far we got with our evaluation process – introduction, background, similarities and differences. We agreed on the future steps and shared our so far experience. Prior to the STSM the definition of the system was done with analysis of infrastructure. Economic evaluation techniques and application were introduced to us by our host. At this point, Sara and I agreed with our hosts to take the opportunity of our hosts' expertise in economic evaluation and therefore to delve deeper into the comparative economic evaluation. Prof Aragrande introduced us the economic evaluation techniques and application in other case studies. NEOH Handbook suggests several tools for evaluation of OHness in a case study and guidelines for evaluation. We worked on OH thinking, planning, working, evaluation of learning and sharing, with the aim to reach the spider diagram and OH index. We applied tools for evaluation from NEOH Handbook (Chapter 3 + appendixes). We followed the guidelines in the Handbook and the tables given to fill. We filled every step in duplicates – for Serbia and for Malta no matter if the steps were totally identical or totally different. This is the only way that the data can be compared later on. We spent a lot of time on the transdisciplinarity assessing the OH working, because every step had to be done in duplicate. We have distinguished a lot of differences in the approach to the eradication itself among two countries.

The review of social and ecological evaluation was done, the evaluation tools were filled and framework for evaluation was applied. Some problems were formulated, all in connection to the data missing, because both of the eradications were done already, so we can manage only we the data we can reach.

Until the day 5 we have completed the evaluation of OHness of our case studies with the calculations of points in order to calculate the OH index for each country. Some time was dedicated to the discussion on the future publication that should come out of the evaluation work. We have agreed to try and collect some more data for the financial/economic evaluation evaluation so that if successful it can be included in the publication. The comparison was done, differences identified between the two programs in two countries with the same goal. On the last day, we discussed the way forward until the Malta meeting.

A summary of the activities carried out during the STSM are shown in the Table below:

Day	Description
December 12th (day 1)	Introduction of the project to our mentors, background, similarities and differences Economic Evaluation techniques and application
December 13th (day 2)	Identification of the tools that we need to use for OH thinking, planning, working, evaluation of learning and sharing for the spider diagram of OHness Applied Framework for evaluation to case study
December 14th (day 3)	Filling the evaluation tools
December 15th (day 4)	Using the evaluation tools in both countries and after comparison, in order to identify essential differences in the 'One Health-ness', Discussion on what and how this might affect the outcomes (what to expect, unexpected outcomes). Discussed with hosts how to proceed with the economic evaluation and what data would be needed.
December 16th (day 5)	The way forward until Malta meeting and economic evaluation plan

### 3. Description of the main results obtained

The main results obtained during the STSM were the ones on evaluation of our case study. A draft report of the case study evaluation was gained according to the instructions given in the NEOH handbook (Chapter 3) on OHness as the beginning of evaluation process. The report is done in the same order as it is given in the chapter 3 of NEOH Handbook with all the tables following the process. This case study is somehow different than the others because of the comparison component among the two countries. It was very important that this part was done during the together time where we could directly exchange valuable information on the experiences from Serbia nad Malta, compare them and see the differences in the process of eradication.

### 4. Future collaboration with host institution

The future collaboration is determined by the publication "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view".. It should involve the evaluation of OHness and also economic evaluation which is to be done with the help od Prof. Dr Maurizio Aragrande and Prof. dr Massimo Canali. Future collaboration with Prof. Dr Sandra Buttigieg will for sure be on the continuation of the evaluation of our comparison case study, with the same aim – a publication.

### 5. Projected publications resulting or anticipated to result from the STSM

As previously said, the work will be done towards the joint publication for a journal *Frontiers Veterinary Science* (special issue on evaluation of OH in case studies of NEOH) with the reference to NEOH COST action and STSM activity. But even before that there will be a presentation based on the work done during the STSM which will be presented at the annual meeting of NEOH COST action in Malta in January, 2017.

### 6. Confirmation by the host of the successful execution of the mission

Prof. Sandra Buttigieg and I have carried out the STSM successfully, according to the plan. The data gained during the discussions and meetings are a valuable material for the continuation of evaluation. All the planed steps of evaluation of the case study were done according to the 5 day plan. The work done together was not only fruitful for the evaluation process but it was also a pleasure for all the researchers involved.

## 7. Financial summary

(Explanation/breakdown of how the living & travel expenses were spent, receipts are not required)

<b>Expenses</b>	<b>Total expenses in EUR</b>	<b>% Covered by NEOH grant (EUR)</b>
Travel	302 EUR	99% (300 EUR)
Accommodation	446 EUR	100% (446 EUR)
Consumables (meals)	340 EUR	99% (338 EUR)
Other (faculty insurance)	16 EUR	100% (16 EUR)
<b>Total</b>	<b>1104 EUR</b>	<b>99,6% (1100 EUR)</b>

## 8. Other comments (if any)

The host was very kind to us, helping us to get around the University and Bologna city. Besides the scientific work done during our STSM time, we also had some time for social activities thanks to our hosts.

## Signatures

Grantee

Host

-

05<sup>th</sup> January, 2017