

WOAH Collaborative Centre Reports Activities 2022

Activities in 2022

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Centre Information

Title of WOA Collaborating Centre	Veterinary Training and Capacity Building
Address of WOA Collaborating Centre	Via Campo Boario 64100 Teramo ITALY
Tel.:	+39 0861 33.27.22
E-mail address:	s.dalbenzio@izs.it
Website:	www.izs.it
Name Director of Institute (Responsible Official):	Nicola D'Alterio
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	Silvia D'Albenzio, WOA Contact Point
Name of the writer:	Silvia D'Albenzio, Annalisa Falconi, Ombretta Pediconi, Francesca Pompei

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOA

Training, capacity building	
Title of activity	Scope
	IZS-TERAMO as WOA Reference Laboratory for Bluetongue provided support to the Brazil's Candidate Institute to enhance

<p>WOAH Twinning project for Bluetongue between the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" and the Instituto Biologico of Sao Paulo, Brazil (2017-2023)</p>	<p>capacity and improve scientific capabilities in relation to diagnosis and surveillance of Bluetongue. The main goal of the project is to improve the technical knowledge and skills of IB-SP's staff, to support the IB-SP in the process that eventually lead to acquire the status of WOAHA reference laboratory for Bluetongue. This activity involved also the following technical areas: disease control, food safety, epidemiology, surveillance, risk assessment, modelling.</p>
<p>Training, capacity building</p>	
Title of activity	Scope
<p>WOAH Twinning project on Contagious Bovine Pleuropneumonia between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" and (NAHDIC) National Animal Health Diagnostic and Investigation Centre of Ethiopia (2019-2022)</p>	<p>The scope of the 3 years project is to improve the capacity for diagnosis of CBPP within Ethiopia. Methodologies used are based on available WOAHA standards and diagnostic protocols for CBPP and ISO/IEC 17025 quality management standards. This three-year project is intended to build and strengthen the diagnostic capacity for CBPP through the training of Ethiopian scientists from NAHDIC (Candidate Laboratory) by trainers from IZS-TERAMO (Parent Institute). Furthermore, this project contributes to strengthen CBPP diagnostic capacity of East African Region national veterinary laboratories; NAHDIC is East African support laboratory for the diagnosis of TADS, hence this project improves the diagnostic service on CBPP expected from NAHDIC being the regions support laboratory on TADs and through provision of training for staff from eleven East African National veterinary laboratories on CBPP diagnosis. Considering the COVID-19 pandemic, it seems appropriate to develop alternative and innovative approaches to take forward this WOAHA Twinning project. This activity involves also the following technical areas: disease control.</p>
<p>Training, capacity building</p>	
Title of activity	Scope
<p>EU Twinning Project "Strengthening the capacities of the Lebanese Ministry of Agriculture's (MoA) in the Field of Veterinary Services and Food Safety" (2018 -2022)</p>	<p>The Twinning project aims to strengthen the capacities of the Ministry of Agriculture in the field of veterinary public health in order to protect the health and safety of Lebanese consumers and secure the health and safety of Lebanese animal production and its food industry. The project is divided into three components: • Alignment of Lebanese legislation with international SPS standards in the area of agriculture, live animals and food products; • Capacity building of the MoA - Animal Resources Directorate (ARD); • Improvement of communication with stakeholders. The Twinning program ensures the consistency and the sustainability of the outputs for creating a better food safety system in Lebanon. Considering the COVID-19 pandemic, after the implementation of possible missions at distance via web platforms, the EU Delegation decided to suspend the project activities from August 2020 to August 2021. In 2021 the activities have been resumed with the organisation of a Study Visit for 9 officers of the Lebanese Ministry of Agriculture. This activity involved also the following</p>

technical areas: animal health, food safety.	
Training, capacity building	
Title of activity	Scope
WOAH Twinning between the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" and the Republican Veterinary Laboratory of Azerbaijan (2017-2023)	The World Organisation for Animal Health (WOAH) supported a Twinning Project between the Ministry of Health of Italy, through the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (IZS-TERAMO), as WOA Collaborating Centre for Veterinary Training, Epidemiology, Food Safety and Animal Welfare and the Republican Veterinary Laboratory (RVL) of Azerbaijan. The project aims to improve technical knowledge and skills of RVL staff, to enable RVL to become a reference laboratory for food safety and eventually to acquire WOA Collaborating Centre status. This activity involved also the following technical area: food safety.
Training, capacity building	
Title of activity	Scope
Organisation and implementation of training activities on animal welfare on the farm, animal welfare at the time of killing of animals (at slaughterhouses and for disease control purposes) and animal welfare during transport under the "Better Training for Safer Food" initiative (2017-2023)	WOAH-CC-IZS Teramo has been entrusted in December 2017, in partnership with Università degli Studi di Milano, for the organisation and implementation of training activities on animal welfare on the farm, animal welfare at the time of killing of animals (at slaughterhouses and for disease control purposes) and animal welfare during transport under the "Better training for Safer Food" Initiative. After a first two-year phase (2018-2019), a second two-year cycle has been approved by the EU Commission with the aim to develop best practices and compliance with the EU and international standards in the animal welfare field. Bringing together participants belonging to National Competent Authorities of Member States, Candidate and Non-EU countries, this project contributes to increase the compatibility of procedures and practices across the EU and to allow exchange between them. As in the first phase, also during the second phase, the attendance should be approximately 30 people per training session, with an estimated global number of 360 participants for the entire training programme that foresees 12 training course editions. Due to Covid19 Pandemic in 2020 no courses have been delivered so a 12-months extension has been approved. In the meanwhile in 2022 9 face to face events have been converted in virtual classrooms. For that scope, pedagogical videos and relevant training materials have been designed. This activity involves also the following technical area: Animal Welfare.
Training, capacity building	
Title of activity	Scope
	The twinning project is supported by the World Organisation for Animal Health (WOAH) through the Department of Animal Resources Risk Assessment (KSA ARRAD). The general objective is to strengthen the skills and capacities of KSA ARRAD's

WOAH Collaborating Centre Twinning Project on Epidemiology and risk assessment between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (IZS-TERAMO), Teramo, Italy and the Department of Animal Resources Risk Assessment (KSA ARRAD), Riyadh, Kingdom of Saudi Arabia (2019-2022).

personnel in performing relevant epidemiological data analysis and risk assessment studies. The project is based on a 36-month long in-service learning process of the KSA ARRAD's personnel in the fields of data analysis and risk assessment. Three sessions of training on-the-job stages are foreseen for each of the following topics: (i) infectious disease modelling and social network analysis, (ii) spatial analysis of infectious diseases, (iii) simulation models. Three intermediate meetings are foreseen to assure the coordination of the project, and for further training of the whole KSA ARRAD's personnel on basic epidemiology. A workshop for KSA Regional Officers facilitates an at cascade approach, in which the already trained personnel are facilitators for further training activities. This activity involves also the following technical area: epidemiology and risk assessment.

Training, capacity building

Title of activity	Scope
<p>WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)(2020-2023)</p>	<p>A WOAH Twinning project in the field of Animal Welfare has been designed, presented and approved in 2020. It will be implemented between the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (Parent Institute) and the École Nationale de Médecine Vétérinaire (ENMV) in Sidi Thabet (Candidate institute). IZS Teramo will provide support to the North African candidate institute to enhance capacity and improve scientific capabilities in relation to animal welfare. Over a thirty-six month period, this Twinning project will focus on the Section 7 of the WOAH Terrestrial Animal Health Code and - in particular - on the slaughter of animals, killing of animals for disease control purposes, animal transport by land, and stray dog population control. The main goal is to improve the technical knowledge and skills of the Candidate Institute staff, to support the ENMV in the process that will eventually lead to acquire the status of WOAH Collaborating Centre for Animal Welfare. After the project approval, due to the Covid19 pandemic, IZS TERAMO and ENMV work together to introduce innovative approaches to carry out the activities adopting web-based tools to work at distance. After the online activities carried out in 2021 (Kickoff meeting and course on general principles on animal welfare), in 2022 the pandemic situation finally allowed to carry out in presence activities, including a preliminary assessment visit in Tunisia by two representative of the Parent Institute in May 2022 and two training courses on animal welfare during transport and slaughtering, carried out in Italy in October and November 2022 and addressed to ENMV and DGSV personnel. Activities aimed to the evaluation and revision of current Tunisian legislation on animal welfare have also been performed. This activity involves also the following technical area: Animal Welfare.</p>

Training, capacity building

Title of activity	Scope

<p>EU support to capacity building and gradual Union acquis alignment in the Food safety sector in Bosnia and Herzegovina Twinning number: BA 18 IPA AG 01 (2020-2023)</p>	<p>IZS-TERAMO, together with IZSUM, is representing Italy as Junior Member State in the Consortium led by the Food and Veterinary Service of the Republic of Lithuania (SFVS) and involving also the Ministry of Agriculture and the National Food Chain Safety Office (NÉBIH) of the Republic of Hungary. The specific objective of this initiative is to provide for efficient legislation, gradually aligned with Union acquis, and its effective implementation, as well as consolidated procedures related to the official controls across the policy area, in order to ensure consumer health protection are all part of the overall food safety system. Fulfilling preconditions for control, monitoring and traceability through whole food chain have become key challenge and preconditions for food export. Establishing a system for monitoring and proving quality and safety of food requires considerable personnel, material and financial resources, as well as establishing the legal framework as well as functioning mechanisms and institutional capacities for its implementation. This activity involves also the following technical area: food safety.</p>
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Training, capacity building

Title of activity	Scope
<p>MediLabSecure 2: Preventing biological risks increased by environmental and climate change in the Mediterranean, Black Sea and Sahel regions by strengthening institutional capacities in the context of One Health (2020-2022)</p>	<p>IZS-TERAMO participates as subcontractor in the activities of the project "Advocacy for One Health approach in the implementation of integrated surveillance and multisectorial risk assessment of arbovirus infections – MediLabSecure 2". It is involved in the activities of WP4, led by Istituto Superiore di Sanità (ISS). The general objective of WP4 is to enhance awareness of the added value of integrated surveillance, risk assessment and early warning to prevent and control epidemics and epizootics. In particular, WP4 investigated and advocated for the improvement, where possible, of the standard methods of surveillance towards integrated surveillance, risk assessment and early case detection. The integration of the surveillance systems of the sectors involved were promoted and facilitated also to improve data exchange and data management which ultimately improve prevention and control. Due to the pandemic most of the residential activities foreseen in the project had a stop and were rearranged into on line activities. The new project ending is at the beginning of July 2022. A new one in which IZS-Teramo has been involved as partner, began in December 2022. This activity involves also the following technical area: epidemiology.</p>

Training, capacity building

Title of activity	Scope
	<p>The project aims to develop both an epidemiological model suitable for horse networks and a web application in support of field control actions in National epidemic emergencies. A further goal of the project is to assess the effectiveness of a</p>

<p>SNAI, Social Network Analysis and innovative diagnostic methods for the control of animal movements and equine infectious diseases in Italy (2019-2023)</p>	<p>diagnostic system composed by two different panels, one for DNA pathogens and the other for RNA pathogens, able to detect in a single analysis the causative agents of a specific clinical case, including the 6 primary pathogens defined in the project (Staphylococcus aureus, Haemophilus influenzae, Streptococcus pneumoniae, Moraxella catarrhalis, Mycoplasma pneumoniae e Chlamydomphila pneumoniae). This initiative is focusing also the assessment of the welfare of horses farmed not for meet production (sport, working and companion animals). This activity involves also the following technical area: epidemiology, disease control, animal health.</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Multidisciplinar study on ritual slaughter: food safety, animal welfare, and socio-cultural aspects in the production and consumption of Halal and Kosher meat (THalaKos) Studio multidisciplinare sulle macellazioni rituali: sicurezza alimentare, benessere animale e aspetti socio-culturali nella produzione e nel consumo di carni Halal e Kosher (THalaKos) (2020-2022)</p>	<p>This project aims to address relevant controversial issues in Jewish and Islamic slaughter in order to reach the goal of implementing and adopt guidelines and mitigation strategies to influence competent authorities and stakeholders in improving microbiological hygiene and animal welfare during ritual slaughter in Italy, also taking into account consumers perception and demand. This activity involved also the following technical area: animal health, animal welfare, food safety.</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>LEO: Livestock Environment Opendata – Piattaforma Opendata per la Zootecnia (2019-2023)</p>	<p>The project aims to create a database containg both already available and new data on environment, animal health and welfare, climate, animal production and reproduction. The general scope is to improve knowledge in order to face the future challenges of animal production in relation to sustainability, climate change, biodiversity safety and protection. This activity involved also the following technical area: animal health, animal welfare, ICT.</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>A novel integrated and sustainable approach to monitor and control Bluetongue spread in the Mediterranean Basin - Blue-Med (2019-2022)</p>	<p>With the aim of setting up a comprehensive and flexible operating model capable, on the one hand, to timely and accurately detect new incursions or circulation of Bluetongue virus (BTV) strains and, on the other hand to prevent and/or control their spread in the Mediterranean region, the research project will investigate the genetic and environmental factors that can affect viral spread and transmission, and consequently the incidence and control of different BTV strains in different regions. It will also refine current diagnostic systems and explore the basis for improved control strategies. This activity involved also the following technical area: animal health</p>
<p>Training, capacity building</p>	

Title of activity	Scope
<p>Best Practices for the Welfare of Dairy Calves and Cows – CARE4DAIRY</p>	<p>CARE4DAIRY aims to identify and disseminate best practices to increase the welfare of dairy calves, heifers and cows and end-of-career animals. The project adopts a farmer-centred approach with strong involvement of other stakeholders (e.g. as member of the Advisory Board and Reviewing Committee). The consortium consists of five partners from an animal welfare science background, who are involved in EURCAW-Ruminants and Equines, and two partners specialised in applied research and bridging sciences with practices on animal welfare. The expertise of the Project Team will be complemented with external Subject Matter Experts where necessary. The main deliverables of CARE4DAIRY are four best practice guidelines (for dairy calves, heifers and cows and end-of-career animals) together with a report addressing the dissemination strategy pillars for success. This activity involves also the following technical area: animal welfare.</p>

Training, capacity building

Title of activity	Scope
<p>Canine Brucellosis: diagnostic tools and management models for Brucella canis control (BruDog) Brucellosi canina: sviluppo di strumenti diagnostici e modelli gestionali per il controllo di B. canis (BruDog) (2021-2023)</p>	<p>The present research will generate detailed information on the infection and its evolution over time and will develop appropriate management tools and strategies to reduce the risks of disease spread in dogs and infection in humans. The project also aims to fill some diagnostic and epidemiological gaps on the knowledge about B. canis, and to provide operational and decision-making tools according to a "One Health" approach, which are essential for a proper management of infected animals and kennels and to prevent or diagnose the infection in humans. This activity involved also the following technical area: animal health, epidemiology.</p>

Training, capacity building

Title of activity	Scope
<p>Application of artificial intelligence in the detection of poor welfare / discomfort conditions in the breeding stages and pre-slaughter of domestic animals Applicazione dell'Intelligenza artificiale nel rilievo di condizioni di scarso benessere/ malessere nelle fasi di allevamento e di premacellazione degli animali domestici (AppIA-Ben) (2021-2023)</p>	<p>The ultimate goal of the project is to adopt AI at all stages of the production chain to increase animal welfare, coherently with the UN 2030 Agenda for Sustainable Development that incorporates animal protection as a priority, according to the principles of the "One Health" vision and approach. This activity involved also the following technical area: animal health, animal welfare, statistics.</p>

Training, capacity building

Title of activity	Scope
	<p>The overall aim of this pilot project is to develop models and methods to estimate the impact of an earthquake on animal health and welfare and therefore quantifying the relevant needs in terms of resources to allocate. Specific objectives will be: i) to identify and assess all relevant animal health and welfare</p>

<p>Identification of criteria, measures and risk indicators aimed at forecasting, preventing and mitigating the impact of non-epidemic emergencies on animal health and welfare within farms and animal facilities. (2020-2022)</p>	<p>hazards and actions/interventions to be taken after an earthquake in the field, whose responsibility lies with the Veterinary Services (VS) for managing the aspects related to animal health, animal welfare and public health; ii) to identify relevant indicators/parameters related to animal health, animal welfare and public health, able to firstly detect and secondly quantify specific hazards (identified in the previous step) requiring the VS intervention; iii) to assign values to these indicators/parameters; iv) to build a seismic risk simulation model v) to assess the model's result with the identification of those indicators more affecting the demand of veterinary resources. This activity involved also the following technical area: animal health, animal welfare.</p>
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Training, capacity building

Title of activity	Scope
<p>Development of a self-assessment and monitoring platform on the WOAAH standards: SAM TOOL 2.0 project</p>	<p>The general objective of this Project is to develop a web-based self-assessment and monitoring methodology to assist countries in making progress on the agreed vision of full compliance with the WOAAH standards on stray dog population control in Europe. The SAM 2.0 platform represents a permanent and evolving IT data management tool at low risk of obsolescence, with a low-cost localisation of the questionnaire and the reports (including right to left languages). Being easily scalable to other WOAAH standards with minor efforts and investments, it can be considered a cornerstone of a topic-based observatory.</p>

Training, capacity building

Title of activity	Scope
<p>Provision of e-learning modules on Leadership in veterinary services (2021-2022)</p>	<p>The overall scope is the development of eLearning modules aiming at developing competencies on Leadership in Veterinary Services, globally. The e-Modules to be developed under this project will be organised around three sequential levels: intermediate, advanced and WOAAH Delegate. This multi-modular progressive approach to capacity development will allow the formation of generalists and specialists. They will be delivered by the WOAAH through the WOAAH Training Portal, the companion e-tool of the WOAAH Platform and the unique location for all future training related material, resources and data, available in the three official languages of the WOAAH (English, French and Spanish). Veterinary Services are called by institutional mission to act as leaders in their areas of expertise, therefore it is of paramount importance invest on capacity building in the leadership domain to increase the quality of the performance of the Veterinary Services at all levels. Leadership, management, emotional intelligence, effective communication, advocacy, risk management and other topics are at the core of this project to develop the necessary soft-skills to achieve the expected goals.</p>

Training, capacity building

Title of activity	Scope
<p>European Reference Centre for the welfare of ruminants and equines (EURCAW Ruminants & Equines)</p>	<p>In May 2021, the Commission designated a third EU Reference Centre for animal welfare focusing on the welfare of ruminants and equines (Commission Implementing Decision (EU) 2021/755). The tasks of this centre include supporting the Commission and the Member States in the application of animal welfare requirements for ruminants and equines, carrying out scientific and technical studies, as well as conducting training courses and disseminating research findings and information on technical innovations. The centre is constituted of a consortium led by the Swedish University of Agricultural Sciences and the Swedish Centre for Animal Welfare (Sweden), and also composed of the University of Natural Resources and Life Sciences (Austria), the Ellinikos Georgikos Organismos-Dimitra/Veterinary Research Institute (Greece), the National Institute for Agriculture, Food, and Environment (France), the University College Dublin (Ireland) and the Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise “G. Caporale” (Italy). IZS-TERAMO is participating in all the activities of the Centre and is leading the training activities. This activity involved also the following technical area: animal welfare.</p>

Training, capacity building

Title of activity	Scope
<p>Brucellosis Conference</p>	<p>On behalf of the International Brucellosis Society, the Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise (IZS-Teramo) organised the “Brucellosis 2022 International Conference,” including the 74th Annual Brucellosis Research Conference, which will be held in Giulianova, Teramo, Italy from September 16th to 19th, 2022. During the conference, scientists, researchers, animal and human medical professionals, policymakers, national competent authorities, representatives of the International Organisations, and other stakeholders had the opportunity to exchange knowledge and opinions on the factors influencing the emergence and spread of the different species of Brucella. This included recent advances in understanding the biology, virulence and evolution of the genus Brucella. The most recent developments in animal and laboratory diagnostic procedures, tools for surveillance and control, as well as disease impact on economics and world trade were discussed. More than 250 experts and researchers from all over the world shared their insights about strategies, methods and tools to reduce the effect of brucellosis on different social, cultural and environmental conditions. The congress strengthened the network of inter-sectorial and multidisciplinary collaborations, essential to fight this continuously changing and adapting disease. This activity involved also the following technical area: animal health, disease control.</p>

Training, capacity building

Title of activity	Scope
One Health Award	<p>One Health One Earth is the watchword of our time marked by the pandemic and threats to the ecosystem. Putting this slogan at the centre of the public scene, the international One Health Award (OHA) honours One Health One Earth as the revolution necessary to face new challenges. For a long time, it was thought that the safety of humanity was in protecting themselves from nature; then that it was in distancing oneself from nature. The recent awareness is that our health safety is with nature, indeed it consists of the safety of nature itself. The OHA award represented the central moment of a three-day event dedicated to the One Health One Earth revolution. The appointment with the One Health Award was for the days from 14 to 16 October 2022. During those days in the city of Teramo all together scholars, opinion makers, representatives of institutions, and protagonists of culture and entertainment brought to the centre of attention, the urgent need for a change of mentality and perspective.</p>

Training, capacity building

Title of activity	Scope
Enhancing Research For Africa Network (ERFAN), AW sub group for the SADC region	<p>To establish a network of animal welfare experts in the SADC area, directly connected to local governments and research institutions, in order to develop common research activities and draft a shared strategy, aiming at ensuring a more effective implementation of the WOH standards on animal welfare in these countries. This activity involved also the following technical area: animal welfare.</p>

Training, capacity building

Title of activity	Scope
WOAH PROVISION OF E-LEARNING MODULES ON EMERGENCY AND DISASTER MANAGEMENT	<p>The Consortium is aimed at developing four e-Learning modules for the WOH Global Platform for the Training of Veterinary Services. Six core workstreams will be implemented, and subsequent activities/milestones under each workstream will be performed by WOH Collaborating Centre consortium members and subject matter expert consultants.</p>

Training, capacity building

Title of activity	Scope
	<p>The LNA guidelines will describe an innovative approach for: - analysing the general context from available sources of information at WOH level (e.g. PVS reports etc...) and set the scenario - assessing periodically, at regional or global level, knowledge gaps in relation to the sixteen Competence Packages on the basis of which the WOH Training Platform is organised</p>

<p>Guidelines for the development of the WOH Learning Need Analysis</p>	<p>- profiling the audiences with the aim to design tailor-made courses adopting the most effective training methodologies - planning follow-up initiatives to monitor the impact of the WOH training projects and design complementary interventions for the best achievements of the investments on training - disseminating the analysis outcomes to the WOH Members to let them planning complementary country training strategies</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Training in Food Law through an innovative methodology using new information and communication technology tools (TRIFLIM)</p>	<p>The EU Erasmus+ project main objective is to develop an innovative e-learning programme on Quality Systems for food microbiological laboratories, providing knowledge acquisition and specialisation in the analytical area of food microbiology.</p>

TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were designated

Proposal title	Scope/Content	Applicable area
<p>WOAH Regional Platform on Animal Welfare for Europe</p>	<p>IZS-TERAMO is member of the steering group of the WOH Regional Platform on Animal Welfare for Europe (https://rpawe.WOAH.int/), a platform launched by the WOH in 2013 with the aim to improve the harmonisation in the application of animal welfare standards, mainly the ones concerning animal transport, slaughter, stray dog population management, animal welfare in disasters and welfare for working equids within the Region. Experts from the WOH CC IZS-TERAMO contributed to implement the activities designed in the Platform action plans, providing expertise to address the established priorities including capacity building.</p>	<p>Training and education health management</p>
<p>WOAH Platform for the Training of Veterinary Services</p>	<p>As WOH CC for Veterinary Training and Capacity Building, the IZS-TERAMO is member of the WOH Platform for the Training of Veterinary Services.</p>	<p>Laboratory expertise Training and education health management</p>
	<p>ICRAD is a new ERA-Net Cofund Action under Horizon 2020 that will build upon the achievements of the ERA-NET EMIDA (Emerging and Major Infectious Diseases of</p>	

<p>ICRAD: International Coordination of Research on infectious animal diseases</p>	<p>Animals) and the ERA-NET ANIHWA (Animal Health and Welfare). This initiative aims at supporting cross-cutting research to improve public health, animal health and welfare, with associated benefits towards the environment and the economy; connecting research partners with different but complementary scientific and technological expertise. The partnership between industrial and academic researchers improves and accelerates the development of technological solutions for the benefit of animal health and welfare. Research and innovation co-funded through ICRAD would seek concerted approach towards the development of novel and improved instruments to address and control infectious diseases, particularly regarding novel detection, intervention and prevention strategies to: increase preparedness and ability to respond to emerging and endemic livestock threats; contribute to the reduction of antimicrobial and antiparasitic use in livestock and to minimising the development of resistance for the benefit of animal and public health; contribute to animal welfare by better prevention of diseases and renewed animal management and farming systems; on a larger scale, contribute to food security and competitive and sustainable livestock systems.</p>	<p>Laboratory expertise health management</p>
<p>Call for tenders SANTE/2021/OP/0005 Pilot project on the welfare of dairy cattle, including measures to protect unweaned dairy calves and end-of-career animals</p>	<p>The Directorate-General for Health and Food Safety (DG SANTE) designated IZS-TERAMO, in consortium with universities and research centres of different European countries, and two private organisation to develop consensus-based best practice guidelines for animal welfare in the dairy sector.</p>	<p>health management</p>
<p>Provision of support to EFSA and to ECDC in the production of the EU One Health Zoonoses report and in related zoonoses online interactive data visualisation dashboards and zoonoses story maps (OC/EFSA/BIOCONTAM/2020/03)</p>	<p>The service aims to prepare the EU One Health Zoonoses report for the years 2020-2023 and to produce several interactive online zoonoses data visualisation dashboards and zoonoses story maps to innovate and enhance the communication of this report in order to address properly the needs of the risk managers as the volume and quality of submitted data increase every year, and the EU One Health Zoonoses reports need to be produced and published with limited resources within short deadlines (11 months).</p>	<p>Laboratory expertise Training and education</p>
	<p>The Consumers, Health, Agriculture and Food</p>	

<p>Request for Services Chafea/2019/BTSF/104 10 under Framework Contract Chafea/2017/AGRI/06 LOT 4 to provide services for BTSF Academy e-learning modules</p>	<p>Executive Agency of the European Commission (now HADEA) entrusted IZS-TERAMO, in consortium with GOPA Com, Ud'Anet and 4dlabs, with the provision of e-learning courses, aimed at a better understanding, implementation and enforcement of EU law by staff in charge of official controls in EU Member States and non-EU countries in Sanitary and Phytosanitary (SPS) fields.</p>	<p>Laboratory expertise Training and education health management</p>
<p>Provision of e-learning modules on emergency and disaster management</p>	<p>This project will develop four eLearning modules on Emergency and disaster management, to be included in the eLearning catalogue of the WOAHA Training Portal, under the Competency Package n. 6 "Emergency Management". The e-modules will provide high-level guidance on the skills required by veterinarians and will cover the preparedness and response phases of the emergency and disaster management cycle. The modules will be the following ones: Module 1. Introduction to emergency and disaster management Modules 2 and 3. Planning for emergencies and disasters Module 4. Emergency and disaster response</p>	<p>health management</p>
<p>Developing field epidemiology training for veterinarians – Technical guidelines and core competencies</p>	<p>Personnel of the WOAHA CC actively participated in the preparatory activities for the preparation of these guidelines, which were developed based on the three-tier programme model used in public health, and adapted to the needs and requirements of the animal health sector using the "One Health" approach. These guidelines provide guidance on the development of new programmes, and detailed approaches for the assessment, evaluation and accreditation of FETV programmes. (FAO. 2021. Developing field epidemiology training for veterinarians – Technical guidelines and core competencies. FAO Animal Production and Health Guidelines No. 27. Rome. https://doi.org/10.4060/cb7545en)</p>	<p>Training and education</p>
<p>SAM Tool 2.0</p>	<p>The SAM Tool 2.0 is a methodology that will support – through a permanent self-assessment system – WOAHA Members in policy or decision making to achieve fully compliance with the Chapter 7.7 and 8.14 of the WOAHA TAHC</p>	<p>Training and education</p>

4. Did your Collaborating Centre maintain a network with other WOAHP Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Center for Animal Health and Food Safety	USA	Americas	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
Ecole Inter-Etats de Sciences et Médecine Vétérinaires	Senegal	Africa	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
Ecole Nationale des Services Vétérinaires	France	Europe	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
CRESVet	Argentina	Americas	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
Veterinary Public Health and Food Safety Centre for Asia Pacific	Thailand	Asia and Pasific	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
Panaftosa	Brazil	Americas	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives
Center for Food Security and Public Health	USA	Americas	Collaboration in the framework of the WOAHP Platform for the Training of Veterinary Services and further relevant initiatives

Centre National de Veille Zoosanitaire	Tunisia	Africa	Collaboration in the framework of the WOAH Platform for the Training of Veterinary Services and further relevant initiatives
Reduction of the Risk of Disasters in Animal Health (CENSA)	Cuba	Americas	Collaboration in the framework of the WOAH EmVet network
Biological Threat Reduction (IIAD)	USA	Americas	Collaboration in the framework of the WOAH EmVet network
UNIMI (Università degli Studi di Milano)	Italy	Europe	Collaboration in the framework of the BTSF initiative on AW
UH (University of Helsinki)	Finland	Europe	Collaboration in the framework of the Erasmus+ Lego Project
Bydgoszcz University of Science and Technology (PBS)	Poland	Europe	Collaboration in the framework of the Erasmus+ Lego Project
UNIVAQ (University of L'Aquila)	Italy	Europe	Collaboration in the framework of the Erasmus+ Lego Project
AINIA	Spain	Europe	Collaboration in the framework of the Erasmus+ Lego Project
European Reference Centre for the Welfare of ruminants and equines	Sweden, Austria, France, Greece, Ireland, Italy	Europe	The objective of the EURCAW - ruminants & equines is to provide the EU Commission and EU Member States with support to knowledge building, implementation and enforcement of relevant

			legislation and capacity building
Enhancing Research For Africa Network (ERFAN)	Italy/SADC	Africa Europe	To strengthen the network of the WOAHP for animal welfare from SADC countries (South Africa, Namibia, Botswana, Zimbabwe, Zambia, Mozambique, Lesotho, eSwatini) built in the framework of ERFAN Sub-group for Animal Welfare
Federation of European Laboratory Animal Science Associations (FELASA)	European Countries	Europe	Collaboration for capacity building on Laboratory Animal Sciences – Accreditation of training courses
WOAH Animal Welfare Collaborating Centres	Global	Africa Americas Asia and Pacific Europe MiddleEast	To promote the establishment of a WOAHP Network of Animal Welfare Collaborating Centres
Fondazione Guido Bernardini	Italy	Africa Americas Asia and Pacific Europe MiddleEast	Collaboration for capacity building on Laboratory Animal Sciences

TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAHP Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
FAO/IAEA Animal Production and Health Laboratory	Austria	Europe	Hosting fellowship also focused on Animal Disease Diagnosis
			The objective of the Network for Veterinary Emergencies is to support WOAHP Member

EmVetNet	Italy	Europe	Countries preparedness for and response to animal health emergencies
Fondazione Guido Bernardini	Italy	Europe	Promotion of research and capacity building in Laboratory Animal Science
AISAL	Italy	Europe	Promotion of research and capacity building in Laboratory Animal Science
ETPLAS	Spain	Europe	Promotion of capacity building in Laboratory Animal Science
FOUR PAWS	Belgium/Germany	Europe	Promotion of research, capacity building, awareness raising in Animal Welfare
France Vétérinaire International (FVI)	France	Europe	Promotion of International Cooperation and relevant capacity building in Animal Health and Food Safety
The Federation of Veterinarians in Europe (FVE)	Belgium	Europe	Collaboration for competencies certification (VETCEE) and capacity building on Animal Welfare
Animal Transport Association (ATA)	USA	Americas	Collaboration for capacity building on Animal Welfare
World Road Transport Association (IRU)	Belgium	Europe	Collaboration for capacity building on Animal Welfare
Animals' Angels	Germany	Europe	Collaboration for capacity building on Animal Welfare

RSPCA	United Kingdom	Europe	Collaboration for capacity building on Animal Welfare
Animal Welfare Foundation	United Kingdom	Europe	Collaboration for capacity building on Animal Welfare
Eurogroup for Animals	Belgium	Europe	Collaboration for capacity building on Animal Welfare
AVEC	France	Europe	Collaboration for capacity building on Animal Welfare
Copa-Cogeca	Belgium	Europe	Collaboration for capacity building on Animal Welfare
European Centre for Animal Welfare-pigs	European Countries	Europe	Collaboration with EURCAW-pigs
European Centre for Animal Welfare-poultry and small farm animals	European Countries	Europe	Collaboration with EURCAW-poultry and small farm animals
All the WOAHA CC belonging to the WOAHA Platform for the training of Veterinary Services	France	Africa Americas Asia and Pasific Europe	Promote innovative methodologies and tools for the he training of Veterinary Services globally

TOR6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOAHA?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
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Michele Podaliri Vulpiani, Francesco Cerasoli, Silvia D'Albenzio, Daniela Ciavarelli, Francesca Pompei, Ombretta Pediconi, Chiara Albanello, Emanuela Rossi	Experts	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)
Birgitta Staaf Larsson, Daniela Morelli, Silvia D'Albenzio, Luigi Iannetti	Experts	WOAH Collaborating Centre Network coordination meeting 23 March 2022
Birgitta Staaf Larsson, Daniela Morelli, Silvia D'Albenzio	Experts	18th Meeting of the Steering Group of the WOAHP Platform on animal welfare for Europe (SG18) 20 April 2022
Daniela Morelli, Birgitta Staaf Larsson, Silvia D'Albenzio, Luigi Iannetti	Experts	Preparation meeting 30th Conference of the WOAHP Regional Commission for Europe 2022 - Long distance transport of live animals 21 April 2022
Silvia D'Albenzio	Expert	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV): Coordination of the working group for the establishment of a permanent capacity building system in animal welfare in Tunisia
Luigi Iannetti, Michele Podaliri Vulpiani, Antonio Di Luca, Emanuela Rossi, Daniela Ciavarelli, Francesca Pompei	Experts	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV): training courses on animal welfare during transport (17-21 October 2022) and at slaughter (21-25 November 2022)
Daniela Morelli, Birgitta Staaf Larsson, Silvia D'Albenzio, Luigi Iannetti	Experts	A virtual meeting aimed at laying the foundations of the WOAHP Network of Animal Welfare Collaborating Centres, according to the Guidance for the Management of WOAHP Collaborating Centre Networks 14 June 2022
Birgitta Staaf Larsson Daniela Morelli, Silvia D'Albenzio, Luigi Iannetti, Michele Podaliri Vulpiani, Birgitta Staaf Larsson	Experts	Preparation of questionnaire Technical Item I Long distance transport - meeting 16 June 2022

Daniela Morelli	Consultancy as coordinator of the WOAH CC for AW in Europe (IZS Teramo and SLU/SCAW)	Presentation of the Technical Item I at the 30th Conference of the WOAH Regional Commission for Europe (3-7 October 2022 - Catania, Italy) - Long distance transport of live animals: WOAH standards and best practices including societal perception and communication aspects Drafting of recommendations
Luigi Iannetti	Poster presenter as member of the WOAH CC for AW in Europe (IZS Teramo and SLU/SCAW)	30th Conference of the WOAH Regional Commission for Europe (3-7 October 2022 - Catania, Italy). Poster presentation on the WOAH twinning on AW with Tunisia.
Silvia D'Albenzio, Luigi Iannetti, Birgitta Staaf Larsson, Lotta Berg, Harry Blokhuis	Consultancy as coordinator of the WOAH CC for AW in Europe (IZS-TERAMO and SLU/SCAW)	Steering Group Meeting of the WOAH CC for Animal Welfare in Europe 17 November 2022
Birgitta Staaf Larsson, Daniela Morelli	Participants	WOAH Animal Welfare Global Forum "Animal Welfare Economics" 12 October 2022
Daniela Morelli, Silvia D'Albenzio, Birgitta Staaf Larsson	Participants	Webinar to explain the new system for accessing the templates for WOAH Reference Centres annual report of activities December 2
Luigi Possenti, Silvia D'Albenzio, Daniela Morelli	Experts	SAM TOOL 2.0 Working Group kick-off meeting
Luigi Iannetti	Lead Expert	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS Teramo) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)
Luigi Iannetti, Michele Podaliri Vulpiani	Experts	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS Teramo) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV): preliminary assessment visit in Tunisia (9-13 May 2022)
Luigi Iannetti, Michele Podaliri Vulpiani	Experts	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS Teramo) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV): Coordination of the working group for the revision of Tunisian legislation on animal welfare – one in presence meeting (Sidi Thabet 10 May 2022) and two online meetings (7 October 2022 and 1 December 2022) with the EU-funded twinning "Projet de jumelage sur le Renforcement du dispositif

		national d'encadrement vétérinaire de la santé animale"
Francesco Cerasoli	Presenter as member of the OIE CC for AW in Europe (IZS Teramo and SLU/SCAW)	OIE 3rd Regional Webinar on: OIE international standards and tools to facilitate international movement of (competition) horses, procedures supporting the publication of self-declarations of animal health status and the official recognition of African horse sickness (AHS) free status. 10-11 May 2022.
Daniela Morelli	Expert	Preparation of the Technical Item_ Long distance transport of live animals – meetings 22 and 28 July 2022
Lotta Berg, Daniela Morelli, Luigi Iannetti, Michele Podaliri Vulpiani	Consultancy as coordinator of the WOAH CC for AW in Europe (IZS Teramo and SLU/ SCAW)	Regional Strategic Action (RSA) on animal welfare for Europe kick-off meeting. 22 November 2022
Lotta Berg, Luigi Iannetti, Silvia D'Albenzio	Consultancy as coordinator of the WOAH CC for AW in Europe (IZS Teramo and SLU/ SCAW)	WOAH Regional training seminar for National Focal Points on Animal Welfare for Europe, 16-17 November 2022
Silvia D'Albenzio	Developing field epidemiology training for veterinarians – Technical guidelines and core competencies	For ISVEE 2022 – One Health Field Epidemiology Competency development: a survey on Field Epidemiology Training Programmes in public health and veterinary public health
Silvia D'Albenzio	WOAH Platform for the Training of Veterinary Services	Seventh meeting on the Platform governance and activities, 15-16 June 2022
Silvia D'Albenzio	WOAH Platform for the Training of Veterinary Services	WOAH Guidelines for the development of the WOAH Learning Need Analysis, December 8, 2022
Silvia D'Albenzio	WOAH Platform for the Training of Veterinary Services	Eighth meeting on the Training Platform Governance and Activities, 15-16 December 2022

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

a) In the framework of the WOAH twinning of animal welfare in Tunisia and North Africa, the IZS –Teramo team composed by Luigi Iannetti and Michele Podaliri Vulpiani, carried out a preliminary in-field visit on 9-13 May 2022. Silvia D'Albenzio also participated to the visit remotely on the 10th of May. The aim of the visit was to define the state of the art of the application of WOAH standards on animal welfare in Tunisia, and involved personnel from the ENMV (Ecole Nationale de Médecine Vétérinaire), the DGSV (General Direction of

Veterinary Services), the CNVZ (Centre National de Veille Zoosanitaire) and the WOAAH Sub-Regional Delegation in Tunis.

b) The IZS – Teramo assisted the WOAAH Members from the Balkans in increasing preparedness capacity and contingency planning in the framework of the activities promoted by the WOAAH Platform for Animal Welfare in Europe.

c) The IZS – Teramo started the development of the SAM Tool 2.0 to support the compliance of the WOAAH Members in the Europe Region to the revised Chapter 7.7 of the WOAAH TAHC and to the Chapter 8.14.

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAAH, to personnel from WOAAH Members?

Yes

a) Technical visit : 9

b) Seminars : 12

c) Hands-on training courses: 41

d) Internships (> 1 month) : 3

TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
c	Avian Influenza: Practical and Regulatory Aspects in Risk Management Webinar, 12/04/2022 Residential, 28/04/2022	Italy	29
c	Application of EC Reg. "New Hygiene Package" Teramo, 2-3 May, 2022	Italy	33
c	Training and updating course on the use of animals for scientific and educational purposes Edition 2022 Teramo, 23-24-25 May 30-31 May, 1 June 2022	Italy	20
c	ISO Standards Teramo, 26-27 May, 2022	Italy	36
c	Basic module for Auditors/Audit Group Managers (UNI EN ISO 19011 and UNI CEI EN ISO/IEC 17021-1 standards) Teramo 6-7 June, 2022	Italy	35
c	Auditor/Lead Auditor of Food Safety Management Systems (specific module) Teramo, 20-21-22 June, 2022	Italy	34
c	Field activities Simulation of an AUDIT	Italy	35

b	Seminar on Brucella canis (Hybrid) 19 September, 2022	Italy	62
c	EU Regulation 2017/625: Development of assessment skills in food safety 18-19 October 2022	Italy	38
c	Auditor Plus, 21-22-23 November, 2022	Italy	36
c	The GENPAT national reference centre platform Teramo, 1.12.2022	Italy	29
c	African Swine Fever Campobasso, 15.12.2022	Italy	61
b	LEO project: the Italian livestock heritage in a single digital platform for the ONE HEALTH objective (Hybrid) 15.10.2022	Italy	130
c	Sampling methods of Cannabis sativa L. 1.09.2022	Italy	28
c	Rift Valley Fever eLearning course 1.1.2022 / 15.6.2022	Italy	47
c	Rift Valley Fever eLearning course 1.4.2022 / 31.12.2022	Bulgaria, Greece, Ireland, France, Finland, Latvia, Croatia, Estonia, Spain	14
c	Contagious Bovine Pleuropneumonia: Recognising the Disease (3 editions: 25 January, 8 February, 15 February,	Italy	328
c	New approach to animal health data collection in Europe. 28 February 2022	Italy	38

c	Animal welfare and environmental sustainability in livestock farming 30 march 2022	Italy	175
c	SIMEx Simulation exercise	Italy	16
b	The results of the Current Research conducted by IZS-TERAMO (Year 2021). Webinar 15 June, 2022	Italy	147
c	Persistent Halogenated Organic Pollutants in Food, Feed and the Environment 24 June, 2022	Italy	97
c	The new equine I&R system 5 July, 2022	Italy	46
b	National training seminar on Listeria Monocytogenes. Webinar 27 October 2022	Italy	321
b	National training seminar on Campylobacter. Webinar 14 November 2022	Italy	236
b	Bluetongue Study Day Webinar, 13 December 2022	Italy	273
b	Webinar: "Latest guidelines from EU and ISO for conducting shelf life studies on Listeria monocytogenes in RTE foods" EFSA Partnering Grants. GP/EFSA/ENCO/2020/03 GA3 "Listeripredict" 25 May, 2022	Europe	30
c	Virtual Classroom Better Training for Safer Food (BTSE) on "Animal Welfare in pig production- Session III" 8-10 March 2023	Albania Austria Bulgaria Cyprus Denmark Finland Germany Iceland Ireland Luxembourg Norway Poland Portugal Slovakia Sweden	26
c	Virtual Classroom Training for Safer Food (BTSE) on "Animal Welfare during transport (adv level) - Session I" 29-31 march 2022	Bulgaria Germany Hungary Ireland Israel Italy Latvia Lithuania Luxembourg Mexico Republic of North Macedonia Portugal Slovenia Spain Sweden	23

c	Virtual Classroom Training for Safer Food (BTSF) on "Animal Welfare during transport (Basic level)" 17-19 May 2022	Austria Denmark Finland Greece Hungary Iceland Italy Latvia Norway Poland Romania Slovakia Spain Sweden	34
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare in poultry production- Session III" 7-9 June 2022	Argentina Cyprus Germany Italy Lithuania Malaysia Poland Portugal Romania Spain The Netherlands USA	18
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare at slaughter and in case of killing for depopulation purposes (basic level)" 21-23 June 2022	Austria Czech Republic Denmark Germany Greece Iceland Ireland Norway Poland Portugal Republic of North Macedonia Slovenia Spain The Netherlands	27
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare at slaughter of cattle, pigs, sheep and goats (adv level)" 4-6 October 2022	Argentina Armenia Cyprus Germany Greece Northern Ireland Norway Portugal Romania Slovenia Spain Sweden	19
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare during transport (adv level) - II" 25-27 October 2022	Austria Denmark Germany Hungary Ireland Italy Norway Portugal Serbia Spain Spain The Netherlands	16
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare at poultry slaughter (adv level)" 15-17 November 2022	Belgium Denmark Hungary Ireland Latvia Norway Portugal Serbia Spain Thailand The Netherlands	18
c	Virtual Classroom Better Training for Safer Food (BTSF) on "Animal Welfare during transport (basic level) - II" 29 November – 1 December 2022	Belgium Bulgaria Denmark Estonia Finland France Germany Greece Hungary Ireland Lithuania Norway Poland Portugal Portugal Serbia Spain Sweden The Netherlands	37
c	Methodologies and approaches for risk assessment in animal health _III module_Inferential statistics Webinar, 21-23-24 March 2022	Italy	16
c	Methodologies and approaches for risk assessment in Animal Health Module IV - Spatial Epidemiology (in ArcGIS), 10-12-13 October, 2022	Italy	14
	Epitraining: Basic epidemiology and	Albania, Algeria, Bosnia and Herzegovina, Burkina Faso, Egypt, Georgia, Kosovo, Lebanon, Libya,	

c	risk assessment (MediLabsecure) eLearning 1-30 June, 2022	Morocco, Niger, Palestine, Armenia, North Macedonia, Romania, Serbia, Spain, Tunisia, Turkey	42
c	Epitraining: Basic epidemiology and risk assessment (MediLabsecure) Webinar 13 June, 2022	Albania, Algeria, Bosnia and Herzegovina, Burkina Faso, Egypt, Georgia, Kosovo, Lebanon, Libya, Morocco, Niger, Palestine, Armenia, North Macedonia, Romania, Serbia, Spain, Tunisia, Turkey	20
c	Workshop MediLabSecure (MLS): One Health Study Webinar 22 March, 6 April, 21 June, 2022	Armenian delegates	57
b	BRUCellosis 2022 INTERNATIONAL RESEARCH CONFERENCE including the 74th Brucellosis Research Conference 16-19 September, 2022	Iraq, Mexico, Germany, Ukraine, Costa Rica, Italy, Sweden, United States of America, France, United Kingdom, Georgia, Belgium, Israel, Costa Rica, Finlandia, Tanzania, Spain, Austria, Tunisia, Georgia, Portugal, France, Ethiopia, Argentina, Mexico, Brasil, Iran, Senegal, Sudan, Turkey, Switzerland, Zimbabwe, Norway, Ukraine Vietnam, Republic of Korea, Japan, South Africa, Algeria, Namibia, Mozambique, Hungary, Venezuela, Azerbaijan, Zambia, Kazakhstan, Canada Ethiopia	270
b	One Health Award, 14-15-16 October, 2022	Italy	800
b	BIOPIGEE FINAL MEETING Giulianova (TE), 6-7 October 2022	Italy, Belgium Germany, UK, Austria, The Netherlands, Sweden, Poland, Estonia	32
b	COVRIN Teramo, 5-6 December 2022	Italy, Belgium Germany, France, UK, Austria, The Netherlands, Sweden, Poland, Estonia, Norway, Spain, Portugal	47
c	Webinar on: WOAHA standards and procedures to facilitate international movement of (competition) horses	Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, UAE	40
	Training on Animal welfare during transport in the framework of the		

c	WOAH Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)	Tunisia	9
c	Training on Animal welfare at slaughter in the framework of the WOAHP Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZS-TERAMO) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)	Tunisia	7
a	WOAH Twinning project Kingdom of Saudi Arabia 24 January – 01 February 2022	Kingdom of Saudi Arabia	3
a	WOAH Twinning project Azerbaijan 9-13 May, 2022	Azerbaijan	4
a	WOAH Twinning project Ethiopia 6-24 June, 2022	Ethiopia	3
a	WOAH Twinning project Ethiopia 4-14 July, 2022	Ethiopia	1
a	WOAH Twinning project Brasile Webinar 18-20 July/25-26 July, 2022	Brasil	1
a	WOAH Twinning project Azerbaijan 25-29 July, 2022	Azerbaijan	2
a	International Atomic Energy Agency's Technical Cooperation Programme 12 September – 7 October, 2022	Albania	1
d	PRIMA Bluemed project, 19 September – 7 October, 2022	Tunisia	1

a	WHO MED-NET project, 3-14 October, 2022	Tunisia	2
d	PHD Candidate Internship 3 October – 30 November, 2022	Tunisia	2
c	Training course on Animal Health 10-14 October, 2022	Serbia	2
d	International Atomic Energy Agency's Technical Cooperation Programme 17 October – 11 November	Algeria	1
c	Training course on Animal Health, 31 October – 4 November, 2022	Croatia	1
c	Training course on Animal Health, 2 – 4 November, 2022	Austria	2
c	Project 'IT expert for the Integrated Animal Health Information System (IAHIS)', 14-25 November, 2022	Italy	3
a	WOAH Collaborating Centre Twinning Project on Epidemiology and risk assessment 21-29 November, 2022	Kingdom of Saudi Arabia	3
b	ICRAD Focus Group for Strategic Research and Innovation Agenda INDUSTRY INPUT Webinar, 13 June, 2022	Italy, Belgium, Denmark, France, UK	26

TOR8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOA?H?

Yes

NATIONAL/INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
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International	WOAH/IZS "SAM Tool 2.0 flash webinar"	WOAH Sub-regional Representation - Brussels	2022-12-02	Virtual	20
International	WOAH Network of Animal Welfare Collaborating Centres	Collaborating Centres in the Asia and the Pacific region	2022-06-14	Virtual	26

TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAHA that may be useful to Members of WOAHA

a) Articles published in peer-reviewed journals:

1

F. Cerasoli, A Di Luca, N. D'Alterio, S. D'Albenzio, L. Iannetti, M. Podaliri Vulpiani, Excursus sulla legislazione vigente in materia di gestione igienico-sanitaria e tutela del benessere degli equini non destinati alla produzione di alimenti (non DPA) [Excursus on current legislation on sanitary hygiene and animal welfare of equines not intended for food production] (2022). Large Animal Review (LAR). Vol 28 No 4 (2022)

b) International conferences:

14

1. O. Pediconi, virtual presentation on "Lifelong Education at the Time of COVID-19 Pandemic: an Analysis of Participants' Perception", held at the hybrid edition of the International Conference New Perspectives in Science Education, 17-18 March, 2022
2. M. Piersanti, S. D'Albenzio, O. Pediconi, Lifelong education at the time of COVID-19 pandemic: an analysis of participants' perception, 11th International Conference New Perspectives in Science Education, Pixel e Filodiritto Editore, 2022-03, DOI: 10.26352/G317_2384-9509 (publication)
3. C. Robbiati, A. Milano, S. Declich, P. Calistri, O. Pediconi, L. Amato, L. Paronyan, G Avetisyan, M. G. Dente, Enhancing preparedness through the integration of One Health approaches: the
 - a. Anthrax case in Armenia, Abstract book of the World One Health Congress, Singapore, 7-11 November, 2022
4. O. Pediconi, S. D'Albenzio, Georgia Gkrintzali, Paolo Calistri and Milen Georgiev, Preparedness of Rift Valley Fever introduction into Europe under a One Health approach, *Microorganisms* 2022, 10(9), 1864; <https://doi.org/10.3390/microorganisms10091864>
5. F. Pompei, virtual presentation on "Communication during inspection: basic principles for a correct management of personal interactions" in the framework of the BTSF course on "Animal welfare during transport (advanced level)", 27 October 2022
6. F. Pompei, virtual presentation on "Communication during inspection: basic principles for a correct management of personal interactions" in the framework of the BTSF course on "Animal welfare at poultry slaughter (advanced level)", 17 November, 2022
7. A. Falconi, virtual presentation on "Communication, Exploitation and Dissemination of the results WEB COMMUNICATION" WP5 Update during the 4th Governing Board of the ICRAD Project, November 30, 2022
8. Iannetti L., Souilem O., Podaliri Vulpiani M., Dalla Villa P., D'Albenzio S., Ciavarelli D., Pompei F. & Morelli D. (2022). Implementing WOAHA animal welfare standards in Northern Africa through the twinning instrument. Poster communication at the 30th Conference of WOAHA Regional Commission for Europe. 3-7 October 2022, Catania (Italy).
9. D'Albenzio S. (2022). Self-assessment and monitoring (SAM) Tool 2.0. WOAHA Regional training seminar for National Focal Points on Animal Welfare for Europe, 16-17 November 2022.
10. D'Albenzio S., Castellan D., Dissanayake R., Dunkle S., Muehlen M., Pinto J., Schenkel K., Simmons H., Zaghoul A., Alessandrini B (2022). One Health Field Epidemiology Competency development: a survey on Field Epidemiology Training Programmes in public health and veterinary public health. 16TH International Symposium of Veterinary Epidemiology and Economics. Abstract Book. ISVEE 16 – August 7-12, 2022 – Halifax, Canada
11. Dunkle S., Alessandrini B, Castellan D., D'Albenzio S., Dissanayake R., Muehlen M., Newman S., Pinto J., Schenkel K., Simmons H., Zaghoul A., (2022). Ecosystem Health Competencies in the One Health Field Epidemiology Competency Framework. 16TH International Symposium of Veterinary Epidemiology and Economics. Abstract Book. ISVEE 16 – August 7-12, 2022 – Halifax, Canada
12. Simmons H., Alessandrini B, Cargill J., Castellan D., Budke C., D'Albenzio S., Dunkle S., Dissanayake R., Muehlen M., Pinto J,

Schenkel K., Zaghoul A., (2022). *Competency Prioritization for the Tripartite (FAO/WHO/WOAH) Field Epidemiology One Health Competency Framework*. 16TH International Symposium of Veterinary Epidemiology and Economics. Abstract Book. ISVEE 16 – August 7-12, 2022 – Halifax, Canada

13. Muehlen M., Alessandrini B., Castellan D., D'Albenzio S., Dissanayake R., Dunkle S., Pinto J., Simmons H., Zaghoul A., Schenkel K. (2022). *Developing the Tripartite (FAO/WHO/WOAH) Field Epidemiology One Health Competency Framework*. Field Epidemiology One Health Competency Framework. 16TH International Symposium of Veterinary Epidemiology and Economics. Abstract Book. ISVEE 16 – August 7-12, 2022 – Halifax, Canada

14. D. Morelli, S. D'Albenzio, L. Iannetti, E. Hamelin and T. Grudnik. *Technical Item I - Long distance transport of live animals: WOAH's standards and best practices including societal perception and communication aspects*. WOAH Regional Commission for Europe. 30th Regional Conference Catania. Italy, 3 – 7 October 2022

c) National conferences:

2

C. Albanello, oral presentation on "Principles and techniques for effective communication to stakeholders (Role-playing)" during the training and updating course on the use of animals for scientific and educational purposes Edition 2022, 23-24-25 May / 30-31 May, 1 June 2022

D'Albenzio S. (2022). *The European Reference Centre for the Welfare of Ruminants and Equines*. Annual Conference of the Italian National Reference Centre for Animal Welfare, Palermo (I), 20-21 June 2022.

d) Other (Provide website address or link to appropriate information):

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

Development and dissemination of fact-sheets concerning the welfare of ruminants (individual calf housing and calf feeding) and, more generally, the environmental enrichment

- Development of a permanent IT platform for the assessment of training needs in the animal welfare domain as concerns ruminants and equine in EU Member States

- Design and implementation of research projects to produce new knowledge in the animal welfare domain adopting new technologies such as Artificial Intelligence

- Standardisation of automatic certification of competencies in the Laboratory Animal Sciences, domain in compliance with the European and Italian legislative framework as well as the FELESA accreditation scheme

12. Additional comments regarding your report: