

# OIE Collaborating Centres Reports Activities

## *Activities in 2021*

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**ToR: To provide services to the OIE, in particular within the region, in the designated specialty, in support of the implementation of OIE policies and, where required, seek for collaboration with OIE Reference Laboratories**

**ToR: To identify and maintain existing expertise, in particular within its region**

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

Training, capacity building	
Title of activity	Scope
OIE 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>IZSAM as OIE Reference Laboratory for Bluetongue provided support to the Brazil's Candidate Institute to enhance 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 OIE reference laboratory for Bluetongue.</p> <p>This activity involved also the following technical areas: disease control, food safety, epidemiology, surveillance, risk assessment, modelling.</p>

<p>OIE 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 OIE 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 IZSAM (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 CBBP 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.</p> <p>Considering the COVID-19 pandemic, it seems appropriate to develop alternative and innovative approaches to take forward this OIE Twinning project.</p> <p>This activity involves also the following technical areas: disease control.</p>
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<p>EU Twinning Project “Strengthening the capacities of the Lebanese Ministry of Agriculture (MoA)’s in the Field of Veterinary Services and Food Safety” (2018 -2022)</p>	<p>The Twinning project aims to strenghten 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.</p> <p>The project is divided into three components:</p> <ul style="list-style-type: none"> <li>• Alignment of Lebanese legislation with international SPS standards in the area of agriculture, live animals and food products;</li> <li>• Capacity building of the MoA - Animal Resources Directorate (ARD);</li> <li>• Improvement of communication with stakeholders.</li> </ul> <p>The Twinning program ensures the consistency and the sustainability of the outputs for creating a better food safety system in Lebanon.</p> <p>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.</p> <p>This activity involved also the following technical areas: animal health, food safety.</p>
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<p>OIE Twinning between the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" and the Republican Veterinary Laboratory of Azerbaijan (2017-2023)</p>	<p>The World Organisation for Animal Health (OIE) supported a Twinning Project between the Ministry of Health of Italy, through the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (IZSAM), as OIE Collaborating Centre for Veterinary Training, Epidemiology, Food Safety and Animal Welfare and the Republican Veterinary Laboratory (RVL) of Azerbaijan.</p> <p>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 OIE Collaborating Centre status.</p> <p>This activity involved also the following technical area: food safety.</p>
<p>LEarning GenOmics for food safety (LEGO)</p> <p>(2018-2021)</p>	<p>The EU Erasmus + project LEGO aims to define, train and promote the recognition in Europe of a new professional profile at the crossroad between different disciplines, the Food Microbial Bioinformatician, in order to address contemporary societal needs for a Better and Safer Food and meet labour market demands.</p> <p>IZSAM is leading the project consortium, having the following members: University of Helsinki, Finland; Bydgoszcz University of Science and Technology, Poland; Università degli Studi dell'Aquila, Italy; Asociación de Investigación de la Industria Agroalimentaria - AINIA, Spain and UDANET as technological partner. The project, started on 01/10/2018 and ended on 31/12/2021.</p> <p>This activity involves also the following technical area: Food safety, epidemiology, surveillance, risk assessment, modelling.</p>

<p>Understanding pathogen, livestock, environment interactions involving bluetongue virus (PALE-Blu) (2017-2021)</p>	<p>The Horizon 2020 project PALE-Blu is focused on bluetongue viruses (BTVs).</p> <p>PALE-Blu brings together European institutes with expertise in BTV research and diagnosis, with partners in endemic regions (Africa, the Middle East and Turkey) that act as a 'source' for BTV strains that emerge in Europe. Objectives of the project are: to study and model the new outbreaks emerging in Europe, to explore more effective and cross-serotype vaccines, to evaluate the potential for use of antiviral agents to induce immediate protection post vaccination.</p> <p>The OIE CC IZSAM is involved in results' communication and dissemination, according to H2020 rules. The project ended on November, 30, 2021. In 2021, the following outputs were produced: final newsletter, factsheet for experts, video "BTV: a diagnostic workflow", video "PALE-Blu meets experts".</p> <p>This project involves also the following technical areas: epidemiology, surveillance, risk assessment, modelling.</p>
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<p>Organisation and implementation of training activities on animal welfare on the farm, animal welfare at the time of killing of animals</p> <p>(at slaughterhouses and for disease control purposes) and animal welfare during transport under the "Better Training for Safer Food" initiative (2017-2023)</p>	<p>OIE-CC-IZSAM 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, at the time of killing of animals during transport under the "Better training for Safer Food" Initiative.</p> <p>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 NCAs 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.</p> <p>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 2021 four face to face events have been converted in virtual classrooms. For that scope pedagogical videos and relevant training materials have been designed.</p> <p>This activity involves also the following technical area: Animal Welfare.</p>
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<p>OIE Collaborating Centre Twinning Project on Epidemiology and risk assessment between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (IZSAM), Teramo, Italy and the Department of Animal Resources Risk Assessment (KSA ARRAD), Riyadh, Kingdom of Saudi Arabia (2019-2022)</p>	<p>The twinning project is supported by the World Organisation for Animal Health (OIE) through the Department of Animal Resources Risk Assessment (KSA ARRAD). The general objective is to strengthen the skills and capacities of KSA ARRAD's personnel in performing relevant epidemiological data analysis and risk assessment studies.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>A workshop for KSA Regional Officers facilitates an at cascade approach, in which the already trained personnel are facilitators for further training activities.</p> <p>This activity involves also the following technical area: epidemiology and risk assessment.</p>
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<p>OIE Twinning project on animal welfare between Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise-Italy (IZSAM) and the Ecole Nationale de Médecine Vétérinaire, Sidi Thabet, Tunisia (ENMV)(2020-2023)</p>	<p>An OIE Twinning project in the field of Animal Welfare has been designed, presented and approved in 2020. It will be implemented between IZSAM (Parent Institute) and the École Nationale de Médecine Vétérinaire (ENMV) in Sidi Thabet (Candidate institute). IZSAM 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 OIE 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 activities will be implemented at different levels in order to improve the animal welfare legislative framework, in accordance with the OIE standards, as well as the control activities related to its enforcement. 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 OIE Collaborating Centre for Animal Welfare. After the project approval, due to the Covid19 pandemic, IZSAM and ENMV work together to introduce innovative approaches to carry out the activities adopting web-based tools to work at distance. This activity involves also the following technical area: animal welfare.</p>
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<p>EU support to capacity building and gradual Union acquis alignment in the Food safety sector in Bosnia and Herzegovina</p> <p>Twinning number: BA 18 IPA AG 01</p> <p>(2020-2023)</p>	<p>IZSAM, 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.</p> <p>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.</p> <p>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.</p> <p>This activity involves also the following technical area: food safety.</p>
<p>Improved implementation of animal health, food safety and phytosanitary legislation and corresponding information systems - North Macedonia EuropeAid/139253/DH/SER/MK</p> <p>(2019-2021)</p>	<p>IZSAM in consortium with A.E.S.A (lead partner) and IZSUM submitted a technical and financial offer for the implementation of a technical assistance project funded by the European Commission. Aim of the project is to improve the implementation of animal health, food safety and phytosanitary legislation and corresponding information systems in the Republic of North Macedonia.</p> <p>This activity involves also the following technical area: food safety.</p>

<p>Organisation of a workshop including a simulation exercise to strengthen the regional network of Italy for food and feed crises preparedness and communication</p> <p>GP/EFSA/SCER/2020_01</p> <p>(2020-2021)</p>	<p>The European Food Safety Authority (EFSA) has awarded IZSAM a grant under the terms and conditions set out in the Special Conditions, the General Conditions and the other Annexes to the Agreement, for the action entitled "SUPPORT EFSA'S PROGRAMME FOR CRISIS PREPAREDNESS TRAININGS".</p> <p>In July 2021, the European Food Safety Authority (EFSA) jointly devised, developed and delivered an online workshop on animal health crisis preparedness with IZSAM, focusing on Rift Valley fever (RVF). The overall training objective was to improve incident response collaboration between animal and public health authorities from multiple countries, using a 'One Health' approach. The 4 specific exercise learning objectives were to test and improve skills in: (a) outbreak investigation; (b) prevention of RVF outbreaks; (c) control of RVF outbreaks; (d) identifying and communicating to affected stakeholders about RVF outbreaks.</p> <p>Twenty-seven participants from 6 EU Member States (MSs) and 3 EU candidate countries attended the training, as well as 12 observers from 3 EU MSs and 3 international organisations. Plenary and working group activities extended across 3 days, preceded by the availability of an online RVF eLearning package developed by IZSAM.</p> <p>This activity involves also the following technical area: epidemiology.</p>
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<p>European Reference Centre for the welfare of ruminants and equines (EURCAW Ruminants &amp; 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.</p> <p>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).</p> <p>IZSAM is participating in all the activities of the Centre and is leading the training activities.</p>
<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</p> <p>(2020-2022)</p>	<p>IZSAM 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 will investigate and advocate for the improvement, where possible, of the standard methods of surveillance towards integrated surveillance, risk assessment and early case detection. 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. This activity involves also the following technical area: epidemiology, human and animal health, medical entomology and environment.</p> <p>This activity involves also the following technical area: epidemiology.</p>

<p>Modelling Virtual Training Methods To Enhance Entomological Surveillance</p> <p>For Rift Valley Fever And Other Mosquito-Borne Arboviroses In Libya: A Transferable Approach</p> <p>(2020-2021)</p>	<p>This innovative learning path, delivered during the Covid-19 pandemic, was based on interactive webinars, in-field and project work activities. Its challenge was to recreate at distance laboratory training and mentoring methods to build veterinarians' capacities to integrate specific and transversal skills for a quality entomological surveillance. During the 2021, the second part of the virtual course was concluded. It was dedicated to the in-field project work activity, aimed at implementing entomological surveillance in risk locations. Moreover, a monitoring webinar meeting and a follow-up final session were held.</p> <p>In addition, in order to communicate and facilitate the transferability of the final outcomes, a final communication set of videos was produced. They are addressed to Competent Authorities, Public Institutions and other stakeholders. The language adopted and the communication styles are referred to this target, they are accompanied by a voice-over made by an actor in English, as well as subtitles in Arabic.</p> <p>This activity involved also the following technical area: animal health.</p>
<p>SNAI, Social Network Analysis and innovative diagnostic methods for the control of animal movements and equine infectious diseases in Italy</p> <p>(2019-2023)</p>	<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.</p> <p>A further goal of the project is to assess the effectiveness of a 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 Chlamydia pneumoniae).</p> <p>This initiative is focusing also the assessment of the welfare of horses farmed not for meat production (sport, working and companion animals).</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)</p> <p>Studio multidisciplinare sulle macellazioni rituali: sicurezza alimentare, benessere animale e aspetti socio-culturali nella produzione e nel consumo di carni Halal e Kosher (THalaKos)</p> <p>(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.</p> <p>This activity involved also the following technical area: animal health, animal welfare, food safety.</p>
<p>LEO: Livestock Environment Opendata - Piattaforma Opendata per la Zootecnia</p> <p>(2019-2023)</p>	<p>The project aims to create a database containing 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.</p> <p>This activity involved also the following technical area: animal health, animal welfare, ICT.</p>
<p>A novel integrated and sustainable approach to monitor and control Bluetongue spread in the Mediterranean Basin - Blue-Med</p> <p>(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.</p> <p>This activity involved also the following technical area: animal health</p>

Development of a self-assessment and monitoring platform on the OIE standards: SAM TOOL 2.0 project	<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 OIE standards on stray dog population control in Europe.</p> <p>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 OIE standards with minor efforts and investments, it can be considered a cornerstone of a topic-based observatory.</p>
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**ToR : To propose or develop methods and procedures that facilitate harmonisation of international standards and guidelines applicable to the designated specialty**

**2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases, food safety or animal welfare**

Proposal title	Scope/Content	Applicable area
OIE Regional Platform on Animal Welfare for Europe	IZSAM is member of the steering group of the OIE Regional Platform on Animal Welfare for Europe ( <a href="https://rpawe.oie.int/">https://rpawe.oie.int/</a> ), a platform launched by the OIE 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 OIE CC IZSAM contributed to implement the activities designed in the Platform action plans, providing expertise to address the established priorities including capacity building.	<input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare
OIE Platform for the Training of Veterinary Services	The IZSAM OIE CC for Veterinary Training and Capacity Building is member of the OIE Platform for the Training of Veterinary Services.	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input checked="" type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare

<p>ICRAD: International Coordination of Research on infectious animal diseases</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 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><input checked="" type="checkbox"/> Surveillance and control of animal diseases  <input type="checkbox"/> Food safety  <input checked="" type="checkbox"/> Animal welfare</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 IZSAM, 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. 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 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.</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases  <input type="checkbox"/> Food safety  <input checked="" type="checkbox"/> Animal welfare</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><input checked="" type="checkbox"/> Surveillance and control of animal diseases  <input checked="" type="checkbox"/> Food safety  <input type="checkbox"/> Animal welfare</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>The Consumers, Health, Agriculture and Food Executive Agency of the European Commission (now HADEA) entrusted IZSAM, 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><input checked="" type="checkbox"/> Surveillance and control of animal diseases <input checked="" type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare</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 OIE 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:</p> <p>Module 1. Introduction to emergency and disaster  management</p> <p>Modules 2 and 3. Planning for emergencies and disasters</p> <p>Module 4. Emergency and disaster response</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare</p>

<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.</p> <p>The e-Modules to be developed under this project will be organised around three sequential levels: intermediate, advanced and OIE Delegate.</p> <p>This multi-modular progressive approach to capacity development will allow the formation of generalists and specialists.</p> <p>They will be delivered by the OIE through the OIE Training Portal, the companion e-tool of the OIE Platform and the unique location for all future training related material, resources and data, available in the three official languages of the OIE (English, French and Spanish).</p> <p>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.</p> <p>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>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Surveillance and control of animal diseases</li> <li><input type="checkbox"/> Food safety</li> <li><input type="checkbox"/> Animal welfare</li> </ul>
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<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 (ApplA-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.</p> <p>This activity involved also the following technical area: animal health, animal welfare, statistics.</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases  <input type="checkbox"/> Food safety  <input checked="" type="checkbox"/> Animal 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>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 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.</p> <p>This activity involved also the following technical area: animal health, animal welfare.</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases  <input type="checkbox"/> Food safety  <input checked="" type="checkbox"/> Animal welfare</p>

***ToR: To establish and maintain a network with other OIE Collaborating Centres designated for the same specialty, and should the need arise, with Collaborating Centres in other disciplines***

***ToR: To carry out and/or coordinate scientific and technical studies in collaboration with other centres, laboratories or organisations***

**3. Did your Collaborating Centre maintain a network with other OIE 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
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Center for Animal Health and Food Safety	USA	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Ecole Inter-Etats de Sciences et Médecine Vétérinaires	Senegal	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Ecole Nationale des Services Vétérinaires	France	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
CRESVet	Argentina	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Veterinary Public Health and Food Safety Centre for Asia Pacific	Thailand	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Panaftosa	Brazil	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Center for Food Security and Public Health	USA	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
Centre National de Veille Zoosanitaire	Tunisia	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE Platform for the Training of Veterinary Services and further relevant initiatives
CENSA	Cuba	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE EmVet network

IIAD	USA	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration in the framework of the OIE EmVet network
UNIMI (Università degli Studi di Milano)	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaboration in the framework of the BTFS initiative on AW
UH (University of Helsinki)	Finland	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaboration in the framework of the Erasmus+ Lego Project
Bydgoszcz University of Science and Technology (PBS)	Poland	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaboration in the framework of the Erasmus+ Lego Project
UNIVAQ (University of L'Aquila)	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaboration in the framework of the Erasmus+ Lego Project
AINIA	Spain	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaboration in the framework of the Erasmus+ Lego Project

**4. Did your Collaborating Centre maintain a network with other OIE 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	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Hosting fellowship also focused on Animal Disease Diagnosis

EmVetNet	Italy	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	The objective of the Network for Veterinary Emergencies is to support OIE Member Countries preparedness for and response to animal health emergencies
EU Reference Centre for the Welfare of ruminants and equines	Sweden, Austria, France, Greece, Ireland, Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	The objective of the EURCAW for ruminants and 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.
EU Reference Centre for animal welfare focusing on pigs	The Netherlands, Germany and Denmark	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Promotion of capacity building in Animal welfare
EU Reference Centre for Animal Welfare for poultry and other small farmed animals	France, Spain, Denmark, Italy	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Promotion of capacity building in Animal welfare
ETPLAS	Spain	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Promotion of capacity building in Laboratory Animal Science
FOUR PAWS	Belgium/Germany	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Promotion of research, capacity building, awareness raising in Animal Welfare
France Vétérinaire International (FVI)	France	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Promotion of International Cooperation and relevant capacity building in Animal Health and Food Safety
The Federation of Veterinarians in Europe (FVE)	Belgium	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration for competencies certification (VETCEE) and capacity building on Animal Welfare

RSPCA	United Kingdom	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Collaboration for capacity building on Animal Welfare
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**ToR: To place expert consultants at the disposal of the OIE.**

**5. Did your Collaborating Centre place expert consultants at the disposal of the OIE?**

Yes

Name of expert	Kind of consultancy	Subject
Silvia D'Albenzio	Consultancy on Capacity-Building in the framework of the project: "Strengthening capabilities for Epidemiology and Biosurveillance", developed by the "Tripartite" (WHO, OIE and FAO)	Veterinary Public Health
Silvia D'Albenzio	Consultancy in the framework of the activities promoted by the OIE Platform for the Training of Veterinary Services. In particular, IZSAM cooperates in drafting the guidelines for the elaboration of OIE elearning modules to be delivered through the OIE training portal.	Training of Veterinary Services
Silvia D'Albenzio	Consultancy in the framework of the activities promoted by the OIE Platform on animal welfare in Europe	Animal welfare

**ToR: To provide, within the designated specialty, scientific and technical training to personnel from OIE Member Countries**

**6. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by the OIE, to personnel from OIE Member Countries?**

Yes

- a) Technical visits: 2
- b) Seminars: 13
- c) Hands-on training courses: 12
- 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
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c	Monitoring of disease eradication and surveillance plans: VETINFO.IT and CRUSCOTTI Webinar, 26 January 2021  4, 9, 12 February 2021	Italy	94
b	The results of the Current Research conducted by IZSAM (Year 2020). Webinar, 17 June, 2021	Italy	128
b	National training seminar on Listeria Monocytogenes. Webinar, 28 October 2021	Italy	150
b	National training seminar on Brucellosis  Webinar, 25 October 2021	Italy	200
b	National training seminar on Campylobacter. Webinar, 12 November 2021	Italy	114
b	National training seminar on  Urban Hygiene and Non-Epidemic Emergencies  Webinar, 12 October 2021	Italy	74
b	National training seminar on Bluetongue. Webinar, 23 November 2021	Italy	196
b	National training seminar on exotic diseases Webinar, 27 April 2021	Italy	338
b	African Swine Fever, Webinar, 28 January 2021	Italy	131
b	Multiplier Event related to the "Learning Genomics for Food Safety" Project - LEGO. Webinar, 20 December 2021	Worldwide	73
c	EuFMD "Virtual Learning course on  Rift Valley Fever and other  Mosquito-borne arboviroses: entomological surveillance" Webinar, 3 March 2021	Libya	10

c	<p>“The impact of seismic events on animal health and welfare: Knowledge Elicitation Activities” in the framework of the current research project on Identification of criteria, measures and risk indicators aimed at forecasting, preventing and mitigating the impact of non-epidemic emergencies on health and welfare in farms and facilities for animals, 3-4 November 2021</p>	Italy	32
c	<p>The eLearning course for Food Microbial Bioinformatician - Module 1: Microbiological pathway, 29 March -15 December 2021, 2: Bioinformatics pathway, 29 March -15 December 2021 , Module 3: Core-competence pathway, 13 April-15 December 2021. It includes an intensive training on the job for 5 selected participants</p>	Worldwide	380
c	<p>Strengthening training in public health entomology of NHS operators: identification, surveillance and control methods Edition 2021 (North-West and South)</p> <p>Webinar, 21-23 June 2021 (Part I) and 13-14 July 2021 (Part II)</p>	Italy	101
c	<p>CRISIS PREPAREDNESS TRAINING EVENT - Simulation exercise, 6-20 July 2021</p>	Albania, Croatia, France, Greece, Italy, Montenegro, Portugal, Spain and Turkey	55
c	<p>VS's Contingency Plans in the Balkans – Table Top Exercise (TTX), Webinar, 9-11 November 2021</p>	Albania, Bosnia Herzegovina, Bulgaria, Croatia, Greece, Kosovo Montenegro, Macedonia, Romania, Serbia	22
c	<p>BTSF course on Animal Welfare in pig and poultry production – Session I Pigs, 13-15 September 2021 and Session II Pigs, 16-18 November 2021; Session I Poultry, 13-15 October 2021; Session II Poultry, 29 November – 1 December 2021</p>	European countries	105
c	<p>Rift Valley Fever, eLearning, 15 November 2021-15 June 2022</p>	Italy	64
b	<p>Towards the new equine I&amp;R system: presentation of the new regulatory provisions and the new application in BDN, webinar, 6 December 2021</p>	Italy	970
c	<p>The electronic register of treatments and simplification, Webinar, 13 May 2021 (I edition) -</p> <p>19 May 2021 (II edition)</p>	Italy	1400

d	Erasmus internship on Animal Welfare  Animal Experimentation, 31 May-30 July 2021	France	1
b	Training on Bioinformatics and WGS, 26-30 July 2021	Tunisia	2
b	Novel strategic partnership between Tunisia and IZSAM, 7-8 July 2021	Tunisia	6
a	Study visit  EU Twinning project  "Strengthening the Veterinary Services and food safety capacities of the lebanese Ministry of Agriculture", 17-22 October 2021	Lebanon	10
c	La conception et la mise en place d'un système d'information des Services Vétérinaires et des Services Phytosanitaires en Tunisie (ASCO project), 29 November - 3 December 2021	Tunisia	5
d	International PhD fellowship, 30 november 2021 - on going	Pakistan	1
d	EFSA European Food Risk Assessment Fellowship Programme 2020  EU-FORA Programme, 1 March 2021 - 31 December 2021	Argentina	1
c	Training course on "Animal welfare principles" in the framework of the OIE Twinning project between IZSAM and' École Nationale de Médecine Vétérinaire de Sidi Thabet, Tunisia (ENMV), Webinar, 24 - 26 Novembre 2021	Tunisia	17
a	Project  Stabilisation and socio-economic development of Tunisian coastal regions  (Nemo Kantara)	Tunisia	12

b	FIRST ERFAN GENERAL MEETING  Rome, 4 October (Senato)	Worldwide	45
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**ToR: To organise and participate in scientific meetings and other activities on behalf of the OIE**

**7. Did your Collaborating Centre organise or participate in the organisation of scientific meetings on behalf of the OIE?**

No

**ToR: To collect, process, analyse, publish and disseminate data and information relevant to the designated specialty**

**8. Publication and dissemination of any information within the remit of the mandate given by the OIE that may be useful to Member Countries of the OIE**

a) Articles published in peer-reviewed journals: 0

b) International conferences: 7

- The LEGO project: general overview and main results, LEGO Final Event, Webinar, 20 December 2021, Francesca Pompei
- The multidimensional learning pathway developed and piloted by the LEGO project, LEGO Final Event, Webinar, 20 December 2021, Alexandra Chiaverini, Annalisa Falconi
- Overview of the agenda in relation to the adopted methodological approach, VS's Contingency Plans in the Balkans, 9, 10 and 11 November 2021, Silvia D'Albenzio
- Main features of the course virtual platform and general recommendations for an effective and engaging learning experience, VS's Contingency Plans in the Balkans, 9, 10 and 11 November 2021, Annalisa Falconi
- Transforming a residential course on research article writing into an online learning experience, O. Pediconi, V. Matarese 14th annual International Conference of Education, Research and Innovation, Online, 8-9 November, 2021
- Different Methods for Effective Experts' Knowledge Elicitation: Examples from the Erasmus+ LEGO Project Experience, F. Pompei, V. Castello, S. Del Vecchio, A. Chiaverini, A. de Benito Armas, A. Heikinheimo, F. Pomilio, M. Recchioni, C. Serrano Brocas, M. Siwek, A. Slawinska, M. Verkola, S. D'Albenzio, 15th International Technology, Education and Development Conference, Online, 8-9 March, 2021
- Becoming a Food Microbial Bioinformatician: the Experience of the LEGO Project, F. Pompei, V. Castello, A. Chiaverini, A. de Benito Armas, S. Del Vecchio, J. Espí, A. Falconi, A. Heikinheimo, V. Johansson, F. Pomilio, M. Recchioni, C. Serrano Brocas, M. Siwek, A. Slawinska, M. Verkola, S. D'Albenzio, 14th annual International Conference of Education, Research and Innovation, Online, 8-9 November, 2021

c) National conferences: 3

- Presentation of LEGO Project, 3rd LEGO Multiplier Even organised by the University of L'Aquila, Webinar, 30 March 2021, Francesca Pompei
- Presentation of the Stray dog Self -Assessment and Monitoring (SAM) tool upgrade 2.0, during the 17th Meeting of the Steering Group of the OIE Platform on animal welfare for Europe (SG17) held on 18 October 2021, Silvia D'Albenzio
- Presentation of the Stray dog Self -Assessment and Monitoring (SAM) tool upgrade 2.0, during the OIE Workshop on Stray Dog management in the Balkans held on 30 November 2021, Silvia D'Albenzio

d) Other

(Provide website address or link to appropriate information): 4

- F. Pompei, V. Castello, S. Del Vecchio, A. Chiaverini, A. de Benito Armas, A. Heikinheimo, F. Pomilio, M. Recchioni, C. Serrano Brocas, M. Siwek, A. Slawinska, M. Verkola, S. D'Albenzio, Different Methods for Effective Experts' Knowledge Elicitation: Examples from the Erasmus+ LEGO Project Experience, 15th International Technology, Education and Development Conference, Online, 8-9 March, 2021, INTED2021 Proceedings, Pages: 4325-4332, ISBN: 978-84-09-27666-0, ISSN: 2340-1079, doi: 10.21125/inted.2021.0880, <https://library.iated.org/view/POMPEI2021DIF>

- F. Pompei, V. Castello, A. Chiaverini, A. de Benito Armas, S. Del Vecchio, J. Espí, A. Falconi, A. Heikinheimo, V. Johansson, F. Pomilio, M. Recchioni, C. Serrano Brocas, M. Siwek, A. Slawinska, M. Verkola, S. D'Albenzio, "Becoming a Food Microbial Bioinformatician: the Experience of the LEGO Project", 14th annual International Conference of Education, Research and Innovation, Online, 8-9 November, 2021, ICERI2021 Proceedings, Pages: 8902-8911, ISBN: 978-84-09-34549-6, ISSN: 2340-1095, doi: 10.21125/iceri.2021.2047, <https://library.iated.org/view/POMPEI2021BEC>

- O. Pediconi, V. Matarese, Transforming a residential course on research article writing into an online learning experience, 14th annual International Conference of Education, Research and Innovation, Online, 8-9 November, 2021, ICERI2021 Proceedings, Pages: 8912-8917, ISBN: 978-84-09-34549-6, ISSN: 2340-1095, doi: 10.21125/iceri.2021.2048,

- P. Calistri, S. D'Albenzio, A. Falconi, O. Pediconi, J. Johnson, A. Vincent, 2021, EFSA/IZSAM Animal Health Crisis Preparedness Exercise with Mediterranean Countries. <https://doi.org/10.2903/sp.efsa.2021.EN-6832>

**9. Additional comments regarding your report:**

<https://www.izs.it> <https://www.learngenomics.eu/> <https://www.icrad.eu/> <https://medilabsecure.com>  
<http://www.bluedmed-initiative.eu/> <https://www.paleblu.eu/> <https://www.hermes4las.eu/>  
<https://www.youtube.com/user/izscaporaleteramo> [Linkedin icrad](#) <https://www.facebook.com/izs.it/>  
<https://www.linkedin.com/in/izsamabruzzoemolisegcaporale/>  
<https://www.linkedin.com/company/icrad-international-coordination-of-research-on-infectious-animal-disease>  
<https://www.facebook.com/ICRAD-105289881417330>