Annual Report 2018

September 2019

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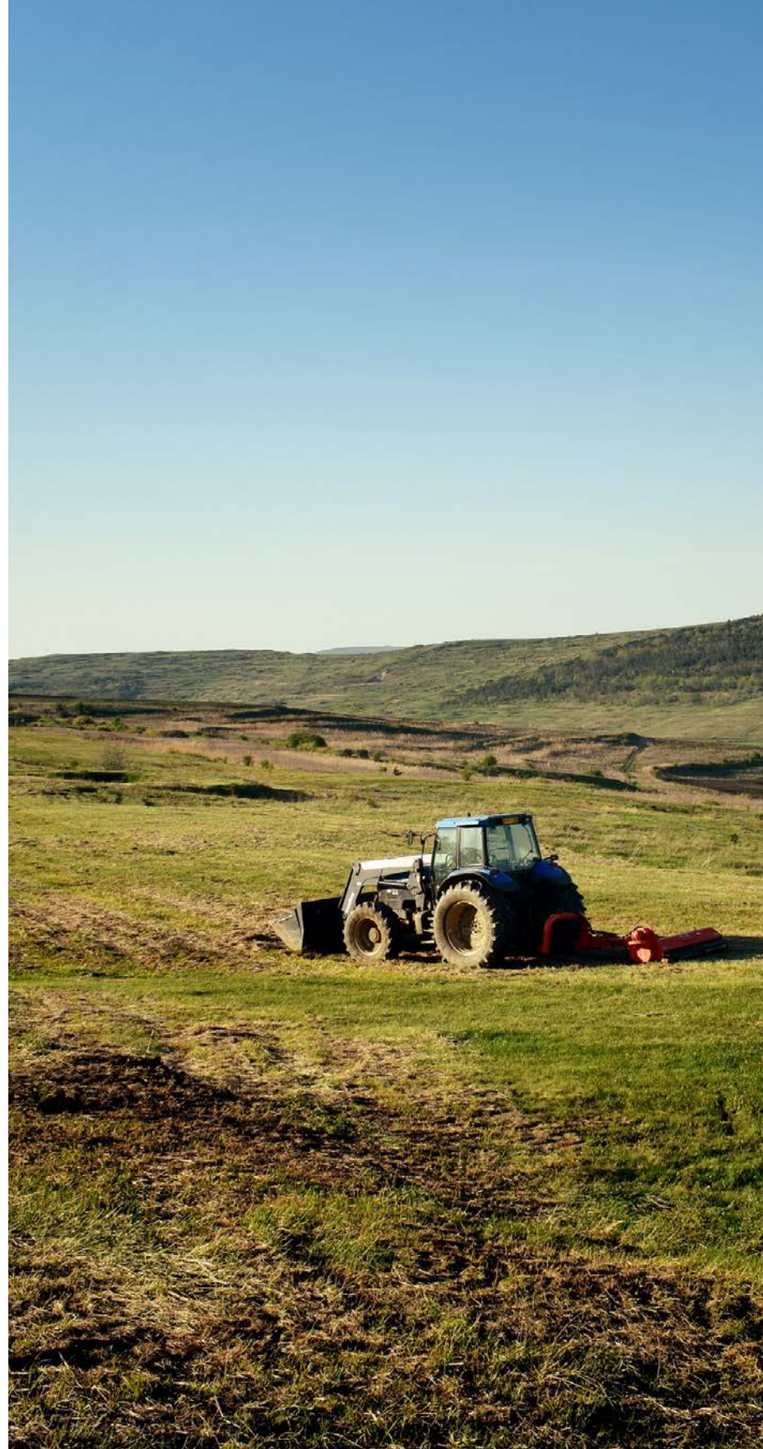
Contents



What is the One Health EJP?

The One Health EJP (OHEJP) is a landmark partnership between 38 public health, animal health and food institutes and the Med-Vet-Net Association, a European Network of Excellence for Zoonoses research, the OHEJP spans 19 different countries across Europe

The One Health concept recognises that human health is tightly connected to the health of animals and the environment, therefore the study of infectious agents that may cross species and environmental barriers is imperative.

The main focus of the OHEJP is to reinforce collaboration between institutes by enhancing collaboration and integration of activities by means of dedicated Joint Research Projects, Joint Integrative Projects and through education and training in the fields of Foodborne Zoonoses, Antimicrobial Resistance and Emerging Threats.

Through the OHEJP there are opportunities for harmonisation of approaches, methodologies, databases and procedures for the assessment and management of foodborne hazards, emerging threats and antimicrobial resistance across Europe, which will improve the quality and compatibility of information for decision making.

5-YEARS PROGRAMME

**HORIZON 2020
50% CO-FUND
€ 90 MILLION**

39 SCIENTIFIC INSTITUTES IN 19 MEMBER STATES

Creating a sustainable European One Health Framework by integration and alignment of medical, veterinary and food institutes through joint programming of research agendas matching the needs of European and national policy makers and stakeholders.

- Joint Research Projects
- Joint Integrative Projects
- Doctoral Programmes
- Annual Scientific Meetings
- Continuous Professional Development Modules
- Summer Schools

What are the Key Objectives?

The overarching objective of the OHEJP is to develop a European network of public research institutes with reference laboratory functions

A key aim of the One Health EJP is to integrate medical, veterinary and food scientists to address three key research topics: foodborne pathogens, antimicrobial resistance and emerging infectious disease. Public health concerns of consumers and other stakeholders are also at the forefront of our focus.

Key Objectives:

- To bring together the major representatives of European scientific communities with expertise in foodborne zoonoses, antimicrobial resistance and emerging threats.
- To implement scientific integrative and collaborative projects related to the prevention of foodborne pathogens.
- To stimulate scientific excellence by co-funding Joint Research Projects that have the potential to enhance scientific knowledge and provide tools for disease surveillance at both the national and European level.
- To foster the harmonisation and standardisation of laboratory methods by bringing together scientific and technical expertise.
- To exchange and communicate with European and international stakeholders, first and foremost the European Centre for Disease Control and Prevention (ECDC) and the European Food Safety Authority (EFSA), in addition to policy and decision makers with expertise in human and animal public health and food safety.
- To promote and develop food safety research in the European Unions by training, education and communication both nationally and internationally.

How is the One Health EJP Organised?

A governing and management system was established at the beginning of the One Health EJP

The governing boards specific to the One Health EJP include: the Project Management Team, Scientific Steering Board and Programme Managers Committee.

There are also important contributions from members outside of the One Health EJP and these include: the Programme Owners Committee, the External Scientific Advisory Board, the Stakeholders Committee, the Ethics Advisors and National Mirror Groups.

- The One Health EJP Coordination Team are based at French Agency for Food, Environmental and Occupational Health & Safety (ANSES), France.
- The One Health EJP Scientific Coordinator resides at Sciensano, the Belgian Institute for Health.
- The Project Management Team consists of all of the Work Package Leaders and Deputy Leaders.

The One Health EJP consist of **seven work packages**, each targeted towards specific overarching needs and objectives of the One Health EJP (see onehealthejp.eu for more information), in addition to ensuring alignment and integration in the implementation of the project. A visual representation of the structure of the One Health EJP and the respective work packages are described below.

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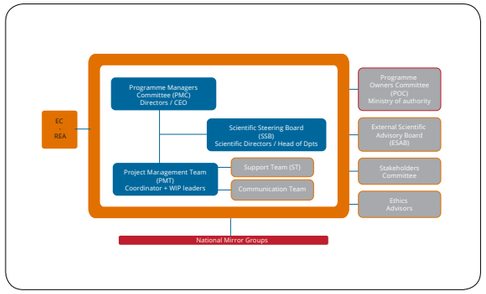

Overarching Organisation of the One Health EJP

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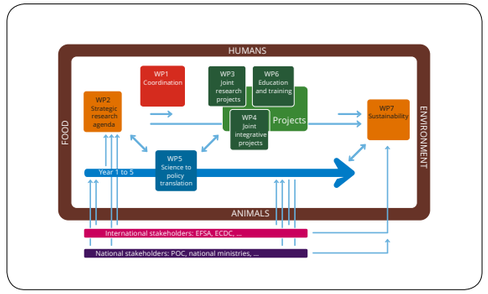

One Health EJP Work Packages Structure

How is the One Health EJP Organised?

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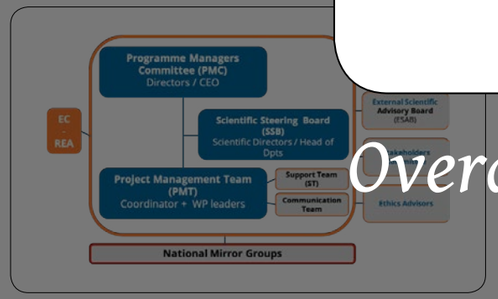
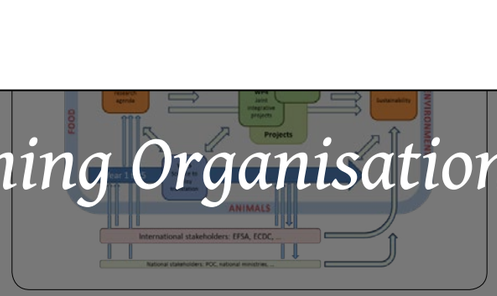
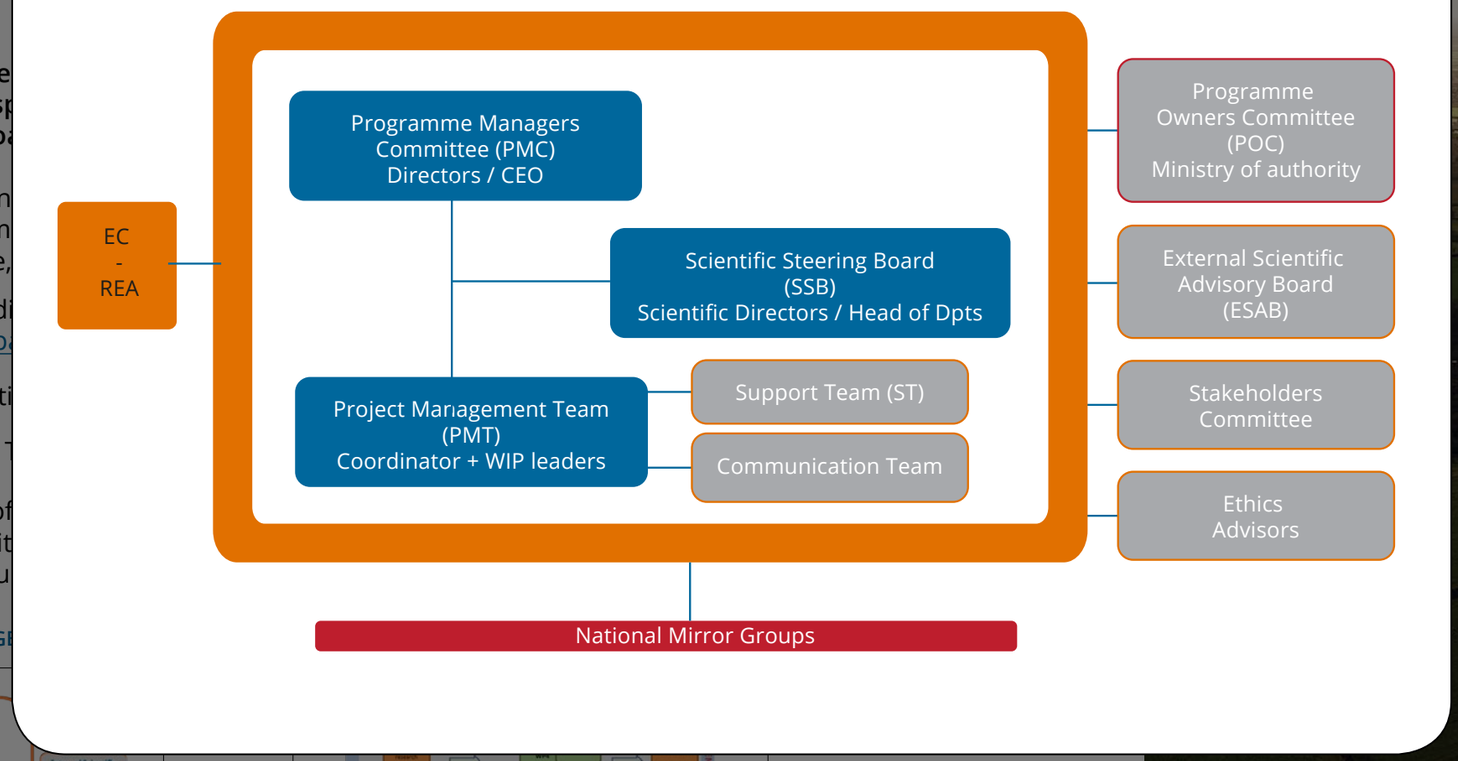


Overarching Organisation of the One Health EJP



One Health EJP Work Packages Structure



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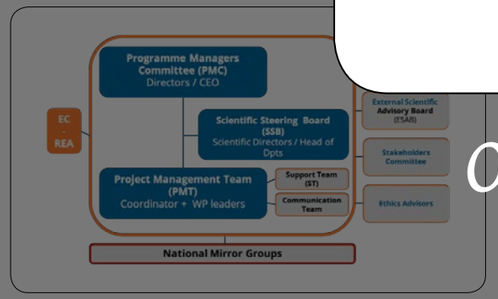

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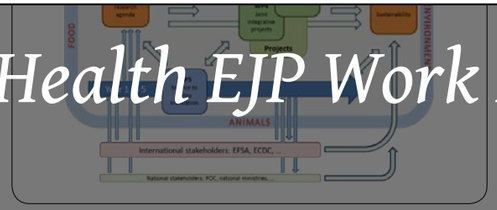
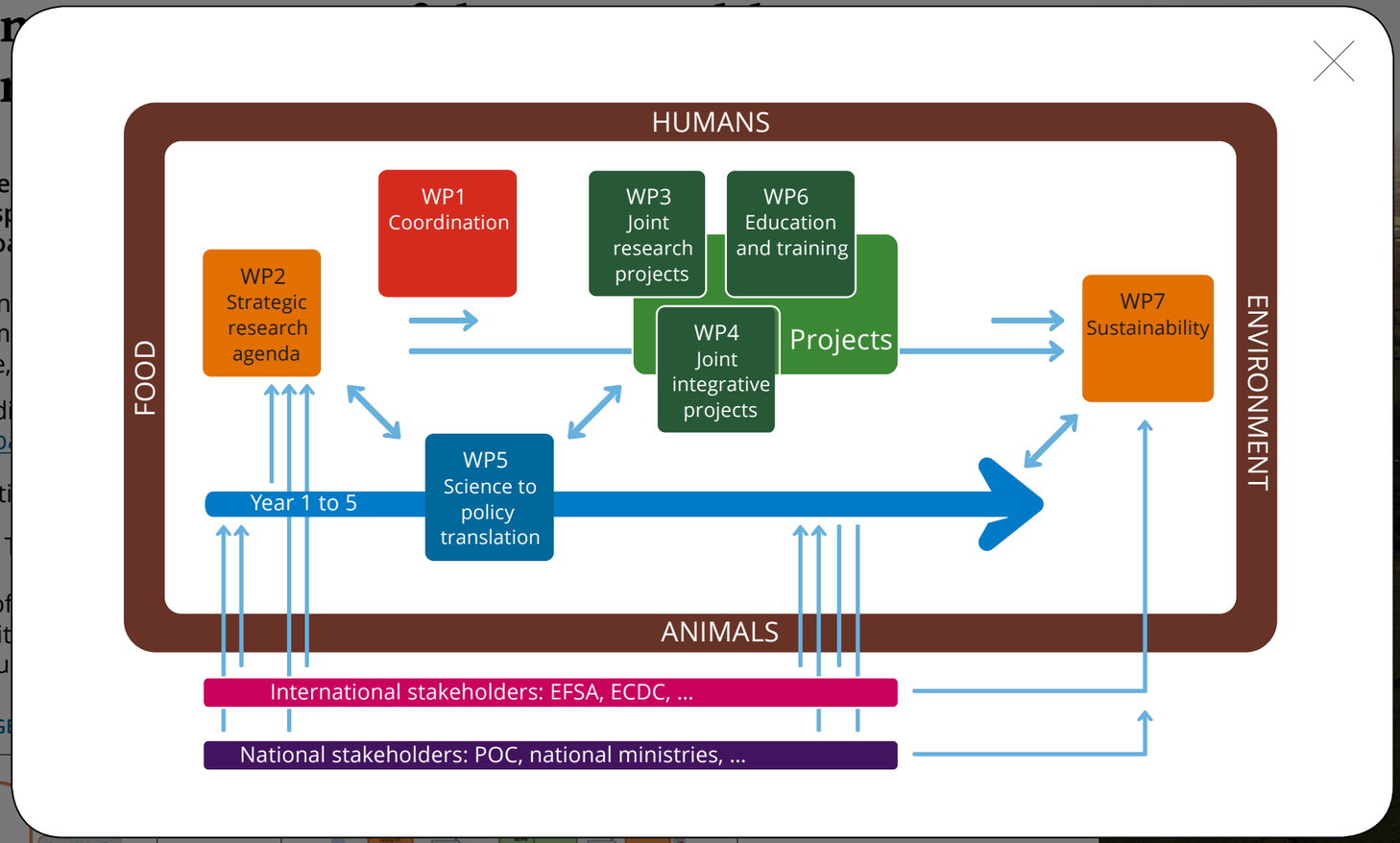


One Health EJP Work Packages Structure



One Health EJP Work Package Structure

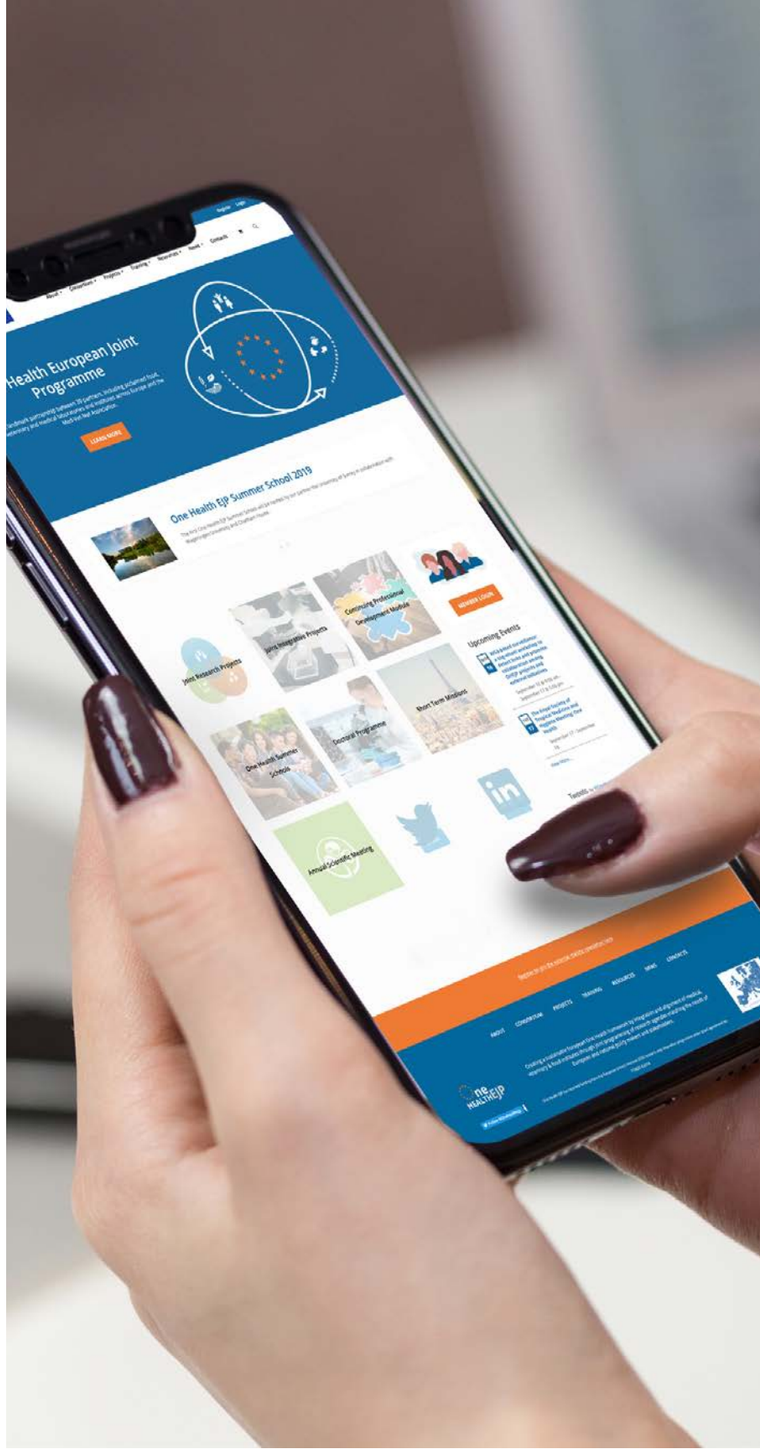
What has the One Health EJP Achieved in the First Year?

Coordination of the One Health EJP

The coordination of the One Health EJP involves overseeing the One Health EJP organisation (WP1), coordinating the Joint Research and Joint Integrative Projects (WP3 and WP4 respectively) and coordinating the Education and Training activities (WP6), in addition to carrying out all central communication activities (WP1).

What were the key coordination activities of the first year?

- To monitor the One Health EJP tasks and deadlines which must be submitted to the European Commission (EC) in order to monitor the progress of the project and has ensured good and frequent communication links with the Research Executive Agency (REA) of the EC.
- To work alongside the consortium governance bodies to establish strong working relationships and scientific collaboration.
- The Communication Team have established a communication network throughout the One Health EJP. The team have also created the One Health EJP website, in addition to Twitter and LinkedIn accounts.
- Guidelines for the submission and selection of project proposals were developed and converted into practical call guidelines for grant applications.
- To collaborate to establish reporting procedures for the Joint Research and Joint Integrative Projects.
- The second call for project funding was announced on the 29th October 2018 and will be finalised in 2019 with the aim to start in 2020!
- The first version of the One Health EJP's Data Management plan was completed and access to the One Health EJP OpenAIRE account were made available on the One Health EJP. OpenAIRE is an open access data repository for publicly available data from the One Health EJP research.
- Documentation for the Education and Training funding opportunities were written and validated within the One Health EJP.
- The calls to organise the first One Health EJP Summer School and One Health EJP Annual Scientific Meeting Satellite Workshop were launched. These calls were internal to the consortium and will be hosted in 2019 by one of the consortium member institutes.



Translation of Science to Policy

A key aim of the One Health EJP is to identify the Stakeholder needs to update the Strategic Research Agenda (WP2 and WP7) and translate the scientific research from our Joint Research and Joint Integrative Projects into policy. This involves communication of scientific outcomes to One Health EJP Stakeholders (WP5 and WP7) and dissemination of our scientific activities.

What were the key Translation of Science to Policy outcomes in the first year?

- A One Health EJP strategic research agenda was established and a procedure for updating priority research and integrative projects was developed, this was later developed throughout Year 1.
- Priority research and integrative topics were identified taking into account both the research and integrative needs of the EU member states participating in OHEJP, in addition to EU stakeholders (ECDC and EFSA).
- A list of the priority topics was validated by the One Health EJP Scientific Steering Board.
- An analysis of relevant EU projects, initiatives and potential interactions was completed to ensure that the One Health EJP contributes to knowledge and does not duplicate it.
- EU Stakeholders were identified for interaction with the One Health EJP; with ECDC and EFSA being the key Stakeholders within the One Health EJP and the Joint Research and Integrative Projects.
- Stakeholder meetings have been held to discuss the expectations, scientific and policy needs and also the overlaps and synergies from the Joint Research and Integrative Projects that were funded since January 2018.
- EU stakeholders were updated about the scientific outputs from the consortium through a Targeted Report, focusing on Joint Integrative Projects and Joint Research Projects of highest interest for the stakeholders.
- The needs and expectations of the One Health EJP Stakeholders in the context of the One Health EJP Strategic Research Agenda were identified.
- Future opportunities for EU funding have been monitored as funding is the main driver to ensure the One Health EJP is sustainable

One Health EJP Research

The One Health EJP funds scientific Joint Research and Joint Integrative Projects (WP3 and 4) and a number of Education and Training activities including a Doctoral Programme which funds PhD projects, travel grants to facilitate travel to learn new skills, a number of workshops including Satellite Workshops at the One Health EJP Annual Scientific Meetings and a Communication and Media Workshop, Continuing Professional Development Modules and an annual Summer School (WP6).

What were the key research activity outcomes in the first year?

- Eleven Joint Research Projects were funded and began in the first year of the One Health EJP. These projects provided Summary Progress Reports and Annual Reports in their first year to monitor their progress.
- Nine scientific publications have been published in the first year of the One Health EJP.
- The One Health EJP Joint Research Projects have taken part in workshops with other European Projects to identify similarities between ongoing research and avoid any overlap in work.
- Two Joint Integrative Projects were funded in the first year. These projects provided Summary Progress Reports and Annual Reports in their first year to monitor their progress.
- Two workshops were organised with H2020-COMPARE and with FP7-EFFORT to identify common ground and avoid overlap with these major European projects. Many points for collaboration with these EU projects and the One Health EJP Joint Research and Integrative Projects were identified.
- The first call for PhD funding was launched in March 2018 and subsequently 4 PhD projects were funded across the One Health EJP consortium. Additional PhD projects will be funded in Year 2.
- The second call for PhD projects was launched and funding will be allocated in 2019.

Find out about the scientific outcomes of the Joint Research projects here!

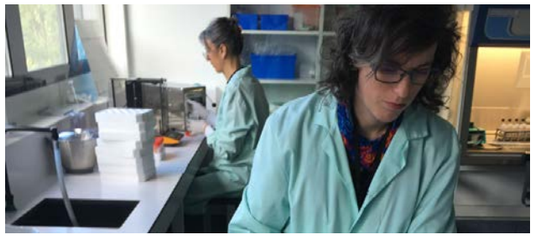
Find out about the scientific outcomes of the Joint Integrative projects here!

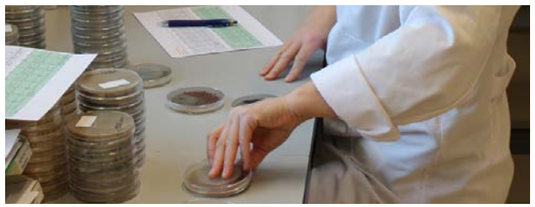
What are the key One Health EJP Scientific Outcomes?

Joint Research Project 1

IMPART

Improving phenotypic Antimicrobial Resistance Testing



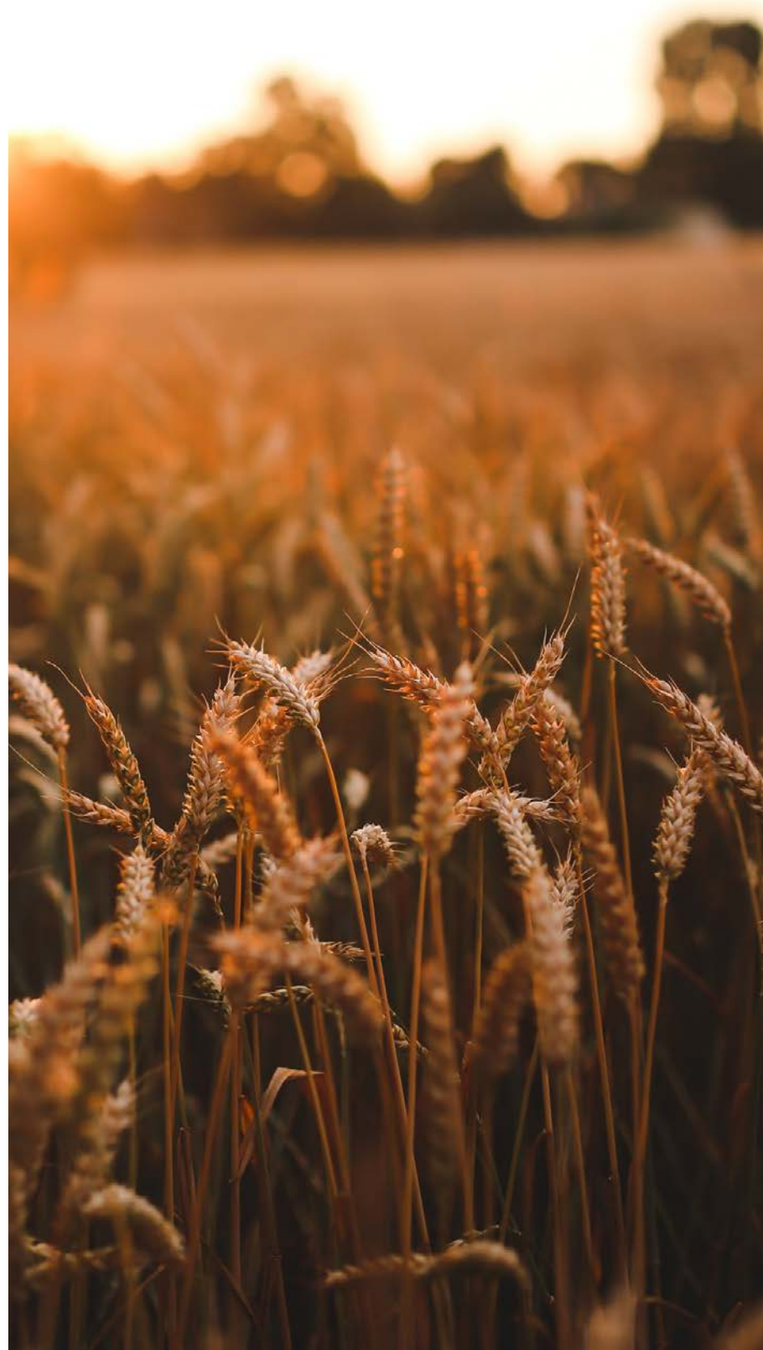


IMPART is a two-year research project set to develop and harmonise laboratory methods for detection of antibiotic resistance. Optimising and harmonising laboratory methods for detection of resistant bacteria is essential for the monitoring of resistance in animals or determining the risk of transmission of resistance from animals to humans via food. IMPART consists of researchers from 9 countries and 13 institutes.

IMPART has searched for the best culturing methods available to detect bacteria which are resistance to two types of antibiotics (colistin and carbapenems- broad spectrum antibiotics) both essential for treating human patients with multidrug resistant bacterial infections. Additionally, a cheap and reliable method for antimicrobial susceptibility testing for *C. difficile* will be developed and standardised. Finally, new interpretation criteria will be set for identifying resistance to drugs used in veterinary medicine to treat infections in animals. Those new criteria will ultimately support prudent use of antimicrobials in animals to avoid further spread of resistance.

During the first year, a kick-off meeting was organised with all the partners, two pre-ring trials were held, bacterial strains and data were collected in order to set and consensually validate harmonised laboratory protocols during the second year.

Pictured: The first round of research was a pilot study carried out in December 2018 by three laboratories: Netherlands National Institute for Public Health and the Environment (RIVM), Wageningen Bioveterinary Research (WbvR) and The Norwegian Veterinarian Institute (NVI) in Oslo. Wider studies across more European partners will continue in 2019.



Joint Research Project 2

ARDIG

Antibiotic Resistance Dynamics: the influence of geographic origin and management systems on resistance gene flows within humans, animals and the environment

The ARDIG project consists of several partners across Europe, including the Animal Plant Health Protection Agency (APHA), the University of Surrey (UoS) and Public Health England (PHE) in the UK, the Federal Institute for Risk Assessment (BfR) and Robert Koch Institute (RKI) in Germany, the French Agency for Food, Environmental and Occupational Health & Safety (ANSES) and Institut Pasteur (IP) in France, the Norwegian Veterinary Institute (NVI) in Norway, the Compultense University of Madrid (UCM) in Spain and Wageningen University and Research (WUR) in the Netherlands.

The collaboration between all of these countries allowed for partners to review data available on antimicrobial resistance and antimicrobial usage from each country. Substantial differences were subsequently noted between data collected from human and animal sectors; environmental data on antimicrobial resistance was very limited.

This highlighted the need to facilitate the incorporation of the environment into these future surveillance data sets. A questionnaire was developed to identify data that will shed light on the presence of important antimicrobial resistance genes present in bacteria isolated from hospital and farm environments. In parallel to this, bacteria from human and veterinary sectors collected from retrospective and prospective studies, including studies performed within ARDIG, are being characterised by whole genome sequencing and other molecular methods to identify antimicrobial resistance genes, and the fitness of some of these bacteria in laboratory models.

Joint Research Project 3

RaDAR

Risk and Disease burden of Antimicrobial Resistance

Containment of antimicrobial resistance (AMR) spread is part of national and international action plans against the rising clinical and public health threats associated with AMR. This requires the improved understanding of the AMR problem.

The RaDAR project aims to improve and harmonise modelling methods for improved understanding on risks, sources and disease burden. The project develops risk assessment models to quantify the on-farm development of AMR and the subsequent spread to humans. RaDAR is critically assessing methods used for estimating the disease burden of AMR and developing a new method that strictly determines the burden of infections associated with resistance. Finally, the project aims to develop a source attribution paradigm for AMR which has already shown that humans, rather than livestock and food, should be considered the primary source of direct ESBL resistance.

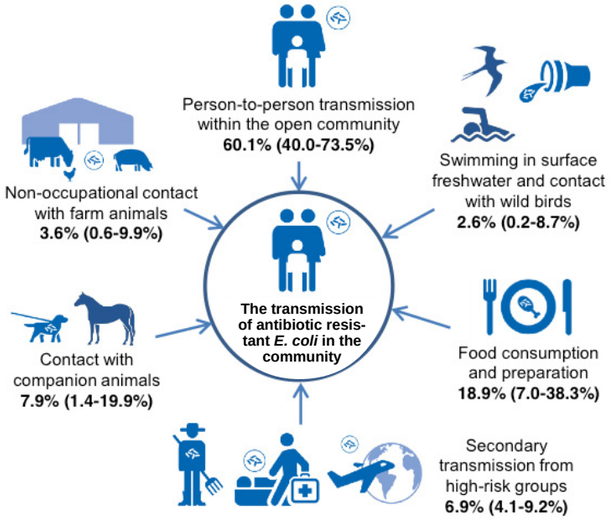


Diagram: Potential routes of transmission of antibiotic resistant E. coli *in the community.*

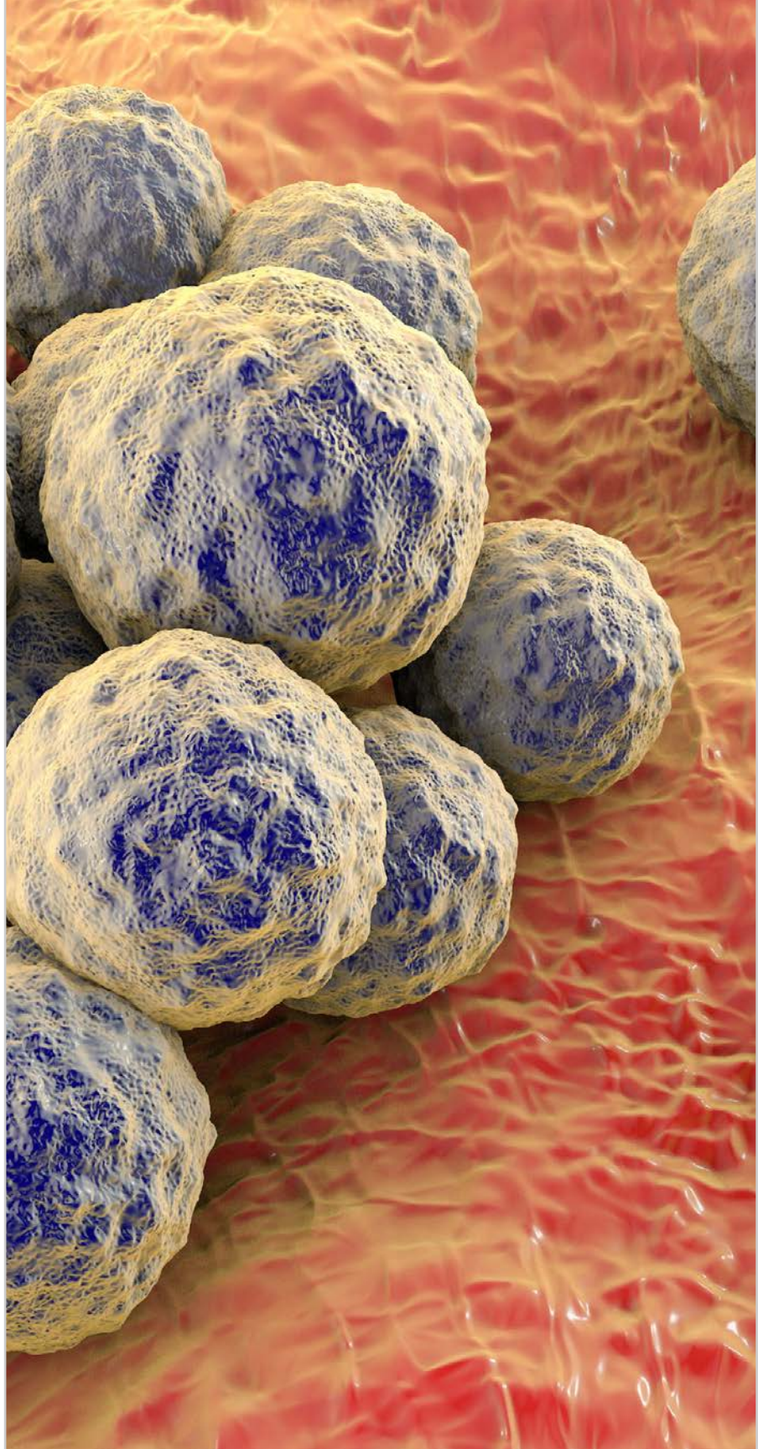
Joint Research Project 4

TOX-detect

Development and harmonisation of innovative methods for comprehensive analysis of foodborne toxigenic bacteria, ie. *Staphylococci, Bacillus cereus and Clostridium perfringens*

The TOX-detect project focuses on three bacteria: *Staphylococcus, Bacillus and Clostridium*. These bacteria are responsible for a number of food poisoning outbreaks across Europe. This food poisoning is often as a result of toxins produced by these three bacteria.

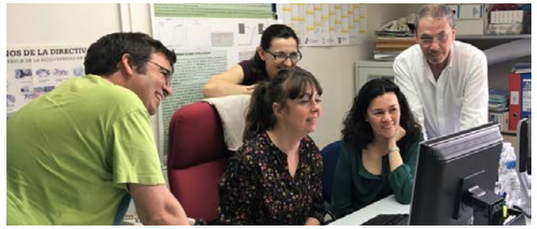
The goal of this project is to fill in the gaps in the methods used to detect these toxins and the bacteria that produce them. This will contribute to improved health and protection of the public. A total of 80 *Staphylococcus*, 90 *Bacillus* and 54 *Clostridium* strains were selected for these studies, with the aim of further understanding the toxins they produce using several different techniques (including ELISA and mass-spectrometry).



Joint Research Project 5

MAD-Vir

Metagenomic Array Detection of emerging Virus in EU

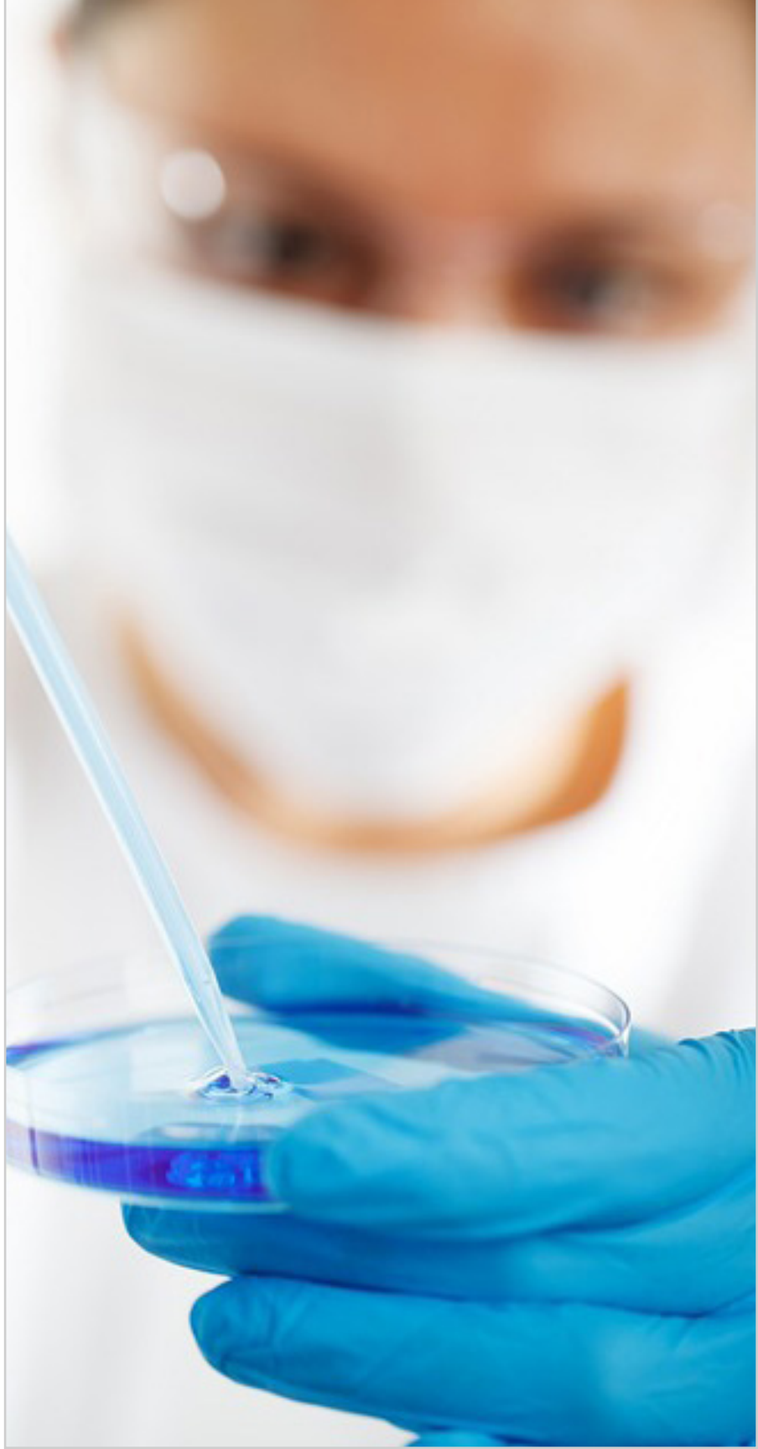


Pictured: Training in sample preparation, microarray technology and data analysis at the National Institute for Agricultural and Food Research and Technology (INIA) in Spain and the National Veterinary Research Institute (PIWet) in Poland.

Metagenomics is the study of genetic material detected directly from humans, animals, food and the environment. The aim of the MAD-Vir project is to further develop metagenomics technology that is able to improve the detection of viruses that cause food poisoning and illness in humans and animals.

This technology is useful for the rapid detection of viruses, which are not easily cultured in the laboratory. To date, the MAD-Vir project has implemented the methods at Statens Serum Institut (SSI) in Denmark, the National Veterinary Research Institute (PIWet) in Poland, The National Institute for Agricultural and Food Research and Technology (INIA) in Spain and the Animal Plant Health Protection Agency (APHA).

Samples are currently being analysed from the partner institutes: The Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (IZSAM) and Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER) in Italy, National Public Health Institute (NPHC) in Hungary, French Agency for Food, Environmental and Occupational Health & Safety (ANSES) in France, the Veterinary Research Institute (VRI) in the Czech Republic and University of Surrey in the UK.



Joint Research Project 6

NOVA

Novel approaches for design and evaluation of cost-effective surveillance across the food chain

One of the first tasks of NOVA is to map foodborne pathogen surveillance and to identify barriers/ opportunities for surveillance, such as existing data sources. In parallel, different epidemiological methodologies are further developed to capture surveillance information in a more cost-effective way.

To avoid overlap in work, NOVA and the Joint Integrative Projects ORION and COHESIVE (described below) have collaborated on a one health glossary for better communication between experts from different disciplines. Research also involved studying the surveillance data to detect any changes in human or animal health and analysing food purchase data as a tool to support this surveillance and food poisoning outbreak data.

PUBLICATIONS FROM THE NOVA PROJECT:

1. Non-Typhi, non-Paratyphi Salmonella-related hospitalisations in Spain: trends, clinical aspects, risk factors for worse prognosis and hospital costs.
   Garrido-Estepa, M., Latasa, P., Ordóñez-León, G.Y. et al. (2018) European Journal of Clinical Microbiology Infectious Disease
   Find the publication here: DOI: 10.1007/s10096-018-3433-1
2. Analysis of consumer food purchase data used for outbreak investigations, a review.
   Møller Frederik T, Mølbak Kåre, Ethelberg Steen. (2018) European Surveillence.
   Find the publication here: DOI: 10.2807/1560-7917.ES.2018.23.24.1700503

Joint Research Project 7

LISTADAPT

Adaptive traits of *Listeria monocytogenes* to its diverse ecological niches

In the first year the LISTADAPT partners focussed on *Listeria* strain selection and characterisation. These bacterial strains were taken from existing collections of the partner institutes involved in this project spanning multiple countries, in addition to contacting other research institutes across the EU to increase the diversity of strains.

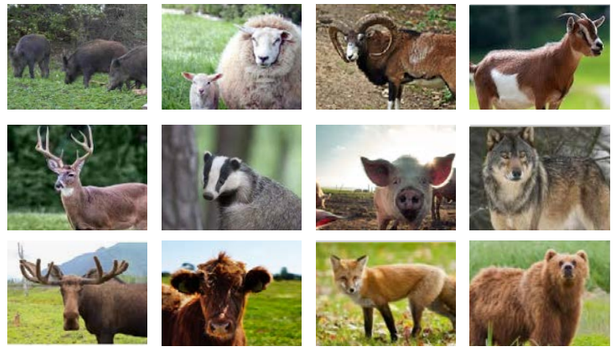
An algorithm for strain selection was developed and applied to the strain collection. Selected strains were characterised in terms of their behaviour in the laboratory and their genetic makeup. Subsequently, genes involved in *Listeria* adaption to its environment have been identified.

LISTADAPT strain collection: Environment / farm / animal

Animal pathology [N=483]

Cow (CH, CZ, FR, EE, HR, IT, LV, SI, UK)
Sheep (CH, FR, EE, IT, LV, SI, UK)
Goat (CH, FR, IT, SI, UK)
Pig (LV)
Horse (LV)
Fox (SI)
Dolphin (IT)

Healthy animals [N=324]



Small animals [N=140]

Soil, farm environment [N=354]

PUBLICATIONS FROM THE LISTADAPT PROJECT:

1. Population Genetic Structure of *Listeria monocytogenes* Strains Isolated From the Pig and Pork Production Chain in France.
   Félix B, Feurer C, Maillet A, Guillier L, Boscher E, Kerouanton A, Denis M, Roussel S. (2018). Frontiers in Microbiology
   Find the publication here: DOI: 10.3389/fmicb.2018.00684

Joint Research Project 8

METASTAVA

Standardisation and validation of metagenomics methods for the detection of foodborne zoonoses, antimicrobial resistance and emerging threats

The first months of the METASTAVA project largely focussed on data collection and the selection of metagenomic methods that would be used in this project. The focus of the project is to evaluate the diagnostic potential of completely random sequence generation directly from samples, to allow the identification of bacterial, viral and eukaryotic pathogens.

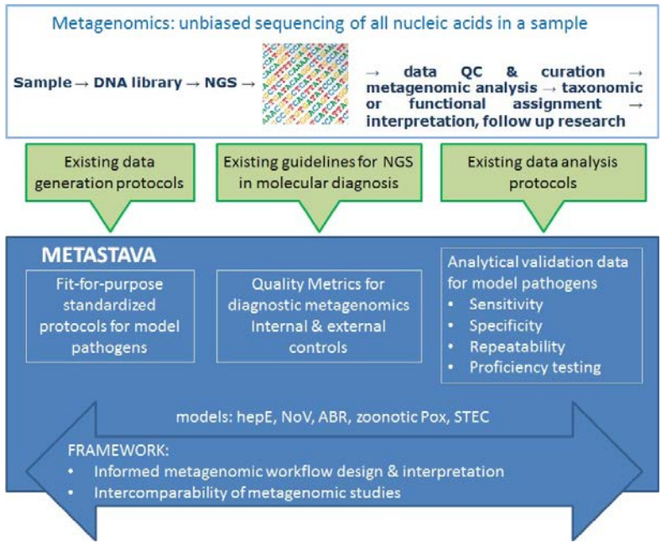


Diagram: METASTAVA workflow and metagenomic methods used in this project.

Several questionnaires, meetings, telephone conferences and phone calls were arranged to discuss, standardise and document the methods available to all METASTAVA partner institutes. The first experimental validation of the methods was conducted, and the controls required for the metagenomics were determined. The members of this project worked closely with the EU project COMPARE and attended several meetings in order to collaborate and communicate the ongoing work of this project.

Joint Research Project 9

AIR SAMPLE

Air-sampling, A Low-Cost Screening Tool in Biosecured Broiler Production

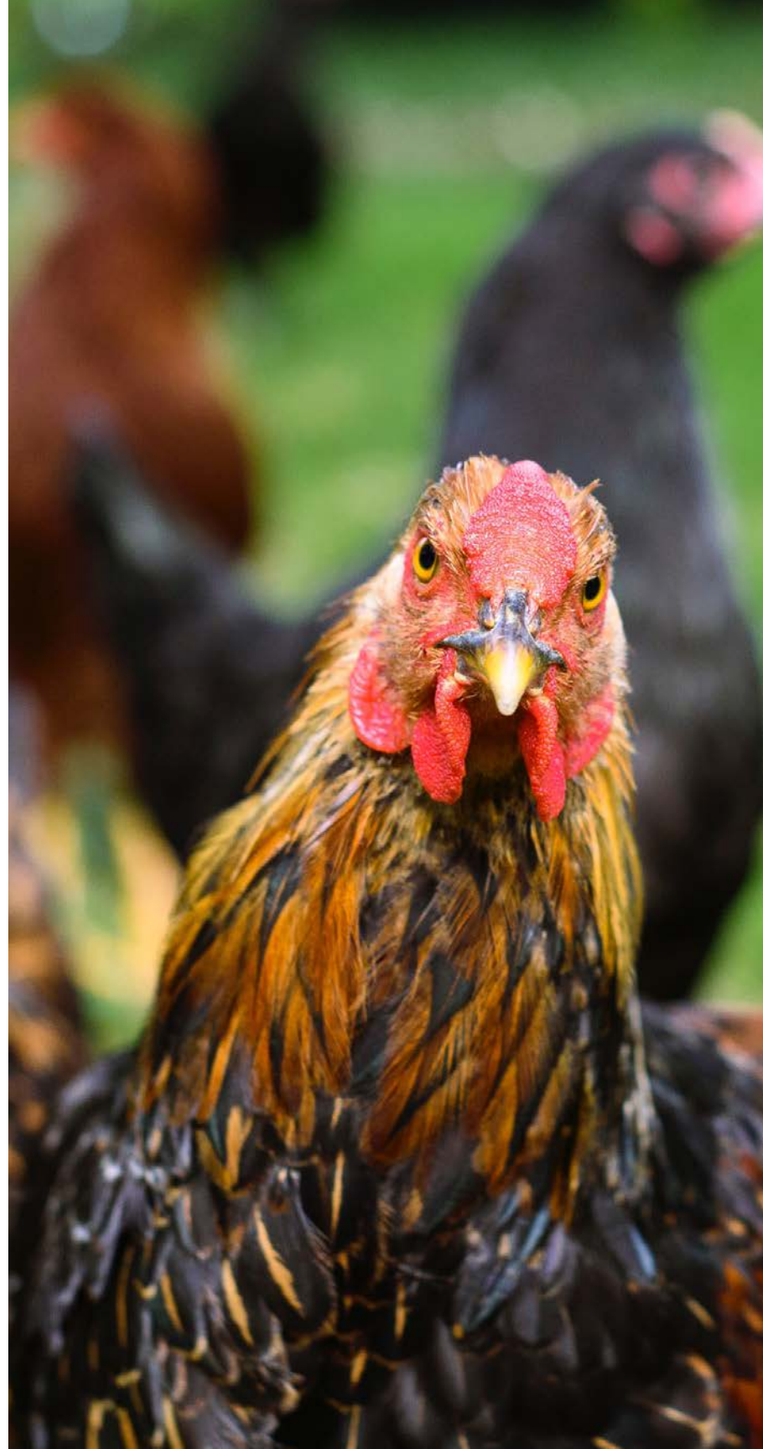
AIR SAMPLE aims to develop and validate air sampling as a low-cost and multi-purpose alternative to faecal droppings or boot swabs for surveillance, monitoring and eradication of *Campylobacter* in confined broiler production. Overall, the project will move through the following four phases:

Harmonisation -> Implementation -> Evaluation -> Validation

Pictured: Air sampling device used to take samples of hen houses for microbial analysis and detection of Campylobacter.

In the first year, the harmonisation and implementation phases were completed. The harmonisation of protocols to collect analysed air samples was implemented by all AIR SAMPLE partners between April and June 2018. Following this, air samples were taken from broiler houses, analysed, and the data were generated.

Air filters were analysed using methods to detect *Campylobacter* DNA to confirm the presence of this bacterium. Detection of DNA from these samples was used instead of more traditional methods of culturing *Campylobacter* in the laboratory, as culture is notoriously difficult.



Joint Research Project 10

MoMIR-PPC

Monitoring the gut microbiota and immune response to predict, prevent and control zoonoses in humans and livestock in order to minimise the use of antimicrobials

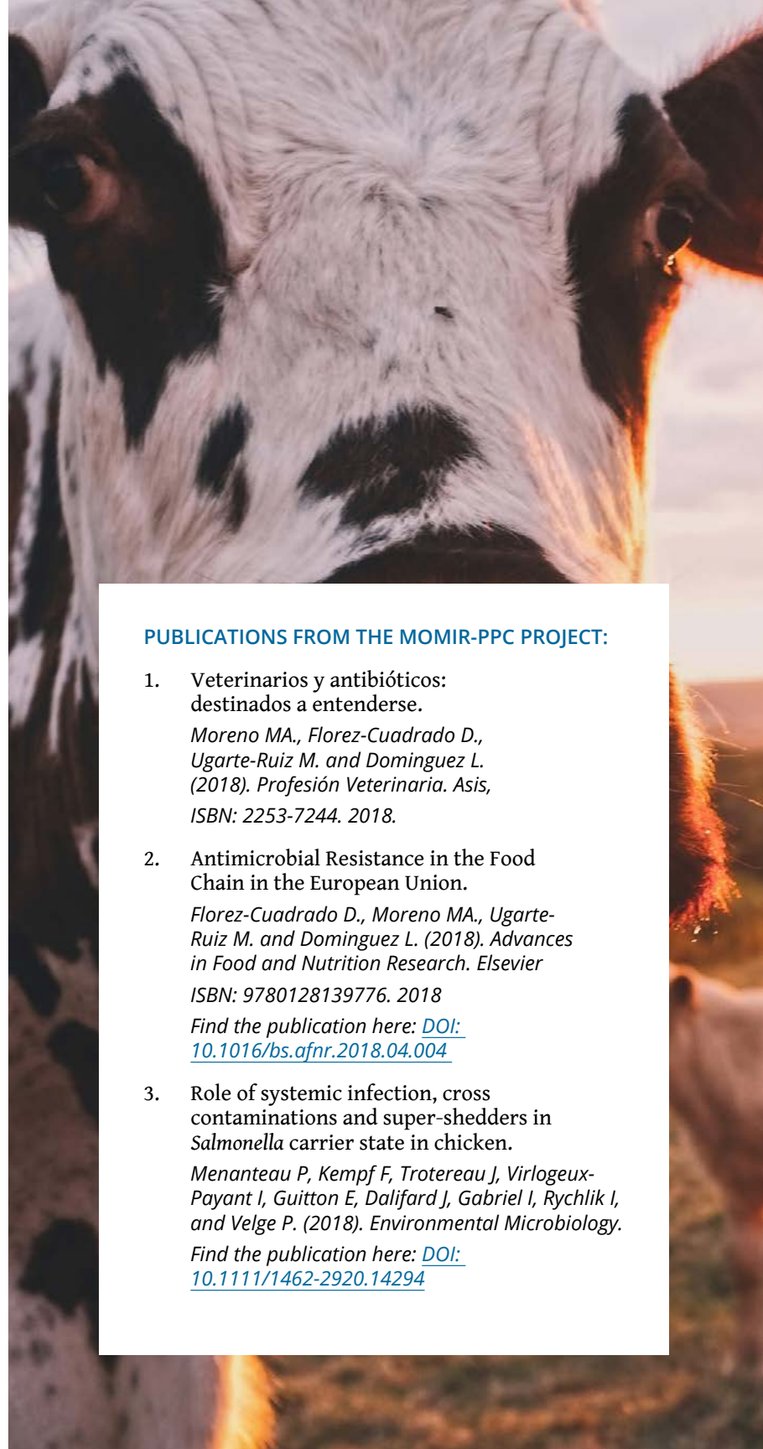
The project consortium consists of 12 academic teams from 11 institutes in the domains of life sciences, medicine, veterinary medicine, animal sciences, epidemiology, applied mathematics and informatics. The MoMIR project aims to develop new approaches to predict, identify and prevent 'super-shedder' animals based on the composition of the gut bacteria and immune responses. This will in turn identify the risk factors to chronic human infection.

Pictured: The MoMIR group's annual meeting. Our researchers met to discuss the progress of the first year and to plan future work and perspectives for the project.

'Super-shedder' animals are those that spread high number of bacteria in their faeces and often have a high level of intestinal tissue colonisation; the focus of the MoMIR project is *Salmonella* infection in pigs and chickens. This project also aims to develop a mathematical model to investigate *Salmonella* transmission between animals and in one animal.

This will help to test several intervention strategies in order to inform animal husbandry, best feeding practices and to decrease the use of antimicrobials. Thus far, the study of immune responses has identified markers associated with the super-shedder status of an animal, in addition to key differences in the composition of gut bacteria before and after infection (microbiome studies).

These results open new avenues for the development of predictive biomarkers to aim to improve the understanding of the pathogenesis and for control. In addition, these results will help in the selection and characterisation of pre and probiotics. Studies focused on how a change in feed or gut bacteria composition can influence the resistance and or the spread of *Salmonella* are also underway.



PUBLICATIONS FROM THE MOMIR-PPC PROJECT:

1. Veterinarios y antibióticos: destinados a entenderse.
Moreno MA., Florez-Cuadrado D., Ugarte-Ruiz M. and Dominguez L. (2018). Profesión Veterinaria. Asis,
ISBN: 2253-7244. 2018.

2. Antimicrobial Resistance in the Food Chain in the European Union.
Florez-Cuadrado D., Moreno MA., Ugarte-Ruiz M. and Dominguez L. (2018). Advances in Food and Nutrition Research. Elsevier
ISBN: 9780128139776. 2018
Find the publication here: DOI: 10.1016/bs.afnr.2018.04.004

3. Role of systemic infection, cross contaminations and super-shedders in *Salmonella* carrier state in chicken.
Menanteau P, Kempf F, Trotereau J, Virlogeux-Payant I, Guitton E, Dalifard J, Gabriel I, Rychlik I, and Velge P. (2018). Environmental Microbiology.
Find the publication here: DOI: 10.1111/1462-2920.14294

Joint Research Project 11

MedVetKlebs

Klebsiella pneumoniae: from ecology to source attribution and transmission control

The MedVetKlebs project is composed of ten European institutes in the OHEJP consortium from clinical, animal, food and environmental microbiology sectors. The overarching goal of the MedVetKlebs project is to advance knowledge on the ecology and transmission of *K. pneumoniae* in order to define strategies to control its spread.

Pictured: The MedVetKlebs group met at the beginning of January 2019 for two days to discuss the successes of the first year and to consider the future perspectives of the project in its second year.

This organism represents a significant threat to public health when associated with multi-drug resistance. *K. pneumoniae* is present in the gastrointestinal tracts of both humans and animals, yet the main reservoirs and routes of transmission between humans and animals remain undefined. This is mainly due to the lack of optimised protocols to detect and identify *K. pneumoniae*. These important gaps are addressed by the MedVetKlebs project.

The first year of the project was dedicated to the development of novel methods to (i) Isolate *K. pneumoniae* from complex sources using culture; (ii) Identify *K. pneumoniae* using MALDI-TOF mass spectrometry and real-time PCR. Now that the protocols have been optimised and disseminated, a broad range of environments including soil, plants, food, animals and human carriage are being sampled in a harmonised way.

PUBLICATIONS FROM MEDVETKLEBS:

1. Identification of *Klebsiella pneumoniae, Klebsiella quasipneumoniae, Klebsiella variicola* and related phylogroups by MALDI-TOF Mass Spectrometry.
   Rodrigues C, Passet V, Rakotondrasoa A, Brisse S (2018). Frontiers in Microbiology. 9:3000
   Find the publication here: DOI: 10.3389/fmicb.2018.03000

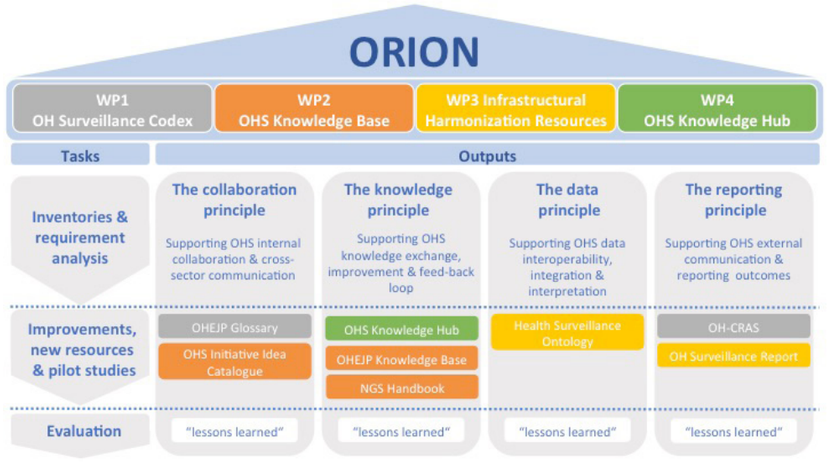
Joint Integrative Projects

ORION

One health suRveillance Initiative on harmOnization of data collection and interpretation

The main aim of the ORION project in the first year was to perform an in-depth 'requirement analysis' and gathering of knowledge for the creation of a Knowledge Hub for a wide audience, including those from food, medical, veterinary and environmental backgrounds. Analyses have been conducted to identify the current needs for harmonisation of One Health surveillance data.

One outcome of this analysis was the decision to initiate the development of a One Health EJP Glossary in collaboration with the NOVA Joint Research Project and the COHESIVE Joint Integrative project. This glossary will facilitate the common understanding of One Health Surveillance terminology and support cross sector and cross discipline collaboration (i.e. across the key health domains: human, animal and environment).



ORION also started the conceptual design of the ORION "OH Surveillance Codex" (OHS Codex) guidance that will add specific recommendations and solutions to the "Tripartite Guide to Addressing Zoonotic Diseases in Countries". Furthermore, all ORION partners started the preparation of small national One Health pilot activities that will apply the ORION solutions and generate new recommendations. All project activities were actively communicated to the One Health EJP Stakeholders EFSA and ECDC to encourage collaboration and information exchange and to ensure that the One Health EJP is contributing and not duplicating research

COHESIVE

One Health Structure In Europe

The COHESIVE Joint Integrative Project aims to strengthen the human-veterinary collaboration with the aim to improve risk assessment, communication, the exchange of information and data and the sharing of knowledge.

Pictured: The COHESIVE group held a workshops at the Animal Plant Health Protection Agency (APHA) in November 2018. This workshop focussed on One Health collaboration dealing with new and (re)emerging zoonoses and Data platforms to facilitate risk analysis and outbreak control.

This is, amongst others important for emerging and re-emerging infectious diseases. Countries differ greatly across Europe (and worldwide) and thus the approaches to One Health issues do also. The guidelines to be developed by COHESIVE should therefore provide information, checklists and approaches to help set-up or strengthen human-veterinary-food collaboration, taking into account the specifics of different countries.

In order to achieve this, as a first step a questionnaire was set up to gather information from the different One Health EJP member states to get an impression of the current way of dealing with new and re-emerging zoonoses, which was further discussed during a workshop at the Animal Plant Health Protection Agency (APHA), in the UK. The questionnaire also gave input to the creation of an inventory of tools that could be used for risk assessment.

Moreover, COHESIVE analysed current ways to exchange information between countries and across disciplines. COHESIVE has also collaborated with other EU projects, especially ORION to avoid duplication of work and find synergy. Also contacts with COMPARE were made. Several interactions took place with EFSA and ECDC to build strong relationships with these One Health EJP Stakeholders. Since the COHESIVE activities are carried out in parallel with the design and implementation of the EU Joint Database, strong relationships between EFSA and ECDC are necessary to ensure harmonisation of activities.

EFSA and ECDC also took part in the workshop at the APHA in November 2018, in which collaboration was initiated or extended and awareness of the COHESIVE project was increased both within the One Health EJP consortium and external to it.

How will the One Health EJP's results be disseminated?

Our Commitment

The One Health EJP is committed to sharing the results and knowledge from all of its activities.

All of the One Health EJP consortium members play a key role in this.

There are several ways in which we do this:

- The One Health EJP is developing a Communication Strategy to ensure that its activities are well publicised. This strategy defines key audiences, channels for internal and external communications, communication tools and One Health EJP branding. It is important that the One Health EJP targets not only scientists, but also policy makers, public health government departments and the general public.
- The One Health EJP website and social media platforms are important platforms to publish all events, research activities, news and key information to a wide audience.
- The One Health EJP Project Management Team (consisting of all Work Package Leaders and Deputy Leaders) communicate on a weekly basis to discuss their progress, exchange information with each other and update on Stakeholder needs. There is also an internal events survey on the website where dissemination activities such as conferences, meetings and workshops are documented.
- Close relationships have been established with other EU projects such as EU- JAMRAI, JPIAMR, EFFORT and COMPARE with the aim of exchanging scientific and technical expertise in the scientific community. For example, the Communication teams of the OHEJP and EU-JAMRAI work together to share information both internal and external to our consortia. Work Package 4 has hosted workshops with EFFORT to identify common research goals and data collection.
- A Data Management Plan is under development to ensure that the One Health EJP is transparent and our data is FAIR: findable, accessible, interoperable and reusable.
- Every year the One Health EJP will organise an Annual Scientific Meeting. This is a key One Health EJP event to communicate and disseminate the scientific outcomes of the Joint Research and Joint Integrative Activities, in addition to the One Health EJP PhD projects. This event will also facilitate collaboration with One Health experts both internal and external to our consortium.
- Having excellent relationships with key Stakeholders, including EFSA and ECDC facilitate our aim to translate science to policy, in addition to ensuring there is no duplication of research between major European organisations.
- Organising Education and Training activities to aid in training the next generation of One Health researchers.

Hein Imberecht
Scientific Coordinator
Sciensano, BE

From the launch of the Covetlab initiative in early 2000 until implementation of the Horizon2020 One Health EJP project nowadays, including the FP6-MED-VET-NET Network of Excellence and the MED-VET-NET Association initiative, integration of public research in the one health cross domains of Med Vet and Food Sciences is now well under way.

Arnaud Callegari
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