



**D4.23 Cogwheel Workshop 7  
with Versatile Emerging  
infectious disease Observatory  
(VEO) and MOnitoring  
Outbreak events for Disease  
surveillance in a data science  
context (MOOD)**

**WP4 Joint integrative projects**

Responsible Partner: SVA

Contributing partners: NVI



## GENERAL INFORMATION

<b>European Joint Programme full title</b>	Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards
<b>European Joint Programme acronym</b>	One Health EJP
<b>Funding</b>	This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 773830.
<b>Grant Agreement</b>	Grant agreement n° 773830
<b>Starting Date</b>	01/01/2018
<b>Duration</b>	60 Months

## DOCUMENT MANAGEMENT

<b>Deliverable</b>	D4.23: 7th cogwheel workshop report with Versatile Emerging infectious disease Observatory (VEO) and MONitoring Outbreak events for Disease surveillance in a data science context (MOOD)
<b>WP and Task</b>	WP4; Task 4.3 – Subtask 4.3.1
<b>Leader</b>	Karin Artursson (SVA)
<b>Other contributors</b>	Solveig Sølverød Mo (NVI) and Kristin Sæbø Pettersen (NVI)
<b>Due month of the deliverable</b>	M42
<b>Actual submission month</b>	M40
<b>Type</b> <i>R: Document, report</i> <i>DEC: Websites, patent fillings, videos, etc.</i> <i>OTHER</i>	R
<b>Dissemination level</b> <i>PU: Public</i> <i>CO: confidential, only for members of the consortium (including the Commission Services)</i>	PU



## Report from Cogwheel Workshop 7 One Health EJP / VEO and MOOD



### Introduction

In Work Package 4 (WP4) of the One Health European Joint Programme (OHEJP), EU initiatives that require strategic interaction with OHEJP are identified in collaboration with WP2 and WP5, to avoid redundancy and to further leverage the alignment at EU level. One of the instruments, so called cogwheel workshops (CWs), are being organised by WP4 to allow key actors and relevant partners within the OHEJP, typically Project leaders or WP leaders within Joint Research Projects (JRPs) or Joint Integrative Projects (JIPs), to identify synergies, joint priorities and opportunities for collaboration within the OHEJP or with other EU initiatives. Before contacting the relevant EU initiative/project, it is important to identify and collect (common) JRP and JIP needs and to define if the initiative complies with these needs. Furthermore, it is important to see if the initiative can complement or assist the OHEJP, for instance with database/repositories, protocols, advice, practical collaboration (sequencing, bioinformatics) and so on.

Eight CWs will be organised during the OHEJP. The reports from the CWs will be part of the input to the Strategic Research Agenda (SRA) of WP2, as well as the Strategic Research and Innovation Agenda (SRIA) of WP7. The CW will ensure that OHEJP development is complementary and that potential synergies are identified.

The target for the seventh CW was the VEO project <https://www.veo-europe.eu/>. The vision of VEO is to establish a Versatile forecasting, nowcasting, and tracking system (VEO) serving as an interactive observatory for the generation and distribution of high-quality actionable information for evidence-based early warning, risk assessment and monitoring of Emerging Infectious Diseases and Antimicrobial resistance by public health actors and researchers in the One-Health domain. Later in the CW planning process, the MOOD project <https://mood-h2020.eu/> was suggested as a relevant partner as MOOD and VEO had common deliverables. The MOOD project aims to harness state-of-the-art big data mining and analysis techniques to improve detection, monitoring and assessment of infectious disease (re-)emergence in Europe. Both are funded by Horizon2020 with a project period from January 2020 to December 2023.

### Practicalities

- Information about the upcoming CW was sent to the Project leaders and deputies and members of the Scientific Steering Board (SSB) on the 12<sup>th</sup> of December 2020. Information about VEO was included.
- The invitation was also distributed by the OHEJP Communication Team (Jade Passey and Piyali Basu) to the OHEJP PhD projects and the new institutes and member states entering the OHEJP consortium from 2021.



- To reach even broader, the invitation was additionally distributed by the OHEJP key communication contacts and distributed to each of the member institutes through the respective Communication Contact Persons.
- The Communication Team included the cogwheel information in the Consortium Newsletter in early February.
- On the 16<sup>th</sup> of February, the OHEJP consortium was informed that MOOD was also included in the workshop, and a link with information about MOOD was included.
- The OHEJP members were asked to identify which WPs in VEO that were of special interest. This information was forwarded to VEO about 10 days before the workshop.
- Deadline for registration was set to the 12<sup>th</sup> of February 2021 and the CW was held as an online meeting with 54 participants using Adobe Connect on the 25<sup>th</sup> of February 2021. The agenda is included in the annex.
- Eighteen OHEJP projects were represented in total, including one PhD project.
- The meeting was recorded until the closed OHEJP session. A link to the recorded meeting, the given presentations and contact information for follow-up questions was distributed by email to all participants the 1<sup>st</sup> of March 2021.
- The feedback form was distributed to the participants both together with the agenda before the workshop and with the presentations and the recording link on the 1<sup>st</sup> of March. The deadline for returning the feedback forms was the 4<sup>th</sup> of March. Due to limited response, the feedback form was sent out again on the 5<sup>th</sup> of March with a gentle reminder and deadline the day after.

### Attendance list

Project	Representatives (institute)*
VEO	Maarten Hoek, Erasmus Universitair Medisch Centrum Rotterdam Jeffrey Edward Skiby, DTU Frank Møller Aarestrup, DTU
MOOD	Sylvie Laurens, CIRAD William Wint, ERGO Renaud Lancelot, CIRAD Annapaola Rizzoli, Fondazione Edmund Mach Alexander Wowra, OpenGeoHub
COHESIVE	Elina Lahti, SVA Sandra Cavaco, INIAV Kitty Maassen, RIVM
MATRIX	Guido Benedetti, SSI
ORION	Estíbaliz López de Abechuco, BfR
TOXOSOURCES	Joke van der Giessen, RIVM Pikka Jokelainen, SSI
EnvDis	Giann Lo Iacono, UoS Laura Gonzalez Villeta, UoS
RADAR	Camilla Sekse, NVI
BIOPIGEE	Gergana Krumova-Valcheva, NDRVMI Georg Duscher, AGES Elena Lucia Sassu, AGES Ilaria Di Bartolo, Istituto Superiore di Sanità
BeOne	Liljana Petrovska – Holmes, APHA
CARE	Antonella Maugliani, Istituto Superiore di Sanità
MEEmE	Jacinto Gomes, Instituto Nacional de Investigação Agrária e Veterinária, I. P.
VIMOGUT	Ingrid Cardenas Rey, WBR



OH-HARMONY-CAP	Patrizia Rossi, Istituto Superiore di Sanità
IDEMBRU	Sandra Cavaco, INIAV
FED-AMR	Christina Fastl, AGES Krista Rathammer, AGES Karin Rainer, AGES Adriana Cabal Rosel, AGES
ADONIS and DISCOVER	Ana Botelho, INIAV
PARADISE	Jacinto Gomes, Nacional de Investigação Agrária e Veterinária, I. P.
PEMbo	Charles Ciriac, ANSES-INRAE
OHEJP Administration	Hein Imberechts, Sciensano Roberto La Ragione, UoS Dolores Gavier-Widén, SVA Ludovico Sepe, BfR Lucia de Juan, VISAVET -UCM Lena Tuominen, SVA Karin Artursson, SVA Manuela Caniça, INSA María Ugarte-Ruiz, VISAVET-UCM Solveig Sølverød Mo, NVI Kristin Pettersen, NVI
OHEJP Communication team	Piyali Basu, UoS Jade Passey, UoS
Other	Elisa Pérez-Ramírez, INIA-CISA Giovanni Pupillo, IZSLER Ludo Hellebrekers, WBR Tom Hengl, OpenGeoHub Petras Maciulskis, National Food and Veterinary Risk Assessment Institute Ichsani Wheeler ( <i>Institute not registered</i> )

\* Some participants represented several projects.

## Output

All OHEJP projects interested in participating in the CW had the opportunity to do so. The relevant key elements in VEO and MOOD, as identified by each OHEJP project, are listed below. The proposed action points from each project are listed in a separate summary table below.

### Meeting summary, per project

Key elements in VEO and MOOD relevant for each One Health EJP project:

EJP Project	COHESIVE
	<ul style="list-style-type: none"> <li>• Key drivers for disease emergence/spread.</li> <li>• Integrated surveillance.</li> <li>• Data sharing.</li> <li>• Integrated data platforms.</li> </ul>

EJP Project	TOXOSOURCES
	<ul style="list-style-type: none"> <li>• Interesting to know why parasites were not included in the scope of the projects.</li> </ul>



EJP Project	ORION
	<ul style="list-style-type: none"><li>The efforts carried out in both projects to develop collaborative data-mining tools, in particular the approach of the MOOD project to standardize and integrate data.</li></ul>
EJP Project	CARE
	<ul style="list-style-type: none"><li>VEO and MOOD were relevant for the WP2 in CARE.</li></ul>
EJP Project	EnvDis
	<ul style="list-style-type: none"><li>Data management and standardisation.</li><li>Potential datasets to look for information.</li></ul>
EJP Project	IDEMBRU
	<ul style="list-style-type: none"><li>Key drivers for disease emergence/spread.</li><li>Integrated surveillance.</li><li>Data sharing.</li><li>Integrated data platforms.</li></ul>
EJP Project	National Food and Veterinary Risk Assessment Institute, Lithuania (Not an EJP project)
	<ul style="list-style-type: none"><li>Surveillance.</li><li>Data collection and analysis.</li><li>Risk assessment of emerging infectious diseases.</li></ul>

**No action points were identified**

**Other comments**

- In general, the workshop and choice of projects received positive feedback.
- Use of big data/data mining for surveillance were considered relevant for a number of OHEJP projects. This is important to avoid duplication of work and also for future partnerships (e.g., European Partnerships).
- The VEO project showed a tremendous amount of expertise available and in preparation of upcoming Horizon EU projects, some may be interested to rely on the experience of VEO. However, it was not quite clear how non-VEO partners can have access or receive guidance.
- The MOOD project presentation was interesting and informative. An introduction to the non-expert was suggested to better understand.
- VEO was asked if parasites would be included. They confirmed that they will, but also underlined that parasites may be too complicated at the moment. Approaches applicable for parasites are highly appreciated within the OHEJP as there are major data gaps to be filled.
- One important issue is indeed legal issues related to data sharing. Another point highlighted was that these projects now focus on different pathogens. The OHEJP asked what the ratio to focus on these pathogens was - how to find/identify pathogen X which can cause a new pandemic. The latter question highlights the value of global sharing of data, not just within Europe.
- There was also a question if knowledge generated was planned to be implemented in real life. MOOD confirmed that the end users are from public health and veterinary health institutes.
- VEO and MOOD encouraged OHEJP to visit the websites for scientific webinars and workshops (<https://www.veo-europe.eu/calendar> , <https://mood-h2020.eu/events/>).
- Both the VEO and MOOD presentations were interesting and relevant for the participants. More information from VEO on how to deal with the problems associated to sharing raw sequencing data would be interesting. The OHEJP has already confronted that issue many times recently



regarding microbiomes from poultry. It is important to follow the Nagoya protocol that has a material transfer agreement. It was commented that it can already be challenging to share research material only within one country, and thus even more challenging within projects with international partners.

- No overlapping between the invited projects and OHEJP were identified, and it is possible that connections will be made.
- The number of participants has increased since the previous workshops. The format is suitable in order to get information about other projects. However, some unexpected technical challenges regarding sound quality for some of the presenters and connecting to the Adobe connect platform for some of the participants were encountered this time.

### **Concluding remarks**

In general, the choice of projects (VEO and MOOD) received positive feedback, covering highly relevant topics within their project scope. Both format and platform have received positive feedback in previous workshops, but this time we experienced technical challenges. The cogwheel team will evaluate the use of platform and different measures to lower the risk for this in future cogwheel workshops. All presenters are invited for a technical check on beforehand, and the arrangement of this will also be evaluated.

### **Presentations given at the meeting**

The recording of the cogwheel workshop can be accessed through the following link;  
<https://svasweden.adobeconnect.com/p4b066zg5q34/>