

SCIENTIFIC NETWORK FOR ZONOOSES MONITORING DATA



20 September 2023 09:00-13:00 (Helsinki Time)
Minutes agreed on 06 October 2022

Location: ECHA conference center, Helsinki and Webconference (Microsoft Teams)

Attendees:

- o Network Participants:

Country	Name
Austria	Peter Much
Belgium	Vera Cantaert
Croatia	Dražen Knežević
Czech Republic	Jana de Sousa Trépa Magalhaes* Lenka Bartošová*# Veronika Vlasáková*
Denmark	Marianna Sandberg
Estonia	Annika Vilem* Brita Smitt*
Finland	Taru Lienemann
France	Renaud Lailier Françoise Gauchard*
Germany	Thomas Schewe Carlus Deneke* Holger Brendebach*
Greece	Michael Polemis
Hungary	Fanni Szabo*
Ireland	Lisa O'Connor Brian Byrne* William Byrne*
Italy	Adriano Di Pasquale Cesare Camma'
Latvia	Tatjana Ribakova*
Netherlands	Ife Slegers - Fitz-James Linda Verhoef Joost Stassen*#
Norway	Jannice Schau Sletteameas Camilla Sekse
Portugal	Vítor Borges Sara Isabel Rodrigues Godinho*
Slovak Republic	Marta Bedriova
Slovenia	Bojan Papić Jana Avberšek* Maja Kokalj* Maja Bajt*
Spain	Isis Fajardo Jose Luis Saez Llorente* Soledad Collado*
Sweden	Cha Wonhee Robert Söderlund*

- o European Commission/Other EU Agencies representatives: Kris De Smet*, Valeria Michelacci*, Angela van Hoek*, Hanna Skarin*, Asgeir Astvaldsson*, Adrien Assere



- EFSA: Mirko Rossi, Valentina Rizzi, Joana Lourenco*

*online participants; # ad hoc participant (approved by Focial Point)

1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Bulgaria, Cyprus, Iceland, Lithuania, Luxembourg, Malta and Romania.

2. Adoption of the agenda

The agenda was adopted without changes.

3. Topics for discussion

3.1 Session 1: Current status and lesson learnt from 2023 activities

3.1.1 Overview of 2023 activities

Valentina Rizzi presented a short wrap-up from the 1st WGS subgroup network meeting on 27 February 2023, following by an overview of the biological monitoring activities carried out during 2023. These included the list of events monitored and assessed in the period 2019-2023 and the ROAs published since the implementation of the One Health WGS system. Brief explanation of the process to open data calls, for the production of an assessment and on monitoring activities was presented. Additionally, an overview of the data calls open by EFSA since the implementation of the criteria process was shown.

It has been stressed again to the network the critical role of the country officer, due to his or her managerial role, in coordinating the Member State effort in the data provision to EFSA (especially during EFSA data calls). EFSA confirmed that the data calls can be forwarded not only to appointed Data Providers' organisations, but also to other laboratories (if relevant for the data call) as soon as there is an appointed data provider organisation who takes responsibility and ownership of the data in the EFSA One Health WGS system.

Valentina Rizzi clarified that like what is already in place for a few Member States, the Country Officers have the option to designate a functional mailbox for inclusion in our communications with the Member State. However, EFSA would appreciate, particularly during ROAs, that the designated Country Officer includes in his or her out-of-office message the name of a contact person capable of temporarily assuming the role of the Country Officer during his or her absence. This person will only be included in EFSA communication when the designated Country Officer is away and will not remain in the loop upon his or her return to work. Alternatively, the food authority of the Member State can designate a permanent alternate who can always be included in EFSA communication. In this case, EFSA would assume that the alternate would take full duty as Country Officer in the absence of the principal Country Officer.

Mirko Rossi clarified that that typing data and epidemiological data can be submitted to the EFSA One Health WGS system asynchronously. In a perspective of sharing data, it is acceptable to submit only typing data (especially if this would facilitate the sharing of data), since usually a limited number of shared data is actually part of a cross-sectoral cluster. However, when responding to data calls and sharing data as a reaction to an ongoing outbreak or crisis, EFSA recommended to share immediately the epidemiological data together with the typing data (when possible).

It has been clarified the visibility of the data shared in EpiPulse which might have a larger geographical distribution than data share in IRASFF and EFSA One Health WGS system. Therefore, EFSA encouraged the network members to ensure that, if food information is shared in EpiPulse, both IRASFF and the EFSA One Health WGS system are aligned.



For what concerns *Salmonella* and *Escherichia coli*, EFSA informed the network about restrictions in accessing and using data shared in Enterobase, due to the policy implemented in that platform. Therefore, the network members have been requested to ensure that if there is the intention to share data in Enterobase but not to distribute the raw reads in ENA or SRA, the same data should also be shared in the EFSA One Health WGS system.

Concerning the discussion related to this topic 3.1.1, the network has been asked to respond to the following questions:

Q1. How do you evaluate the criteria for the call for data? [31 respondents]

The median score was 8.5 over 10 (with 1 poor and 10 excellent), which has been considered optimal. EFSA will proceed with implementing the current criteria. However, considering that approximately 20% of the participants scored lower than median, EFSA will include this question in the survey for seeking ideas for possible improvement.

Q2. Is the new step of consultation of the Country Officers about a ROA considered effective (with the aim to validate specific microbiological results)? [32 respondents]

A total of 75% responded "Yes", but a significant number of members (21%) responded either "no" (9%) or "I do not know" (16%). One reason reported by the members regarding the "No" was related to not having enough time for performing the validation, especially since the Country Officer is not able to validate microbiological data (due to his or her managerial role). EFSA acknowledged the difficulties for some Member States and will discuss internally on how to better support those Country Officers. It has been reminded that the Country Officer should be a single contact person in the country, but he or she can appoint additional persons who can support his or her role as Country Officer in the validation process (e.g., a technical Country Officer who can access the system and edit/validate the data). Some countries are already doing this. EFSA will include this question in the survey for seeking ideas for possible improvement.

Q3. Do you use the WGS portal and want it to be maintained?

This question was not clear and not all network members understood what "WGS portal" referred to exactly. EFSA will include a specific question on this in the survey.

Q4. Do you use the specific Teams channel and want it to be kept operational (to receive relevant communications)? [22 respondents]

Only 41% of the members responded "Yes", while 36% responded "No" and 23% "I do not know". There is a lot of uncertainties if maintaining or not the TEAMS channel. EFSA will continue maintaining it, but it will be evaluated again after the survey.

3.1.2 Feedback from Portugal

Vitor Borges presented the structure of the WGS surveillance in Portugal and the interaction with both ECDC and EFSA data collection. He also shown his experience in using the EFSA One Health WGS system, giving positive feedback and suggestions for improvement of the WGS portal and of the bioinformatic pipeline. He also presented the plans of his institution to develop scripts and codes for improving the usability of the local implementation of the EFSA bioinformatic pipeline. He presented also ReportTree and proposed possible solutions for implementing it in the EFSA system to speed-up the detection and characterisation of genetic clusters.

Mirko Rossi acknowledged the effort of Portugal in providing additional bioinformatic tools which can be used by other data providers in order to ensure the production of data compatible with the EFSA standards. EFSA invited other network members to participate in the co-creation of tools which can improve the EFSA bioinformatic analysis.

3.1.3 Feedback from Belgium

Vera Cantaert presented the structure of the WGS surveillance in Belgium and the different roles of local, regional and federal services and institutions, and the interaction with both ECDC and EFSA. Vera Cantaert emphasised that the communication is key element for ensuring functionalities of this very dense network of actors. She also stressed the importance of creating awareness among food business operators and presented the actions taken in that respect: e.g.



consultation of stakeholder organisations when drafting the 2021 advice of the Scientific Committee (established at the Federal Agency for the Safety of the Food Chain) on WGS for the detection of foodborne outbreaks and bacterial risk assessment, a common meeting with the scientific committee, the stakeholder organizations and the management of the food safety agency.

3.1.4 The EFSA One Health WGS system

Mirko Rossi presented the status of implementation of the enhancements proposed by the network at the first WGS subgroup network meeting and explained the process of the prioritisation exercise, the result of the prioritisation and the timeline of the implementation. He presented the main design for three of most relevant changes which are planned to be into production environment in the next months:

- **Improvement of the Country Officer functionalities**, already implemented in TEST and planned to be released in October 2023 ; the new implementation will allow Country Officer users to execute additional actions in the system such as uploading data and creating an entry on behalf of one organisation of their country, edit data, perform query and visualising minimum spanning trees, download results, release and unrelease data. Country Officers will not be able to delete an entry from the system, even though submitted by an organisation of his/ her country.
- **Notification email**, planned to be implemented in Oct 2023 and released by end of 2023 ; this implementation would allow users to subscribe to notification email both for getting notified if a pipeline run is failed and also for getting notified on results of queries from ECDC.
- **Tagging flow**, planned to be implemented by the end of 2023 and released by February 2024 ; this implementation would allow users to organise data in the system based on tags, and to share this project among organisations

Mirko Rossi presented issues and possible solutions regarding the bioinformatic analyses implemented in the EFSA WGS system. Although the bioinformatics pipeline was designed to perform analyses in standardised way with limited human supervision and it fits the purpose; it is clear that there is the need to improve some components, i.e., the Quality Control (QC) matrixes. Some network members for example were in favour to relax the QC, but maybe flagging the data with not optimal quality. Other network members would prefer to keep strict QC. Considering that data entering in the EFSA system can be queried and retrieved by the ECDC system, we need to ensure good quality of data. Network suggests that when ECDC send a query should include flags for ECDC quality thresholds for allelic profiles.

Mirko Rossi communicated that EFSA had discussed with EURLs and agreed to perform the improvements of the system following the steps below:

- To collect issues and complains from network members, the Country Officers and Data Providers
- To discuss on regular basis with EURLs on the detected issues
- EURLs to analyse the issues and propose solutions (also based on consultation on their NRL networks); in this evaluation EURL should consider including Data Providers which are not part of the NRLs network.
- EFSA to implement the solutions and communicate them to the network members, the Country Officers and Data Providers

It has been informed that, the programmatic submission of data is available since April 2023 and has been tested thoroughly by few countries (including Germany, Italy and Austria). However, only a few users requested to access the API, and no users have submitted data through the API. EFSA is preparing additional training materials and supporting tools, and a Webinar is planned by the end of October.

Concerning the discussion related to this topic 3.1.2, the network has been asked to respond to the following questions:



Q5. Are the existing training materials for the One Health WGS system sufficient? [14 respondents]

A total 86% of the network members responding the question answered “I do not know”. Considering the low number of responses and the general uncertainties of the network members, EFSA will further investigate this in the survey.

Q6. What is the step in the bioinformatic pipeline implemented in the WGS system that needs to be improved? [6 respondents]

“Quality parameters” and “threshold for called loci” were the most voted. However, due to the limited number of responses, EFSA will further investigate this question in the survey.

Q7. What would you need in term of documentation and support for the programmatic submission of data? [29 respondents]

Webinar (59%) was the first choice, followed by Guidelines and standards (52%), Tutorials (48%) and bilateral meeting (14%). EFSA will consider this results in the plan for enhancing training activities and documentation.

3.2 Session 2 | Moving toward *Campylobacter* data sharing

3.2.1 International cluster on ST 464 *Campylobacter*

Hanna Skarin from EURL *Campylobacter* presented the event opened in EpiPulse and the data call managed by the EURL. EURL concluded that patients in several (at least five) different European countries have been ill from this specific genotype, that the source is most likely chicken, but from the limited data available it is not possible to point out a specific country to continue the investigation. In addition, this genotype seems to be a genetic lineage stable in time and space which might complicate the interpretation.

Concerning the discussion related to this topic 3.2, the network members agreed that EFSA opens the data collection also for *Campylobacter* data for increasing knowledge on the distribution of this pathogen. However, network members still have doubts on the interpretation and assessment of possible multi country outbreaks and on the implementation of control measures in case of positive results considering the current legislation (e.g., which is the added value for risk managers?). EFSA should discuss with European Commission (EC) colleagues on the opportunity of opening data collection for *Campylobacter* and its possible impact. In the meantime, EFSA and ECDC, with the help of EURL *Campylobacter* and representatives of the ECDC FWD coordination committee, will define analytical procedures including cgMLST or wgMLST schema and cluster definition.

3.3 Session 3 | Planning 2024

3.3.1 Clarification on nomination process of Country Officers and network members

Mirko Rossi clarified the nomination process of Country Officers and network members. In brief, the role of a Country Officer primarily consists of serving as an interface between managers and assessors within the country. Therefore, from the outset, the EC requested Food Safety Authorities (participating in the EC’s Standing Committee on Plants, Animals, Food and Feed (PAFF) meeting) to handle the nominations for this role. Conversely, the WGS subgroup network (appointed by the EFSA’s Advisory Forum according to the procedure) serves as a source of scientific and technical support and includes individuals with various areas of expertise and different roles, including some who are also Country Officers for specific countries.

3.3.2 Satisfaction survey

Valentina Rizzi presented the plan for launching a survey to the Member States which will cover the topics discussed at the meeting (i.e. criteria for call for data, consultation of Country Officer about the ROA, training materials, SharePoint regarding monitoring activity and TEAMS channel for communication, enhancements of the EFSA One Health system - in particular, interest in the functionality for Data Providers to submit their isolates from EFSA system to public repositories; this point needs to be presented and validated by the EFSA’s Advisory Forum).

Network members decided to provide a single reply per country to be coordinated by the Country Officer (who should keep in cc the WGS subgroup of the network). EFSA should keep the survey



open for sufficient time (two full months) to allow the Country Officers to coordinate the response with the Data Providers in their countries.

3.3.3 One Health collaboration (reflection on the discussion done in the interagency meeting)

Valentina Rizzi opened the discussion on the Joint Meeting of ECDC's FWD Network and EFSA's Zoonoses Network (WGS and FBO subgroups). Members provided positive feedback on the meeting held with ECDC's network. Mirko Rossi clarified that during an assessment EFSA cannot participate in cross sectorial meetings between countries' food safety authorities and public health authorities. Valentina Rizzi summarised the actions agreed at the meeting: a protocol for cross-sectorial collaboration in response to multi-country foodborne events will be drafted by spring 2024, discussed at the 2024 WGS subgroup network meeting, and finalised at the joint EFSA-ECDC interagency network meeting (online) in December 2024.

3.3.4 Planning network activities 2024

The network members agreed on the proposal from EFSA to organise the 2024 network meeting side-by-side with the main zoonoses network meeting in Parma in October 2024. The exact date needs to be identified.

4. Any Other Business

Not additional points were discussed.

5. Conclusions

- Network members to ensure that, if food information is shared in EpiPulse, both IRASFF and the EFSA One Health WGS system are aligned;
- Network members to ensure that, if there is the intention to share data in EnteroBase but not to distribute the raw reads in ENA or SRA, the same data should also be shared in the EFSA One Health WGS system;
- EFSA to launch a survey covering the points highlighted in the minutes above;
- EFSA to table for discussion the protocol for cross-sectorial collaboration in response to multi-country foodborne events at the WGS subgroup network meeting in 2024;
- EFSA to identify the date for the 2024 network meeting to be side-by-side with the main zoonoses network meeting (in Parma in October 2024).
- EFSA to align to EURLs to perform improvements of the pipeline and system.

6. Closure of the meeting

The chair thanked the network representatives for the intensive and productive meeting and closed the meeting at 13:00 (Helsinki time).



Appendix : List of Action Points

List of action points agreed at the meeting

No	Agenda Point	Action Points	Deadline
1.	<i>From the meeting held on 27/02/23</i>	EFSA to investigate how to lean the process related to interaction with Member States during the multi-country outbreak response (i.e., data call scheme): for the 30% of the countries replying, the process is too demanding.	After the analysis of the survey
2.	3.1.4	EFSA to align to EURLs to perform improvements of the pipeline and system.	On demand
3.	3.3.2	EFSA to launch a survey to collect the view of the countries about the points discussed during the meeting.	By end of November 2023
4.	3.3.3	EFSA to table for discussion the protocol for cross-sectorial collaboration in response to multi-country foodborne events at the WGS subgroup network meeting in 2024	At the 2024 meeting of the WGS subgroup network
5.	3.3.4	EFSA to identify the date for the 2024 network meeting to be side-by-side with the main zoonoses network meeting (in Parma in October 2024)	By end of December 2023
6.	3.3.2	Countries to reply to the survey providing a single reply per country to be coordinated by the Country Officer of each country	By end of February 2024

Legend

- Action points for EFSA
- Action points for Network Representatives