

20th June 2023



WELCOME TO THE FEEDCO STAKEHOLDERS MEETING ON MICROORGANISMS

AGENDA 20TH JUNE 2023

| Time | No. | Item | Presenter |
|--------|-----|--|--------------------------|
| 09:00h | 1 | Welcome | EFSA FEEDCO Unit |
| 09:05h | 2 | Brief introduction and in-house messages | EFSA FEEDCO Unit |
| 09:15h | 3 | EFSA Guidance on the characterisation of microorganisms used as feed additives or as production organisms | EFSA FEEDCO Unit |
| 09:30h | 4 | EFSA statement on the requirement for whole genome sequence analysis of microorganisms intentionally used in the food chain Microorganisms Pipelines Service - MoPS | EFSA FEEDCO Unit |
| 09.45h | 5 | Industry's views on the EFSA Guidance, Statement and MoPS | Industry representatives |
| 10:30h | 6 | Questions and answers | All participants |
| 11:20h | 7 | Concluding remarks | EFSA FEEDCO Unit |
| 11:30h | | <i>End of the meeting</i> | |



SOME TIPS AND RULES - ONLINE



Keep your **microphone muted and camera off** at all times unless specifically asked by the Chair or an EFSA staff

Keep the **meeting chat box clean**. Use it only to signal technical problems or when indicated by the Panel Chair



Use “raise hand” function to ask the floor to submit questions or comments **when indicated by the Chair**

If you have problems with the connection, exit the meeting and rejoin



Use of headset recommended for better sound quality





EFSA Guidance on the characterisation of microorganisms used as feed additives or as production organisms

GUIDANCE UPDATE

1

Consolidating well-established and fit-for-purpose principles

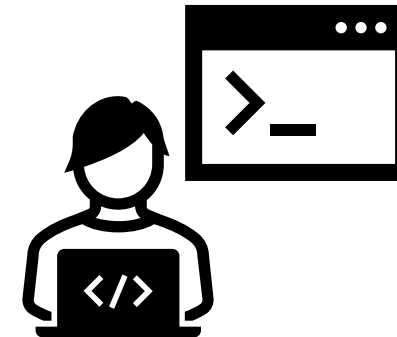
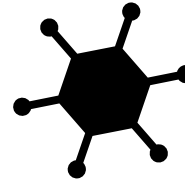
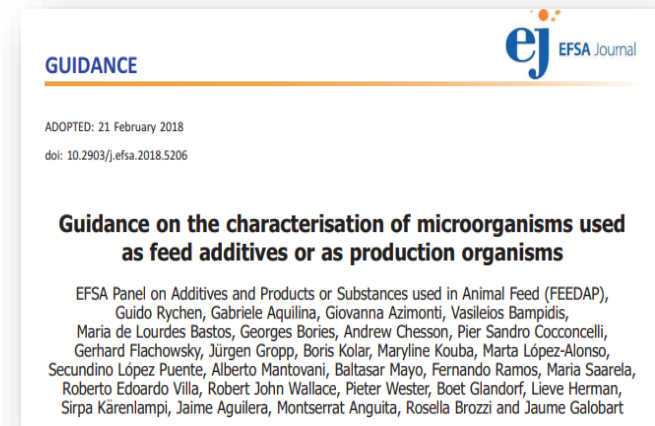
2

New needs – bacteriophages

3

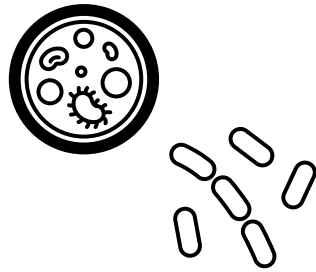
Update to consider:

- Recent advancements – new technologies/tools
- New data/information available
- Experience gained



UPDATE GUIDANCE – CONT...

MICROBIAL CHARACTERISATION – AMR SUSCEPTIBILITY



Bacteria - yeasts

Where possible/needed at species level

List of antibiotics

Table 2: Microbiological cut-off values (mg/L)

| | Ampicillin | Vancomycin | Gentamicin | Kanamycin | Streptomycin | Erythromycin | Clindamycin | Tetracycline | Chloramphenicol | Tylosin | Ciprofloxacin | Colistin | Fosfomycin |
|--|------------|------------|------------|-----------|--------------|--------------|-------------|------------------|-----------------|---------|---------------|----------|------------|
| <i>Lactobacillus</i> obligate homofermentative ^(a) | 2 | 2 | 16 | 16 | 16 | 1 | 4 | 4 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus acidophilus</i> group | 1 | 2 | 16 | 64 | 16 | 1 | 4 | 4 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus</i> obligate heterofermentative ^(b) | 2 | n.r. | 16 | 64 | 64 | 1 | 4 | 8 ^(c) | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus reuteri</i> | 2 | n.r. | 8 | 64 | 64 | 1 | 4 | 32 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus</i> facultative heterofermentative ^(d) | 4 | n.r. | 16 | 64 | 64 | 1 | 4 | 8 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus plantarum</i> / <i>pentosus</i> | 2 | n.r. | 16 | 64 | n.r. | 1 | 4 | 32 | 8 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus rhamnosus</i> | 4 | n.r. | 16 | 64 | 32 | 1 | 4 | 8 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactobacillus casei</i> / <i>paracasei</i> | 4 | n.r. | 32 | 64 | 64 | 1 | 4 | 4 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Bifidobacterium</i> | 2 | 2 | 64 | n.r. | 128 | 1 | 1 | 8 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Pediococcus</i> | 4 | n.r. | 16 | 64 | 64 | 1 | 1 | 8 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Leuconostoc</i> | 2 | n.r. | 16 | 16 | 64 | 1 | 1 | 8 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Lactococcus lactis</i> | 2 | 4 | 32 | 64 | 32 | 1 | 1 | 4 | 8 | n.r. | n.r. | n.r. | n.r. |
| <i>Streptococcus thermophilus</i> | 2 | 4 | 32 | n.r. | 64 | 2 | 2 | 4 | 4 | n.r. | n.r. | n.r. | n.r. |
| <i>Bacillus</i> | n.r. | 4 | 4 | 8 | 8 | 4 | 4 | 8 | 8 | n.r. | n.r. | n.r. | n.r. |
| <i>Propionibacterium</i> | 2 | 4 | 64 | 64 | 64 | 0.5 | 0.25 | 2 | 2 | n.r. | n.r. | n.r. | n.r. |
| <i>Enterococcus faecium</i> | 2 | 4 | 32 | 1,024 | 128 | 4 | 4 | 4 | 16 | 4 | n.r. | n.r. | n.r. |
| <i>Corynebacterium</i> and other Gram-positive | 1 | 4 | 4 | 16 | 8 | 1 | 4 | 2 | 4 | n.r. | n.r. | n.r. | n.r. |
| Enterobacteriaceae | 8 | n.r. | 2 | 8 | 16 | n.r. | n.r. | 8 | n.r. | n.r. | 0.06 | 2 | 8 |





EFSA statement on the requirement for whole genome sequence analysis of microorganisms intentionally used in the food chain

WGS STATEMENT UPDATE

1

Complementing well-established guidance documents

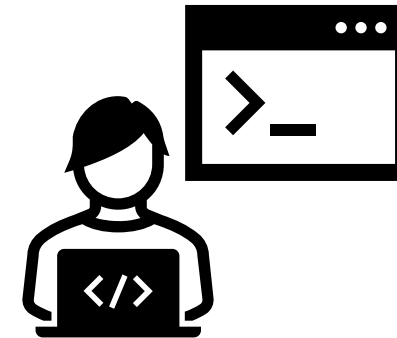
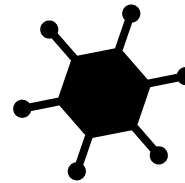
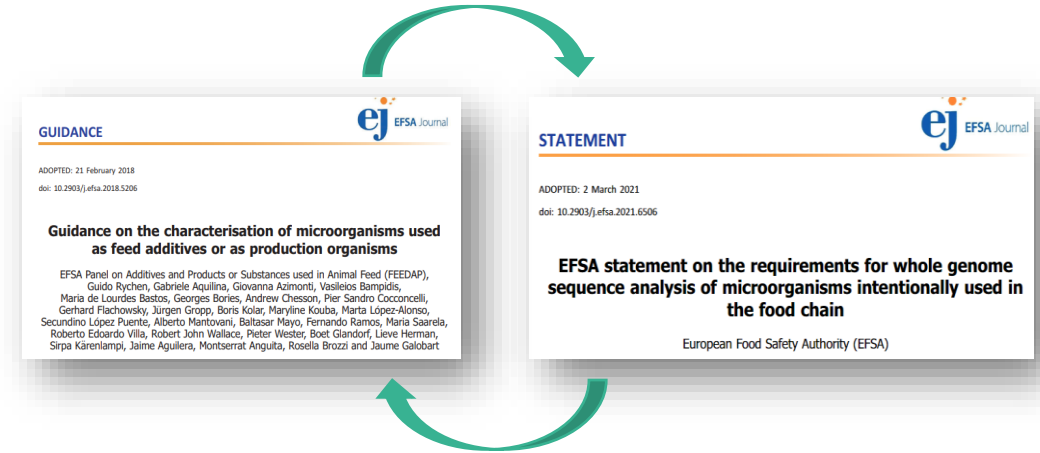
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Expanding scope – bacteriophages

3

Update to consider:

- Most frequent questions
- Recent advancements – new technologies/tools
- Development and implementation of the Microorganisms pipelines service



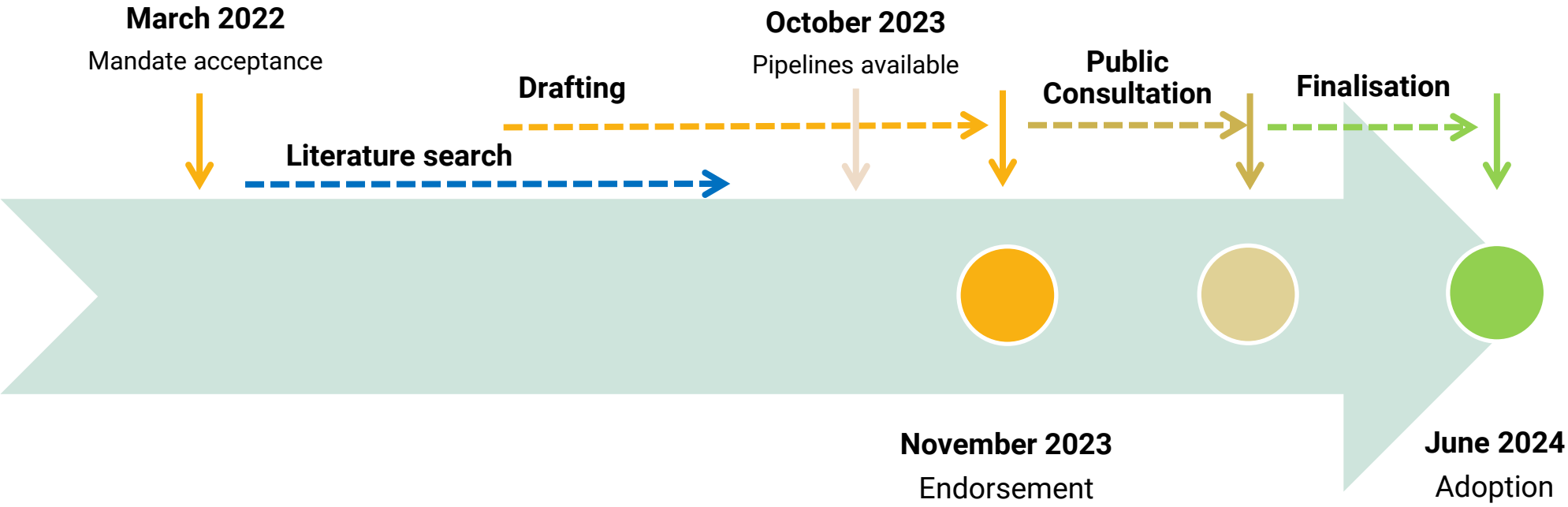
MAIN LIMITATIONS OF DATASET

- Taxonomic identification – reference strains
- Interrogation for the presence of genes of concern – databases, reporting
- Antimicrobial activity – test item
- Absence of viable cells and DNA of the production strain – sampling, methodology, reporting, controls

Most frequent questions



TIMELINE – GUIDANCE AND STATEMENT





Microorganisms Pipelines Service - MoPS



MOPS IN A NUTSHELL

SCOPE



Develop and implement 3 pipelines (bacteria, yeasts/filamentous fungi, viruses) to support the risk assessment (RA) of WGS data

WHY



- Address the needs of different risk assessments domains
- Comprehensive microorganisms RA
- Standardised microorganisms WGS based data analysis

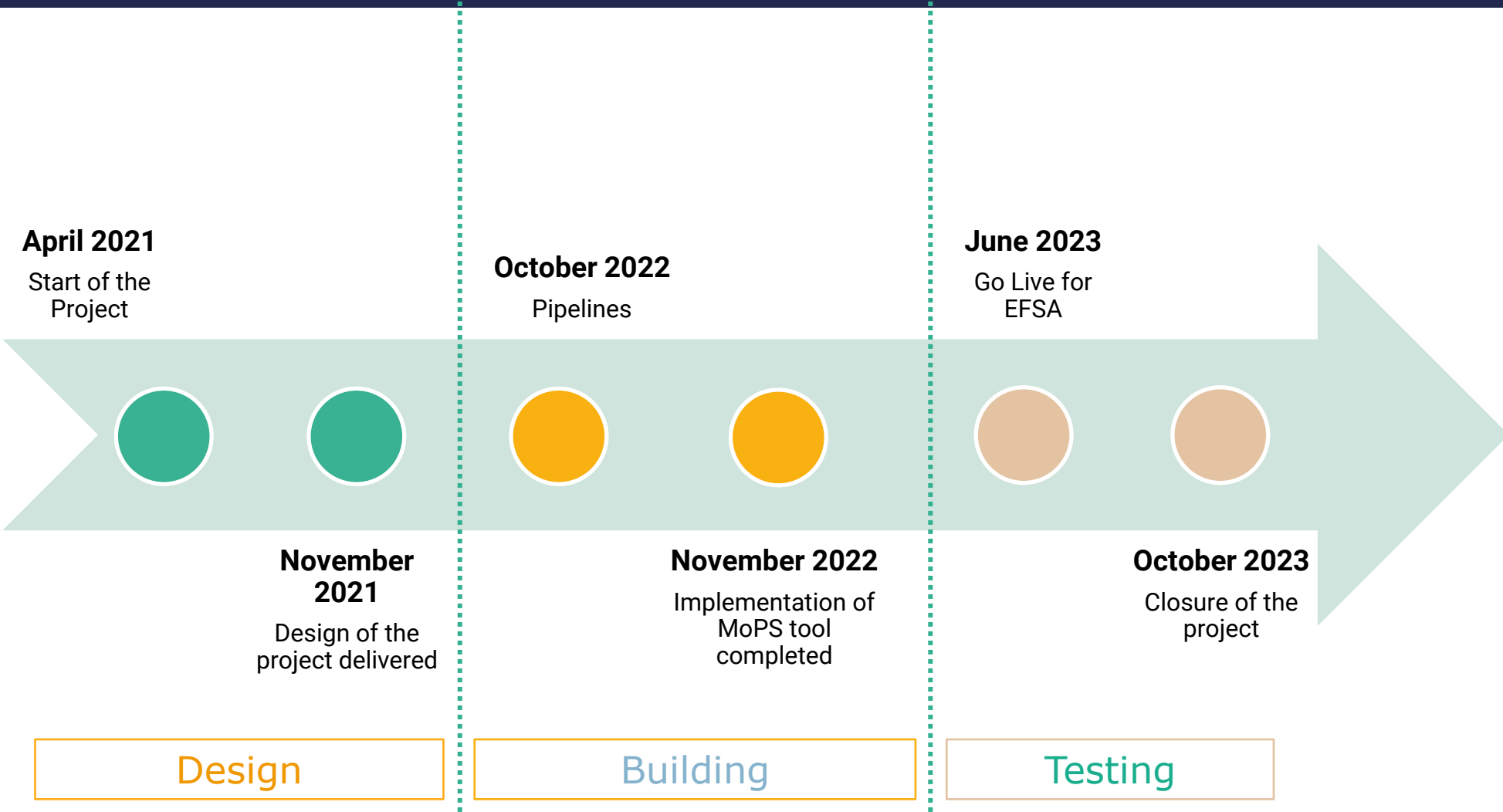
HOW



- Build a secure and confidential environment
- Perform the sequence quality check of the WGS data
- Use the WGS data to taxonomically identify and characterise the microorganism



TIMELINE – MOPS





Industry's views on the EFSA Guidance, Statement and MoPS



Questions and answers



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