

29 May 2026



CLOSURE MEETING ON MOPS2 PROJECT

EFSA

LATEST BUNDLE DEVELOPMENTS

- ASSEMBLY PART REVISED
- PLASMID SECTION REVISED
- AMR TABLES REVISED
- FUNGAL ANNOTATION REVISED
- CARD TOOL REPLACED BY MEGARES
- NEW FUNGI PHYLOGENETIC TREE
- CUTOFFS AND ALERTS REVISED
- GMM NEW WORKFLOW



GMM PIPELINE

Number of retained SV events by type, how many overlap CDS occur in intergenic regions or involve hypothetical proteins.

For each retained SV event: genomic coordinates, estimated length, supporting methods, supporting read evidence, linked events, and overlapping genes.

Events are retained only when supported by assembly evidence, by long-read or short-read evidence, or by concordance across at least two sequencing technologies.

7. Structural Variants²¹

7.1 Summary Table

SV Type	Number of Events	Events with CDS	Intergenic Events	Events with Hypothetical Proteins	CDS mean (std)
Deletion					
Duplication					
Insertion					
Inversion					
Replacement					

7.2 Expanded Table

Event ID	SV Type	Length (bp)	Illumina sup. reads	Long-read methods	Method	Genes	Linked events
DEL_59	Deletion						
DEL_157	Deletion						

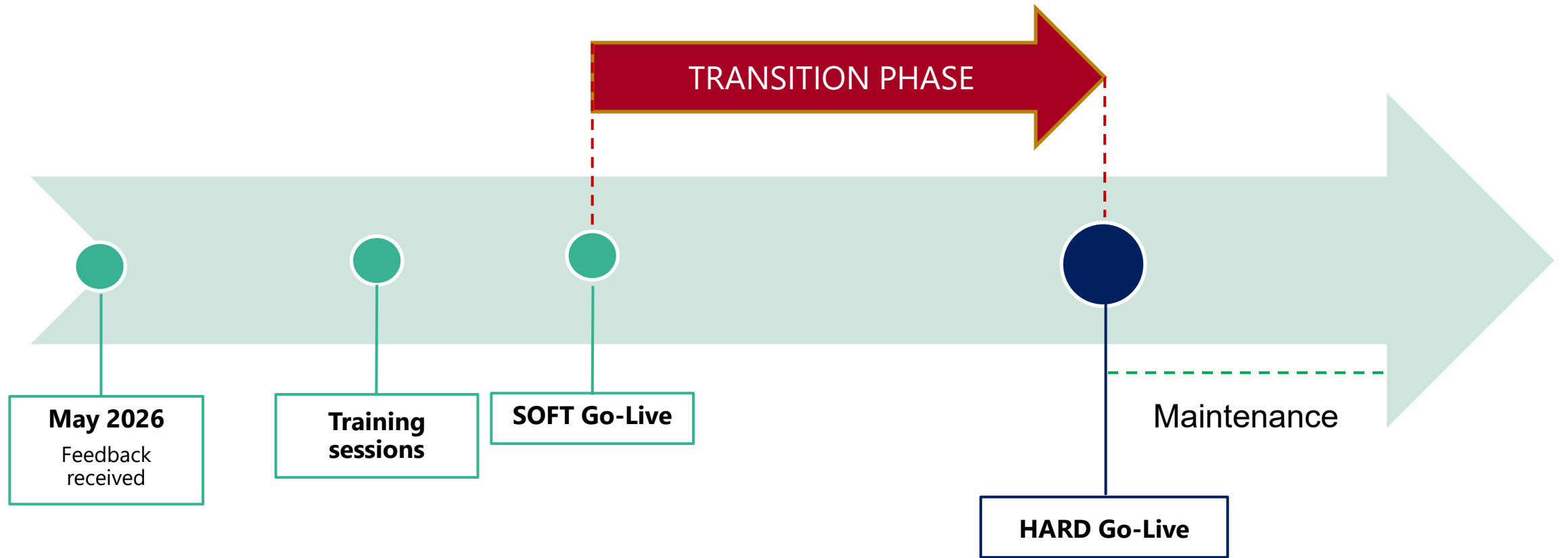


FEEDBACKS RECEIVED & NEXT STEPS

- QUESTION ON VFDB VERSION
- FEEDBACK FOR SOME FAILING RUNS FOR WHICH WE ARE WORKING TO RESOLVE.
 - Initially the issue was running GMM with FASTA
 - New issue are not yet understood, more testing
- **TROUBLESHOOTING WILL CONTINUE, BUT SUGGESTIONS FOR ENHANCEMENTS WILL STOP.**



MOPS2 IMPLEMENTATION



MOPS PORTAL: DATA HANDLING AND RETENTION

- The MoPS portal is a controlled **processing** environment, not a data repository.
- Uploaded sequence data is transient: your data are **deleted immediately** after pipeline execution.
- The virtual machine used to process your data is also **deleted** after execution.
- Your sequence data **cannot** be accessed by any human user **by design**.



MOPS PORTAL: DATA ACCESS AND GOVERNANCE

- Summary:
 - Sequence data uploaded to the MoPS Portal are **processed and deleted fully automatically**.
 - **No user** has access to your sequence data.
- EFSA has a strict need-to-know principle.
Only EFSA Data Stewards have access to the **pipeline results**.
- EFSA has in place a strict **Access Management Procedure**.
No other user can gain access to the Data Steward group, except with the approval of the Head-of-Unit.



DOWNLOADABLE MOPS OPTION

- A downloadable MoPS version for providing final results is not foreseen at the moment
- A web-based MoPS ensures
 - Auditability
 - Consistency of risk assessments
- A web-based MoPS avoids
 - Version discrepancies across local installations
 - Need for High-Performance-Computing infrastructure & capabilities



VERSION CONTROL, REPRODUCIBILITY AND SCIENTIFIC RELIABILITY

- After Go Live the bioinformatic pipeline will be shared in DevOps with **full version control**



THANK YOU

