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ABRomics: An integrated multi-omics platform for antibiotic resistance research and public health

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► To cite this version:

Julie Lao, Pierre Marin, Romain Dallet, Fabien Mareuil, Alix De Toisy, et al.. ABRomics: An integrated multi-omics platform for antibiotic resistance research and public health. 9ème symposium sur la résistance aux antimicrobiens chez les animaux et dans l'environnement (ARAE 2023), Jul 2023, Vinci International Convention Centre, Tours, France. hal-04369175

HAL Id: hal-04369175

<https://hal.science/hal-04369175>

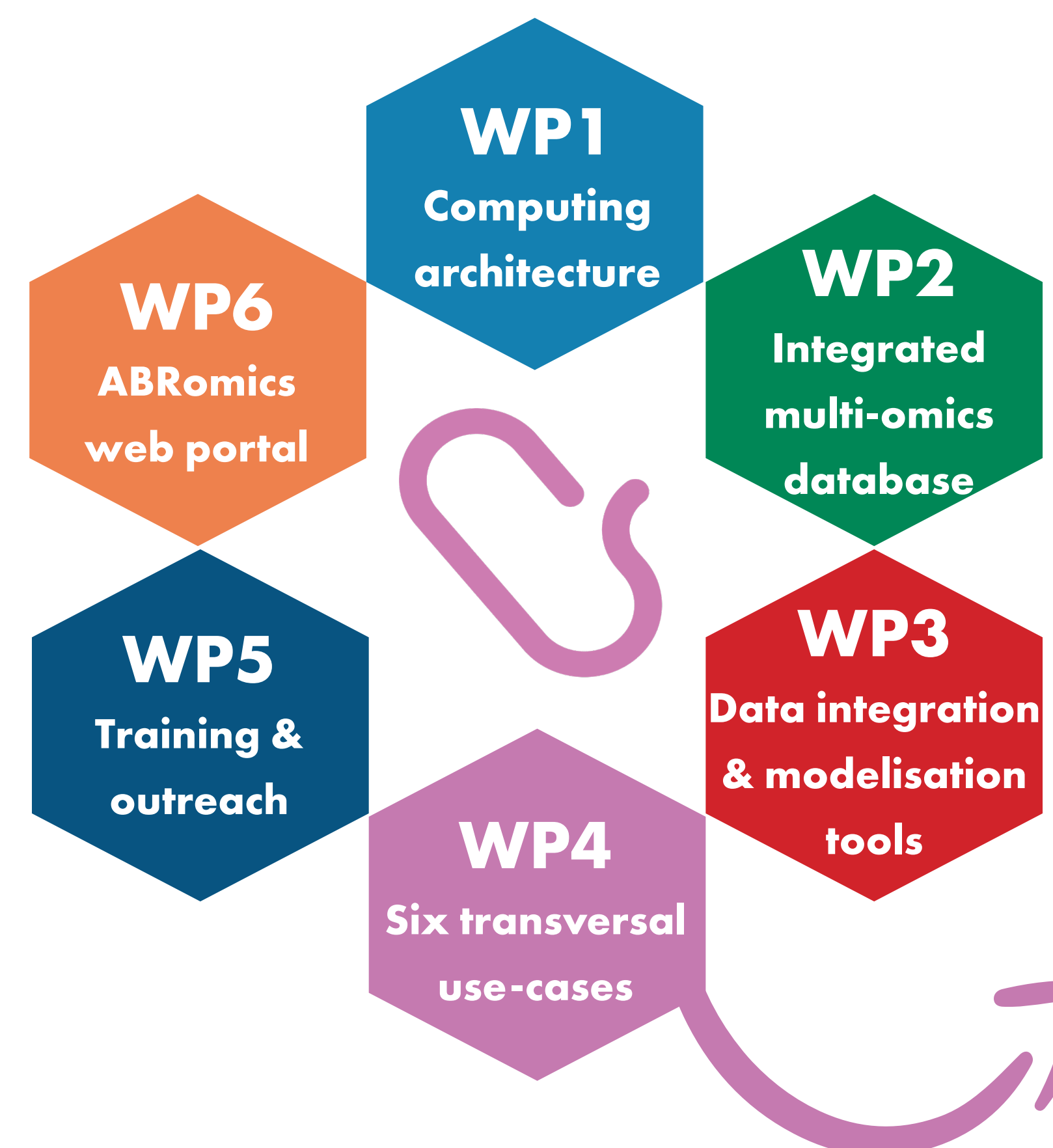
Submitted on 3 Jan 2024

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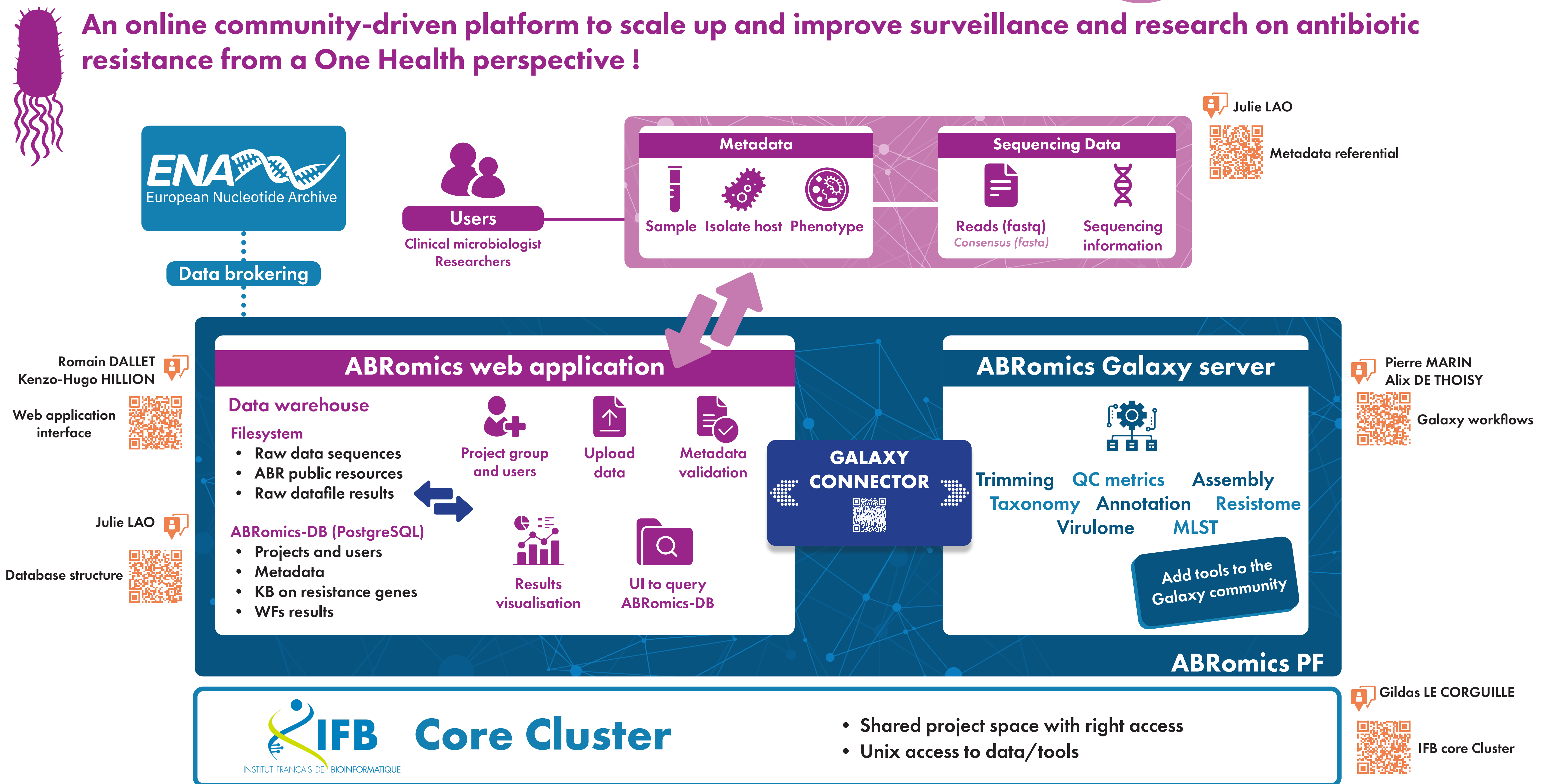
Antibiotic Microbial Resistance (AMR) is a major public health issue prioritized by international institutions. Funded by the French Priority Plan on antibioresistance (2M€; 2021-2025), we are developing a shared platform to assist AMR surveillance across human and veterinary medicine, including environmental and food isolates. It is made of :

- a repository of structured, interoperable, standardized and well-annotated multi-omics microbiological data from human, animal and environmental origins
- with an up-to-date arsenal of mathematical and bioinformatic tools to answer generic and specific research questions related to AMR.

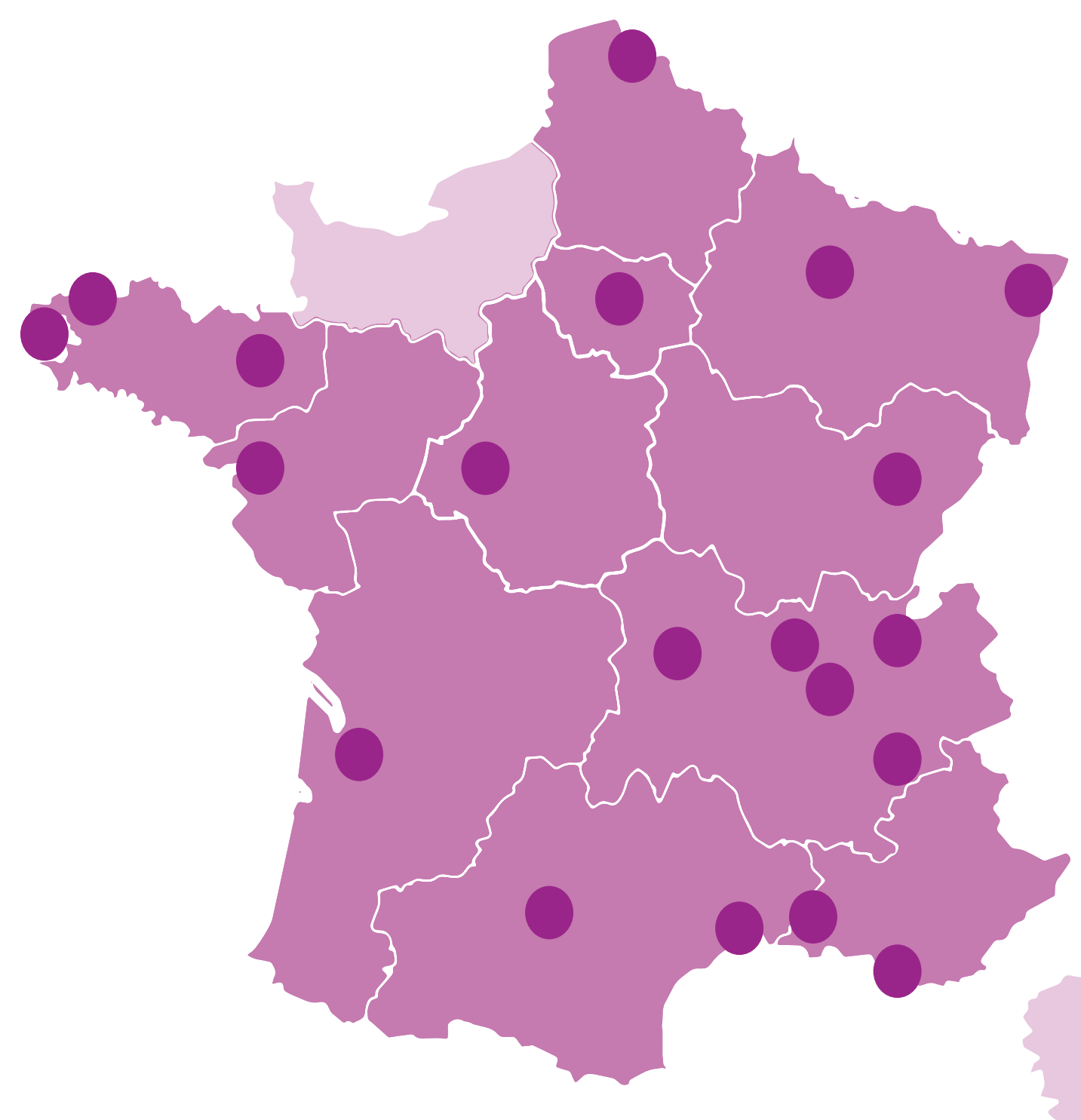
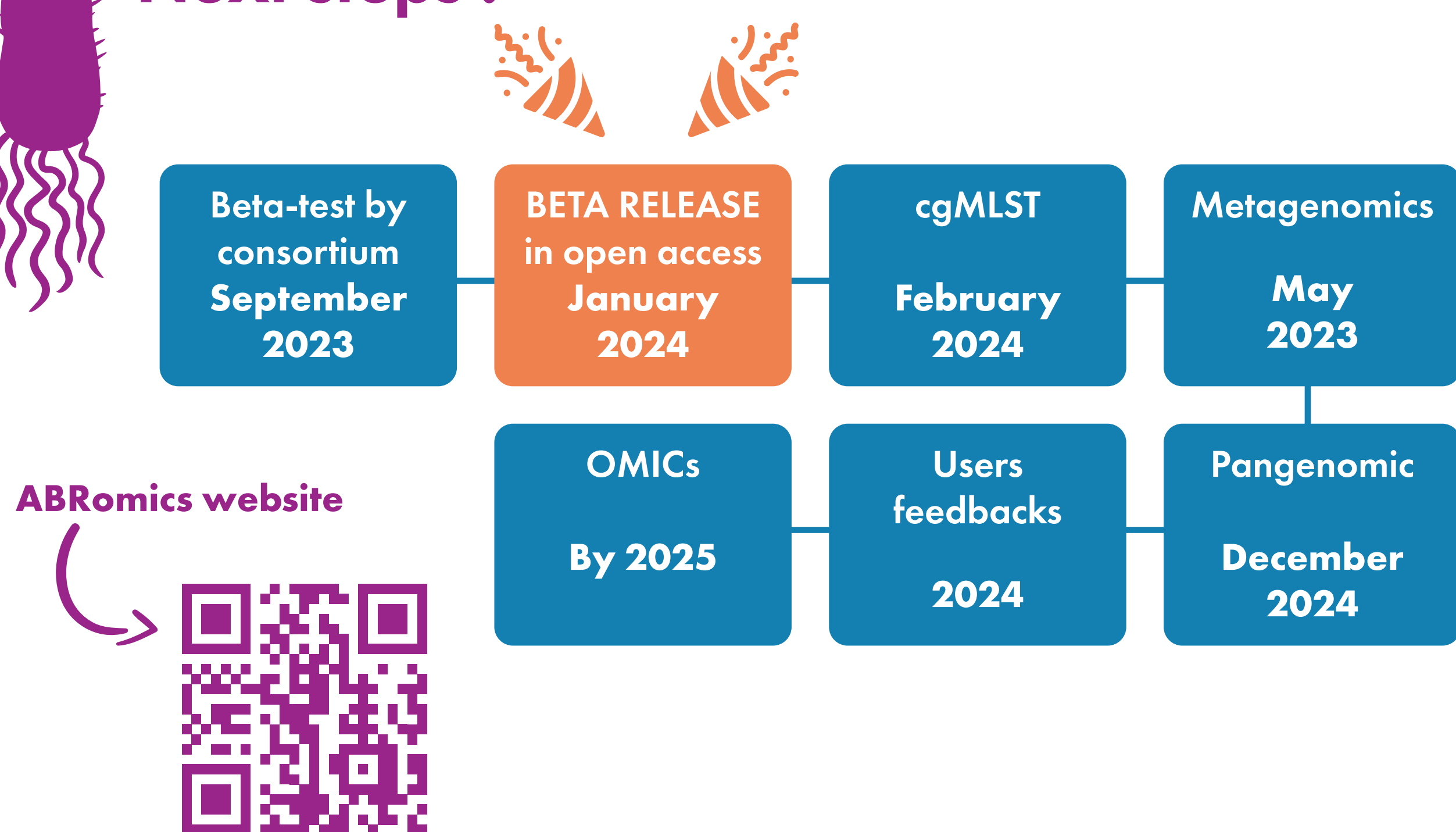


- 1 Multidrug resistant bacteria
- 2 One Health approach
- 3 Meta-pan genomics for tracking AMR
- 4 AMR in pulmonary infection
- 5 AMR dissemination through aquatic env.
- 6 Proteomics for AMR phenotyping

An online community-driven platform to scale up and improve surveillance and research on antibiotic resistance from a One Health perspective !



Next steps !



ABRomics consortium

- Effort at the national level : 43 research teams and platform!
- Multidisciplinary consortium
- Includes all National Reference Centers for antibiotic resistance
- Coordination by the French Institute for Bioinformatics (Claudine Médigue) and Institut Pasteur (Philippe Glaser)

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