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

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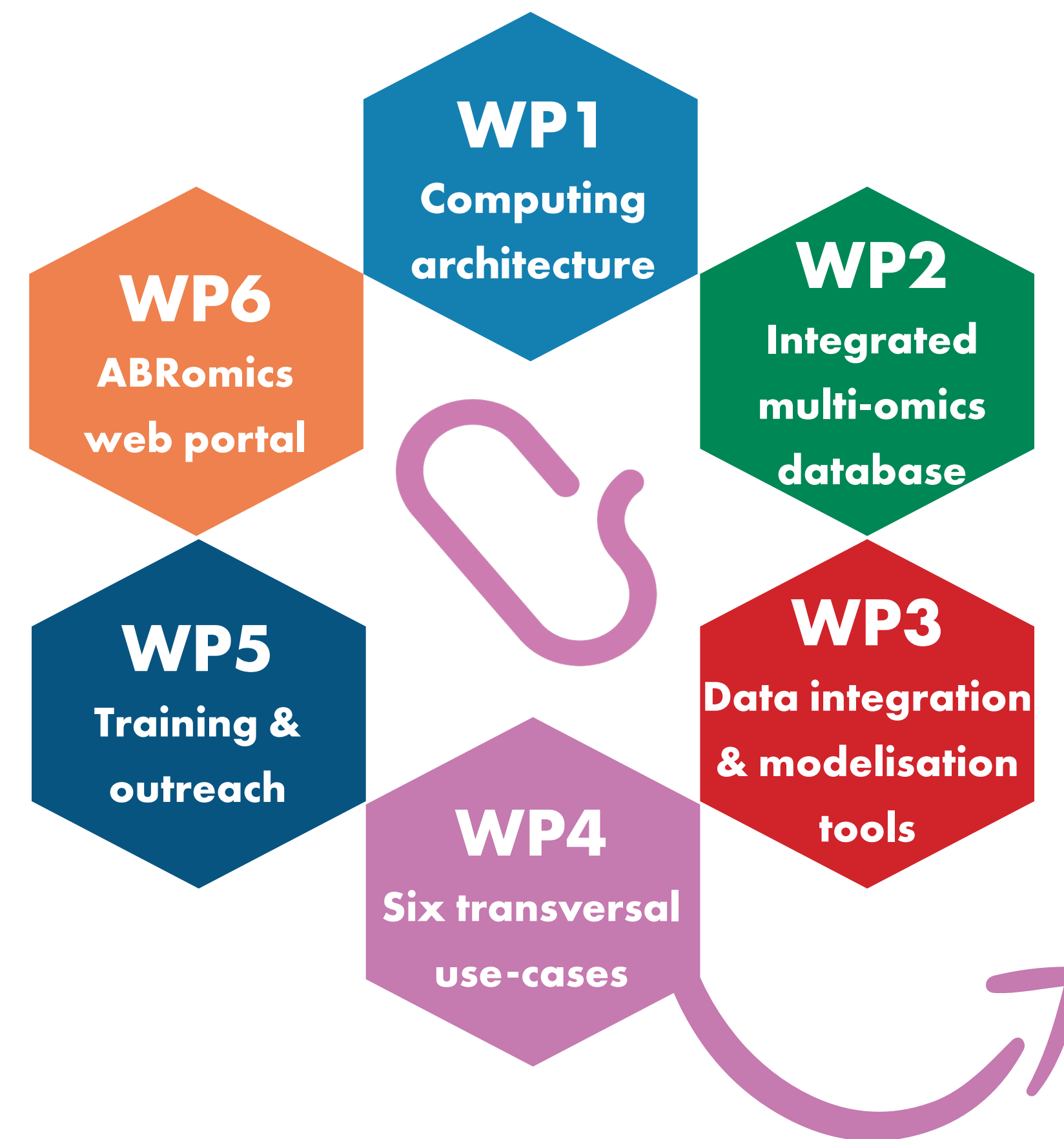
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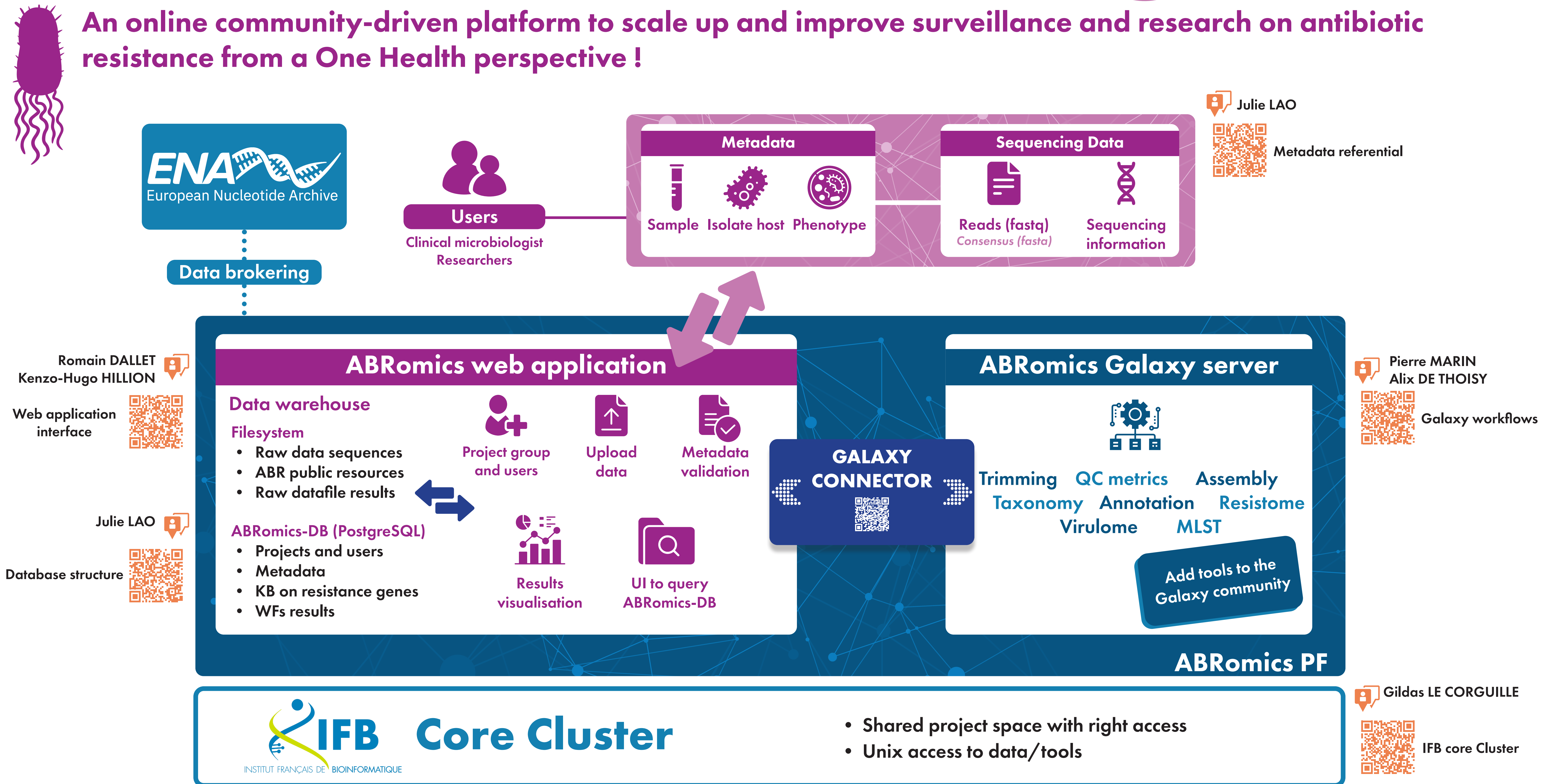
Antibiotic Microbial Resistance (AMR) is a major public health issue prioritized by international institutions. Funded by the French Priority Plan on antibioresistance (2M€; 2021-2025), we are developing a shared platform to assist AMR surveillance across human and veterinary medicine, including environmental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

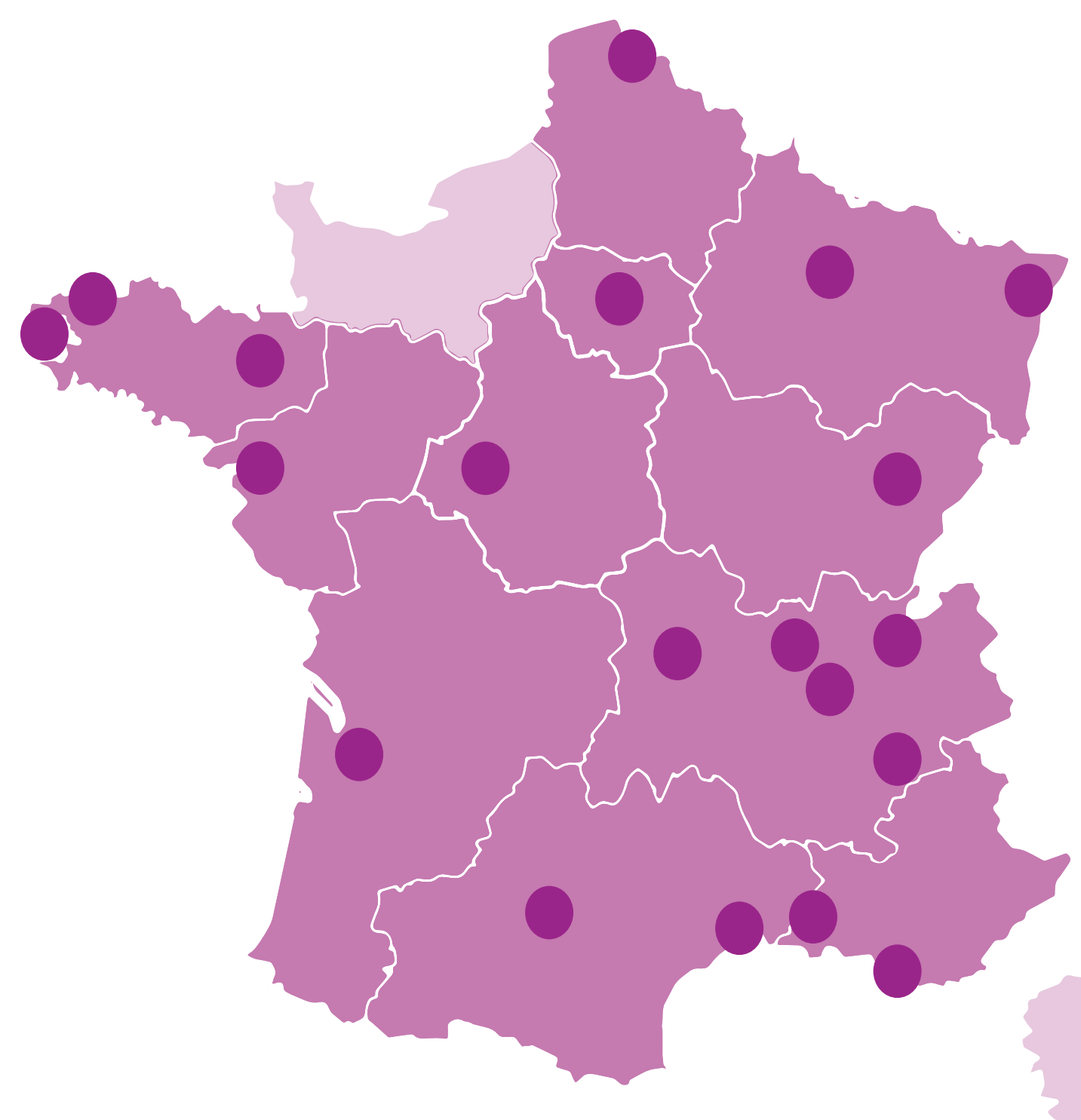
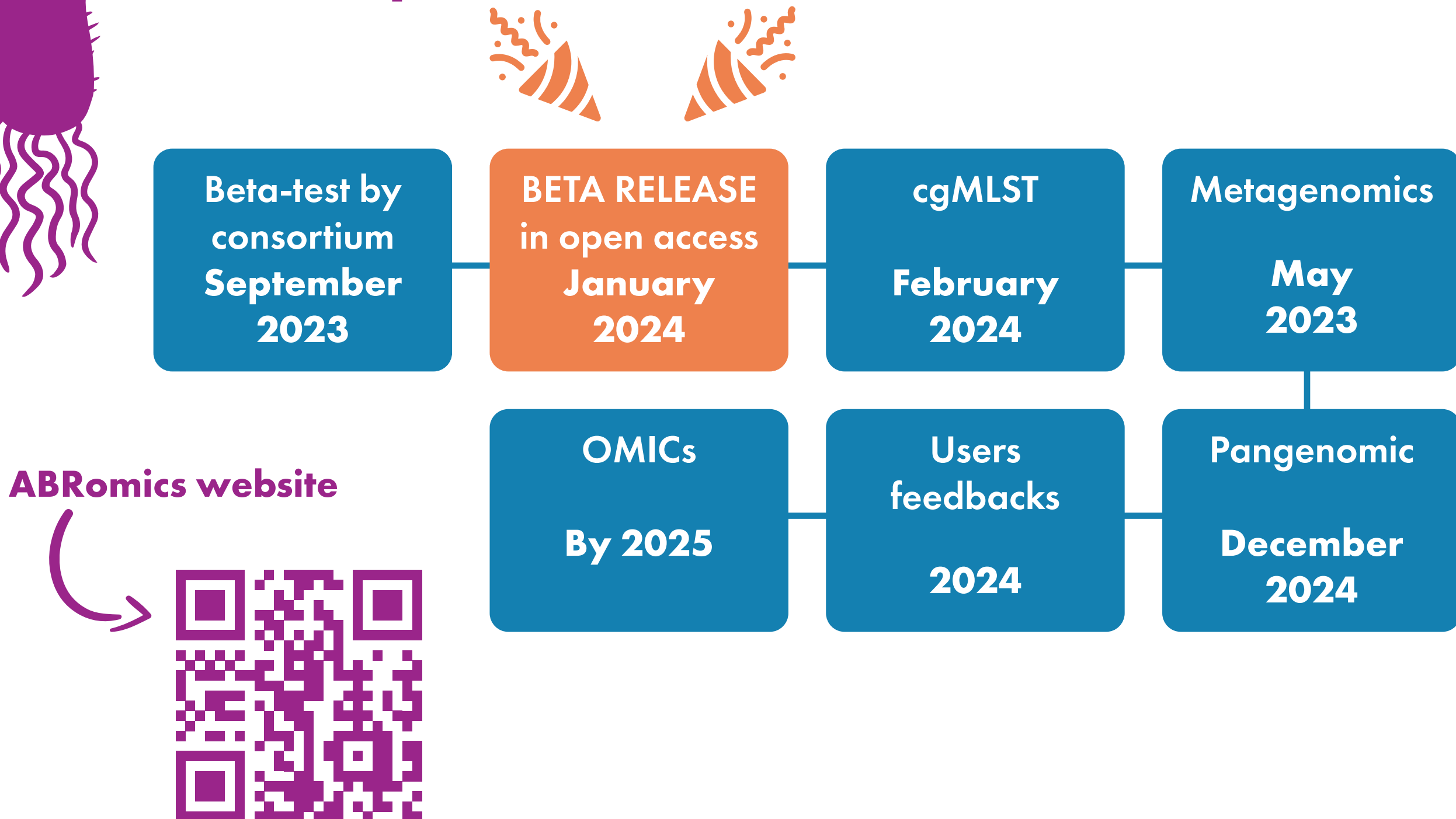


- 1 Multidrug resistant bacteria
- 2 One Health approach
- 3 Meta-pan genomics for tracking AMR
- 4 AMR in pulmonary infection
- 5 AMR dissemination through aquatic env.
- 6 Proteomics for AMR phenotyping

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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