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## The ABRomics platform - a One Health Antimicrobial resistance analysis service

Julie Lao, Raphael Tackx, Pierre Marin, Amanda Dieuaide, Thomas Mignon, Bérénice Batut, Clea Siguret, Romain Dallet, Kenzo-Hugo Hillion, Nadia Goué, et al.

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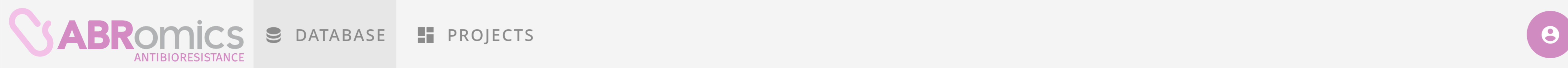
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**Background** Antibiotic Microbial Resistance (AMR) is a major public health issue prioritized by international institutions. The ABRomics project is funded by the French Priority Plan on antibioresistance (2M€; 2021-2025).

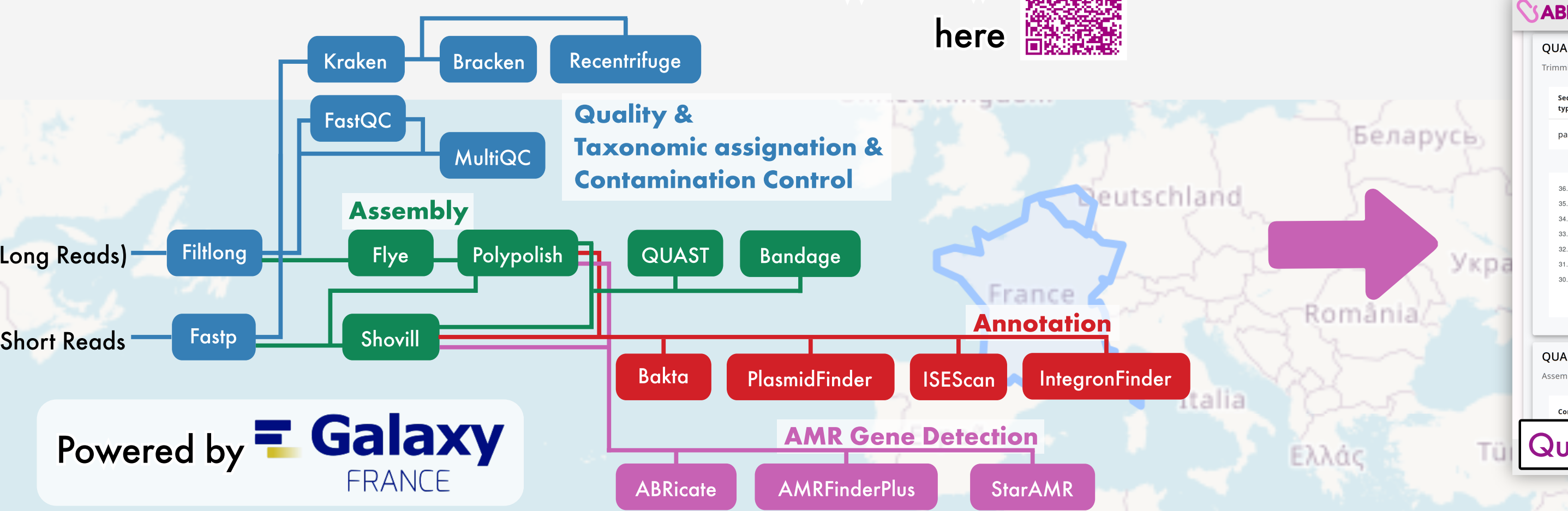
We developed a shared web platform to assist AMR surveillance across human and veterinary medicine, including environment and food isolates. It is made of:

- 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

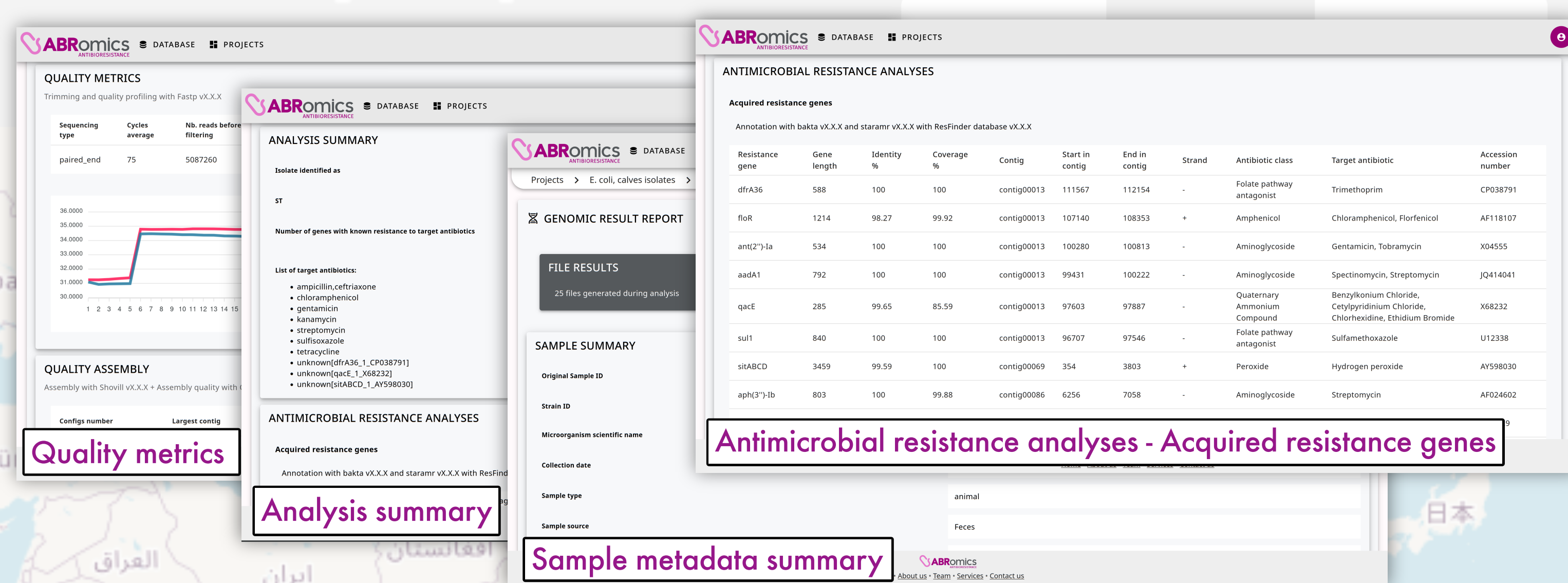


### From Omics Workflows ...

Workflows here

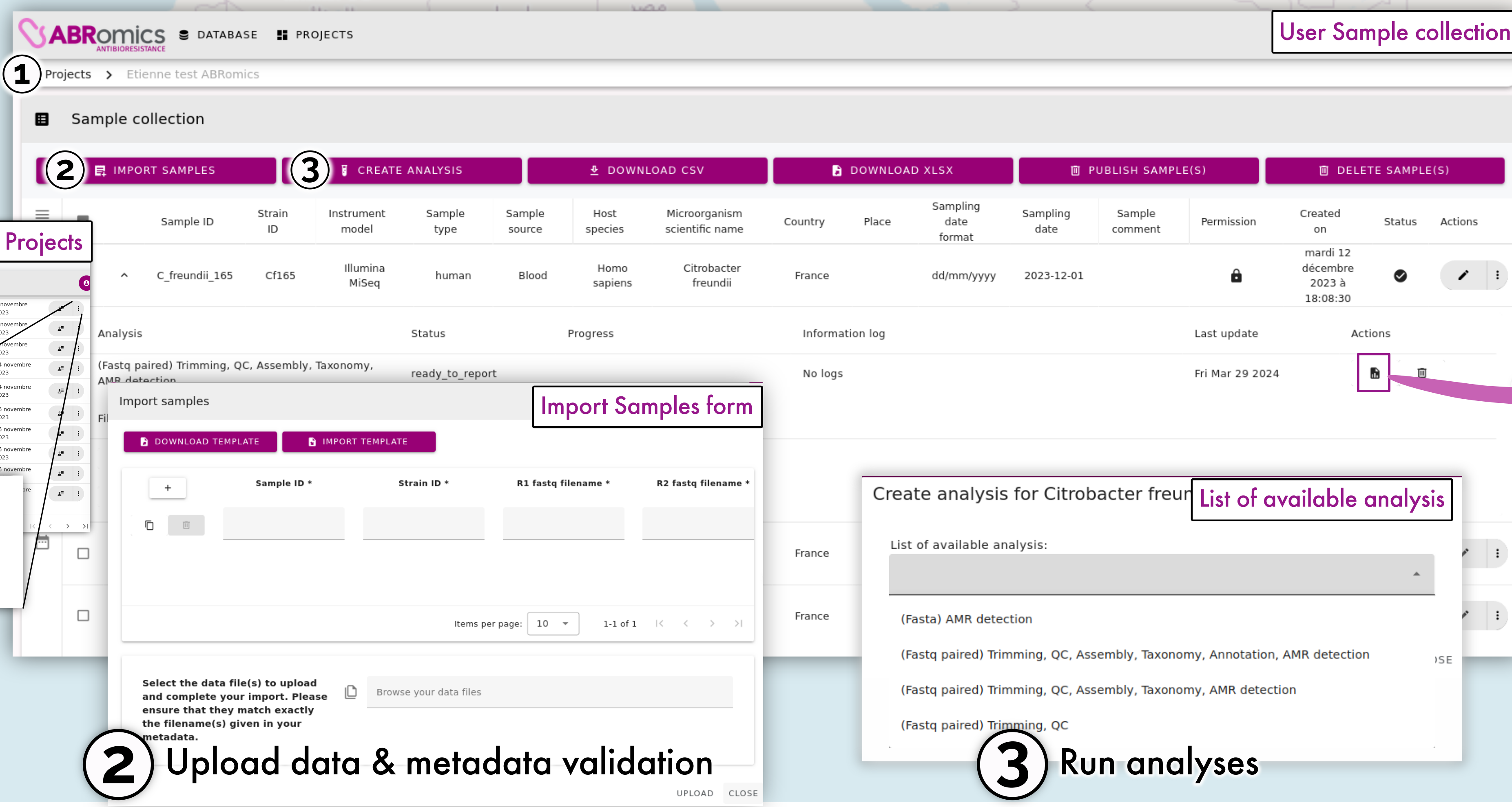
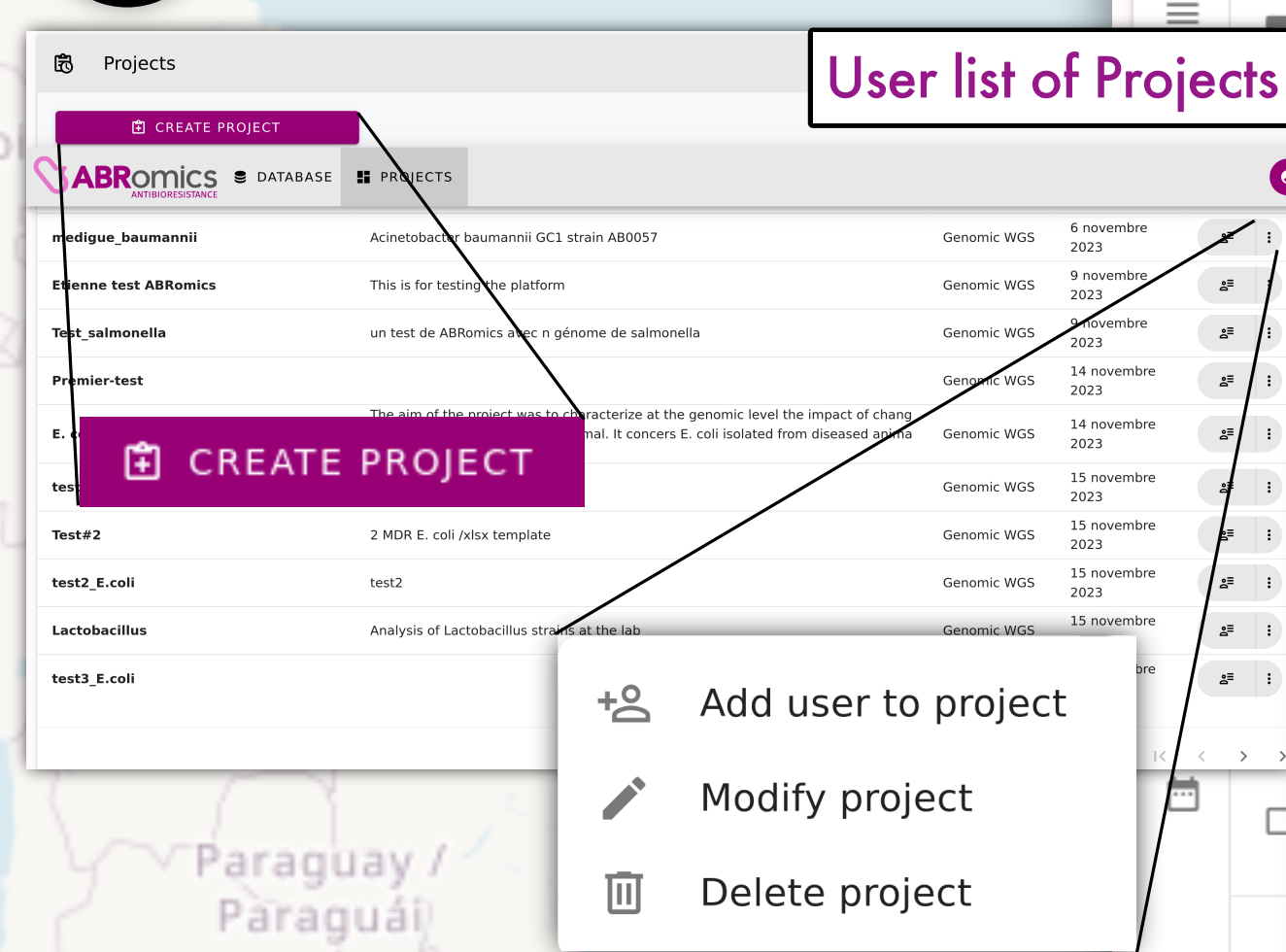


### To Analysis reports ...



### The ABRomics Platform features ...

#### 1 Project management



#### 2 Upload data & metadata validation

#### 3 Run analyses

#### 4 Results visualisation

ABRomics database samples location (map visualization)

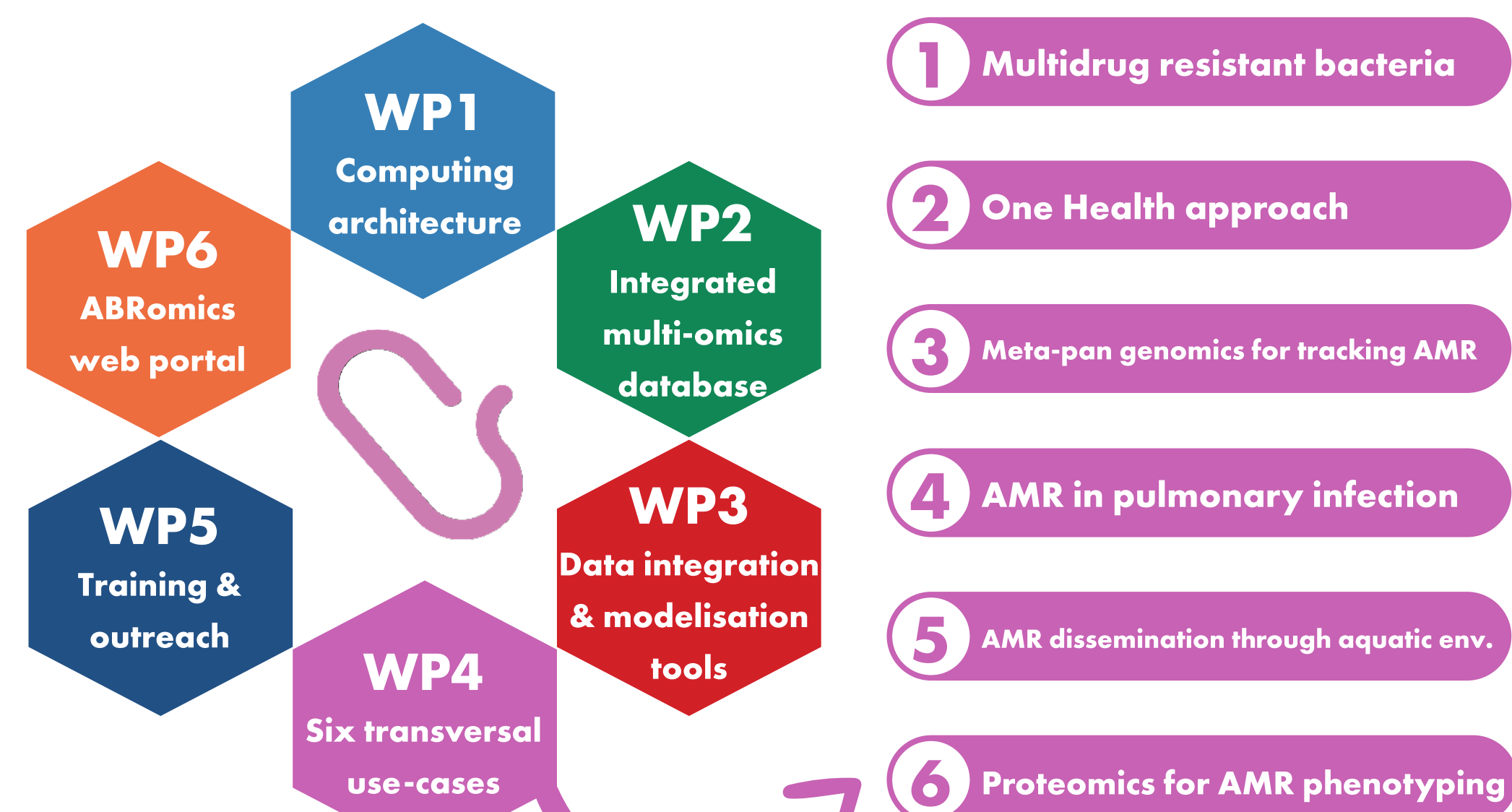
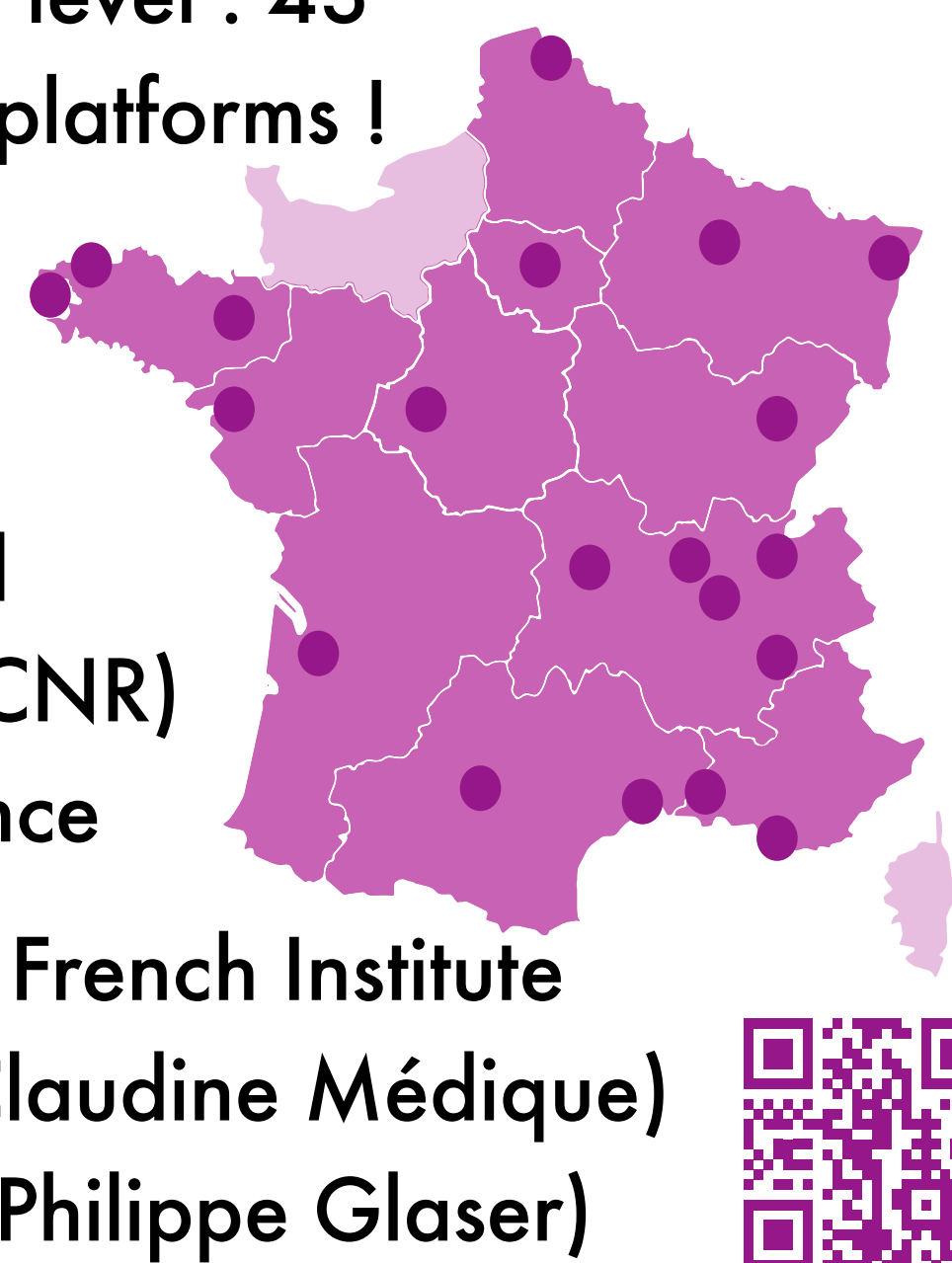
#### 5 Explore results of the community using the ABRomics database

Leveraging by a large community and a 43 teams consortium; **Our ambition** is to make ABRomics a major platform to scale up and improve surveillance and research on antibiotic resistance from a One Health perspective. For this, we will:

- Enrich the ABRomics AMR resources with the help and expertise of both the community and the consortium.
- Expand the catalogue of available analyses to more Omics data.

### ABRomics consortium

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



- 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

### Next steps !



Visit the Beta ABRomics platform



<sup>1</sup>CNRS, Institut Français de Bioinformatique, IFB-Core, UAR 3601, 91000, Evry, France  
<sup>2</sup>Institut Pasteur, Université Paris Cité, Bioinformatics and Biostatistics Hub 75015 Paris, France  
<sup>3</sup>Université Paris Cité and Université Sorbonne Paris Nord, Inserm, IAME, 75018 Paris, France  
<sup>4</sup>Plateforme AuBi, Mésocentre Clermont-Auvergne, UCA, 63000, Clermont-Ferrand, France  
<sup>5</sup>UMR GDEC, Université Clermont Auvergne, INRAE, 63000 Clermont-Ferrand, France

<sup>6</sup>Sorbonne Université/CNRS, FR2424, ABiMS, Station Biologique, 29680, Roscoff, France  
<sup>7</sup>https://www.abromics.fr/  
<sup>8</sup>Institut Pasteur, Unité EERA, 75015, Paris, France  
<sup>9</sup>CNRS UMR8030, Université Evry-Val-d'Essonne, CEA, Genoscope, IABGeM, 91000, Evry, France

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