



Assay Technologies Ltd.

## Bioinformatics and Software Development Solutions



APIS Assay Technologies offers bespoke and agile Bioinformatics, Data Science and Software Development solutions as a service. APIS' domain specific knowledge, and AI and ML specialisation, are fundamental assets for accelerating the efficiency of gaining accurate actionable information from pre-clinical and clinical multi-OMICs data.

As an agile extension of our clients' teams, working under Scrum methodology and defined sprints, APIS provides the expertise and scalability to support project goals. We support Biopharma, Biotech, Diagnostic and Data Technology companies by providing scalable solutions, secure data stewardship, multi-OMICs pipeline development and deployment, biomarker/target discovery and bespoke visualisation tools.

### Bioinformatics NGS Pipeline Development

- Commercial and RUO pipeline development using Nextflow
- Scalable cloud- & HPC- infrastructure setup
- Single cell genomic assay validation
- WGS, WES, RNAseq, scRNAseq, proteomic & metagenomic data
- Novel tool development
- Multi-OMICs data analysis, visualisation tools & software

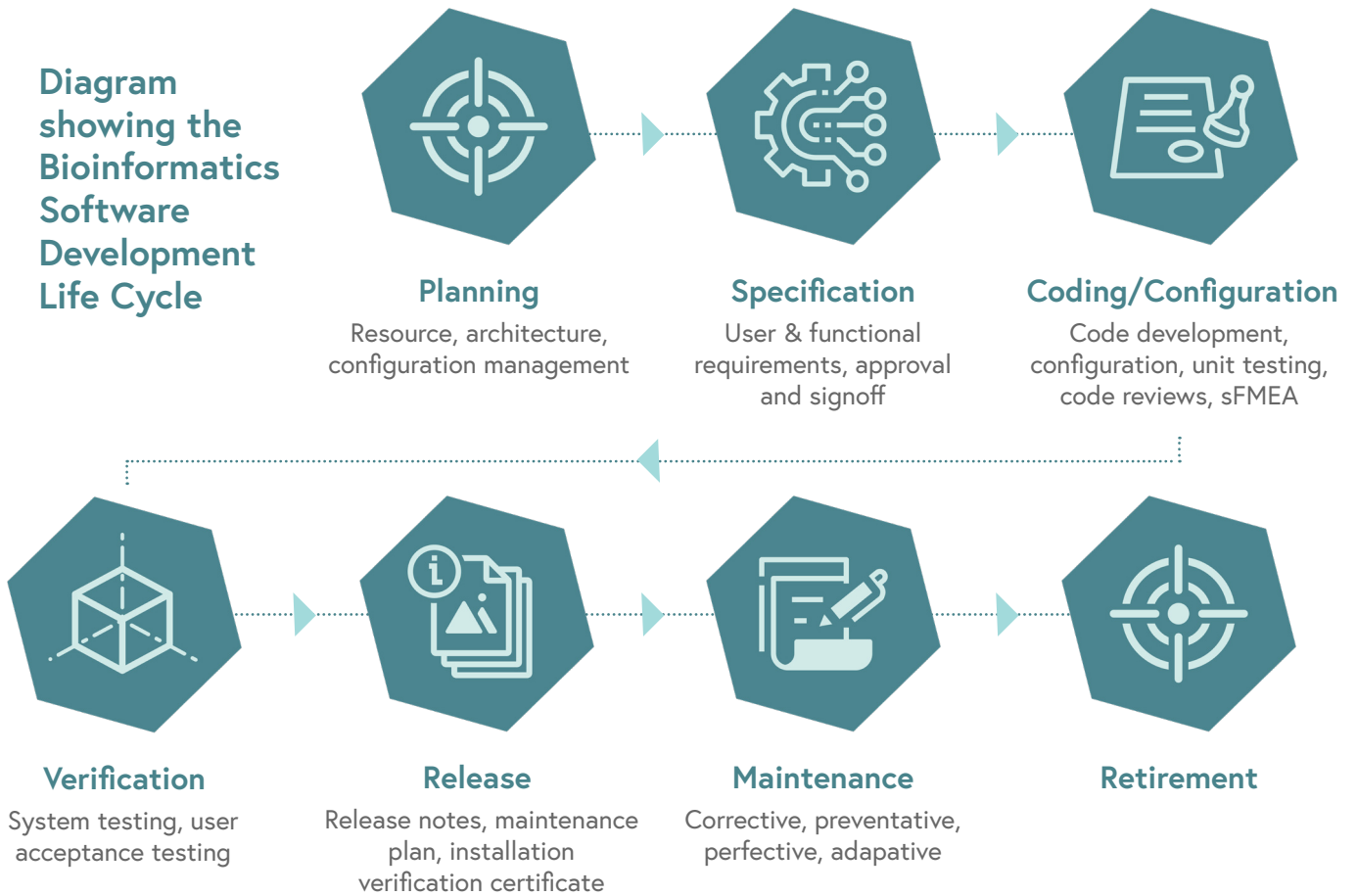
### Discovery Research

- in silico* genomic biomarker discovery
- in silico* Molecular Diagnostics (MDx)
- Protein interaction network discovery
- Aptamer and small molecule drug analog discovery
- Neoantigen discovery
- in silico* applied AI/ML

### Additional Bioinformatics and Software Development Capabilities

- Gene & cell therapy: vector integration site analysis (VISA)
- Software development & data stewardship
- Pharmacogenomics
- Clinical genetic variant diagnostics
- Clinical RWD/E exploration for novel cohort stratification
- Clinical trial management software
- Drug/enzyme discovery & optimisation

## Diagram showing the Bioinformatics Software Development Life Cycle



### Case Study 1

Contributed to the development of a specialised client facing single cell OMICs analysis platform.

- 1 NGS post-sequencing pipeline execution automation on the cloud
- 2 Input and output data modelling
- 3 Data visualisation and interpretation

### Case Study 2

Multi-year Master Service Agreement with a global provider of advanced analytics, technology solutions, and clinical research services to the Life Sciences industry.

- 1 Multiple co-sourced projects per annum with complete functional expert FTE flexibility
- 2 Exemplar projects & activities:
  - ◆ Scalable bioinformatics and bio-data harmonisation
  - ◆ Customised NGS pipeline development  
e.g. WGS & WES, RNAQC, tumour only and somatic variants, pan viral pipeline development
  - ◆ Deployment and maintenance of bioinformatics pipelines
  - ◆ Systems development  
e.g. Data harmonisation and automated data entry