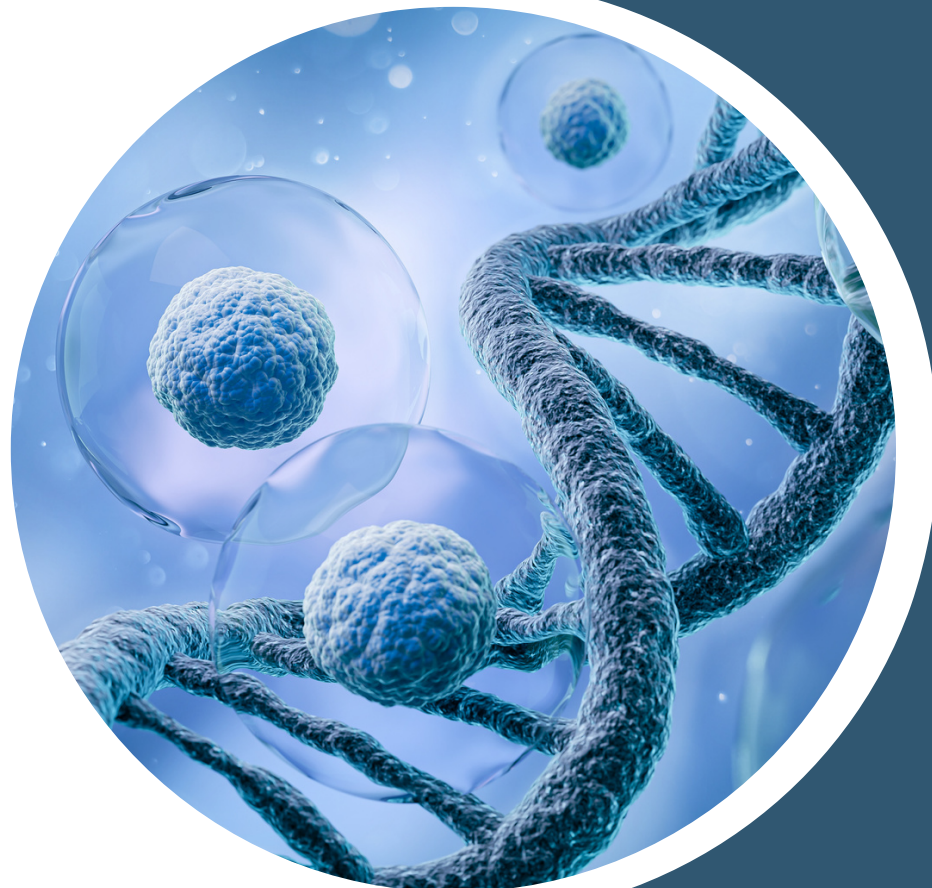


About CYNAPSE

CYNAPSE is a transformational computational infrastructure providing systematic, standardised data storage and a secure cloud-based research environment. With a view to enabling equitable access, CYNAPSE aims to facilitate discovery and translational research whilst working towards state-of-the-art federation capabilities.



Contact Us



CYNAPSE.org.uk



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**INFORMATION
FOR
RESEARCHERS**

The platform

The CYNAPSE platform, powered by Lifebit CloudOS, brings a next-generation computational infrastructure to enable secure analytics in a scalable, flexible, and more collaborative way. CYNAPSE will co-create improved oversight processes with patients and the public to ensure data are well-managed and accessible to all levels of users, whether strongly computational or otherwise. The result will be an inclusive platform which enables discovery as well as clinical research.

Contact us for a free trial session!



How can CYNAPSE help you?

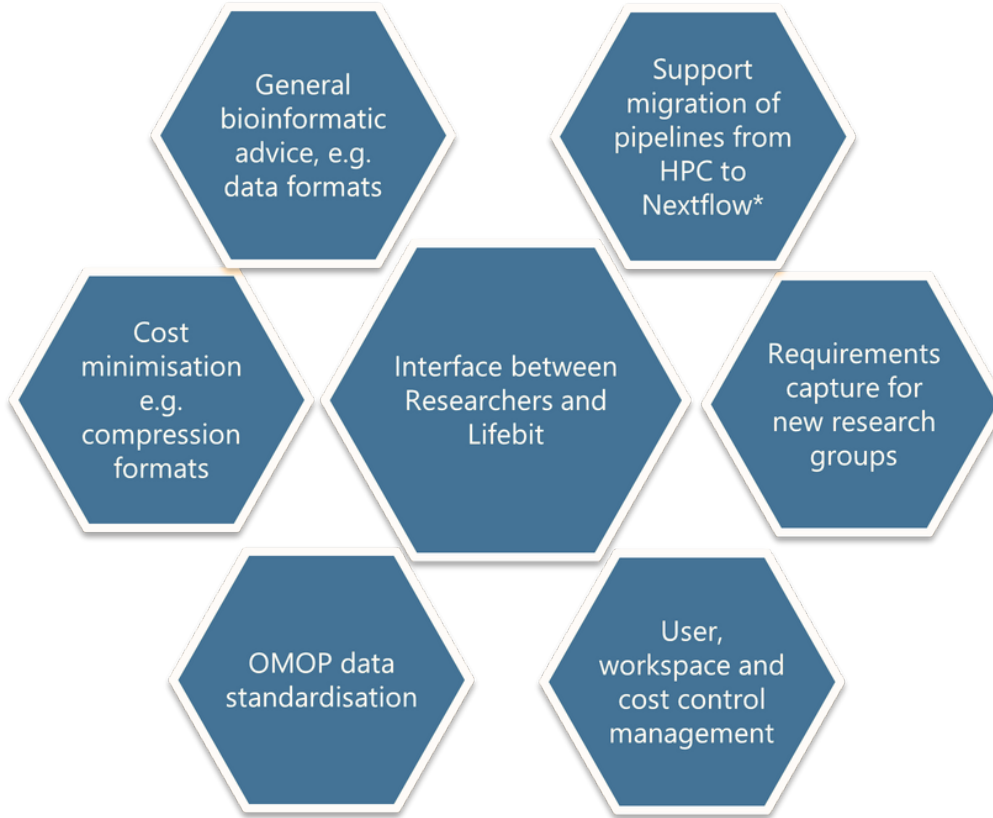
- Systematic, trackable and backed up storage of 'omic and/or other data types
- Standardised data formats making collaboration and data-sharing easier
- Automation of common tasks
- Fully reproducible and auditable processes
- Controlled access to preferred users via research workspaces
- Infinitely scalable TRE (budget-dependent)
- Transparent costs for storage and compute, to inform realistic grant costings
- Easier exploration of locally available data and other data lakes (through federation), both computationally and based on phenotypic queries

Useful Information

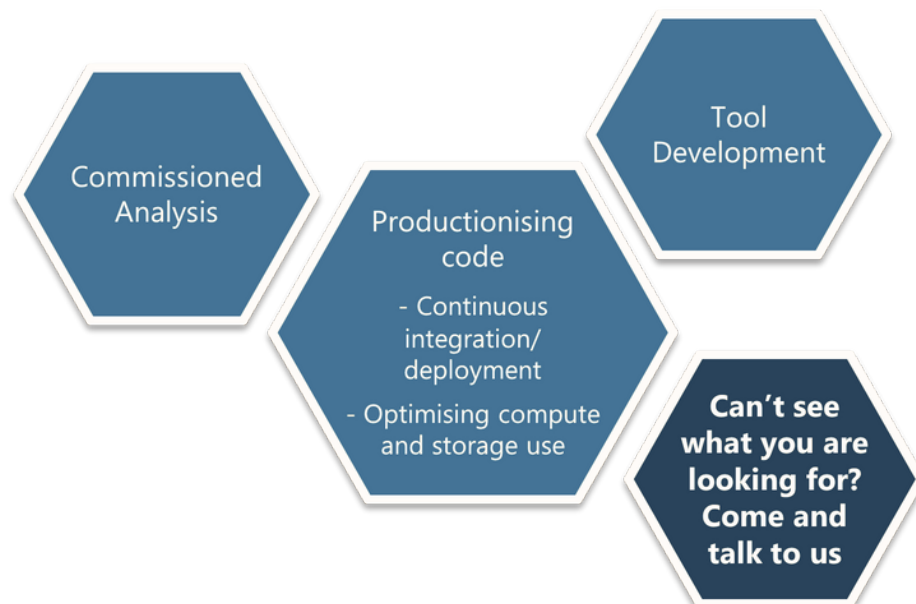
- Interactive sessions can be automatically terminated according to user settings
- Workflows can be automatically terminated based on cost limits (e.g. R&D experiments)
- Cost limits can be set at workspace and user level
- Costs savings can be made for non-time sensitive analysis through use of AWS spot instances
- CYNAPSE can intelligently manage data storage, with automatic data archival based on usage pattern (multiple access time tiers)
- CYNAPSE can link any data file and process any data type provided that the tools exist in the community to analyse it
- Data can be interrogated interactively via Jupyter Notebooks
- Pipeline outputs can be rendered into HTML reports for easy viewing (embedded images etc)

The Service Delivery Team

Core offering for CYNAPSE users:



Additional services (chargeable):



*Migration indicates software, commands and parameters are predefined, no R&D of algorithms will be supported. Migration will aid in the creation of containers and workflow in collaboration with research team

Patient & Public Involvement

Patient and public representatives have been involved throughout the development of CYNAPSE. Our engagement activities have demonstrated that patients and the public want to see fair, safe, and transparent use of their data, and the CYNAPSE platform will deliver on these priorities. Our patient and public partners were closely involved in shaping future platform developments to ensure that opportunities for new collaborations and discoveries are maximised while ensuring that original data remains as secure as possible.

Researchers accessing CYNAPSE data are strongly encouraged to involve patients and the public in their research projects, and to show evidence of this involvement in their application.

For estimated costs & wording for grant applications, get in touch with the team.

Funding for CYNAPSE

The core set-up of CYNAPSE has been funded through the NIHR Cambridge Biomedical Research Centre. Research groups will fund their own AWS storage and compute usage. Additional running costs, such as the Service Delivery team, will be proportionately shared across groups using the platform, focusing the need to cost this into upcoming grant applications. Lifebit charge an additional overhead on AWS compute and storage usage as their maintenance fee. Please ask us for this charge. Funding for future developments to platform functionality and capabilities will be sought from a range of sources, which may include additional grants, commercial investment/usage, or philanthropic donations.