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Setting Up a National Cancer Tissue and Data Catalogue

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Introduction

High impact basic, translational and clinical cancer research requires **collaboration across multiple institutions** including universities, public health institutions and research institutions.

To facilitate effective collaboration, SingHealth Tissue Repository work jointly with the tissue repositories and cancer registries of National Cancer Centre Singapore, National University Hospital and National Healthcare Group under the auspices of the Singapore Translational Cancer Consortium to form a **national platform** of anonymised cancer biospecimen and data – **Centralised Catalogue**.

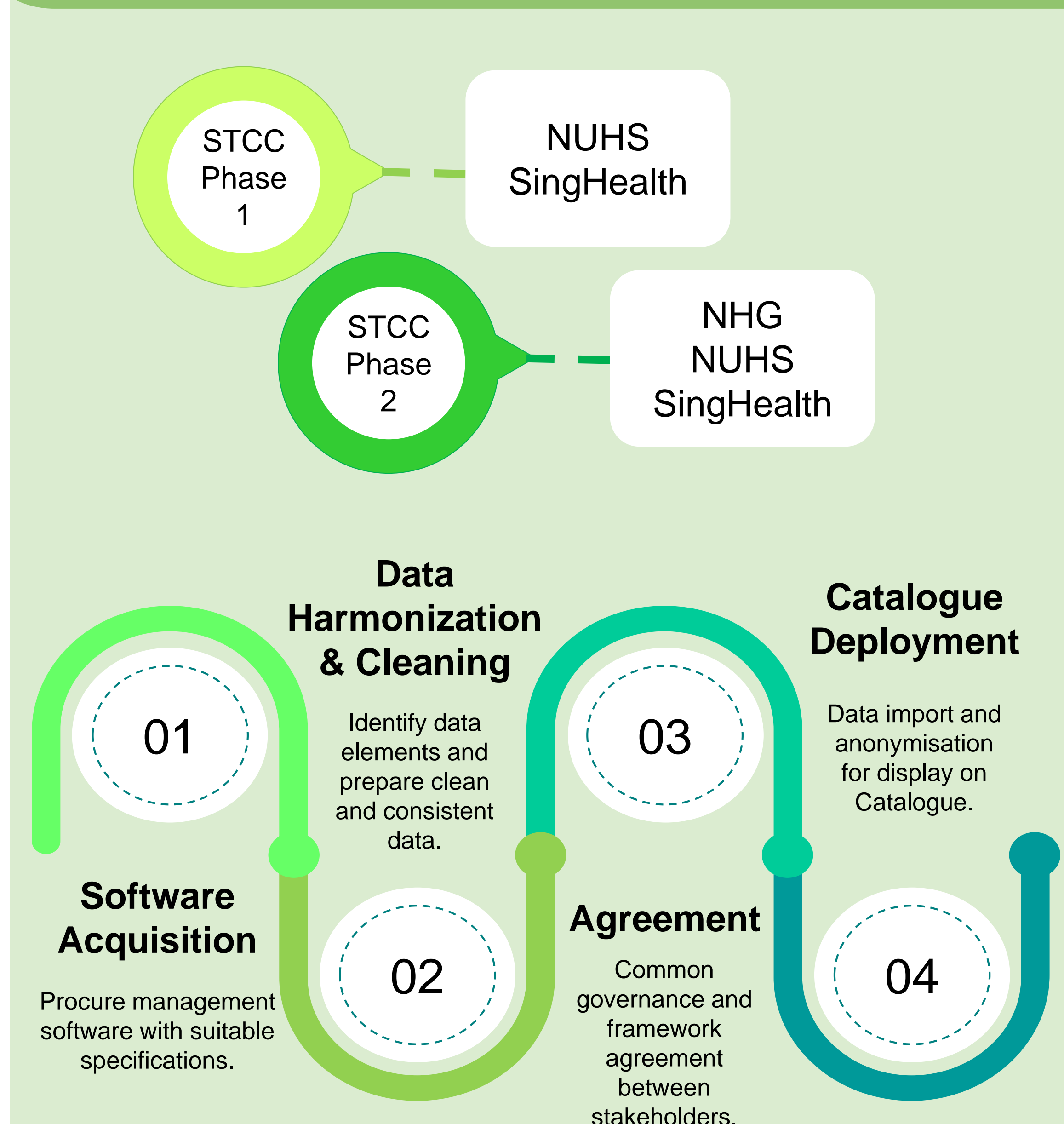
Methodology

With the high quality collection of human biospecimen in tissue banks and rich data in cancer registries, we determined and harmonized relevant metadata fields across the healthcare clusters. These fields include:

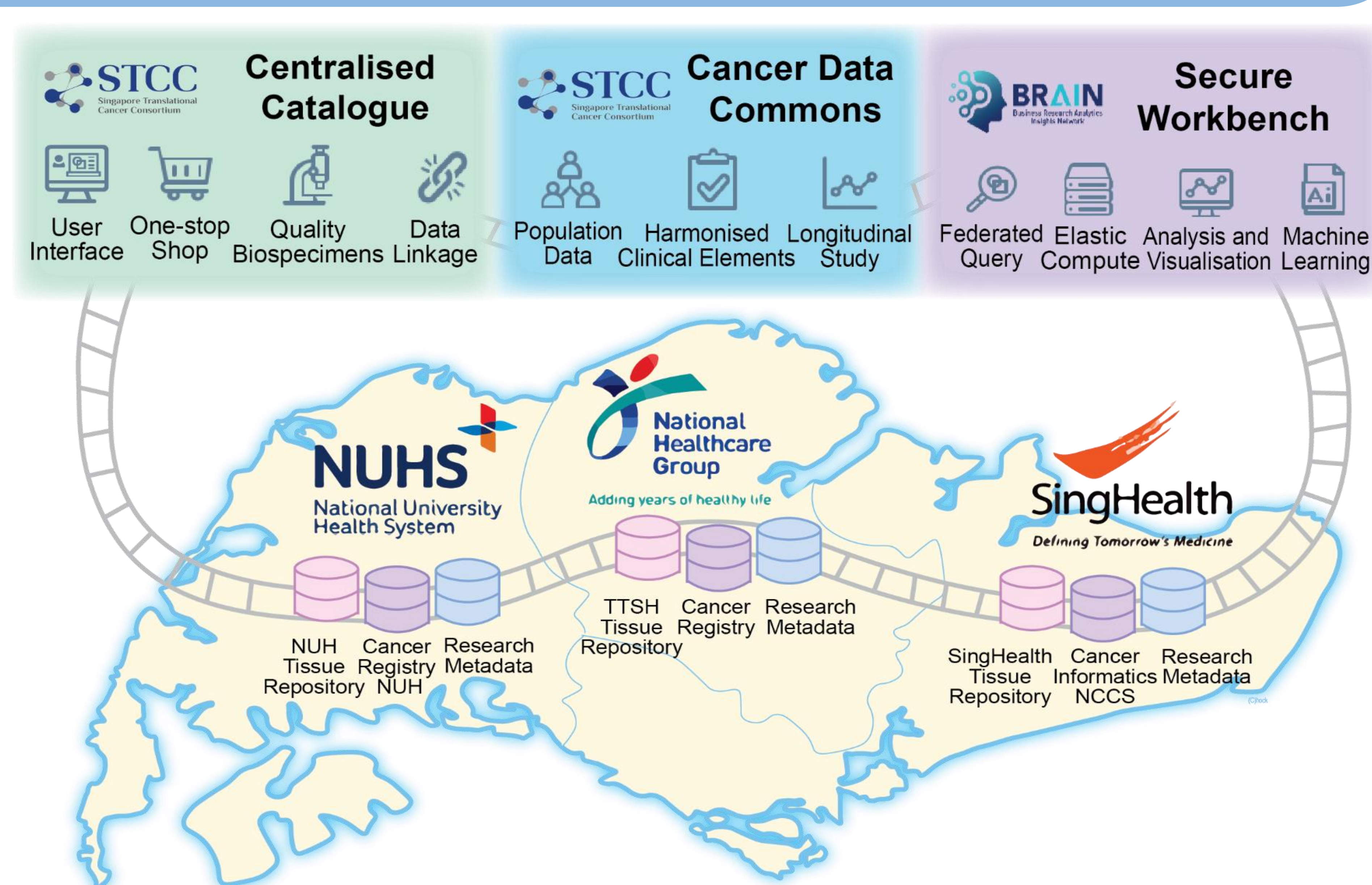
- (i) **specimen-level data** with histopathological annotations,
- (ii) **patient-level data** including clinical information, and
- (iii) **research metadata** such as molecular profiling, *in vitro* or *in vivo* tumour lines.

We also developed a **common governance framework** for the catalogue to ensure data privacy, security and protection to support access in a safe, efficient and ethical manner.

Implementation



Landscape of Research Warehouse



Result

Investigators will browse the catalogue of anonymised cancer biospecimen linked with clinical and research metadata from multiple institutions, and identify specimens for collaborative research.

In addition, existing workflows will be streamlined to increase overall **efficiency** for investigators to apply and retrieve desired specimens and/or data.

Conclusion

Centralised Catalogue creates a **one-stop** platform through synergy to boost **accessibility** to cancer specimen and data, empower clinical science and foster collaborations in the cancer research community.

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