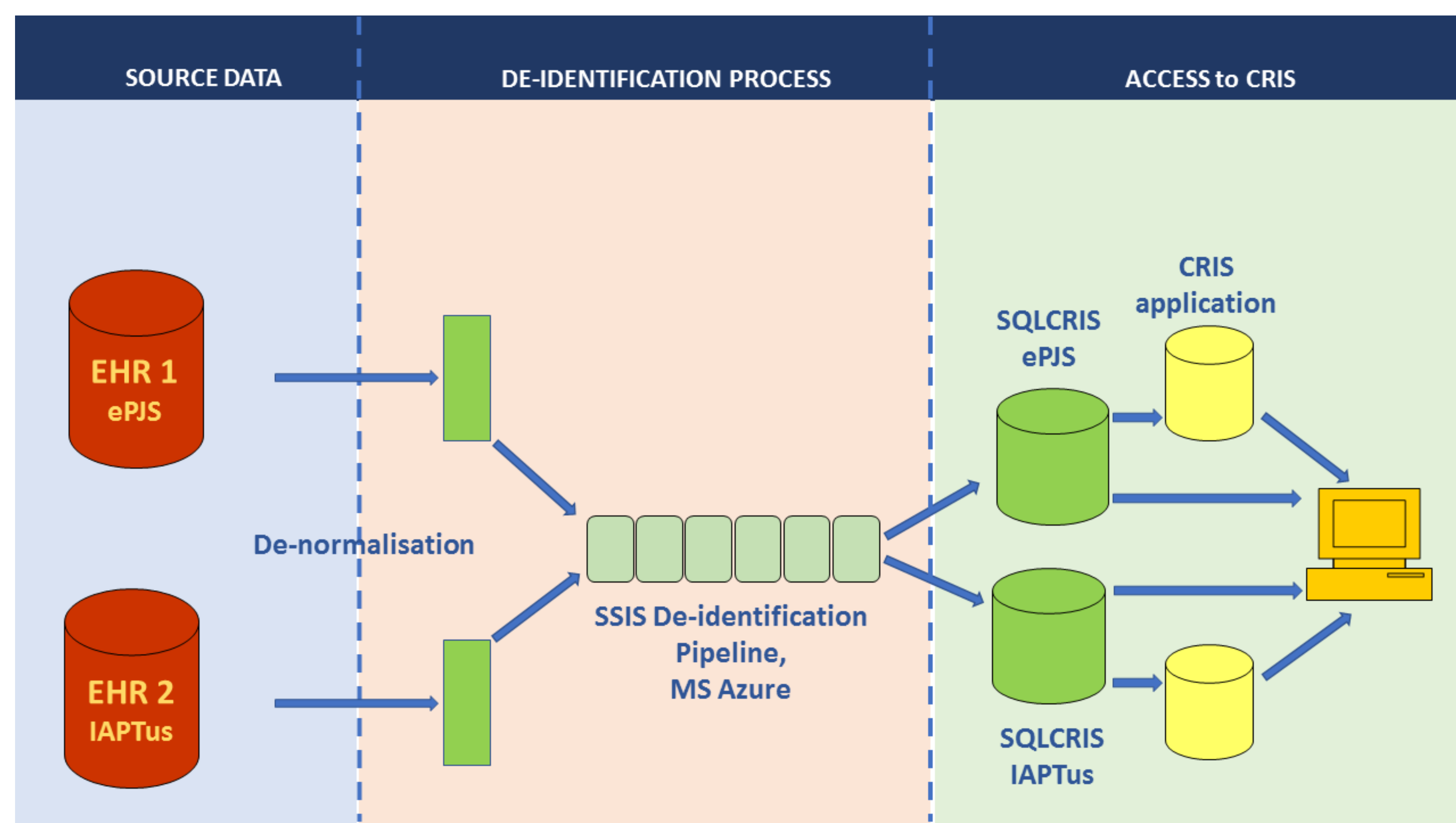# CRIS architecture and development over the last 10 years

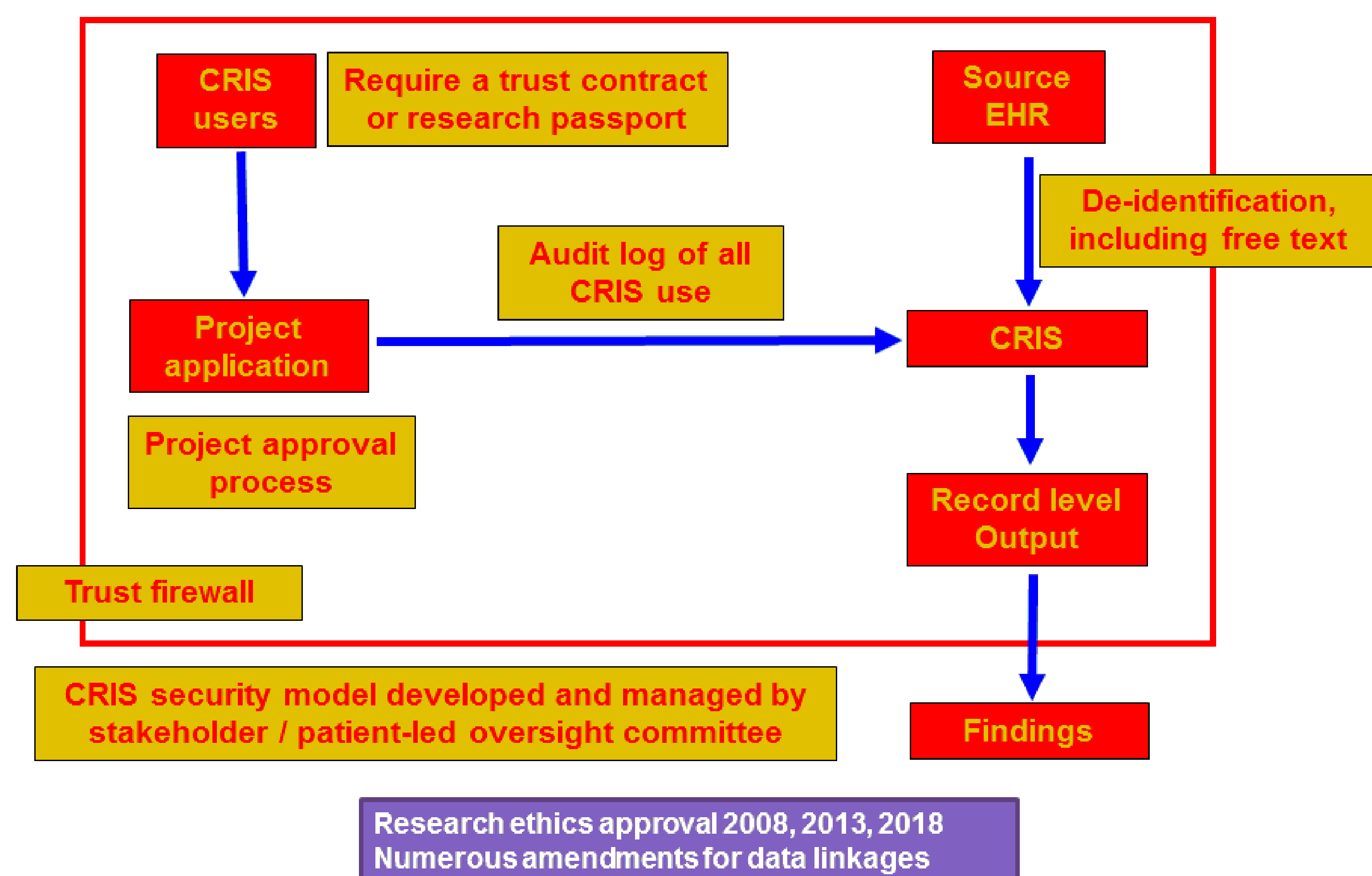Matthew Broadbent, Robert Stewart

CRIS was developed in 2007-08 to provide researcher access to SLaM's de-identified electronic mental health records. It was delivered to time, budget and specification.

Key CRIS developments over the last 10 years have included extensive programmes of data linkage and natural language processing, described in accompanying posters.

In 2016 a significant overhaul of CRIS technical architecture was implemented – in part to enable its successful delivery via Azure Cloud infrastructure. In 2019, significant front-end developments will complete this phase.

CRIS Security Model – service-user led governance

From the outset, an effective and trusted governance structure has been equally important to CRIS as its technical architecture.

The development and continuing oversight of CRIS security model has been led by service users from the beginning, a principle now widely used in other clinical informatics resources.

The success of CRIS is as much down to our Oversight Committee and the support from Information Governance colleagues as to any research output.

CRIS governance and security models have remained relatively consistent over the last 10 years – robust so far to evolving national and international ethical and legal contexts.

CRIS at the Maudsley has provided the seed around which a network of informatics initiatives can crystallise.

These not only include the data linkage and NLP expansions, but also growing local bioresource, directly obtained data from service users and carers through SLaM's Healthlocker platform, and potential incorporation of wearable data.

CRIS data are widely used to support recruitment to research projects subject to prior 'consent for contact' (C4C), and platforms are now in place to deliver decision support initiatives, facilitated through our Centre for Translational Informatics.

All components of this network are readily exportable to other trusts using CRIS or similar platforms and exporting resources is a key component of KCL's MRC Pathfinder Programme

Integrated informatics