EBI Program

EDWARD Business Implementation Program

OPERA

Powered by EDWARD

***OPERA**ational Performance Enterprise Reporting Application*

Whole of Health Program MASTER CLASS #7

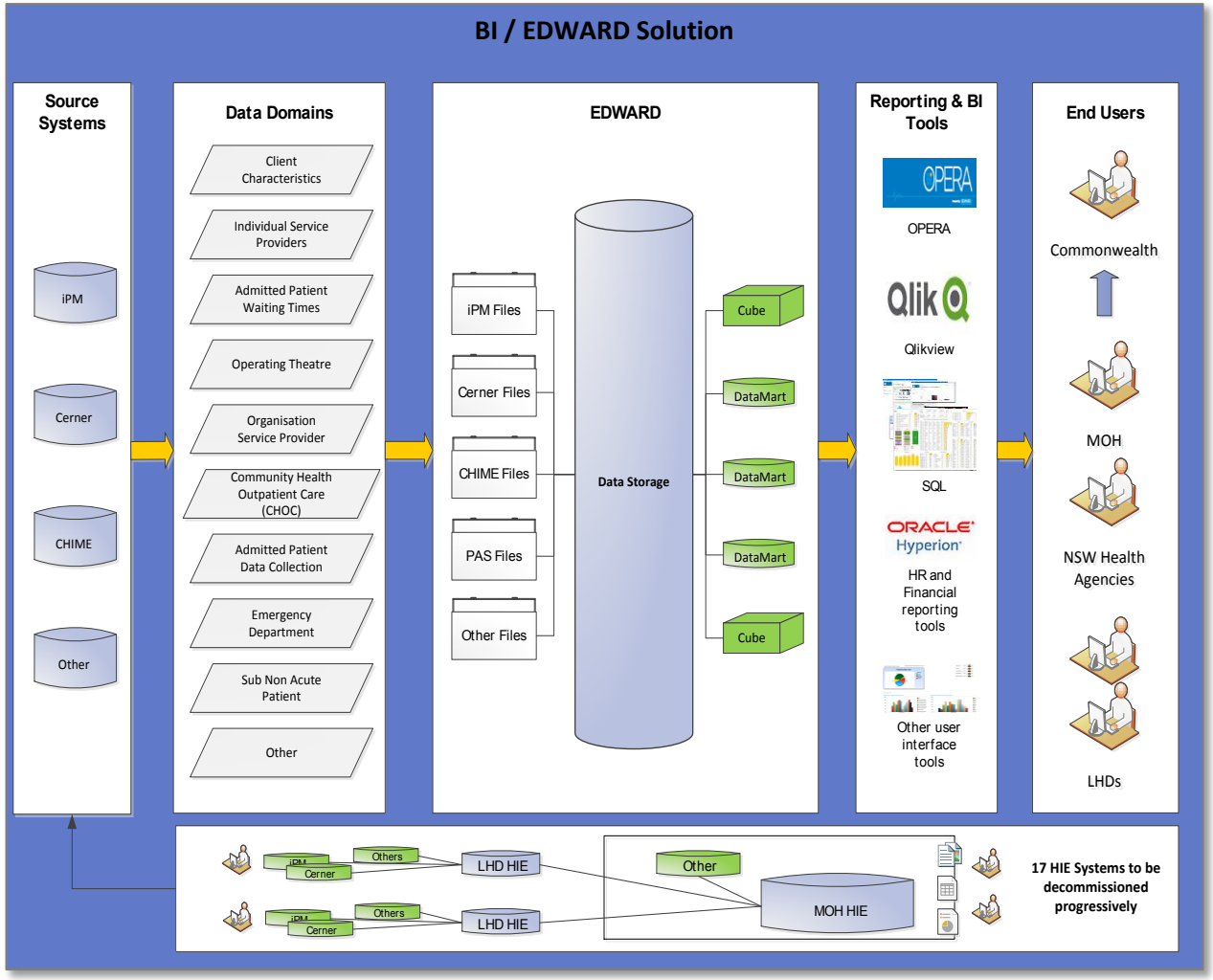
23 October 2015

NSW GOVERNMENT Health

EBI Program

Business Information Strategy

EDWARD is a strategic information asset to allow all NSW Health organisations to collect, manage and safely use high quality data and information across all part of the entire health system



Complementary internal Initiatives

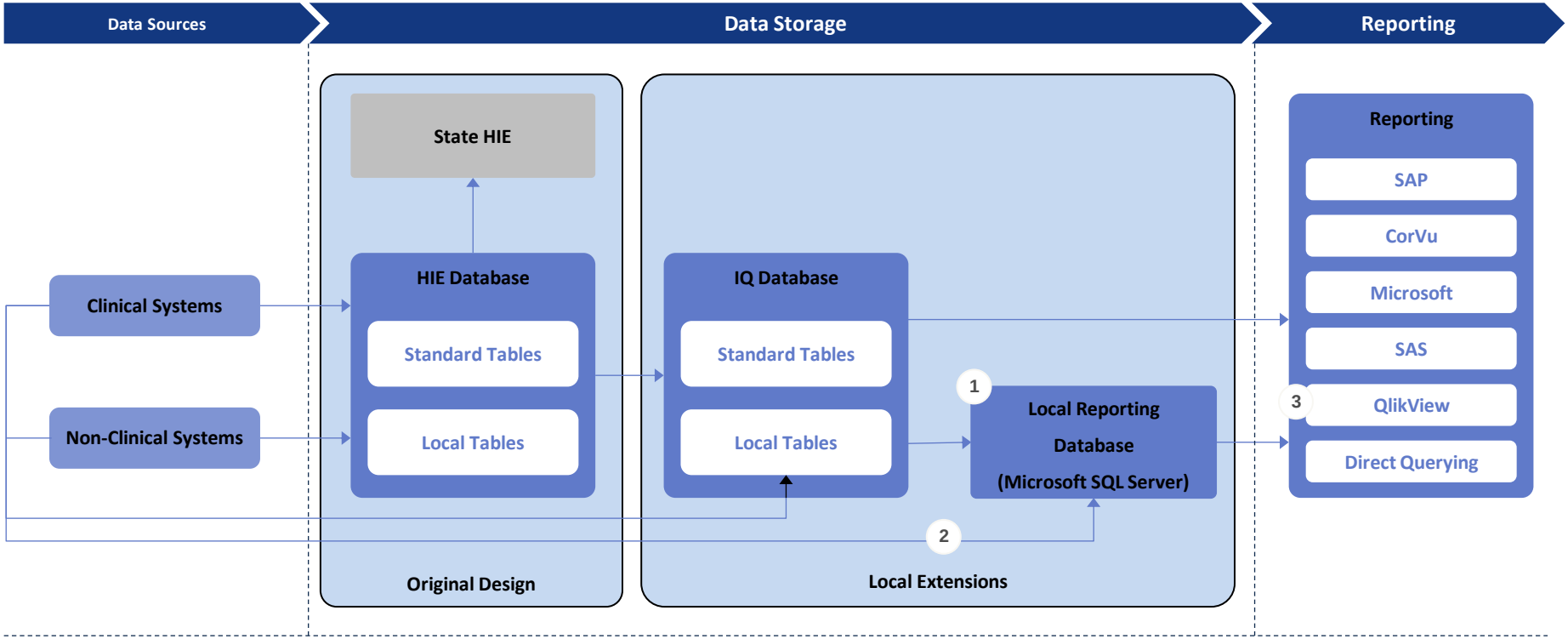
- Development of Analytics Strategy
- Implementation of E-health ICT Strategy
- Development of State Wide Data Architecture
- Review & Strategy for QLIKVIEW
- Development & Rollout of OPERA

Broad Business Outcomes

- Fulfil ABF Requirements
- Support Integrated Care Provision
- Support Clinical Research & Development
- Improve Service Provision across NSW Health
- Improve Models of Care

Current State Evolution

LHDs / SHNs have developed local reporting and analytics solutions that are critical to their ongoing business and operational needs.



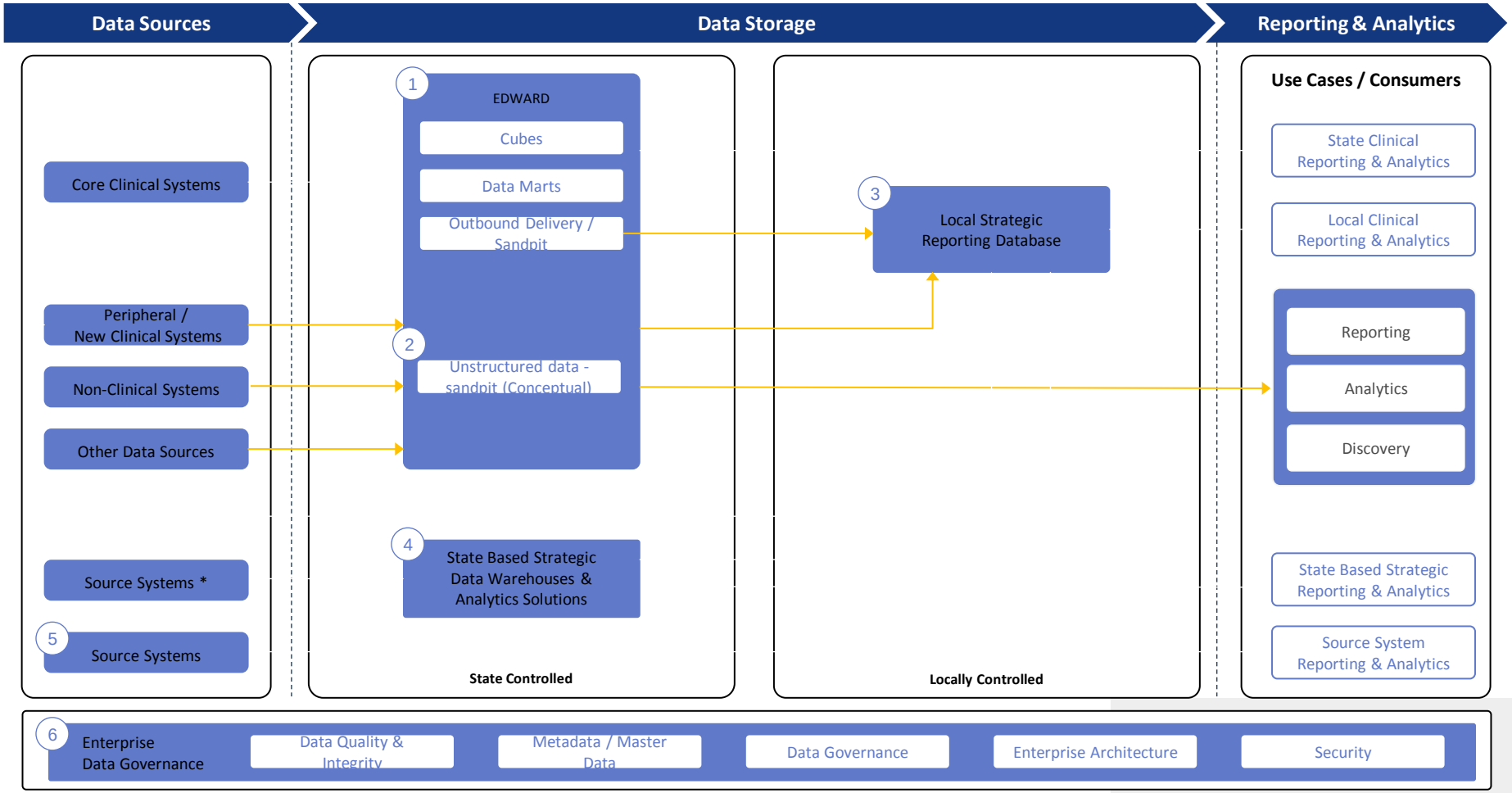
1
- The need for increased agility and performance has resulted in the deployment of a secondary local reporting database.
- The secondary local reporting database is the strategic local reporting database for many districts.

2
- There are a number of source data feeds directly from source systems bypassing the HIE and IQ database.

3
- Recent acquisition of QlikView licenses across NSW Health has resulted in the uptake of QlikView.
- Number of sites are in the process of transitioning to QlikView or intend to integrate QlikView into the existing landscape.

Future State Architecture

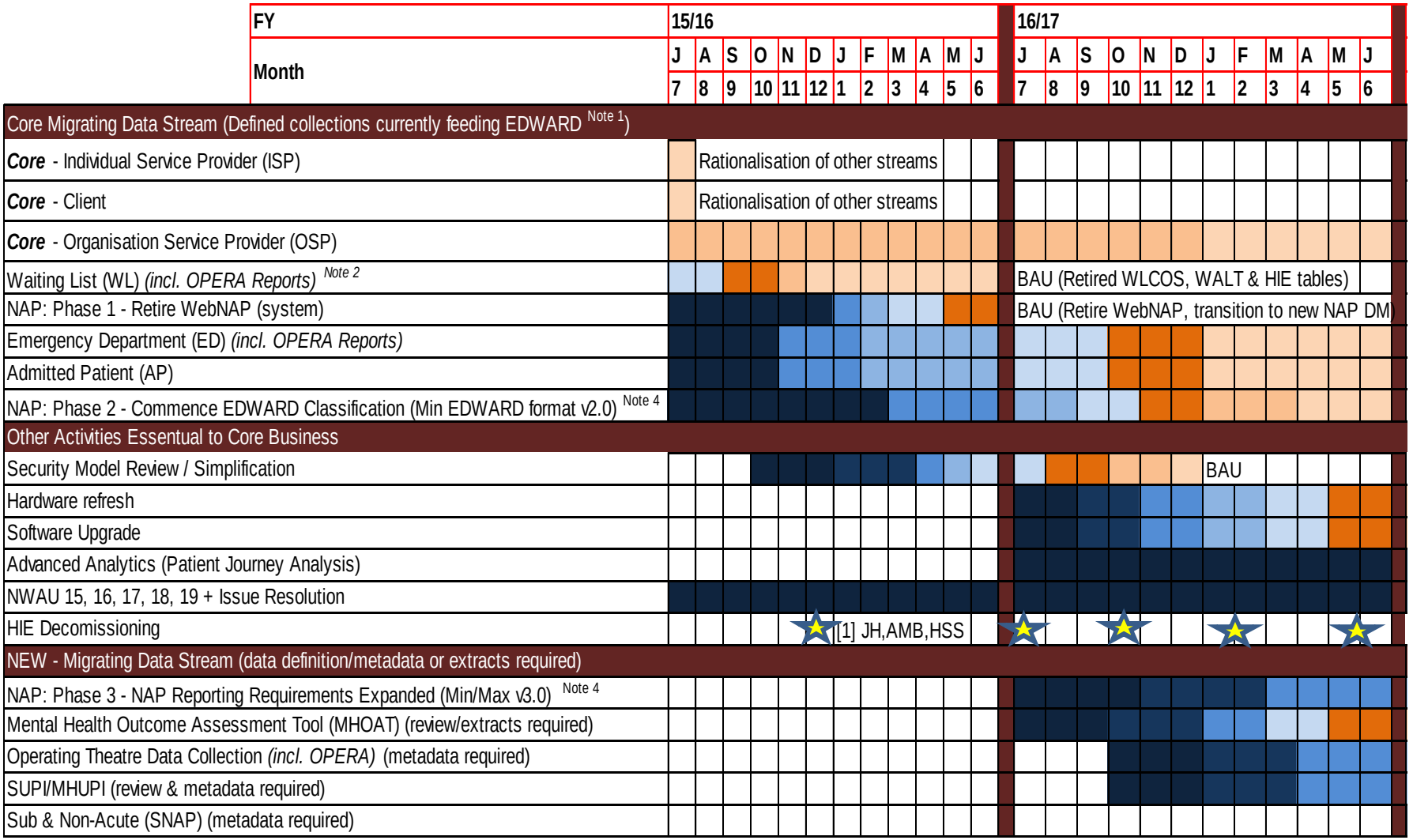
The proposed future state architecture is illustrated below. The proposed architecture is aligned to the decommissioning approach principles and has been developed with input from key representatives from eHealth NSW and the Ministry of Health.



* Refers to non-clinical systems i.e. Oracle and VMoney

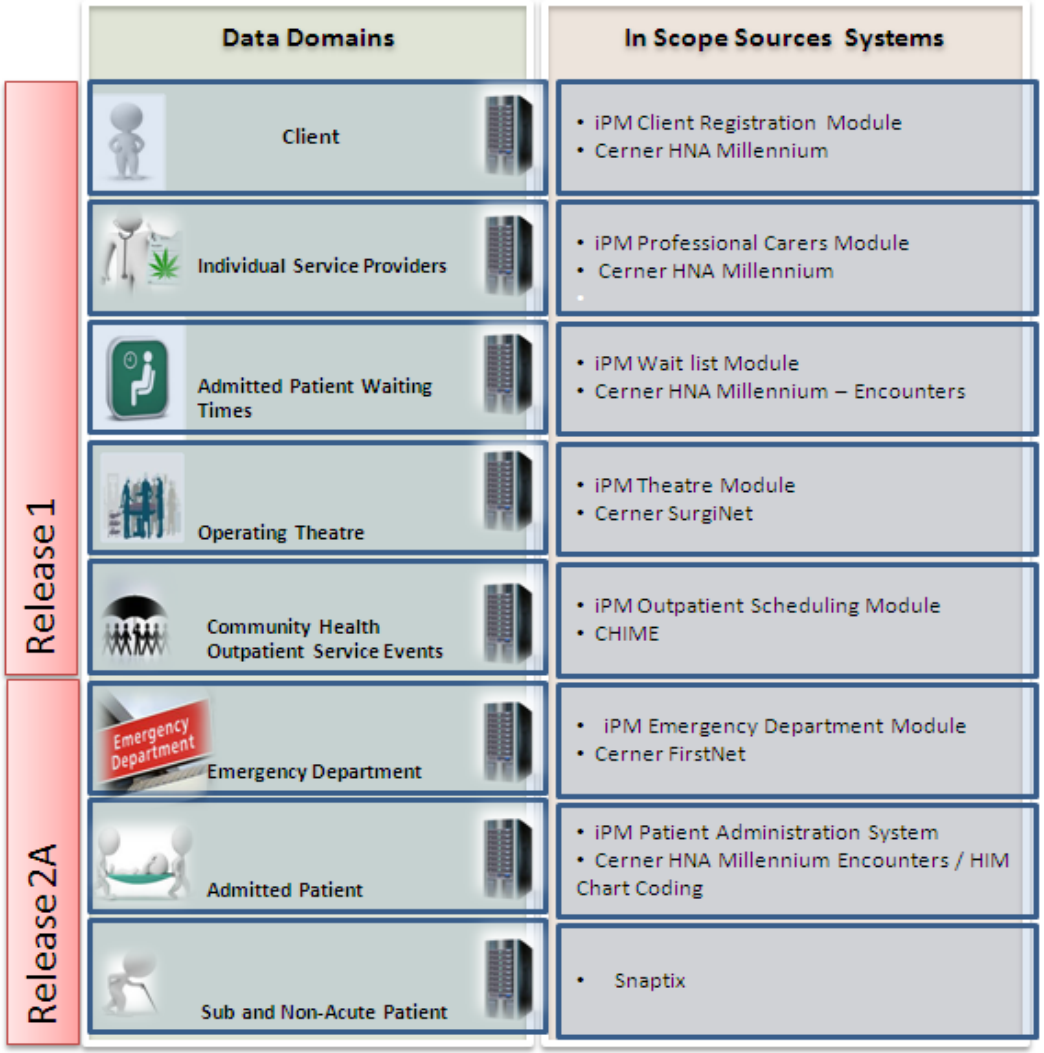
EDWARD Business Implementation Timeline

OPERA Powered by EDWARD



EDWARD – Existing Data Domains & Source Systems Phase 1

OPERA Powered by EDWARD



NSW GOVERNMENT Health

EBI Program Mandate

Mandate

The EDWARD Business Implementation (EBI) Program is mandated to provide a baseline of ***standard operationally focussed reports*** for NSW Health Local Health Districts (LHDs) to aid LHDs in running their business by providing a single source of truth across all of NSW Health around ***performance information*** for Wait List (WL), Emergency Department (ED) and Operating Theatre based on **extensive consultation** with program partner LHDs and defined Business Requirements.

OPERA

The Operational Performance Enterprise Reporting application (OPERA) is a clinical operational system that is focused on enriching patient and clinical process whilst driving whole system performance across NSW Health.

The deployment of OPERA is the first step in the journey of ***improving system capacity and reforming clinical process across all area Health Services***, with a better alignment of resources and patient flows between acute, subacute primary and community based care. That is, the **continuum of care throughout the entire health journey both outside and inside facilities.**

Clinical process reform is enabled by linking KPI's or Service Agreement Measures to a baseline of standard operational focused reports that highlight best practice and that can be leveraged across other LHDs for clinical uplift

The use analysis tools, such as SAS, MS Excel, MS Power Pivot, Business Objects and Qlikview facilitate ad hoc or targeted analysis but they do not provide the common single of view of health that is required to leverage process redesign and improved patient care across the entire network.

OPERA Purpose

OPERATIONAL PERFORMANCE ENTERPRISE REPORTING APPLICATION

EDWARD's[1] strategic reporting application, **OPERA**, provides a baseline suite of ***standard operationally focussed* reports** for NSW LHDs to aid LHDs in running their business by providing a ***single source of truth*** across all of NSW Health for both ***performance information*** and ***key contextual information*** for:

- ❑ Emergency Department (ED)

OPERA users will be able to ***take an information journey*** through NSW Health. From the facility → LHD → State level and across NSW Health from executives → management → frontline staff, everyone will be able to ***follow a story*** as they investigate their line of inquiry in order to take action.

ACROSS FROM EXECUTIVES TO MANAGEMENT TO THE FRONT LINE

[1] **EDWARD** - Enterprise Data warehouse for Analysis, Reporting and Decision Support. EDWARD has been designed to replace the Health Information Exchange (HIE) as NSW Health's strategic data source for performance monitoring, health service purchasing and funding, health service planning, and disease surveillance.

NSW GOVERNMENT Health

OPERA
OPERATIONAL PERFORMANCE ENTERPRISE REPORTING APPLICATION Powered by EDWARD

INTEGRATED REPORTING DELIVERY PLATFORM

KPI **SCORECARDS**
Trend Graphs,
Listing Reports, Sparklines

OPERATIONAL FOCUS

CONTROL PANEL
Data Visualisation via
KPI, Contextual & Point of Interest Dashboards & Activities Summaries

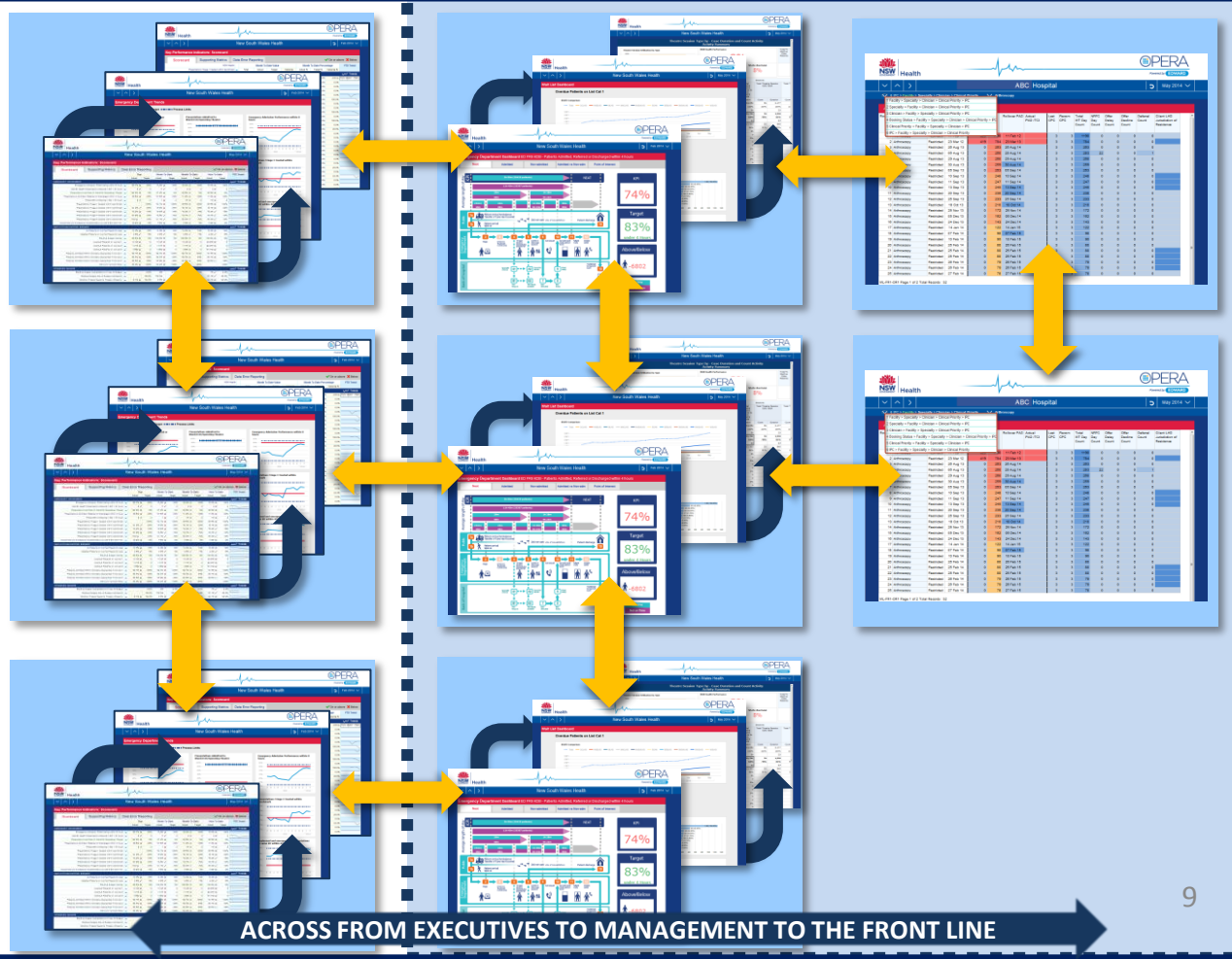
DETAIL REPORTS
Detail including unit record (patient) data

Facility
& Service Unit

LHD

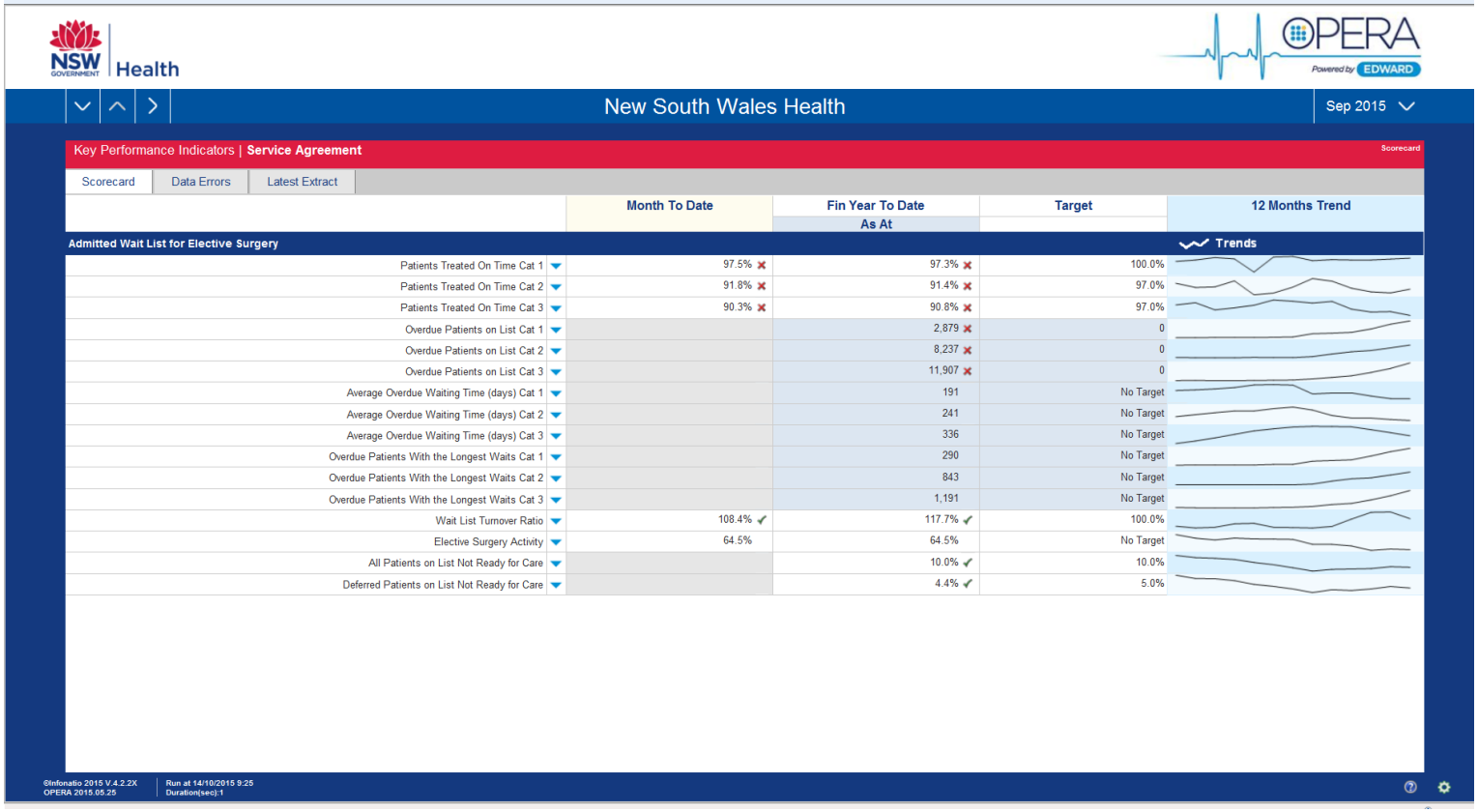
State

UP/DOWN ORGANISATION PERSPECTIVES

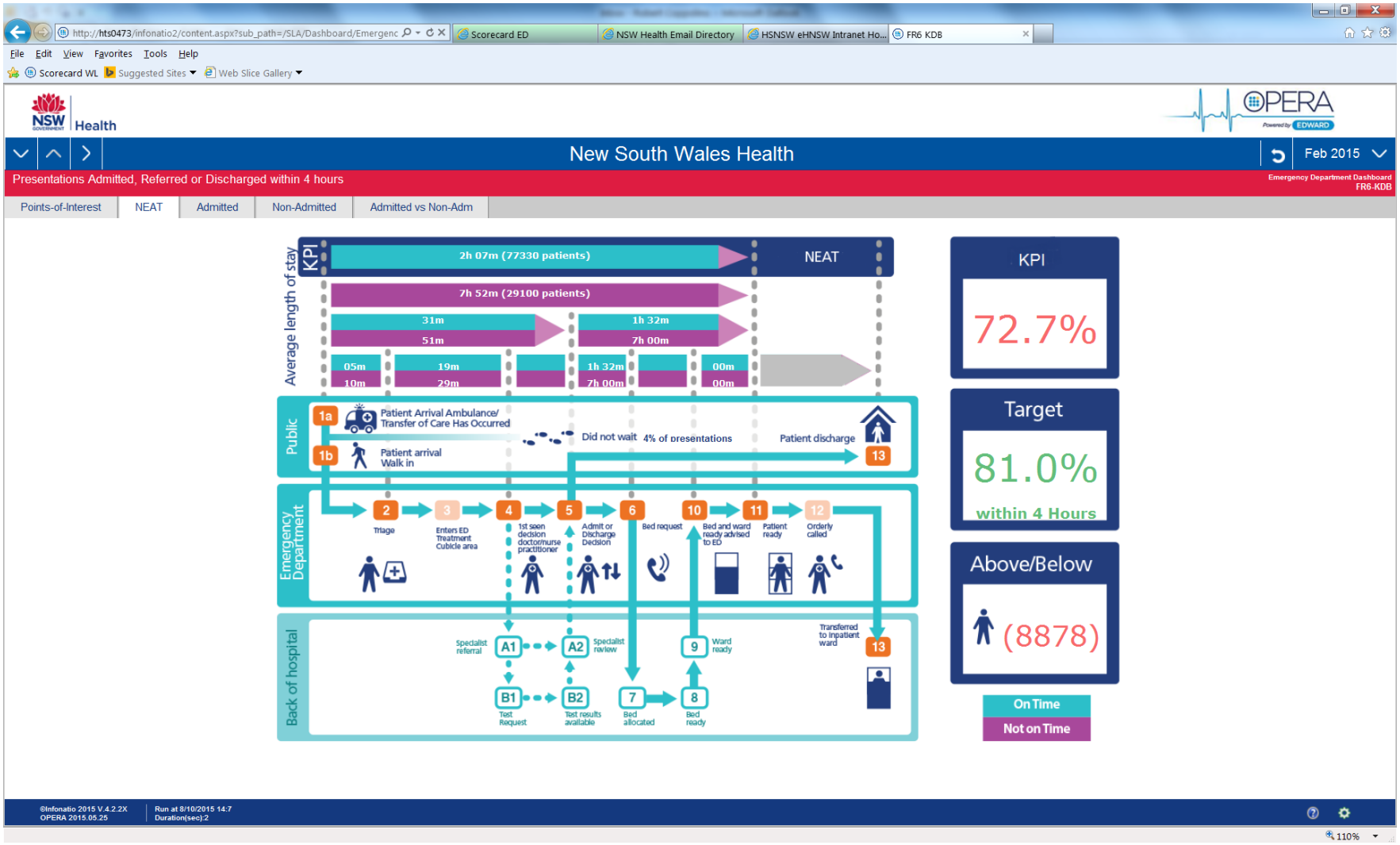


ACROSS FROM EXECUTIVES TO MANAGEMENT TO THE FRONT LINE

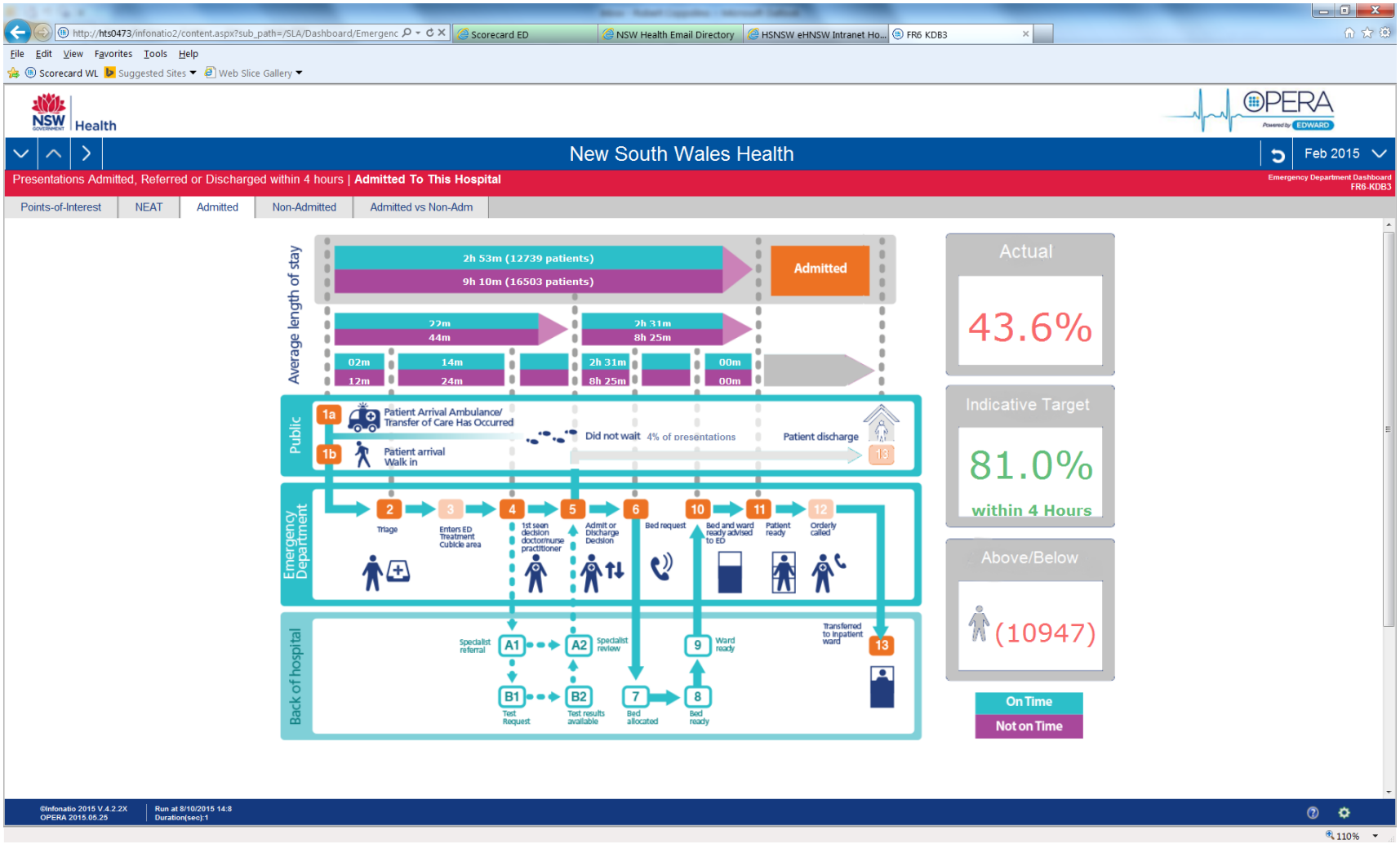
Example ED KPI Scorecard



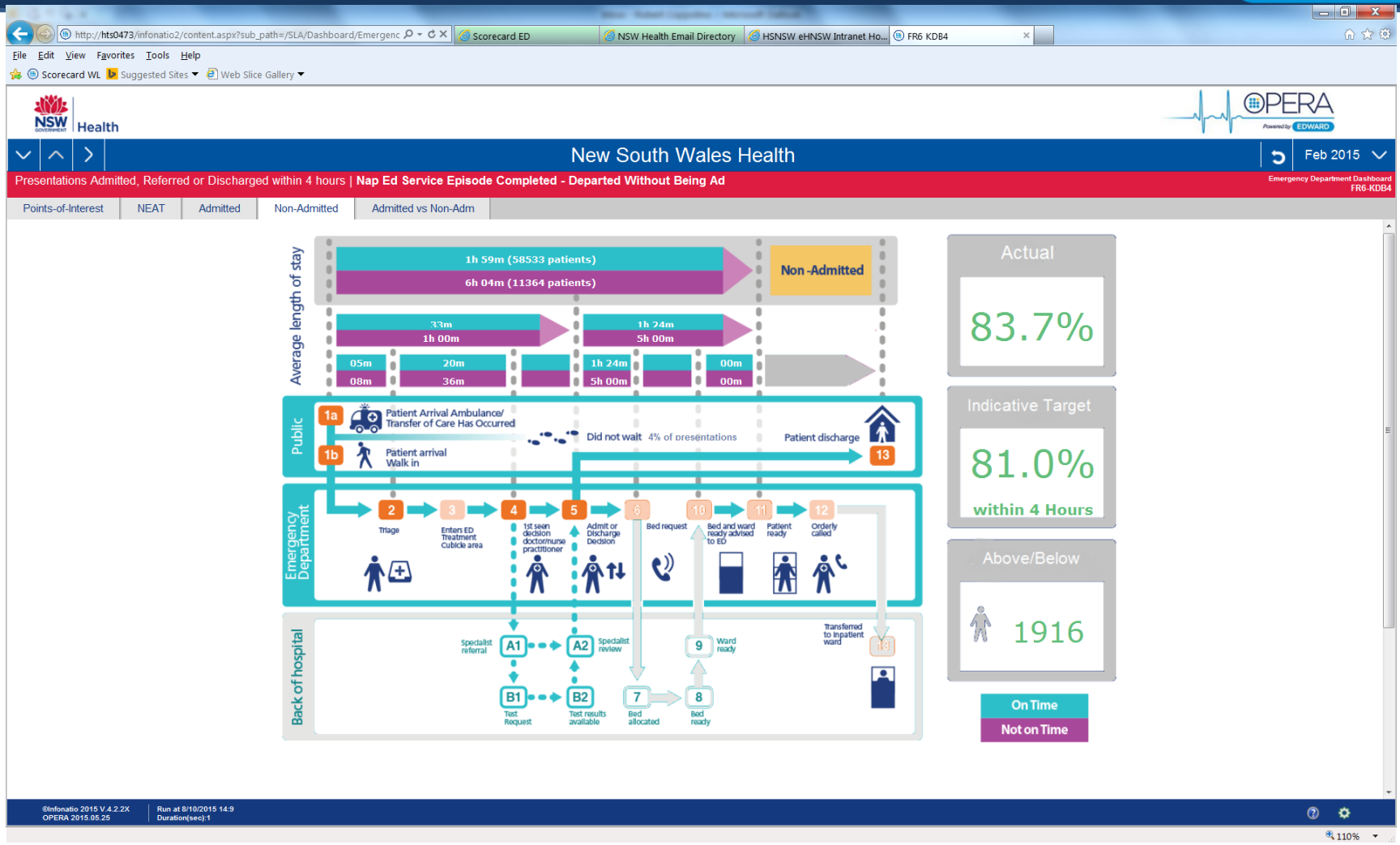
Example ETP


New South Wales Health
Feb 2015
Presentations Admitted, Referred or Discharged within 4 hours
Emergency Department Dashboard
FR6-KDB
Points-of-Interest
NEAT
Admitted
Non-Admitted
Admitted vs Non-Adm
Average length of stay
KPI
2h 07m (77330 patients)
NEAT
7h 52m (29100 patients)
31m
51m
1h 32m
7h 00m
05m
10m
19m
29m
1h 32m
7h 00m
00m
00m
Public
1a
Patient Arrival Ambulance/ Transfer of Care Has Occurred
1b
Patient arrival Walk in
Did not wait 4% of presentations
Patient discharge
13
Emergency Department
2
Triage
3
Enters ED Treatment Cubicle area
4
1st seen decision doctor/nurse practitioner
5
Admit or Discharge Decision
6
Bed request
10
Bed and ward ready advised to ED
11
Patient ready
12
Orderly called
Back of hospital
Specialist referral
A1
A2
Specialist review
9
Ward ready
Transferred to inpatient ward
13
B1
Test Request
B2
Test results available
7
Bed allocated
8
Bed ready
KPI
72.7%
Target
81.0%
within 4 Hours
Above/Below
(8878)
On Time
Not on Time
©Infonatio 2015 V.4.2.2X
OPERA 2015.05.25
Run at 8/10/2015 14:7
Duration(sec):2

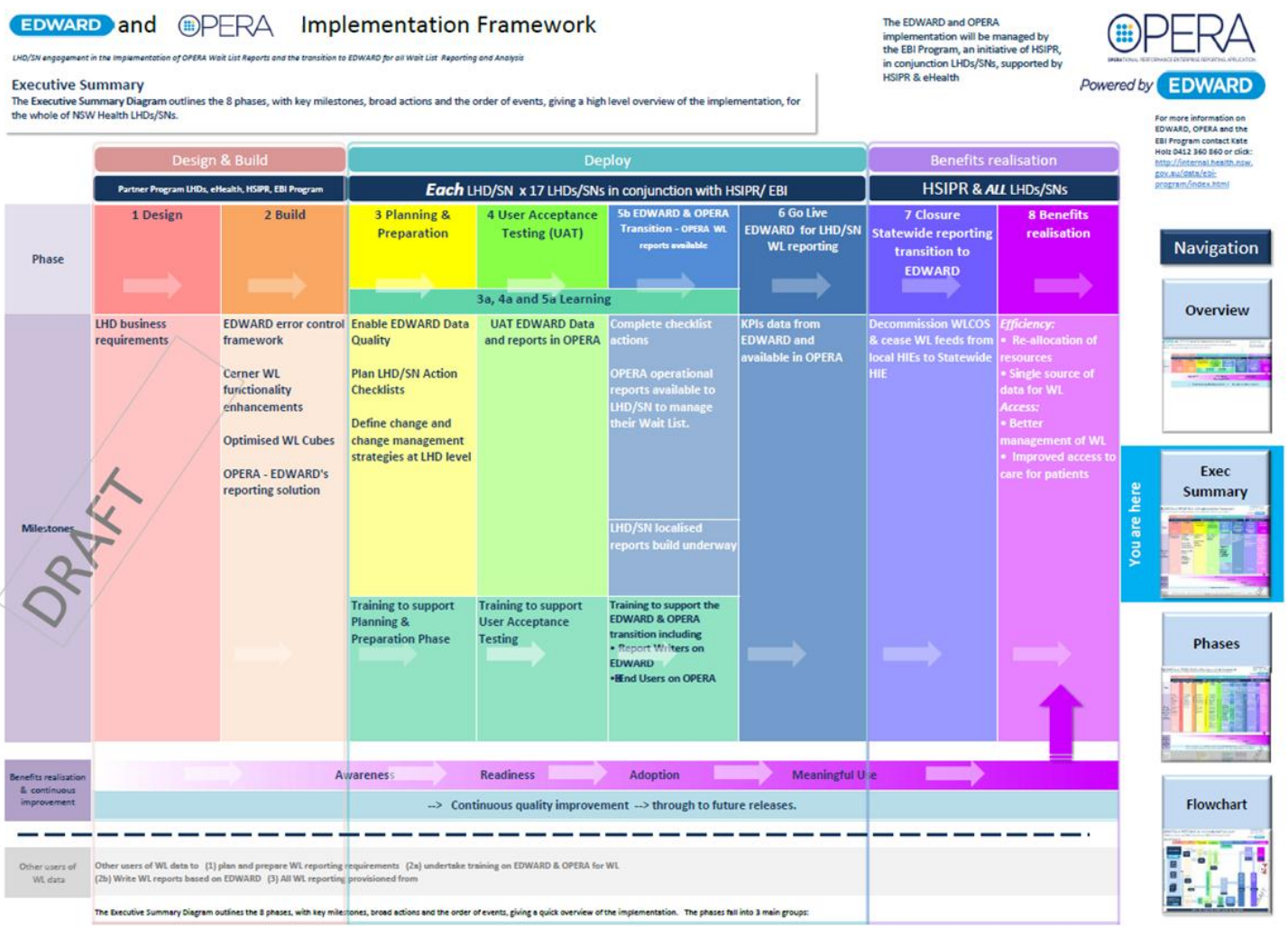
Example ETP Admitted



Example ETP Non Admitted



OPERA Implementation Framework



http://internal.health.nsw.gov.au/data/ebi-program/implementation.html

Our Contact Details

Program team members

Program team members	**Program Director** **Robert Coppolino**	**0402 881 668** **8918 1601**	**Robert.coppolino@health.nsw.gov.au**
	Solutions Architect James Prior	0448 789 939 8918 1606	james.prior@health.nsw.gov.au
	Senior Business Analyst / Training Lead Jillian Ashby	0458 573 912	jillian.ashby@health.nsw.gov.au
	Change Manager Kate Holz	0412 360 860 8918 1608	kate.holz@health.nsw.gov.au

Want more information about OPERA?
http://internal.health.nsw.gov.au/data/opera/documents/Presenting-OPERA-V-1-0.pdf

And more about the EBI program?
http://internal.health.nsw.gov.au/data/ebi-program/index.html

Appendix 1: EDWARD Phase 2

Powered by EDWARD

Business Information (BI) Business Case – Phase 2

Data Domains	In Scope Sources Systems
Admitted Patient Private Sector	• ISCOS (to be replaced by PHISCO)
Admitted Patient Interstate	• Interstate X Flows
Radiotherapy waiting times	• VARIS - Legacy • LANTIS - Legacy • ARIA (C) • Mosaiq (C)
Non-admitted Patient Cancer Notifications	• VARIS - Legacy • LANTIS - Legacy • ARIA (C) • Mosaiq (C)
NSW Ambulance Services	• NSW Ambulance CAD System(S) • PHCRS/ PBRC
Mental Health	• SCI-MHOAT • FISCHE
Drug and Alcohol	• Matisse
Finance	• SMRT (Oracle Financials)
Human Resource	• Oracle HR • MicrOpay • Supero (C) • Stafflink
Midwives / Birth Defects / Birth Notification	• ObstetriX • MDCOS
Visiting Medical Officer	• VMONEY
Ancillary Services Pathology	• Cerner PathNet (S)
Ancillary Services Radiology	• PACS-RIS • Cerner RadNet
Ancillary Services Pharmacy	• Cerner PharmNet • iPharmacy (S)
Death Notification	• Austrailan Bureau of Statistics Deaths Coded Data Set • NSW Births, Deaths and Marriages
Unique Patient Identifier	•Enterprise Patient Registry (EPR) • SUPI (for MHUPI)
Allied Health	•AHMIS
Community Health	•CERNER

NSW GOVERNMENT Health