# CTCS EBI UPDATE

## CTCS Meeting – July 24, 2014

# EBI:
## ENTERPRISE BUSINESS INTELLIGENCE

Business Intelligence (BI) is a set of methodologies, processes, architectures, and technologies that transform raw data into <u>meaningful and useful information</u>

… within the strategic context of an Enterprise
(i.e. the University of Waterloo)

» <u>Derived from:</u>
Evelson, Boris (2008, Forrester Research). "Topic Overview: Business Intelligence"
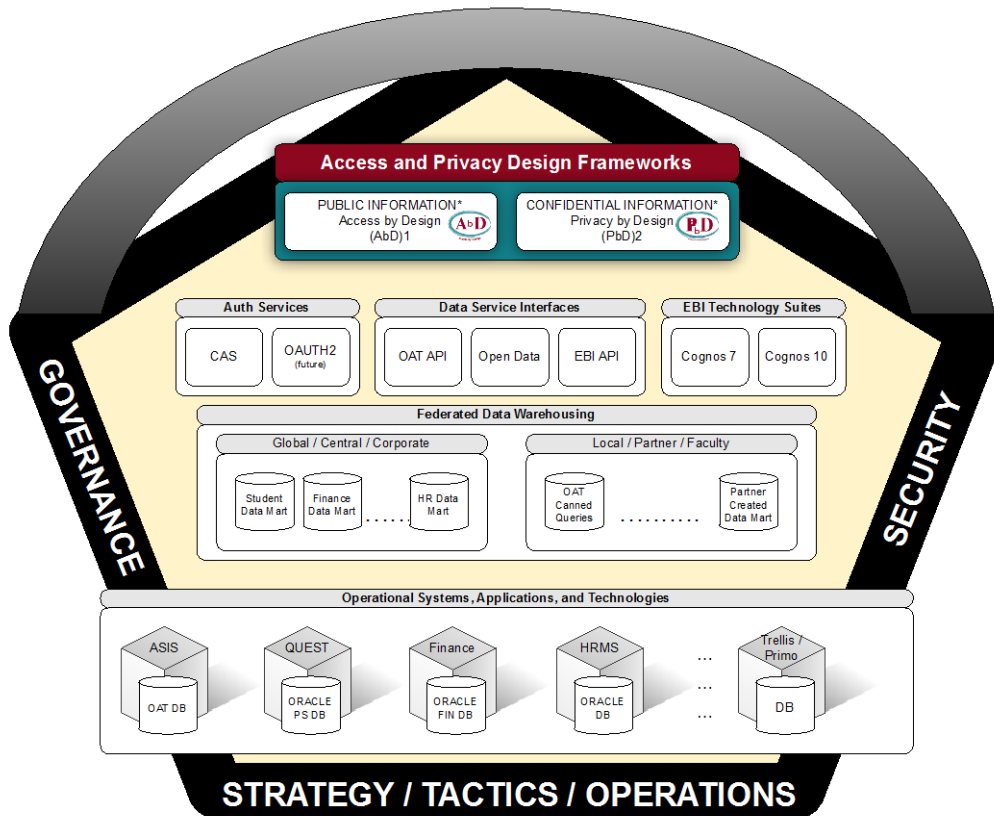
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# EBI: CAPABILITY VS. TECHNOLOGY

- EBI is an overloaded term:
  - » "Capability" - The combination of Waterloo's skills across the set of all federated partners.
  - » "Technology" - [IBM Cognos] A specific centralized technology to support Enterprise-wide data management, reporting, and analytics.

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Information Services

(aka. "The EBI")

Access and Privacy Design Frameworks

PUBLIC INFORMATION*
Access by Design (AbD)1

CONFIDENTIAL INFORMATION*
Privacy by Design (PbD)2

Auth Services
CAS
OAUTH2 (future)

Data Service Interfaces
OAT API
Open Data
EBI API

EBI Technology Suites
Cognos 7
Cognos 10

Federated Data Warehousing

Global / Central / Corporate
Student Data Mart
Finance Data Mart
HR Data Mart

Local / Partner / Faculty
OAT Canned Queries
Partner Created Data Mart

Operational Systems, Applications, and Technologies
ASIS — OAT DB
QUEST — ORACLE PS DB
Finance — ORACLE FIN DB
HRMS — ORACLE DB
Trellis / Primo — DB

GOVERNANCE

SECURITY

STRATEGY / TACTICS / OPERATIONS

* As defined in University of Waterloo Policy 8
1 - http://www.ipc.on.ca/images/Resources/accessbydesign_7fundamentalprinciples.pdf
2 - http://www.ipc.on.ca/images/Resources/7foundationalprinciples.pdf

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# COGNOS 10 MIGRATION: TUG/LIBRARY – NEW BUILD

- Inventoried existing Cognos 7 reports
  - » Priorized all reports and identified options for consolidation / retirement
- Semantic Model to build a clean business view of data in Cognos 10
- Built an ODS (Operational Data Store) with a nightly update:
  - » off loaded reporting / analytics from application server - performance
  - » added transactional history for some key data – improved analysis
  - » "calculated" fields handled in ETL process - consistency
- Build all reports from scratch in Cognos 10
- Converted exiting cubes mechanically for archive
- Looking for function gains (e.g. Dashboard)

# COGNOS 10 MIGRATION: CECA – WATERLOO WORKS MIGRATION

- Phase 1: migrate/clean data for initial launch
  - » JobMine data needs to be migrated to new WaterlooWorks
  - » Use ODS to extract data and manage data cleanup (e.g. "ON" vs "Ont")
  - » WaterlooWorks data import based on XLS files – will be Cognos "reports"

- Phase 2: Data Mart for CECA analytics
  - » Recognize that the data is where the strategic value lies, not JobMine
  - » Not all JobMine data needs to be or can be housed in WaterlooWorks
  - » Will allow incorporation of external data sources for analytics

- Migration is initial focus – but will create first version of analytics Data Mart in the process

# COGNOS 10 MIGRATION: HR – LEAN/MINIMAL MIGRATION

- Inventoried existing Cognos 7 reports
  » Prioritized all reports - identified options for retirement
  » For each Cognos 7 report – "excel" (layout) + SQL (content)
- Created Cognos 10 catalogues "mechanically" from existing Cognos 7 catalogues
- Created Cognos 10 reports "mechanically" from SQL and Excel
  » Can run Cognos 10 and 7 reports in parallel for testing
  » Created a template, so content will compare identically – minor presentation difference
- Minimal initial opportunity to leverage Cognos 10 functional improvements but also minimal impact on users for migration

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# Questions?