

## MINISTRY OF EDUCATION INFORMATION NOTE

**DATE:** July 6, 2016  
**CLIFF #:** 188676

**PREPARED FOR:** Honourable Mike Bernier, Minister, for **Information** at the request of  
Jill Kot, A/Deputy Minister

**SUBJECT:** Business Cases for Capital IMIT Investments

### **BACKGROUND:**

The capital planning process for Information Management / Information Technology (IMIT) investments is led by the Office of the Government Chief Information Officer (OCIO) on behalf of the Deputy Ministers' Committee on Public Service and Innovation (DMCPSI).

DMCPSI has invited the Ministry to submit two Business Cases requesting capital IMIT investments in support of Learning modernization. The business cases will be seeking additional funding to support the changes introduced by BC's new Curriculum, as well as new capital to invest in improving data analytics and reporting. The business cases are to be submitted by July 15<sup>th</sup>, 2016.

### **DISCUSSION:**

The Deputy Ministers' Committee on Public Service and Innovation (DMCPSI) has invited the Ministry to submit 2 business cases requesting capital IMIT funding in support of Learning modernization:

#### **1. Integrated Student Data (ISD) Portfolio**

DMCPSI has already approved **s.17** over 5 years (2014/15 to 2018/19) for the ISD portfolio. The portfolio has been tracking on-schedule and on-budget within existing scope.

BC's new Curriculum has introduced additional scope to the ISD portfolio, and a Business Case update has been developed requesting a further **s.17** in capital over fiscal years 2017/18 and 2018/19.

The request covers the design and development of Transcripts and Exams functionality to support the new Curriculum, Assessment, and Graduation Years program changes.

The investment will result in projected cost avoidances of approximately \$1.2M per year in 2016/17 and 2017/18, primarily through:

- Avoiding changes to aging ministry systems, and
- Avoiding manual calculations and graduation processing which is labour-intensive and error-prone.

## 2. Education Analytics (Education Data Warehouse 2.0) Project

The current Education Data Warehouse (EDW) was implemented in 2003, and is unable to adequately support the information needs and strategic direction of the Ministry and K-12 sector.

The Business Case proposes a 5-year **s.17** capital investment to support Learning modernization, through:


- Establishing a robust technology foundation that will reduce costs, increase accessibility, and better leverage the wealth of data held by the ministry,
- Adding data sources from organizations such as the Industry Training Authority, and the Ministry of Jobs, Tourism and Skills Training, to better link educational outcomes with labour market needs in support of the Ministry's Strategic Plan and the BC Jobs Plan,
- Providing advanced tools that support data visualization and predictive analytics, promote evidence-based decision making, and track the successes of the Education system, and
- Facilitating data sharing more broadly and securely to increase the value of the data held by the Ministry and partner organizations.

Projected cost savings are estimated at \$1.0M a year over 10 years, commencing 2017/18, primarily through:

- Reduced technology infrastructure charges, and
- Ability to better manage software licensing costs.

Consultations with the OCIO and other interested government stakeholders have been completed, and the OCIO has expressed its support for our submissions.

Attachment

<u>Contact Information</u>  H.B. Teo Executive Director 250-217-9756 File:		
	<b>ADM Initial</b>	<b>Jill Kot on behalf of Dave Byng Deputy Minister</b>
		<b>Date signed: July 7 2016</b>

# DMC Public Service & Innovation

## *MEd Business Cases for IMIT Investments*

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June 2016



BRITISH  
COLUMBIA

Ministry of  
Education



# Recap...

- Capital IMIT planning process led by OCIO (on behalf of DMCPST)
- Cap funding already approved for Integrated Student Data portfolio
  - On track: delivering on time within existing scope
  - BC's New Curriculum: introduced additional scope (requiring \$\$)
- DMCTT (now DMCPST): approved our Concept Cases and invited us to submit 2 Business Cases:
  1. Update to Integrated Student Data (incorporating new Curriculum scope and request for additional \$\$)
  2. New investment request for data warehousing and analytics (supporting Learning modernization)



# Our key driver: K-12 modernization

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*“Capable young people thriving in a rapidly changing world”*

Curriculum & Competencies  
Assessments  
Graduation Years  
Student Reporting



# Our business cases

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1. Data Exchange & Digital Services – update  
("Integrated Student Data")
2. Education Analytics and Reporting  
("Education Data Warehouse 2.0")



# Staging for success

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- Security and storage
- More data
- Better analytical tools



- Predictive analytics
- Performance management (QA)
- Linkages and accessibility





# The Investment Opportunity

## Data Exchange and Digital Services ("Integrated Student Data")

## Education Analytics and Reporting ("Education Data Warehouse 2.0")

### The Opportunity:

- Alignment of education outcomes to labour market needs - critical to success of Ed Strategic Plan and BC Jobs Plan
- Leverage wealth of data from K-12 and related sectors to inform decisions and report on successes
- Current legacy systems (built between 1985 to 2005) unable to support strategic direction and information needs

### The Proposal:

Approved 5-year Roadmap with capital funding:

- Digital Transcripts service for students.
- Secure student data exchanges with schools/ districts.
- *Transcript, exams and graduation functions supporting new Curriculum, Assessments and Graduation Years.*

**Requesting additional \$17 (2017/18 & 2018/19)**

### Deliverables and Outcomes:

- Oct 2016: Student Transcripts providing online access to streamlined post-sec application process (w/ AVED).
- Summer 2017: Simpler and more robust data exchanges across K-12 and partner sectors.
- Summer 2017: Apps supporting BC's new Curriculum.
- Increased security and data protection.

### Total cost avoidance:

~\$1.2M a year, 2017/18 and 2018/19.

Primarily through:

- Avoiding changes to aging ministry systems.
- Avoiding manual calculations and graduation processing which is labour-intensive and error-prone.

### The Proposal:

Proposed 5-year Roadmap:

- Robust and scalable technology foundation.
- Expanded data sets and improved analytic and visualization tools.
- Data sharing more broadly and securely with partners.

**Requesting net new \$17 over 5 years**

### Deliverables and Outcomes:

- Robust foundation for data storage and sharing.
- Advanced analytics and visualization tools to support evidence-based decisions and success measures.
- Increased value of information assets through data linking and sharing with partner organizations.
- Increased security and data protection.

### Total cost savings:

~\$1.0M annual savings over 10 years, starting 2017/18.

Primarily through:

- Reduced technology infrastructure charges.
- Ability to better manage software licensing costs.





# Supporting provincial priorities

Ministry of Education Strategic Plan

BC's Education Plan: Focus On Learning

Ministry of Education Annual Mandate Letter

BC's Skills for Jobs Blueprint: Re-engineering Education and Training

Canada Starts Here: The BC Jobs Plan

#BCTECH Strategy

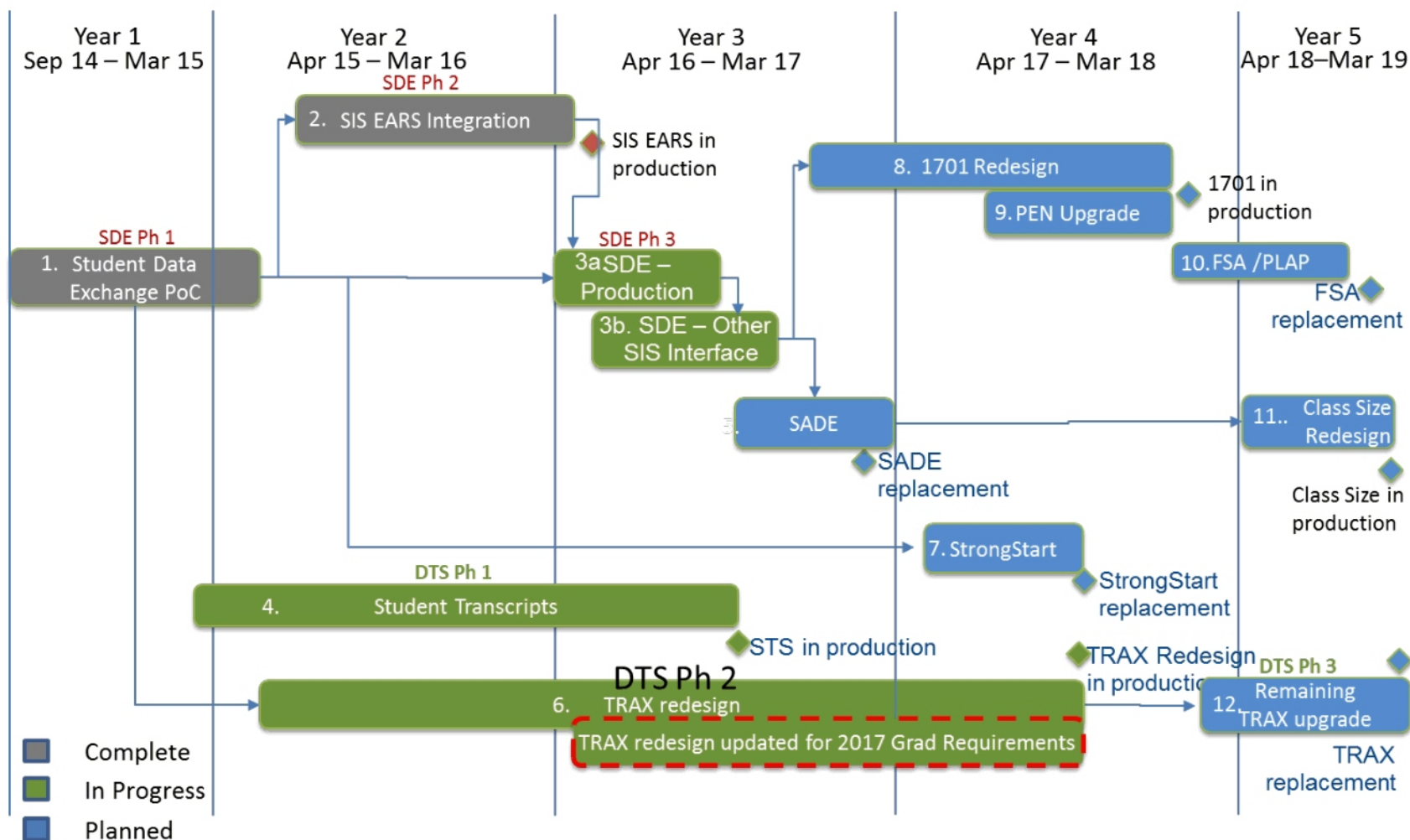
**EDUCATION OUTCOMES**



# Appendices

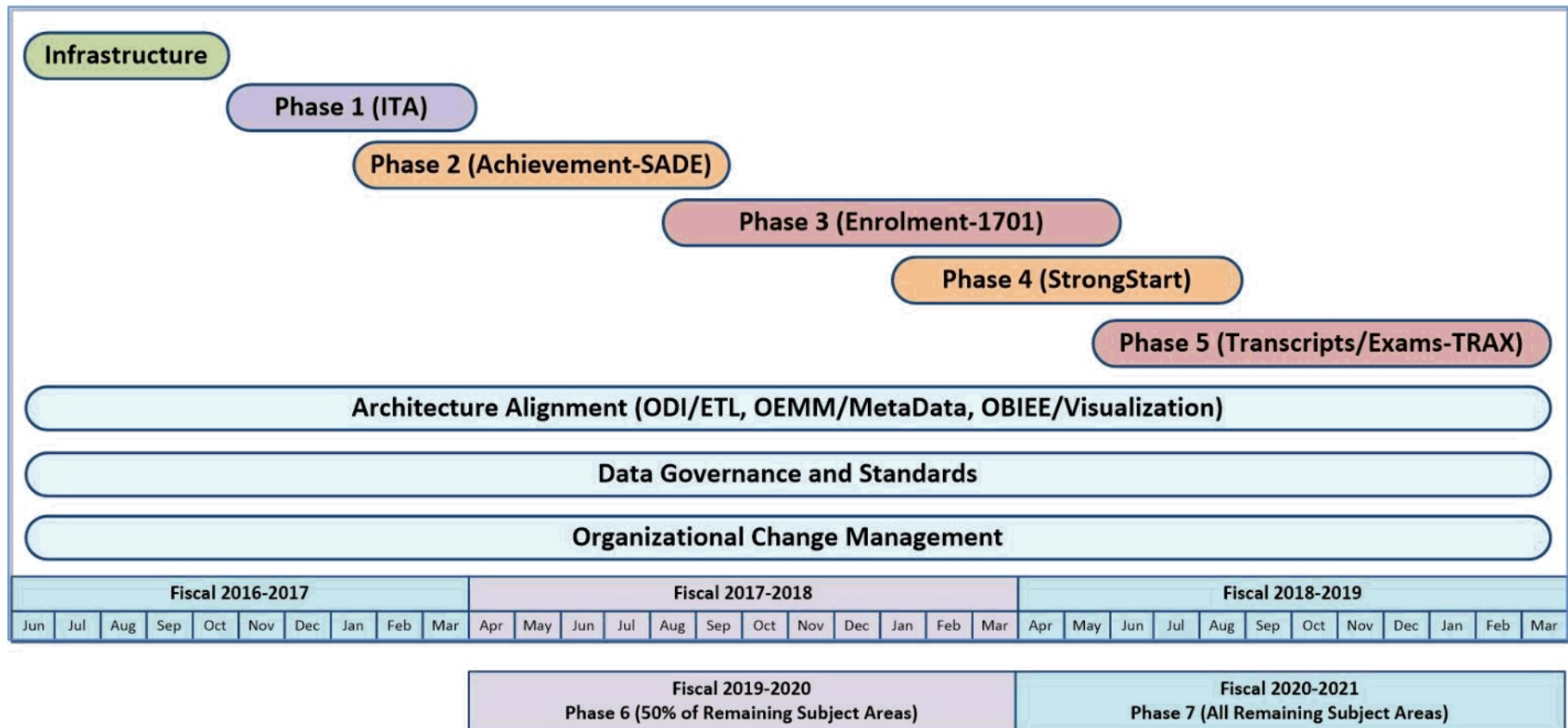
- **Project Roadmaps**
- **Consultations Completed**

# Integrated Student Data Portfolio: 5 Year Roadmap





# Education Data Warehouse 2.0: 5 Year Roadmap



# Business Case Development - Consultations Completed

## **JTST:**

- ✓ Regulatory Reform Branch

## **OCIO:**

- ✓ Capital Investment Branch
- ✓ IMIT Procurement
- ✓ Identity Information Management (IDIM)
- ✓ Hosting
- ✓ Strategic Partnerships Office
- ✓ Information Security
- ✓ Enterprise Architecture, Standards and Planning
- ✓ Network Services

## **GCPE:**

- ✓ Corp. Online Solutions
- ✓ Strategic Design and Transformation
- ✓ Citizen Engagement
- ✓ Enterprise Data Services

## **FINANCE:**

- ✓ PayBC
- ✓ Office of the Comptroller General
- ✓ Privacy and Compliance

## **Other Ministries:**

- ✓ Health
- ✓ SDSI