

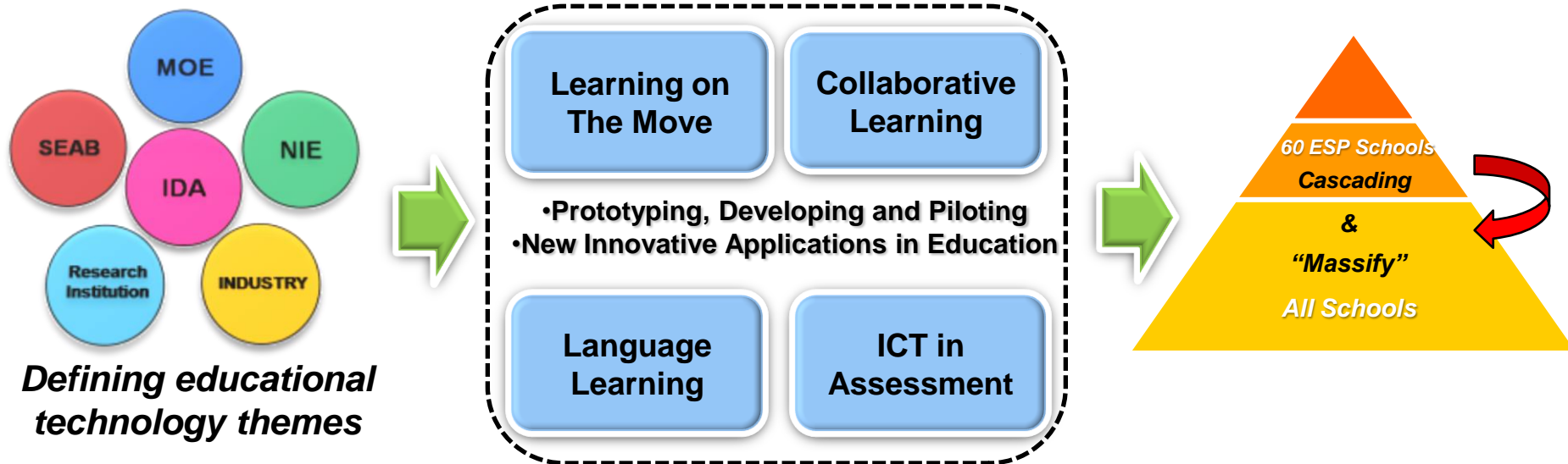
Call For Collaboration for Collaborative Learning and Learning On The Move

Industry Briefing

25 March 2010

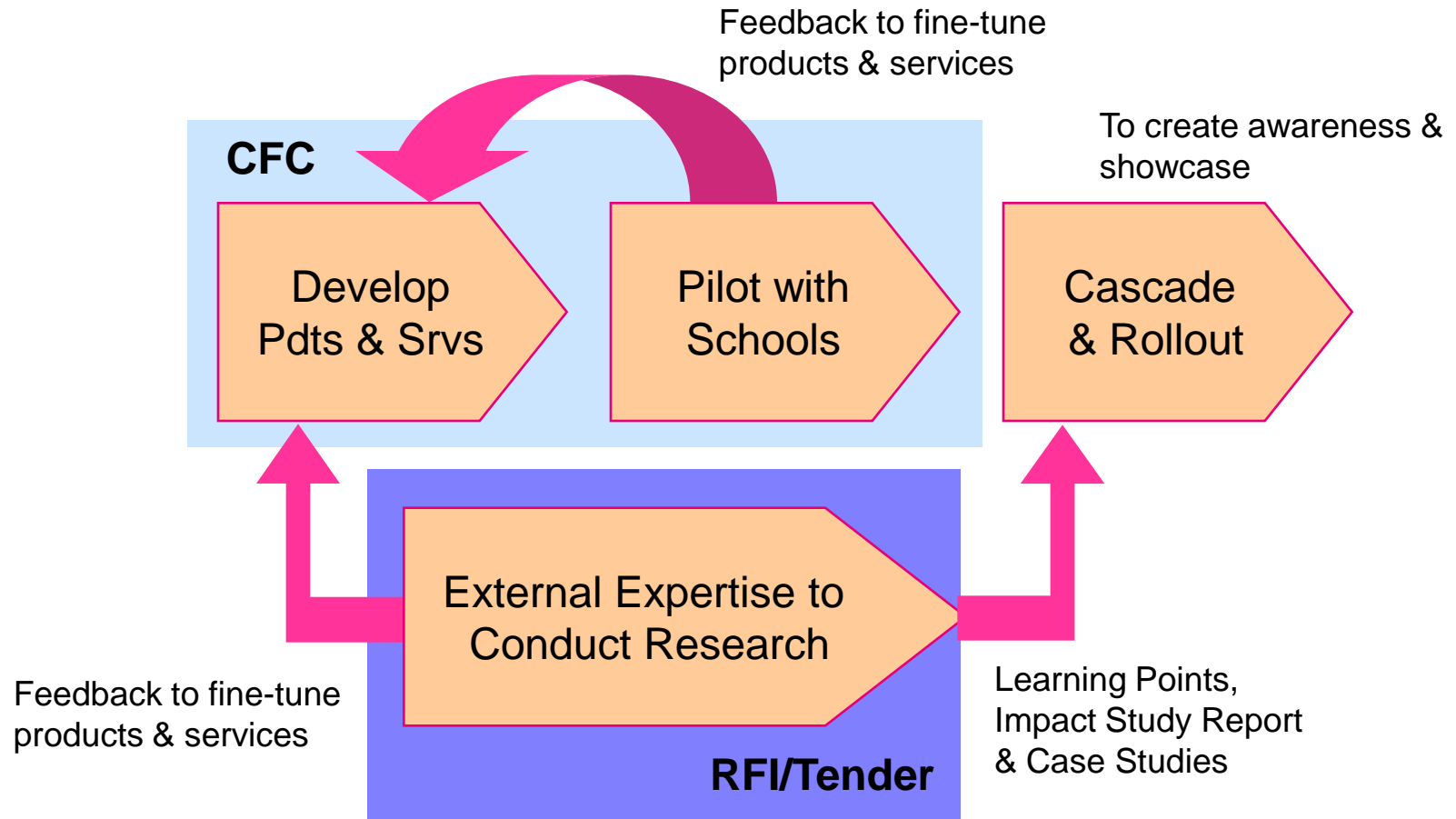


Fostering industry collaborations to develop innovative education applications & services



- **Conduct impact studies** during the development stage
- **Open calls for industry** to participate through various means like Tenders as well as Calls for Collaborations
- **Seek strategic alliances** with partners that have established track records and keen interests in Education

Implementation approach for development of innovative ICT applications in Education



Consortium's Role in IDA Impact Studies

- > **Awarded Consortium(s) are required to work with IDA and its designated partner(s) to conduct **impact studies** to assess and validate effectiveness of the CoL and LOTM tools**

- > **Duration of the Impact Studies**
 - During the development of the CoL and LOTM Tools (refer to CoL/LOTM Project Timeline)

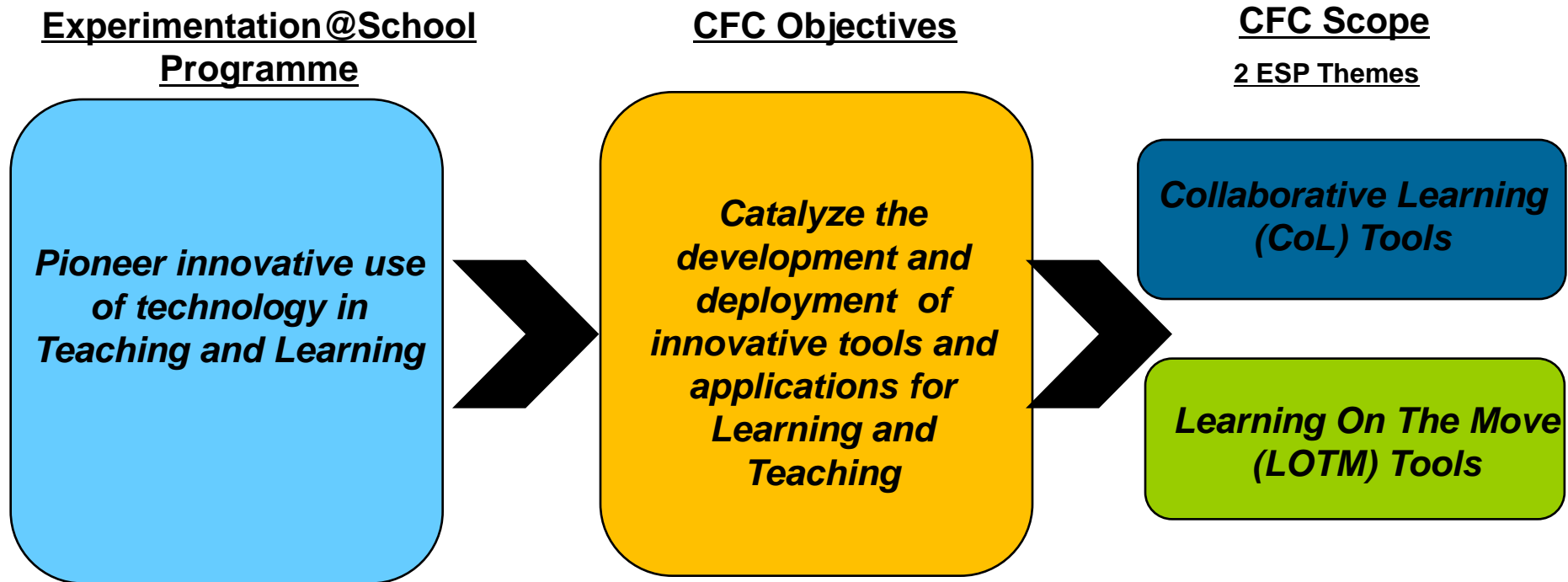
- > **The impact study could be conducted in different modes**
 - project observations
 - surveys
 - interviews or focus group discussions

- > **The Consortium is expected to provide full support and cooperation to provide relevant info as required:**
 - Users' requirements
 - Access to developed CoL and LOTM Tools
 - Demonstration on how the tools worked
 - Pilot results and users' feedback
 - Key learning points and implementation considerations

1

CFC OBJECTIVES & SCOPE

Industry is invited to submit proposals for two educational technology themes – CoL and LOTM



2

THEME 1: COLLABORATIVE LEARNING (CoL) TOOLS

What is Collaborative Learning (CoL)?

Group Work

- Involves 2 or more people
- Formal or informal
- Team work

Social Interaction

Discussion across time and location
Student to Student (peer reviews)
Teacher to Student, Student to Teacher

Collective Intelligence

Search & Interpret
Solve problems
Co-create knowledge

Why Collaborative Learning?

- > CoL tools can help students to develop skills such as story-telling, questioning, reflection and critiquing alternative perspectives**
- > Students develop interpersonal skills, persuasive communication abilities, perspectives (global and local views) as they interact with others internationally, mediated by ICT tools**

CoL - Objective & Desired Outcome

OBJECTIVE

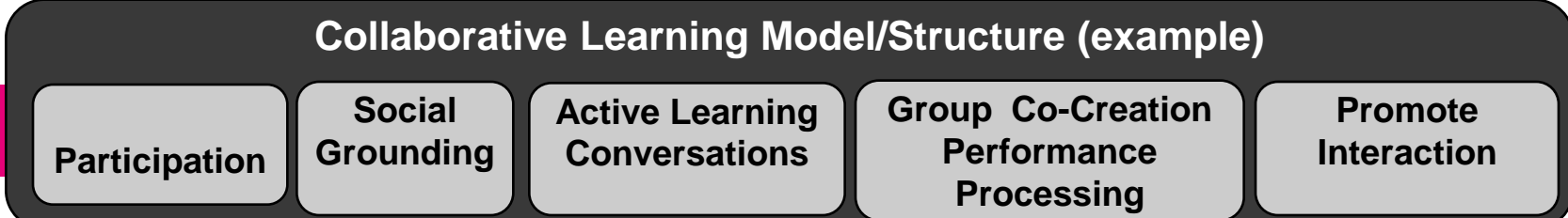
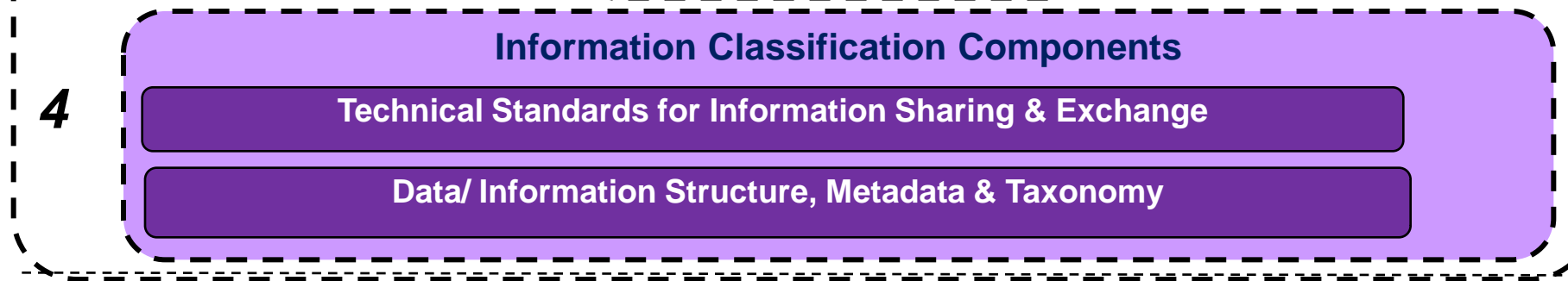
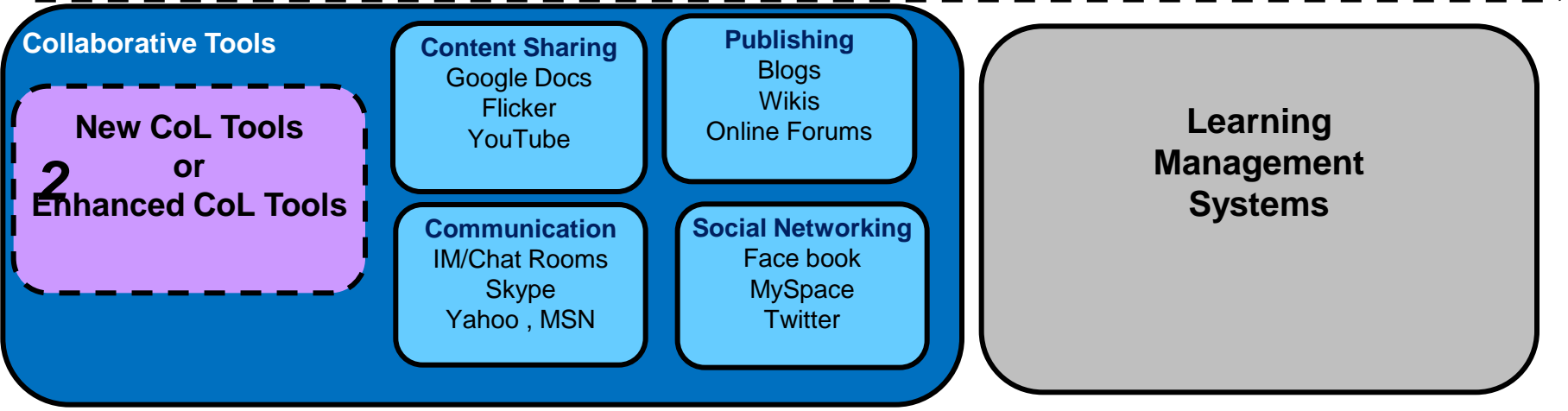
- 1. Develop and deploy tools :**
 - a) To support collaborative learning amongst students, and teachers & students**
 - b) To enable teachers to search, pull together and analyze student's contributions to identify learning patterns & needs for necessary interventions**

DESIRED OUTCOME

- 1. Enhanced existing tools with a built-in learning structure for collaborative learning**
- 2. New tools with :**
 - a) A unified view and access of CoL tools and learning systems**
 - b) Search, analytics and reporting capabilities that can help teachers better understand students' learning patterns & needs for necessary interventions**
 - c) Information classification structure to enable categorization, information sharing & exchange**

CFC Proposal to include components 1 to 4

1 Dash Board



User Scenario Example – Teachers posts assignment

Teacher

DASH BOARD

Learning
Management
Systems

iSHARE *

edumall2.0 **

Collaborative Tools

New CoL Tools
Or
Enhanced CoL
Tools

Content Sharing
Google Docs
Flicker
YouTube

Publishing
Blogs
Wikis
Online Forums

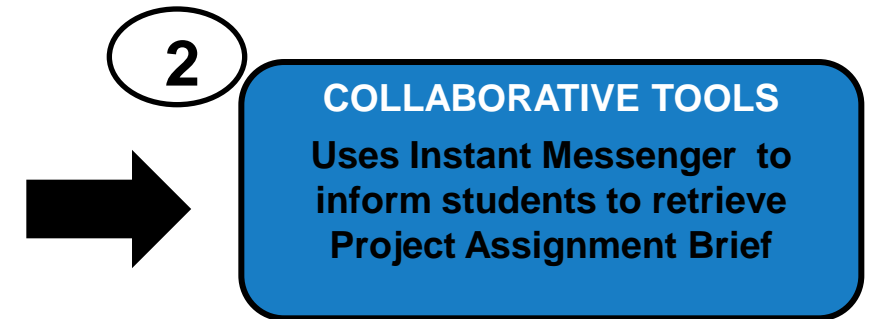
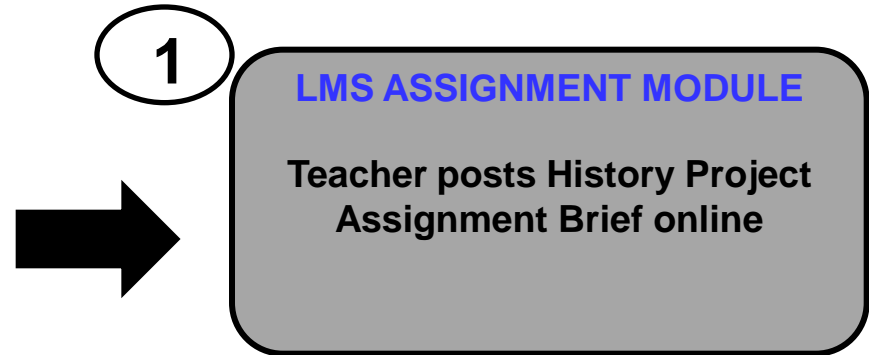
Communication
IM/Chat Rooms
Skype
Yahoo , MSN

Social Networking
Face book
MySpace
Twitter

Report
Engine

Search
Engine

Analytics
Engine



* *iSHARE* : Digital repository of teacher-created resources to facilitate sharing of knowledge and communications between schools and teachers

** *edumall2.0* : Portal that serves as a gateway to trusted learning and teaching resources from MOE and external content providers

User Scenario Example –Students retrieve assignment

Student A & B

DASH BOARD

**Learning
Management
Systems**

Collaborative Tools

**New CoL Tools
Or
Enhanced CoL
Tools**

Content Sharing
Google Docs
Flicker
YouTube

Publishing
Blogs
Wikis
Online Forums

Communication
IM/Chat Rooms
Skype
Yahoo , MSN

Social Networking
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Twitter

Student A & B retrieve assignment

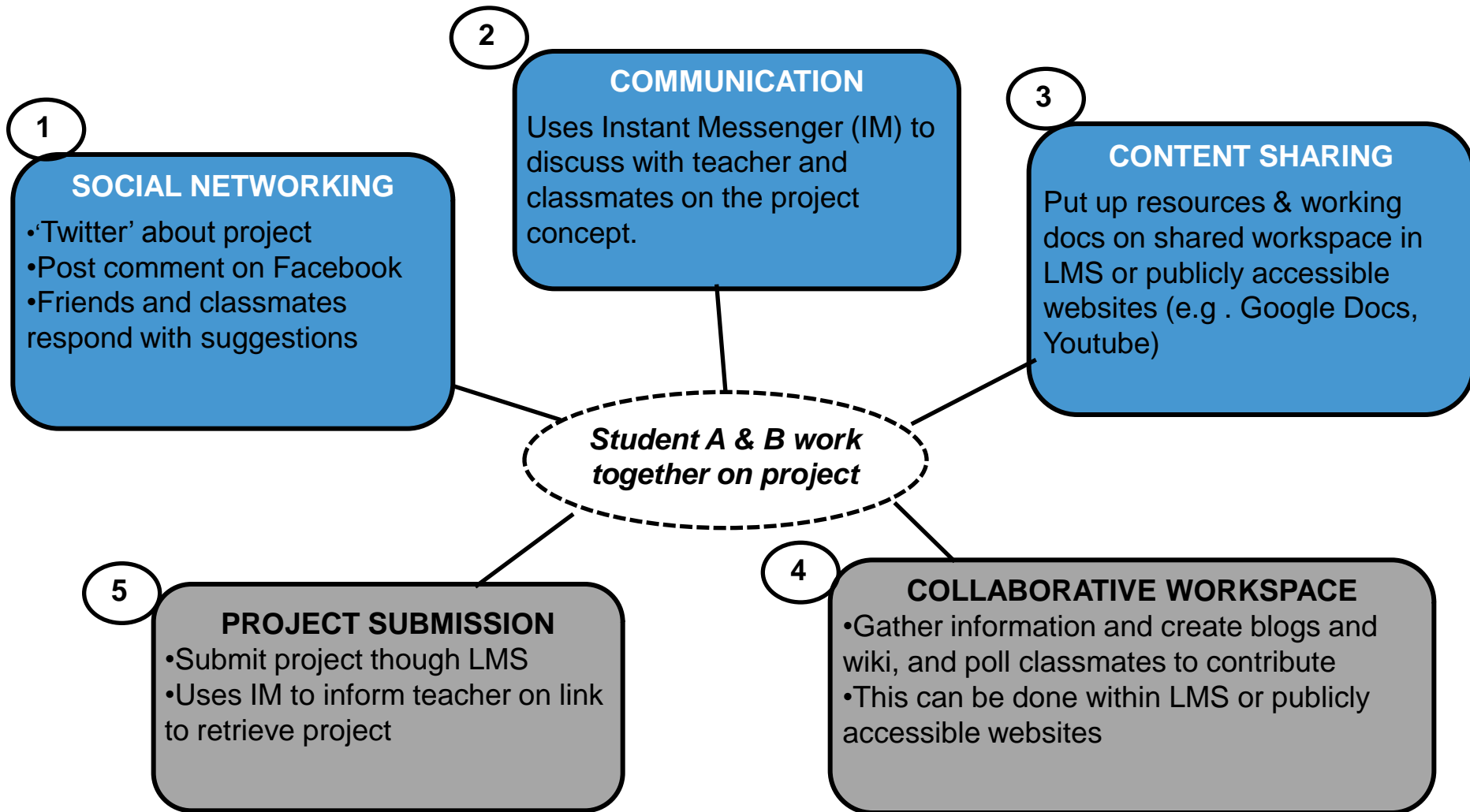
1

COMMUNICIATION TOOL
Student A & B receive an
alert to check message from
Instant Messenger

2

LMS ASSIGNMENT MODULE
Student A & B login to school
LMS to retrieve History Project
Assignment Brief online

User Scenario Example –Students co-create and construct knowledge



User Scenario Example- Teacher generates reports on students' learning patterns

Teacher searches, analyzes and generates report



SEARCH

Search & retrieve the student's/students' contributions and interactions from LMS and CoL Tools.

ANALYTICS

Analyze students' learning patterns & needs (e.g. *key words used, collaboration tools used, level of students' interaction with peers, peer reviews, students' weakness, assistance needed*)

REPORT

Generate report card for each student or a group of students (for e.g.)

- a) *Knowledge understanding & co-creation*
- b) *Interactions with peers*
- c) *Group participation & sharing of information*
- d) *Group Processing of information*
- e) *Teacher's recommendation areas of improvement*

Key Considerations

> Data and Interface Standards

- **Proposed CoL Tools must demonstrate ability to integrate with other Learning Management Systems and CoL Tools**
 - Adopt open and industry prevailing standards
 - Adopt SCORM 2004 3rd edition for content exchange

- **IDA to own the foreground IP for the data and interface specifications developed under this CFC**
 - IDA will publish the standards and specifications for use by other industry partners to ensure integration between developed CoL Tools for information exchange and sharing

Key Considerations

> Proposed Pricing Models

- Consortium to provide pricing models as indicated in CFC Proposal Submission Form A- Appendix A3
 - Software-as-a-License (SaaS)- Per School Pricing (Monthly or Annual Fees)
 - Software-as-a-License (SaaS)- Per User Pricing (Monthly or Annual Fees)

> Free usage of developed CoL Tools

- Awarded Consortia to provide IDA and MOE with 1 year free access to developed CoL Tools
 - For at least 300 users

CFC Proposal Forms -Appendix A3 / B3

Post Project Business Plans And Pricing Models

Software-as-a-License (SaaS)- Per School Pricing (Monthly or Annual Fees)

Per Single School license for the proposed applications for 2000 users	Per School Pricing in SGD (Monthly or Annual Fees)													
	1		2-10		11-20		21-50		51-150		151-250		All schools (360)	
Cost (\$\$) (exclude GST)	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual
<p>List in details the following:- (Cost items to be listed) Breakdown of service/software components/module: a)software license (client download) or (web-based) b) hosting/data storage c) Concurrent user access for at least 40 users d)xxxx Support and maintenance scope a).. Others (a) (b)</p>														

CFC Proposal Forms -Appendix A3/B3

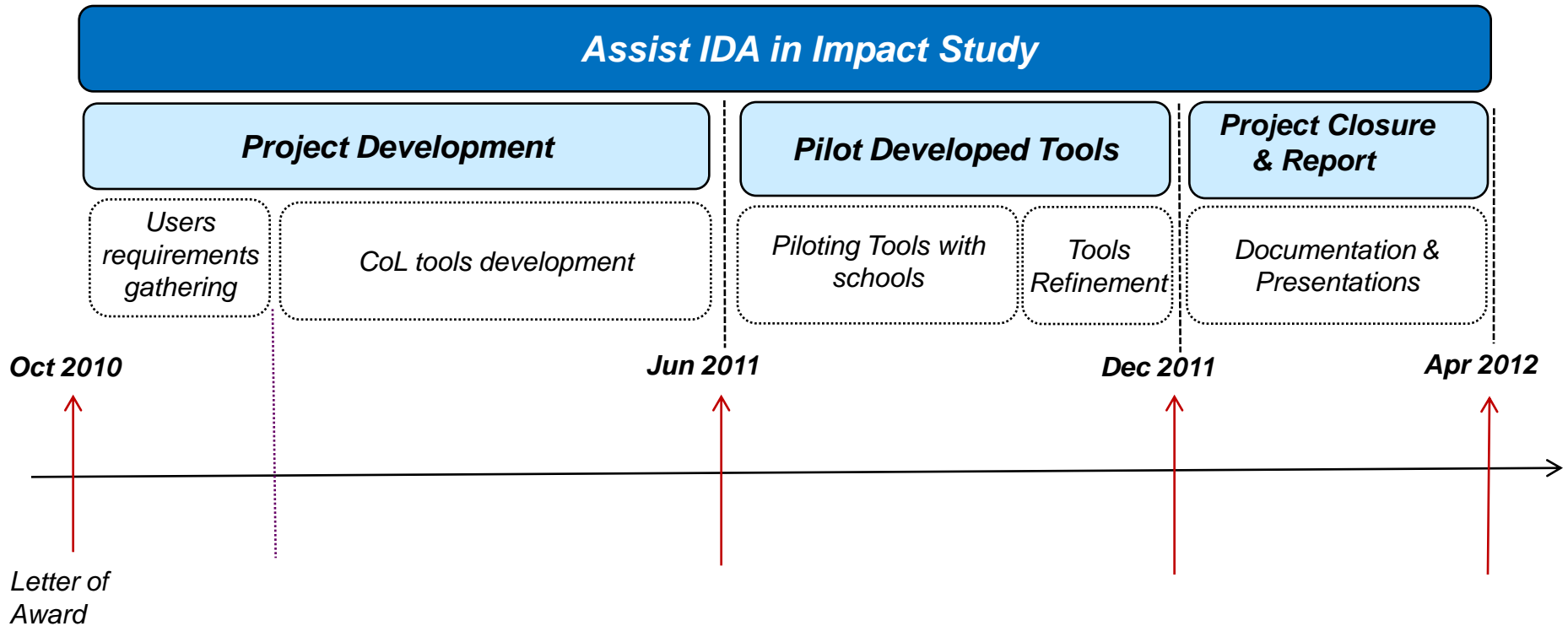
Post Project Business Plans And Pricing Models

Software-as-a-License (SaaS)- Per User Pricing (Monthly or Annual Fees)

Per Named User license for unlimited sites installation	Per User Pricing (SGD)- Monthly or Annual Fees									
	1-40		41-160		161-299		≥ 300		...	
	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual	Per User/ Month	Total Annual
Cost (\$\$) (exclude GST)										
<p>List in details the following:- (Cost items to be listed) Breakdown of service/software components/module: a)software license (client download) or (web-based) b) hosting/data storage c) Concurrent user access for at least 40 users d)xxxx Support and maintenance scope a)...</p> <p>Others (a) (b)</p>										



CoL Project Timeline



**timeline is subjected to changes by IDA*

3

THEME 2: LEARNING ON THE MOVE (LOTM)

What is Learning On The Move (LOTM)?



Anytime Anywhere Learning Beyond The Classroom

- **Authentic learning environment**
- **Interactive content aligned to curriculum**
- **Portable devices & connectivity**

Why Learning on the Move?

- > Current field trips conducted are mostly pen and paper based and may not fully meet the requirements of the curriculum**
- > Existing tools to create learning trails are mostly proprietary, not intuitive and tedious to use, and the trails created can only worked with one or a few specific devices**
- > Proposed solutions to address existing challenges**
 - Creation of learning trails in locations with dense vegetation**
 - Ways to leverage pervasive mobile network and addressing challenges such as high data access charges**

LOTM - Objective & Desired Outcome

OBJECTIVE

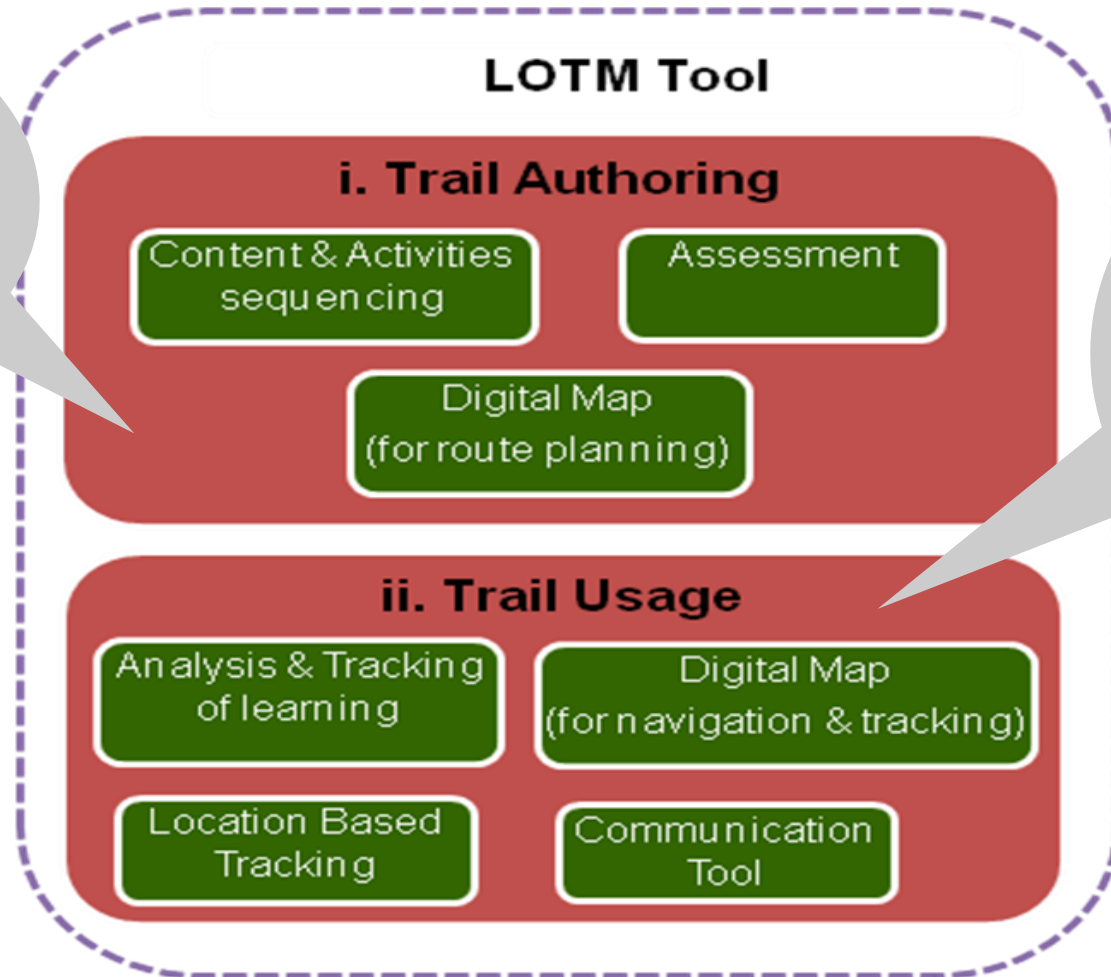
- To encourage the development and piloting of “easy to use” LOTM Tools for the creation of learning trails to enable experiential and authentic learning for students.

DESIRED OUTCOME

- To enhance existing tools or develop new tools to support:
 - Ease in Trail authoring
 - Ease of access (web based)
 - Cross platform devices

Components of LOTM Tool

Trail authoring shall be Web-based



Supported modes for trails : Web-based and/or Client-based

Learning On the Move (LOTM)

-User Scenario Example

1

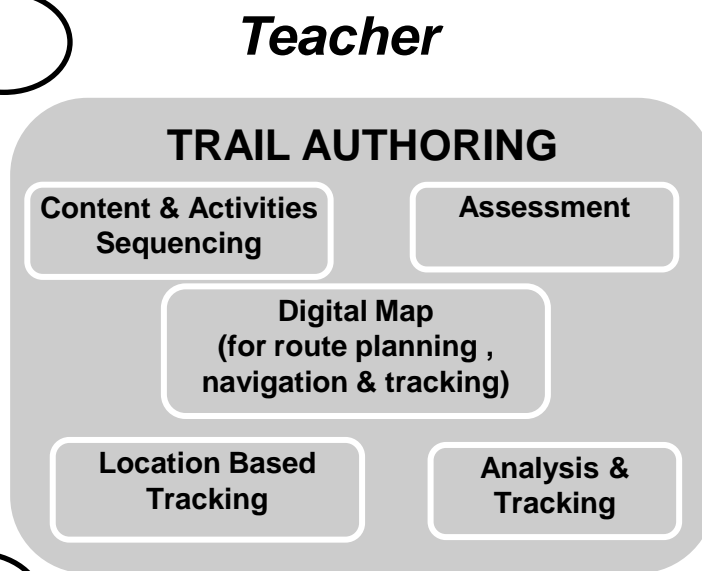
DIGITAL MAP
(for route planning)
Teacher download a digital map of Fort Canning Hill online and identify the various check points for the trail

2

CONTENT & ACTIVITIES SEQUENCING
Teacher creates the trail routes of Fort Canning Hill

3

ASSESSMENT
Teacher inserts quizzes and activities at various check points to test students understanding about Spices



4

CONTENT & ACTIVITIES SEQUENCING
Teacher completes the trail creation by providing a brief description and objectives of the trail and upload the trail onto the portal

6

ANALYSIS & TRACKING
Teacher can aggregate responses & reports of students' performance to provide just in time help to clear students' gaps in learning

5

LOCATION BASED TRACKING DIGITAL MAP
(navigation & tracking)
Teacher can monitor the progress of students via Cell-ID or GPS on the Digital Map through the LOTM Tool

Learning On the Move (LOTM)

-User Scenario Example

Student

TRAIL

1 Student download the trail into their mobile devices before the start of their trail

1

TRAIL USAGE

Digital Map
(for navigation & tracking)

Location Based
Functionalities

Assessment

Geo -Tagging

Analysis &
Tracking

Communication
Tool

DIGITAL MAP (for navigation & tracking) & LOCATION BASED FUNCTIONALITIES

2 Student navigate using the Digital Map and Location Based Service (e.g. GPS and Cell-ID) that can automatically trigger when they are within range of the check points

2

ASSESSMENT, ANALYSIS & TRACKING

4 Students attempt tasks and quizzes at various check points and the responses would be sent back to the portal for processing and reporting of their progress

4

6

COMMUNICATION TOOL

3 Students can communicate with other teams through instant messaging to exchange information

3

GEO-TAGGING

5 Students can capture videos and audio recordings and include their comments and GEO-Tagged before uploading to the portal

5

PRESENTATION

6 Back at home or classroom, Students can retrieve content and information they have uploaded onto the portal to create a presentation of their learning

Key Considerations

> LOTM Tool

- Web-based preferred

> Learning Trails development


- Separate procurement by MOE using developed LOTM Tools
- Describe how to support both MOE and WRS trails if proposing for both themes
- Trails can be web-based or client-based

> Data and Interface Standards

- Proposed LOTM Tools must demonstrate ability to integrate with LMS and other LOTM Tools
 - Adopt open and industry prevailing standards
 - Adopt SCORM 2004 3rd edition for content exchange

Key Considerations

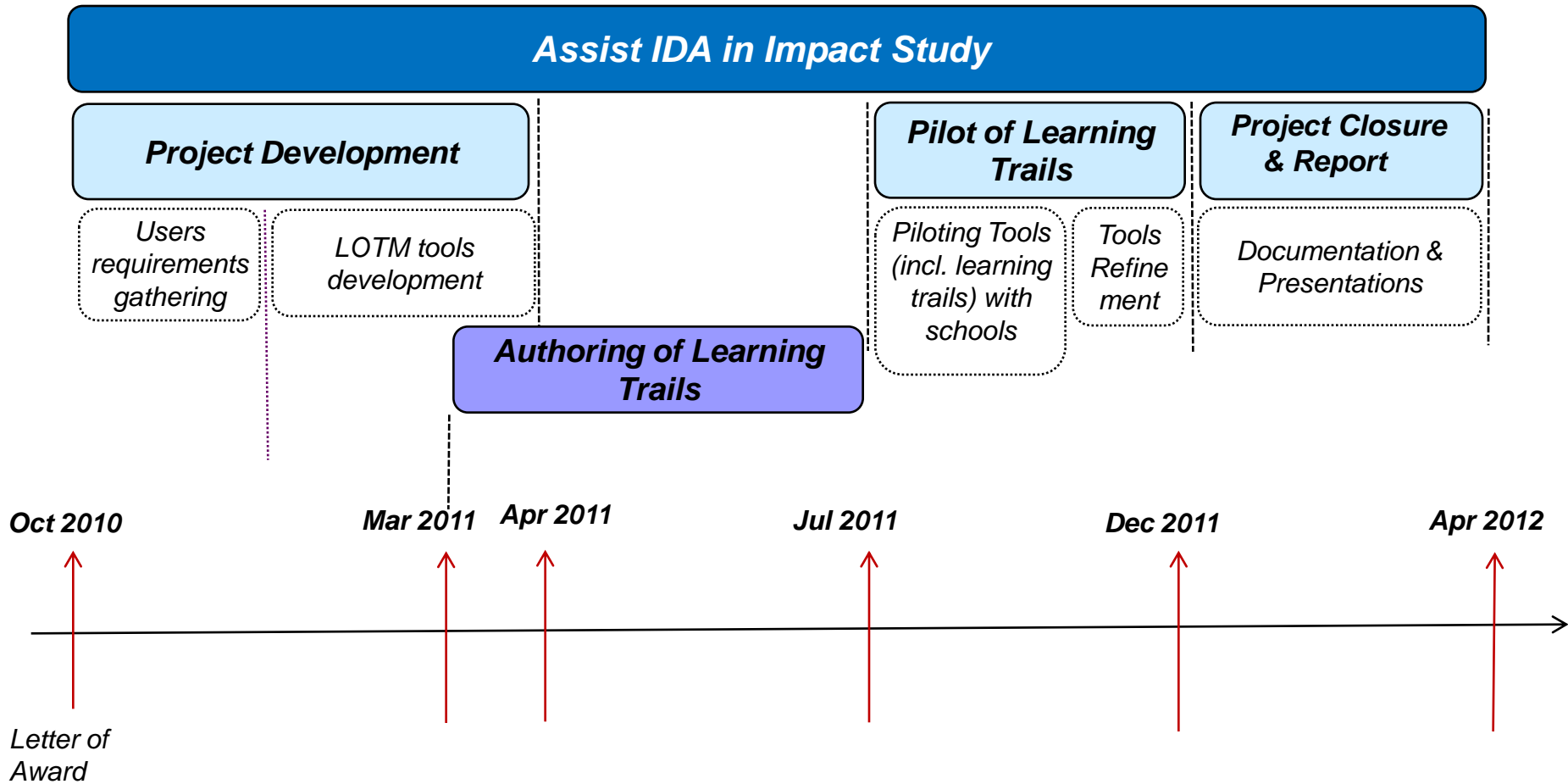
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> Free usage of developed LOTM Tools

- Awarded Consortia to provide IDA and MOE with 1 year free access to developed LOTM Tools
 - For at least 300 users

LOTM Project Timeline



**timeline is subjected to changes by IDA*

4

CFC – Prerequisites, Evaluation Criteria, Timeline & Submission Instructions

CFC Prerequisites for Participant(s)

1. The Consortium lead shall be registered in Singapore with the Accounting & Corporate Regulatory Authority (ACRA)
2. The core development of the proposed project(s) shall be done in Singapore
3. Project shall be implemented in collaboration with IDA or MOE project teams and to be completed within 18 months
4. Each Consortium shall indicate the investment amount (in total) per CoL and LOTM within 18 months
5. Project shall demonstrate innovative use of technologies within the Education context

CFC Evaluation Criteria

Meet CFC requirements

Track Record & Domain Knowledge

Innovation & Sustainability

Business Plan & Pricing models

Investment & Commitment

Scalability of proposed solution

Ability to deliver

Cost efficiency

CFC Timeline

S/N	Event	Target End Date*
1	Public Announcement of CFC Release of CFC Documents Registration Opens for CFC public briefing	16 Mar 10
2	CFC Public Briefing + Networking Session	25 Mar 10
3	Proposal Submission Deadline	19 May 10
4	Presentation of Proposals by short-listed participants	14 - 25 Jun10
5	Announcement of selected proposals and CFC Award	Sep / Oct 10

* Subject to change by IDA

CFC Submission Instructions

CFC Scope

***Collaborative Learning
(CoL) Tools***

***Learning On The Move
(LOTM)***

❖ Submit separate proposal for each theme using the CFC Proposal Submission Forms

❖ Partners can be members of more than 1 consortium and participate in multiple proposals

❖ The key project team members cannot be used in multiple proposals

CFC Submission Instructions

> CFC Proposal Submission

- **CoL/LOTM**
To clearly indicate the theme that the proposal is addressing
- **Addressed to:**
IT in Learning HQ
Infocomm Development Authority of Singapore
8 Temasek Boulevard, #14-00 Suntec Tower 3
Singapore 038988
- **Four (4) hardcopies and one (1) soft copy (in a CD-ROM)**
- **Proposal must be clearly marked as “CoL Tools and LOTM CFC”,**

> **Closing date: 19 May 2010 @1600 hrs**

CFC Contact Persons

CoL Tools Theme

Ms Jocelyn Teo

LOTM Theme

Mr Teo Chan Chuan

Please email all queries to infoedv@ida.gov.sg

Questions & Answers

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