Integrated Planning for IT (IPIT) Update
**Integrated Planning for IT**

### Goals

**Purpose of Integrated Planning for IT**

In FY2010 the CIO Council and the Financial Deans created an annual process to assess total IT spend across the University. In December 2012, the CIO Council proposed the next step to the Administrative Deans’ Council — creating a university multi-year IT investment planning process to:

1. Engage leadership in making strategic IT investments;
2. Provide predictability, transparency and visibility into IT spending;
3. Enable tradeoff decisions between investments;
4. Avoid duplicate investments across the University;
5. Improve renewal and replacement planning; and
6. Ensure an appropriate pace of investment in IT to support Harvard’s mission.

#### FY14 IT Workgroup* Considerations

- **IT investment is different than investment in facilities**
  - Not stand alone; greater interdependence and integration needed across schools and the central administration
  - Shorter life cycle

- **Process must be light-weight and coordinated. Multiple IT data collection efforts already exist that need to be reconciled.**

- **Process should identify best practices that:**
  - Consider local capacity to realistically manage implementations and operate systems
  - Evaluate investments for positive ROI and impacts on operating budgets

- **Sharing and vetting of school data with Financial Deans and Administrative Deans is needed prior to any wider distribution.**

* Workgroup included: Rainer Fuchs, Jack Jennings, Penny Kilgian, Leslie Kirwan, Anne Margulies, Don Oppenheimer, Heidi Vanderbint-Brown, David Waxman

### 3-Phased Approach

#### Phase 1 (FY13):

- **Gather Initial Data**
  - Total actual spend for previous year (FY12)
    - By school
    - By type (new, enhancements, O&M)
    - By mission (teaching, research, admin)
  - Forecast for FY14
    - By school
    - By type
    - By mission

#### Phase 2 (FY14):

- **Refine Data**
  - Total actual spend for previous year (FY13)
    - By school
    - By type (new, enhancements, O&M)
    - By mission (teaching, research, admin)
  - Forecast for FY14, FY15, FY16
    - By school
    - By type
    - By mission

#### Phase 3 (FY15):

- **Roll up and merge data to enable better IT planning**
  - Total actual spend for previous year (FY14)
    - By school
    - By type (new, enhancements, O&M)
    - By mission (teaching, research, admin)
  - Forecast for FY15, FY16, FY17
    - By school
    - By type
    - By mission

Create 3-year forecast of top IT priorities for University and schools

**Develop Common Tools**

- Developed investment pyramid
- Refined investment pyramid

**Refine common IT tools (Investment pyramid, business impact, ROI, organizational capacity, roadmaps)**

**Identify savings, divestments, etc. (arrows in pyramid)**

### Key Observations from Phases 1 and 2:

- Harvard’s FY2013 Total IT Spend [$322M] was 7.6% of the university’s total operating expenses, and this percentage has been relatively flat since FY2010 (increase of <1% over 3 years).
- Harvard’s IT spend forecasted to grow by 10% (FY14), & 4% (FY15 and FY16) annually.
- Harvard’s IT spend is more distributed than benchmarks (80/40 vs. 70/30).
- Harvard’s FY13 IT spend was 77% on operations & maintenance, 16% on enhancement, and 7% on new.
- Harvard’s FY13 IT Spend was 56% on Administration, 22% on Instruction and 22% on Research.
- Harvard’s IT strategic and risk mitigation plans are aligned with Gartner education and Educause IT focus areas.

### Key Questions for Phase 3 (FY15):

- What is the actual IT Spend for the prior year (FY14)?
- What is the projected IT Spend for Harvard and by school for FY15, FY16, & FY17?
- What are the highest priority projects planned by school and central admin for FY15, FY16, & FY17?
- For University-wide projects, what is the ROI, operating “tail,” organizational capacity/impact, and savings/reinvestment?
Key Findings

1. Schools are investing in IT at varying rates.

2. Forecast potential total IT spend (FY15-FY17) is essentially flat (0% over 3 years), relative to projected 3.8% year-over-year growth in total university operating expenses for the next five years. This is the first year of collecting multi-year, potential IT spend projections and there is uncertainty in the forecast.

3. The CIO Council strategy to shift IT spend from operations and maintenance (O&M) toward enhancements and new initiatives, through lifecycle efficiencies, has been successful (O&M: 77% in FY13 to 69% in FY14), and is projected to continue in FY15 (O&M: 64%).

4. Central Administration IT investment has shifted (11% over 5 years) toward teaching and learning and research projects (88% on administration in FY13 to 77% in FY17).

5. In addition to investment in the Student Information System (SIS), there is significant planned IT spend (FY15-FY17) across the university for classroom/video (~$20M) and reporting/analytics projects (~$29M). There is also increasing alignment in major IT investments across schools.
Key Finding #1
Schools are investing in IT at varying rates.

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| Grand Total: | $256                    | 6.8%                   | 100%                      | $278                    | 7.1%                   | 100%                     | $301                      | 7.2%                   | 100%                     | $330                    | 7.7%                   | 100%                     | $371                      | 7.9%                   | 100%                     | 12.4%                   |

### Key Observations

- Overall YoY Total IT Spend has increased 12.4% primarily driven by a 30.5% growth in HBS and 38.2% growth in HMS. YoY growth is 4.0% without HBS and HMS.
- Four groups (CA + Svc Units + Allieds, FAS, HBS & HMS) represent 83% of total IT spending.
- YoY $ Growth in HBS/HBP driven by start-up investment expenses for HBX; peak development expenses for their Executive Education core business platform; and development expenses for a suite of new alumni applications.
- YoY $ Growth in HMS driven by IT investments in research data management platforms and other areas of infrastructure.

### Prior Period Adjustments

- (1) FY2011 – 2013 revised to include impact of ITCRB Projects, HPPM & CADM share of Transition expenses.
- (2) FY2013: HSPH adjusted to correct $3M overstatement in Total IT Spend; and HKS Total School Spend adjusted to include $16M for Financial Aid.
Key Finding #2
Forecast potential total IT spend (FY15-FY17) is essentially flat (0% over 3 years)*, relative to projected 3.8% year-over-year growth in total university operating expenses** for the next five years. This is the first year of collecting multi-year, potential IT spend projections and there is uncertainty in the forecast.

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*Potential IT spend forecast:
FY16 over FY15: 2% growth
FY17 over FY16: 2% reduction

**Projections for total university operating expenses provided by Assistant Vice-President for Finance.
Key Finding #3
The CIO Council strategy to shift IT spend from operations and maintenance (O&M) toward enhancements and new initiatives, through lifecycle efficiencies, has been successful (O&M: 77% in FY13 to 69% in FY14), and is projected to continue in FY15 (O&M: 64%).

IT Investment Pyramid

From FY13 to FY14, approximately $40M of IT spend shifted from operations and maintenance to enhancements and new initiatives.

Total IT Spend by IT Investment Pyramid Tier

Notes:
- Year-over-year increase in new initiatives: University-wide initiatives (LT, Enterprise Architecture, Big Data for Research), HBS (exec. ed. administration, alumni engagement, CRM platforms), FAS (IOSS), and HMS (external education initiatives, administrative process transformation, intranet)
- Year-over-year increase in enhancements: University-wide initiatives (SIS, IAM, Cloud/DevOps)
  
  HHS (infrastructure), and FAS (ASPer/IN upgrade)
Key Finding #4
Central Administration IT investment has shifted (11% over 5 years) toward teaching and learning and research projects (88% on administration in FY13 to 77% in FY17).

ITCRB funded projects with an instruction, research or academic administration focus
FY13: SIS, IRB technology platform, Aries, Faculty finder, Online cross-registration
FY14: Teaching and Learning Technologies, SIS, GMAS 2.0, IRB technology platform, Effort reporting, Aries, Online cross-registration
FY15: Teaching and Learning Technologies, SIS, GMAS 2.0, Aries.
FY16-FY17: Assumes CIO Strategic Initiatives: Big Data for Research, Data for Learning Analytics, Access to Harvard Scholarship, and Access to Institutional Data and Systems Integration will be funded from Central Administration

*Central Administration IT spend does not include EdX and HarvardX
Key Finding #5
In addition to investment in the Student Information System (SIS), there is significant planned IT spend (FY15-FY17) across the university for classroom/video (~$20M) and reporting/analytics projects (~$29M). There is also increasing alignment in major IT investments across schools.

Top 10 Themes (FY15-FY17 IT Projects)

1. Project data was captured for IT projects with annual spend >= $250k in one or more years in FY15-Fy17
2. The stars indicates that the school or Central Administration has a planned project or activity in this IT area.

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* List excludes SIS project, as all schools are participating.
Recommendation:
Implement integrated planning for IT on an annual cycle, aligning the process with the existing multi-year financial planning process and schedule.
- Will limit duplicate requests.
- Will inform the ITCRB process.

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<td>Corp./Finance Comm. review</td>
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<td>IT Capital Review Board (FY16)</td>
<td>Templates published</td>
<td>Proposals submitted</td>
<td>PRC review</td>
<td>ITCRB review</td>
<td>EVP review/ funding awarded</td>
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<tr>
<td>Proposed: Integrated Planning for IT (FY16)</td>
<td>Templates distributed</td>
<td>Templates due</td>
<td>Report out complete</td>
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Detailed Timeline for Integrated Planning for IT in FY16

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<tr>
<th>FY16 IPIT Process</th>
<th>7/9 - 12/13</th>
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### Tub Analysis
- **CIO Council/Kickoff**
  - 7/9

- **TFO Analysis of “look back” (ASIT)**
  - 8/3 - 8/31

- **CIO Analysis of “look forward” (IPIT)**
  - 9/1 - 9/30

- **Optional Office Hours (Location TBD)**
  - 8/26

- **Review/Reporting**
  - **UCIO Analysis & Presentation Development**
  - 10/1 - 11/30

- **Presentation to CIO Council**
  - 12/13

- **Workbook Instructions Distributed**
  - 8/3

- **TFO hand off to CIO**
  - 9/1

- **CIO submission to UCIO**
  - 10/1