MULTI-YEAR TECHNOLOGY PLANNING PROCESS GUIDELINES

JULY 2022

Information for FY23 PLANNING

Technology Planning Overview

Technology is an important component of—and source of change to—how members of the Harvard community experience teaching, learning, living, and working at Harvard University. The pandemic has accelerated this change and has shown the need for greater coordination of technology investments to create a more cohesive ecosystem for faculty, students, staff, and researchers. As Harvard emerges from the most immediate impacts of the pandemic, the University has a unique opportunity to make careful and effective IT investments across its distributed system to position Harvard for a sustainable future. The new Multi-Year Technology Planning (MYTP) process will aid Harvard in providing our faculty, students, staff, and researchers with the best possible digital campus. It will help identify the key investment decisions each school / unit needs to make to advance to their respective priority areas of growth, change, and reinvigoration, and it will aim to harmonize them with University investments and priorities. Examples of such investments that have shared impact are infrastructure investments, security, and privacy enhancements.

The MYTP process will engage school and University leadership in making strategic investments to ensure that significant IT projects across schools, units, and Central Administration are shepherded in a coordinated and purposeful way and that the University is well positioned for the digital future. Through the MYTP and increased coordination, Harvard will gain visibility into what significant investments are being made and leverage central investments in a way that is financially beneficial and avoids duplication or wasted investments. The MYTP process will also help enhance the Harvard community’s digital experience by supporting a more integrated technology ecosystem for faculty, students, staff, and researchers.

Through the MYTP process, school, unit, and central IT leadership will be better positioned to:

- Enhance the effectiveness of IT investment procurement, utilization, and management
- Improve renewal and replacement planning and ensure an appropriate pace of investment in IT to support Harvard’s mission
- Support the evergreening of IT and keeping investments up to date
• Uncover potential risks, not just in IT security but also in other areas, such as with IT outsourcing or vendor relationships, to ensure Harvard’s operations and reputation are protected
• Pinpoint areas in need of additional support from the Central Administration
• Share information and lessons learned across IT investments and schools/units

This first year is a pilot year, building on prior submissions that schools and the Central Administration completed in the past as part of the Integrated Planning for IT (IPIT) process. In this first year, our focus is on minimizing the impact on schools, providing transparency, and having robust conversations about plans and improvements to the process.

Contact Information:

Heather Lantz, Office of Technology Strategy and Planning (OTSP)
OTSP@harvard.edu
https://huit.harvard.edu/mytp
**Development of School / Unit Technology Plans**

**A. Timeline**

*Summer / Fall MYTP:*

Schools / units will submit the investments component of their Multi-Year Technology Plan one of three ways: via the CPATH automated system, by submitting a template spreadsheet alternative (emailed to OTSP@harvard.edu), or by using the format of previous years’ IPIT submissions (emailed to OTSP@harvard.edu). The narrative component of the MYTP should be emailed to OTSP@harvard.edu. Complete MYTPs are due on September 30, 2022, consistent with the due date for Multi-Year Financial Plans (MYFP).

To meet the submission date, it is recommended that schools / units meet with their leadership and stakeholders during the summer to review the information they plan to include in their MYTPs. The OTSP is available for questions and support throughout the MYTP preparation period.

The OTSP will informally engage with schools / units to clarify information after the submission of materials in the October timeframe. Meetings with school / unit and University leadership may also be scheduled as relevant.

*Winter / Spring MYTP:*

For next fiscal year plans, the OTSP may reach out to schools / units for additional detail (in the form of a 1-year Technology Plan, or TP). Initial MYTP and specific 1-year TP (if needed) may undergo a Technology Risk Assessment coordinated by OTSP to assess the security risks and potential integration requirements with University IT infrastructure. Results will be shared with the school / unit and University leadership, who will have final approval authority.

The MYTP process will follow the following high-level timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Summer 2022</td>
<td>Office of Technology Strategy and Planning (OTSP) distributes Technology Planning Guidelines to the schools and units alongside the MYFP process.</td>
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<tr>
<td>Date</td>
<td>Event Description</td>
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<tr>
<td>September 30, 2022</td>
<td>Concurrent with MYFP, schools and units submit Multi-Year Technology Plans (MYTP) to OTSP by September 30, 2022; the investments component is submitted using the CPATH application or one of two spreadsheet templates, and the narrative component is submitted via email; edits can be made until that date.</td>
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<tr>
<td>October / November 2022</td>
<td>OTSP reviews the MYTP submissions, holding staff-level meeting as necessary.</td>
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<td>Winter 2023</td>
<td>OTSP and Senior Leadership reviews are ongoing post-submission. OTSP shares information with the Deans, Administrative Deans, Financial Deans, CIOs, the EVP, and the Provost.</td>
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<td>OTSP provides Technology Risk Assessments as needed, which will be due in March/April.</td>
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<td></td>
<td>If needed, school / unit Technology Plans (TP) are submitted in CPATH by February 28, 2023; final adjustments to the TP submissions are made by March 15, 2023.</td>
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<td>A draft MYTP summary is shared with schools / units.</td>
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<td>A final MYTP summary is shared with Deans, the EVP, and the Provost.</td>
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<tr>
<td>Spring 2023</td>
<td>OTSP meets with schools and units to assess the past year’s Technology Planning process and obtain suggestions for consideration for future planning efforts.</td>
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B. FY24-26 MYTP and FY24 TP Development Guidance

The specific IT investments to be included in the Multi-Year Technology Plan (MYTP) should be those that the school / unit has already made or committed to, as well as new IT investments the school / unit hopes to advance during FY24-26, that are most critical for ensuring effective IT operations. This is inclusive of projects that are already underway and that will have activity during the FY24-26 time period.

The following questions may help schools / units think about which technology projects and investments to include in multi-year technology plans:

- What technology investments planned (or desired) for the next three years are strategically significant for the school or department?
- What technology plans or needs will impact central IT groups or other areas or be of potential interest to others for collaboration and/or co-investment?
- Are there any technology investments that may require institutional risk mitigation?

C. Submissions

A complete submission includes the following elements:

<table>
<thead>
<tr>
<th>MYTP overall narrative</th>
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<tbody>
<tr>
<td>• School/unit strategic plan, if available, or overview of technology planning</td>
</tr>
<tr>
<td>• How the school/unit MYTP priorities align with that plan/planning</td>
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<tr>
<td>• Information about any significant customer relationship management (CRM) projects or needs</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific technology investment information (one entry per investment)</th>
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</thead>
<tbody>
<tr>
<td><strong>Overview information:</strong></td>
</tr>
<tr>
<td>• Description, including business challenges to be solved or opportunities to be realized</td>
</tr>
<tr>
<td>• Impact to students/faculty/staff/researchers/systems</td>
</tr>
<tr>
<td>• Plans to ensure cyber security and data privacy</td>
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<tr>
<td><strong>Check-boxes and short-form fields:</strong></td>
</tr>
<tr>
<td>• Investment overview (category, purpose, funding status, etc.)</td>
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<tr>
<td>• Vendor information (if applicable)</td>
</tr>
<tr>
<td>• Estimated total cost</td>
</tr>
<tr>
<td>• Estimated useful life</td>
</tr>
<tr>
<td>• Whether aspirational; whether included in the MYFP</td>
</tr>
<tr>
<td>• Anticipated schedule</td>
</tr>
</tbody>
</table>
Narrative:

In the fall, the MYTP should include a narrative that provides information about the school/unit’s strategic plan, if one is available, and how the investments that comprise the school/unit’s MYTP align with and support that strategic plan. In the absence of a specific strategic plan, schools/units should provide information about technology planning in their area and how technology will support the vision and goals of their area’s leadership in the coming years.

Similar to how the MYFP process includes an annual scenario planning exercise, each year the MYTP may highlight a particular aspect of technology planning for deeper reflection. This could be used to build out information about areas of emerging need across the University or to facilitate connections to ITCRB or other projects. For this year’s MYTP process, schools/units are asked to share information about significant customer relationship management (CRM) projects or needs in their area. This could include systems used to track constituent contact information, send marketing materials, and so on.

Information about Specific Investments:

*Overview Information* (MYTP):

A description of the investment, including business challenges it will address, opportunities to be realized, key collaborators, and framing or background information that will add context should be included.

The fiscal year(s) of anticipated activity, the investment type (new, enhancement, operations/maintenance), and the name of the associated vendor(s) (as relevant) should also be included.

*Plans to Ensure Cyber Security and Data Privacy* (MYTP):

Harvard University is committed to protecting the information that is critical to teaching, research, and the University’s many varied activities, our business operations, and the communities we support, including faculty, students, staff, researchers, and the public. All technology investments are required to comply with Harvard’s Information Security Policy. Schools/units are encouraged to think about investments or aspirations with security implications that are good candidates for inclusion in an MYTP and should provide information about plans to ensure cyber security and data privacy for specific investments that are part of their MYTP.
**Estimated Total Cost** (MYTP):

Schools / units should try to estimate the total cost of IT projects with a focus on external costs (hardware, software, new hires, and consulting). Estimates of internal (operational) costs are not expected. Approximate costs and ranges can be included.

To estimate total costs, schools / units are encouraged to include:

- One-time investment costs (e.g., hardware, software, implementation costs)
- 3-year recurring operating costs (e.g., subscription services, ongoing labor costs)

Schools / units are also asked to estimate spending by fiscal year. As with the total cost, approximate amounts and ranges can be included.

The OTSP is available to assist in estimating total costs and encourages schools / units to begin this step early in the planning process.

**Funding Status** (MYTP):

The funding status of the investment should be indicated: if funding has not yet been requested; if there is a proposal for funding in development; or if funding has been allocated for the activity, and if it has been approved for ITCRB funding.

**Optional FY24 Forecast** (TP Only):

If needed, as part of 1-Year Technology Plan (TP) submissions in February only, schools / units can provide more detailed cost estimates for expenses expected to occur in FY24, such as:

- Specific information needed for Technology Risk Assessment (TRA)
- Costs:
  - Initial cost of hardware / software / service
  - Cost of staffing support / maintenance (e.g., additional staff, training, etc.)
  - Other expenses

The OTSP is available to assist in detailed cost estimates.
Estimated Useful Life (MYTP):

Schools / units should provide the estimated useful life of the technology or IT service (less than 1 year, 1-5 years, greater than 5 years). Estimated useful life should be considered prior to investing and is an important consideration within the context of school / unit and institutional strategic priorities, given the rapidly changing operating environment. In general, the useful life of hardware purchases is up to 5 years. Full services commonly have useful lives of 5+ years and their ongoing maintenance and renewal have ongoing operating impact, including staffing needs.

Aspirational (MYTP):

Schools / units are asked to differentiate between individual planned and aspirational technology / IT service investments. Aspirational investments can provide a helpful context for long-term goals. Aspirational investments provide schools / units with the opportunity to raise awareness of identified needs and to start the process of building a case for change to share with other schools / units, Central Administration, and University leadership.

Placeholder (MYTP):

Schools / units should include “Placeholder” technology, IT investments, or budget allocations in the MYTP when specific details are not yet available or when the projects are smaller in scope and impact. This is a similar concept to MYFP and MYCP.

Investment Purpose (MYTP):

Characterization of investment purpose is requested for each technology or IT service investment in MYTP and TP submissions. Schools / units should select the most appropriate characterization based on the following:

1. “Required for Safe and Effective Operations (Including Compliance Mandates)” – those technology or IT services that are critical to the fundamental security and effectiveness of school / unit operations, such as:
   • IT or data security risks
   • Complying with federal, state, or local laws or remedying regulatory violations
   • Complying with University policy requirements
2. “**Essential for Fulfilling Existing Core Activities**” – those technology or IT services that support functionality and systems sustainability, such as:
   - Student learning – systems required to support learning modalities
   - Faculty teaching – systems required to support teaching in evolving modalities
   - Research – systems required to support or advance research, including systems to meet compliance and reporting obligations
   - Renewal

3. “**Central to Achieving School / Unit Vision**” – those technology or IT services that enable the school / unit in achieving its mission

4. “**Necessary for Cost Savings / Efficiency**” – those technologies or IT services deemed valuable and useful that are largely driven by financial or efficiency considerations. The primary purpose of these technologies or IT services is to reduce current or future operating expenses, such as:
   - Replacement of inefficient or insufficient administrative tools (e.g., local budget planning and administration system / tools, local data management system / tools)
   - Outsourcing an administrative service to a third-party provider
   - Other

5. “**Important to Do**” – those technologies or IT services deemed valuable and useful to the school / unit, but not rising to the level of categories 1-3 (above); these investments could be delayed without significant impact to the school / unit’s operations or missions

6. “**Enabling**” – those technologies or IT services that facilitate integration or allow schools / units to take advantage of University resources (e.g., a project that enables a school system to join an enterprise system)

7. “**Other**” – those technologies and investments that do not fit into the categories above; please describe the category so we can refresh the options for next year

**Anticipated Impacts (MYTP):**

Schools / units should also consider potential impacts due to the new technology or IT service. Examples of impact are:
- Students / faculty / staff / researchers / other
- Current processes / workflows
- Costs to be shared with another school / unit / central (identify other)
- Systems infrastructure managed by HUIT
- Central IT support service expectations or requirements
- Other

Impacts may be positive or negative and may serve as part of the justification or characterization of the investment. The OTSP is available to help answer questions and consider potential impacts.

**Anticipated Schedule (MYTP):**

Schools / units are asked to provide the anticipated schedule for investments in MYTP. We recognize that it is impossible to predict exact days and/or months; schools / units should focus on estimating dates that generally represent expected activity in any given fiscal year. Dates used in the MYTP submission can be updated as planning progresses and more specific timelines are formed.

**Means of Submission**

CPATH is the University’s system for submitting multi-year capital plans (MYCP) and managing the capital program. The OTSP office is leveraging this tool to also facilitate submission of the investments component of the technology plans (MYTP and TP), as the tool is familiar to many in the schools and units. The OTSP is available to provide training that includes detailed instructions on how to populate requested information for each technology investment and submit plans. Schools / units will also have the option to submit investment plans by email using a spreadsheet template or by using the format of previous years’ IPIT submissions; the narrative component of the MYTP will be submitted via email to OTSP@harvard.edu. Detailed instructions, support, and access to CPATH will be available in August.