**ZOOM MEETING OF THE BUSINESS AFFAIRS COMMITTEE OF THE BOARD OF TRUSTEES**
**Community College of Philadelphia**
**Wednesday, October 20, 2021– 9:00A.M.**

**Present for the Business Affairs Committee:** Mr. Michael Soileau, presiding; Lydia Hernández Vélez, Esq., Mr. Rob Dubow, Mr. Harold Epps (present at Executive Session), Mr. Steve Herzog, and Mr. Jeremiah J. White, Jr.

**Present for the Administration:** Dr. Donald Guy Generals, Mr. Jacob Eapen, Dr. Pam Carter, Ms. Marsia Henley, Dr. Samuel Hirsch, Danielle Liautaud-Watkins, Esq., Mr. Gim Lim, Mr. Vincent Panjikaran, David Solomon, Esq., Mr. Vijay Sonty, Mr. Tim Trzaska, and Victoria L. Zellers, Esq.

**Guest:** Ms. Sabrina Maynard, Office of the Director of Finance, City of Philadelphia

## PUBLIC SESSION AGENDA

Mr. Soileau called the meeting to order at 9:02 A.M. He stated that an Executive Session will follow the Public Session. Mr. Soileau then asked Mr. Eapen to proceed with the first agenda item.

### (1) Adoption of the College's 2021–2025 Technology Plan (Action Item)

Discussion: Mr. Eapen stated that Dr. Pam Carter, Dean of Business Technology, and Mr. Vijay Sonty, CIO, will provide a presentation on the College's 2021-2025 Technology Plan.

Dr. Carter outlined the creation of the Technology Plan draft that was developed by the Technology Coordinating Committee. She mentioned that the Technology Coordinating Committee is one of the College's Governance Committees and its membership includes faculty and classified staff who are appointed by the Federation, and administrators who are appointed by the College administration. Dr. Carter stated that the Plan was developed over three years with the last year spent on refining recommendations. Feedback on the Plan was provided from the College community including the President's Cabinet, Professional Development Week presentations, and posting online for a week to receive online feedback from faculty and staff. Dr. Carter stated that the next step is to obtain the Business Affairs Committee's approval to move it forward to the full Board.

Dr. Carter stated that the Plan was created to educate new employees, in particular, when they are being onboarded and for current employees on how they can understand how technology is used Collegewide, especially the major College units that are providing technology services for them. Dr. Carter stated that high-level goals were aligned with the College's Strategic Pillars. She highlighted the 7 Major Technology Elements: Technology Policies, Guidelines and Standards; Technology-involved Professional Development; Emerging Technology; Electronic Workflow, Hardware and Software; Administrative Systems; Infrastructure and Data Security; and Data Reporting. She stated that a subcommittee was developed for each of these elements. Dr. Carter pointed out that there is a "specific dialogue" for critical technology resources in the Plan, particularly those College resources provided to College employees. The Operational Units responsible for critical technology resources are: Information Technology Services; Online

Learning and Media Services (formerly Flexible Learning Options and Academic Technology (FLOAT) which includes Online Learning, Academic Technology and Multimedia Services; Institutional Research, and Marketing. Dr. Carter stated that each goal in the Technology Plan is aligned with a specific goal in the College's Strategic Plan. She ended her presentation by stating that a 6th Pillar is focused on Diversity, Equity and Inclusion and that this goal is aligned with the goal in the Technology Plan.

Mr. Sonty highlighted a few slides in the Technology Plan. He stated that the Plan provides a customized student experience for the student from recruitment to post graduation. Mr. Sonty stated that the Plan itself is a "moving" document, and that the projects will be accomplished in stages. He referred the Committee to Slide 13 (Gartner) which highlighted the personalized student experience. As an example, the student enters as a recruit, financial aid reviewed, takes courses, graduates, and becomes an alumnus. The students use many systems, and the goal of IT is to understand the interdependencies, analyze the data, and provide a personalized experience. Mr. Sonty stated that based on Gartner's research, technology is converging in higher education on social learning, mobile learning, big data, and cloud computing. Mr. Sonty spoke to the Investment Prioritization Criteria (Gartner) pointing out the organizational efficiency which improves institutional return on investment and Personal Productivity which improves student, faculty, and staff experience.

Mr. Sonty stated that the Technology Plan is organized into three phases: Foundation, Applications, and Transformation. He stated that staff is currently working on the Foundation phase which includes focus areas such as infrastructure, security, and data. Mr. Sonty stated that by using HEERF dollars, staff is able to launch many of the Foundation projects which should be completed by the end of the Spring semester. Mr. Sonty highlighted the Predictive Analytics slide stating that in order to understand and predict behavior, staff will capture data coming from various sources such as social media and marketing/campaign management. Mr. Sonty ended his portion of the presentation by stating that there are case studies focusing on where technology is going, highlighting IBM leveraged structured and unstructured data to predict graduation rates.

Mr. Sonty stated that for the Technology Plan to be successful, it is very important that we take into consideration the need for proper funding, prioritization, and sequencing of the projects.

Mr. Sonty commented that the last time he met with two Trustees, a few recommendations were made. He stated that in Attachment A, the Data Protection Policy and Project Metrics have been added. He further commented that key department leads have been identified. As such, the project can be tracked from start to finish. Mr. Soileau stated that there is a line of accountability and the project is well done.

Action: Mr. Dubow moved and Ms. Hernández Vélez seconded the motion that the Business Affairs Committee recommend to the full Board the adoption of the 2021–2025 Technology Plan. The motion passed unanimously.

## (2) Three-Year Capital Budget Plan (Information Item)

Mr. Eapen provided an overview of the three-year Capital Budget Plan. He highlighted the charts in Attachment B which contains the College's proposed capital budget three-year plan for fiscal years 2021-2022, 2022-2023 and 2023-2024. Mr. Eapen mentioned that staff met with Mr. Soileau and Mr. Herzog who gave them good guidance on the presentation and on the contents.

Mr. Eapen reviewed the Sources of Funds and Uses of Funds and highlighted the following in Attachment B:

| **Source of Funds** | | **Revenues** |
|---|---|---|
| Maintenance Fund | | $ 8,977,890 |
| Plant Fund | | 4,742,131 |
| 3 Years from City Appropriation (FY22, FY23,24) | | 1,500,000 |
| 3 Years of Capital Fees (FY22, FY23, FY24) | | 1,230,000 |
| Main Garage Maintenance Funds | | 984,526 |
| Foundation Support | | 315,000 |
| | | **$ 17,749,547** |
| | | |
| **Use of Funds** | | **Capital Expenses** |
| Facility Projects | | $ 15,980,110 |
| FF&E Purchases | | 1,322,605 |
| Divisional Priorities | | 446,832 |
| | | **$ 17,749,547** |

The Source of Funds (Revenues) and Use of Funds (Capital Expenses) totals $17.7 million.

Mr. Eapen then referred the Committee to the breakdown of costs in Attachment B. He stated that the majority of projects are "priority" projects given the nature of the challenges currently at the College. Mr. Eapen stated that the roof replacement at the Winnet Building, Northwest and West Regional Centers totals $2.4 million. He stated that electrical upgrades at the Main Campus including three generators, lighting, and building automation is equivalent to $1 million. In the Bonnell Building, the Automation for Basement Chilled Water Pumps total $15,000 and the Cooling Tower Dunnage and Piping total $565,000. In the Mint/Bonnell Buildings, replacement of the atrium skylights total $1.2 million, of which one half will be funded from RACP funding. The Mint Building historical front doors total $270,000, of which an RFP was issued. The replacement of hot water and heat exchanger system in the Mint Building total $316,400, of which an RFP will be issued. In the Mint/Bonnell Buildings, the fire safety enhancements in data closets total $200,000. At the Northwest Regional Center, repairs to the non-load bearing walls total $100,000 and the heat pumps condensate piping repairs total $94,100. In the West Building, the creation of a simulation/skills lab for Nursing and Allied Health totals $300,000, taken from the FY20 Academic and Student Success Initiatives, as well as the Physics Lab which total $313,500, of which PDE will fund one half of $625,000. In the Winnet Building, Great Hall renovations total $450,000; the Main garage – Phase IV & V total $721,000; and the Café in the Mint Building totals $1,250,000. In the Bonnell Building, Chiller #3 replacement totals $1.3 million.

Mr. Eapen continued reviewing the Facilities projects; the Furniture, Fixtures & Equipment purchases; and Divisional Priorities.

Mr. White asked about the short-term fix regarding the Gymnasium floor. Mr. Trzaska stated that the temporary court should installed by the end of October. Mr. Eapen stated that the goal was to be ready for the first basketball game scheduled for November 1st. Dr. Generals stated an "innovation hub" will be created to fund and support the development and plan for a small business incubator at the Center for Business and Industry (CBI).

Referring to a question in Dr. Dubow's email, Mr. Eapen stated that the approved capital budget plan was $14.5 million which is a 3-year plan, of which $3.7 million was completed. He stated that there were projects charged to CATTO and HEERF, totaling approximately $1.8 million. The capital budget carried over approximately $8.9 million from the last capital budget plan to the current one, which is a 3-year cycle. In response from questions from Mr. Dubow, Mr. Eapen responded that staff will be focusing on "life-safety" projects as a priority. Mr. Eapen stated that approximately $9 million is in the Maintenance Fund. Approximately $5.2 million in the Plant Fund, and approximately $965,000 in the garage maintenance fund.

Mr. White asked where does the College stand with the heating/cooling system that was installed years ago at the Northeast Regional Center. Mr. Eapen responded that it is a geothermal system that needs to be maintained at NERC. Mr. White asked about landscaping at the College. Mr. Eapen stated that the College has a landscaper at the Main Campus and three Regional Center Centers which is maintained annually for groundskeeping. Further, Mr. Eapen stated that the College is not doing any major landscaping work.

**(3) Ernest Bock & Sons, Inc. Change Order One for the Career & Advanced Technology Center Project (Action Item):**

Discussion: Mr. Eapen stated that this change order is the result of intumescent fireproofing for the structural steel; additional structural steel required for exterior walls and additional structural blocking; electrical raceways for upgraded technology required by the College; sanitary tie-in due to incorrect documented City plans; and unforeseen conditions discovered during demolition and excavation. See breakdown of costs in Attachment C.

The total change order totals $206,239 which will increase the total contract from $16,222,000 to $16,482,239, an increase of 1.27%.

Mr. Eapen stated that staff request that the Committee recommend to the full Board the approval of the Ernest Bock & Sons, Inc. Change Order One for the Career & Advanced Technology Center Project in the amount of $206,239.

Action: Mr. Dubow moved and Mr. Herzog seconded the motion that the Business Affairs Committee recommend to the full Board the approval of the Ernest Bock & Sons, Inc. Change Order One for the Career & Advanced Technology Center Project in the amount of $206,239. The motion passed unanimously.

**(4) Agreement with the Department of Collegiate and Technical Education (DCTE), (Action Item):**

Ms. Liautaud-Watkins reported that the College has negotiated an agreement with the Department of Collegiate and Technical Education (DCTE), Government of Karnataka, India. The agreement will outline the collaboration to provide opportunities for Indian students to complete the Cyber Security Program with an associate's degree through CCP's Corporate College.

Ms. Liautaud-Watkins stated that the Cybersecurity degree program will be offered to a cohort of 24 students, chosen by the DCTE. The program will be offered in three (3) parts.

Part I (November, 2021-August, 2022). DCTE students will complete placements tests, and introductory courses such as English as a Second Language (ESL).

Part II (September, 2022-August, 2023). Students will complete prerequisite and Cybersecurity degree coursework online.

Part III. (September, 2023-August, 2024). Students will attend CCP In-person and complete the remaining Cybersecurity coursework on the Main Campus.

Ms. Liautaud-Watkins stated that the tuition for the DCTE cohort program will be offered at contracted rates for cohorts:

1) $11,448 per online course with a maximum class size of 24;
2) A minimum of $11,448 per on-site course with a maximum class size of 24 (class fees for Part 3 may be increased subject to agreement between the Parties, but shall be at least $11,448);
3) $9,540 per ESL course with a maximum class size of 20; or
4) A minimum of $159 per credit per student for mainstream courses.

Ms. Liautaud-Watkins stated that the contracted rates are equivalent to the in-county rate. Because they are contracted rates paid by DCTE and not individual students, the rates do not need separate approval from the Pennsylvania Department of Education and only need Board approval. The program will have a minimum of 18 courses. Ms. Liautaud-Watkins stated that this partnership is a gateway to other program offerings in the Karnataka region and India more broadly, which will prove fruitful to the college and its international enrollment goals.

Mr. White asked about the clause to get out of the agreement. Ms. Zellers stated that either side can terminate the agreement at least 6 months (180 days) notice; however, the students can complete any classes they were currently enrolled in. The only caveat is that the College would not allow for the completion of classes if the students did not pay for their courses. Ms. Zellers stated that the payments are due prior to the semester starting.

Mr. Dubow asked if there were any costs associated with the agreement. Ms. Zellers stated that in addition to paying College faculty, the College's International Office will be assisting with getting the VISAs for the last year and that no recruiting fee is required.

Action: Mr. Herzog moved and Mr. Dubow seconded the motion that the Business Affairs Committee recommend to the full Board the Agreement with the Department of Collegiate and Technical Education (DCTE). The motion passed unanimously.

**(5) <u>Next Meeting</u>:**

The next meeting of the Combined Business Affairs Committee and Executive Committee will be held on Wednesday, November 17th at 9:00 A.M.

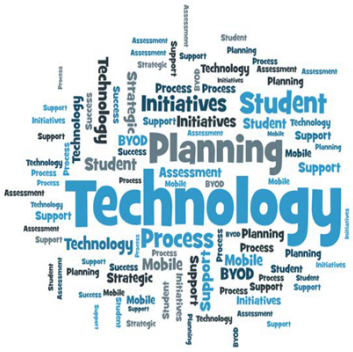
Following the Public Session, the Committee went into Executive Session at 9:40 A.M.

The meeting was adjourned at 10:00 A.M.

JE/lm
Attachments

# ATTACHMENT A

# 2021-2025 Technology Plan




## Executive Summary

The Community College of Philadelphia Technology Plan 2021-2025 is constructed using guidance from the 6 Pillars for Strategic Growth, Guided Pathways strategies, and the Classroom Technology Plan, as well as input from the members of the Technology Coordinating Committee and the college community.

The purpose of the Technology Plan is to establish and communicate 1) technology guidelines and standards, 2) a set of prioritized goals for technology, and 3) a set of action steps that will help direct the Community College of Philadelphia as we prepare for the future. This plan contains recommendations for technological enrichment within the College that will occur during the years 2021 through 2025.

The Technology Plan is presented in four sections, starting with a brief introduction. Then overviews of four operational units having major responsibility for critical technology resources are provided. The status of technology at the College follows, organized into seven categories of technology elements crucial for meeting the strategic, operational, teaching/learning, and relational demands of the College. The final section of the CCP Technology Plan 2021-2025 presents six Technology Goals, each based on a CCP strategic pillar, with accompanying high-level action items and the primary units responsible for achieving them.

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# Introduction

The Community College of Philadelphia Technology Plan 2021-2025 is constructed using guidance from the 6 Pillars for Strategic Growth, Guided Pathways strategies and the Classroom Technology Plan as well as comments from the members of the Technology Coordinating Committee and the college community.

- *Student Experience*
- *Community Engagement*
- *World Class Facility*
- *Workforce Development*
- *Fiscal Stability and Sustainability*
- *Diversity, Equity and Inclusion*

The purpose of the Technology Plan is to establish and communicate 1) technology guidelines and standards, 2) a set of prioritized goals for technology, and 3) a set of action steps that will help direct the Community College of Philadelphia as we prepare for the future. This plan contains recommendations for technological enrichment within the College that will occur during the years 2021 through 2025.

This plan begins with a brief highlight of the current status of technology at the College, focusing on seven major technology elements that are crucial for meeting the strategic, operational, teaching/learning, and relational demands of the College. The intention is to state the context in which the following technology guidelines and standards, prioritized goals, and action items are recommended. The seven major technology elements include:

- Technology Policies, Guidelines and Standards
- Technology-involved Professional Development
- Emerging Technology
- Electronic Workflow, Hardware and Software
- Administrative Systems
- Infrastructure and Data Security
- Data Reporting

The next section provides a brief overview of three operational units of the College responsible for critical technological resources that serve foundational needs across the institution. The seven major technological elements that serve as an organizing structure for the Technology Plan are then described. Technology Goals for 2021-2025 are then presented.

## *Operational Units Responsible for Critical Technology Resources*

### Information Technology Services

The Information Technology Services staff at CCP is under the direction of the Business and Finance Division. This division, led by Vice President Jacob Eapen, has a broad set of goals and aspirations that are aligned with the College's Strategic Plan.

The ITS staff member team is comprised of support personnel for desktop, network, ERP applications and telecommunications. Amassing degrees and certifications that support all the current and future technology that drive teaching and learning.

The College has over 4,500 desktop workstations that provide access to Microsoft Office, the Internet, and teaching/learning discipline-specific specialized applications. These student classroom and open lab areas also house printers and copiers that allow for printing. The faculty offices are supported by desktop computers and centralized printing, as are the administrative areas. All desktop systems are refreshed based on the software demand of the area.

The core network farm which supports our Active Directory environment is on-prem and comprised of multiple virtual environments that provide for fail-over functionality. In addition, the Enterprise Resource server farm is also housed on-prem and is comprised of multiple virtual environment servers for fail-over functionality. All servers are refreshed on a 4-year cycle.

The data network is based on industry standard routers and switches, which are kept vibrant through a refresh cycle that provides for current technology support for wired and wireless systems.

Video conferencing is now supported through group meeting software, webcams and speaker phones. Multiple conference bridges exist for use by all departments and divisions.

## Flexible Learning Options and Academic Technology

The Flexible Learning Options and Academic Technology (FLOAT) staff at CCP is under the direction of the Academic and Student Success Division, led by Vice President Dr. Sam Hirsch. The FLOAT team supports online learning, academic technology, and multimedia services at the College.

Classroom technology is expanding and now includes the use of interactive systems as we move beyond the projector and screen approach. This interactive approach allows for everyone to participate.

Students encounter and utilize technology continually, from their initial contact with the college, in classrooms and labs, all which helps support their success. Additional student support is provided using Internet-based services. These include enrollment and registration applications and routing, and transcript requests.

Faculty have access to the Canvas course management system. Students can access the system from home and from numerous locations on campus, including the open computer labs and via mobile apps. Students also use a variety of devices for online test-taking and research for their courses.
Most classrooms are now “smart classrooms” utilizing a networked computer with a digital projector, presenter, and sound system. Technology-based courses such as Digital Media, Computer Aided Design and Drafting (CADD), and Computer Science (programming) use personal computers extensively to simulate their work environments. Hardware and software used in these courses are periodically assessed and upgraded to meet current industry standards, as expected by the faculty and students in these courses.

Community College provides full-time faculty members with an office computer and the Microsoft Office Suite and other software as needed. Adjunct faculty have access to similar equipment in a designated workspace. Faculty use the Banner system for student and scheduling information, class rosters, and for final grade entry.

Academic Technology provides instructor technical support. Many tutorials are online and staff are available for personal instruction and various training sessions provided by FLOAT.

Multimedia Services provides services for the College and external constituents including: providing technology support for events at the college; design, installation, implementation, and maintenance of display technology; and the development of media and educational TV in support of instruction and for airing on CCPTV.

## Institutional Research

The Institutional Research staff at CCP is under the direction of the Enrollment Management and Strategic Communications Division, led by Vice President Dr. Shannon McLaughlin Rooney. The Institutional Research staff member team provides comprehensive data analytics to support:

- Data stewardship and integrity
- Institutional planning
- Evaluation of effectiveness
- Informed decision making
- External accountability, and
- Collaborative research.

The staff provide quality data and reports to the College community, collaborate with college leadership and faculty on analytical projects in support of student success and institutional effectiveness, and to provide the data and reports needed to meet state, federal, accreditation and funding compliance requirements.

## Marketing

The Marketing staff at CCP is under the direction of the Enrollment Management and Strategic Communications Division, led by Vice President Dr. Shannon McLaughlin Rooney. The Marketing staff member team supports the web presence and associated technologies at the College, which include three online properties: www.ccp.edu, www.myccp.online, and myccp.ccp.edu.

*www.ccp.edu*

The College's homepage and main domain, sometimes referred to as the "College's Marketing Site." The pages at www.ccp.edu are for the express purpose of introducing the College to interested parties such as, but not limited to, prospective student and parents, alumni, donors, government officials, and prospective employees. The site’s goal is to provide information about the College and inform the

public. The site is controlled by the Marketing department. The College catalog and other mandatory public information is posted on this site.

*www.myccp.online*

Sometimes referred to as the "Internal Site," this domain holds site sections that cater to those that have business with the College: students, faculty, staff, regulators, etc. The pages and the information within are directly related to one's time at the College. Department pages, governance, policies and procedures can all be found on this site. Information that is public, or semi-public, which does not require a user login for security, is placed on this site and sections. The College's Marketing department maintains the site, but each department controls the content of their site sections. Some tools are built here, and minor crosslinking from ccp.edu to myccp.online is present. The site's navigation changes per a self-select or audience selection for each department to either student- or staff-focused.

*myccp.ccp.edu*

This domain is the gateway to sites and services that are business-oriented, and is the gateway to the College's Single Sign On User Authentication. Once the user is verified, they are taken to a domain that is commonly referred to as "The Portal." From the portal, the user has access to the business tools and services maintained by the College Information Technology Services department. The services behind the portal tend to deal with personal identifiable information and require various security layers. Students will interact with these services to register for classes, check grades, access email and check their academic progress. The sites and services behind the portal may have different URLs, but the proper way to access these services is via the login that can easily be accessed from https://myccp.ccp.edu.

## *Major Technology Elements at CCP*

The Technology Coordinating Committee, the College-wide governance standing committee at the College, is responsible for recommending College-wide technology guidelines and standards, as well as developing and maintaining a College-wide technology plan. To effectively carry out these responsibilities, seven major technology elements have been identified as a means of organizing, planning for and monitoring College technology.

### Technology Policies, Guidelines and Standards

***Policies***

The following College Policies address technology or technology-related resources or activities at the College.

Policy Governing the Use and Duplication of Software (Memorandum #305)
Policy for Responsible Computing (Memorandum #306)
Acceptable Use Policy for Interactive Systems (Memorandum #307)
Hardware and software Support Policies On-campus (Memorandum #309)
Identity Theft Detection and Prevention (Memorandum #312)
Standards for Distance Education Courses (Memorandum No. 14)

Records Management and Retention Policy (Memorandum #313)
Sign-Out Procedure for Long-Term Audiovisual Equipment (Memorandum #155)
Policy on Inclusion on Digital Course Materials (Memorandum #220)
Chosen Name Policy (Memorandum #360)

***Guidelines and Standards***
Guidelines and standards are established or recommended in the following areas.

New construction or facility upgrades
College Facilities and the ITS department reviews standards for new classrooms, offices, and other meeting spaces annually.

Accessibility
All technology purchased and implemented within the college should meet the minimum standard outlined by WCAG 2.0 AA, guidelines for accessibility. All distant education classes are reviewed for compliance with accessibility requirements.

Disaster Recovery and Backup
The Information Technology Services Department uses a UPS (uninterrupted power supply) battery backup for the on-premise datacenter to allow operation in the event of a power failure. The server operating system is patched at minimum every quarter and physical access to datacenter is restricted to ensure safety and security of hardware, software, and information. College ITS staff work in collaboration with Facilities staff to address on-site and off-site backup and disaster support of campus systems.

To address the requirement for off-site backup and disaster recovery, the campus uses IBM Spectrum products for warm and cold backup and has engaged an external resource to support backup and data retention. Critical campus files for faculty and staff are accessible within 24 hours in the event of a complete loss of on-premise servers. The backup and recovery plan will be tested at least twice a year to ensure recovery of data is possible.

The Disaster Recovery and Recovery Plan (DRRP) can be found via the following link
https://bit.ly/3oDUcLK

Bring Your Own Devices (BYOD)
Faculty, staff, and students have the capability to connect to the college WiFi. For security, WiFi access is restricted to the Internet. No internal WAN connection is permitted via WiFi.

Personally Identifiable Information (PII)
The data that contains information that is regarded as PII is maintained behind our college Firewall. PII data that is held in system that are CLOUD-hosted or SaaS are required to meet standards of security in order to be used by the college.

Interest Free Computer Loans
Interest free loans for faculty and staff purchase of computers are available through the College. Additional information is available at this website: ***http://path.ccp.edu/vpfin-pl/CompPurchAsstPlan.pdf***

Social Media Guidelines

Information regarding social media guidelines for the College can be found at this link: https://myccp.online/division-marketing-and-communications/brand-guidelines/social-media .

Refresh Model

| Equipment Type | Cycle |
|---|---|
| *Computer Lab (General Use)* | 5 years |
| *Computer Lab (Advanced)* | 3 years – upgrade or replace as funding allows |
| *On-Premise Servers* | 5 years |
| *Staff Laptops/Desktops* | 5 years – See below regarding mid-cycle upgrades |
| *Network Infrastructure* | 5-10 years – depending on physical layer (copper, fiber, wireless) and network load, congestions and equipment obsolescence. |
| *Technical Staff Computers* | 2 years – machines are more heavily used and perform advanced functions (virtual imaging, test environments) directly related to providing service to the rest of the campus. Upgraded machines will be cycled to other uses. |
| *Classroom AV infrastructure wiring* | 10 years |
| *Projectors Updated* | 5 Years |
| *Phones (VoIP)* | As needed when phones are end-of-life (EOL) or as a result of a upgrade |
| *Printers* | As needed |
| *Interactive Touchscreen Displays* | 10 years |

The above recommendations do not preclude mid-cycle upgrades such as improvements in RAM or HD capacity. Whenever possible, refreshed computers will be cycled to other uses. For example, refreshed staff computers may be used to expand student computer access or support CIS classes.

## Technology Professional Development

Organizational processes and the work conducted by a majority of employees across the college require or are enhanced by the use of technology. Therefore, it is critical that all employees whose work can benefit by the use of technology have access to technology-related professional development. A primary purpose of professional development in technology related areas is to enable the College to ensure high levels of student success through the provision of highly effective and efficient academic and administrative services throughout the College.

The Flexible Learning Options and Academic Technology division provides professional development for faculty and staff in the areas of online course development, the learning management system, open educational resources, and other academic technologies.

The college uses surveys and other assessment tools to examine the employees' technological needs to ensure that the faculty and staff are receiving the essential professional development to prepare student for competing in a global economy.

The Human Resources department provides access to professional development opportunities for all employees through an online portal. Information Technology Services coordinates and provides basic employee training on the SIS/ERP system and related reporting tools.

## Emerging Technology

As technology continues to develop, improve, and diversify in its application, CCP staff and faculty are encouraged to request and implement technology tools in support of increased student success. Hands on, tactile experience is a critical component of the learning process. We need to provide students real world access to software and cloud-based solutions. As the world has migrated to Cloud and SaaS solutions, it's increasingly important for CCP to offer experiences that align with the real world.

## Electronic Workflow, Hardware and Software

The College strives to reduce paper and inefficient processes by moving to electronic methods of providing services, including further review of administrative hardware and software to support innovation. Reviewing processes for improvement through electronic workflows, and implementing the associated hardware and software, should be an ongoing activity with yearly recommendations.

The College should look for opportunities to use Employee and Student Self-Service and strive to keep self-service actions consistent in look and feel.

The intent is to utilize our current administrative systems to their maximum potential where we are not already doing so. To that end, we should:

- ensure current processes mapped out in detail, kept up to date, and reviewed periodically.
- ensure annual review of processes, including a way to collect and review suggestions or pain points, duplications of efforts, etc., in order to identify and prioritize improvements.

## Administrative Systems

Technology is used extensively by administrative and student services departments to meet the needs of the College community. All Enterprise-wide applications are accessible via MyCCP or through SSO (single sign-on) authentication. This means that access to each application is driven by who you are as an individual and what access rights you have to each system. For a detailed listing of applications available, please click here (here will take people to a link/page that has a listing of applications available).

Our SIS/ERP integrated database is used for all of the major ~~district~~ functions, such as Human Resources/Payroll, Finance, Financial Aid and Student Records. This database feeds information to all other systems, such as the learning management system, student retention and success systems, and customer relationship management systems, and is the source of state and federal report content and

institutional research data. Faculty, staff and administrators utilize the SIS/ERP extensively on a daily basis to perform necessary administrative functions. Students interact with the SIS via MyCCP or the mobile app when completing transactions such as registration, payment and financial aid, for example.

The administrative systems in use are reviewed periodically and updated to reflect business needs and emerging trends.

## Infrastructure and Data Security

### *Technology Infrastructure*

**Ensuring current and future computing requirements are realized**

- As the needs for technology on campus continue to change, our ability to provide a technology infrastructure that is reliable, scalable, and flexible is of paramount importance. An adaptable and agile infrastructure upon which Information Technology can deliver services to the College community will ensure our ability to meet growing user needs and support strategic goals of the College. ITS selects projects for investment that support the continuous improvement and operational efficiencies of our infrastructure while anticipating the future technology needs of the entire College community.
- Network and system security with regards to infrastructure is an ongoing challenge which requires continuous improvement.

**Identity Access Management**

- ITS will continue our efforts to implement and leverage federated identity services to enable and support secure collaboration with our colleagues both on campus and at other institutions and improve access to applications and systems for members of the College community. Following the Identity and Access Management (IAM) strategy and architecture developed for the College, we will continue to adopt and implement initiatives including Multi Factor Authentication (MFA) and Single Sign On (SSO).

**Virtualization and Cloud-Based Technologies**

- Virtualization and cloud-based computing efficiencies continue to influence and shape our ability to improve service and support delivery to our users.
- ITS will continue to achieve efficiencies in providing IT services by leveraging virtualization and cloud-based technologies where and when appropriate. We will explore the use of Virtual desktop infrastructure –(VDI) and IaaS (Infrastructure as a Service) options, where appropriate and cost-effective. We will continue to build out our SaaS (Software as a service) cloud solutions and continually evaluate the efficiency and viability of such options and continue to expand the use of virtual servers in the Data Center in support of the College's strategic initiatives as appropriate.

**Capacity Planning and Continuous Improvement**

- The growth and expansion of College support services and applications require an ongoing commitment to investments in our infrastructure. A thoughtful review of, and measured planning effort for, infrastructure investments will ensure an efficient, reliable, future-proof and scalable technology infrastructure.

**Enterprise Infrastructure Applications**

- Enterprise applications are the key components of infrastructure services provided to the College community. Employees can find more information at this link: (To Be Added)

- Enterprise and administrative applications at Community College of Philadelphia need to subscribe to the following design principles:1) cloud-based preferred; 2) user-centric interfaces; 3) MyCCP authentication; 4) accessible to all users; 5) web-based; and 6) an architecture that values analytics, agility, and integrated service focus. All departments must review business critical problems and work to develop possible solutions with ITS before beginning a new solution investigation. ITS is then able to consult on possible existing solutions that can be leveraged to meet the need or to assist with evaluating how a new solution would fit within the College's technology ecosystem and the workload pipeline to ensure that value is fully realized in a timely manner. Our administrative systems must facilitate the core mission of the College, provide appropriately secure access to services and information when they are needed, and be as frictionless and adaptable as possible (easy to use, find, develop and support.)

**Mobile Infrastructure**

- The demand for location and device-independent access to CCP applications, services, and information by members of the College community are continually driving our efforts to deliver new and improved services.
- The MyCCP Mobile app is available to all employees and students. Several modules, such as the Learning Management System courses, and grades, required authentication and access to person specific data. There are other additional vendor interactive services such as admissions, registration and add/drop and the campus MazeMap that are now available.

***Data Security***

- Data continues to be one of our strategic assets. Our commitment to data security and integrity is strongly supported by all College senior management. The protection or stewardship of data is the responsibility of all members of the College community.
- The Data Breach / Security Committees evaluate the security of Personally Identifiable Information (PII) across the college and provide recommendations for improvements based on best practices.
- ITS will continue to work to strengthen the overall data security posture by enhancing College business practices so that consistent data security practices are in place throughout the community.

## Data Reporting

Data available for College-wide reporting purposes are stored in multiple systems across the College. Generally, there are three ways to access reports generated from this data – through scheduled reporting, through self-service portals or dashboards, or through a process of requesting a customized report from the appropriate unit.

***Scheduled Reports***

There are College units that provide data reports to organizational members at regularly scheduled intervals. For example, the Budget and Business Services unit provides regular budget reports that are

distributed to appropriate budget managers across the College. These reports include quarterly budget reports for college units and reports that support the annual budgeting process.

Other examples of scheduled reports include:

- Master schedule provided through the MyCCP portal
- ARGOS/Tableau Enrollment
- Device Loaners
- Helpdesk

***Self-service Portals and Dashboards***

Institutional Research maintains a set of dashboards available to the public that report on student-related data at the College. These dashboards include:

- Enrollment Dashboards,
- Graduation Dashboards,
- Academic Outcomes Dashboards, and
- Student Life and Other Dashboards.

The link to the dashboards maintained by Institutional Research is: https://www.myccp.online/institutional-research/facts-stats.

Master schedule, enrollment, and financial data from the SIS/ERP system can be accessed through reporting software maintained by the Information Technology Services area. Access permission must be granted, and training is required before employees are able to access this reporting tool.

The College-wide assessment system houses assessment data from academic units and administrative, educational and support units. This system includes a reporting tool that provides various reporting options for running assessment reports. Access permission is needed for the assessment system and training is required before employees are able to access this reporting tool.

***Requesting Customized Data Reports***

Customized data reports can be requested from specific units of the College. Customized data report requests should reflect data requests where the data is not already available through a scheduled report, self-service portal or dashboard, or reporting tool. Customized data report requests can be one-time requests, or a request to create a report that can be run on demand using a data reporting tool.

Add list of where and how to make requests??

## *TECHNOLOGY GOALS for 2021-2025*

As stated in the College 2017-2025 Strategic Plan, overall success will be achieved by reaching three broad goals by 2025:

1) Increase credit and non-credit enrollment by 20%
2) Double the graduation rate.

3) Double the number of opportunities for students to enroll in career programs resulting in the attainment of marketable skills leading to placement in the local and regional economy.

The technology goals for 2021-2025 support achieving these goals through enabling attainment of the strategic pillars outlined in the College's strategic plan, as it has been updated as a living document. These pillars include:

- The Student Experience
- Workforce Development, Readiness and Economic Innovation
- External and Internal Community Relations
- World-Class Facilities
- Fiscal Stability and Sustainability
- Diversity, Equity and inclusion

**Technology Goal 1 – Provide access to technology and technology services that support the student experience.**

| Action Items | Unit(s) Responsible |
|---|---|
| Develop and deploy a data analytics strategy to enable data informed decision-making in all areas of enrollment management. | **IR, ITS, AASS, EM/SC** |
| Investigate and implement technology solutions to facilitate enhanced communications and interactions with students, advisors and counselors. | **ITS, EM/SC, AASS** |
| Research, evaluate, and promote innovative uses of academic technology, including the development of roadmaps to guide faculty and student adoption of innovative technologies. | **ITS, AASS** |
| Fully implement the College assessment tool to enable efficient and effective assessment data collection, analysis, reporting, and close-the-loop activities. | **IR, ITS, EM/SC, AASS** |
| Research and implement re-launch of the College website to improve stakeholder communications and ultimately enhance the student experience. | **EM/SC, ITS** |

**Technology Goal 2 – Provide access to technology and technology services that support workforce development, readiness, and economic innovation.**

| Action Items | Unit(s) Responsible |
|---|---|
| Implement systems and procedures that enable broad access to industry and employer data in support of workforce programs, curriculum development and maintenance. | **Workforce, M/SC, AASS, ITS** |
| Review and refresh as needed Career Connections technology to effectively support student access to up-to-date career data, effective employer-student connections, and student employment and other work-based learning experiences. | **WEI, ITS** |

**Technology Goal 3 – Provide access to technology and technology services that support external and internal community relations.**

| Action Items | Unit(s) Responsible |
|---|---|
| Develop and implement a strategy for managing the relationships between ITS and its user base across the College. | **B&F leadership, ITS** |
| Fully implement a scheduling system to provide college-wide calendaring and event optimization. | **EM/SC, ITS** |

**Technology Goal 4 – Provide access to technology and technology services that support having world-class facilities at the College.**

| Action Items | Unit(s) Responsible |
|---|---|
| Audit existing ITS infrastructure, services, and support to determine current status relative to industry standards and best practices to define and implement plans for improvement. | **B&F leadership, ITS** |
| Develop a BYOD strategy for integrating personally owned devices through a secure methodology to the college WAN. | **ITS, General Counsel** |
| Ensure secure computing and networking environments utilizing technology, training, and procedures within the College and through remote access. | **ITS** |
| Implement college-wide hardware and software technology purchasing process to ensure compatibility and avoid duplication of competing products across the enterprise. | **Purchasing, Budget, ITS** |
| Develop a collaborative process to evaluate existing applications and recommend standardization on core product functionality independent of areas. | **Purchasing, ITS** |
| Research, evaluate, and implement Virtual Desktop Infrastructure (VDI) and cloud computing strategies to support classroom and administrative technology needs. | **ITS** |
| Annual report examining two or three technologies recommended for College review and consideration. | **ITS, TCC** |

**Technology Goal 5 – Provide access to technology and technology services that support fiscal stability and sustainability.**

| Action Items | Unit(s) Responsible |
|---|---|
| Expand the use of Document Imaging to assist in managing, searching, and archiving digital assets. | **ITS** |
| Establish, staff, and determine the operations of a college-wide data governance structure. | **IR, ITS** |
| Review and map workflow processes and fully document details through a central repository. | **All Units (ITS Lead)** |
| Enhance self-service technologies for student success data access and reporting. | **ITS** |

| | |
|---|---|
| Develop and implement data systems to support internal knowledge sharing about local businesses, organizations, philanthropies and community groups. | **IR, ITS, IA** |

**Technology Goal 6 – Provide access to technology and technology services that support a diverse, equitable and inclusive environment at the College.**

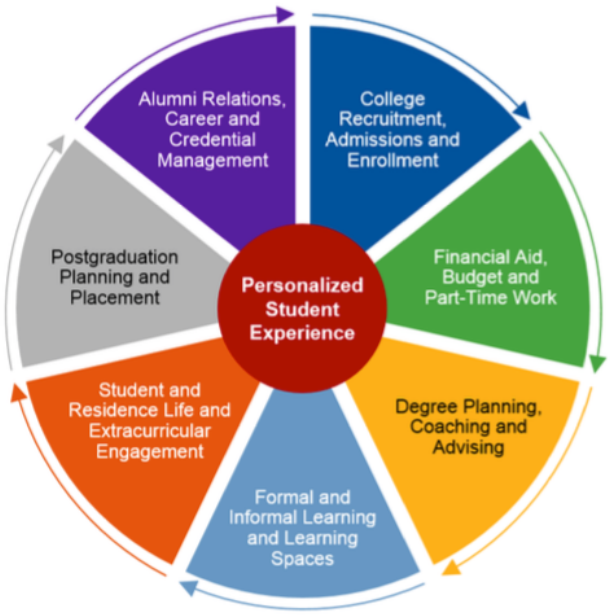
| **Action Items** | **Unit(s) Responsible** |
|---|---|
| Develop a professional development plan to establish baseline standards for technology competency and training for all FSA employees. | **HR, AASS** |
| Research and implement an information system to track employee professional development across the College. | **HR, AASS** |
| Formulate detailed Web Accessibility Plan in accordance with District Web Accessibility Policy and the recommendations outlined by WCAG 2.0AA Standard | **FLOAT, ITS, EM/SC** |
| Develop and collect standardized diversity, equity and inclusion metrics for College-wide data reporting. | **Diversity Office, General Counsel, IR, AASS, EM/SC** |

Information Technology Services (ITS) undergoes a strategic planning initiative every five years. This process includes establishing a set of goals to guide the development of annual operating plans, setting an overall direction for ITS, and ensuring overall consistency with the mission and goals of the College.

The current plan focuses on delivering the results related to increasing enrollment, improving graduation rates, propelling institutional planning, identifying, and intervening with at-risk students, tracking all types of academic milestones, streamlining curriculum management, and **providing a personalized student experience from recruitment to post-graduate engagement**.

The student experience of the future will be the product of an intensive redesign process based on the liberal use of data, and on utilizing technologies to bring scalable and high-touch (both human and machine) practices to make student interactions with the institution personal, integrated, targeted and student-controlled. Failure to employ these kinds of practices — undertaken as integrated processes and integrated with the processes of other ecosystem members across the value chain — will increasingly put our college at a disadvantage when it comes to attracting and retaining students.

The chart below depicts a personalized, integrated and coherent student experience, which will become a key differentiator for our College and we are starting to build the strategies and infrastructure to make this happen.




Source: Gartner April 25, 2017
The Future of Student is Personal

In the following pages: **Appendix A**, defines the strategic framework and roadmap which will be delivered in 3 broad themes, beginning with plans to improve the technology foundation, extending to application portfolios and targeting technology-enabled transformation of CCP.

**Appendix B**, outlines the projects that ITS will undertake to demonstrate the alignment of ITS Projects with the TCC recommendation and the college's strategic goals. This is a five-year listing of the planned services, initiatives, and goals of the Information Technology Services Department. Critical to the success of the plan is the funding, project prioritization and sequencing.

# *Appendix A – Strategic Framework & Implementation Roadmap*

## Strategic Framework & Roadmap

The Strategy will be delivered in 3 broad themes, beginning with plans to improve the technology foundation, extending to application portfolios and targeting technology-enabled transformation.

### Foundation

- Build and deliver core technology to support ongoing CCP needs. Find efficiencies and flexibility through simplicity, consolidation and cloud delivery.

**Focus Areas**

- Infrastructure
- Security
- Data

### Applications

Update and replace the portfolio of aging applications to enable greater efficiency, scale and operational effectiveness

- Focus on Academic and Administrative Applications
- Develop comprehensive application portfolio strategies for all operational areas
- Standardize common processes and move to common platforms requiring less resources, complexity and expense

### Transformation

Deliver new technologies that create a differentiated experience for our students, faculty, and staff

- Drive proof of concepts to test approaches and tools to change the way we interact and work
- Shift focus towards student facing and educational technologies
- Strategies to be developed across science, data and digital leveraging new technologies (e.g., mobile, internet of things, big data)

## Foundation – Short Term (0-12 Months)

### Stabilize, Control and Enhance

The foundational initiatives will continue into 2022 with a focus on delivering business value, ensuring stability, exploring new digital opportunities for CCP and transforming the IT organization.

### Foundation

Build and deliver core technology assets to support business needs and enhance company performance

**Focus Areas**

- Infrastructure
- Security
- Data

**July 2021 - 2022 Priorities & Tactical Actions**

**Modernize Technology Infrastructure**

**Strengthen Enterprise Security**

**Technology enhanced classrooms**

**Build New Capabilities To Deliver Business Value**

**Enable analytics based student success and retention initiatives**

**Improve the Effectiveness of IT Organization**

**Data driven business decisions**

# Applications – Medium Term (12-36 Months)

## Optimize and Extend

Focus on academic and administrative applications while standardizing common processes and move to common platforms requiring less resource, complexity and expense.

**Applications**

Update and replace the portfolio of aging applications to enable greater efficiency, scale and operational effectiveness

**2022 - 2025 Priorities & Tactical Actions**

- Academic Learning Design and Innovation
- Mobility and Converged platforms for collaboration
- Achieving Student Success Goals
- Develop eLearning and Digital Media technologies
- Deliver app centric personalized experience for students, faculty and staff
- Develop Learning Spaces (Physical & Virtual)

# Transformation – Long Term (> 36 Months)

## Innovate

Assessing how students, faculty & staff use technology in their learning, research, work, and play environments. This will be the foundation for our work and investments in structured innovation technologies that align to the starting point of our students, faculty & staff and engage them in the process of discovery and the love of learning.

**Transformation**

Deliver new technologies that create a differentiated experience for our students, faculty, and staff

**2024 - 2025 Priorities & Tactical Actions**

- Cloud based ERP
- Uniformed platform for sound business decisions
- Measure and anticipate student behavior
- Improved metrics and marketing strategies
- Improved communication with community
- CCP 2.0 - Re-Imagining and Re-inventing CCP

# *Appendix B – ITS Projects*

## Technology Projects

The matrix below shows the alignment of IT projects with the College's Strategic Goals and the Six areas of focus. These projects and initiatives are dynamic and accumulative, existing technology continually evolves to the next level of service, support, and functionality. The planned future projects are as follows:

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1 | 1,4 | Deploy Hyper converged infrastructure (HCI) to reduce data center complexity and increase scalability by using virtualization software to abstract and pool underlying resources, then dynamically allocate them. (Compute, Storage, Management, & Networking delivered As-a-Service). | 3-Small | 1-High | 2022 |
| 1 | 1,4 | Replace End-of-Life Data Center Core and Edge Switches. | 3-Small | 1-High | 2022 |
| 1 | 4 | Migration of Phone Switch from legacy Nortel System to Avaya or Cloud Phone System. | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 1,4 | Virtualization of servers and desktops in computer labs. Build labs that run in the cloud **or** in a virtualized environment. | 2-Medium | 2-Medium | 2022-2023 |

## Technology Projects – (page 2)

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1,5,6 | Data Driven Decision Making – Enrollment Optimization, Admissions Tracking, & Academic Advising (Tableau). | 2-Medium | 1-High | 2022 |
| 1,2 | 4 | Explore the use of College-issued cards to serve identification, provide physical access, permit payments, and automate attendance taking. (Digital ID's on smartphones). | 3-Small | 1-High | 2022-2023 |
| 1,2 | 4,5 | DocuSign - Paperless and automation of workflow and processes College wide (ex. FLOAT, Institutional Advancement, etc.) | 2-Medium | 2-Medium | 2022 |
| 1 | 1 | Implement New Student Checklist using Banner Self-Service. | 1-Small | 1-High | 2022 |
| 1 | 4 | Expand, improve, and provide redundancy for Data Center to serve for at least the next five years. | 2-Medium | 1-High | 2022 |
| 1 | 4 | Implement Kronos time tracking system. eTime & Labor. | 2-Medium | 1-High | 2022 |
| 1,2 | 1,4,6 | Explore ways to enhance Degree Works to provide better student goals and progress towards achieving them. (Academic Pathways). | 2-Medium | 2-Medium | 2022-2023 |

# Technology Projects – (page 3)

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1 | 1,4 | Apply security controls between virtual machines, applications, and data storages to minimize vulnerability against data breach and cyber attacks. | 3-Small | 1-High | 2022 |
| 1,2 | 1,4 | Update current digital signage system to an up-to-date, web based, and central management system. | 3-Small | 2-Medium | 2022-2023 |
| 1,2 | 1,4 | Explore how to improve teaching and learning experiences, fulfill current pedagogical expectations, and make classrooms more dynamic and interactive. | 2-Medium | 1-High | 2022-2023 |
| 1,2,3 | 1 | Coordinated team of staff and vendors in a multi-campus, year-long project to produce an online catalog. | 2-Medium | 1-High | 2022 |
| 1,2,3 | 1,2,4 | Hybrid Data Management (Structured and Unstructured Data - Collect, Organize & Analyze). Implement Cloud based Data Lakes to enable evidence based and data driven predictive decision making. Big Data Analytics & Data Lakes. | 1-Large | 1-High | 2022-2023 |

# Technology Projects – (page 4)

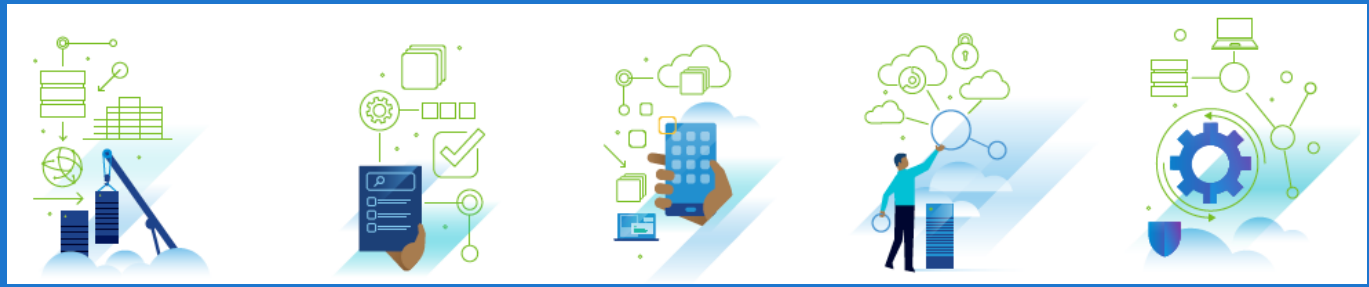
| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1,4 | Automate the data feeds to SWN (Send Word Now) to facilitate consistency and real time updates. | 3-Small | 1-High | 2022 |
| 1 | 1 | Implement Banner Self-Service Forms to replace current student intake survey that is handled by Qualtrics application. | 3-Small | 1-High | 2022 |
| 2 | 4 | Fully implement 25Live to include all Users of the College. Campus-wide room scheduling capability & event mgmt. | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 4,5 | Implement all modules of Elliucian Analytics for all key areas including HR, Finance, Enrollment, etc. | 2-Medium | 2-Medium | 2022-2023 |
| 1 | 1 | Implement Electronic Transcript Exchange with Temple Univ. | 3-Small | 2-Medium | 2022-2023 |
| 2 | 1 | Implement the newly redesigned Drop-for-Non-Payment Process. | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 4 | Re-engineer business processes (the analysis and design of workflows and processes within and between departments). Redefine services and redevelop operational processes. | 1-Large | 1-High | 2023 |

# Technology Projects – (page 5)

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1 | Implement CPOS (Course Program of Study) – Leveraging Banner Student, Financial Aid and Degree Works to allow financial aid to pay for only courses that exist in a student's degree path. | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 1,3,4,5 | Explore the possibility of a new CRM and Cloud ERP/SIS System to augment or replace current Ellucian Banner System. | 1-Large | 2-Medium | 2024-2025 |
| 1,2,3 | 1,3,4,6 | ***People Centricity – Internet of Behaviors – How student's interact with CCP. Total experience strategy. Capturing the Digital Dust.*** | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,3,4 | ***IoT – Internet of Things & AI Engineering.*** | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,4,6 | ***Broadening IT Automation and Enhancing the Student Experience*** | 1-Large | 3-Low | 2025 |

# Technology Plan

## Preparing for Tomorrow, Today



March 15, 2021

*The Path to Possibilities*™

Community College *of* Philadelphia

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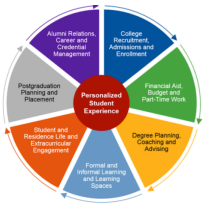
# Executive Summary




- The plan begins with a brief background of Higher Education business trends and technology trends that are crucial for meeting the strategic, operational, teaching/ learning, and relational demands of the College while creating a transformative student experience, fostering a collaborative workspace, and enabling innovation, sustainability and growth.

- The plan focuses on delivering the results related to increasing enrollment, improving graduation rates, propelling institutional planning, identifying and intervening with at-risk students, tracking all types of academic milestones, streamlining curriculum management, and **providing a personalized student experience from recruitment to post-graduate engagement**.

- This document provides a set of prioritized goals for technology, and a set of initiatives that will help direct the Community College of Philadelphia as we prepare for the future. This plan contains recommendations for technological enrichment within the College that will occur during the years 2021 through 2025.

# Contents


## Background & Context

Strategic Goals and Framework

## Opportunity Analysis

Transformation Road Map, Priorities and Projects

## Next Steps

Feedback, Investment Prioritization, Project Sequencing

## Appendix

Current Challenges, Cloud ERP & Data Driven Intelligence

# CCP Strategic Goals

As stated in the College 2017-2025 Strategic Plan, overall success will be achieved by reaching **three broad goals** by 2025:

| | |
|---|---|
| 1 | Increase credit and non-credit enrollment by 20% |
| 2 | Double the graduation rate |
| 3 | Double the number of opportunities for students to enroll in career programs resulting in the attainment of marketable skills leading to placement in the local and regional economy |

# Technology Vision

The technology plan for 2021-2025 will focus on providing a personalized, integrated, and coherent student experience that supports CCP's strategic direction with a focus on the six pillars outlined in the College's strategic plan.

| | |
|---|---|
| 1 | **The Student Experience** |
| 2 | **Workforce Development, Readiness and Economic Innovation** |
| 3 | **External and Internal Community Relations** |
| 4 | **World-Class Facilities** |
| 5 | **Fiscal Stability and Sustainability** |
| 6 | **Diversity, Equity and Inclusion** |

Holistic Student Experience

Source: Gartner April 25, 2017
The Future of Student is Personal

# Technology Objective 1

Provide access to technology and technology services that support the student experience.

| Initiatives & Action Items | |
|---|---|
| 1 | Develop and deploy analytics strategy to enable data informed decision-making in all areas of enrollment management. |
| 2 | Investigate and implement technology solutions to facilitate enhanced communications and interactions with students, advisors and counselors. |
| 3 | Research, evaluate, and promote innovative uses of academic technology, including the development of roadmaps to guide faculty and student adoption of innovative technologies. (Open Education Resources (OER) & Digital Learning). |
| 4 | Fully implement the College assessment tools to enable efficient and effective assessment through data collection, analysis, reporting, and close-the-loop activities. |

# Technology Objective 2

Provide access to technology and technology services that support workforce development, readiness, and economic innovation.

## Initiatives & Action Items

| | |
|---|---|
| 1 | Implement systems and procedures that enable broad access to industry and employer data in support of workforce programs, curriculum development and maintenance. |
| 2 | Review and refresh as needed Career Connections technologies to effectively support student access to up-to-date career data, effective employer-student connections, and student employment and other work-based learning experiences. |

# Technology Objective 3

Provide access to technology and technology services that support external and internal community relations.

## Initiatives & Action Items

| | |
|---|---|
| 1 | Develop and implement a strategy for managing the relationships between ITS and the user base across the college. |
| 2 | Fully implement a scheduling system to provide college-wide calendaring and event organization. |

# Technology Objective 4

Provide access to technology and technology services that support having world-class facilities at the College.

## Initiatives & Action Items

| | |
|---|---|
| 1 | Audit existing ITS infrastructure, services, and support to determine current status relative to industry standards and best practices to define and implement plans for improvement. |
| 2 | Develop a BYOD strategy for integrating personally owned devices through a secure methodology to the college WAN. |
| 3 | Ensure secure computing and networking environments utilizing technology, training, and procedures within the College and through remote access. |
| 4 | Implement College-wide hardware and software technology purchasing process to ensure compatibility and avoid duplication of competing products across the enterprise. |
| 5 | Develop a collaborative process to evaluate existing applications and recommend standardization on core product functionality independent of areas. (Cloud Computing & Cloud ERP). |
| 6 | Research, evaluate, and implement Virtual Desktop Infrastructure (VDI) and cloud computing strategies to support classroom and administrative technology needs. |
| 7 | Annual report examining two or three technologies recommended for College review and consideration. |

# Technology Objective 5

Provide access to technology and technology services that support fiscal stability and sustainability.

| Initiatives & Action Items | |
|---|---|
| 1 | Expand the use of Document Imaging to assist in managing, searching, and archiving digital assets. |
| 2 | Establish, staff, and determine the operations of a College-wide data governance structure. |
| 3 | Review and map workflow processes and fully document details through a central repository. |
| 4 | Enhance self-service technologies for student success data access and reporting. |
| 5 | Develop and implement data systems to support internal knowledge sharing about local businesses, organizations, philanthropies and community groups. |

# Technology Objective 6

Provide access to technology and technology services that support a diverse, equitable and inclusive environment at the College.

## Initiatives & Action Items

| | |
|---|---|
| 1 | Develop a professional development plan to establish baseline standards for technology competency and training for all FSA employees. |
| 2 | Research and implement an information system to track employee professional development across College. |
| 3 | Formulate detailed Web Accessibility Plan in accordance with our Web Accessibility Policy and recommendations outlined by WCAG 2.0A (Web Content Accessibility Guidelines) . |
| 4 | Develop and collect standardized diversity, equity and inclusion metrics for College-wide data reporting. |
| 5 | Closing the Digital Divide by providing meaningful access to Technology & Services. |

# Higher Education Trends & Enabling Technologies

## Business Trends

① Student Success
② Competency-Based Education
③ Reinventing Credits
④ Analytics Everywhere
⑤ Institutional Branding
⑥ Breaking Boundaries
⑦ Rethinking Business Models
⑧ Increasing Political Intervention
⑨ Innovative Learning Spaces
⑩ E-Research

## Enabling Technologies

① Adaptive Learning
② Predictive Analytics
③ CRM
④ Open Micro-credentials
⑤ Digital Assessment
⑥ Smart Machines and AI
⑦ Listening and Sensing Technology
⑧ Collaborative Technology
⑨ Block Chain
⑩ Nudge Technology

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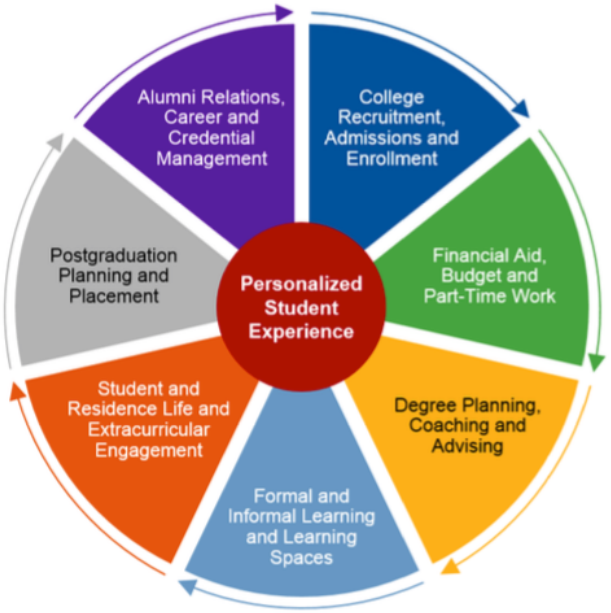
# Focus Areas for Technology

| | |
|---|---|
| 1 | **Transformative Student Experience**<br>✓ *Increase student success both while at CCP and after graduation* |
| 2 | **High Performance Culture**<br>✓ *Positive, productive, and collaborative workplace* |
| 3 | **Strategic Innovation, Sustainability and Growth**<br>✓ *Highly efficient and aligned processes, systems, and structures that support the mission of the College and expand funding, students, and productivity* |

Student Experience of the Future




Source: Gartner April 25, 2017
The Future of Student is Personal

# Technology Convergence in Higher Education

Social Learning
Open Badges

*Support education strategy with any data*

Big Data
Adaptive Learning

Mobile Learning
Education Devices

*Learn and engage with Artificial Intelligence*

SaaS, PaaS, IaaS

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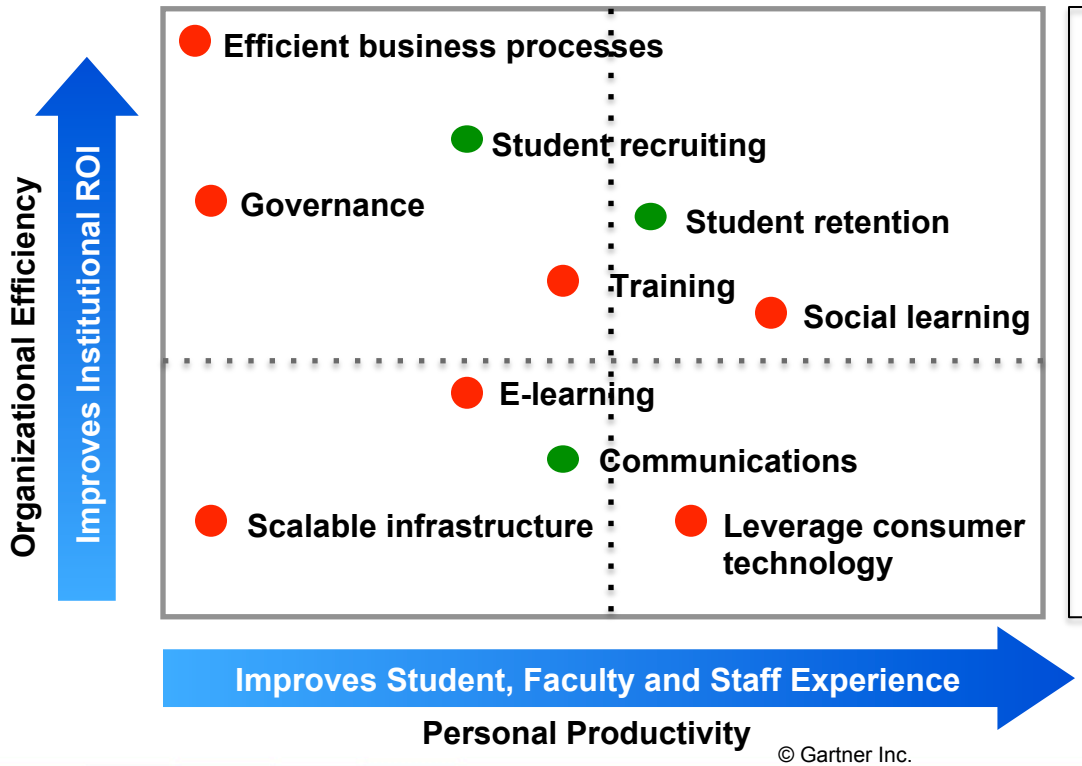
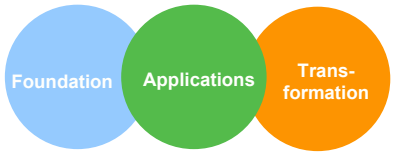
# Investment Prioritization Criteria




**Potential Services:**

- Predictive analytics service
- Content delivery optimization service
- Cloud delivery optimization service

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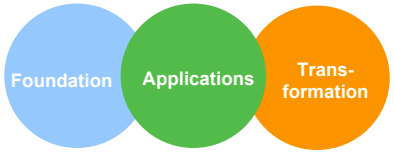
# Strategic Framework & Roadmap




The Strategy will be delivered in 3 broad themes, beginning with plans to improve the technology foundation, extending to application portfolios and targeting technology-enabled transformation.

## Foundation

- Build and deliver core technology to support ongoing CCP needs. Find efficiencies and flexibility through simplicity, consolidation and cloud delivery.

### Focus Areas

- Infrastructure
- Security
- Data

## Applications

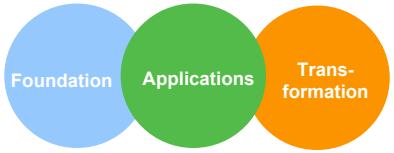
Update and replace the portfolio of aging applications to enable greater efficiency, scale and operational effectiveness

- Focus on Academic and Administrative Applications
- Develop comprehensive application portfolio strategies for all operational areas
- Standardize common processes and move to common platforms requiring less resources, complexity and expense

## Transformation

Deliver new technologies that create a differentiated experience for our students, faculty, and staff

- Drive proof of concepts to test approaches and tools to change the way we interact and work
- Shift focus towards student facing and educational technologies
- Strategies to be developed across science, data and digital leveraging new technologies (e.g., mobile, internet of things, big data)




# Foundation – Short Term (0-12 Months)

## Stabilize, Control and Enhance

The foundational initiatives will continue into 2022 with a focus on delivering business value, ensuring stability, exploring new digital opportunities for CCP and transforming the IT organization.

**Foundation**

Build and deliver core technology assets to support business needs and enhance company performance

**Focus Areas**

- Infrastructure
- Security
- Data

**July 2021 - 2022 Priorities & Tactical Actions**

**Modernize Technology Infrastructure**

**Strengthen Enterprise Security**

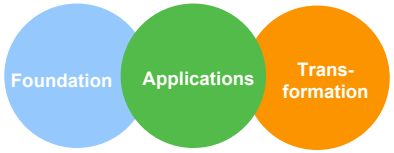
**Technology enhanced classrooms**

**Build New Capabilities To Deliver Business Value**

**Enable analytics based student success and retention initiatives**

**Improve the Effectiveness of IT Organization**

**Data driven business decisions**




# Applications – Medium Term (12-36 Months)

## Optimize and Extend

Focus on academic and administrative applications while standardizing common processes and move to common platforms requiring less resource, complexity and expense.

**Applications**

Update and replace the portfolio of aging applications to enable greater efficiency, scale and operational effectiveness

**2022 - 2025 Priorities & Tactical Actions**

**Academic Learning Design and Innovation**

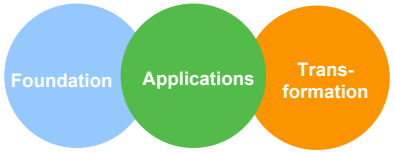
**Mobility and Converged platforms for collaboration**

**Achieving Student Success Goals**

**Develop eLearning and Digital Media technologies**

**Deliver app centric personalized experience for students, faculty and staff**

**Develop Learning Spaces (Physical & Virtual)**




# Transformation – Long Term (> 36 Months)

## Innovate

Assessing how students, faculty & staff use technology in their learning, research, work, and play environments. This will be the foundation for our work and investments in structured innovation technologies that align to the starting point of our students, faculty & staff and engage them in the process of discovery and the love of learning.

**Transformation**

Deliver new technologies that create a differentiated experience for our students, faculty, and staff

**2024 - 2025 Priorities & Tactical Actions**

**Cloud based ERP**

**Uniformed platform for sound business decisions**

**Measure and anticipate student behavior**

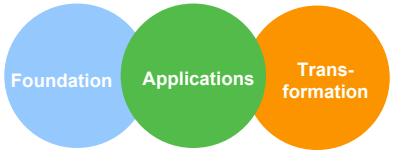
**Improved metrics and marketing strategies**

**Improved communication with community**

**CCP 2.0 - Re-Imagining and Re-inventing CCP**

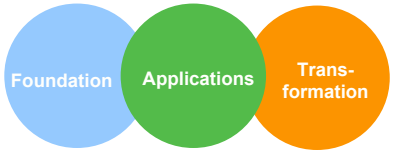
# Projects

# Technology Projects




The matrix below shows the alignment of IT projects with the College's Strategic Goals and the Six areas of focus. These projects and initiatives are dynamic and accumulative, existing technology continually evolves to the next level of service, support, and functionality. The planned future projects are as follows:

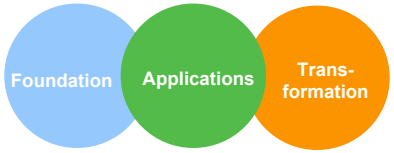
| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1 | 1,4 | Deploy Hyper converged infrastructure (HCI) to reduce data center complexity and increase scalability by using virtualization software to abstract and pool underlying resources, then dynamically allocate them. (Compute, Storage, Management, & Networking delivered As-a-Service). | 3-Small | 1-High | 2022 |
| 1 | 1,4 | Replace End-of-Life Data Center Core and Edge Switches. | 3-Small | 1-High | 2022 |
| 1 | 4 | Migration of Phone Switch from legacy Nortel System to Avaya or Cloud Phone System. | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 1,4 | Virtualization of servers and desktops in computer labs. Build labs that run in the cloud **or** in a virtualized environment. | 2-Medium | 2-Medium | 2022-2023 |



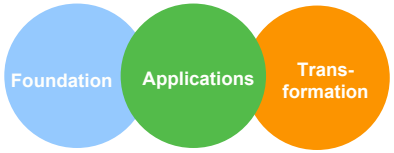

# Technology Projects – (page 2)

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1,5,6 | Data Driven Decision Making – Enrollment Optimization, Admissions Tracking, & Academic Advising (Tableau). | 2-Medium | 1-High | 2022 |
| 1,2 | 4 | Explore the use of College-issued cards to serve identification, provide physical access, permit payments, and automate attendance taking. (Digital ID's on smartphones). | 3-Small | 1-High | 2022-2023 |
| 1,2 | 4,5 | DocuSign - Paperless and automation of workflow and processes College wide (ex. FLOAT, Institutional Advancement, etc.) | 2-Medium | 2-Medium | 2022 |
| 1 | 1 | Implement New Student Checklist using Banner Self-Service. | 1-Small | 1-High | 2022 |
| 1 | 4 | Expand, improve, and provide redundancy for Data Center to serve for at least the next five years. | 2-Medium | 1-High | 2022 |
| 1 | 4 | Implement Kronos time tracking system. eTime & Labor. | 2-Medium | 1-High | 2022 |
| 1,2 | 1,4,6 | Explore ways to enhance Degree Works to provide better student goals and progress towards achieving them. (Academic Pathways). | 2-Medium | 2-Medium | 2022-2023 |

# Technology Projects – (page 3)



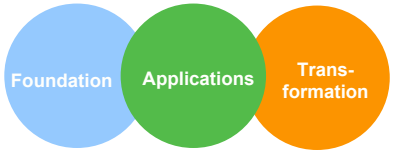

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1 | 1,4 | Apply security controls between virtual machines, applications, and data storages to minimize vulnerability against data breach and cyber attacks. | 3-Small | 1-High | 2022 |
| 1,2 | 1,4 | Update current digital signage system to an up-to-date, web based, and central management system. | 3-Small | 2-Medium | 2022-2023 |
| 1,2 | 1,4 | Explore how to improve teaching and learning experiences, fulfill current pedagogical expectations, and make classrooms more dynamic and interactive. | 2-Medium | 1-High | 2022-2023 |
| 1,2,3 | 1 | Coordinated team of staff and vendors in a multi-campus, year-long project to produce an online catalog. | 2-Medium | 1-High | 2022 |
| 1,2,3 | 1,2,4 | Hybrid Data Management (Structured and Unstructured Data - Collect, Organize & Analyze). Implement Cloud based Data Lakes to enable evidence based and data driven predictive decision making. Big Data Analytics & Data Lakes. | 1-Large | 1-High | 2022-2023 |




# Technology Projects – (page 4)

| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1,4 | Automate the data feeds to SWN (Send Word Now) to facilitate consistency and real time updates. | 3-Small | 1-High | 2022 |
| 1 | 1 | Implement Banner Self-Service Forms to replace current student intake survey that is handled by Qualtrics application. | 3-Small | 1-High | 2022 |
| 2 | 4 | Fully implement 25Live to include all Users of the College. Campus-wide room scheduling capability & event mgmt. | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 4,5 | Implement all modules of Elliucian Analytics for all key areas including HR, Finance, Enrollment, etc. | 2-Medium | 2-Medium | 2022-2023 |
| 1 | 1 | Implement Electronic Transcript Exchange with Temple Univ. | 3-Small | 2-Medium | 2022-2023 |
| 2 | 1 | Implement the newly redesigned Drop-for-Non-Payment Process. | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 4 | Re-engineer business processes (the analysis and design of workflows and processes within and between departments). Redefine services and redevelop operational processes. | 1-Large | 1-High | 2023 |

# Technology Projects – (page 5)




| College Strategic Goal | Pillars | Description | Estimated Level of Effort | Priority | Fiscal Year(s) |
|---|---|---|---|---|---|
| 1,2 | 1 | Implement CPOS (Course Program of Study) – Leveraging Banner Student, Financial Aid and Degree Works to allow financial aid to pay for only courses that exist in a student's degree path. | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 1,3,4,5 | Explore the possibility of a new CRM and Cloud ERP/SIS System to augment or replace current Ellucian Banner System. | 1-Large | 2-Medium | 2024-2025 |
| 1,2,3 | 1,3,4,6 | ***People Centricity – Internet of Behaviors – How student's interact with CCP. Total experience strategy. Capturing the Digital Dust.*** | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,3,4 | ***IoT – Internet of Things & AI Engineering.*** | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,4,6 | ***Broadening IT Automation and Enhancing the Student Experience*** | 1-Large | 3-Low | 2025 |

# Next Steps

# Next Steps

## Request of the various CCP Committees

- Seek feedback for the Technology Plan
- Gain support and endorsement

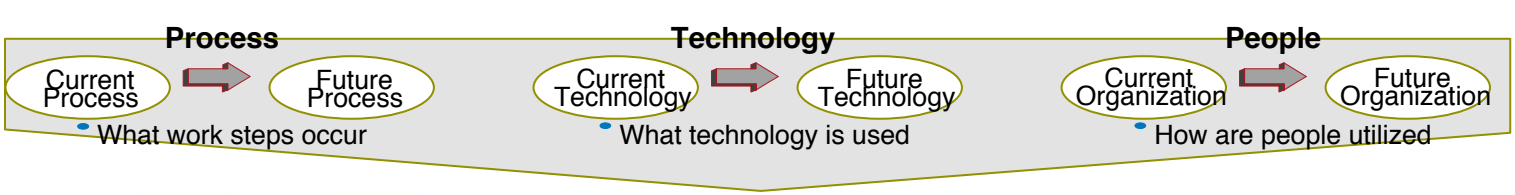
## 2021 Activities

- Develop investment & resource requirements, plus sequence & timing
- Begin execution of 2021 projects
- Continue implementation of the Strategic Framework and Road Map
- Provide progress update at the President's Cabinet & Business Affairs Committee Meetings

## 2021 and Beyond

- Continue implementation of the Road Map & Projects
- Continue to develop application and transformation strategies aligned with CCP's goals
- Review progress & accomplishments at regular intervals

# Appendix


Process
Current Process
Future Process
What work steps occur
Technology
Current Technology
Future Technology
What technology is used
People
Current Organization
Future Organization
How are people utilized

# How to address Our Technology Challenges

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| | | | |
|---|---|---|---|
| **Data Integrity Challenges** | One-Single Core of Truth; SIS/CRM | Security Role and Personnel Support | Distributed Data Standards and Remove Variability |
| **Manual Administration** | Enhanced Automation Of Core Processes | Delivered Reports And Dashboards | Configurable Processes |
| **Data and Reporting** | Improved Distribution Of Data Dashboards | Impact on Strategic Student Outcomes | Improve Visibility into Student/Faculty Challenges |
| **Student Engagement** | Eliminate Manual Student Engagement | Students Connected With Academic Plan | Reduced Student Effort for Changes and Adjustments |

# Current SIS Challenges …
# Lack of an integrated Cloud based ERP

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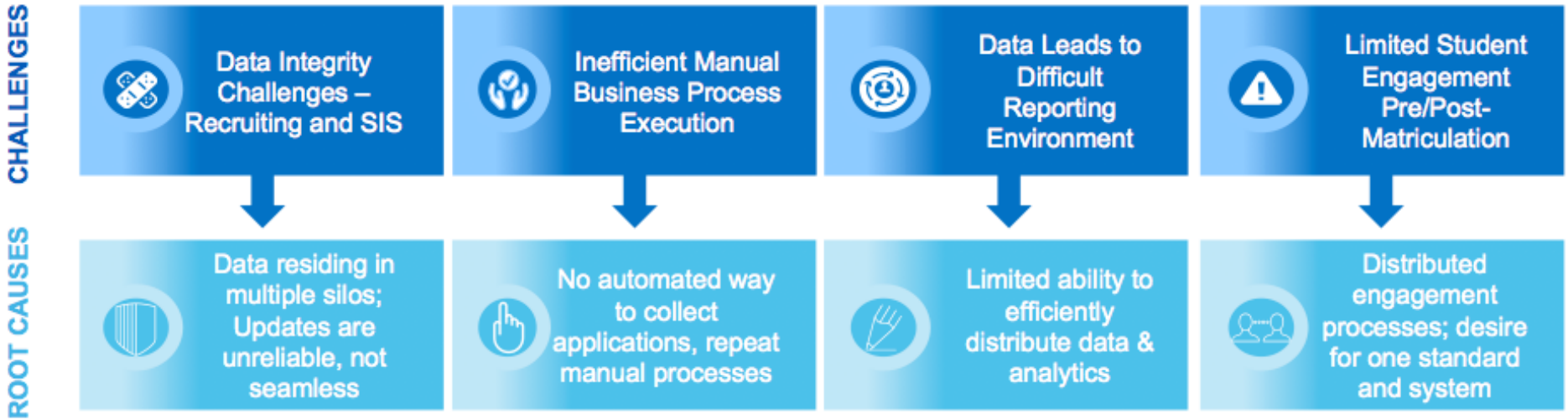

# Enhancing Student Experience….
# With an Integrated Cloud based ERP

**Strategic Context**

*Focus on transforming front-end student experience, matriculated student efficiency and utilizing improved data quality to enable enhanced resource utilization and student success outcomes.*

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**Systems Enablement and Student Enablement**

## Streamline CCP Recruiting

CCP's technology transparency will be **more cost effective, easier to manage, and shift away from a disparate technology environment**

**Matriculated Student Efficiency and Experience**

## Unified Student Experience

Improved **usability, mobile access, and consumer grade design** of systems will meaningfully **engage CCP students and drive outcomes**

**Improved Faculty and Student Connection**

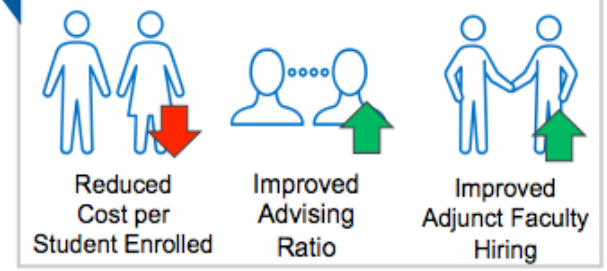
## Drive Advising Efficiency

**Improved automation and enhanced visibility** into student lifecycle for **earlier identification of trends** and **enhanced student experience/outcomes**

# Strategic & Economic value of a new Cloud based ERP

## Functional Efficiencies

**Value Creation**




*"Our faculty, staff and prospective students have high expectations. What they want to see is something that is much more modern and flexible.*

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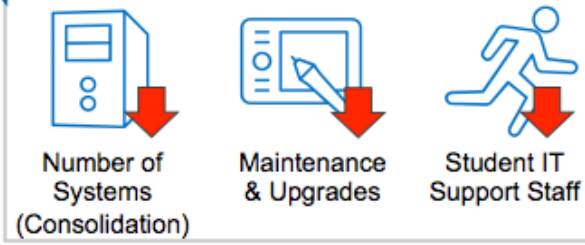
## Technology Simplification

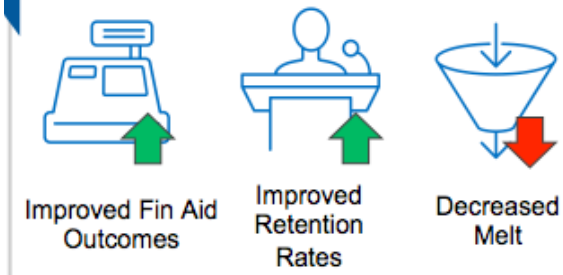
**Value Creation**




*"Colleges dealing with legacy ERP technology face multiple challenges in the near-term:*
***Innovation Unlikely**; innovation is highly unlikely*
***Transition Inevitable**; forced transition and requisite engagement*
***Costly, Disruptive Upgrades**; changes in database and customizations are risk prone"*

## Student Experience & Engagement

**Value Creation**




*Modern ERP provides us with a modern and engaging technology ecosystem that is designed to empower the members of our community with information at their fingertips, helping support student, faculty, staff, and institutional success."*

# ERP Focus Areas

Focus Areas

## Areas

**Operational Effectiveness**

*The College's leadership and operations employees will benefit from improved capabilities, leading to faster processes and more data-driven business decisions.*

**HR and Finance Efficiency**

*The College's HR, Payroll and Finance employees will be able to shift their focus from day-to-day transactions to better supporting the business with strategic insight, while improving overall process efficiency and increasing compliance*

**Total Cost of Ownership**

*The College's ITS organization will focus more on new features and reduce maintenance related activities, while also increasing reporting, security, integration and audit capabilities*

## Value Drivers

Improved experience through integration and tools to build a better educational product.

Improved capabilities, leading to faster, consolidated, and more efficient business processes

Improved network stability, classroom technology, integration, and upgraded faculty devices to support the sophisticated learning experience.

## Strategic Impact

- Efficient Business Processes
- New Strategies and Validation
- Retention and New Enrollments
- Improved Customer Experience
- Reduce Risk
- Student Experience

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# ERP - Finding Value in Three Key Areas

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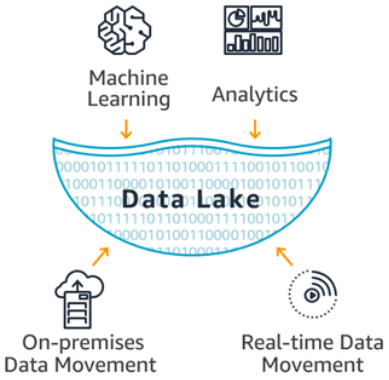
# Predictive Analytics

**Big Data & Cloud**
**Data Lakes**

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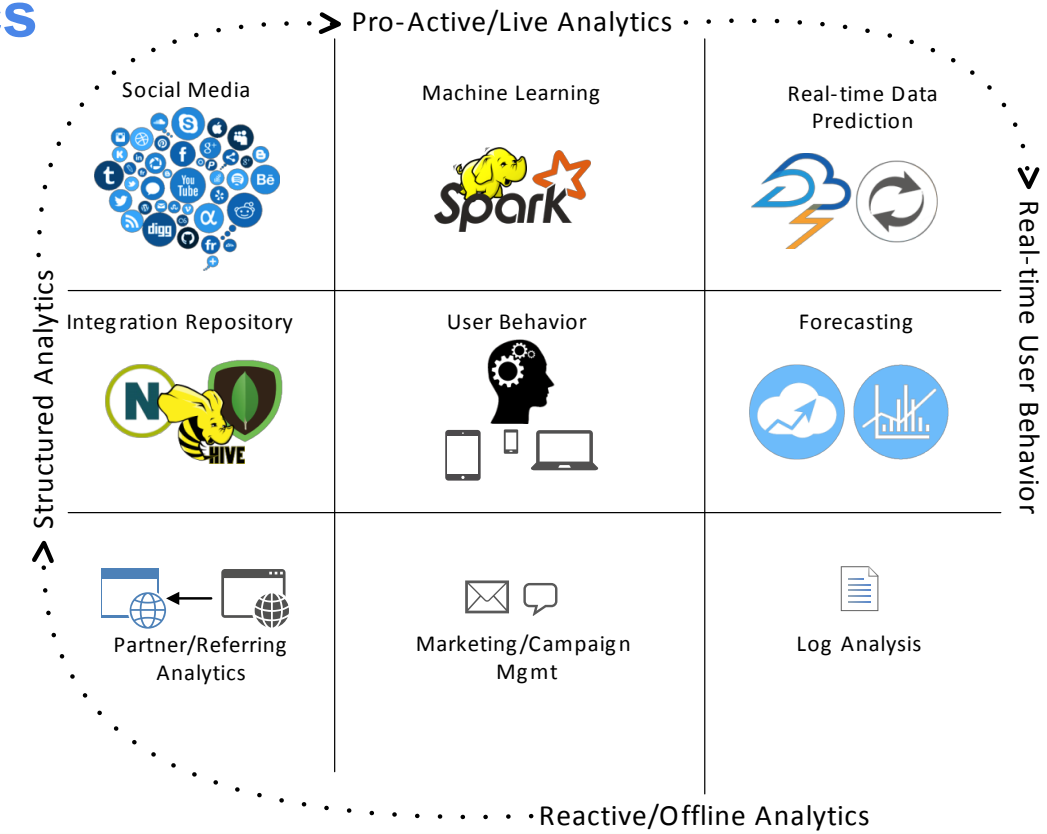

# Learning and Engaging with AI – Data Driven Intelligence

A generalized artificial intelligence and machine learning platform that utilizes attitudinal profiles on the non-cognitive variables of students to drive post-secondary academic success .

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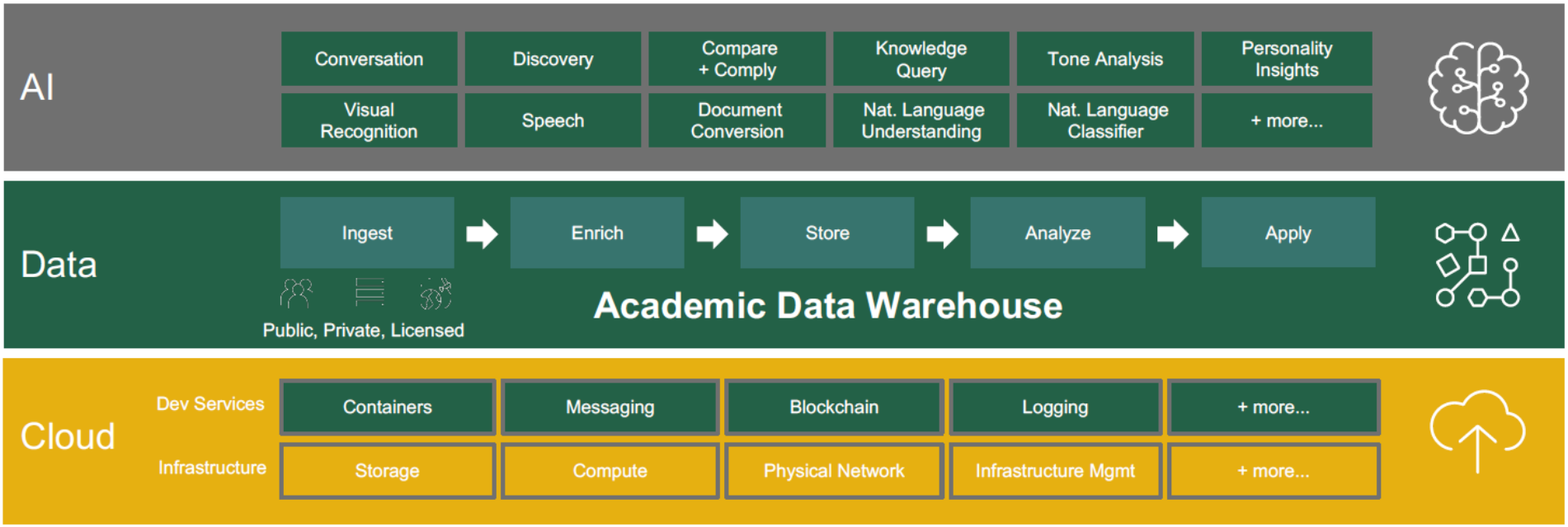

# Data Driven Intelligence - Sample Outcome #1

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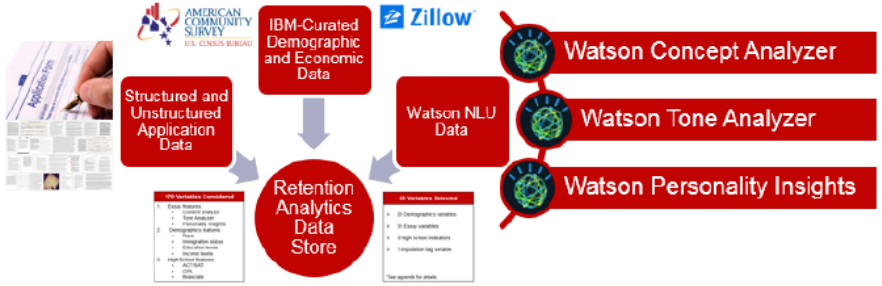
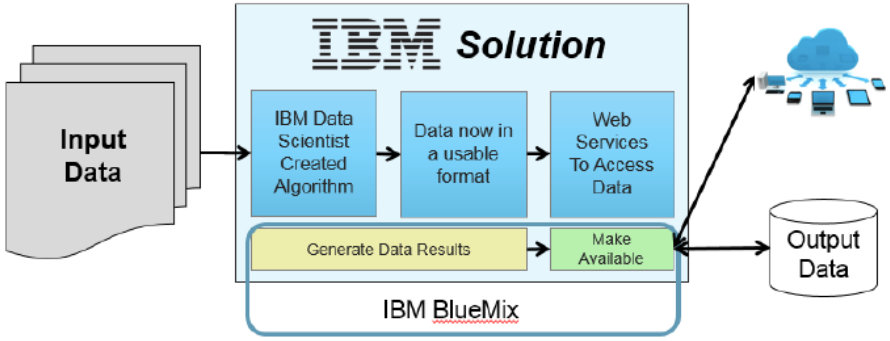
A leading public university needed a solution to identify at-risk students as soon as possible.

IBM leveraged structured and unstructured data to enable cognitive retention analytics.




IBM delivered insights using Bluemix technologies.




IBM delivered a cognitive solution that identifies 31% of at-risk students at point of admission.

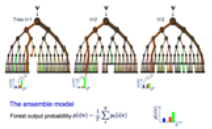
IBM leveraged state-of-the-art machine learning to identify at-risk students at the point of admission.

**91 Variables Selected**

- 46 Census (ACS) + Real Estate (Zillow) variables
- 8 Performance/High School indicators
- 35 variables derived from Watson
- 2 College admission variables

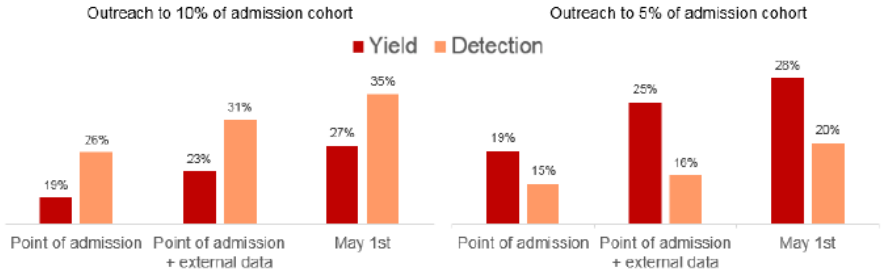
- Among top predictors:

1. First generation to go to College
2. Income level from ACT
3. Early payment of admission fee
4. ACT/SAT score
5. ACS poverty level by ZIP code
6. ACS data about food stamps by ZIP code
7. Income levels from ACS by ZIP code
8. Graduation rate from students from the same High School



| Model | Accuracy | Stability | Accuracy * Stability |
|---|---|---|---|
| XG | 0.74 | 0.97 | 0.72 |
| h2O | 0.71 | 0.99 | 0.70 |
| XG + h2O | 0.74 | 0.97 | 0.72 |

The solution enabled outreach to 31% of at-risk students at the point of admission.



# Data Driven Intelligence - Sample Outcome #2

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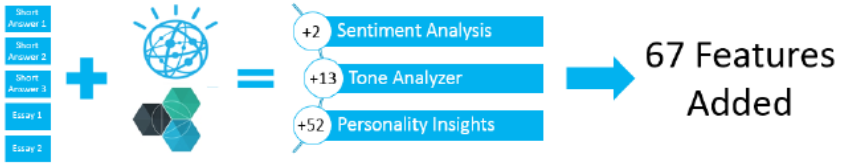
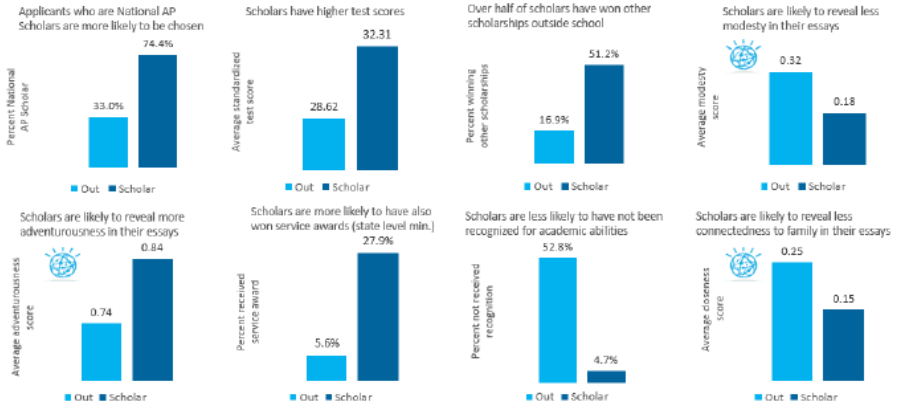
## A leading education foundation needed a solution to keep pace with a growing application workload

IBM leveraged Watson cognitive technologies to harvest predictive insights from application essay data.

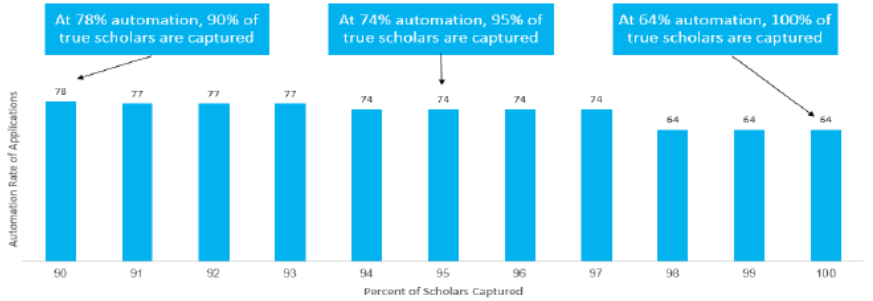



IBM identified key factors predictive of application success.

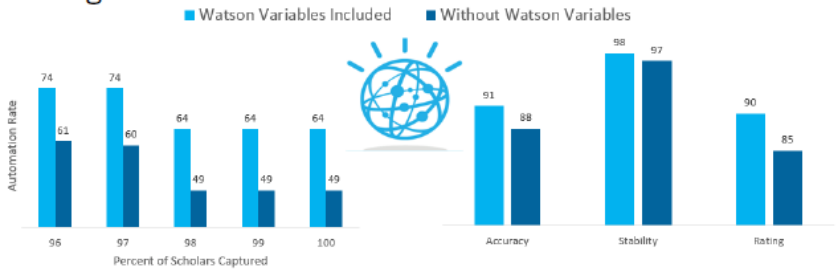



## IBM delivered a cognitive application that achieves 64% automation with 100% accuracy.

IBM leveraged machine learning to achieve maximum automation and accuracy.




Watson technology added significant value to the machine learning solution.



# Data Protection Policy

**Introduction**
CCP is committed to ensure compliance with applicable data protection laws and regulations. This Policy describes how and why we collect, process and your personal data, as well as your rights with regards to the processing of your personal data.

**Scope and Supplement**
This Policy applies to the processing of personal data obtained through any channel of communication or by any means, including but not limited to email, file transfer, feeding personal data into applications and tools, websites or mobile apps, social media pages and platforms.

This Policy may be supplemented by specific data protection and privacy notices and statements that relate to specific forms or purposes of data processing.

**Personal Data we process, Purposes and Legal Basis**
This section of our Policy describes what personal data we collect and process and for what purposes. The amount of personal data we process depends on the context and circumstances of your interaction with us.

1. **Browsing or registering on our websites, social media pages or platforms**

   When you browse our websites, social media pages or platforms, we may use Cookies and other tracking technologies to capture and understand how you use our websites, social media pages and platforms.

   Not all of our websites employ Cookies and tracking technology that collect personal data. Depending on the Cookies and tracking technologies in use, we collect information about your online browsing behavior on our websites, social media page or platform, including information how react to adverts and offers. We may also collect information about the device you have used to access our websites, social media pages or platforms, (including device model and operating system, browser type, IP-address, mobile device identifiers).

2. **Communication, marketing, taking part in events and feedback**

   When you contact us for any sort of inquiry or request, we will process your **personal details** (including name, title, company or organization you work for, email, telephone, other contact information), as far as this is necessary to deal with your inquiry or request and to respond to.

3. **Recruitment and application**

   When we recruit people we will process the personal data that you provide as part of your application. Data processing for the purpose of recruitment and carrying out the application process will generally comprise **personal details** (including name, title, email, telephone, postal address) and **qualification data** (including graduation, training certificates, advanced education certificates, credentials, and skills). After completion of an application process we may continue to process (store) personal data of applicants for a certain period of time where necessary to ensure we are able to exercise rights or defend against claims in the context of the recruitment process.

   When applying for a position at CCP via a careers website, recruitment platform or job portal, or when responding to a job advertisement, applicants should also refer further and more specific privacy information made available on the careers website, recruitment platform, job portal or in the job advertisement.

**Sharing Personal Data with Service Providers and Third Parties**
We will not sell, exchange or otherwise distribute your personally identifiable information without your consent, except to the extent required by law. We do reserve the right to work with third-party vendors, to host this information solely for the purposes intended by Community College of Philadelphia and in accordance with this policy.

**Storing periods for Personal Data**
Generally, we keep personal data for no longer than is necessary for pursuing or achieving the purposes for which the personal data is processed.

If we process personal data for the purpose of recruitment and carrying out the application process, we keep personal data for as long as necessary to review and assess the applications, to select applicants, to negotiate and execute an employment contract, and to exercise rights or defend against claims in the context of the applications process. If an application is successful, your personal data – as far as necessary for carrying out the employment contract – will be kept for as long as you are employed with CCP and after termination of your employment, for as long as necessary to comply with retention requirements, or for as long as forthcoming or pending lawsuits require longer retention.

**Security of Personal Data**
We have implemented technical and organizational security measures to protect personal data we process against accidental or unlawful manipulation, destruction or loss, alteration, and against unauthorized disclosure or access by third parties. Such security measures include authentication tools, firewalls, monitoring of IT systems and networks, and encryption of personal data.

The technical and organizational security measures are reviewed and adjusted on a regular basis, taking into account the state of the art of technology, the nature, scope, context and

purposes of processing and the risks and probability of occurrence. However, given the dynamic context of security measures, state of the art of technology, vulnerabilities, threats and risks, absolute security cannot be guaranteed.

**Your Rights over your Personal Data**
You have many rights over your personal data and how it is used. These rights are summarized below.

**Right to access your Personal Data**

You have the right to request a confirmation as to whether or not we process personal data concerning you.

If we process personal data about you, you have the right to request access to the personal data and to obtain further information regarding the purpose of the processing; the categories of personal data concerned; who else outside CCP might have received the data.

1. **Right to rectify your Personal Data**

   You have a right to rectify (correct) the record of your personal data processed by us, if it is inaccurate or incorrect.

2. **Right to erase your Personal Data**

   You have the right to request erasure (deletion) of your personal data. However, there may be reasons and legal grounds for keeping your personal data despite your request, e.g. if you still have a business relation with us or other contractual obligations, or if record keeping obligations prevent the erasure, or when we handle an ongoing complaint.

3. **Right to object to the processing of your Personal Data**

   You have the tight to object to the processing of your personal data on grounds relating to your particular situation and circumstances. However, there may be reasons and legal grounds for processing your personal data despite your objection. If we refuse your request we will provide you with information explaining why we have refused your request.

4. **Right to restrict the processing of your Personal Data**

   You have the right to restrict the processing of your personal data. This means that

under certain conditions you can limit the way we process and use your personal data. The right to restrict the processing may in particular be exercised if you have issues with the content of the personal data we hold or how it is processed, e.g. if you contest the accuracy of the personal data we hold and we are verifying the accuracy of the data, the processing may be restricted for the time of verification.

5. **Right to withdraw Consent to process your Personal Data**

   Where consent is the legal basis for the processing of your personal data, you have the right to withdraw your consent at any time. However, withdrawal of consent takes typically effect for the future only. Any past processing of personal data that was legitimately based on consent may be subject to other provisions or obligations that require and legitimize further processing of the personal data.

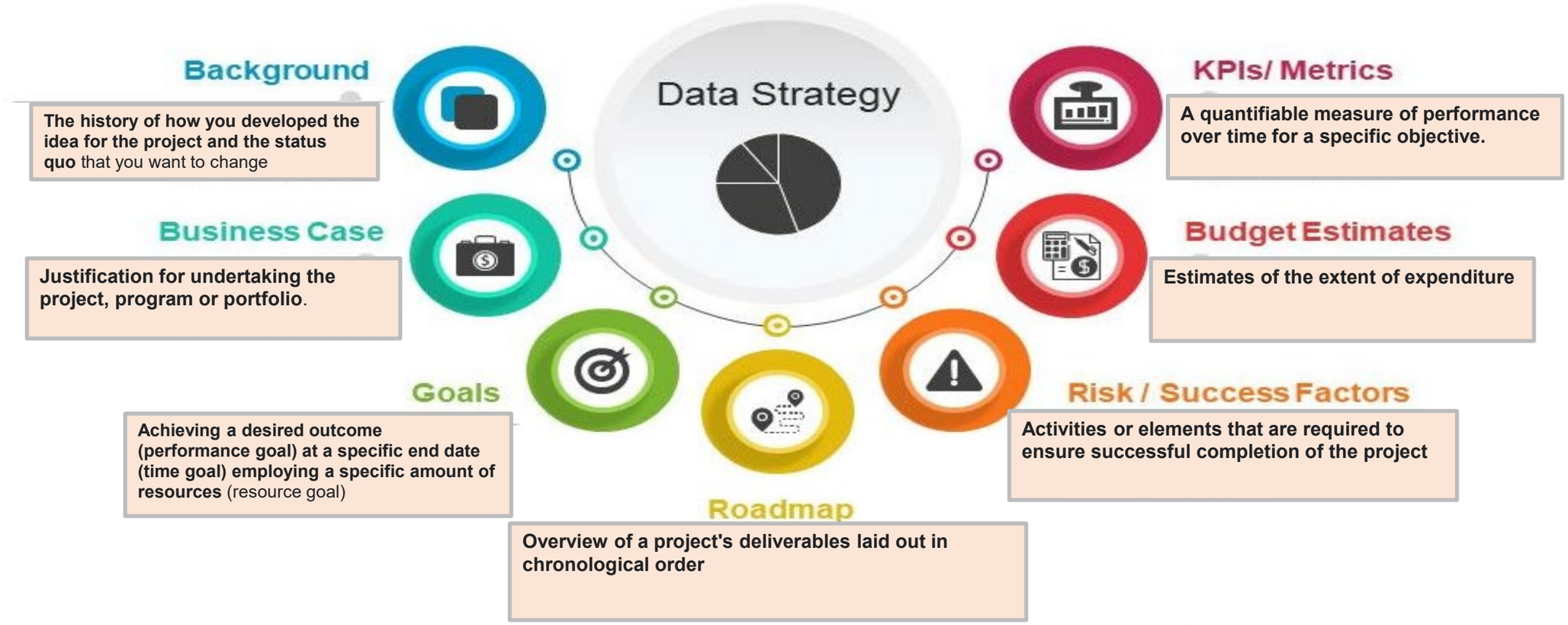
**Data Controller and Responsibility**

Unless indicated otherwise, the CCP entity that collected your personal information is the Data Controller of your personal data. It determines the purposes and means for processing your personal data and is responsible for compliance with applicable data protection laws and regulations and the requirements of this Policy.

**Amendments to this Policy**

We reserve the right to amend this Policy at any time.

# COMMUNITY COLLEGE OF PHILADELPHIA | Project Metrics




**A data driven strategy translates high-level strategic objectives into measurable goals.**
These goals are the leading indicators of business performance
They also serve as an intermediate step between the sometimes-esoteric objectives (management speak) and the well-understood action plans and personal performance objectives (employee speak).

**1. How will we align our entire organization with our strategy?**

**2. Do our data assets reflect what is crucial to our strategy?**

**3. How will we leverage our data to accurately predict future business outcomes?**

We define strategic objectives for how we want to delight our customers. We then identify the process changes required to achieve those objectives. Then, we determine the organizational structures, people, skills, systems, data, and culture needed to implement those processes.

When we state objectives like the ones in the list below, they may have a profound impact on our employees, but individuals are left wondering how to achieve these high-level outcomes.
Be recognized as effective service provider

Establish processes that ensure quality
Build a culture of change readiness

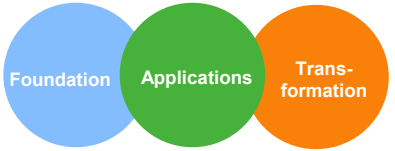
We translate our strategic objectives into one or more measures. Some readers may know these as SMART goals (Specific, Measurable, Attainable, Relevant, and Time-boxed).

Improve applications reliability and availability by 10%

Deliver our services 15% faster
Increase ITS brand favorability by 10%
Improve customer satisfaction by 5% while reducing the cost of customer service by 4%

| METRICS | OVERVIEW |
|---|---|
| Enhance Integration | Making it easier for Users to work with all IT Systems |
| Enable Innovation | A systemactic approach or method to increase functionality and improve processes. |
| Information Security Scores | Vulnerability assessment that support the organization's security needs. |
| I.T Risk Score | Determining internal and external risk levels. |
| Process Errors | Results of processing results arising from faulty implementation or execution of a system. |
| Effective Resource Utilization | The utilization of time availability to effectively complete the project |
| Security Management Rate | The measure of the organization assets that will be needed to develop, document, and implement system policies and procedures. |
| Increase Service Productivity | The purpose of service production as outputs of internal efficiency |
| Capability Rate | A class of metrics that are used to measure the technical capabilities of business entities such as processes, products, and software. |
| Budget Overhead | The expected costs that will be needed to cover the implementation of new applications |
| KPI's | Key Performance Indicators |
| User Friendliness | Is the system simple for people to use |
| Accessibility | Is the system approachable and available for everyone involved in the day to day operations. |
| I.T Security Training | The implementation of security and strategies that will be used to reduce or prevent  user risk and security breaches. |
| Overall quality | System mechanisms that allow for organization responsiveness and continual improvement |
| System Maintainability | Constant system improvements, updates , and repair that will be required for operation. |
| Reduce Meantime between failures | Metrics for Uptime and Downtime |
| Service Cost | Return on investment and Total Cost of Ownership |
| Testability | Software testing that support user acceptance and functions that are needed to cover organizational needs. |
| Save Money | |
| Increase Usability | |
| Enhance Buisness Process | |
| Increase Process flexibility & adaptability | Enabling meaningful change |
| Increase in Staff, Faculty, & Student Productivity | Adapting to technology in the areas in education to allow students, staff, and faculty to increase computer and technology skills. |
| Automation, Standardization & Consolidation | |
| Streamlining of Day-to-Day Operations | |

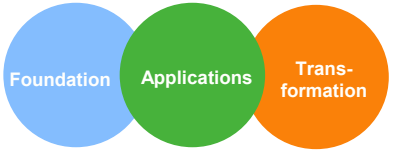
# Projects




# Technology Projects

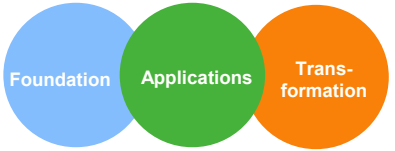
The matrix below shows the alignment of IT projects with the College's Strategic Goals and the Six areas of focus. These projects and initiatives are dynamic and accumulative, existing technology continually evolves to the next level of service, support, and functionality. The planned future projects are as follows:

| College Strategic Goal | Pillars | Description | Lead Department | Level of Effort | Priority | Fiscal Year |
|---|---|---|---|---|---|---|
| 1 | 1,4 | Deploy Hyper converged infrastructure (HCI) to reduce data center complexity and increase scalability by using virtualization software to abstract and pool underlying resources, then dynamically allocate them. (Compute, Storage, Management, & Networking delivered As-a-Service). | ITS | 3-Small | 1-High | 2022 |
| 1 | 1,4 | Replace End-of-Life Data Center Core and Edge Switches. | ITS | 3-Small | 1-High | 2022 |
| 1 | 4 | Migration of Phone Switch from legacy Nortel System to Avaya or Cloud Phone System. | ITS | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 1,4 | Virtualization of servers and desktops in computer labs. Build labs that run in the cloud **or** in a virtualized environment. | ITS | 2-Medium | 2-Medium | 2022-2023 |



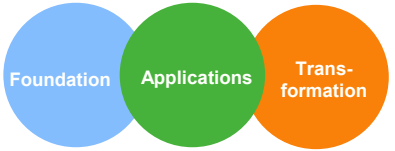

# Technology Projects – (page 2)

| College Strategic Goal | Pillars | Description | Lead Department | Level of Effort | Priority | Fiscal Year |
|---|---|---|---|---|---|---|
| 1,2 | 1,5,6 | Data Driven Decision Making – Enrollment Optimization, Admissions Tracking, & Academic Advising (Tableau). | OSRR, IE, ITS | 2-Medium | 1-High | 2022 |
| 1,2 | 4 | Explore the use of College-issued cards to serve identification, provide physical access, permit payments, and automate attendance taking. (Digital ID's on smartphones). | ITS, Bursar, | 3-Small | 1-High | 2022-2023 |
| 1,2 | 4,5 | DocuSign - Paperless and automation of workflow and processes College wide (ex. FLOAT, Institutional Advancement, etc.) | ITS, IE, IA, | 2-Medium | 2-Medium | 2022 |
| 1 | 1 | Implement New Student Checklist using Banner Self-Service. | ITS, ESS | 1-Small | 1-High | 2022 |
| 1 | 4 | Expand, improve, and provide redundancy for Data Center to serve for at least the next five years. | ITS | 2-Medium | 1-High | 2022 |
| 1 | 4 | Implement Kronos time tracking system. eTime & Labor. | ITS, HR/Payroll, Controller | 2-Medium | 1-High | 2022 |
| 1,2 | 1,4,6 | Explore ways to enhance Degree Works to provide better student goals and progress towards achieving them. (Academic Pathways). | OSRR and IR/IE | 2-Medium | 2-Medium | 2022-2023 |




# Technology Projects – (page 3)

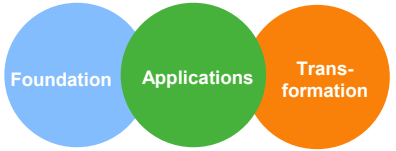
| College Strategic Goal | Pillars | Description | Lead Department | Level of Effort | Priority | Fiscal Year |
|---|---|---|---|---|---|---|
| 1 | 1,4 | Apply security controls between virtual machines, applications, and data storages to minimize vulnerability against data breach and cyber attacks. | ITS | 3-Small | 1-High | 2022 |
| 1,2 | 1,4 | Update current digital signage system to an up-to-date, web based, and central management system. | MMS, ITS | 3-Small | 2-Medium | 2022-2023 |
| 1,2 | 1,4 | Explore how to improve teaching and learning experiences, fulfill current pedagogical expectations, and make classrooms more dynamic and interactive. | FLOAT, MMS | 2-Medium | 1-High | 2022-2023 |
| 1,2,3 | 1 | Coordinated team of staff and vendors in a multi-campus, year-long project to produce an online catalog. | ITS, A&SS, Special Events, MMS, WEI | 2-Medium | 1-High | 2022 |
| 1,2,3 | 1,2,4 | Hybrid Data Management (Structured and Unstructured Data - Collect, Organize & Analyze). Implement Cloud based Data Lakes to enable evidence based and data driven predictive decision making. Big Data Analytics & Data Lakes. | ITS, IE, IR | 1-Large | 1-High | 2022-2023 |




# Technology Projects – (page 4)

| College Strategic Goal | Pillars | Description | Lead Dept. | Level of Effort | Priority | Fiscal Year |
|---|---|---|---|---|---|---|
| 1,2 | 1,4 | Automate the data feeds to SWN (Send Word Now) to facilitate consistency and real time updates. | ITS | 3-Small | 1-High | 2022 |
| 1 | 1 | Implement Banner Self-Service Forms to replace current student intake survey that is handled by Qualtrics application. | ITS and ESS | 3-Small | 1-High | 2022 |
| 2 | 4 | Fully implement 25Live to include all Users of the College. Campus-wide room scheduling capability & even t mgmt. | ITS, A&SS, Special Events, MMS, WEI | 3-Small | 1-High | 2022-2023 |
| 1,2,3 | 4,5 | Implement all modules of Elliucian Analytics for all key areas including HR, Finance, Enrollment, etc. | ITS | 2-Medium | 2-Medium | 2022-2023 |
| 1 | 1 | Implement Electronic Transcript Exchange with Temple Univ. | ITS, OSRR, EMS | 3-Small | 2-Medium | 2022-2023 |
| 2 | 1 | Implement the newly redesigned Drop-for-Non-Payment Process. | ITS, Financial Aid, OSRR, A&SS | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 4 | Re-engineer business processes (the analysis and design of workflows and processes within and between departments). Redefine services and redevelop operational processes. | ALL Depts. | 1-Large | 1-High | 2023 |

# Technology Projects – (page 5)




| College Strategic Goal | Pillars | Description | Lead Dept. | Level of Effort | Priority | Fiscal Year |
|---|---|---|---|---|---|---|
| 1,2 | 1 | Implement CPOS (Course Program of Study) – Leveraging Banner Student, Financial Aid and Degree Works to allow financial aid to pay for only courses that exist in a student's degree path. | ITS, Financial Aid, OSRR, Academic & Student Success | 2-Medium | 2-Medium | 2022-2023 |
| 1,2 | 1,3,4,5 | Explore the possibility of a new CRM and Cloud ERP/SIS System to augment or replace current Ellucian Banner System. | B&F, Academic & Student Success | 1-Large | 2-Medium | 2024-2025 |
| 1,2,3 | 1,3,4,6 | ***People Centricity – Internet of Behaviors – How student's interact with CCP. Total experience strategy. Capturing the Digital Dust.*** | B&F, Academic & Student Success | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,3,4 | ***IoT – Internet of Things & AI Engineering.*** | ITS | 1-Large | 3-Low | 2024-2025 |
| 1,2,3 | 1,4,6 | ***Broadening IT Automation and Enhancing the Student Experience*** | ITS | 1-Large | 3-Low | 2025 |

# ATTACHMENT B

## Three Year Capital Budget Plan

| Community College of Philadelphia | | | |
|---|---|---|---|
| **Multi-Year Capital Plan** | | | |
| **Fiscal Year 2022-2024** | | | |
| | | | |
| **Source of Funds** | | **Revenues** | |
| Maintenance Fund | | $ 8,977,890 | 50.6% |
| Plant Fund | | 4,742,131 | 26.7% |
| 3 Years from City Appropriation (FY22, FY23,24) | | 1,500,000 | 8.5% |
| 3 Years of Capital Fees (FY22, FY23, FY24) | | 1,230,000 | 6.9% |
| Main Garage Maintenance Funds | | 984,526 | 5.5% |
| Foundation Support | | 315,000 | 1.8% |
| | | **$ 17,749,547** | **100%** |
| | | | |
| **Use of Funds** | | **Capital Expenses** | |
| Facility Projects | | $ 15,980,110 | 90.0% |
| FF&E Purchases | | 1,322,605 | 7.5% |
| Divisional Priorities | | 446,832 | 2.5% |
| | | **$ 17,749,547** | **100%** |
| | | | |
| | | | |
| **Capital Budget Roll Forward** | | | |
| | | | |
| Approved Spending as per 2021-2023 Capital Plan | | 14,533,762 | |
| Less: Completed Projects 2021 | | 3,761,195 | |
| Projects charged to HEERF/ CATTO-completed | | 1,818,257 | |
| Carry Over Projects 2022-2024 Capital Plan | | 8,954,310 | |
| Changes to projects/spending on carry over projects | | 3,276,347 | |
| New Projects | | 5,518,890 | |
| 2022-24 Capital Plan | | **$ 17,749,547** | |
| | | | |
| **Library & Learning Commons** | | **$17,900,000** | |
| | | | |
| **Career and Advanced Technology Center** | | **$33,500,000** | |
| | | | |
| **Return to Campus Projects (Not Capital Spending)** | | | |
| Duct Cleaning | | $1,952,500 | |
| Air Flow Testing and Repair | | 500,000 | |
| Acrylic Dividers | | 260,000 | |
| Total | | $2,712,500 | |

| Community College of Philadelphia | | | | | |
|---|---|---|---|---|---|
| **Multi-Year Capital Plan** | | | | | |
| **Fiscal Year 2022-2024** | | | | | |
| | **Source of Funds** | **Revenues** | **Comments** | | |
| | Maintenance Fund | 8,977,890 | | | |
| | Plant Fund | 4,742,131 | | | |
| | Main Garage Maintenance Funds | 984,526 | | | |
| | 3 Years from City Appropriation (FY22, FY23,24) | 1,500,000 | | | |
| | 3 Years of Capital Fees (FY22, FY23, FY24) | 1,230,000 | | | |
| | Foundation support | 315,000 | | | |
| | **Total Source of Funds** | **17,749,547** | | | |
| **Building** | **FACILITY PROJECTS** | **Uses of Funds** | | **C/O or New** | **Priority** |
| NWRC, & WRC, Winnet | Roof Replacements | 2,400,000 | NWRC, & WRC, Winnet | C/O from Desig | High |
| Main | Electrical Upgrade | 1,000,000 | 3 Generators, lighting, Building Automation | C/O | High |
| Bonnell | Automation for Basement Chilled Water Pumps 9-12 | 15,000 | Automation | | High |
| Bonnell | Cooling Tower Dunnage & Piping | 565,000 | | C/O | High |
| Mint/Bonnell | Replace Atrium Skylights - Mint/Bonnell | 1,200,000 | 1/2 from College- (RACP funding) | New | High |
| Mint | Mint Building Front Doors | 270,000 | RFP issued | C/O | High |
| Mint | Replace Hot Water / Heat Exchanger System (MG-35) | 316,400 | Scope of work for RFP | C/O | High |
| Mint/Bonnell | Fire Safety Enhancements in data closets | 200,000 | SOW to be developed by IT Specialist/Sneider | C/O | High |
| NERC | NERC Classroom Conversion - 3 GP to 2 PC with Furniture | 145,000 | | C/O | Medium |
| NERC | Reconfiguration of Medical Assistant Lab Space (NERC 203) | 75,000 | New from A&SS Initiatives; In-house project | C/O | Medium |
| NWRC | NWRC Repairs to the Non-Load bearing wall | 100,000 | | C/O | High |
| NWRC | Heat Pumps Condensate Piping Repairs - NWRC | 94,100 | | C/O | High |
| West | Create a Simulation / Skills Lab for Nursing & Allied Health | 300,000 | from FY20 A&SS Initiatives ; | C/O | Medium |
| West | Physics Lab | 313,500 | 1/2 of $625000 | C/O | High |
| West | Renovation of Respiratory Care Lab Space (W2-36) | 20,000 | | C/O | Medium |
| Winnet | Great Hall Renovation | 450,000 | Update flooring, panels, blinds, lighting and painting | C/O | High |
| | Main garage -Phase IV & V | 721,000 | | C/O | High |
| | Café in Mint Building | 1,250,000 | | C/O | High |
| Bonnell | Chiller #3 Replacement | 1,300,000 | | C/O | Medium |

| | | | | | |
|---|---|---|---|---|---|
| **Community College of Philadelphia** | | | | | |
| **Multi-Year Capital Plan** | | | | | |
| **Fiscal Year 2022-2024** | | | | | |
| Facilities | Air Compressor, SLIB and Gymheating system pumps, Valve with backflow preventer, NWRC 2nd Boiler update, CBI Elevator rebuild | 293,890 | Replace 2 out of 4 Air compressors, replacing 2 out 6 aged heating system pumps(SLIB & Gym), 16th street valve, convert Boiler to natural gas, and CBI Garage elevator rebuild | New | High |
| Facilities | Replace sprinklers head College Wide | 1,900,000 | | New | High |
| Facilities | Replacing Gym Floor/Water Infiltration | 1,000,000 | | New | High |
| Bonnell | Bath rooms renovation | 125,000 | | New | High |
| | Façade -Building Envelope and Site Repairs | 350,000 | Resurface pitted aluminum frames, fix uneven steps, clean gutters | New | High |
| | Old Cafeteria renovation to single stop office space | 650,000 | 1/2 RACP funding | New | High |
| | FCTL, Cooling Tower, Music Area, Piano Lab etc. | 926,220 | Spending on 2021 ongoing Projects | C/O | High |
| | | | | | |
| | **Subtotal Facility Projects** | **15,980,110** | | | |
| | | | | | |
| | **FURNITURE, FIXTURES & EQUIPMENT PURCHASES** | | | | |
| | NERC Labs Chairs (78) | 31,100 | Per ND 9/21/2020 email | C/O | Medium |
| | NWRC Carpet Replacement | 63,400 | | C/O | Medium |
| | Replacement of Classroom Tablet Armchairs | 360,000 | | C/O | High |
| | Learning Library Furniture | 834,000 | All FF&E reqs generated except for gallery and maker space | C/O | High |
| | Interior Wayfinding Signage | 34,105 | Spending on 21 on-going projects | C/O | High |
| | Subtotal Furniture, Fixtures & Equipment Purchases | 1,322,605 | | | |
| | | | | | |
| | **DIVISIONAL PRIORITIES** | | | | |
| | Math, Science & Health Careers | 34,332 | Lab Equipment | C/O | High |
| | Workforce & Economic Innovation | 412,500 | Incubators,Consolidation of 10KSB within CBI | New | Medium |
| | **Subtotal Divisional Priorities** | 446,832 | | | |
| | | | | | |
| | **TOTAL** | **17,749,547** | | | |

# ATTACHMENT C

## Ernest Bock & Sons, Inc.
## Change Order One for the Career & Advanced Technology Center Project

Breakdown:

| | |
|---|---|
| Unforeseen concrete and asbestos pipe during excavation | $16,109.00 |
| Multiple unforeseen conditions during demolition | $37,705.00 |
| Sanitary tie in location documented improperly | $30,226.00 |
| Credit - Stair #2 - Railing Change | ($4,950.00) |
| Credit - Dumpster Enclosure Railing Change | ($4,677.00) |
| Intumescent Fireproofing Additions | $45,428.00 |
| Added Steel - RFI# 95, 99, 101 & 102 | $42,055.00 |
| Bulletin #5 - Glass Marker Boards & Blocking for Cleartouch | $44,343.00 |
| | Total: $206,239.00 |