Post COVID-19 Innovation Task Forces – Executive Summary

Overview

Adaptations and innovations have been hallmarks of NC State faculty and staff as the university responded to the global COVID-19 pandemic over the last 18 months. By implementing numerous adaptations, our university community ensured the continuity of instruction, research, administration and operations.

In March 2021, Chancellor Woodson charged a Post COVID-19 Innovation Task Force Steering Committee to identify major innovations realized during NC State's response to the pandemic, and to explore how best to engage the university in a thoughtful evaluation of potential post COVID-19 applications in the best interest of university effectiveness.

Steering Committee

The Post COVID-19 Innovation Task Force Steering Committee consisted of five Cabinet members representing academic, research, administrative and operations areas: Warwick A. Arden, Executive Vice Chancellor and Provost, Marc I. Hoit, Vice Chancellor, Information Technology and CIO, Charles A. Maimone, Vice Chancellor, Finance and Administration, Doneka R. Scott, Vice Chancellor and Dean, Academic and Student Affairs, and Mladen A. Vouk, Vice Chancellor, Research and Innovation.

The steering committee proposed an initial framework of four Post COVID-19 Innovation Task Forces to 1) examine innovations and adaptations implemented in response to the COVID-19 pandemic, and 2) identify potential adaptations at the university level which may hold potential for improving university effectiveness within our academic, research, administrative and operations areas. This proposed initial framework was submitted to the chancellor and approved in early April 2021.

Task Forces

In late April 2021, the steering committee established the four Post COVID-19 Innovation Task Forces. The task forces and their focus areas are:

- **Instruction and Student Support** – Leveraging technology to expand academic offerings, opportunities and experiences.
- **Research** – Supporting laboratory and other research operations including physical space, funding and employee well-being.
- **How We Work** – Flexible work arrangements and optimization of university space.
- **Digital Transformation** – Where feasible and advantageous to the university, digitizing processes such as cashless point-of-sale, paperless processing, electronic payments and funds receipts.

For each task force, the steering committee articulated guiding principles, defined goals and scope, assigned co-chairs, and served as advisers. Co-chairs staffed task forces with faculty and staff representation, and worked to ensure broad, diverse and inclusive participation.

The steering committee set an August 2 due date for task force reports, an intentionally quick and focused time period of roughly three months, to take advantage of the summer as faculty, students and staff anticipated transitioning back to campus in the fall.

The steering committee recognized that some task force proposals would hold potential for immediate, near-term implementation while other proposals would require alignment and integration with NC State's new 2021-30 strategic plan, Wolfpack 2030: Powering the Extraordinary. The steering committee and university leaders are taking time to thoroughly review task force recommendations and construct a detailed plan on how to move forward with next steps.

Conclusion

Each of the four task forces quickly established membership, identified focus areas, examined innovations and adaptations implemented in response to the COVID-19 pandemic, and drafted proposals to improve university effectiveness. Four task force reports were submitted to the steering committee by August 2 for review and forwarded to Chancellor Woodson.

In the August 2 reports, the task forces proposed a number of actions and recommendations, including policy changes, new procedures and/or guidelines, new technology and new training designed to increase university effectiveness. These reports, along with feedback from the university community, will be shared with the strategic planning effort for possible inclusion in the implementation plan.

A few initiatives adopted during the COVID-19 pandemic were immediately embraced, and upon leadership and stakeholder approval will remain. Some concepts, as advocated by the task forces, require further input and vetting by faculty, staff and students; some ideas require alignment and integration with the new strategic plan.

The steering committee will continue to champion and advance task force proposals via appropriate channels such as disseminating reports to key stakeholders for feedback and discussion and/or advancing proposals to the strategic planning effort.

The steering committee wishes to sincerely thank the eight task force co-chairs and more than 40 task force members for their vision, leadership, discernment and effort on this initiative over the past three to four months.

An executive summary of each task force's scope, goals, approach and recommendations is provided below. The university community is invited to review and provide feedback on the task force recommendations as they are considered for implementation in alignment with the university's strategic plan.

To learn more about the task forces, view detailed task force reports and provide feedback, please click here.

If you have general feedback not related to a specific report, please email strategic-planning@ncsu.edu.

Task Force Scope, Goals, Approach and Recommendations

Instruction and Student Support Task Force

Adviser:
- Doneka Scott, Vice Chancellor and Dean, Academic and Student Affairs

Co-Chairs:
- Charles Clift*, University Registrar, Registration and Records
- Donna Petherbridge, Associate Vice Provost, Academic Technology Innovation, DELTA

   *Charles Clift assumed co-chair role upon the retirement of Louis Hunt on July 1, 2021.

Scope:
- Leveraging technology to expand academic offerings, opportunities and experiences.

Goals:
- Assess the novel, pandemic-related changes implemented to support and expand access for our students, and identify best practices that should be continued.
- Enhance student learning by leveraging the increased experience and comfort level of the faculty in the use of technology for teaching and learning to continue and improve upon online teaching modalities that benefit students and improve learning outcomes.
- Make more recorded content available on demand, which is highly desired by students, and leverages the university's investment in lecture capture technology (Care will need to be taken to protect faculty and student intellectual property and privacy.)
- Continue, where advantageous, the "hyflex" model of course offerings where classes are offered simultaneously online and face to face, giving students the flexibility to choose modalities that work best for them, including increased summer online offerings that are highly desired by students.
- With increased faculty expertise in the use of learning technologies to accelerate the digital transformation of higher education at NC State, provide an instructional framework that combines the most effective technology enhanced learning and in-person experiential learning.
- Address inequities in student and faculty access to appropriate technology and internet access.

Approach:
The Instruction and Student Support Task Force assessed ways that novel, pandemic-related changes in academic practices and policies could be embraced to enhance student learning, provide flexibility for students, assist faculty in more effectively using technology, and address inequities in student and faculty access to technology.

Recommendations:
The task force focused on five key areas of instructional and student support where opportunities for adopting and adapting practices and policies were helpful to both students and faculty during the pandemic in order to support student success. The task force views these as a start to conversation, rather than "must do now" recommendations.

- **Invest in technology.**
  - Leverage existing investments in academic enterprise technologies to support teaching and learning.
  - Ensure that faculty and students have equitable access to the technology they need to be successful.

- **Implement teaching and learning with technology practices.**
  - Prioritize the importance of teaching (pandemic or not), creating a technology training class (Tech 101) for both students and instructors, expanding just-in-time pedagogical support services, providing more digital/open resources to reduce student costs, providing templates for communication, and encouraging instructors to follow a range of best instructional practices that support student learning.

- **Promote student support practices**.
  - Adopt standard, universitywide practices for supporting students, a shared understanding of how to support our students, enhancing the student support network, and increasing the accessibility of student support services.

- **Support varied course delivery options**.
  - Define terms with matching course designations so it is clear to students what type of course they are taking and when those course meetings will be held.
  - Create guidelines on how decisions are made regarding the types of course offerings available, and expand flexible offerings in the non-credit and extracurricular parts of the university.

- **Revisit policies that can impact student success**.
  - Create a mechanism for reviewing academic policies and related procedures with equity and student success as guiding principles.
  - Identify specific policies and procedures that have been suggested for such a review.

Research Task Force

Adviser:
- Mladen Vouk, Vice Chancellor, Research and Innovation

Co-Chairs:
- Genevieve Garland, Assistant Vice Chancellor, Research Operations and Communications and Chief of Staff for Research and Innovation
- Alyson Wilson, Associate Vice Chancellor, National Security and Special Research Initiatives

Scope:
- Supporting laboratory and other research operations including physical space, funding and employee well-being.

Goals:
- Support laboratory and research operations such as physical space, funding and employee well-being within new work environments and safety protocol.
- Actively support non-laboratory based research activities.
- Support researchers who were negatively impacted or may have stalled over the past year due to COVID-19, in terms of lost funding, adverse impact from work/life balance concerns, and other access restrictions to physical lab and research space.
- Continue to invest in research and research enterprise growth and take advantage of upsurges in COVID-19 and other new funding opportunities (e.g., AI, data science, plant sciences, climate, health, different engineering domains, digital agriculture, quantum computing, etc.).
- Actively increase interactions with industry and other diverse sponsors.

Approach:
The Research Task Force took a broad view of the research enterprise at NC State and focused its work around three themes: 1) people, 2) innovation, and 3) infrastructure and process. For people, we considered issues of recruitment, promotion, retention and establishing collaborations; for innovation, we focused on interdisciplinary research and developing and sustaining large initiatives; for infrastructure and process, we focused on reimagining core facilities and space utilization and sharing. For each recommendation, we developed strategies and identified which strategies can be implemented in the short term and which strategies will require more long-term focus, working with the Office of Research and Innovation and the research advisory committees.

Recommendations:
- **Improve recruitment and retention of research administrators, research staff and graduate students.**
  - Develop a research administration career path.
  - Review, define and create recommendations around the available career paths, and bridge funding options for all non-faculty research staff.
  - Include all – or part of – student fees in the cost of tuition to increase potential recruiting and retention of graduate students.

- **Create collaborative communities that engage with local, national and international research.**
    - Develop a universitywide visiting scholars program to bring diverse voices and prominent scholars to campus.
    - Expand infrastructure for visiting scholars, to include a streamlined process for initiating visits, space to host visiting scholars and competitive funding to support visiting scholars.
    - Provide operational and logistical support for organizing and hosting workshops and conferences on campus, particularly those that will have international participants.
    - Create a universitywide program to support travel to international conferences and collaboration opportunities.
    - Broaden engagement with local communities.
    - Expand networking events to catalyze connections among faculty.

- **Prepare, launch, and sustain large research initiatives.**
    - Expand the identification of upcoming funding opportunities and creation of teams ready to respond.
    - Train a cadre of faculty and staff leaders in team science to lead large initiatives.
    - Establish a launch team for large new initiatives that is knowledgeable of all aspects of initiative management (e.g., sponsored programs, project management, financial management, hiring, space).
    - Define best-practice models/mechanisms for the sustainment of centers, institutes and academies (large initiatives).
    - Provide shared tools, administration and services for large initiatives in the areas of training, team development, proposal preparation, pre-award, post-award management and sustainability (e.g., centralized services for initiatives for post-award management and development of sustainability plans).

- **Facilitate interdisciplinary research through university structures, processes and spaces.**
    - Train a cadre of Interdisciplinary Faculty Fellows.
    - Develop a "Faculty Success Center" as a hub for faculty resources, such as manuscript/grant editing, shared workspaces for interdisciplinary teams and workshop space for professional development seminars to increase faculty success in securing external funding.
    - Examine university processes for how centers, institutes and academies (large interdisciplinary initiatives) are funded.
    - Examine how teaching credit is provided for cross-department or institute/ academy-based courses.
    - Examine models for large-scale interdisciplinary programs.

- **Reimagine research core facilities and services.**
    - Expand the concept of core facilities beyond lab-based equipment to include core research services to better meet future research and scholarship needs across the university.
    - Define a process to strategically identify new cores and services to meet current and future research and scholarship needs.
    - Review peer institutions' funding models and develop flexible funding models for the establishment of cores that lead to sustainability.

- ○ Develop standard operating procedures and best practices for the development of new core facilities and services.

- **Reimagine research spaces.**
  - ○ Document lessons learned about research space utilization from the pandemic and identify what practices should continue. The lessons learned may differ for laboratory, non-laboratory, clinical, community-based and partner-based research.
  - ○ Develop guidelines and best practices for managing shared research spaces, both laboratory and non-laboratory.
  - ○ Pilot innovative models for sharing spaces, staff and resources for research.
  - ○ Identify and develop tools to help manage shared and virtual spaces.

NC STATE UNIVERSITY

How We Work Task Force

Adviser:
- Charles Maimone, Vice Chancellor, Finance and Administration

Co-Chairs:
- Ursula Hairston*, Assistant Vice Chancellor for HR Strategy, University Human Resources
- Lisa Johnson, University Architect, Office of the University Architect

  *Ursula Hairston assumed co-chair role upon the departure of Marie Williams on June 22, 2021.

Scope:
- Flexible work arrangements and optimization of university space.

Goals:
- Flexible work arrangements to support the university's mission and commitment to recruit and retain a diverse and talented workforce.
- Foster a highly engaged and productive work environment that values employee well-being and work-life balance. Ensure the university maintains its community culture and best place to work environment.
- Reimagine university space to the highest and best use as a university resource which must be stewarded.

Approach:
The How We Work Task Force sought to improve university effectiveness in employee and student workforce recruitment, retention and engagement; and provide employees with a highly productive and equitable work environment while promoting efficient use of university resources.

Recommendations:
- **Commit funding, staffing and leadership to support healthy work environment initiatives and professional mobility.**
  - Revise internal practices to reduce structural impediments to internal promotions. Increase succession planning and career progression opportunities.
  - Expand NC State's network of mental health programs and services.
  - Create workplace opportunities that empower employees to develop advanced skills, aligned with university and unit needs.
  - Adopt best practices in design for sustainable, healthy (working) environments to support in-person instruction, work and living needs. Ensure the Physical Master Plan includes key design elements that impact employee well-being and productivity.

- **Systematically and intentionally promote diversity and inclusion for all faculty, staff and students.**
  - Develop equity-focused policies and accountability (and systematically review) by participating in the American Association for the Advancement of Science STEMM (science, technology, engineering, math and medicine) Equity Achievement (AAAS SEA) program.

- ○ Reconceptualize diversity and inclusion as a prerequisite for good decision making.
- ○ Be diligent and innovative in efforts to provide access, promote retention and enhance the success of all NC State students, faculty and staff.

- **Implement more flexible work strategies (including scheduling, work locations and other options) while ensuring continuity of university programs and services.**
  - ○ Support approval of a university flexible work regulation and other forms of alternative work assignments to increase agility of flexible work schedules and alternative work locations. *(Update: Cabinet adopted a flexible work regulation for NC State - fall 2021).*
  - ○ Create operational guidelines for managers and supervisors to assign consistent and equitable flexible work arrangements.
  - ○ Integrate technology to maximize productivity and resource efficiency. Examples include virtual meeting platforms and shared resources such as Zoom, Google Meets, MS Teams, etc.

- **Create a future-focused work environment to attract and retain top talent while reducing operating costs, optimizing space and improving employee productivity and experience.**
  - ○ Create a supportive campus environment where indoor and outdoor spaces are designed, built and renovated with health, productivity, equity and social connection in mind.
  - ○ In support of the new Physical Master Plan,
    - – Perform a campuswide interior space analysis to improve space utilization.
    - – Provide an analysis of campus exterior spaces and recommend opportunities to enhance functionality and flexibility.
  - ○ Analyze new workplace strategies when developing new space guidelines.

Digital Transformation Task Force

Advisers:
- Marc Hoit, Vice Chancellor, Information Technology and Chief Information Officer
- Charles Maimone, Vice Chancellor, Finance and Administration

Co-Chairs:
- Gwen Hazlehurst, Assistant Vice Chancellor, Enterprise Application Services
- Mary Peloquin-Dodd, Associate Vice Chancellor, Finance, and University Treasurer

Scope:
- Where feasible and advantageous to the university, digitizing processes such as cashless point-of-sale, paperless processing, electronic payments and funds receipts.

Goals:
- Take advantage of digital transformation activities and lessons learned that were implemented during the past year due to the COVID-19 pandemic, and leverage these temporary technical adaptations into permanent work structures, processes, policies and employee flexibility.
- Potential examples include cashless point-of-sale, paperless processing, electronic payments and funds receipts.

Approach:
The Digital Transformation Task Force sought to examine innovations during the COVID-19 pandemic that led to the further digitization, and thus the efficiency and effectiveness, of work and learning at the university. Through in-depth research and discussions, the task force made a series of recommendations that will help strengthen colleges, units, groups and individuals across the university, and the university as a whole.

Recommendations:
- **Embrace virtual meetings.**
  - Retain virtual meetings as an effective part of NC State workplace culture, with a team charged to develop standards and guidelines for different types of meetings (virtual vs. hybrid vs. in-person) with regard to audio/video equipment configurations, software recommendations, room configurations, scheduling and etiquette.

- **Strive for paperless offices through the use of digital forms, signatures and files.**
  - The university should investigate various digital form and signature tools; develop recommendations for solutions for various situations; negotiate contracts at an enterprise level; provide training for recommended solutions; establish standards for university-sanctioned formatting, branding, accessibility support, etc.; and develop central expertise and training to assist the campus users.
  - Vice Chancellors Maimone and Hoit should continue to support the implementation of the ePerformance Management module within the HR system which will support fully digital performance appraisals and work plans.
  - Investigate where leveraging technologies such as Google Shared Drives and OnBase more broadly would be cost-effective.

- Expand other initiatives that reduce dependence on paper such as converting publication subscriptions from hardcopy to digital versions and providing secure file upload capabilities (using ShareBase).
- Provide appropriate training (particularly video-based) in order to effectively adopt new or expanded digital processes/tools such as collaboration software (e.g. the Google suite).

- **Leverage electronic collaboration and coordination tools.**
  - Investigate the best approach to ensuring that campus users are aware of collaboration tools that already exist on campus (particularly those available at no additional cost) and become proficient in their use of these tools.

- **Minimize cash collections on campus.**
  - The University Cashier's Office is interested in moving the campus away from cash collections. NC State should work to move further toward this goal, while distinguishing between on-campus and off-campus customers. It will be easier to stop collecting cash at points on campus (academic units and colleges, for example) that are open primarily to internal customers, but continue to allow cash collections for the largest enterprises serving the public (NC State Veterinary Hospital, NC State Athletics, etc.).

- **Increase mobile payment processing.**
  - Recognizing that there are concerns about being able to accept credit card payments without significant compliance risks, explore the increased use of Bluefin technology with OIT supported laptops and the use of digital wallets and prepaid card technology. Ideally, Bluefin technology could be used in conjunction with OIT managed desktop technology to provide mobile payment processing capabilities while avoiding the challenges associated with PCI compliance (especially for Cooperative Extension Offices) and the costs of wireless devices to serve locations off campus. Digital wallets could be easily used for travel from the Pcard, and prepaid card technology can be used to reimburse research subjects.

- **Enable effective digital transformations across the enterprise.**
  - Create teams to evaluate and recommend critical tools that enable digital transformation. Recommendations should include tiers of solutions where appropriate.
  - Develop infrastructure, policies, and resources (using central funding where appropriate) that are critical to enabling digital transformations across the enterprise. This should be coordinated with groups such as the Strategic IT Committee as necessary.
  - Develop guidance (to be included as part of the IT Purchase Compliance process) for digital tool purchases covering topics such as: where practical and cost-effective, leveraging solutions which have already been approved for use on campus; selecting collaborative solutions where possible; and ensuring that selected solutions provide support for required data security.
  - Establish an ongoing virtual Digital Transformation Center of Expertise led by a Digital Transformation Ambassador/Coordinator. The center and coordinator would work across campus units to develop high level digital transformation plans and coordinate cross-team activities as appropriate; make

recommendations regarding where enterprise digital solutions should be provided; oversee the creation of a digital transformation information and resources website; and work closely with campus groups such as IT governance teams (the campus IT directors, etc.) and Security and Compliance to advance digital transformation across the enterprise.