TO: Joel Bloom, President
FROM: Fadi Deek, Provost and Senior Executive Vice President
          Chair, 2020 Vision Steering Committee
Date: December 31, 2015 (revised)
SUBJECT: *2020 Vision Steering Committee Report*

I. Introduction

2020 Vision set ambitious goals for NJIT and outlined strategies to reach them. NJIT has now embarked on the project of plan implementation through a process of coordination, assessment, and reporting. The 2020 Vision Steering Committee, chaired by Provost Deek and co-chaired by Professor Richard Sher and Dr. Perry Deess, oversees the activities of the five priority committees. During the academic year, the priority committees provide reports to the steering committee on a ninety-day cycle, describing activities, tasks, and the status of short-term objectives. Moving forward, these reports will include an assessment of progress and the challenges foreseen. The steering committee offers each priority committee specific comments and guidance. The steering committee also prepares a report to the President at the conclusion of every semester. These reports include the current status of Key Performance Indicators (KPIs), with any available updates and narrative evaluations of progress toward meeting the goals set out in 2020 Vision. This is the first of those reports.

II. Key Performance Indicators (KPIs)

The KPIs presented in 2020 Vision offer targets for NJIT. It is against these that the success of plan implementation is measured. Since 2020 Vision is a dynamic document, however, the KPIs are not immutable. The Steering Committee is currently considering a revision to the freshmen applications target because the five-year goal has already been exceeded. The 2014 baseline for academic research expenditures has also been changed to be consistent with reporting standards adopted in FY 2015.

The tables below show current KPIs. Those for which FY 2016 data are not yet available are denoted with an asterisk in the last column.

2020 Vision-- Key Performance Indicators (KPIs)						
Strategic Priorities	**Objective**	**Metric**	**Baseline**	**2020 Target**	**2016*****	
Students	**Admissions**	Freshmen applications[1]	4,777	6,000	6045	
		Graduate applications[1]	6,305	8,197	6687	
		Transfer applications[1]	1,793	2,150	1956	
		Average composite SAT (M and CR combined)	1,192	1,220	1212	
		High school GPA	3.50	3.65	3.57	
		Average GRE (quantitative) MS (FTFT)	155	160	156	
		Total enrollment	10,646	12,200	11325	
	Retention	Retention rate	84%	90%	88%	
	Graduation	Graduation rate (6 year)	59%	65%	61%	
	Campus Quality of Life	Student satisfaction with campus life (undergrad survey)	3.1	3.4	3.1	*
Learning	**Curricula Assessment**	% programs with learning outcomes assessment	20%	100%	50%	
	Curricular Reform	Educational value of the course, average	3.07	3.25	3.07	
		Masters student enrollment in PSM programs[2]	0	150	0	
	Convergence	% Courses converged	1%	25%	1%	
	Milestones	% of undergraduate students with milestone experiences[3]	20%	50%	34%	
	Professional Success	Job placement of bachelors recipients (6 months)	54%	65%	62%	
		Student FE passing rate[4]	54%	62%	54%	*
Scholarly Research	**Increase Research**	Externally funded academic research (millions) (FY)	$24.1 million	$40 million	$31 million	**
		External academic research/faculty (FY)	$80,000	$100,000	$109,541	**
	Multidisciplinary Research	Externally funded research with PIs from multiple departments	5	20	5	*
	NJII	NJII administered projects	$30 million	$60 million	$60 million	**
	Doctoral	Total enrolled doctoral students	381	500	413	
	Intellectual Property	Total patents/pending patents	185/133	215/150	203/76	
	Publications	Refereed publications/faculty (FY)[5]	414	600	487	
		Total books published by NJIT community (FY)[6]	14	20	15	
	Faculty Recognition	Faculty awards[7]	2	10	4	

Community	Global Community	% Women students	25%	30%	25%	
		# International researchers collaborating with NJIT (FY)[7]	24	50	24	*
		# International exchange students at NJIT (FY)	48	96	48	*
	Diverse Faculty	% Women faculty	16%	21%	17%	
		% Underrepresented minority faculty	8%	10%	6%	
	Diverse Administration	% Women administrative leadership	41%	47%	43%	
		% Underrepresented minority administrative leadership	22%	23%	22%	
	Alumni	Alumni giving rate	8%	11%	8%	
Investments	Faculty Renewal	% Faculty hired in past 10 years	34%	43%	35%	
		# Total T/TT faculty	269	345	281	
	Educational Investment	Student satisfaction with instruction	3.52	3.80	3.52	*
		Average undergraduate time to degree (Years)	5.17	4.9	5.17	*
	Research Investment	Faculty satisfaction with research support	3.00	3.40	3.00	*
	Infrastructure	Faculty facilities satisfaction	3.08	3.30	3.08	*
		Student facilities satisfaction	3.00	3.20	3.00	*
		Faculty technology satisfaction	3.60	3.80	3.60	*
		Student technology satisfaction	3.66	3.75	3.66	*

III. Summary of Progress in Fall 2015

The first six months of work on 2020 Vision have included important initial objectives as we establish the role 2020 Vision plays in orienting the university community and guiding decision making at all levels. These objectives are:

1) Organize and charge the committees responsible for coordination, assessment, and reporting.
    The steering committee and all priority committees have been formed and have met on a regular basis. Charged with the coordination of implementation activities within each strategic priority, these committees have kept the strategic plan in the forefront of each university division.

2) Build a common monitoring and reporting structure for the committees.
    Priority committees have adopted a common structure for monitoring and reporting strategic planning activities within each division. Reporting focused on each of the 2020 Vision strategies informs the steering committee of specific activities and keeps the committee engaged and informed as it monitors plan implementation.

3) Integrate 2020 Vision into shared governance.
    The steering committee, through chairs and co-chairs, has made regular reports to the Faculty and University Senates. Furthermore, the emphasis on including representatives of each shared governance body in every priority committee and integrating faculty into the leadership of every committee ensures the involvement of the full university community in the implementation of 2020 Vision.

4) Begin plan implementation.
    Every division has begun implementing 2020 Vision strategies and has committed resources toward meeting specific objectives. Section V. Key Vision Initiatives, summarizes key activities in each priority. Comprehensive committee reports showing all activities undertaken through 2020 Vision are retained in the steering committee working archive.

5) Make 2020 Vision a dynamic document by adjusting to circumstances as needed.
    Each committee has given consideration to strategies and objectives and offered comments and feedback. In certain cases, KPIs are being adjusted or reconsidered in light of changing circumstances. Some strategies are also being adjusted or reconsidered in the process of implementation.

IV. Objectives for Spring 2016

The process for implementing 2020 Vision continues to develop. Orienting the community toward thinking in strategic planning terms and assessing success in those terms does not happen automatically. In the next semester, we will further develop plan implementation as a formal, multifaceted project requiring continuous management by concentrating on three specific objectives:

1) Focus all committee meetings more specifically on coordinating/implementing strategies and meeting university targets.
2) Develop targets to assess progress in implementing strategies, not only in achieving KPIs.
3) Develop more concise committee reporting tools.
4) Focus on assessment to continuously improve the tactics used for plan implementation.

V. Formative Assessment

Assessment of the plan must also operate at the level of implementation to determine whether progress is being made on the actual implementation of tactics. This means in addition to KPIs, each division must monitor progress toward implementing tactics and identifying specific targets for those tactics. For example, the objective of advisement for freshmen may be improved retention, however; tactic implementation at the division level may be assessed by monitoring the number of students the program reaches.

The 2020 Vision monitoring template asks each priority committee to develop the metrics and targets to continuously assess the implementation of tactics. The past semester was largely dedicated to the development of tactics. During the next semester the tactics will increasingly be attached to specific metrics allowing the priority committees and the steering committee to determine the extent to which proposed tactics have been implemented.

Between KPIs and the measurement of tactics implementation lies the greatest challenge of formative assessment for 2020 Vision. This is the timely determination of tactic effectiveness. There will be tactics that are expected to have a specific impact but even when fully implemented do not have the desired effect. The success of 2020 Vision depends on identifying these tactics at the division level and terminating those not producing the intended results. Priority committees are strongly asked to engage in this level of analysis and the Assessment Office and the Office of Institutional Research and Planning are available to assist as needed.

V. Key 2020 Vision Initiatives

Priority 1—Students

Among a broad range of strategies, the priority 1 committee focuses activities on the following areas:

Admissions

Expand Communication and Information Channels

1.1   Admissions will work with Institutional Research to identify academic criteria that have the most impact on student success.
1.2   The Admissions office will centralize applicant information using digital technology, facilitate analytics to identify characteristics of successful NJIT students, and target recruitment toward students with that profile and support academic advising.
1.3   Communicate the benefits of an NJIT degree more effectively, creating awareness of the academic community and articulating the rigor of the NJIT curriculum.

Strengthen Student Recruitment

1.4   Our recruitment efforts will communicate the benefits of a degree more effectively, create awareness of the academic community, and articulate the rigor of the NJIT curriculum.
1.5   NJIT will expand pipeline programs, including pre-college activities and outreach, to increase the application pool.
1.6   Expand the pipeline programs, including pre-college activities and outreach, to increase the application pool.
1.7   Refine and renew articulation agreements. *(First iteration completed)*
1.8   Increase the number of joint admission programs with community colleges, to strengthen NJIT's historical relationship with community colleges in the state and the region.
1.9   Recruit graduate students at the department level, with emphasis on the following: student point of contact, peer outreach and individual faculty outreach, personalizing and increasing the effectiveness of recruitment efforts.
1.10   Admit graduate students using competitive practices, including an earlier application deadline, timely offer letters and attractive graduate stipends, increasing the number of applicants and produce a better yield for admitted students. *(First iteration completed)*
1.11   Analyze graduate student success by departments and programs, resulting in a graduate student success profile to inform and guide future admissions.
1.12   Develop an effective series of applied master degrees and promote these to get a minimum of 30 students per degree program cohort.

Improve Web and Social Media Presence

1.13   Create a high-impact website; improving recruitment, promoting an NJIT identity and better serving the needs of the NJIT community through increased communication and functionality.

1.14   Enhance NJIT's social network presence, increasing awareness of NJIT, highlighting accomplishments and helping student recruitment. *(First iteration completed)*

Persistence and Retention

Design a Connected Academic Community

1.15   The Dean of Students, in conjunction with Institutional Research and Planning, is developing a comprehensive Learning Communities assessment report where strengths and shortcomings are identified before any changes are adopted.

1.16   The Learning Community programs will increase the involvement of faculty and departments.

1.17   NJIT will connect the student community through increased personal interactions and appropriate technology to create a stronger NJIT identity among students.

1.18   Implement a comprehensive and engaging freshmen seminar that allows students to receive credit for the course and gives them a firm grasp on all areas of the college experience, adding more faculty involvement (faculty-student interaction important).

Intensify Academic Advisement

1.19   The Provost's Office in conjunction with the Division of Academic Support and Student Affairs will develop consistent university guidelines for advisement across academic departments, leading to timely graduation.

1.20   Institutional Research and Planning will establish regular reporting systems to monitor student retention and progress toward graduation to facilitate timely intervention.

Graduation

Implement Curriculum-Guided Course Scheduling

1.21   Fully implement Degree Works and Planner (for students and faculty) to better help students and faculty to keep students on track for graduation.

1.22   Academic departments will make available information regarding the semester in which courses students need for graduation will be offered.

Streamline the Graduation Process

1.23   New university systems will allow advisors to track student progress toward the degree.

1.24   The office of the Registrar will notify students within 30 credits of completion that they may be eligible for graduation within one year. *(Completed)*

1.25   Advisors will provide students with accurate information on the courses needed to complete the degree.
1.26   The Office of the Registrar will replace the "application for graduation" process with an eligibility to graduate notification.
1.27   NJIT will systematically graduate students who complete degree requirements.
1.28   Track progress toward the degree. *(Completed)*
1.29   Notify students within 30 credits of completion that they may be eligible for graduation within one year. Provide them with accurate information on the courses needed to complete the degree.
1.30   Provide students with the semester that each course that they need will be offered in which upcoming semesters.
1.31   Replace the "application for graduation" process with an eligibility to graduate notification.
1.31   When students have actually completed the degrees, graduate them.

Campus Quality of Life

Build a Supportive Environment

1.33   Develop a service-focused philosophy.
1.34   Plan and implement training for all levels and all areas.

Improve Administrative Processes and Practices (academic and non-academic) Affecting the Student Experience

1.35   Systematic examination of the effect of current policies.
1.36   Reduce redundancies, obstacles, and unnecessary burdens.
1.37   Create "user-Friendly" processes.
1.38   Exploring methods for resource/referral centers, including virtual, campus center desk, Dean of Students Office, Service Center, Live Chat.
1.39   Assess student needs for programming and for social media and marketing.

Support Campus Activities

1.40   Expand the Signature Event programs to provide more programs and activities during the entire year.
1.41   Review and recommend any needed changes to student activities fees and how they are controlled.

Institutional Effectiveness

Improve Institutional Effectiveness through Continuous Assessment

1.42   The Division of Academic Support and Student Affairs is conducting a systematic review of current policies. The policy reviews will allow offices to reduce redundancies, obstacles, and unnecessary burdens. This will facilitate more "user-friendly" processes.

Make Evaluation Effective

1.43   Review questions posed in student surveys to make sure they are the proper questions and worded in the proper way. *(Completed)*

1.44   To provide a comprehensive Learning Communities assessment report where strengths and shortcomings are identified before any changes and/or expansion is adopted.

1.45   The Division of Academic Support and Student Affairs is also investigating alternative methods for resource/referral centers, including live chat, virtual campus center desk and a service center.

1.46   Academic advisors and faculty advisors will utilize the adopted software (DegreeWorks and MapWorks or other as may be adopted) and offer more effective advising.

Priority 2—Learning

This committee works closely with the Faculty Senate in addressing issues of learning and the NJIT curriculum. The key priorities of this committee are:

Curricular Assessment

Raise the Prominence of Academic Assessment

2.1   All undergraduate programs have recently undergone reviews either by external accrediting agencies or (for programs in CSLA) through an internal process; the Faculty Senate Committee on Assessment is currently reviewing the reports submitted by departments in CSLA. Graduate programs in NCE will undergo review during this academic year. *(Completed)*

2.2   Assessment of programs offered by federated departments (Biology, History) requires coordination with Rutgers, Newark – efforts are in progress.

Curricular Reform

Improve Undergraduate Education

A subcommittee of CUE has been formed and charged to review/update the General University Requirements (GUR); the GUR subcommittee is in the process of determining student competencies to be attained through GUR.

Digital Technology

Create an Instructional Culture of Digital Technology

Work has started on the development (based on internal NJIT capabilities) of a fully on-line master degree program.
Pilot testing of the idea of convergence continues this semester; the objective is to assess the effectiveness of the convergence format.
If adaptive learning systems are to be deployed (as per the 2020 Vision plan) it is felt that specific initiatives/programs need to be planned and initiated.

Professional Success

Promote Engagement with Intended Professions

2.7   The Department of Civil and Environmental Engineering has instituted a (not for credit) review course/workshop to better prepare civil engineering students for the FE exam. The course is also open to mechanical engineering students. *(Completed)*

Priority—3 Scholarly Research

This committee has been engaged in transforming and expanding research at NJIT. The key activities in this area are described below:

Faculty Roles in Research

Increase Participation of Current Faculty in Research

3.1   Policies have been developed that encourage research, such as the sharing of indirect income among primary investigators and academic units and assuring start-up funds for new faculty. *(Completed)*
3.2   A policy on Indirect Costs Return (Overhead) has been developed through the Faculty Research Advisory Board (FRAB), faculty senate and administration.
3.3   A total of $212,000 for FY16 has been returned to 78 faculty members. *(Completed)*
3.4   A competitive internal seed-funding program has been established for innovative and exploratory research. Forty-two (18 in Fy15 and 24 in FY16) Faculty Seed Grants have been awarded involving 66 faculty members. *(Completed)*

Academic Research Enterprise

Improve Communication with Faculty on Research Opportunities

3.5   Grant and fellowship opportunities have been disseminated to members of the university community and facilitate faculty collaboration. *(Completed)*
3.6   Weekly Newsletter is sent to all faculty featuring recent grants, events and grant opportunities. *(Completed)*
3.7   Internal competitions and grant opportunities are posted on the website. *(Completed)*
3.8   Program Directors from funding agencies have been invited to provide information on current and future funding programs. *(Completed)*
3.9   Internal meetings are beginning to promote building collaborative research teams.

Support Research Activities and Infrastructure

3.10   The administrative infrastructure for research support has been refined and streamlined by integrating grant management and accounting operations. *(Completed)*
3.11   Sponsored Research Administration and Grant & Contract Accounting offices have been merged into the Office of Research to provide seamless support from the identification of grant opportunities to grant closing. *(Completed)*
3.12   Further streamlining of purchase requisitions and personal requisition processes are being discussed. *(Completed)*
3.13   Training and support in grant-proposal preparation is now offered. (*Completed*)
3.14   Faculty Development Workshop for new faculty has been started. The 9-week workshop schedule has 3 weeks of sessions on research proposal preparation and submission. *(Completed)*

3.15   Open House events have been started to address and answer questions related to all functions of proposal submission and grant management. *(Completed)*
3.16   The Faculty Research Advisory Board (FRAB) meets to discuss grant management at monthly events organized by the Office of Research. *(Completed)*

Economic and Technology Development Partnerships

Cultivate Private Sector Partnerships

3.17   The private sector is increasingly engaged through the university's nonprofit corporation, NJII. *(First iteration completed)*
3.18   The NJIT Business Engagement Team (BET) has engaged more than 23 companies in 2014-15. *(Completed)*
3.19   As a result of increasing private sector partnerships, the Association of Public and Land-grant Universities (APLU) has awarded NJIT the Innovation and Economic Prosperity (IEP) designation as an economically-engaged institution. *(Completed)*
3.20   NJII has developed numerous industry-facing business units, each of whom is generating program activity in partnership with the private sector and government. *(Completed)*
3.21   Faculty have also increasingly engaged in entrepreneurial activities on behalf of the university.
3.22   Patent filings have declined in the most recent year, requiring a review of current administrative structures and processes in support of this activity.
3.23   NJIT was designated an NSF I-Corps site in 2015. In the first year, 31 faculty participated in teams with students and entrepreneurial mentors to explore commercialization of technologies.
3.24   Several faculty have obtained approval to participate in start up activities related to technology that they have developed at NJIT.
3.25   Faculty members are invited to participate in programs at EDC for entrepreneurs and additional training and awareness programs are being developed.

Improve External Recognition on Scholarly Research

Enhance Professional Recognition

3.26   The Research Office in conjunction with the Deans, have encouraged faculty activities such as service on editorial boards, conference organizing committees, review panels and chairing teams/groups of professional experts on site visit teams.
3.27   Increasing numbers of faculty serve as editors, chief editors, conference organizers and conference chairs, and review panel members and chairs.
3.28   Through efforts with the Office of Strategic Communications these faculty are increasingly recognized, listed on the NJIT website, and included in annual reports. *(First iteration completed)*
3.29   Further plans to recognize and reward professional leadership are under discussion.

Priority 4—Community

This committee has focused primarily on diversity. Professor Norm Loney graciously agreed to step in as interim committee Chair. The following key steps have been taken:

Diverse Administrative Leadership

Support Diversity

4.1   The committee met to discuss a university-wide diversity plan. The committee evaluated diversity plans from peer and aspirational institutions, as examples of best practices. The committee will form a sub-committee to draft the diversity plan with input from all stakeholders.

4.2   The committee has asked that a Faculty Senate Liaison join the Priority 4 Committee. The committee has also asked a representative from the Admissions Office to join to provide input regarding student recruitment efforts.

Diverse Faculty Leadership

Coordinate Faculty Recruitment and Retention

4.3   The Faculty Senate has initiated a process to make changes to the Faculty Handbook to facilitate and support faculty diversity through improved recruitment and retention policies. *(Completed)*

4.4   The Faculty Senate is considering a Best Practices in Diversity Search Committee Guidebook. *(Completed)*

4.5   A sub-committee was formed to draft a Search Committee Best Practices guidebook. The sub-committee has recently completed their work and has sent a working draft to the Provost and to the Faculty Senate President and ex-President for further discussion. *(Completed)*

4.6   In addition, the Deans of each college were asked to nominate a Diversity Liaison. The Liaison function will be, at a minimum, to sit on Faculty Searches within his or her college. A full description of what the Diversity Liaison will be responsible for must still be discussed. *(Completed)*

4.7   Search Committee members are now being trained, especially in implicit bias awareness. The first training session by a NSF Advance Grant Diversity expert took place on December 7, 2015. *(Completed)*

4.8   Reorient faculty recruitment strategies and activities to ensure that mire minority candidates apply.

Priority 5—Investments

This committee acts across other priorities because it is concerned with significant investments in a broad range of activities. In addition to the initiatives described below the committee has

resolved, in conjunction with the steering committee, to hold joint meetings with other priority committees to ensure that strategic investment is informed, assessed, and seamless. Key activities are described below:

Educational Investment

Promotion of Teaching Excellence

5.1 Steps have been taken at the university as well as at the departmental level to address teaching effectiveness. The Institute for Teaching Excellence is now actively promoting excellence in pedagogy. At the departmental level, there are ongoing discussions about how to provide pedagogical training and support teachers with low teaching evaluations. Finally, the Faculty Senate is discussing, as part of the Faculty Handbook revisions, how to improve teaching performance through a formal mentoring program.

5.2 The appropriate surveys and assessments need are in the process of being created to monitor and assess curricular change.

Revise Non-Tenure Track Compensation and Career Tracks

5.3 The Faculty Senate's Committee on faculty rights and responsibilities will examine this matter during the spring 2016 semester.

Faculty Renewal

Engage in Strategic Hiring

5.4 The Provost, in collaboration with the Vice Provost for Research, Vice Provost for Academic Affairs, and the Deans, has developed a comprehensive tenure/tenure-track faculty recruitment program that will result in a total T/TT headcount of 345 by the fall of 2020 as per the university's strategic plan. This plan considers the anticipated Faculty Separation Incentive Program (FSIP III) reductions (-34), FSIP replacements (50), other normal faculty attrition/replacements, plus new hires funded under the Strategic Plan. *(First iteration completed)*

5.5 In FY 2016, 18 new T/TT faculty were hired at NJIT. *(Completed)*

5.6 An additional 20 searches are underway for new T/TT faculty positions to be hired in FY 2017. *(Completed)*

Research Investment

Automate Pre- and Post Award Administration

5.7 Ekualiti KC, an enhanced version of the widely used Kuali Coeus electronic research administration software, has been licensed and is being prepared for launch at NJIT. Ekualiti KC has three primary modules: pre-award processing, post-award processing, and compliance. The pre-award module has been tested and training materials have been

developed for a NJIT launch in January 2016.   The post-award and compliance modules will be launched later in 2016. *(Completed)*

<u>Improve Research Resources, Services, Equipment, and Facilities</u>

5.8   The Office of Research is working with deans, chairs and the VP for Real Estate Development and Capital Operations to review research laboratories and centers to provide appropriate infrastructure support including renovations of the facilities.

<u>Enhance Institutional Support for Non-faculty Research Staff</u>

5.9   Research professors and staff are now provided the same institutional support and services for their research activities and facilities.

5.10   A policy on the appointment and renewal of research professors has been established with a review process involving department chair, college dean and an institutional committee. *(First iteration completed)*

Infrastructure Support for Facilities and Technology

<u>Update and Follow the Facilities Master Plan for Physical Planning Decisions</u>

5.11   The 2008 Facilities Master Plan will be re-examined over the next several months.

5.12   A consultant has been engaged to review space utilization, facility use and condition, and examine the goals and objectives of the 2020 Vision.

5.13   Utilizing the existing shared governance framework, the campus community will engage in developing a supplement to the existing plan by mid-2016.

5.14   To assist in the management of the plan moving forward, a Director of Campus Planning and Design was hired in December 2015. This position, along with the AVP for Design and Construction and the VP for Real Estate Development and Capital Operations, will create a framework for future construction, renovation and renewal of NJIT facilities in support of the strategic plan. *(Completed)*

5.15   Amortization of NJIT assets.

<u>Infrastructure Support for Facilities and Technology</u>

5.16   The 2013 NJIT Technology Plan is being updated for alignment with 2020 Vision. A draft will be presented to senior management in January 2016.