Proposal to Establish a Temporary Institute of the University of Illinois System

Submitted to University of Illinois System, University Senates Conference

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TITLE OF PROPOSED UNIT:

Discovery Partners Institute (DPI)

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PROPOSED STATUS:

This proposal is for the creation of a Phase 1, temporary institute. We will evaluate the unit's performance after five years and request permanent status at that time, assuming favorable results.

DESCRIPTION OF THE CHARTER:

The Discovery Partners Institute aims to be a joint education, research, and innovation institute led by the University of Illinois System (U of I System) and its three universities. DPI's mission is to establish collaborative partnerships that address 21st century societal grand challenges, promote entrepreneurship, and educate the next-generation workforce. Its primary goal is to conduct purpose-driven research and education that create actionable results that will have tangible results throughout the economy, including those for the underserved.

In order to fulfill its mission, DPI's research and public activities will:

- address key grand challenges and/or the critical needs of industry, governmental and non-governmental agencies, community and community-based agencies,
- attract students (current and new) who desire to engage in translational research and learn entrepreneurial skills,
- attract external partnerships with industry, governmental and non-governmental agencies, foundations, community or community-based agencies, and philanthropic organizations,
- have the potential for receipt of external funding or technology commercialization, and
- add jobs and grow the economy of the State of Illinois.

The DPI mission (described above) aligns well with the strategic direction of the U of I System's Strategic Framework, as outlined in the pillars below:

- to be an institution of and for our students, grow and diversify experiential learning and career guidance, and strengthen students' opportunities to excel beyond academic sphere (Pillar 1),
- to conduct research and scholarship with global impact by building a culture of innovation, collaboration, and entrepreneurship, identify significant sociotechnical problems, and forge new research and development partnerships (Pillar II),
- to facilitate a healthy future for Illinois and the Midwest by investing in human capital and being an engine for economic development (Pillar III), and
- to promote our reputation as a leading global brand in higher education by helping create a technology platform that touches the whole university environment and ensures our long-term financial sustainability (Pillar IV).

DPI also aligns with the State of Illinois' need for increased economic activity, employees, and increased state income by providing facilities for the U of I System to serve additional students and conduct research that supports continued growth and innovation in Illinois.

JUSTIFICATION:

The DPI is designed with a goal of bringing together faculty, students, and corporate partners to work in proximity to each other to nurture new ideas and further research with an accelerated transition to results. DPI's research activities will create an increased demand for employees (faculty, students, and staff), equipment, and other expenses at the DPI and Illinois Innovation Network (IIN) sites, while DPI's educational initiatives will prepare students to contribute to the 21st century economy by engaging them with project-focused teams, entrepreneurial concepts, and corporate partners.

DPI has the potential to have a unique identity as a state, national, and international research and innovation leader. It is centered on four key focus areas that are strengths of our three universities: Computing & Data, Environment & Water, Food & Agriculture, and Health & Wellness. These areas serve as the backbone of the collaborative efforts within the institute. These are only starting points, however. They will be augmented and expanded to respond to challenges discovered in the course of DPI's evolution. Woven throughout DPI's four key themes are important cross-cutting areas of opportunity. These areas – Culture & Society, Entrepreneurship & Technology Transfer, Education & Workforce Development, and Public Policy – are where the innovation created within the DPI meets humanity in real and impactful ways. As such, DPI will ensure that it strategically aligns its research and development in ways that improve the human condition.

To facilitate this alignment, DPI research will be responsive to the input of stakeholders at the universities, in companies, in neighborhoods and communities, and throughout the state. DPI will be guided by principles of inclusivity (in all forms), transparency (in both process and governance), ethics and accountability, and engagement with the local community.

DPI will develop activities that connect top faculty and students with leading companies to create new technologies and products and accelerate their introduction into the public sphere. Students will work closely with DPI's corporate partners, which will increase the likelihood that they will remain in Illinois after graduation, grow the state's economy, and contribute to the overall well-being of the state and its residents. In addition to corporate partners, DPI will build relationships with leading international universities to promote knowledge and cultural exchange across borders.

In particular, DPI will have national, international, and state of Illinois partners (those already committed include Hebrew University, Northwestern University, Tel Aviv University, the University of Chicago, and MS Ramaiah Medical College), and will be part of the IIN. With IIN hubs planned at each of the U of I System locations, as well as other university partners in the state of Illinois (those already committed include Northern Illinois University), the IIN will help companies, schools, and researchers across Illinois connect and collaborate.

During the planning stage, DPI administrative leaders have organized several faculty planning groups that represent all three universities of the U of I System to generate proposals for research and teaching initiatives. More than 150 faculty across the system are involved in these planning committees, and another 1,000 faculty members have volunteered to serve as "experts" in one or more of the eight working groups. (See https://dpi.uillinois.edu/).

PROPOSED STRUCTURE:

<u>Reporting Structure</u>: The Interim Director of DPI has a dual reporting structure to the President of the U of I System and to the Vice President for Economic Development and Innovation. The interim director provides leadership in all areas of DPI, overseeing the strategic vision, financial and business plan, and operational priorities.

<u>Governance</u>: To aid in planning, DPI's administrative leadership has appointed two advisory committees with representation from all three universities: the Academic Executive Committee (originally charged until end of spring semester 2018 but has been continuing) and the Academic Governance Advisory Group (charged until end of spring semester 2019). The *Academic Executive Committee* (https://dpi.uillinois.edu/about/academic_executive_committee) is chaired by the Interim Director of DPI. It is comprised of the Vice President for Economic Development and Innovation, nine deans or associate deans, and five faculty members who hold administrative appointments at one of the three universities. It serves an advisory role to the interim director and other system-level leadership. The *Academic Governance Advisory Group*

(https://dpi.uillinois.edu/about/academic_governance_advisory_group) includes the Executive Vice President for Academic Affairs, two deans, one of the university registrars, and three faculty members, two of whom also serve on the University Senates Conference (two of the three also serve on the DPI Academic Executive Committee to ensure coordination between the committees). The Academic Governance Advisory Group serves an advisory role to the interim director, other system-level leadership, and the Academic Executive Committee.

Proposed Faculty Governance Structure: The structure and function of the DPI are similar to those of a major interdisciplinary research institute, such as the Beckman Institute (UIUC), the Center for State Policy and Leadership (UIS), and the U of I Cancer Center (UIC). However, the DPI is a system-wide unit that reports to the president and is not unique to any single university. Similar to other interdisciplinary research institutes, DPI will not be the "home" unit of any member of the faculty nor will faculty tenure lines reside in the DPI. In addition, any courses offered through DPI will be courses established and approved by one of the three universities of the U of I System. Therefore, the DPI governance structure will not mirror that of an academic college or department because it will neither administer faculty lines nor establish new courses, degrees, or academic programs. Nevertheless, like a major interdisciplinary research institute, there is a role for shared governance in the DPI.

As recommended by the DPI Academic Governance Advisory Group, an elected executive committee will be established for DPI that will advise the Director of DPI on academic as well as research matters pertaining to the institute. The executive committee will consist of 10-12 faculty (tenure system and NTT) that represent all three universities and that serve staggered terms to ensure steady experience. The provosts from each university, the University Senates Conference, and faculty who are participating in DPI will be canvassed for nominations for the committee. Nominees will be voted on by the faculty electorate of the DPI. The committee will ensure that there is broad input from the faculty on governance issues as well. The committee should have both advisory and communicative roles, interfacing regularly with the Director of DPI, system-level leadership, and the USC.

Other Advisory Groups: External advisory groups that provide guidance and input will be created. These are likely to include a DPI *Corporate Advisory Board* (appointed) consisting of stakeholders from partner companies to ensure that research and academic activities are relevant to the current needs of industry. There may be other advisory groups as needed.

Faculty and Staff Currently Involved: The faculty and staff that are currently engaged include:

- the Interim Director
- a Visiting Special Assistant to the President
- an Administrative Assistant

- the Academic Executive Committee
  (https://dpi.uillinois.edu/about/academic_executive_committee),
- the Academic Governance Advisory Committee
  (https://dpi.uillinois.edu/about/academic_governance_advisory_group),
- Thematic Working Groups (https://dpi.uillinois.edu/themes)
- Cross-cutting Working Groups (https://dpi.uillinois.edu/cross_cutting_areas), and
- A hand full of staff and faculty from other units that support the development of DPI on a part-time basis (https://dpi.uillinois.edu/directory).

Staffing Needs: Given the tremendous amount of work that needs to be accomplished in the planning phase of development, the current staffing is not sufficient. Thus, the president has authorized four new positions that will report to the Director of DPI; searches are underway for these positions:

- Managing Director (will provide managerial oversight of all unit functions and operations)
- Director of External Engagements and Partnerships (will oversee DPI's strategy to connect with industry; governmental and non-governmental agencies, community-based agencies, and cultural and philanthropic organizations)
- Director of Academic Affairs (will facilitate academic activities and student involvement)
- Director of Administration (will serve as the chief financial officer and human resources liaison)

ACADEMIC IMPLICATIONS:

There will be no tenure-track or specialized faculty appointments at DPI. All non-zero appointments of tenure-track or specialized faculty will be held at the university (not system) level. However, faculty may hold zero-time appointments at DPI, as is common practice in university-level interdisciplinary research units.

Faculty ownership of the curriculum is basic to our universities and faculty governance. DPI is not a university or a college and it will not own degree-related courses or programs. All curricular matters related to student degree programs will continue to be governed by existing faculty governance structures at the various universities in the system. DPI will provide physical space for courses that have gone through appropriate faculty governance structures using existing policies and procedures at the relevant university. Courses may be offered that originate at partner universities outside of the U of I System. In these cases, course articulation of credit will be done through direct agreements between participating universities using articulation agreements such as those used for study abroad programs.

DPI will not offer academic degrees for students. Instead it will support existing academic programs at participating universities to prepare the next generation workforce along the aims of DPI. Through deep integration with industry partners, a project-focused team environment, and a culture of entrepreneurship, DPI's education initiatives will include such student activities as: internships, student exchange, and study abroad opportunities. For example, these may include entrepreneurship classes and boot camps that help startups validate business models, technology acceleration programs such as the NSF I-Corps, and short courses and workshops designed for industry.

Decisions regarding faculty participation in and compensation for activities such as teaching and research leaves will be determined by chancellors, provosts, deans, unit heads, and the faculty involved. DPI will follow best practices of other interdisciplinary centers and institutes within the three universities of the U of I System when engaging faculty.

As DPI builds, it will do so in collaboration with and advised by relevant groups across the three universities of the U of I System to make sure that the institute builds on and enriches the strengths and successes of departments, centers and institutes, and colleges at the three universities.

BUDGET AND FUNDING STRATEGY:

On June 4, 2018 then Governor Rauner signed into law the fiscal 2019 state budget that included a capital appropriation of $500 million to support the DPI. The funding is designed to construct the DPI facility and build out the IIN through capital projects at hub locations around the state. A proposal to Department of Commerce and Economic Opportunity for release of these funds is undergoing a routine review by the new state of Illinois administration. There also has been $249.1 million promised to the DPI and the IIN from non-grant sources (mostly comprised of matching funds from the three system universities).

The U of I System has committed to provide a budget for DPI's administrative and operating costs. The administrative costs consist primarily of salaries (for an Interim Director, an Administrative Assistant, and four positions that are currently in search mode: a Managing Director, a Director of Administration, a Director of External Engagement and Partnerships, and a Director of Academic Affairs). The current operating costs consist primarily of the rental costs of the Wacker facility.

To date the U of I System has invested a total of $1.1 million in DPI.

Additionally, the Office of the President and the Office of the Vice President for Economic Development are currently providing support from current system-level staff for the following:

- Operations
- HR

- Finance
- Communications
- Academic and research initiative administration

The goal for DPI is to keep costs down for the U of I System and to seek revenue generation from six sources:

- Corporate investments
- Philanthropy
- Government funding
- State appropriation
- Federally funded research grants
- Program revenue

DPI currently has 20,000 square feet of classrooms and office space along the Chicago River in downtown Chicago, which can be used for meetings, events, workshops, and classes. DPI is working with developer Related Midwest to build the future DPI site in the South Loop by 2021 as part of Related Midwest's plans for "The 78" neighborhood. A gift agreement for the land between Related Midwest and the U of I System is currently being reviewed.

OUTCOMES:

The criteria and outcomes that will be used to demonstrate the quality and effectiveness of DPI will be based on its ability to fulfill its mission. For example, given that DPI's approach to its mission includes partnerships with a variety of stakeholders, purpose-driven research that creates actionable results, and educating the next generation workforce, the following metrics are examples of those may be used to demonstrate quality and effectiveness:

1) number of active partnerships and joint projects with partners
2) number of disclosures/patent applications
3) number of research projects funded by companies and other external partners and the total dollar value of this support
4) number of students and faculty involved
5) amount of external funding and technology commercialization
6) number and prestige of awards, prizes, and honors received as a result of faculty and staff involvement with DPI

DPI will be evaluated through generally accepted review processes used at the three universities for interdisciplinary research units and that are agreed upon by the U of I System president and chancellors of the three universities. In conducting such reviews, DPI's internal governance bodies and external advisory board(s), faculty, staff, and other stakeholders will be consulted. Furthermore, since DPI is expected to have multiple external partners, input from these partners

also will be sought to evaluate the success/impact of the DPI for each of these groups.

In addition, informal input from stakeholders will be sought once a year. This input will likely be in the form of surveys as well as discussions and will be used to make improvements at DPI.