

Enhancing NIU's Capabilities with Research Concentrations of Excellence (RCE)



NORTHERN ILLINOIS
UNIVERSITY

BOT/LARI
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Relevant Strategic Imperatives (or Terms of Reference)

3. ...ensuring NIU's national recognition for excellence and engagement in teaching and learning, research and scholarship, creativity and artistry, and outreach and service.

6. Significantly grow NIU as a leading research university, building on our existing areas of research strength and Chicagoland's place as a world leader in innovation, while continuing to engage undergraduate and graduate students in faculty-driven and student-initiated research and artistry.

“Unpacking” Imperative Six

Significantly grow NIU as a leading research university

- Building on**
 - existing areas of research strength**
 - Chicagoland’s place as a world leader in innovation,**
- Engage undergraduate and graduate students in research and artistry**
 - faculty-driven**
 - student-initiated**

RCEs from 40,000'

- **Select areas with high potential for building NIU's reputation.**
- **Make a concentrated resource investment**
 - **Provide sufficient resources to attract personnel, ensure success, and attract external support.**
 - **A model: Hire one senior investigator and two subsequent junior hires with startup, staff, and students.**
- **If possible, leverage investment with partner institutions**
- **As appropriate, smoothly transition to College/Center.**
- **Initiate new clusters at cadence consistent with availability of resources.**
- **Take the "long view" to improve overall capability.**
- **The RCE offers a possible framework to complement and respond to Program Prioritization.**



RCE Process Overview

- **Five-seven years support for ~3 faculty member group.**
- **Start with an eminent senior scholar (or two).**
- **Provide sufficient startup to initiate program.**
- **Match senior position with two more-junior positions.**
- **Provide junior positions sufficient startup to purchase equipment and hire post-doctoral and graduate students.**
- **Each faculty member's research program should transition to external funding by their third or fourth year.**
- **After transition period, faculty academic year salary provided by RIPS.**
- **Faculty should be fully integrated into department including some teaching and service duties.**

Selection Criteria

- **Area of existing research strength**
- **Ability to leverage Chicago area resources**
- **Availability of potential lead PI s**
- **Availability of departmental resources**
- **Likelihood of external partnerships**
- **Opportunities and potential for external funding**
- **Likelihood cluster will have high impact on NIU reputation and on the world**
- **Uniqueness of research effort**
- **Competitiveness with respect to similar programs**
- **Attractive to exceptionally talented faculty and students**
- **Potential for international engagement**
- **Potential for student engagement/degrees**

Example: Accelerator Concentration

- **An area of existing research strength – Well established and funded within Dept. of Physics.**
- **Ability to leverage Chicago area resources – Collaborating with FNAL and ANL.**
- **Availability of potential lead PIs – Former UK lab director/MSU Prof.**
- **Availability of departmental resources – NICADD resources available**
- **Likelihood of external partnerships – Illinois Accelerator Research Center opening soon.**
- **Opportunities and potential for external funding – DOE has an existing accelerator program, NSF just initiated a program, DOD, FNAL & ANL**
- **Likelihood concentration will have high impact – Few large programs in United States but demand for accelerator physicists high**
- **Uniqueness of research effort – Few large programs**
- **Competitiveness with respect to future programs – Few large programs**
- **Attractive to talented faculty and students – Few large programs, proximity of Natl. Labs.**
- **Potential for international engagement – A number of large scale projects under consideration.**
- **Potential for student engagement – Graduate and undergraduate opportunities at NIU and Natl. Labs.**

University Partnerships

- **Concentration initiated by RIPS in consultation with relevant units.**
- **Concentration housed in “natural” units (department, center, institute...).**
- **RIPS involved as per usual practice in hiring processes.**
- **Transition to “home” unit needs to be thought through and carefully managed.**

Final Comments

- **RCEs**
 - **Attract recognition**
 - **Improve recruitment**
- **Have initiated one RCE**
- **Need to take the long view:**



A Possible Selection Process

- **Mo 1:**
 - **Canvass units for prospects.**
 - **Work with soon to be established RIAC to establish LOI selection criteria and proposal ranking criteria.**
- **Mo 2: Request five page LOIs for initial screening.**
- **Mo 3: Select up to three LOIs using a standing RIPS committee.**
- **Mo 3-4: Submit 25-page proposals.**
- **Mo 4-6: Rank proposals using a RIAC committee.**
- **Mo 6: VPR&IP makes selection in consultation with leadership of relevant units.**
- **As needed, repeat at appropriate cadence**