

# 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**