The pace of research in the 21st century is increasingly rapid, precipitating new forms and organization of knowledge disseminated by novel modes of transmission. Both ideas and faculty move in a global educational ecosystem that includes the construction of aspirational new research universities in a number of rapidly developing countries, notably Brazil, India, and China. At the same time, government funding for research and higher education in the U.S. is declining. In this fast-changing landscape of competition for research funding and outstanding students and faculty, how will Rice position itself for success over the longer term?

The Vision for the Second Century articulates a commitment to raising Rice’s profile in research and scholarship. What strategic steps must we take to assure a sustainable path from excellence to eminence in the years ahead?

Strategic planning
Resources are limited and cannot be spread everywhere. We must prioritize: reinforce existing areas of eminence; grow areas where we can move from excellence to eminence; identify strategic but weak areas that will repay the investment to improve them.
• This requires appropriate data and metrics to assess current standing and future success; we do not emphasize these sufficiently and make results available to faculty.
• We need to think about the tradeoff between hiring eminent researchers and scholars and home growing them.
  o Superstars are expensive and concentrate scarce resources in a small number of faculty. But they can attract junior faculty and excellent graduate students.
  o Growing our own stars is difficult, but requires far fewer resources. Creating an intellectual environment and a sense of community that fosters loyalty to Rice is essential for retention
• Opaque budgeting process precludes necessary inputs from faculty on prioritization; the negotiation between faculty ambitions and available resources needs to be open and transparent

Research Infrastructure
• Certain capacities need improvement: i.e., fabrication in Engineering
• Dilemma of aging shared equipment with no sustainable path to upgrade
  o Consider annual budget for equipment purchase
• Resources needed for sustainable research model: initial investment, funds for sustainable collaborations, administrative support, and space.
• We need clear, customizable templates and standardized procedures for multi-institution collaborations and consortia: Gulf Coast Consortium model

• Do we have the appropriate level of staffing/postdoc support for research?
  o Expectations for teaching, especially in the wake of enrollment growth, conflict with expectations for research and grant-writing
  o Major research universities have postdocs and TA’s to help faculty in both research and teaching. Rice needs to “change the DNA” and fund additional support for faculty who teach large classes and have active research programs.

**Encouraging multidisciplinary, innovative collaborations**

Research is increasingly multi-/cross-disciplinary and collaborative in many fields. Multidisciplinary research preserves the rigor and strength of disciplines while encouraging researchers to engage common areas of research interest.

• Centers and Institutes provide the essential structure for cross-disciplinary research; they vary with regard to projects, funding, and research outputs.
  o They are under-resourced. There is a “circle the wagons” mentality at Dean level regarding projects not directly in their schools.
  o Systematic evaluation of Centers in terms of goals, funding (external vs. internal) and collaborative networks and impact is needed
  o We need new ways to encourage innovative, even risky new research collaborations, especially among faculty from different schools

• Faculty are assessed and rewarded by departments
  o We need new ways to recognize and assess in the P&T process innovative research that crosses departmental boundaries

• We need to foster an institutional culture that actively promotes multidisciplinary research and creates opportunities for faculty from different schools and disciplines to interact; physical proximity promotes serendipity!
  o Regular cross-university seminars (three tables suggested making Scientia’s monthly colloquia more prominent); mixers bringing faculty (including the TMC) with common research interests together
    ▪ But many faculty live at considerable distances from Rice, which reduces the time they spend on campus; this affects attendance at non-departmental events
  o Rice Research on Display program incorporating RURs and faculty research
  o UPenn’s PIK (Penn Integrates Knowledge) professors, with joint appointments in two schools, is a possible model
  o Survey other universities for ideas

**Encourage entrepreneurial research**

Rice is overly cautious in its internal support for innovative, risky research. Without a willingness to take big risks, there can be no big successes.