The University System of New Hampshire is the largest provider of a STEM (Science, Technology, Engineering and Math) educated workforce in New Hampshire. In fact, USNH graduates more bachelor-prepared STEM students than all other New Hampshire institutions combined. In addition, those graduates have proven to be highly valued by New Hampshire companies such as BAE, Medtronics, Lonza, and many more.

A significant factor in USNH’s ability to focus on STEM has been the capital investments made by the State that were targeted on capacity building infrastructure. The KEEP investments made over the twelve year period beginning in fiscal year 2002 and ending in fiscal year 2013 added much needed capacity for engineering students. The investment was a remarkable success. The engineering program at UNH is now highly regarded and over capacity. That strategic partnership between the State and the System also committed USNH investments to leverage State dollars and included an expectation that USNH would bear any cost overruns so that the State would be certain of its commitment.

The State now faces a new need and opportunity that could be addressed by a revitalized capital partnership aimed specifically at the biological and life sciences and would encompass the emerging industry presented by regenerative medicine and the ARMI initiative.

The new proposed partnership initiative would go even further than the KEEP initiative in that USNH would not only match State dollars, but would virtually triple the state dollar investment. Most importantly, the partnership would strengthen and solidify our state’s overall competitive advantage in this growing industry, while simultaneously supporting existing New Hampshire companies that are struggling to meet their workforce needs.
In its strategic plan, the NH Division of Economic Development identified bioscience as 1 of 7 NH industries that are critical for out-of-state recruitment and for in-state business retention and expansion efforts. Currently, NH faces significant workforce challenges that includes a skills gap leading to a growing number of unfilled advanced biotechnical positions. That need will continue to grow across the biosciences with projections indicating that by 2024 New Hampshire will need, for example, 25% more biomedical engineers, 17% more biochemists, and 13% more biological technicians and 18.5% more employees in the healthcare industry. (Source: NH Employment Security), which is indicative of the greater workforce deficit.

In the six year capital plan submitted pursuant to RSA 9:3-a, the University System requests $12 million in State capital investment during the upcoming FY 20-21 biennium with a commitment of an additional $26.7 million from USNH to begin work on critical needs at UNH and PSU. Of the $12 million State capital request, $10 million is requested as the first tranche toward the Biological Sciences Initiative (BSI) at UNH. The BSI is the number one capital priority for USNH to help with meeting New Hampshire’s growing need for highly skilled graduates in STEM fields, particularly bioscience and other emerging fields related to the ARMI initiative.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Prior to FY 20</th>
<th>FY 20-21</th>
<th>FY 22-23</th>
<th>FY 24-25</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH Biological Sciences</td>
<td>$3.40</td>
<td>$10.0</td>
<td>$20.0</td>
<td>$15.0</td>
<td>$86.0</td>
</tr>
<tr>
<td>PSU Hyde Innovation and Entrepreneur Ctr</td>
<td>$0.50</td>
<td>$2.00</td>
<td>$4.00</td>
<td>$4.00</td>
<td>$17.0</td>
</tr>
<tr>
<td>KSC Elliott Student Services Ctr</td>
<td>$2.70</td>
<td>$2.50</td>
<td>$3.00</td>
<td>$2.00</td>
<td>$20.0</td>
</tr>
<tr>
<td>Totals</td>
<td>$3.90</td>
<td>$12.0</td>
<td>$26.7</td>
<td>$17.0</td>
<td>$123.0</td>
</tr>
</tbody>
</table>

*Dollars are in millions*

The BSI project will provide the teaching and research lab facilities to allow program growth that cannot be achieved with the existing facilities. The completed facility will strengthen UNH’s competitiveness in attracting top students and faculty in STEM fields and will provide a pipeline
of talent for NH businesses and for those companies considering locating in NH. The project as envisioned cannot be completed without State support.

The completion of the renovation and expansion for Spaulding Bioscience Laboratory will create 11 new and renovated instructional labs fitted with modern equipment and increase laboratory instructional capacity by 850 students. The additional capacity will alleviate bottlenecks for nursing students and other allied health majors in foundational courses such as biology, biochemistry and anatomy and physiology. It is estimated that the expansion will allow for an increase in students graduating in STEM fields by 250 a year. No additional capacity can be created without State support. The State of New Hampshire will benefit from the ability to attract new businesses and from the direct economic impact of additional graduates remaining in New Hampshire.

The project provides for major building system replacements with a focus on essential renovations to and replacement of laboratory and teaching spaces that no longer meet contemporary teaching and research needs. Significant portions of the existing facility have not been updated since its original construction in 1960. This investment will address over $30 million in deferred maintenance in Spaulding, Kendall and Conant Halls.

In addition to the $10 million requested in the next biennium for the UNH BSI, the University System requests $2 million to support a critical need at PSU, the Hyde Hall Innovation and Entrepreneur Center.

Hyde Hall was built in 1974 and has not had any major renovations in 45 years. Several of the major building components have exceeded their life expectancy. The 81,000 square foot building is one of the most heavily used academic buildings on the PSU campus and a recent Facilities Condition Assessment identified Hyde Hall as one of the highest critical need buildings on the PSU campus. The planned $17 million renovation to Hyde Hall will address critical building components including mechanical, plumbing and electrical infrastructure, fire alarm
replacement and building envelope. With a focus on workforce development, Hyde Hall will be the home to the Innovation and Entrepreneurship Cluster.

The Hyde Hall renovation project will improve energy efficiency and reduce energy costs and approximately $15 million of deferred maintenance will be eliminated with completion of this project.

USNH total capital assets include approximately 9.2 million gross square feet of space and over 400 buildings with a replacement value of $3.1 billion. USNH recognizes that capital investment is needed to ensure facilities are up-to-date and appropriately maintained. USNH invests on average $65 million a year to maintain, renovate and repair these assets. A recent independent Facilities Condition Assessment concluded that USNH sufficiently maintains its capital assets.

USNH follows a rigorous capital planning process which includes the development of campus master plans, six-year capital plans, periodic facilities condition assessments and an annual deferred maintenance assessment. An approval process for capital projects exists with approval levels dependent on size of projects and funding sources. The Financial Affairs Committee of the Board receives a report on the status of ongoing projects at each meeting. While USNH has constructed new facilities, it remains committed to maintaining, repairing, and updating its existing facilities. Successful renovations over the last few years include a major addition and renovation to UNH’s iconic Hamilton Smith Hall and a $10 million renovation to the Physical Education Center at PSU.

USNH has seen the impact investment in high quality facilities has on enrollment. The investment made by the State from 2001 through 2013 through the KEEP program at the three residential campuses resulted in enrollment growth in STEM-related areas as well as growth in STEM-related gifts and grants. Following the two sector specific renovations at UNH, enrollment increased by 49% in five years after the new Peter T. Paul building for UNH’s business school was built and 90% in five years after the major renovation of Kingsbury Hall. At
KSC, the investment in the Technology, Design and Safety Building in 2010 resulted in rapid expansion of three flagship academic programs: Safety and Occupational Health Sciences, Architecture and Sustainable Product Design and Innovation. The KSC Architecture program is the only accredited four-year architecture program in the Granite State.

The University System is pleased to submit a capital budget request that strengthens the partnership between USNH and the State. This request represents a joint effort over the six fiscal years 2020 through 2025 aimed at enhancing the economic vitality of New Hampshire and represents the current thinking of how best to remain responsive to the needs of students and the citizens of New Hampshire.