

New Hampshire's Innovation-Led Growth Opportunities are Found in Advanced Manufacturing, Information Systems and Biosciences

The “line-of-sight” analysis identified six niche areas of industry innovation in New Hampshire that fall within three broad industry clusters:

Below is a brief overview of each of the specific innovation niches falling within these broad industry clusters. A profile of each these innovation niches areas is provided in Appendix A to provide a fuller explanation of the industry innovation context, the industry connections, the university research alignment and the growth potential.

Information Systems

Data processing and network systems – This area includes patent strengths found in machine learning and complex data processing, logistics and consumer data processing and network security. Industries aligned with this area include data processing and hosting, custom computer programming, computer systems and design services and software publishing. These aligned industries grew by just over 24% making it an important job generator for New Hampshire. With nearly 12,000 jobs, it stands as a specialized industry though not at the levels of specialization found in advanced manufacturing.

- **Industry presence:** This area has a healthy mix of emerging companies such as Dyn and Bottomline Technologies and more established companies such as AutoDesk, HP, Oracle and EMC. There are many emerging high-growth potential companies found in New Hampshire with extensive venture capital support for software, data, internet and computer services. Between 2009 and 2015, 29 New Hampshire companies received \$421 million in venture capital funding.
- **Growth outlook:** Global market growth rates for this area encompass a wide variety of applications with large market sizes and strong annual growth rates. For instance, the market areas of enterprise mobility networks, content delivery networks and data center and server security are each expected to grow at nearly 14% annually, and even higher annual growth rates are expected for the emerging market of software-defined networking applications.
- **Research capacity:** Universities in New Hampshire are active in this area, with more than 100 publications from 2009 to 2015 in fields such as information sciences, software engineering and interdisciplinary computer sciences applications. New Hampshire's universities stand out in the breadth of major research centers and grants, most notably the UNH Interoperability Lab and Dartmouth's efforts in cybersecurity, mobile health, digital forensics and ubiquitous computing.