

MANUFACTURING

in Lehman's Terms

Funding Research and Development in North Dakota

Prior to life at Commerce, I spent more than 10 years working for North Dakota State University's College of Engineering helping manufacturers and entrepreneurs develop and commercialize their ideas. This included product design for manufacturability, identifying prototyping/manufacturing resources, and helping identify research and development (R&D) funding. With the LIFT program developing, ResearchND sunsetting, and routine announcements from North Dakota businesses and universities regarding high-tech R&D such as unmanned aerial systems (UAS), autonomous agriculture, sensors, etc., I have received many questions regarding whether there are any programs to help companies with their R&D efforts in North Dakota. Although there are too many details to do a deep dive here, I will attempt to cover the basics of the various programs individuals and companies are using to pay help fund their R&D efforts.



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1. **InnovateND**, administered by the North Dakota Department of Commerce, is a great first step for entrepreneurs looking to finance their product development and commercialization efforts. This program provides entrepreneurs access to resources to move commercialization their efforts forward. Some of the benefits include:
 - Access to certified entrepreneurial centers
 - Assistance on the Business Model Canvas, including value proposition and customer identification
 - Business planning tools
 - Prototype development
 - Access to the statewide entrepreneurial ecosystem
 - Up to \$40,000 to help fund commercialization efforts

Website: <https://www.commerce.nd.gov/innovatend/>
2. The **Innovation Technology Loan Fund (LIFT)** program is aimed at supporting technology advancement. Put in place by the 2019 Legislature to replace ResearchND, the fund is administered by the North Dakota Department of Commerce in conjunction with the Bank of North Dakota to fund applied research, experimentation, or operational testing within the following target sectors:
 - Advanced computing and data management
 - Agriculture technology
 - Autonomous and unmanned vehicles and related technologies
 - Energy
 - Health care
 - Value added agriculture
 - Any additional industry as specified by the LIFT committee

The typical funding range is between \$100K-\$1M per company per year.

Loan Terms:

Years	Interest Rate
1-3	0%
4-5	2%
All Subsequent years	Standard BND rate

LIFT fund committee approval will consider the following project qualities:

- Deliver applied research, experimentation or operational testing in one or more of the diversification sectors to create information or data to enhance North Dakota companies or industries or companies making investments in North Dakota.
- Lead to the commercialization or patent of an innovation technology solution, or
- Result in startup or expansion activity that will diversify the state's economy through new products, investment, or skilled jobs.

Website: <https://www.business.nd.gov/lift/>

3. **The R&D Expense Credit** is an income tax credit for conducting research in North Dakota. The credit is equal to a percentage of the excess of qualified research expenses¹ in North Dakota over the base amount¹ in North Dakota.

The applicable percentage is 25% for the first \$100,000 of excess expenses in a tax year and 8% for those above \$100,000. Alternatively, a simpler method to calculate the credit may be used. Under this method, the credit is equal to 17.5% of the first \$100,000 of "North Dakota alternative excess research and development expenses²" plus 5.6% of the amount in excess of \$100,000. If a taxpayer has no qualified research expenses within the past three tax years, the credit is equal to 7.5% of the first \$100,000 of qualified research expenses plus 2.4% of the amount in excess of \$100,000.

A taxpayer may choose on an annual basis to use either method to calculate the credit, which is then binding for the year.

In a passthrough entity, such as a partnership or S corporation, the credit is passed through to its owners in proportion to their ownership interests. If a credit exceeds a taxpayer's tax liability, the unused portion of the credit must be carried back three tax years and carried forward up to fifteen tax years. Taxpayers may be eligible to transfer part or all of their unused credit to another taxpayer.

Website: <https://www.nd.gov/tax/user/businesses/>

¹ As defined under federal income tax law (I.R.C. § 41)

² North Dakota alternative excess research and development expenses: amount by which qualified research expenses incurred in North Dakota exceed 50% of the average qualified research expenses incurred in North Dakota for the three tax years preceding the tax year for which the credit is being claimed.

4. The **Agricultural Products Utilization Commission (APUC)** aims to create new wealth and employment opportunities by expanding North Dakota's value-added ag footprint. Although, specifically intended for entities adding value to a North Dakota ag commodity, it can be a great program to help you fund some of your R&D or business development costs.

Grant funding proposals are reviewed on a quarterly basis for the following grant categories:

- Basic and Applied Research
- Marketing and Utilization
- Farm Diversification
- Technical Assistance
- Nature Based Agri-Tourism
- Prototype Development and Technology

Website: <https://www.nd.gov/ndda/apuc>

5. **ND EPSCoR Students in Technology Transfer And Research (STTAR)** provides college juniors provides graduates students in STEM fields an opportunity to use their education to address industry challenges. These work experiences are similar to other internship and co-op experiences; however, there is a stronger R&D focus to the STTAR program. The minimum company match for a STARR student is 2:1.

Website: <https://www.ndepscor.ndus.edu/>

6. **The Renewable Energy Council** was established by the legislature in 2007 to provide financial assistance to foster development of renewable energy and related technologies. As such, this can also be a good program to utilize for R&D if your idea can help to grow North Dakota's renewable energy portfolio.

Website: <http://www.nd.gov/ndic/renew-infopage.htm>

7. **The Oil and Gas Research Council** was established by the 2003 Legislature to provide financial assistance through the Oil and Gas Research Program (OGRP). The intent of this program is to foster development of oil and gas resources. If your idea is related to oil and gas technologies, be sure to check this program out. Website: <http://www.nd.gov/ndic/ogrp-infopage.htm>

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