

FISCAL NOTE
Requested by Legislative Council
01/30/2019

Revised
 Bill/Resolution No.: HB 1542

- 1 A. **State fiscal effect:** *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2017-2019 Biennium		2019-2021 Biennium		2021-2023 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues						
Expenditures			\$371,152			
Appropriations			\$371,152			

- 1 B. **County, city, school district and township fiscal effect:** *Identify the fiscal effect on the appropriate political subdivision.*

	2017-2019 Biennium	2019-2021 Biennium	2021-2023 Biennium
Counties			
Cities			
School Districts			
Townships			

- 2 A. **Bill and fiscal impact summary:** *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

House Bill 1542 will create a 12 person task force focused on developing a strong North Dakota Autonomous Ecosystem. Given current UAS & Grand Farm efforts as well as energy work in the West, it is critical to have an integrated statewide plan to enable ND to grow and diversify its economy.

- B. **Fiscal impact sections:** *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

To properly and effectively implement House Bill 1542, Commerce estimates a \$373,108 fiscal impact. This is based on the amount of travel the group of 12 would engage in as well as the end product which will guide multiagency and state investment efforts in autonomous technologies.

3. **State fiscal effect detail:** *For information shown under state fiscal effect in 1A, please:*

- A. **Revenues:** *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

There are no revenues associated with this bill.

- B. **Expenditures:** *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

12 people; 400 miles per trip = \$230, Food= \$70 one Night = \$83 hotel, \$383 x 12 people x 6 per annum (half virtual) x 2 years = \$55,152; 4 exploratory trips autonomous clusters, e.g. Silicon Valley, \$2000 per trip x 12 people x 4 trips = \$96,000; 1 FTE to support this initiative to include the board, travel and report (temp employee for 2 years) = \$110,000 including benefits (x2 years) = \$220,000. Total \$371,152

- C. **Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation or a part of the appropriation is included in the executive budget or relates to a continuing appropriation.*

A \$373,108 general fund appropriation is required for the Department of Commerce. Funds will be utilized for salaries, benefits for the program lead (person responsible for the deliverable) as well as travel for the appointed board members assuming half virtual meetings.

Name: Shawn Kessel/James Leiman

Agency: Commerce

Telephone: 7013285331

Date Prepared: 01/31/2019

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Date Prepared: 01/31/2019

2019 HOUSE INDUSTRY, BUSINESS AND LABOR

HB 1542

2019 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee
Peace Garden Room, State Capitol

HB 1542
1/28/2019
31568

- Subcommittee
 Conference Committee

Committee Clerk: Ellen LeTang

Explanation or reason for introduction of bill/resolution:

Create a task force for the purpose of studying the needs & challenges of ND autonomous ecosystem & provide a report to the legislative management.

Minutes:

Attachment 1, 2

Chairman Keiser: Opens the hearing on HB 1542.

Rep Beadle~District 27, Fargo: Attachment 1. Also passed out attachment 2 for a constituent who was unable to attend because of the weather.

4:45

Rep Laning: What's to stop the industry from setting up their own tax codes?

Rep Beadle: Absolutes nothing. What I'm asking for is making sure we have state involvement as well as individuals coming for the industry.

Rep Kasper: Page 2, lines 10-12, you are talking about a central data collection infrastructure. What would they gather?

Rep Beadle: The though behind that is not looking at collecting the data ourselves, rather it's the infrastructure in place.

Rep Kasper: What kind of data?

Rep Beadle: Data like a drone through sensors, to detect a break in a line, weather data. They are collecting amount of data that's out there. We need to know that it's safe.

Rep D Ruby: Is the intent also for the autonomous vehicles?

Rep Beadle: That is something that we need to be aware of. We need to be abreast of what is going out there.

Rep D Ruby: How many meeting do you think it would need? There should be some fiscal note but there isn't.

Rep Beadle: I'm surprised that there isn't a fiscal note attached also. This will give us a snap shot of where we've been & are going for the future. We need to understand where we are going for in the future & what we are doing now.

Rep Kasper: Why do we need the state involved & not keep it in the private sector.

Rep Beadle: As we seen from private sector growth, that we need to clear out some of the restrictions so that we are not in their way.

Chairman Keiser: Page 1, who appoints the task force?

Rep Beadle: My assumption is the governor's office.

Chairman Keiser: We might suggest we have the industry folks.

Rep Beadle: I would be fine with that but you would need a nomination with that.

Chairman Keiser: I will request a fiscal note for this bill from the commerce department.

17:45

Mark Hagerott~Assistant Chancellor of Higher Ed: I support this bill. This is a massive event of the emergence of these intelligent machines & automatous systems. ND had a huge lead a few years ago & state have duplicate what we are doing. It's hard to duplicate having airbases & research university right next to each other already a test center.

The biggest issue is government support regulation. What should we be doing in this field, we asked to study this issue with the legislature & the governor's office. This is a good way to get a handle on all this data. We would be glad to partner with you.

Chairman Keiser: I look at the task force & they have the experts. Legislature, we don't have the expertise. Your thought?

Mark: We do need your help. We are one of the few states with the agriculture. ND is leading on technical issues.

Rep M Nelson: Rep Beadle's vision, do you really see this is going away or is it going to grow & grow?

Mark: You are on to something. It could become a standing issue because we are seeing the emergence of millions of intelligent machines that will produce wealth but what is the privacy & data ownership. There are no easy answers & will not be solve by the year 2020.

Rep Schauer: Do you see ND stumbling over the technology in the same way that U of M did unless we are on top of our game?

Mark: We are in a battle right now for this talent & people. We have some advantages with an air base & university center. Now it's the softer stuff that falls more in your purview.

Rep Kasper: Why can't the private sector do the study? Why do we need the government when private business would do it better to begin with?

Mark: We do much better when congress asking hard questions when I was on that task force & not just the defense contractors. There is something about the representatives of ND looking out for the people of ND.

Chairman Keiser: It seems to me that we don't have the private sector appropriately represented here. What is also missing is we need the college of engineering because that's the area of expertise. Perhaps this should be given to an engineering school as part of your job?

Mark: It could be structured in different ways but I do think you are getting the major issue that you have some voice in.

Mike Seminary~Citizen of ND: I stand in strong support. We won't find 2 more experts than with Mr Hagerott & the Governor Burgum. People don't want to be CEO of a company; they want to be CEO of an operating system. Everything is moving rapidly & changing on who has information, what they are doing & etc. My only suggest is to move faster because we should be the leader.

Chairman Keiser: Anyone else here to testify in support, opposition, neutral? Closes the hearing.

Chairman Keiser: I divided this into 3 phases, hardware development, software & then we are now in the third generation & that's left the gate. We are in the app development. I learn about thing too late & we don't want to miss the boat. If you go to these other institutions, the young people are developing & patenting these apps.

Rep Schauer: This technology is going so fast & when you get up to speed, there's something new. I love the idea, need is there, great opportunities, the task force needs to change to be affective.

Rep Bosch: I'm not sure why commerce isn't driving this forward & have a driving force in this.

Rep P Anderson: They can have a designee; could you have engineering department on it. The department of transportation could have somebody in the field but not like in their department? I think there is a way to more industry engineers involved.

Rep D Ruby: The transportation does have somebody who is dedicated to the autonomous. I see some value to this, I do want to see the cost side.

Chairman Keiser: Rep Adams, you need to meet with people to see what direction to go in. We are going to hold these people accountable & we need the right people to be involved. We pay universities to be on top of this.

2019 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee
Peace Garden Room, State Capitol

HB 1542
2/4/2019
32096

- Subcommittee
 Conference Committee

Committee Clerk: Ellen LeTang

Explanation or reason for introduction of bill/resolution:

Create a task force for the purpose of studying the needs & challenges of ND autonomous ecosystem & provide a report to the legislative management.

Minutes:

Chairman Keiser: Reopens the hearing on HB 1542. The fiscal note just came & it's \$373,108. The task force, this is a steep learning curve who are going to be appointed here.

Chairman Keiser: What are the wishes?

Rep Bosch: Moves a Do Not Pass.

Rep Kasper: Second.

Chairman Keiser: Further discussion?

Roll call was taken for a Do Not Pass on HB 1542 with 13 yes, 1 no, 0 absent & Rep Adams is the carrier.

Date: Feb 4, 2019

Roll Call Vote #: 1

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. 1542

House _____ Industry, Business and Labor _____ Committee

Subcommittee

Amendment LC# or
Description: _____

Recommendation

- Adopt Amendment
- Do Pass Do Not Pass Without Committee Recommendation
- As Amended Rerefer to Appropriations
- Place on Consent Calendar

Other Actions

- Reconsider _____

Motion Made by Rep Bosch Seconded By Rep Kasper

Representatives	Yes	No	Representatives	Yes	No
Chairman Keiser	x		Rep O'Brien	x	
Vice Chairman Lefor	x		Rep Richter	x	
Rep Bosch	x		Rep Ruby	x	
Rep C Johnson	x		Rep Schauer		x
Rep Kasper	x		Rep Adams	x	
Rep Laning	x		Rep P Anderson	x	
Rep Louser	x		Rep M Nelson	x	

Total (Yes) 13 No 1

Absent 0

Floor Assignment Rep Adams

REPORT OF STANDING COMMITTEE

HB 1542: Industry, Business and Labor Committee (Rep. Keiser, Chairman)
recommends **DO NOT PASS** (13 YEAS, 1 NAYS, 0 ABSENT AND NOT VOTING).
HB 1542 was placed on the Eleventh order on the calendar.

2019 TESTIMONY

HB 1542

HB 1542

House Industry, Business and Labor Committee
Testimony from Rep. Thomas Beadle

Good Morning Chairman Keiser and members of the House IBL Committee. For the record, my name is Thomas Beadle, State Representative from District 27 in Fargo.

House Bill 1542 is a pretty simple bill that should help continue the growth and development of the autonomous business ecosystem in North Dakota.

As you are all aware of, we have made great successes with the Grand Sky development in Grand Forks, which has brought millions of dollars with of business growth and development in our state with a focus on high end aviation and autonomous development. Major companies like Northrop Grumman have made investments in North Dakota as a result, as well as local, home grown companies like Appareo, Field of View, and Skyskopes. The Northern Plains test site has received FAA approval and has been one of the few areas in the country that has proven to be successful and have the capacity for high end research, including beyond visual line of site flight. North Dakota has been a leader in this field and my goal is to help that continue.

This committee is also very aware of the growth that is occurring within Autonomous transportation. We have debated data collection and consumer protections, as well as the types of autonomous technology that exists on the roadway and what we need to do from an insurance and licensing standpoint to make autonomous transportation on our roadways work in a safe way in ND. We still have a very long way to go in this space, and the industry still has a lot to prove.

One of the newest areas where autonomous technology is seeing substantial growth is with regards to autonomous agriculture. We hear a lot about precision agriculture and the use of Drones flying overhead and collecting data from the soil to help improve crop production, but we are also seeing more and more investments being made into the entire farming cycle using autonomous technology. This is something that will have a tremendous impact on our state. Some of you may have heard of the announcement for an Autonomous Research Farm concept being launched in the Fargo area. I have passed out some testimony from the group that is pushing that initiative, with some information on the farm's goals and objectives for your review.

We all know that autonomous technology is here, is developing, and will continue to grow. That leads me to this bill. This bill puts together a task force for this upcoming interim that brings industry personnel and legislative members together so that we can ensure that we are doing what we need to as a state to continue fostering this industry in a comprehensive way, and that we can make sure to respond to industry needs and consumer protections as necessary. My goal is to look beyond just the skies or the roads, and to make sure that we are investing the resources in our state in a way that will foster all of this emerging technology and keep North Dakota as a national leader.

I believe this is worthy of some discussion, Mr. Chairman, and I'm hopeful that the committee will give this task force positive support. I'm happy to answer any questions the committee may have.



HB 1542

Attachment 2
Jan 28, 2019

Written Testimony from Malachi Petersen, Government & Community Relations Coordinator for Emerging Prairie, to be delivered to the North Dakota House of Representatives Industry, Business, and Labor Committee regarding HB 1542 during public testimony on 1/28/19 at 10 a.m.

Hello,

My name is Malachi Petersen and I'm the Government & Community Relations Coordinator for Emerging Prairie, a nonprofit located in Fargo that focuses on connecting and celebrating entrepreneurs in North Dakota. As a registered lobbyist for Emerging Prairie, I would like to comment on the importance and need for HB 1542 — A BILL for an Act to create a task force for the purpose of studying the needs and challenges of North Dakota's autonomous ecosystem; and to provide for a report to the legislative management.

For the past several months, Emerging Prairie has been working with a diverse group of individuals from the private and public sector on an innovative new idea that could change agriculture in the United States forever. The project is called Grand Farm and is an initiative to create the world's first fully autonomous farm by 2025 in North Dakota. This farm, located in the southeastern part of the state on land already obtained by Emerging Prairie, will feature not just an autonomous farm, but also a rapid prototyping center and business accelerator where entrepreneurs can quickly test their products and learn how to grow their businesses.

At Emerging Prairie, we believe that our region has all the necessary parts to create an autonomous farm that will help feed the growing world while developing new opportunities for both private and public sector organizations / companies in communities across the state. Our plan for Grand Farm is to work with both private and public sector partners to build an ecosystem focused on precision agriculture and advanced farming technologies through the hosting of various agriculture-centric events to connect experts in the field of farming automation. In addition to these networking events, Emerging Prairie has begun laying the building blocks for an agriculture-focused business accelerator in the state by leading a trip to California with stakeholders to view the operations of Plug and Play Tech Center — a network startup accelerator and corporate innovation platform. Finally, Emerging Prairie and Grand Farm partners have started connecting with high schools, tech schools, and universities in the state to begin the discussion of how to train a 21st century workforce with the skills necessary to program and maintain not just the autonomous farm, but other autonomous systems that will begin to become more prevalent over the next few decades.

In order to make Grand Farm a reality, Emerging Prairie and its partners will need to address issues of 5G high-speed internet access, workforce development and retention, and questions of how the farm will interact with other advanced technology projects throughout North Dakota, including the UAS activity in Grand Forks. HB 1542's creation of a task force to study the needs



HB 1542

Attachment 2
Jan 28, 2019

and challenges of autonomous systems and industries within the state would be incredibly beneficial to the goals of Emerging Prairie's Grand Farm project. The task force's objective of evaluating the efficiency and effectiveness of state resources provided to autonomous systems and industries within the state would also be beneficial not only to Emerging Prairie and Grand Farm partners, but also to any other group or groups of entrepreneurs / innovators who are interested in establishing a strong autonomous technologies industry in North Dakota.

Our state is primed for a new wave of innovation in the agriculture space. With companies such as Bobcat, John Deere, and Case New Holland all working on autonomous construction and farming vehicles, as well as companies such as Microsoft working on artificial intelligence, North Dakota has all the pieces necessary to become a thought leader in the autonomous farming space. All we have to do is seize the opportunity. HB 1542 is a bold first step in doing just that and I strongly urge this committee to pass this bill with a favorable recommendation.

Thank you for your time,

Malachi Petersen
Government & Community Relations Coordinator
malachi@emergingprairie.com
(712) 301-3822

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HB1542

Attachment 2
Jan 28, 2019

GRAND FARM



2019 EXECUTIVE SUMMARY

www.emergingprairie.com

OUR GOAL

We believe our region has all the necessary parts to create a **fully autonomous farm by 2025** which will help feed the growing world, develop new opportunities for our communities, and to align organizations to evolving themes that will accelerate change in the region.



1. We will map and build the entrepreneurial ecosystem in the Red River Valley and North Dakota.
2. We will accelerate the success of entrepreneurs and founders in the agriculture technology space.
3. We will educate a diverse cohort of individuals to fulfill the needs of new and emerging technologies.

We're placing the building blocks for the Grand Farm Initiative.



Emerging Prairie is building an ecosystem by **hosting agriculture technology conferences to connect people.**



Emerging Prairie is beginning to build a business accelerator by **leading a stakeholder trip to visit a California accelerator.**



Emerging Prairie is exploring partnerships with educators to **develop the state's first computer coding school.**

OUR WORK

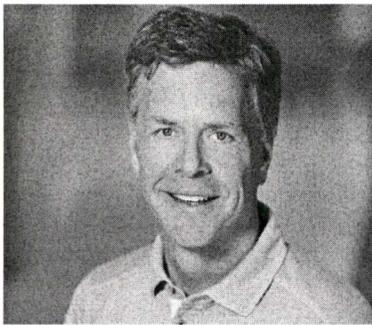


In addition to these steps, Emerging Prairie has also rented land outside of Fargo for the Grand Farm rapid prototyping center / maker space, as well as bought the Grand Farm domain name. Emerging Prairie has also applied for funding through the U.S. Small Business Administration and the North Dakota Department of Commerce.

Advisory Committee

We've started the process of building a Grand Farm Advisory Committee. The mandate of this committee will be to:

- Consider the best legal structure for Grand Farm.
- Oversee strategic decisions.
- Publicly represent Grand Farm.



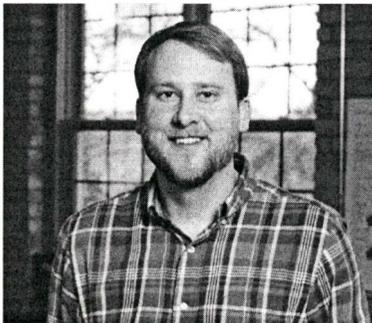
Lauris Molbert
(Co-chair of Advisory Board)
Arthur Ventures



Christi Offutt
(Co-chair of Advisory Board)
R.D. Offutt Company, Inc.



Barry Batcheller
Appareo Systems



Jake Joraanstad
Myriad Mobile / Bushel



Kevin Biffert
Fargo Automation



Greg Tehven
Emerging Prairie



Jennifer Ford Reedy
Bush Foundation



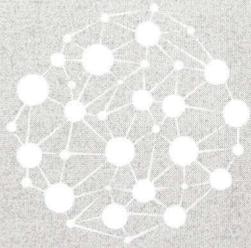
Eric Hardmeyer
Bank of North Dakota



James Leiman
ND Department of Commerce

OUR PLANS

Over the next year, we will continue to work to build the foundation for Grand Farm through collaborative efforts with both private businesses and public organizations.



Widening Our Reach & Impact

We aim to continue to reach out to interested stakeholders to build a coalition of like-minded individuals and organizations who want to assist in the realization of North Dakota's full potential. By the end of 2019, Emerging Prairie aims to finish building the conceptual model for both the business accelerator and physical farm.



Fundraising for our future.

Our goal is to build the world's first fully autonomous farm by 2025. In 2019 we will continue to explore options to raise the funds necessary to complete this goal. Whether through public or private financing, Emerging Prairie is confident that the region has the resources to make Grand Farm both viable and sustainable.

GET IN TOUCH WITH US



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