

# LITHUANIAN ARTIFICIAL INTELLIGENCE LANDSCAPE REPORT

**A study on current capabilities and future growth**



# LANDSCAPE REPORT CONTENTS

**1. ACADEMIC ECOSYSTEM**

**2. INDUSTRY**

**3. FINANCIAL**

**4. COMMUNITY**

**5. PUBLIC SECTOR**

**6. KEY TAKE AWAYS**

# ACADEMIC ECOSYSTEM

- Lithuania is host to a robust academic Artificial Intelligence Community, with over 7 universities that offer substantial AI research efforts and curriculum in the field
- Lithuanian universities have long been a great source of research and tech talents and experts.
- The key players are [Vilnius University](#), [Vytautas Magnus University](#) and [Kaunas University of Technology](#).



VYTAUTO  
DIDŽIOJO  
UNIVERSITETAS  
M C M X X I I



# ACADEMIC ECOSYSTEM

## AI Research at Lithuanian Universities

DEEP LEARNING

NATURAL LANGUAGE  
PROCESSING

DATA MINING

GAME DEVELOPMENT

COMPUTER VISION

ROBOTICS

# MAIN INNOVATION ECOSYSTEM MAP

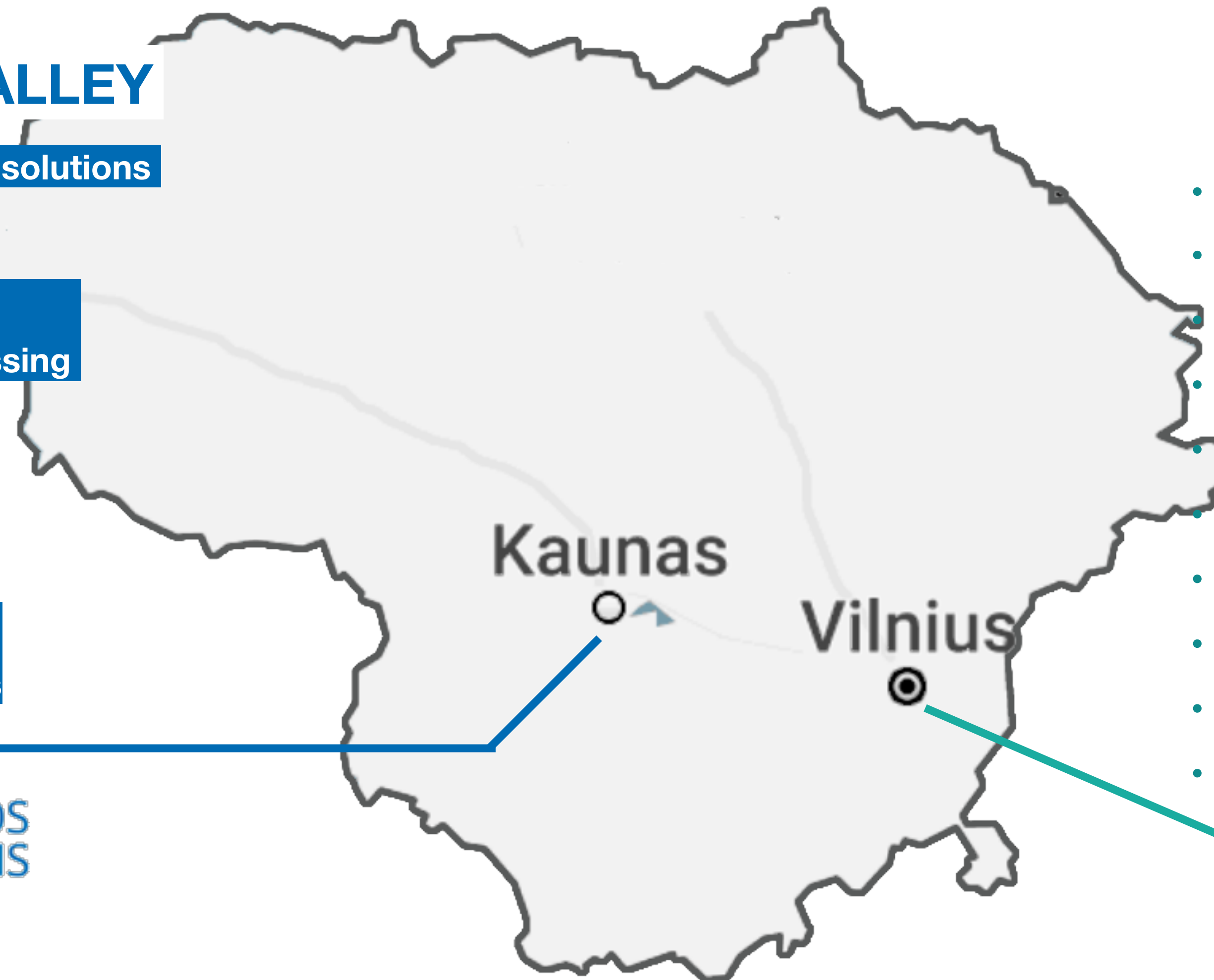
## SANTAKA VALLEY

- Particles for health solutions
- Particles safety
- Signal processing
- CV and NLP Processing
- Cyber Security
- Internet of Things
- Functional films
- Nanocomposites
- Physics of particles



## SUNRISE VALLEY

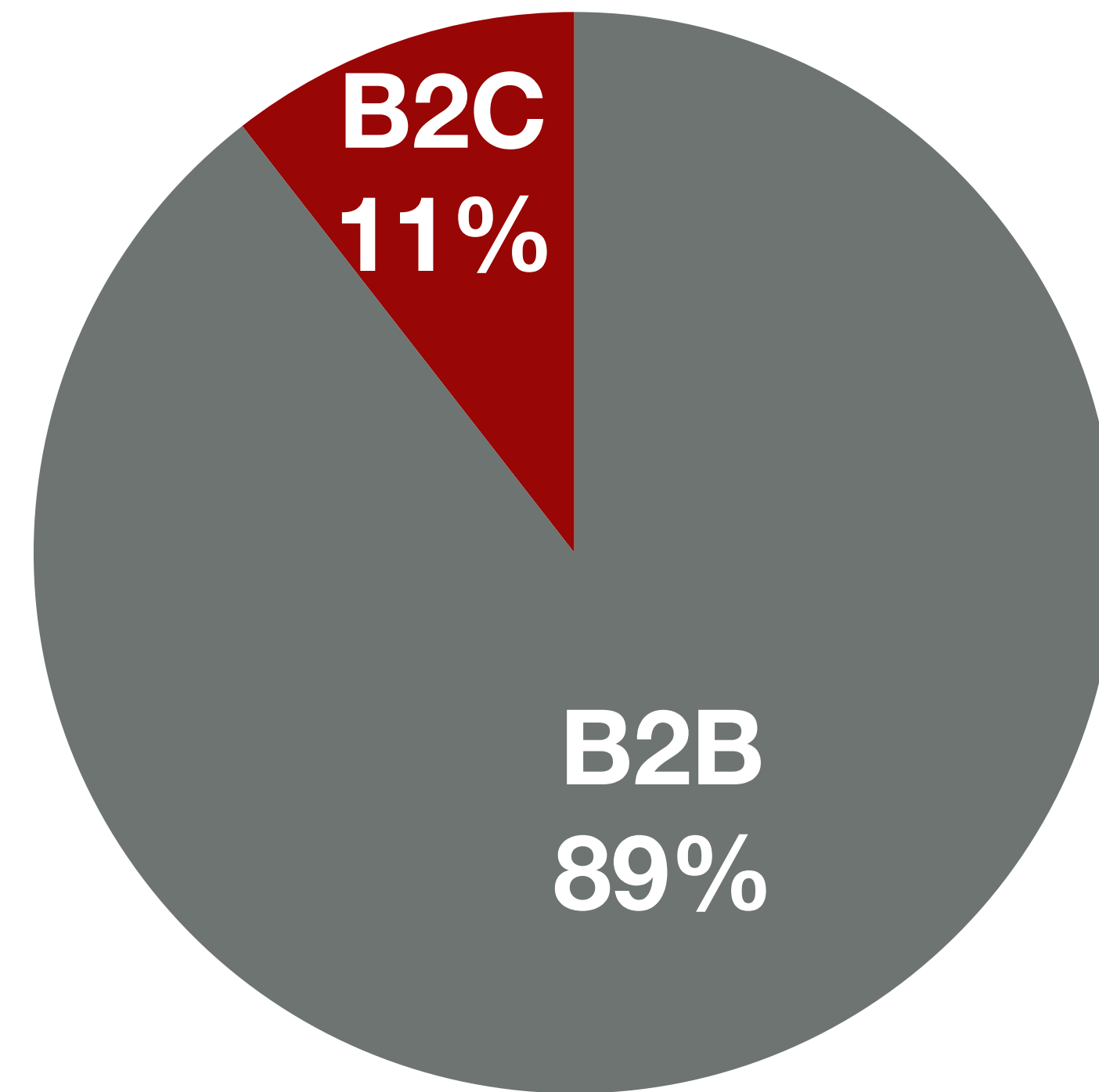
- Lifesciences
- Biotechnologies
- Smart Constructions
- Electronic and Mechatronics
- Cyber Security
- Big Data, AI, VR, AR, HPC
- Innovative medicine
- Medical Applications
- Robotics, Lasers, Optics
- Coatings, ICT



# INDUSTRY

39

Number of small and medium-sized enterprises (SMEs) engaged in AI product research and delivery.



Almost all companies deliver products oriented to the B2B (business-to-business)

# INDUSTRY



Companies originating in Lithuania



Companies operating in Lithuania

# INDUSTRY

## ENTERPRISE

### Development & IT



Kritinė IT infrastruktūra



GOSU  
Data Lab

### Internal Data and Intel



### Security



### Human Resources



## TECHNOLOGY

### IOT

sentiance

### Computer Vision



GradientInsight



### Research



BALTIJOS  
PAŽANGIŲ TECHNOLOGIJŲ  
INSTITUTAS

### Language Processing



### AR/VR



## MARKETING

### Analytics and Insights

NQ

### Advanced Targeting

Exacaster



## MISC

### Agritech



### Medical Imaging

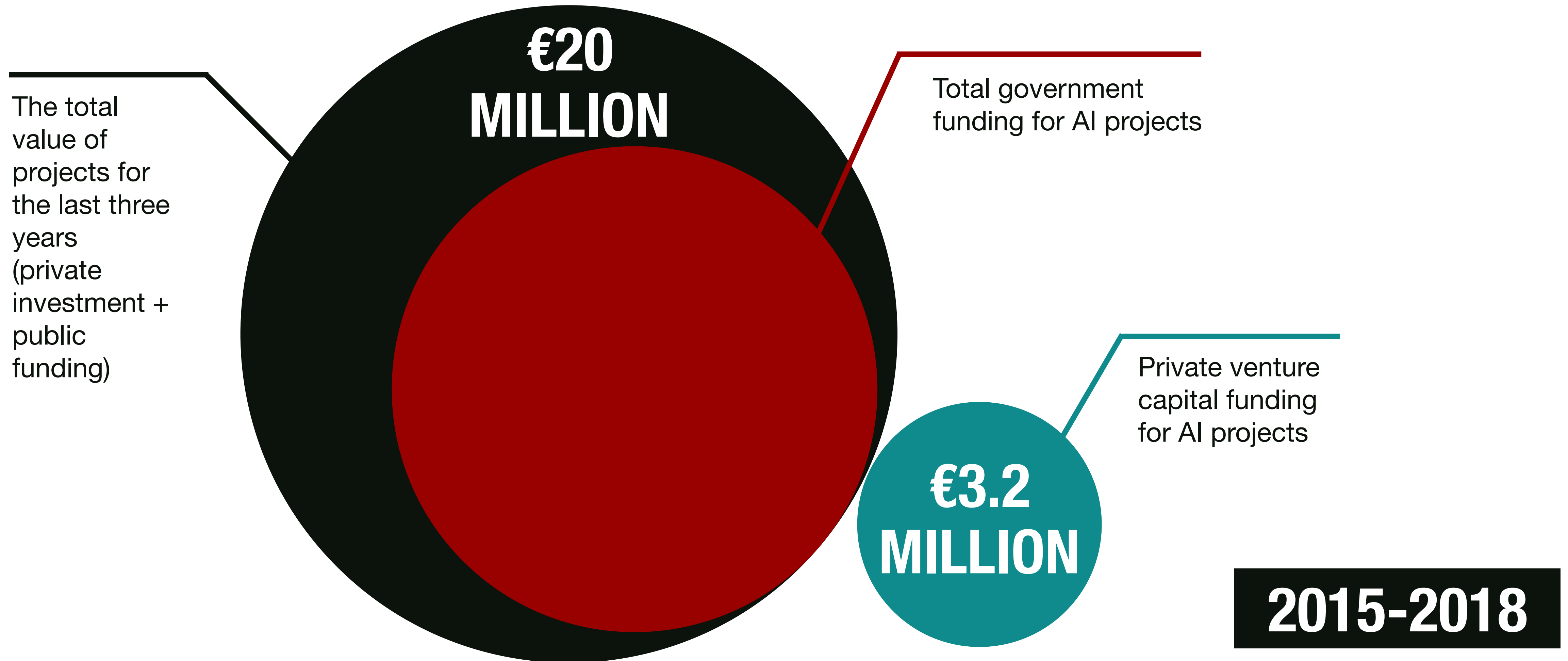


### Biometrics





# FINANCIAL - PUBLIC/PRIVATE COMPARISON



# FINANCIAL - PUBLIC

- In total **39** Artificial Intelligence projects received funding, totaling **€12.5 million** for all funded projects since 2016.
- When combined with private capital brought in, the total value of projects for the last three years was over **€20 million**.
- Almost all of the submitted projects that were approved received funding greater to or equal to **50%** of the total value of the project.
- In addition, AI academic research projects received **€6.5 million**, under the Ministry of Education and Science.



# FINANCIAL - PUBLIC

The majority of funding for AI projects comes from the [Lithuanian Business Support Agency \(LBSA\)](#) and the [Agency for Science, Innovation and Technology \(MITA\)](#)

## MITA

MITA is geared towards smaller scale products, focused on producing a larger quantity of separate financing.

The MITA incentive “[Innovation Checks](#)” and the subsequent “[InoChecks](#)” also produced produced effective financing results for AI companies, geared towards smaller amounts.

## LBSA

LBSA focuses on larger, more extensive projects that require large sums of financial assistance.

The LBSA incentive “[Intellect. University-Business Joint Projects](#)” had the highest success rate for financed projects. This incentive is geared primarily towards financing joint business-academic projects.

# FINANCIAL - PRIVATE

**€3.2  
MILLION**

Total private funding AI companies received since 2015 from Venture Capital firms.



**Startup  
Lithuania**

The main source for facilitating AI startup creation and initial private funding.

# FINANCIAL - PRIVATE

## Biggest VC firms engaged in funding AI projects and startups

Country of Origin



1. Practica Capital
2. Open Circle Capital
3. Litban



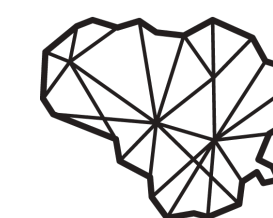
4. Gagarin Capital Partners
5. Runa Capital



6. Ventech



7. Sistema Venture Capital



LITHUANIAN  
BUSINESS  
ANGELS  
NETWORK

# COMMUNITY

## Biggest AI related events



### [AI/Data Science Meetup](#)

Monthly meet up regularly attended by 200+ enthusiasts and industry leaders.



### [Deep Learning paper review](#)

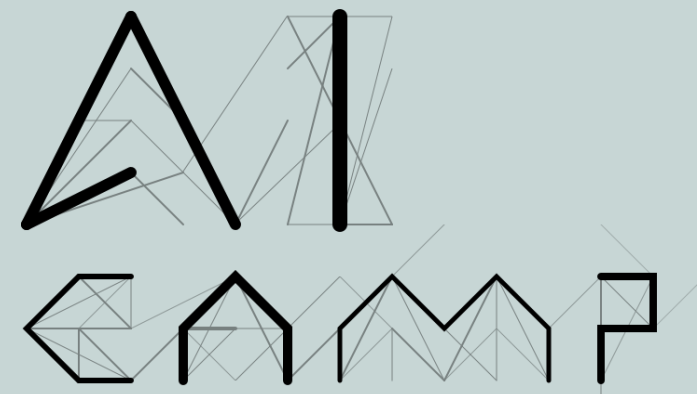
Biweekly meeting on AI topics and knowledge sharing from Neurotechnology.



### [Vilnius School of AI](#)

Regular meetups and training sessions for AI fundamentals.

## AI Hackathon in Vilnius



1000-1500

People regularly attending AI events.

300-500

Professionals working in the field.

## Associations



LIETUVOS  
KOMPIUTERININKŲ  
SAJUNGA

infobalt  
L I E T U V A

# PUBLIC SECTOR

# Zero

AI solutions currently in use by the public sector.

# but...

Government Projects and Initiatives creating conditions for AI growth:

- (I) AI Guidelines and Future Plan**
- (II) Open Data**
- (III) Government IT Consolidation**

# KEY TAKE AWAYS - SWOT

## STRENGTHS

- Many universities with strong computer science programs that incorporate AI into curriculum.
- Strong interest from students to pursue technology as a field of study.
- Lots of start-ups and SMEs creating innovative products for a wide range of industries using AI.
- Effective funding programs for projects from the public sector for both large projects and small-scale solutions.
- Vibrant startup community with one-stop-shop for new startup creation and private VC funding.
- Active AI community with regular meet-ups and coordinated events.
- Funding opportunities for projects between private companies and universities.

- Public sector projects and initiatives in works to increase AI capabilities.
- Government interested in AI, which creates easier collaboration with public and private sectors.
- Public sector is open to innovation.
- New program that will include AI as a category of technology projects eligible for funding.

## OPPORTUNITIES

## WEAKNESSES

- Limited open data accessibility and use.
- Lack of dedicated bachelors, masters programs and PhD studies for AI.
- Poor AI integration and implemented solutions by industrial organizations.
- A lack of government awareness and programs to help develop AI products for private and public sectors.
- No public communication or education on AI and the future.
- Not a large amount of private sector and VC investment into AI startups, SMEs and projects.
- Limited use of AI solutions in the public sector.
- No direct governmental support of funding for AI fundamentals and applied research

- Most businesses that deliver AI products are geared for B2B. There is a lack of B2C innovation. This leaves the market open for B2C products to come in from other countries.
- Economy that is at risk of losing a lot of its jobs due to automation.
- Weak AI investment from home-grown venture capital firms, leaves room for investment from outside sources.

## THREATS



# KEY TAKE AWAYS - NEXT STEPS

1. Finalize and release a Strategic Plan for the Future of AI in Lithuania.
2. Host national Artificial Intelligence Conference.
3. Enable a policy and data Sandbox for development of AI projects.

# THANK YOU

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