



Nordplus

# matís

5.9.2023

# matís

Research & Innovation  
with impact on society



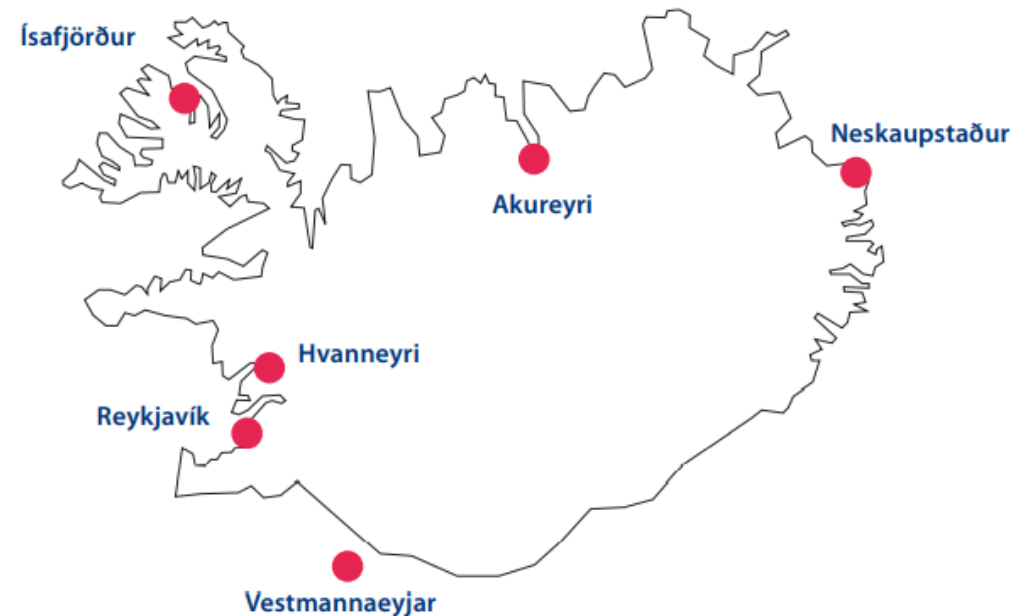
# Matís ohf

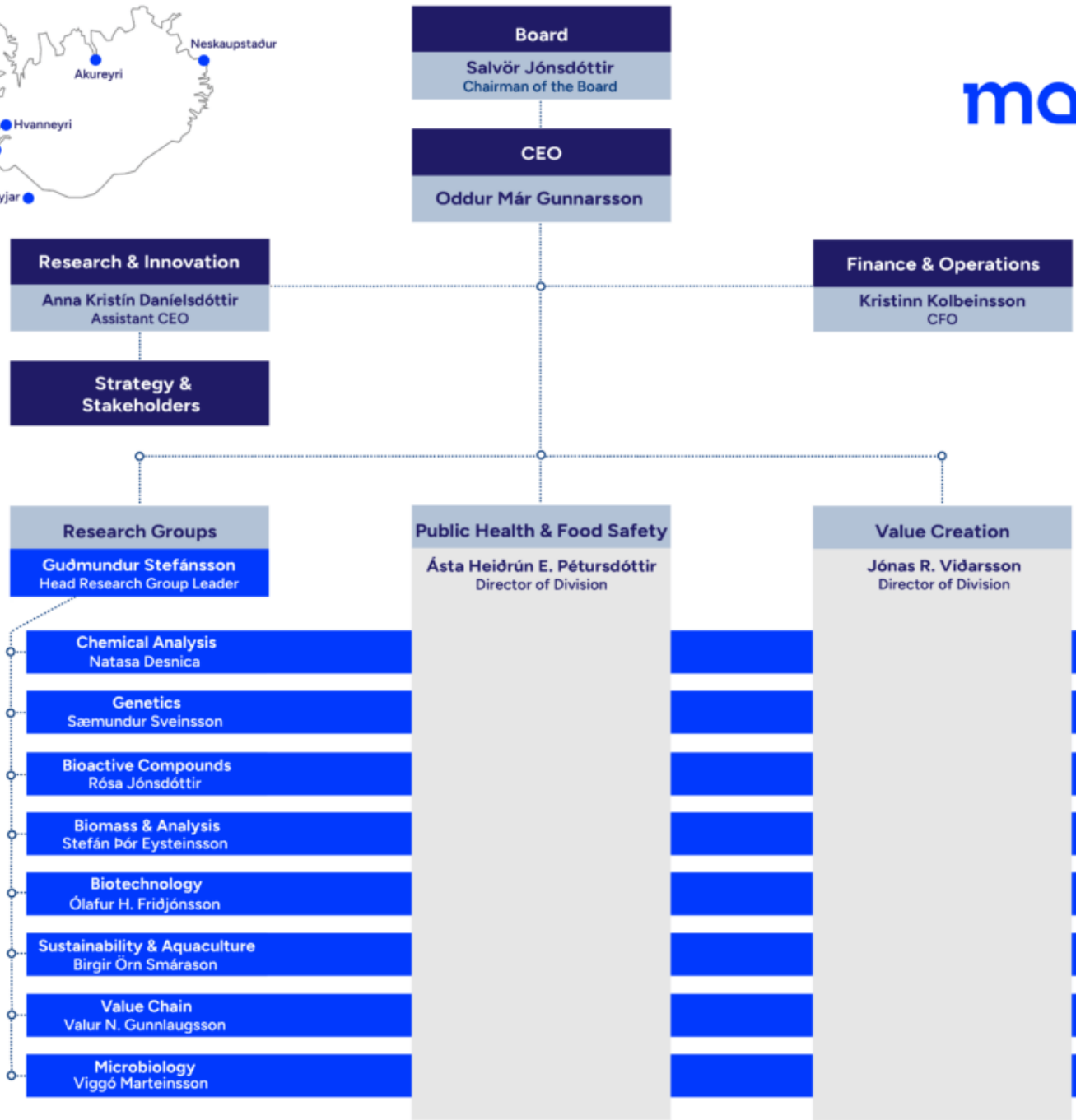
Matís is a governmentally owned Ltd. Non-profit food & biotech R&D company

Matís has obligations to safeguard **food safety**, contribute to improved **public health** and increased **value creation** in the Icelandic food & biotech sectors

97 employees in 6 locations

- 91 FTE
- 60 female / 37 male
- 19 PhD
- 52 MSc
- 13 BSc





# Matís Operations 2022

Turnover 1.88 Billj. ISK (12.8 million EUR/14 million USD)

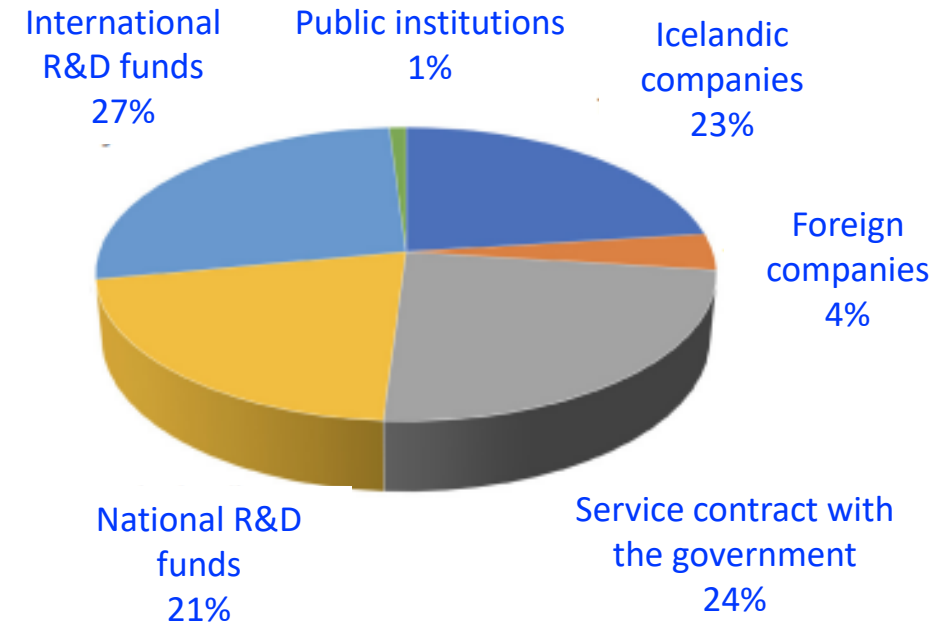
## 24% governmental funding – service contract:

- NRL operations
- Public safety and priority services
- Research and innovation

## 48% Coopetitive R&D funds

- National funds 25%
- International funds (mostly EU and Nordic) 22%

## 28% Service to private companies and institutions



## Four key pillars of Matís



R&D projects  
(funded by competition funds)



Service projects  
(lab analysis)



NRL and other  
analysis for the  
authorities



Consultation,  
education,  
infrastructure

# Research and Innovation

The research at Matis can be divided into 3 focus areas:



Value Creation



Food Security



Public Health

# Impact of our research

- 11 - Pelagic fish
- 15 - Meat
- 9 - R&I agencies, startups and education
- 36 - Demersal fish
- 14 - Fruits, vegetables and grain
- 17 - Environmental research
- 4 - Development aid
- 22 - Public institutions & health authorities
- 3 - Dairy
- 16 - Seaweed and algae
- 48 - Aquaculture
- 10 - Analytical services (NRL & other)
- 16 - Other

221 R&D projects in 2022





# Infrastructure

- Chemical laboratories
  - <https://matis.is/en/maelingar-og-thjonusta/efnamaelingar/>
- Microbiological laboratory
  - <https://matis.is/en/maelingar-og-thjonusta/orverumaelingar/>
- Biotech laboratory
- Genetics laboratory
  - <https://matis.is/en/maelingar-og-thjonusta/erfdagreiningar/>
- Whet lab / test processing
- Aquaculture research station
  - <https://matis.is/mars>
- Sensory and consumer study facilities
  - <https://matis.is/en/maelingar-og-thjonusta/skynmat/>
- Test kitchens
  - <https://matis.is/en/solutions-and-advice/matvaelaframleidsla/matarsmidja/>
- Biorefinery
  - <https://matis.is/en/lifmassaver/>
- The Icelandic database on the chemical content of food (ÍSGEM)
  - <https://matis.is/en/naeringargildi-matvaela-isgem/>



# Impact of our research



<https://matis.is/en/rannsoknir-og-nyskopun/rannsoknarverkefni/>

# Impact of our research



Installation of a  
geothermal grain  
dryer in Kenya

Geothermal energy, Grain,  
Value added



Development of  
ABUNDA® mushroom  
protein as a  
sustainable and  
wholesome  
ingredient in food

Public Health, Innovation,  
Sustainability, value chain,  
Value chain and sustainability



SECRETed:  
Sustainable  
Exploitation of bio-  
based Compounds  
Revealed and  
Engineered from  
naTural sources



List of Projects

Seaweed that improves feed for  
dairy cows - Feed experiment that  
examines the effects of algae on  
the usefulness and health of milk



Do algae in feed affect methane  
emissions from cows? Feeding  
experiments that also examine  
the wholesomeness of milk and  
meat



List of Projects

Update of information sources on  
Icelandic pork

# Impact of our research

Genetic analysis of cattle - the fight against food fraud

List of Projects

**Quality and healthiness of Icelandic vegetables in comparison with imported vegetables**

List of Projects

**Development of Icelandic oat milk**

List of Projects

**Capelin search with environmental genetic material (eDNA)**

Yfirlit verkefna

**BIOZOOSTAIN**

List of Projects

**Remote Electronic Monitoring in Fisheries**

List of Projects

**MINERVA, Marine Innovation using Novel Enzymes for Waste Reduction and Valorisation of Algal Biomass**

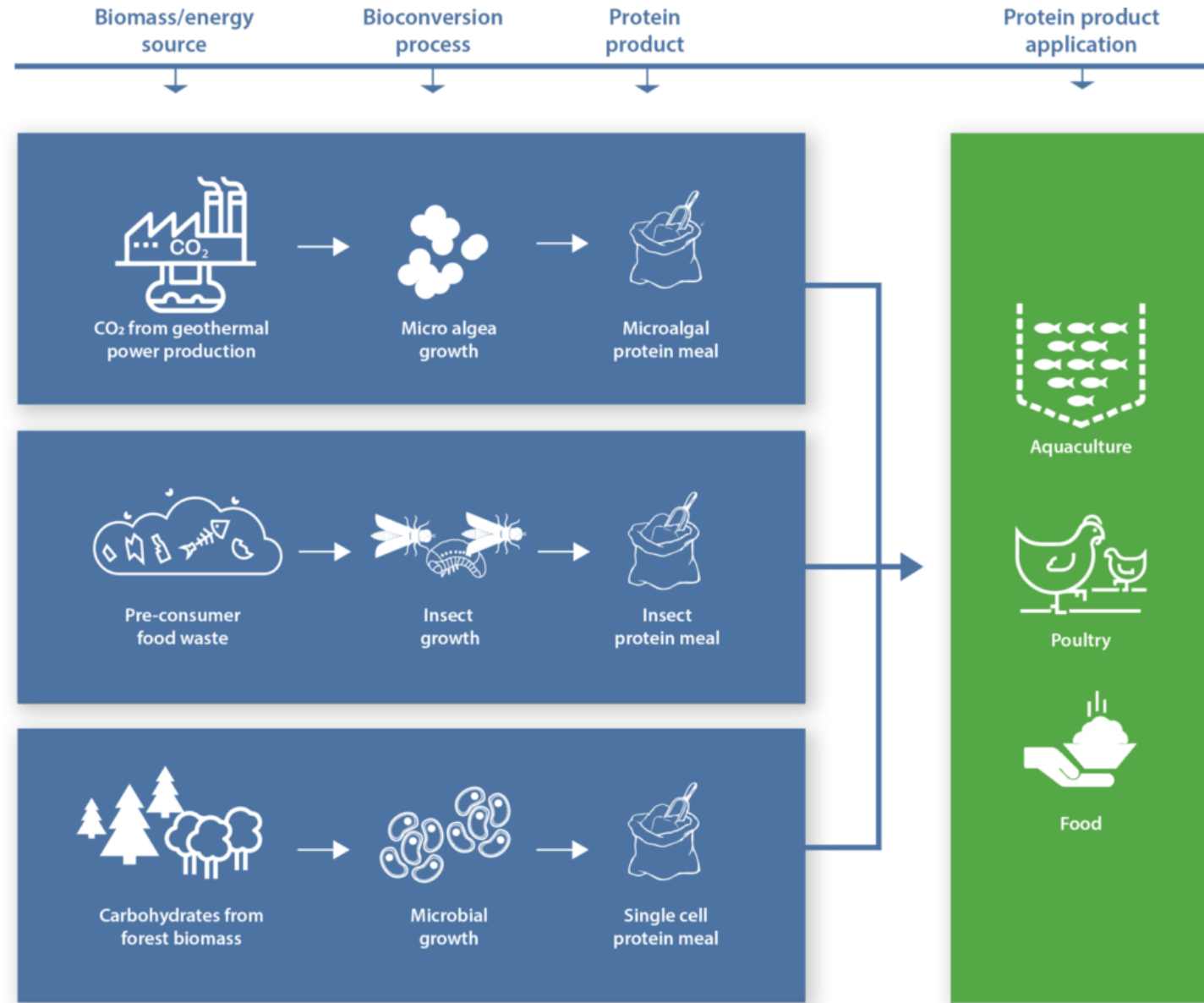
List of Projects

**Lice infestation - Breeding for increased lice eating of roe deer**

List of Projects

**By-products from fish processing for human consumption**

# NEXTGEN PROTEINS



## Ongoing projects relevant for 100% fish

### Gullhausinn

- *The Golden head. Effect of size and season of catch on physicochemical properties of cod heads*



## Ongoing projects relevant for 100% fish

Verðmæti í vinnsluvatni frá bolfiskvinnslu

- *Utilizing valuable materials from runoff water from seafood processing*



# Ongoing projects relevant for 100% fish

## Lífvirk bragðefni unnin úr íslensku sjávarfangi

- *Bioactive flavoring products processed from seafood rest-raw materials and other marine sources*



## EuFish\_SustainableGrowth

- *Product development from under-utilized fish species*

- Silver scabbardfish,
- Bogue,
- Atlantic horse mackerel
- Atlantic argentine
- Blue whiting
- Redfish



## Protein úr hliðarstraumum makríls

- *Protein hydrolases from mackerel rest-raw materials*



## Hrognkelsakollagen - umhverfisvæn afurð

- *Collagen from lumpfish*





# Fisheries management

MareFrame



# Research collaboration with educational institutions

Matís plays an important role in linking educational institutions and scientific research with the business community.





Collaboration



<https://www.youtube.com/watch?v=y2oqaepmCPA>

Takk fyrir – Thank you



## Think inside the box ...

Most innovation involves identifying new opportunities from what we already have. Finding a use for what we used to throw away. To make those connections others cannot see. Our role is to facilitate those who can make these connections, package and implement them to benefit us all.

**Matís is a dynamic knowledge company that provides research and innovation services.**

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