



Innovative, cost-effective and sustainable valorisation
of agri-food side streams.

Exploiting the opportunities provided by European Economic
Area (EEA) and Norway Grants

Gudjon Thorkelsson senior scientist Matis ohf; professor University of Iceland



European Economic Area



- 1992
- Single market to Non-EU countries
- Iceland, Liechtenstein, and Norway) access to internal market governed by the same basic rules and Vice Versa
- Enable free movement of labour, goods, services, and capital within the European Single Market
- Pay to R/D funds



EEA and H2020

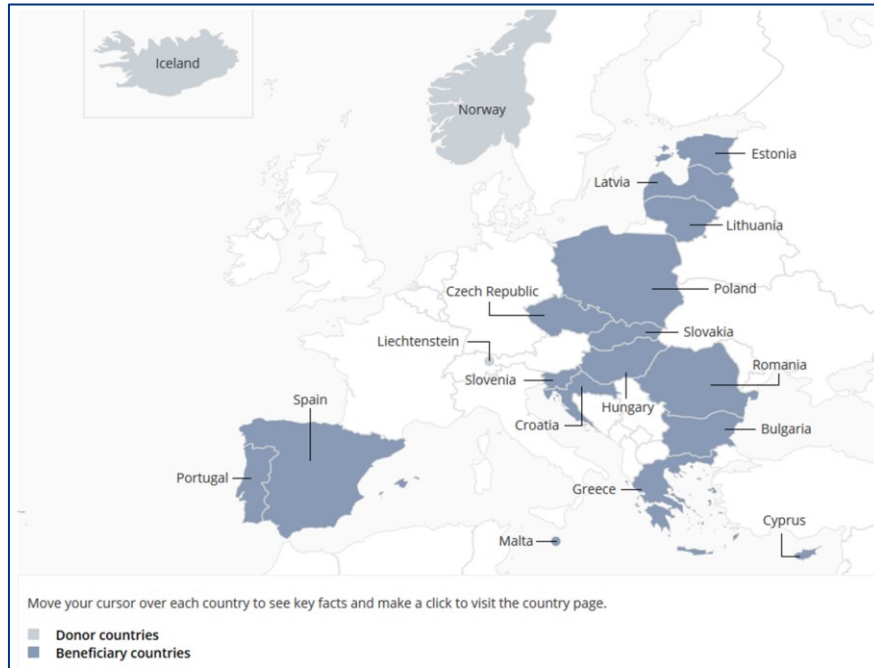
The EEA EFTA countries and the EU share a common objective of creating competitive and dynamic **knowledge-based** economies.

Innovation in the selected business areas, green industry development, entrepreneurship and smart growth strategies supports the efforts of the Europe 2020 and the Horizon 2020 strategy for smart, sustainable and inclusive growth, as well as **young entrepreneurship and job creation**.

The programme area further supports several thematic objectives in the EU's cohesion policy 2014-2020, where the objectives on innovation, ICT quality, competitiveness of small and medium-sized enterprises (SMEs) and sustainable transport are the most obvious ones.



EEA Grants and Norway Grants



Financial contributions of Norway, Iceland and Liechtenstein

- towards the reduction of economic and social disparities in the European Economic Area
- to strengthen bilateral relations with 15 EU and EEA Member States in Northern, Central and Southern Europe



Priority on Innovation and Business Development.

- Innovative technologies, processes and services
- Sustainable business development
- Greening of existing businesses and processes
- Development and implementation of innovative products and services



Suggested measures

Business development from early stage innovation up to testing of new technologies and supporting their first presentation to the market

New technologies, processes and services that directly or indirectly improve the environment

- more environmental products and production processes
- more efficient handling of resources and technological systems

Promoting entrepreneurship, especially for young and/or female entrepreneurs



Iceland's bioeconomic miracle. Presentations by Partners from MATIS food & biotech research institute and University of Iceland.

Gudjon Thorkelsson.

Bioeconomy in Iceland and introducing,

Sæmundur Sveinsson.

Genetics and uses of native breeds of livestock and more.

Paulina Wasik.

Optimising the value of mackerel caught in Icelandic Waters.

Björn Vidar Adalbjornsson.

Research in biochemistry has led the development of nutraceuticals, medical devices and pharmaceuticals .

Justine Vanhalst.

Emerging challenges and trends and how to engage citizens in coming up with new ideas in solving solving problems through hackathons.





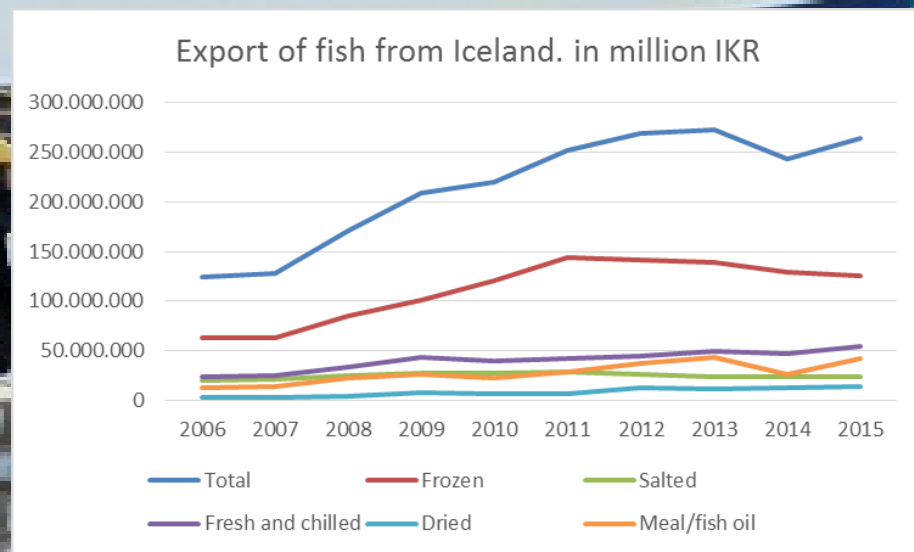
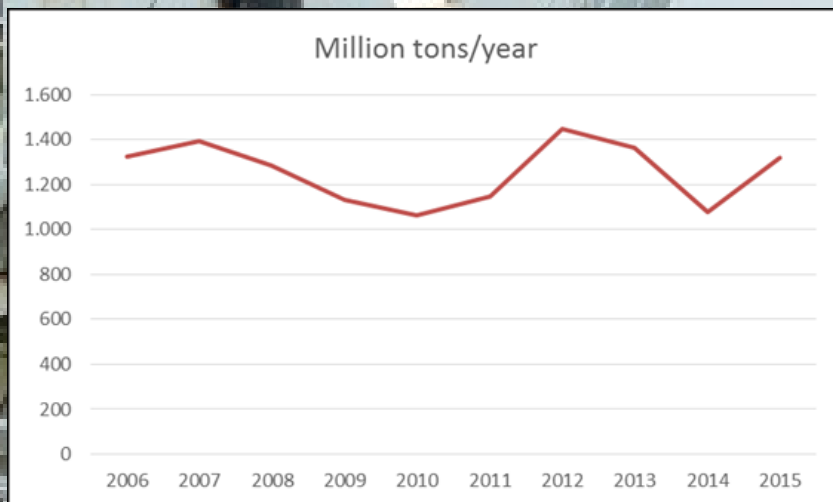
Iceland. Food Production. Matis Introduction

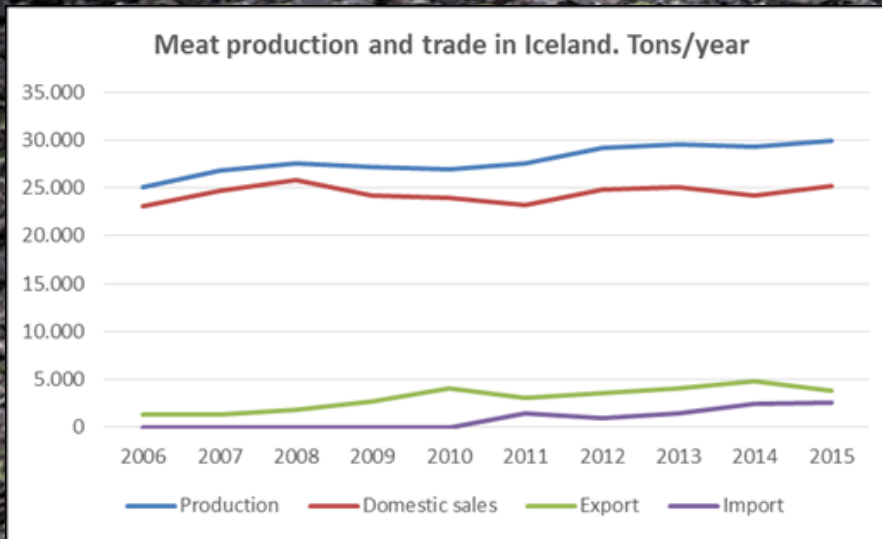
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Iceland. Economic zone



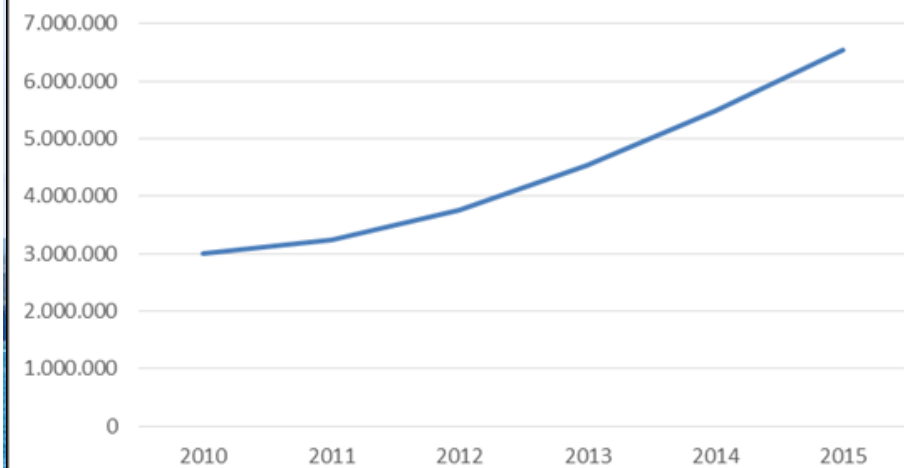




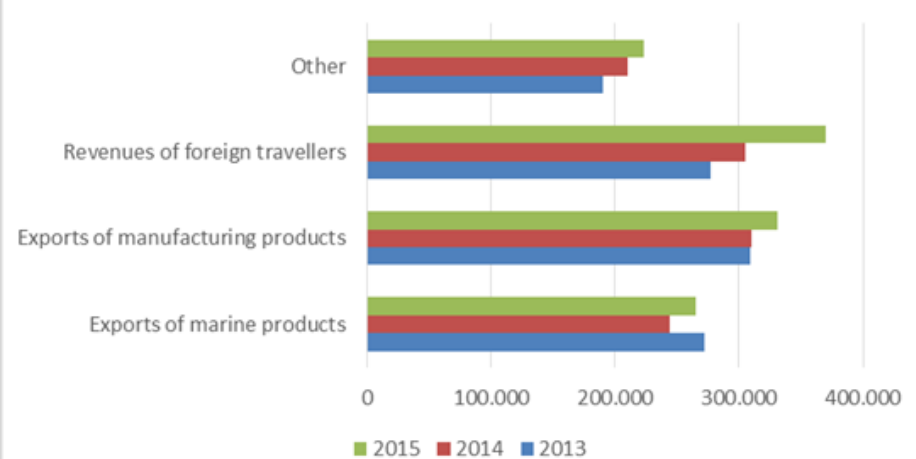
Cultivated grass and wild pastures



Overnight stays in Iceland



Revenues in Iceland. Million IKR/year



YTRI-FAGRIDALUR



EES-ESB vottun IS-1

EFTIDALUR II



Eigendur Eftidalur II eru hjónin Björg Ingvarsdóttir og Snæbjörn Sigurðsson. Snæbjörn er fæddur og uppalinn í Eftadal en Björg kemur frá Njarðvík. Sama ættin hefur búið í Eftadal síðan um 1850. Aðal búskapurinn í dag er kúabúskapur, ferðapjónusta og hrossarékt. Ferðapjónustan byrjaði árið 1992 með hestaleigu. Árið 2003 byrjuðum við að leigja út 4 herbergi á neðri hæð íbúðarhússins okkar. Árið 2006 byggðum við hjúkrahús með 10 rúmgöfum herbergjum. Árið 2008 fluttum við í nýtt íbúðarhús fyrir Snæbjörn og Björgu. Árið 2010 fluttum við í nýtt íbúðarhús fyrir Snæbjörn og Björgu.



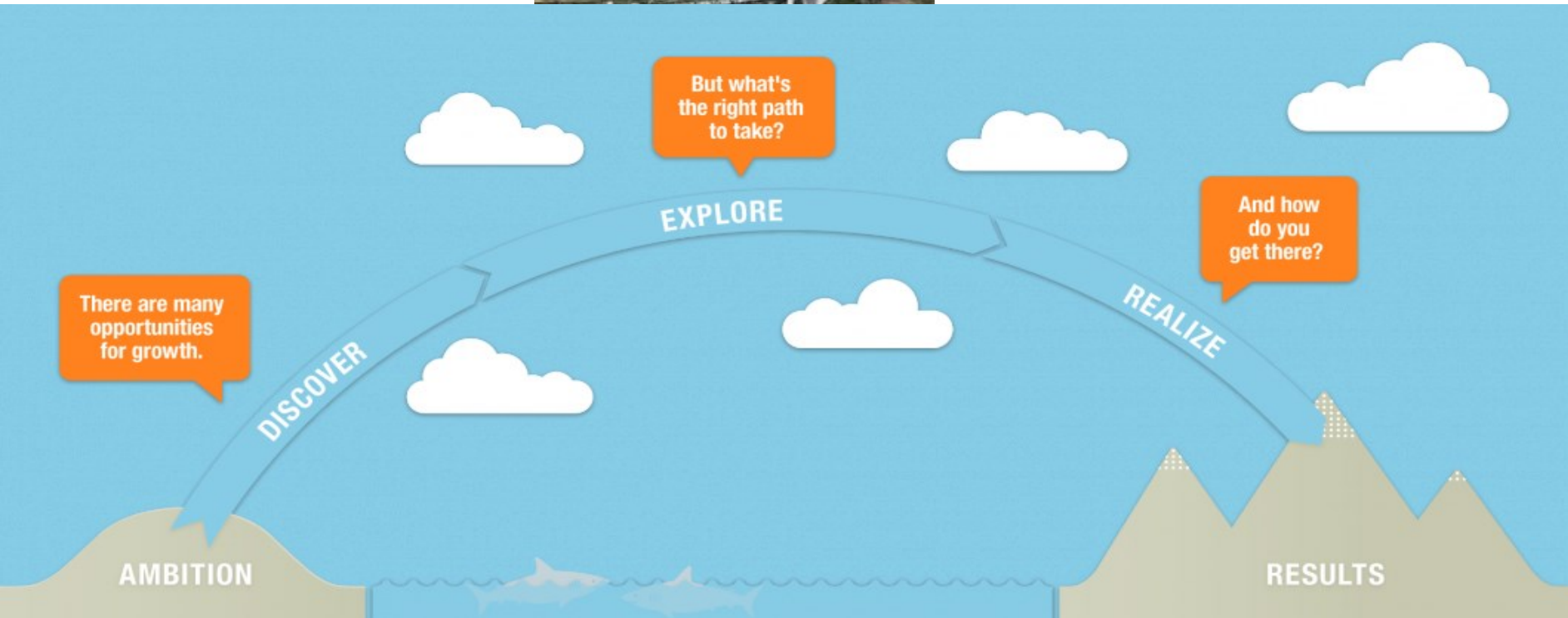
MATIS ohf

Matís is a government owned, non-profit, independent research company, founded in 2007.

We do research and development aligned to the food and biotechnology industries as well as providing analytical testing services for public and private authorities and companies



Bridges in Iceland



Industry





CEO
Sveinn Margeirsson

Chief Science and Innovation Officer

Hörður G. Kristinsson

Long-term investment, future business models, technological disruptions

CEO Office

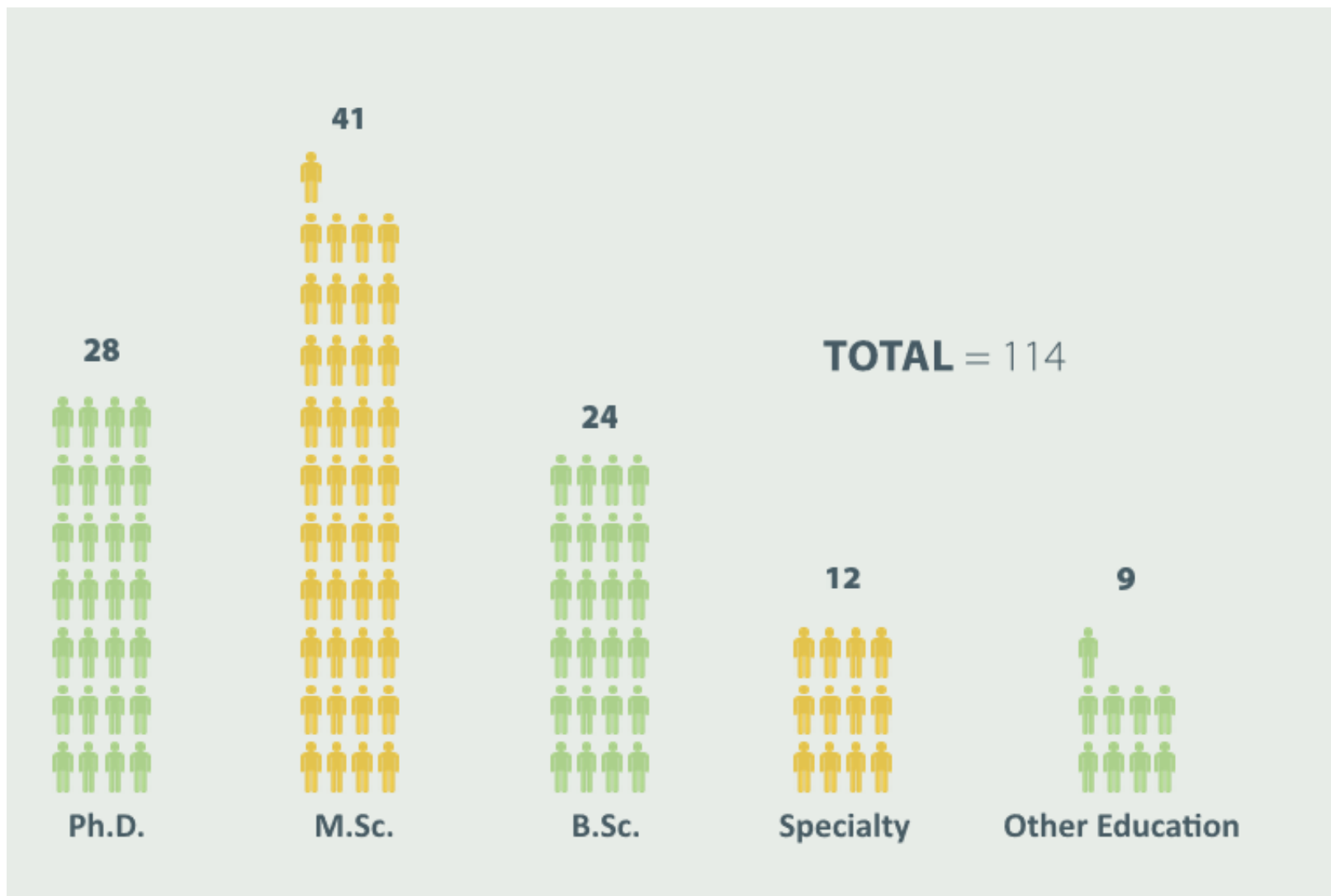
Oddur Már Gunnarsson

Contracts and file management



4 joint staff member with the University of Iceland



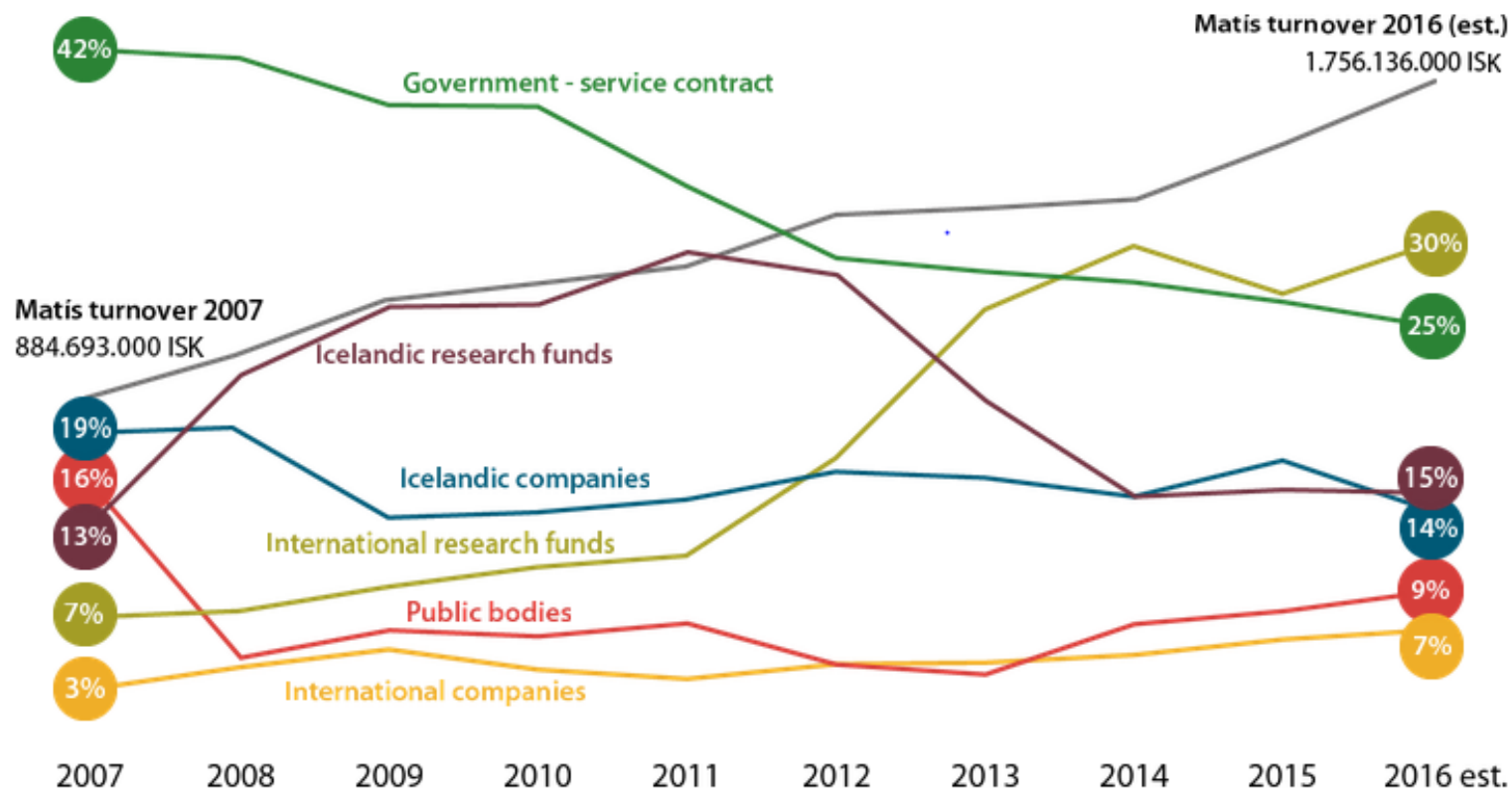


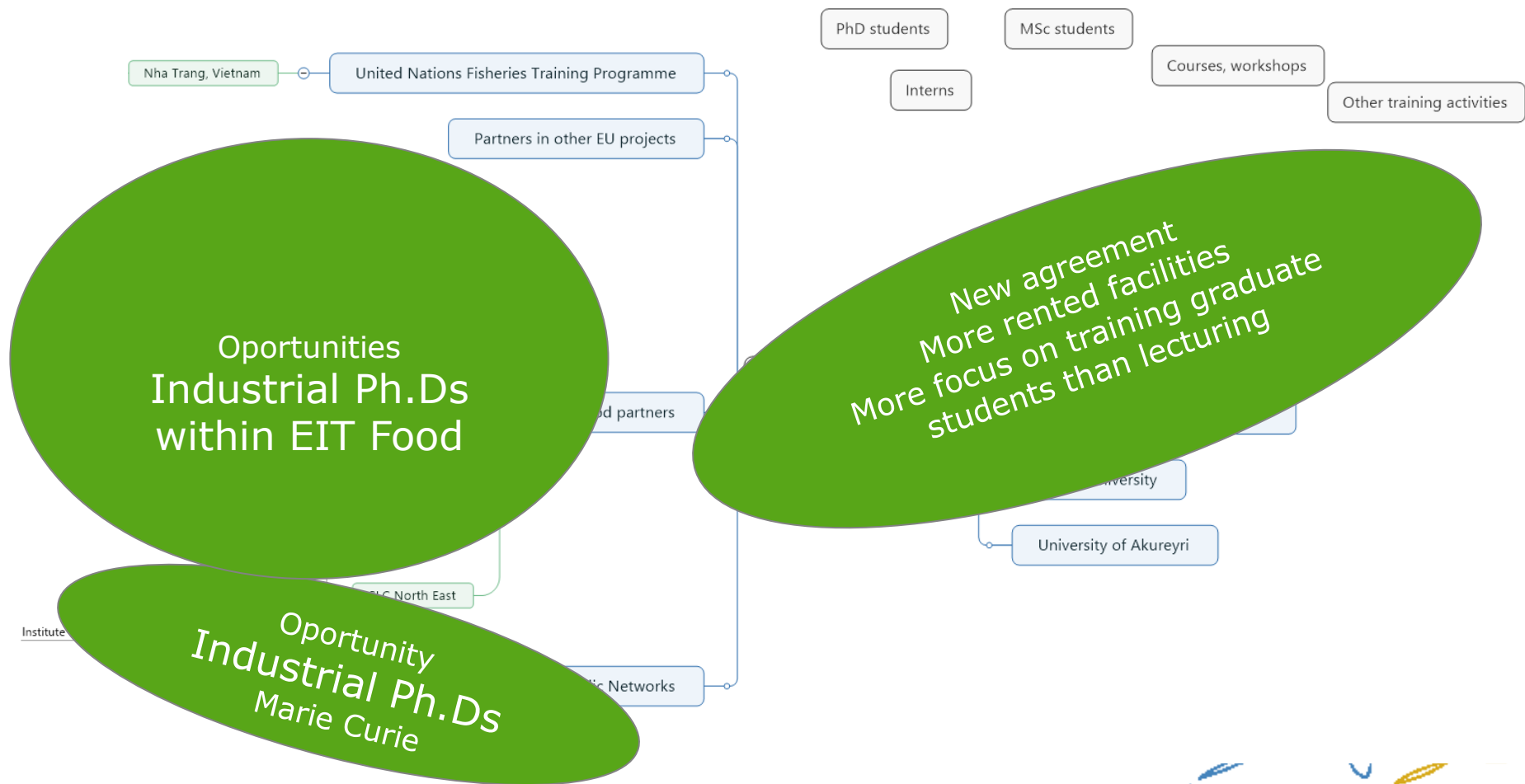
Division	Employees	Full time positions
Operations	11	10,3
Analysis & Infrastructure	34	31,75
Research & Innovation	45	43,6
Implementation & Impact	19	18,45
CEO Office	5	5
Total	114	109,1

General infomation		
Average age of employees	44	
Average number of years at Matis	9,1	



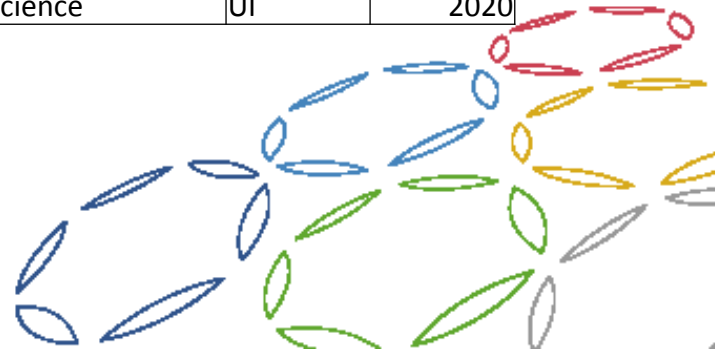
Matis turnover



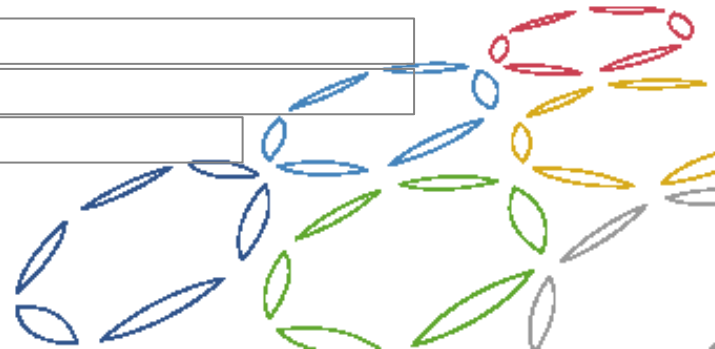
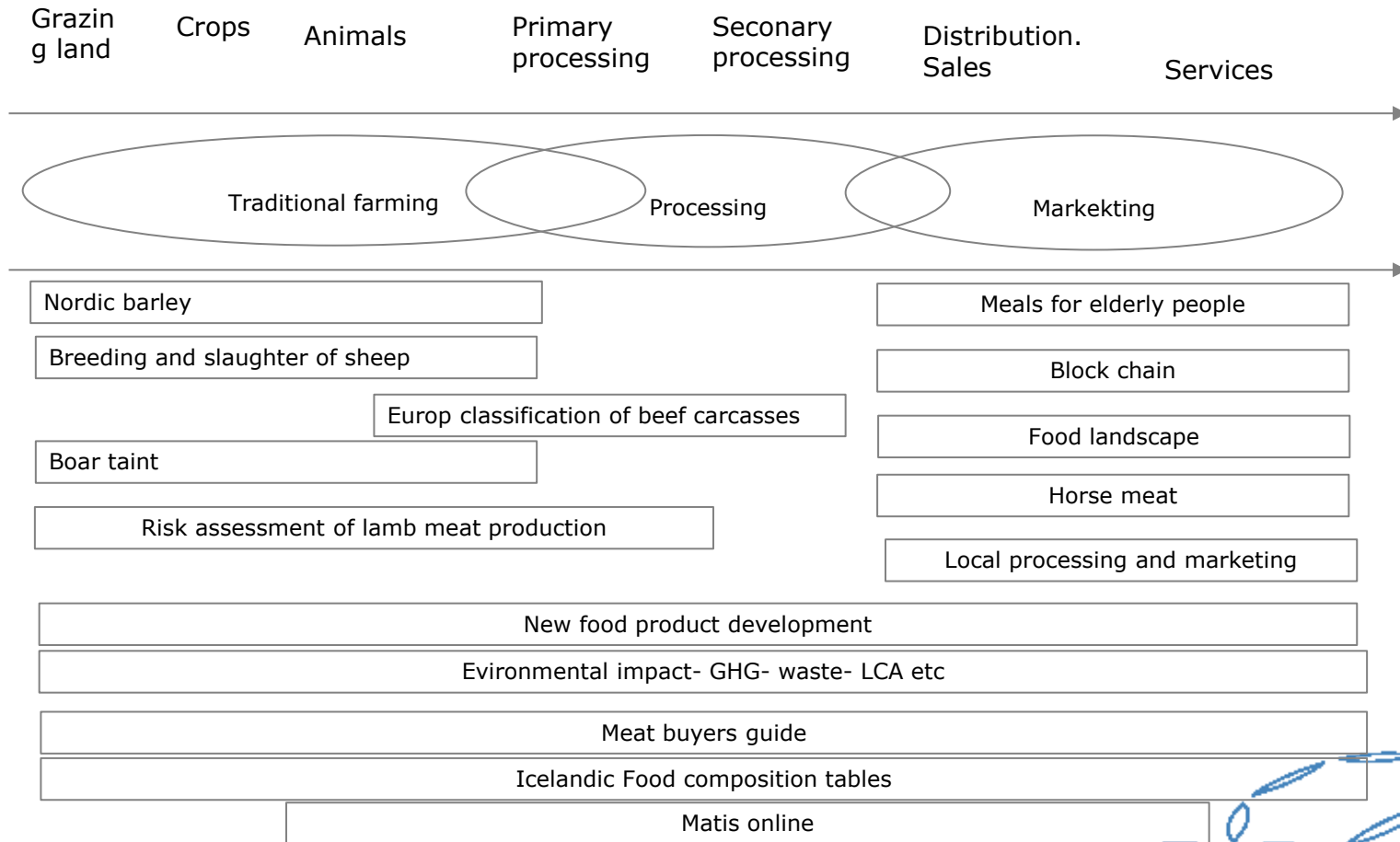


PhD students @ MATÍS . October 2018

Name	Field of study	Department	University	Graduation
Alexandra Leeper	Dietary Manipulation of the gut microbial community in farmed salmonids towards optimal production		NMBU	2021
Birgir Örn Smárason	Ecoinnovation in the Bioeconomy	Environmental Sciences	UI	2020?
Cecilia Kvaavik	Ecological impact of Atlantic mackerel in Icelandic waters	Biology	UI	2019?
Clara Jegousse	Marine environmental microbiology	Food Science	UI	2021
Hildur Inga Sveinsdóttir	Adding value to mackerel fillets	Food Science	UI	2020
Mia Cerfouteyn	Marine environmental microbiology	Food Science	UI	2021
Monica D. Cristensen	Biotechnology	Food Science	UI	2020
Stefán Þór Eysteinnsson	Effects of Calanus Finnmareicus on process control and quality of pelagic fish	Food Science	UI	2019
Stephen Knobloch	Gut health of farmed fish	Biology	UI	
Sæmundur Elíasson	Innovation in the value chain of ground fish	Industrial engineering	UI	2019
Þórdís Kristjánsdóttir	Metabolic models for thermophilic microbes	Computer science	UI	2019
Huang Thi Thu Nguyen	Optimizing quality of frozen fish	Food Science	UI	2018
Yuetuan Zhang	Flavour compounds in seaweed extracts	Food Science	UI	2020
Guðrún Svana Hilmarsdóttir	Fish protein for human consumption- redesign of fish meal and oil processes	Food Science	UI	2020



Distribution chain and Matis projects





Umami flavour
from Iceland

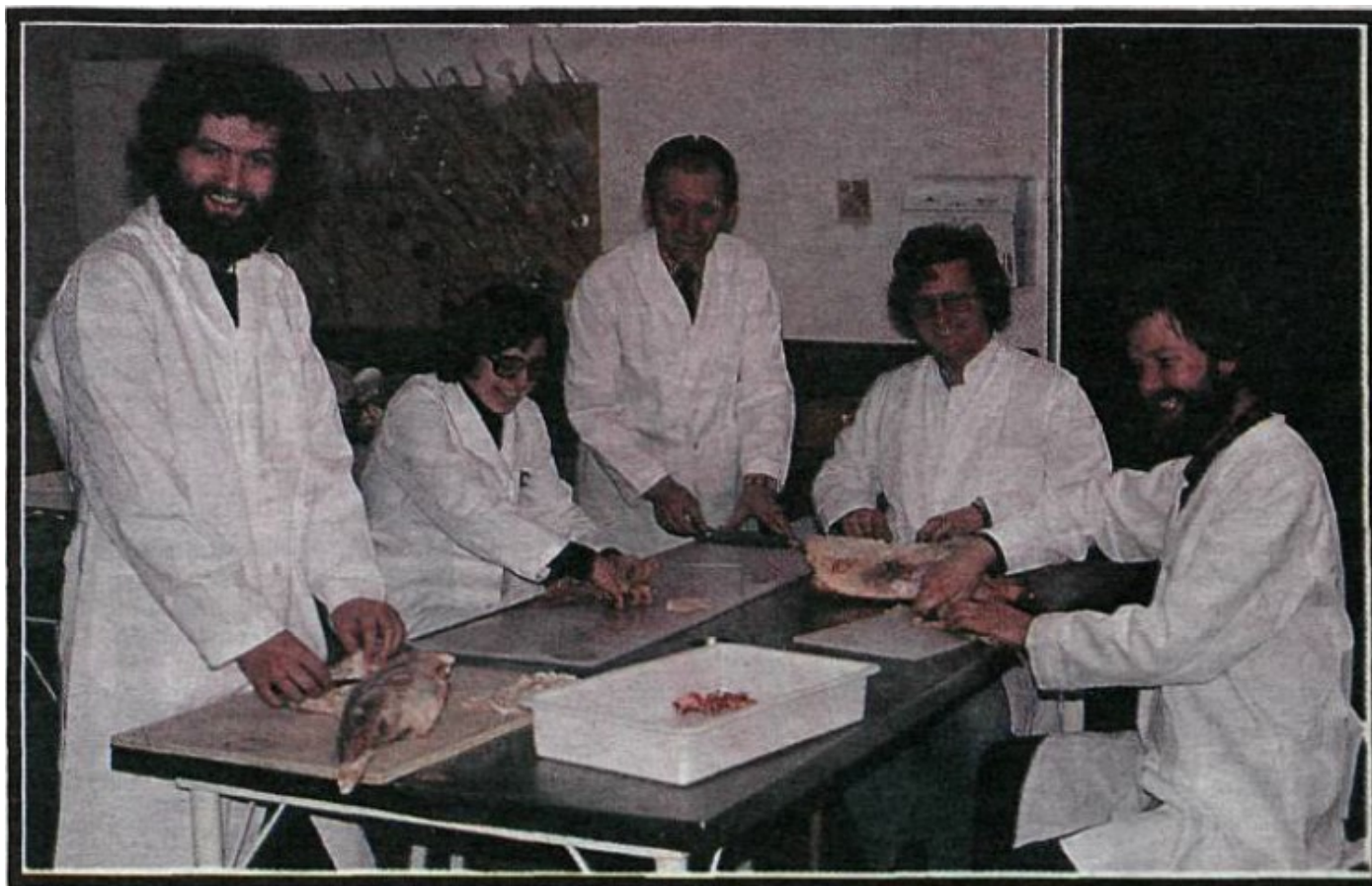
Humarpaté
(Lobsterpaté)

Grafinn skötuselur
(Pickled Monkfish)

Kex fyrir börn
(Biscuits for children)

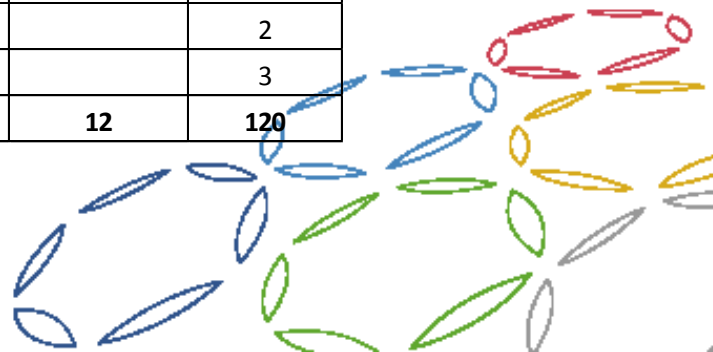
Parate (Kelp tea)





	Reviewed publications and book chapters	International conference proceedings	Icelandic conference proceedings	International project reports	Local project reports
Research activities					
<i>Meat research</i>					
Meat quality	7	12	22		
Meat processing		7	2		
Meat nutrition	2	4			
<i>Seafood research</i>					
New ingredients	19			3	17
Salted cod				3	17
Process management			4	1	10
<i>Food safety</i>					
HACCP management		4		1	1
Chemical safety		2			1
					2
					2
on					2
Dairy					3
Total	44	48	54	12	120

Betri næring, aukin gæði, vöruþróun, fræðsla



Rannsóknir

	1977-1979	1980-1989	1990-1999	2000-2009	2010-2015
Research activities					
<i>Meat research</i>					
Meat quality					
Meat processing					
Meat nutrition					
<i>Seafood research</i>					
New ingredients					
Salted cod					
Process management					
<i>Food safety</i>					
HACCP microbial					
Chemical composition					

