

# הוועידה השנתית ה-51 למדע ולסביבה



# Alternative Proteins

## A key pillar in food security strategies

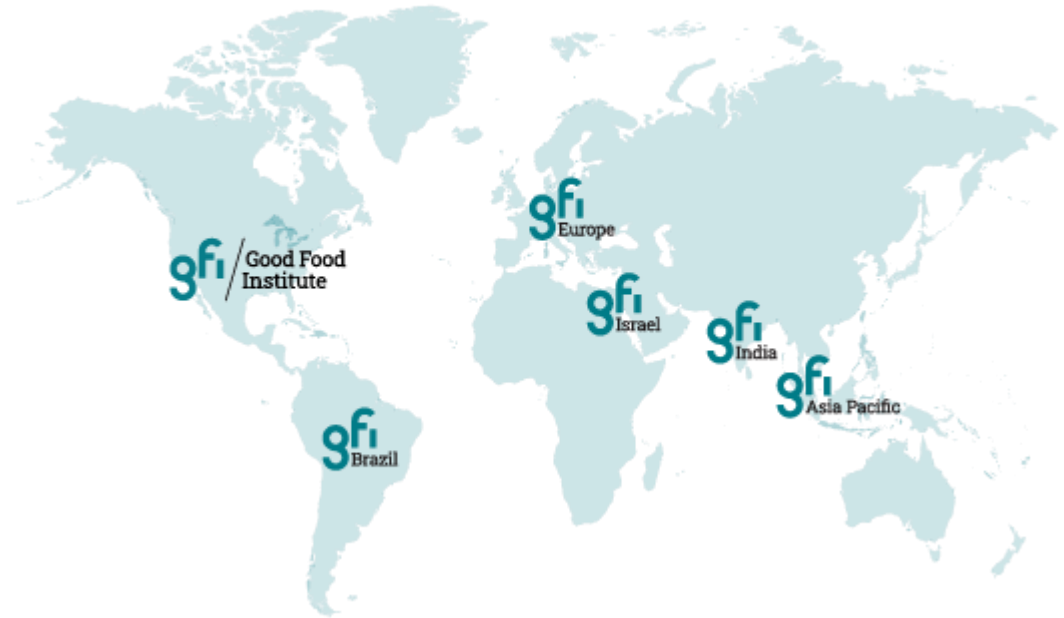
Nir Goldstein  
CEO, GFI Israel



# The Good Food Institute

**A nonprofit field catalyst  
developing the roadmap for a  
sustainable, secure, and just  
protein supply.**

1. Science & Technology
2. Industry
3. Policy



# Terminology



**National  
Food  
Security**

Food systems  
resilience in times  
of crises

**Nutrition  
Security**

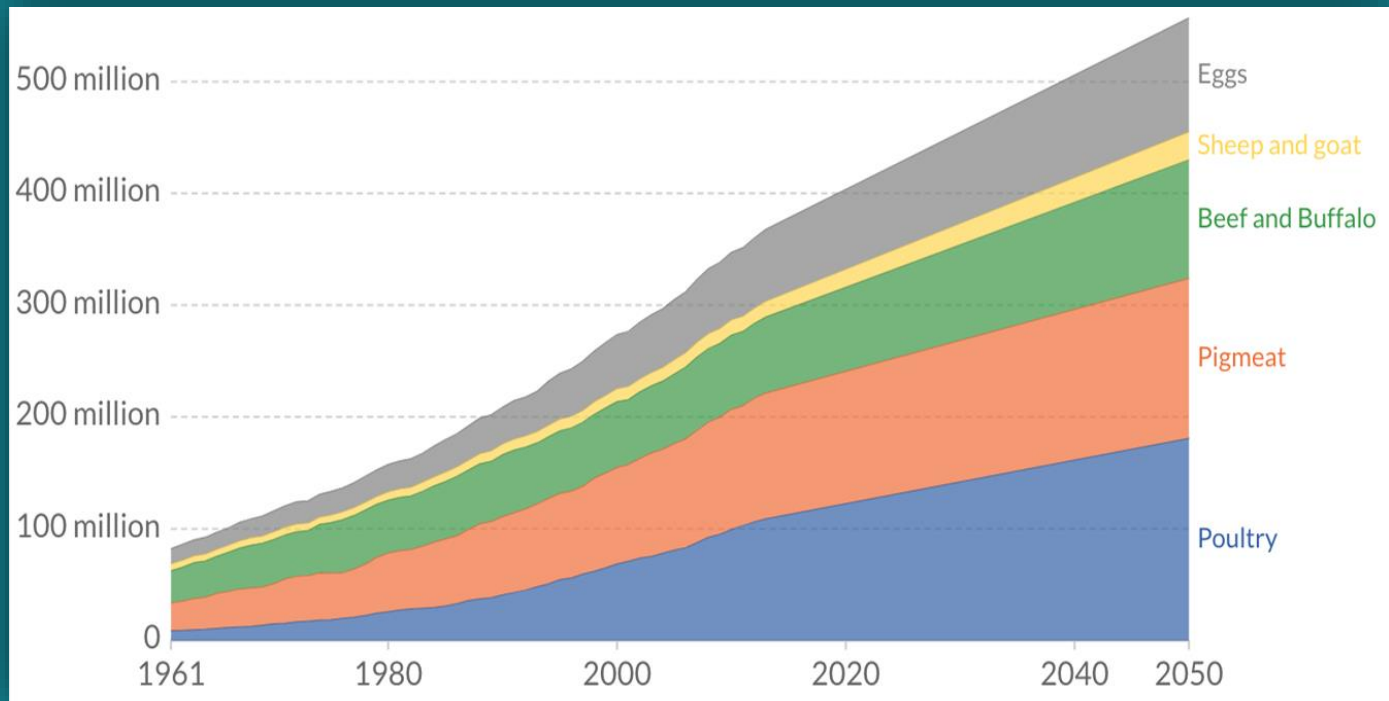
Access to  
nutritious foods  
at all times

**Food  
Safety**

Is it safe?

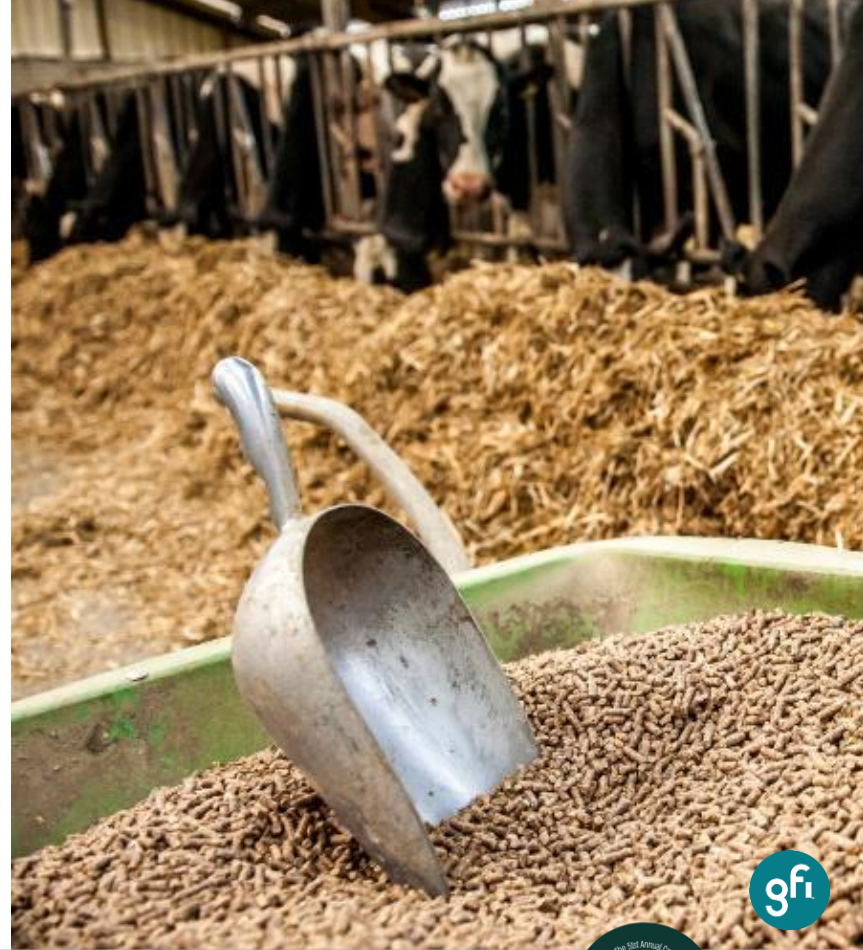


# Global demand for meat is booming

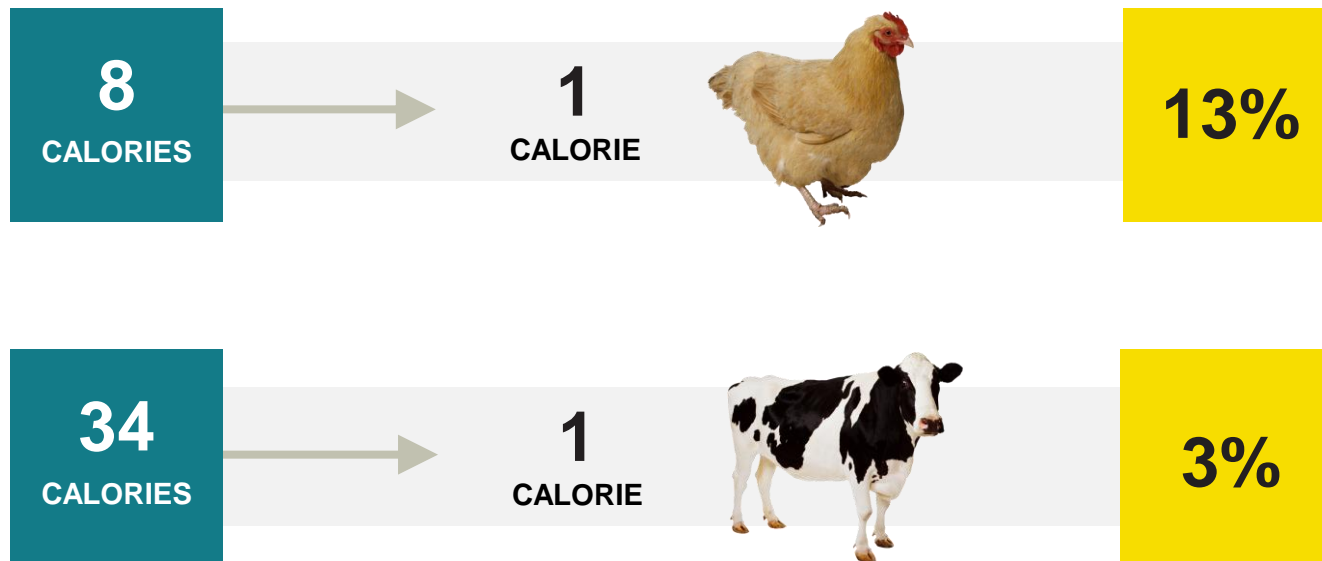


Source: Food and Agriculture Organization of the United Nations; ESA Working Paper No. 12-3, p. 131

# Industrial animal agriculture systems are inefficient & volatile



# Fundamental inefficiency



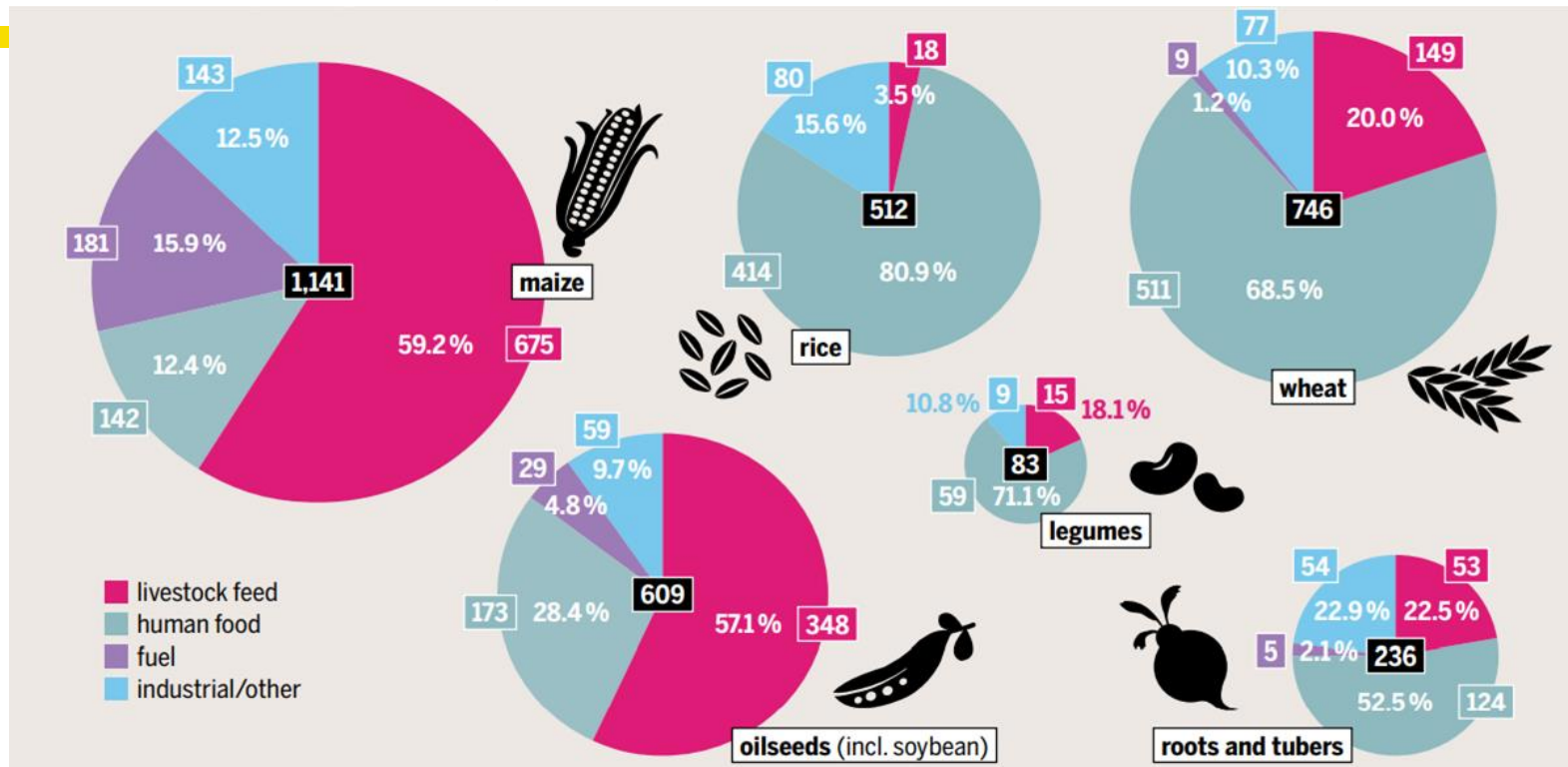
Source: Shepon, et al. Energy and protein feed-to-food conversion efficiencies in the US and potential food security gains from dietary changes.



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# 40% of crops are grown for feed





# A long list of severe & interrelated challenges



20%



NO.1



NO.1



MANURE



NO.1



HEALTH



LABOUR



WELFARE

**FAIRR**  
A COLLER INITIATIVE

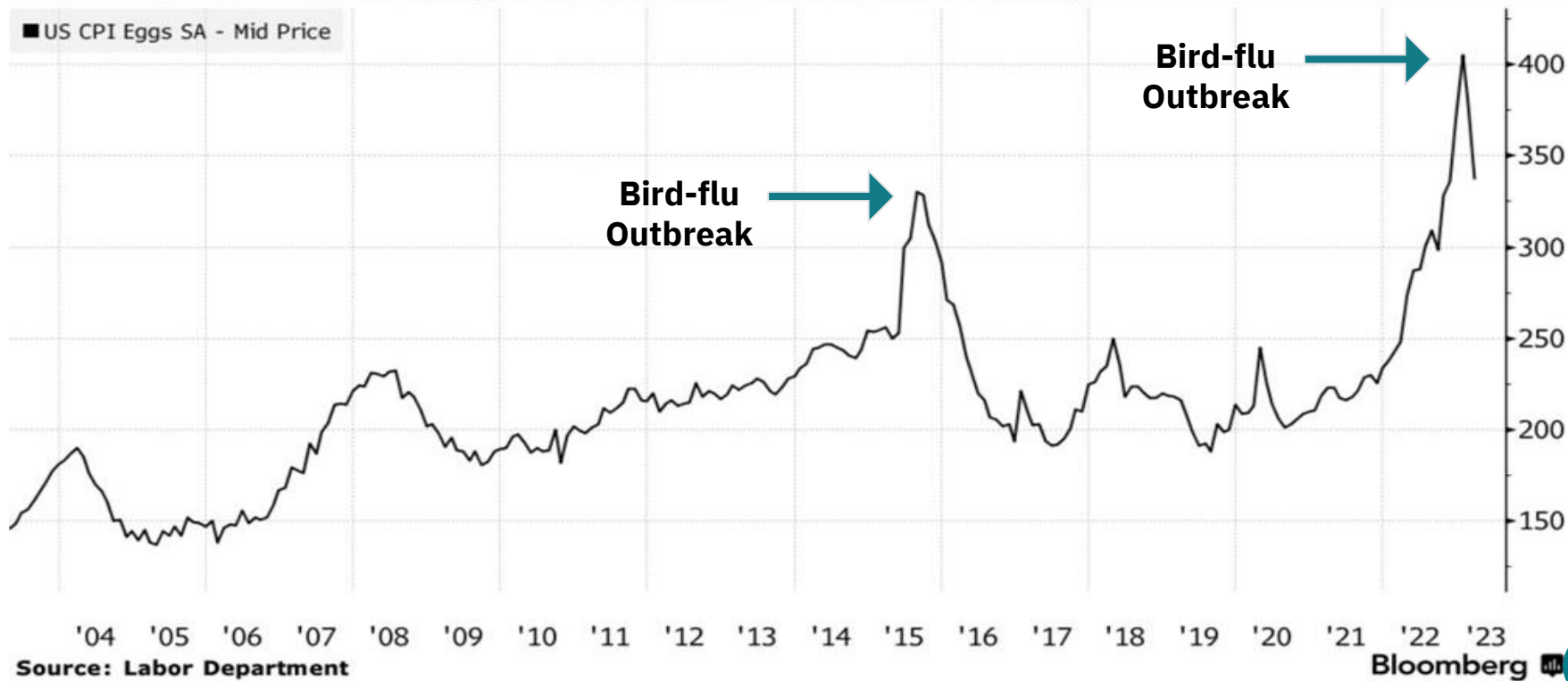
This slide is reproduced courtesy of the FAIRR initiative, a global investor network focused on risk and opportunity in protein supply chains. For more information please see [www.fairr.org](http://www.fairr.org)



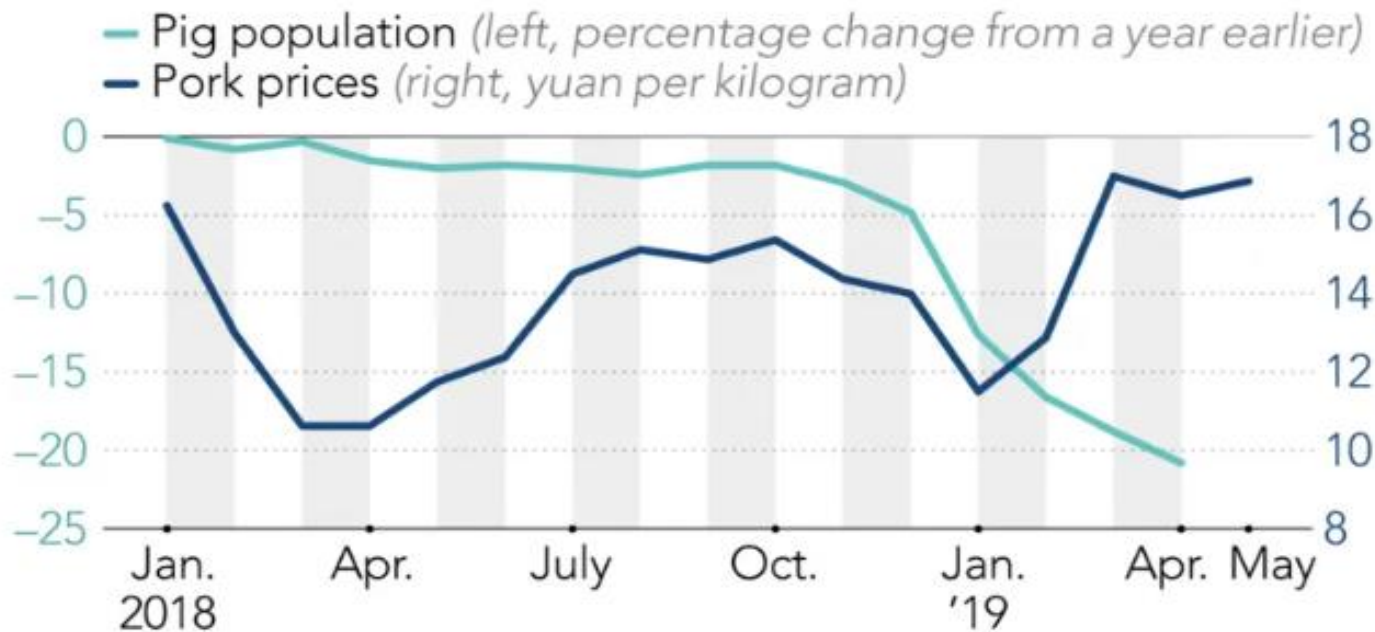
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# Volatility - Eggs

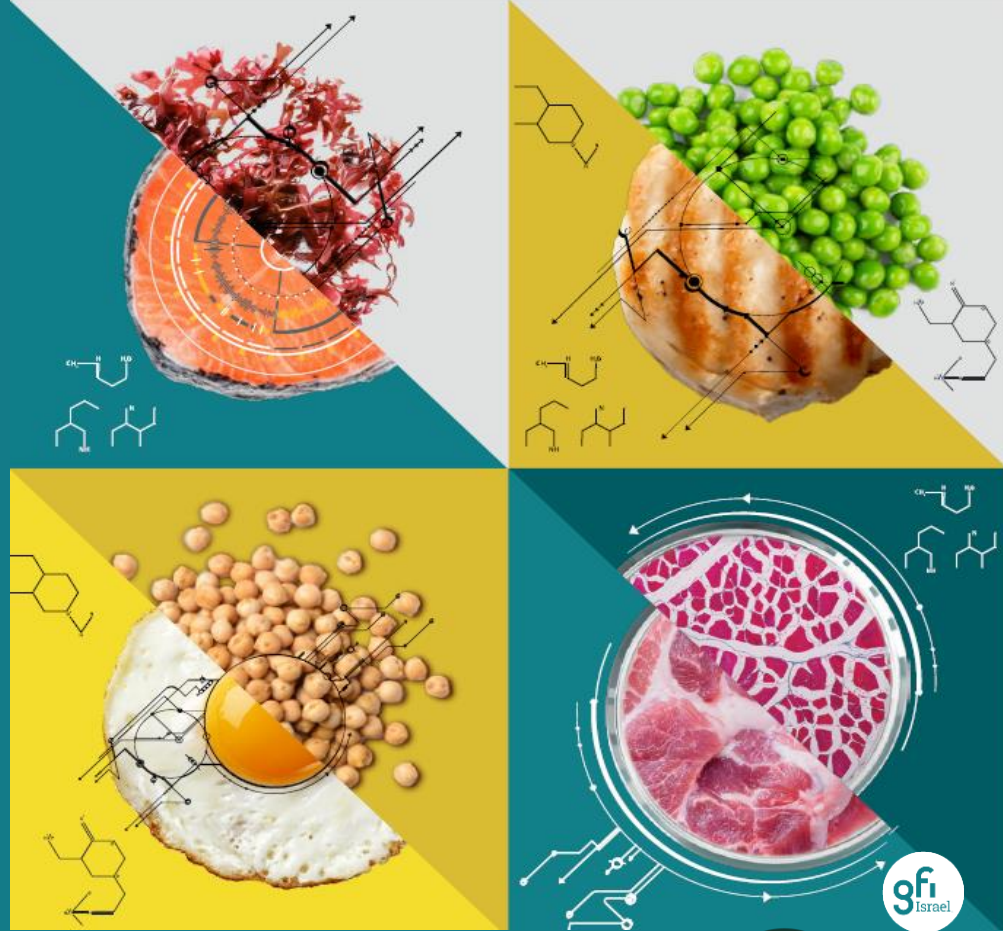


# Volatility - Pork



# Alternative Proteins

Using technology  
to create a more  
resilient food  
system



# The alternative protein landscape

## Plant-based



Photo courtesy of Beyond Meat

## Fermentation

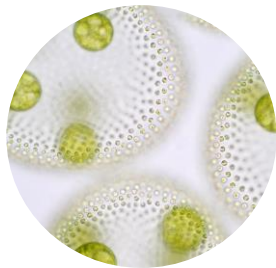


Photo courtesy of Ecovative Design: Atlast Food Co.

## Cultivated



Photo courtesy of Memphis Meats



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# The pillars of national food security

**Domestic  
production**



**Imports**



**Storage**



**Strategic  
tech assets**



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# Alternative proteins contributions to national strategies

## Domestic



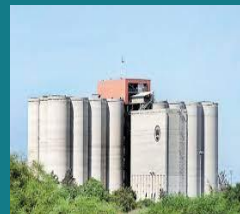
- Minimize input by 90%
- Diversification
- Time to market

## Imports



- Longer shelf life
- Reduced volume vs. feed

## Storage



## Strategic assets



- Leverage

# Governments are developing food security strategies



“30 by 30”  
Invested >\$100M  
in R&D



“Innovation-driven FS”  
From 31s to 9 in FS index

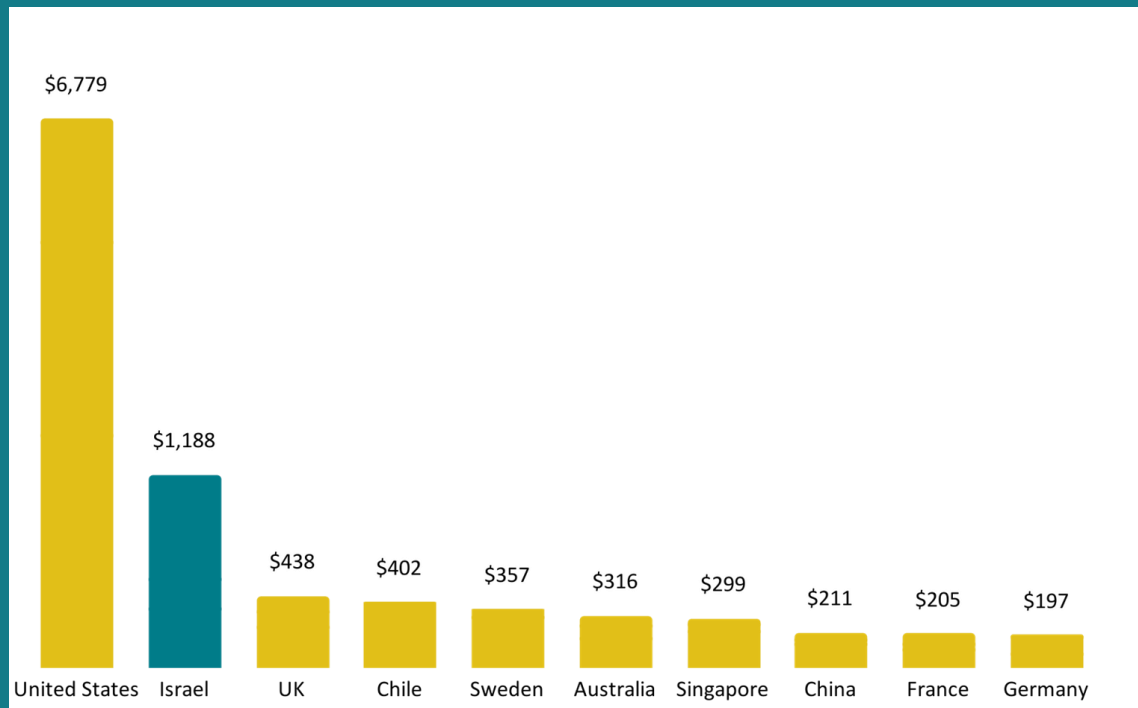


WIP





# Israel is a global leader in alternative protein innovation



3 year global investment in alternative proteins in millions of USD (2020-2022).



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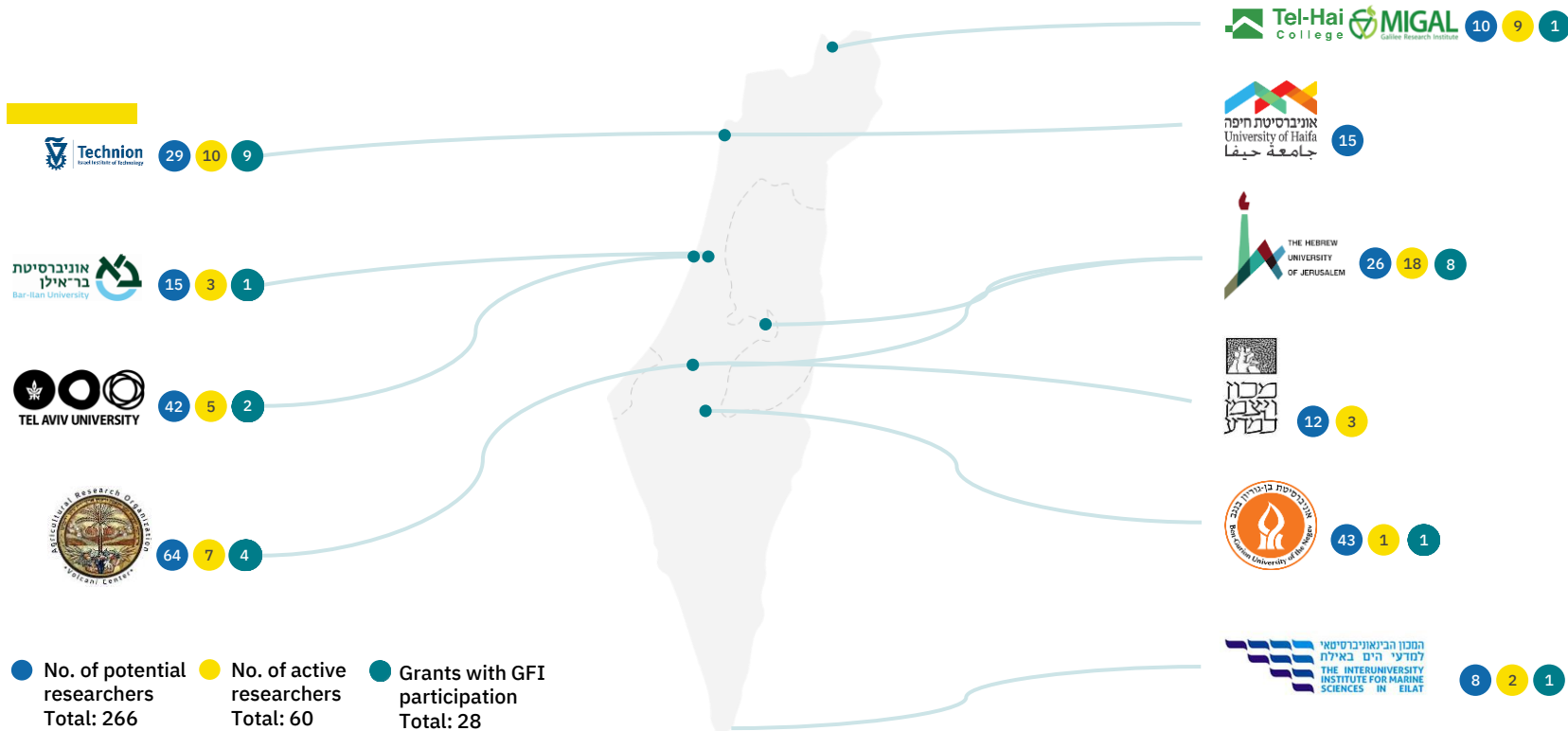


# Alternative Protein Startups in Israel

	Seed (22)	Development (12)	Pilot & Scaleup (9)	Commercialisation & Growth (15)
Cultivated (16)	  	 		
Fermentation (16)	  	  		
Plant-based (26)	  		 	    



# More than 60 active academic labs, 200+ available



# Food for thought

## Governments

How are alternative proteins improving your national **strategy**?

## Academia

Which solutions are yet to be **discovered**?

## Entrepreneurs

What is your **food security value proposition**?  
An LCA equivalent?

## Food industry/service

How can you make your supply chain more **resilient**?

## Agri sector

What are the **agri inputs of the future** of food?



# Learn more at [gfi.org.il](https://gfi.org.il)



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# New 2023 Research Grant RFP

**gfi** / Good Food Institute Israel.

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Ministry of Innovation, Science & Technology



משרד החקלאות  
ופיתוח הכפר



# בואו לפתח את החלבון החלופי הבא



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# Thank you!



**gfi** / Good Food Institute Israel

