



EXCHANGE 2011

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January 13-14, 2011 . Salt Lake City, Utah U.S.A.

# Future of Omega-3 Functional Foods



# Presentation

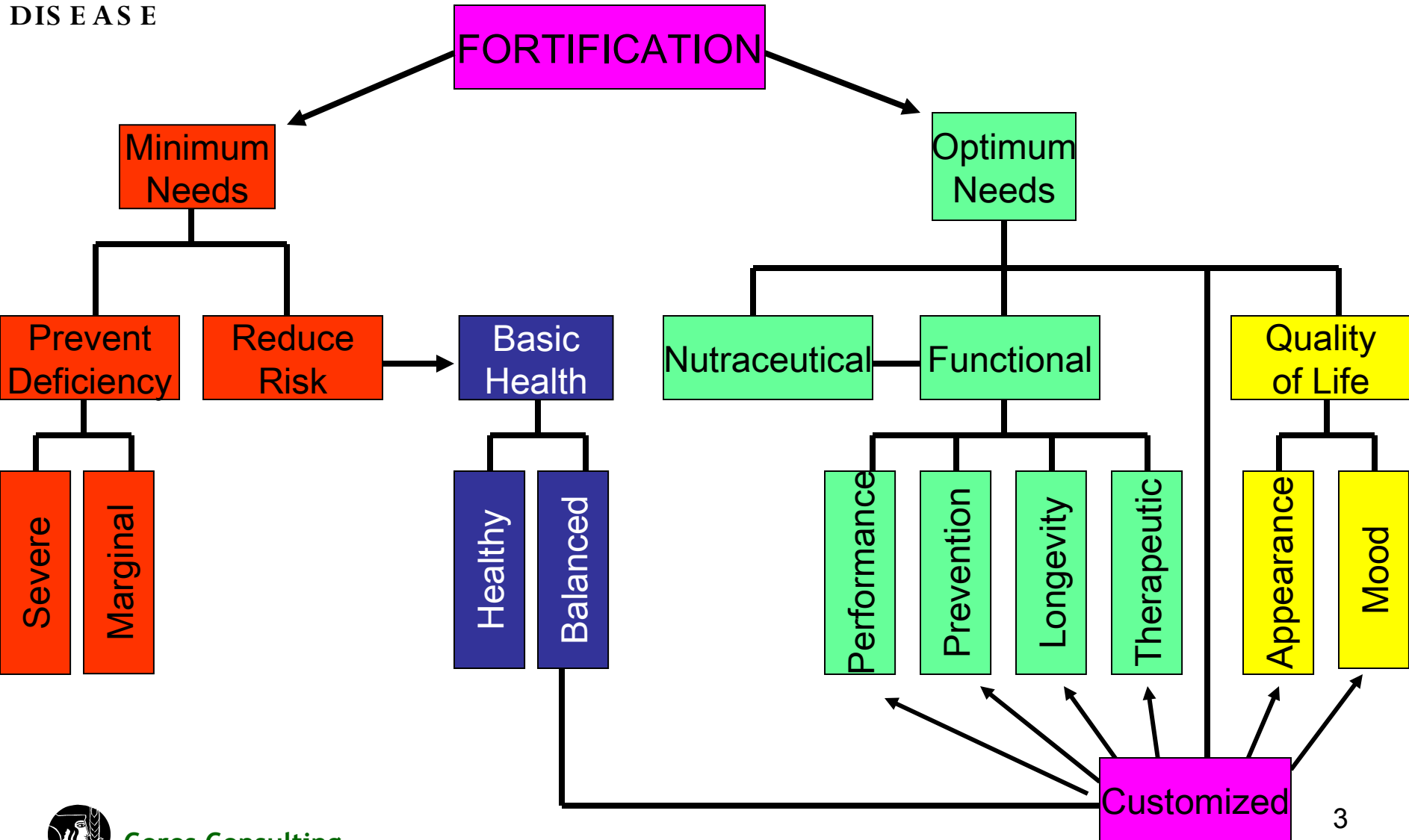
- Functional Food Market Overview
- LC Omega-3 Market Overview
- Omega-3 Market Drivers
- Future View



# EVOLUTION /REVOLUTION OF FORTIFIED CHOICES IN THE NEW MILLENNIUM

← ABSENCE OF DISEASE

→ WELLNESS



# 2007 U.S. Nutritional Industry Revenues, by Distribution Channel

\$mil(US), Consumer Sales

	<u>Functional Foods</u>	<u>Supplements</u>
<b>Retail-Natural/Specialty</b>	<b>3,449</b>	<b>8,682</b>
<b>Retail-Mass Market</b>	<b>30,406</b>	<b>6,526</b>
<b>Mail Order</b>	<b>36</b>	<b>1,370</b>
<b>MLM</b>	<b>255</b>	<b>4,550</b>
<b>Health Care Practitioner</b>	<b>34</b>	<b>1,844</b>
<b>Internet</b>	<b>158</b>	<b>747</b>
<b>TOTAL</b>	<b>34,338</b>	<b>23,718</b>



# Top Health Condition Product Type Preference: Supplements vs. Foods

(Q.109 - % GP-PGS indicating they would mostly likely use **supplements** or **foods** to prevent/treat the following health/medical conditions)



Consumers prefer to use  
**Supplements** to prevent/treat:

Osteoporosis/Bone health issues	68%
Arthritis/Joint disease	65%
Weak immune system	60%
Frequent cold and flu	59%
Menopausal issues (females)	58%
Memory/Concentration problems	56%
<b>Heart conditions</b>	<b>55%</b>
Acid reflux/Heartburn	50%
Lack of energy	50%



Consumers prefer to use  
**Foods** to prevent/treat:

Obesity/Overweight	78%
<b>Heart conditions</b>	<b>76%</b>
Blood sugar imbalance	72%
Diabetes	71%
Intestinal irregularity	68%
Cancer	58%
Lack of energy	56%
Weak immune system	52%
Osteoporosis/Bone health issues	51%

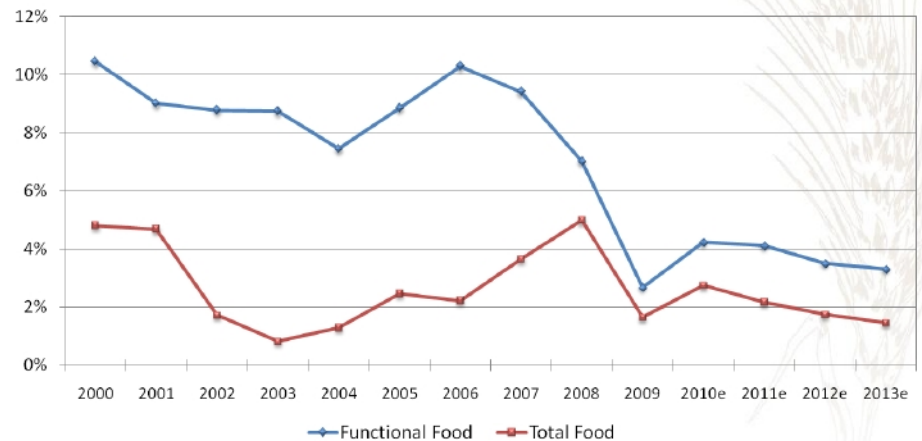


# Functional Food and Beverages Growth Slowing After Steady Gains

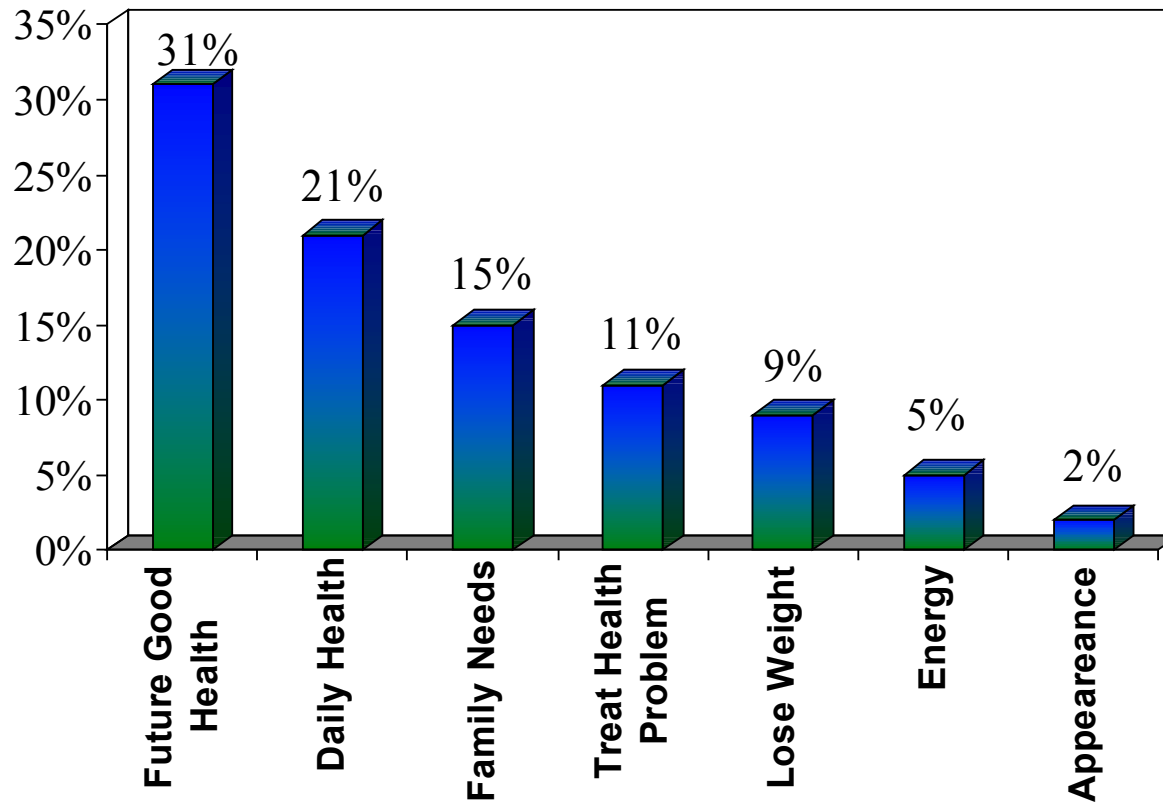
## U.S. Functional Food and Beverage Sales & Growth



## U.S. Functional vs. Total Food Growth

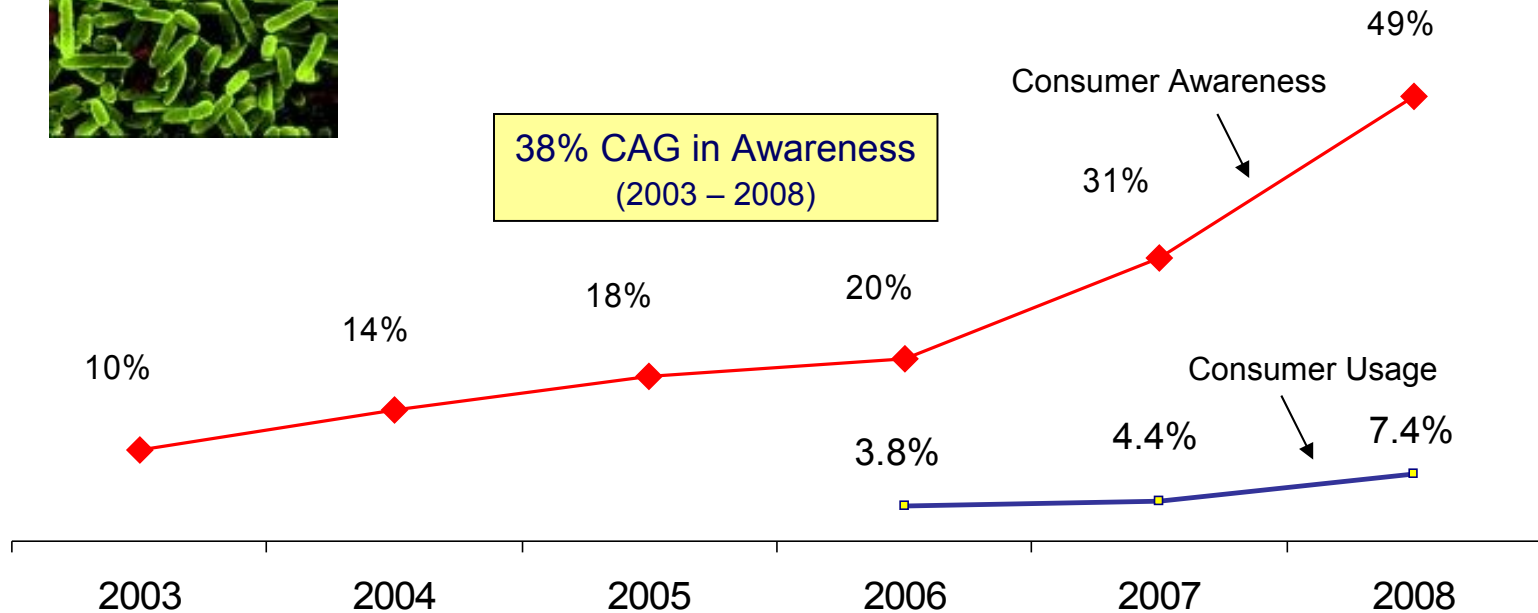


# Why Do People Purchase Healthy Foods/Beverages



# Emerging Mainstream Supplements: Awareness and Use of *Probiotics*

(Q.4 - **TRENDED** - % GP-PGS indicating they are aware of probiotics  
Q.96 - % **TRENDED** - GP-PGS indicating which nutritional supplements they use)



38% CAG in Awareness  
(2003 – 2008)

What's Next:  
Peptides?





# Growing Importance in Retail Store Stocking Functional Foods

(Q.60/61 - % GP-PGS indicating they agree completely/somewhat with the following statements)

**It is important for my store to have...**

	GP-PGS	
	2008	2003
<b>Foods that are naturally high in vitamins and minerals</b>	76% ↑	66%
<b>Foods that are fortified with vitamins and minerals</b>	55% ↑	56%
<b>Foods enriched with omega-3s</b>	50% ↑	42%*
<b>Foods enriched with probiotics</b>	23%	18%*
<b>Foods/Beverages enriched with lutein</b>	18%	29%

\* Note: For the year, 2006

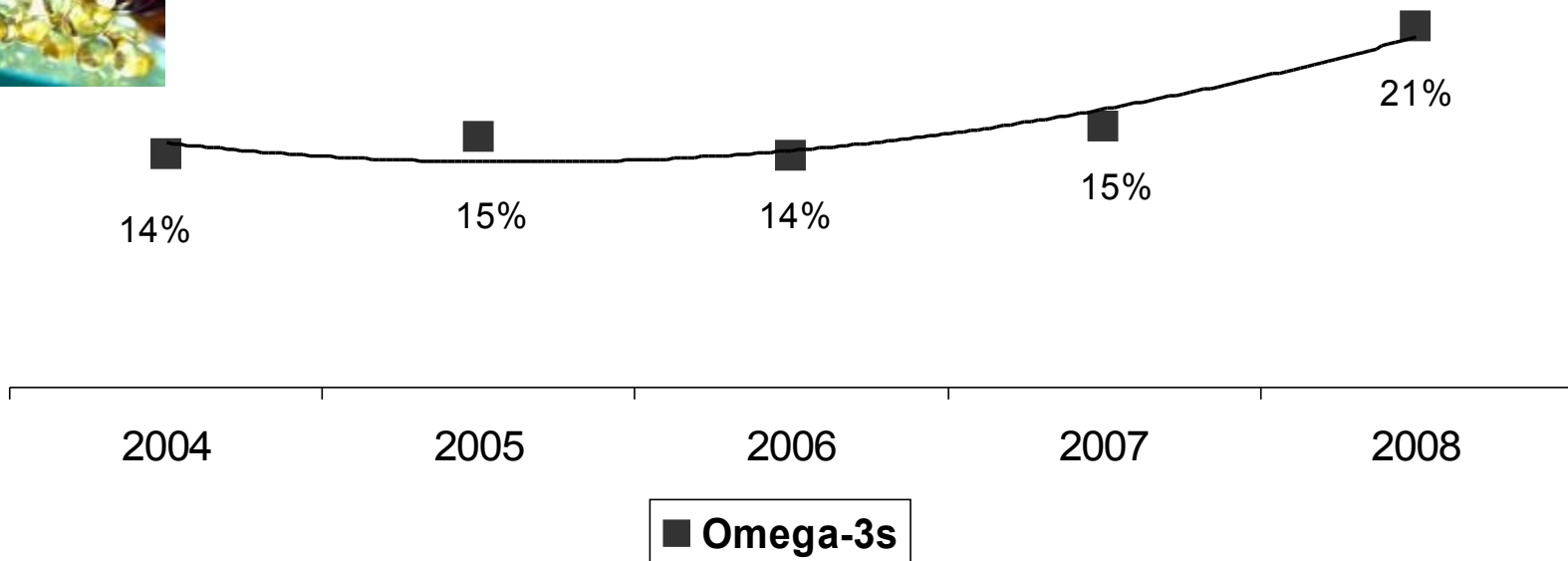


# Omega-3 Market Overview



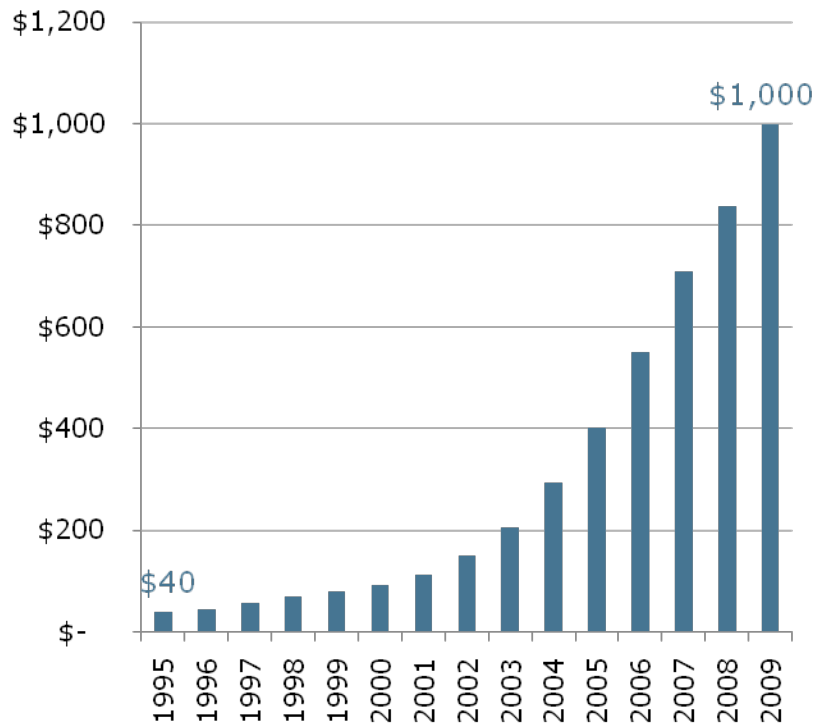
## “Mainstreaming” of Supplements: Consumer Use of *Omega-3 Fatty Acids*

(Q.96 - % **TRENDED** - GP-PGS indicating which nutritional supplements they use)

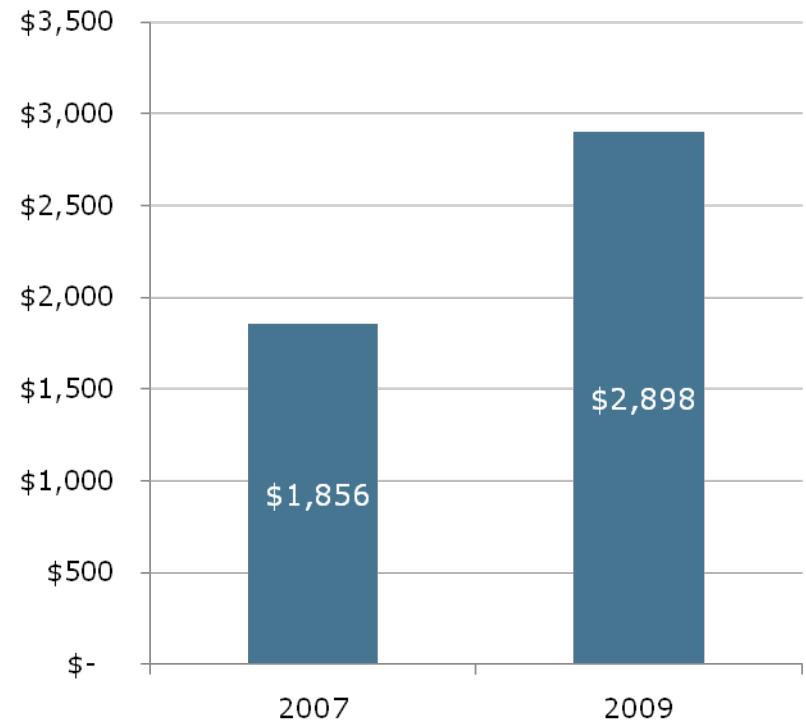


# The supplement industry has grown rapidly for a sustained period of time

US Omega-3 Dietary Supplement Sales  
in US\$ millions

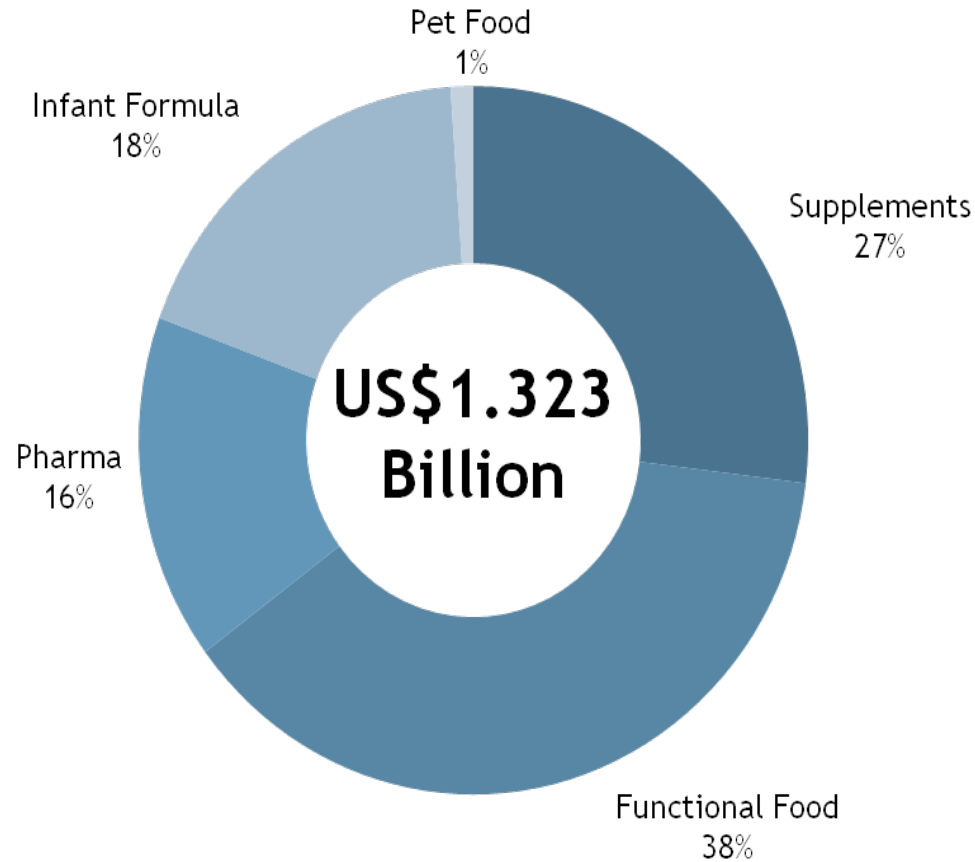


Global Omega-3 Dietary Supplement Sales  
in US\$ millions



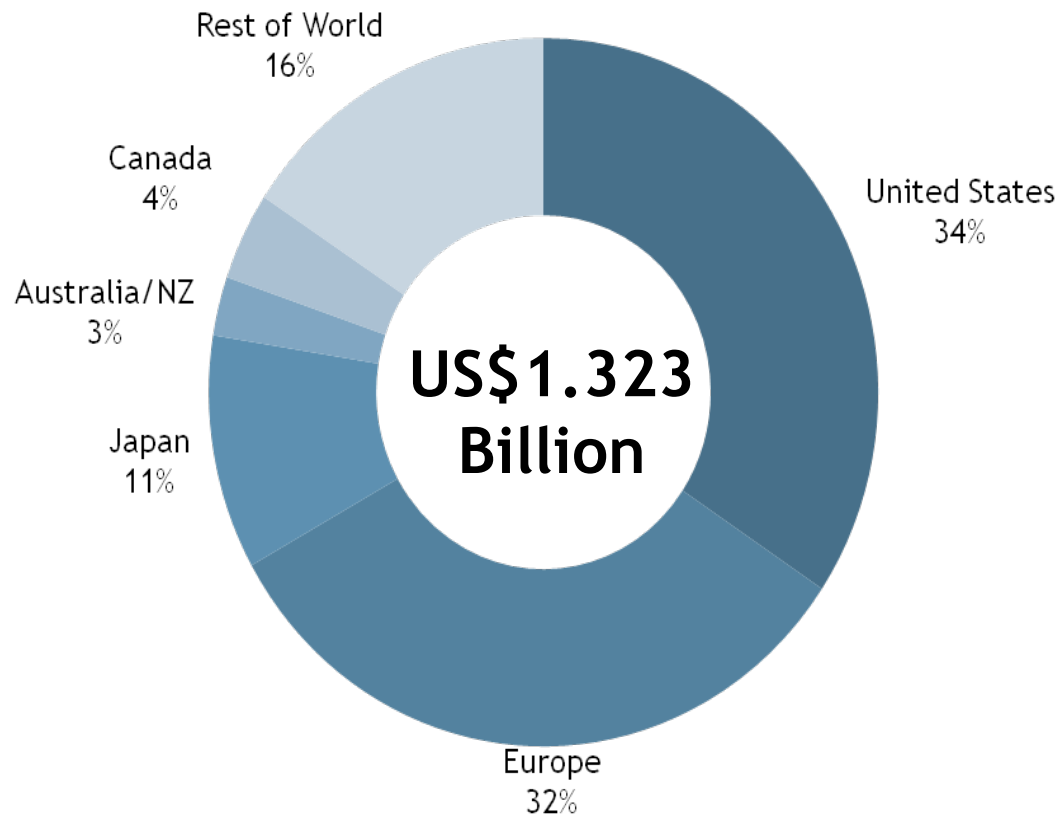
# Global ingredient market segments

Global EPA/DHA Ingredient Sales by Segment, 2007

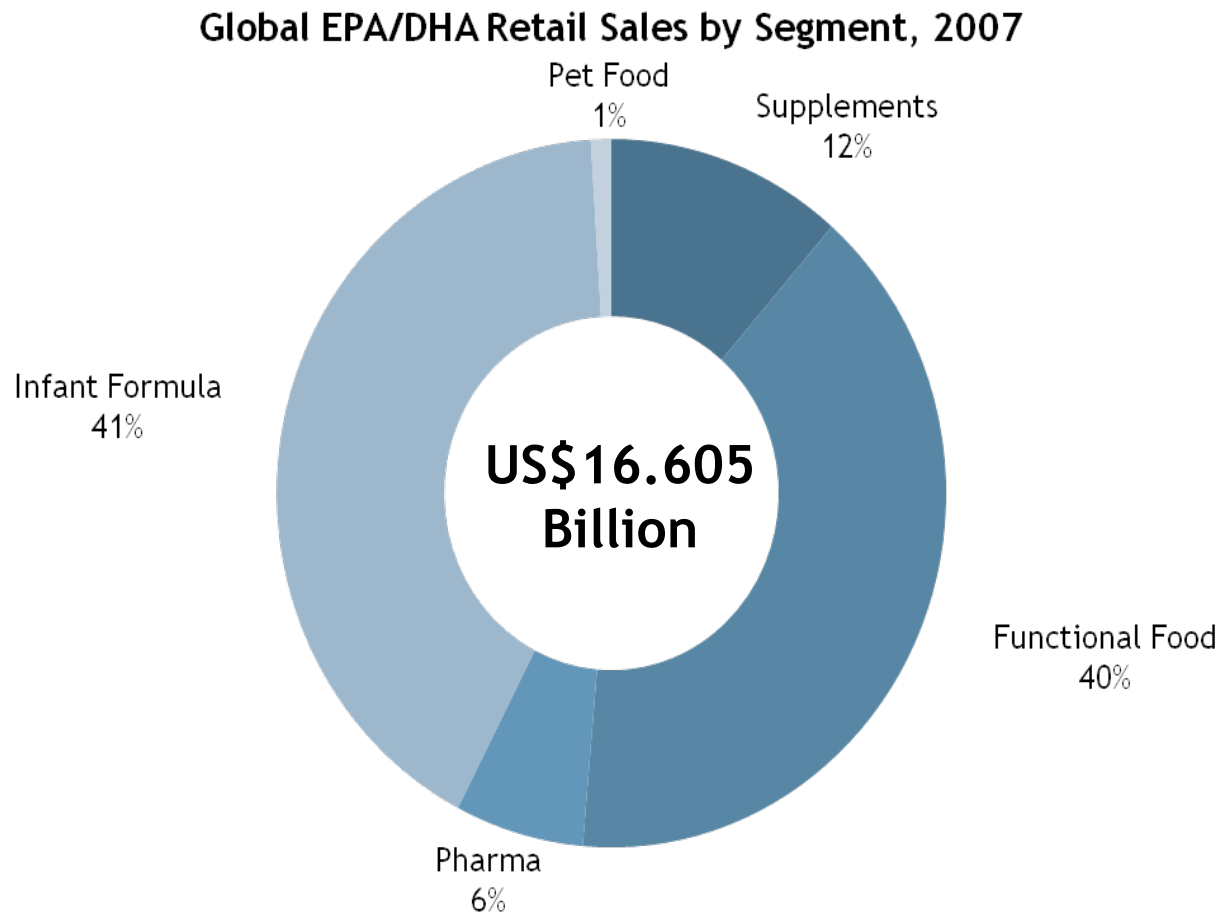


# Global ingredient market regions

Global EPA/DHA Ingredient Sales by Geography, 2007

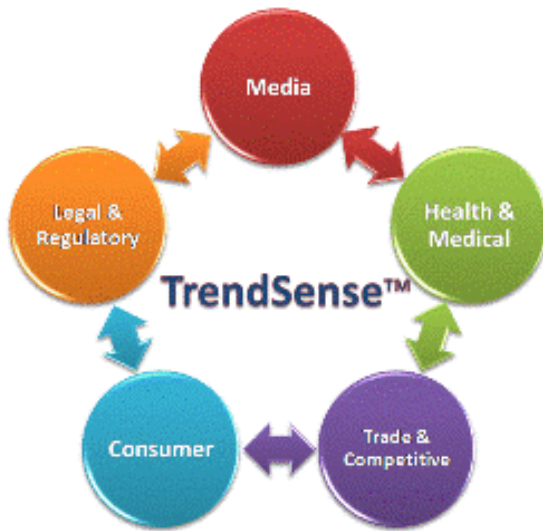


# Global consumer market segments



# Sloan Trends, Inc.

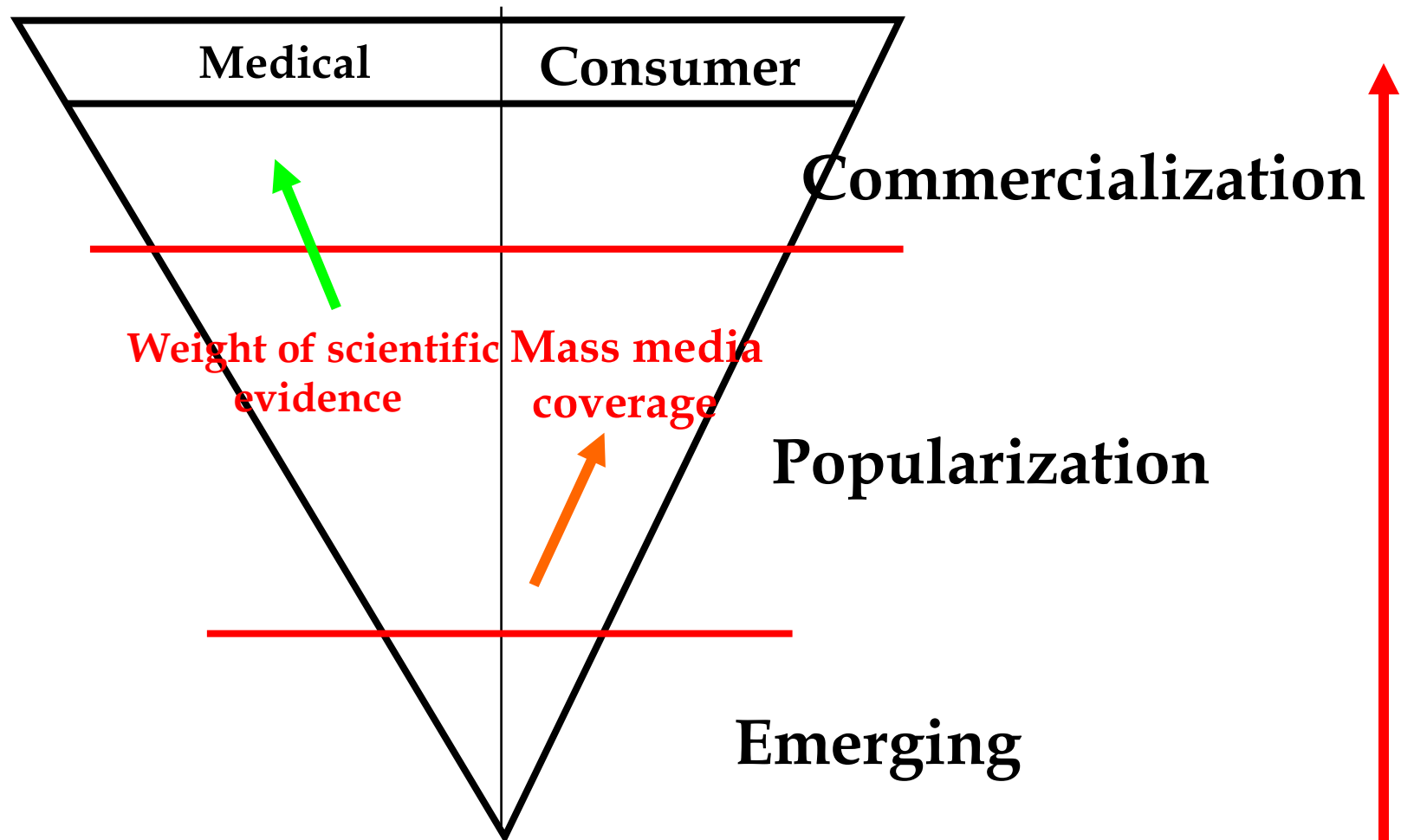
## Example TrendSense™ Predictive Models



- 15 year old trend tracking system which identifies and quantifies health and nutrition trends,
- Predicts each trend's/term's sustainability, current lifecycle stage and its optimal timing for mainstream consumer acceptance
- Developed for use by mainstream food, dietary supplement and pharmaceutical manufacturers,



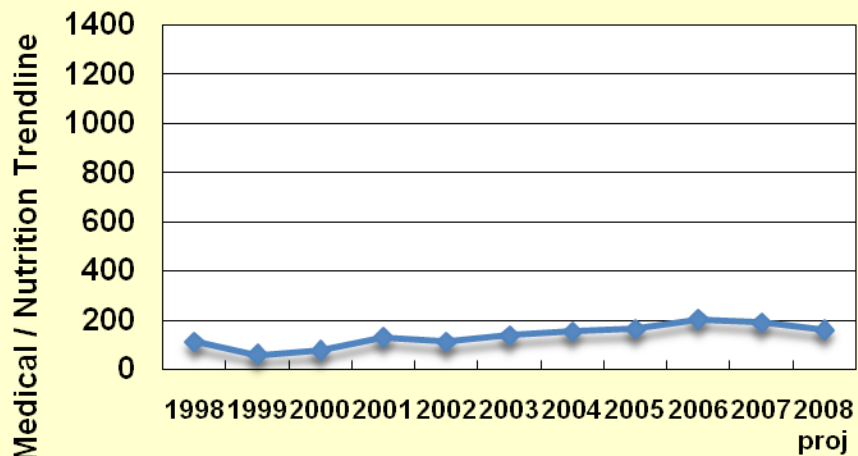
# Trends in Functional Foods



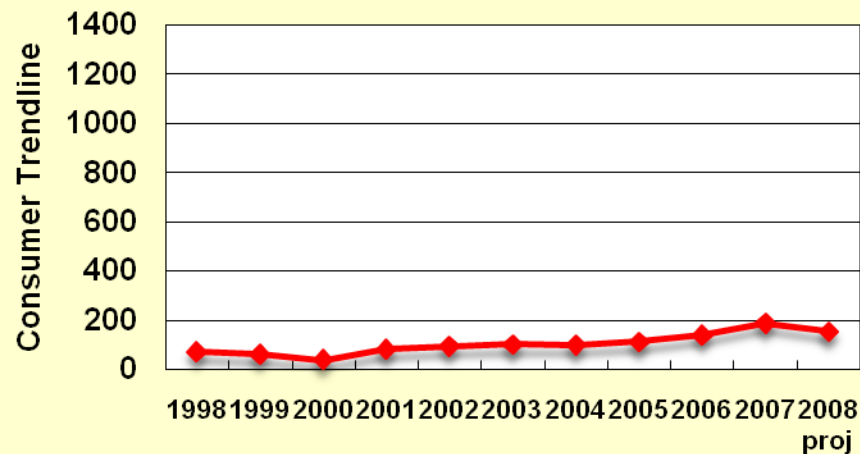


## Emerging Phase

### TrendSense™ Analysis: Omega & Stroke

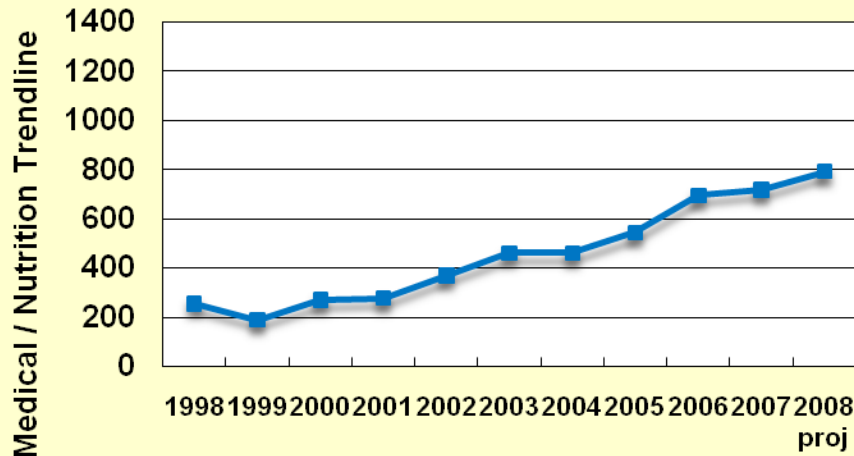


### TrendSense™ Analysis: Omega & Stroke

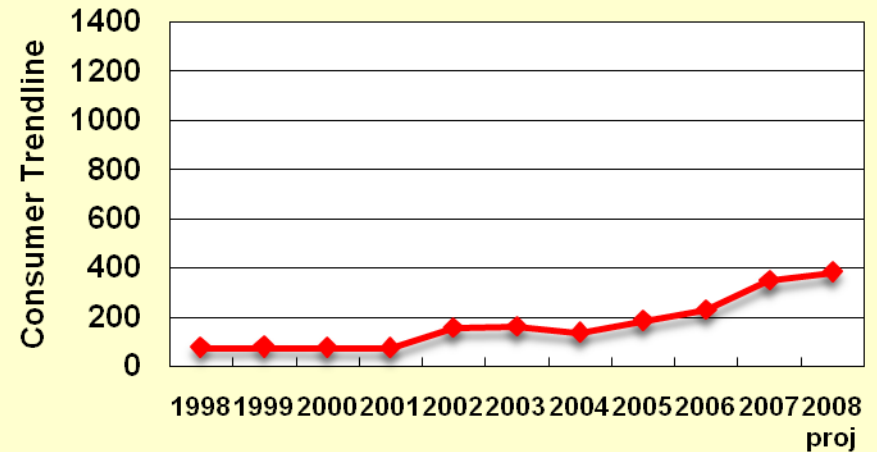


# Popularization Phase

TrendSense™ Analysis: Omega & Arthritis/Inflammation

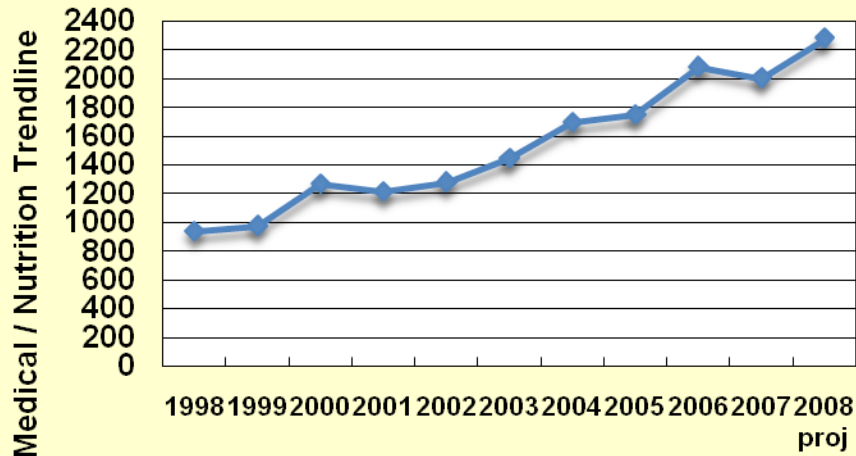


TrendSense™ Analysis: Omega & Arthritis/Inflammation

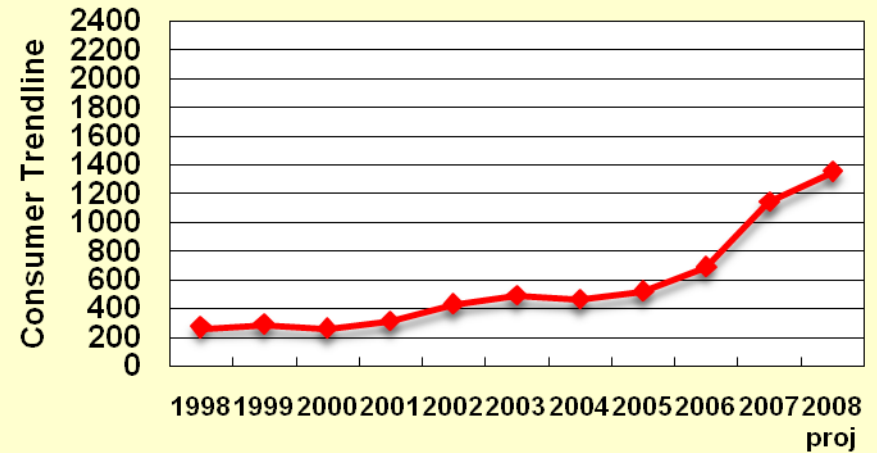


## Commercialization Phase

### TrendSense™ Analysis: Omega & Heart / Cardiovascular



### TrendSense™ Analysis: Omega & Heart / Cardiovascular



# Trends driving FF market

## Consumers

- More health conscious
- 'Natural' self-medication
- Ageing population

## Health Care

## Professionals (HCP)

- New discoveries in FF
- Promote healthy eating



## Government

- Rising healthcare costs
- Regulatory framework
- RDI's

## Retailer/Marketers

- Search for growth Opportunities

- Revs, profits
- Market position



# Sterols vs. Omega-3's Comparison

	RDI	H Claim	Dose AI	Cost Dose	Application Difficulty	Global	Discovery	Global Revs \$	Con Awareness
<b>Sterols</b>	No	Full	3 gm	3-4 cents	Yes	EU NAA	1990's	\$1-200 mio ?	10-20% ??
<b>Omega-3</b>	No AI in USA EU +/-	"Q" HC in USA	0.25-0.5 gm	3 cents	Yes	Yes	1970's	\$1.4 bio	25-80%

Sterols like LC PUFA slow to gain FF traction despite, sound science.  
 Are consumers reluctant to use functional foods for a serious diseases, or  
 is there a food/ingredient health benefit disconnect?



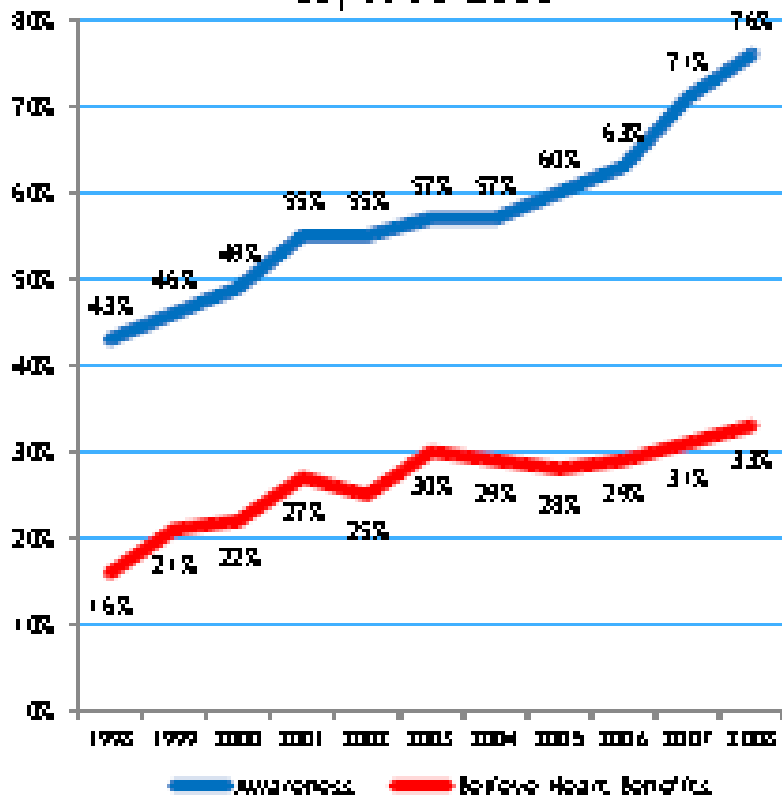
# Drivers for Future Success

- Consumers need to make food health benefits link
- Believable and continuing science
- Health Claims required (means PR, advtg., labelling possible)
- RDI's critical
- Clear messaging by marketers
- Health professional support (media)
- Consumer transition from supplements to foods
- Mainstream products with new health benefits



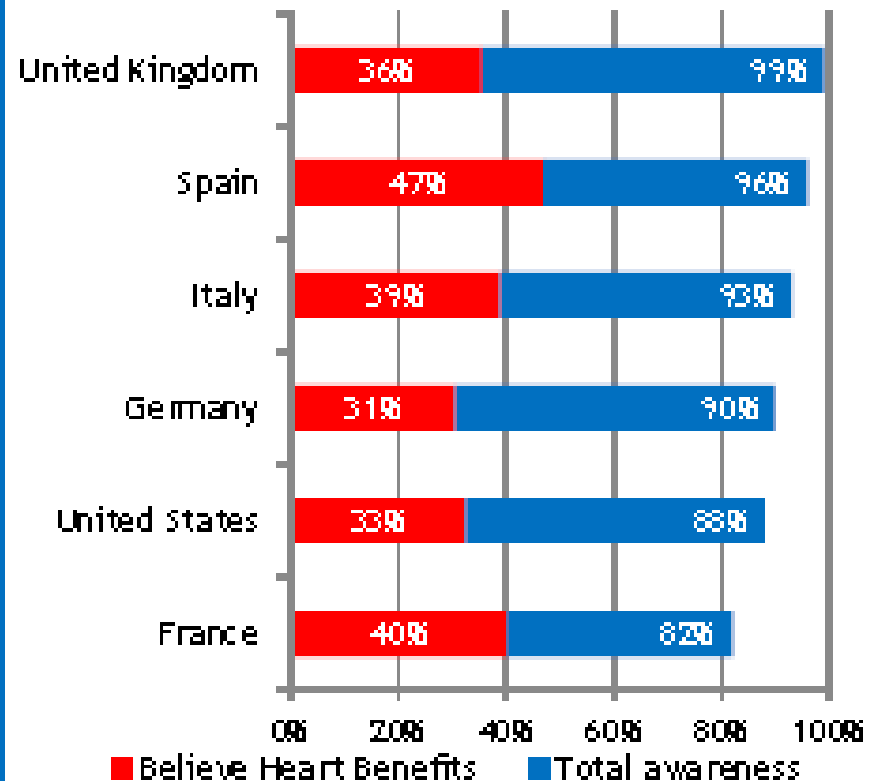
# Food Company Interest Driven by Consumer Awareness

US Consumer Awareness of Omega-3s, 1998-2008



Source: Gallup, W.C. Anderson

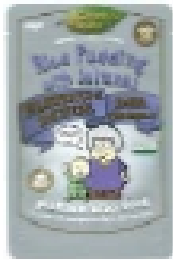









Consumer Awareness of Omega-3s, 2009



Source: Unilever/Infod



# Food Company Interest Driven by Consumer Awareness

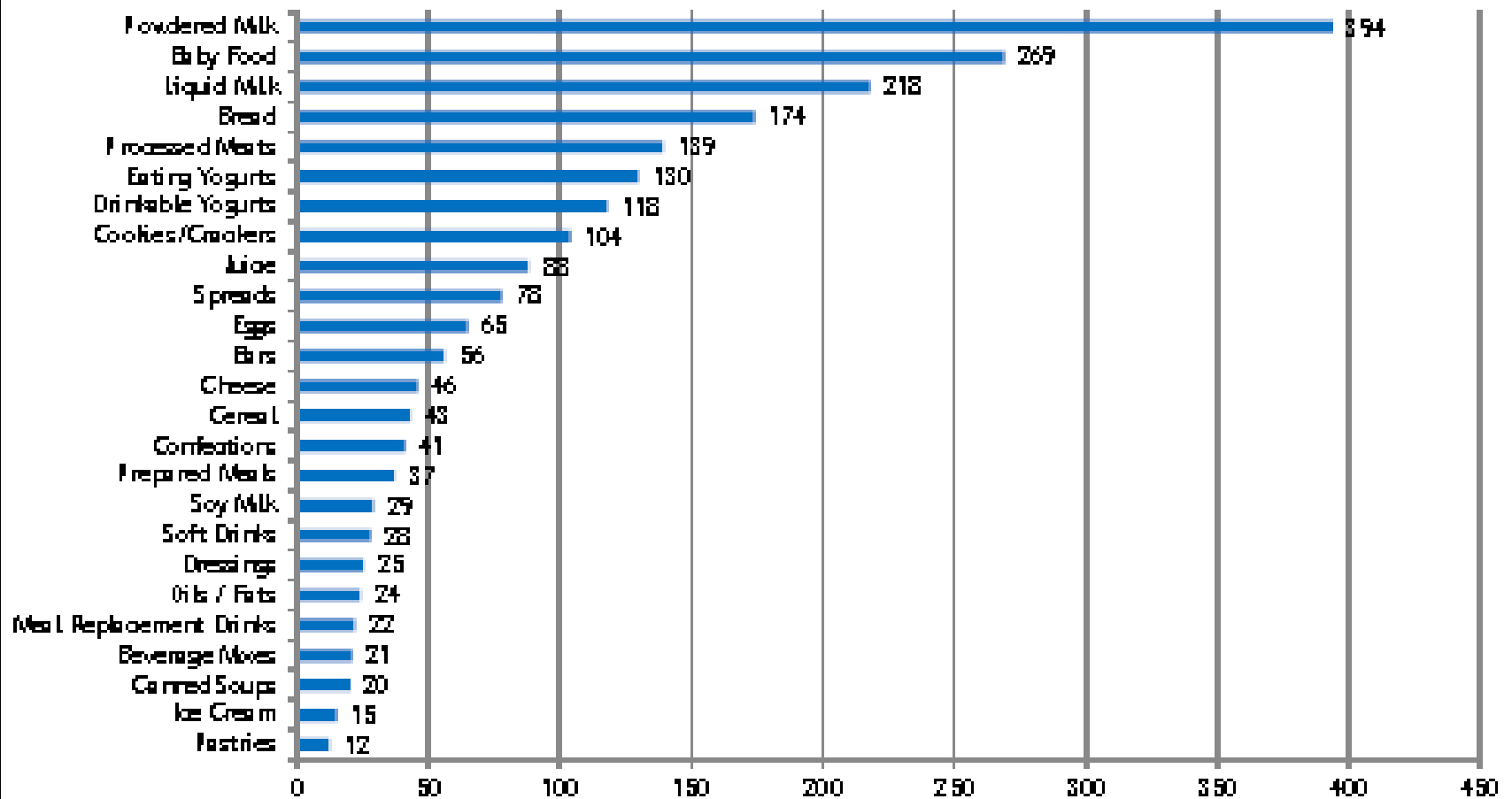
											
Powdered Milk		Baby Food		Liquid Milk		Bread		Processed Meats		Eating Yogurts	
Size	1&1/2kg	Size	250mg	Size	250mg	Size	175mg	Size	5591mg	Size	5591mg
Positioning	Maternal	Positioning	Children's	Positioning	Maternal	Positioning	Wellness	Positioning	Wellness	Positioning	Wellness
Country	Vietnam	Country	Australia	Country	Spain	Country	Portugal	Country	Japan	Country	Ireland
											
Drinking Yogurts		Cookies/Crackers		Juiloes		Spreads		Eggs		Bars	
Size	150mg	Size	1700mg	Size	450mg	Size	1&1/2kg	Size	500mg	Size	500mg
Positioning	Children's	Positioning	Wellness	Positioning	Spain	Positioning	Health	Positioning	Wellness	Positioning	Wellness
Country	Russia	Country	USA	Country	Norway	Country	Norway	Country	Canada	Country	Australia





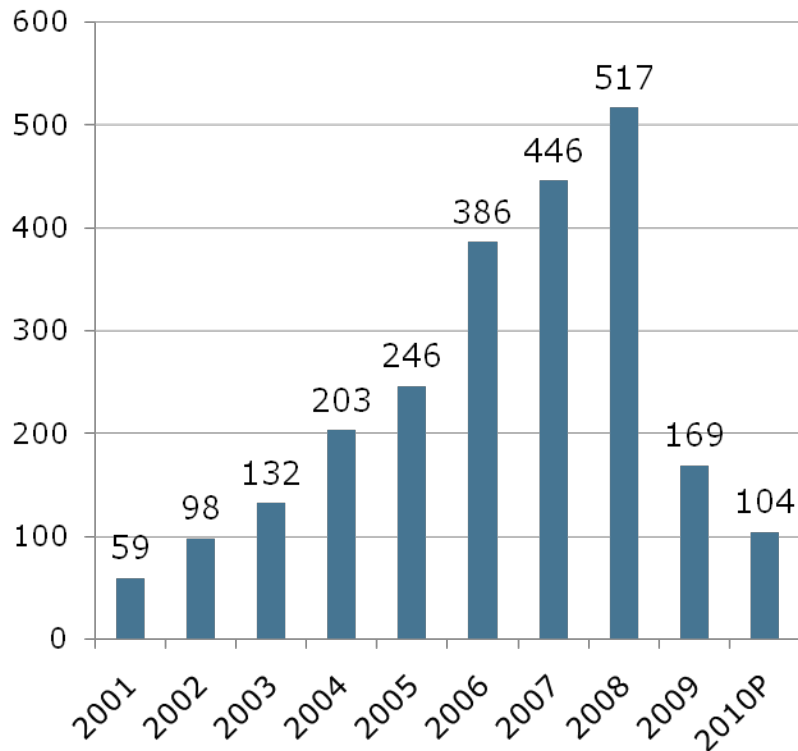
# Mainstream Food Companies Launching New Products

Global EPA/DHA Food Launches in Top 25 Categories, 1992-2009



# Functional food launches have dropped dramatically, but existing products are doing well

EPA and DHA Functional Food Launches



- Economic uncertainty caused new product development to slow to a halt in 2009
- Uncertainty around claims has kept new product projects on hold
- However, top selling products are continuing to grow and steal share from non-fortified counterparts
- Now private label product launches are starting to increase, indicating that n-3 foods are successful overall



# Many foods have reached blockbuster levels of success

Product (Country)	GOED sales estimates (local currencies)	US equivalent sales (adj. for population)
George Weston Tip Top UP Omega-3 Bread (Australia)	AU\$71.4 million	\$1,036 million
Puleva Omega-3 Milk (Spain)	€110 million	\$684 million
Danone Danino yogurts (Canada)	C\$25 million	\$209 million
Maruha Nichiro Foods' Resara Sausages (Japan)	¥6.2 billion	\$185 million
Ajinomoto Mainichi DHA cooking oil (Japan)	¥4.2 billion	\$125 million
Minute Maid Enhanced Juice (United States)	\$100 million	\$100 million
Smart Balance omega-3 spreads (United States)	\$70 million	\$70 million
Whitewave Silk Plus DHA soymilk (United States)	\$65 million	\$65 million
Kagome DHA Yogurt (Japan)	¥2.1 billion	\$63 million
Pharmalologica's Smartfish juice (Norway)	NOK 10 million	\$57 million



*There have been many very successful national products, but as yet not a truly global brand with LCP*



# Media Talk of Omega-3's as Niche Products: Baloney!

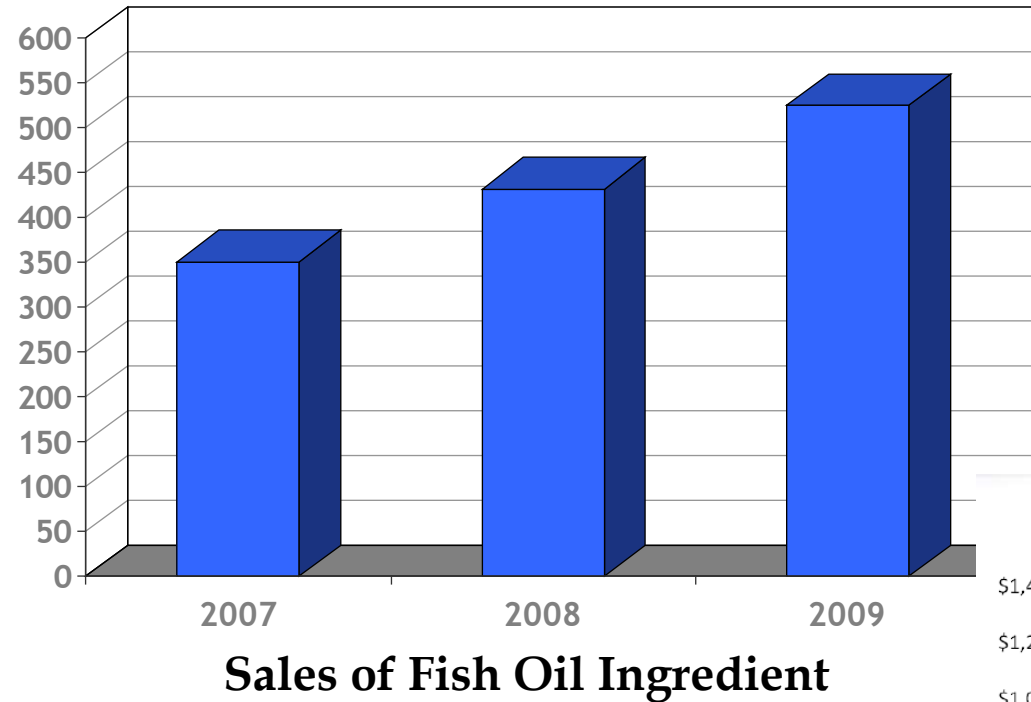
**New Hope 360**

**Promise of omega-3s remains unfulfilled**  
**James Townsend**, Functional Ingredients  
 Oct. 4, 2010 1:00am

Active	Global Revs (RM)	TPA	Discovery	Cost/Kg	Cost/Dose	Essential	RDA	Level
<b>LC PUFA</b>	\$1,300	85,000	HB's 1970's	\$10.00	3-4 c	Qualified Yes	2012?	~500mg.
<b>Vit. C</b>	\$1,400	120,000	1932	\$8.00	0.005c	Yes	1941	60-100mg

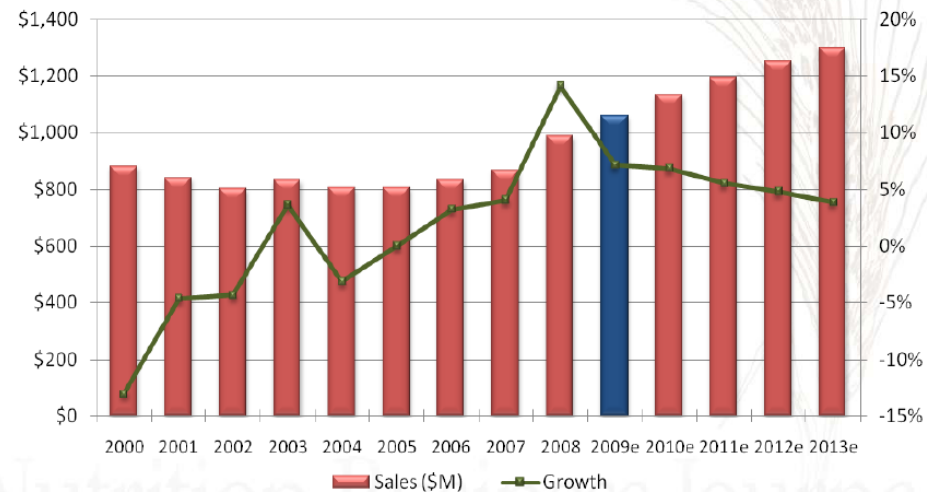


# Sales of Fish Oil Ingredients USA 2007-2009 (\$ Millions) vs. **Total** US Vitamin Ingredient Sales.



US Sales of fish oil as an ingredient, now equal 50% of **TOTAL** vitamins sold as ingredients!

## U.S. Vitamin Raw Material Sales & Growth



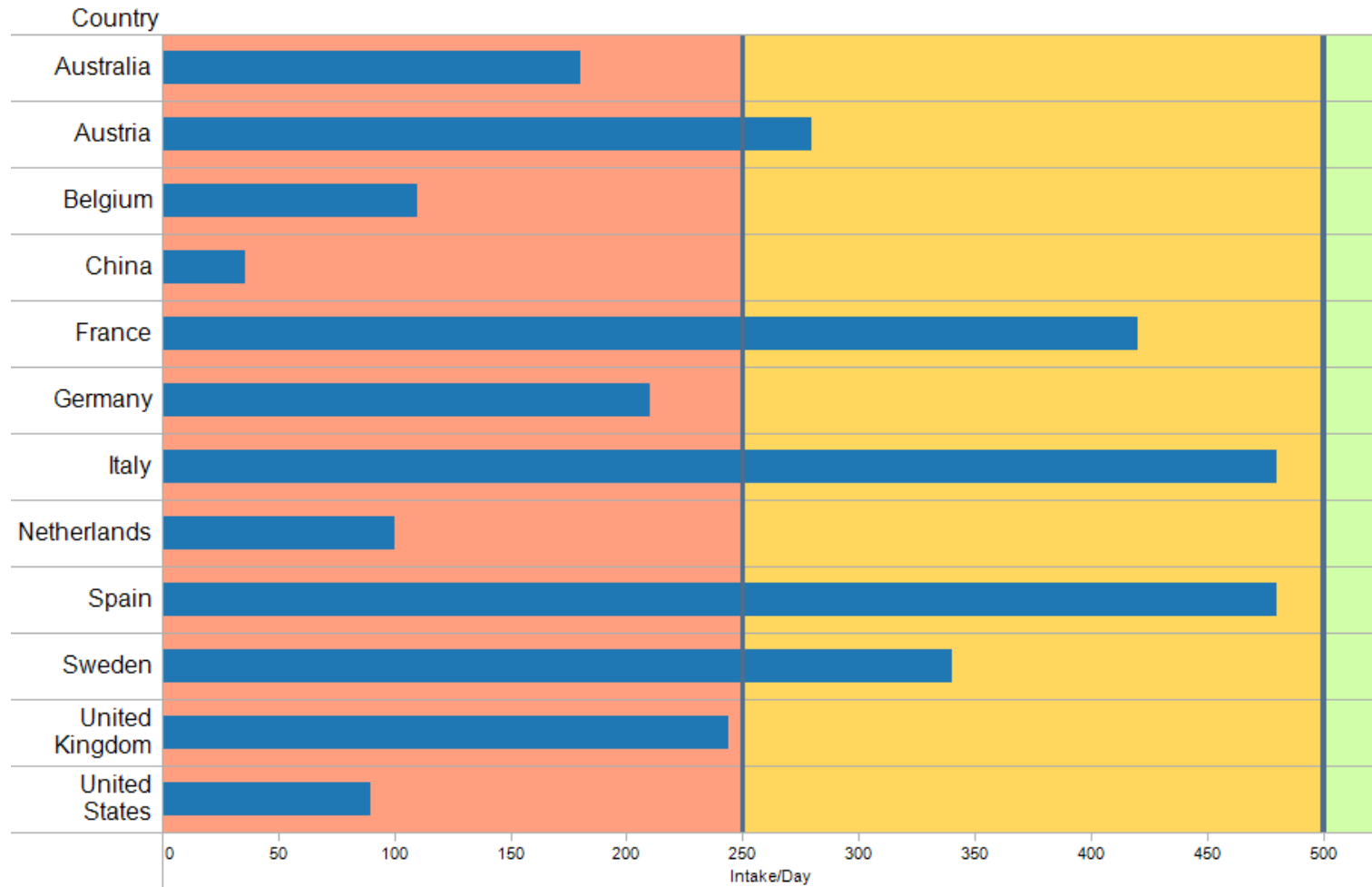
# Personal Perspective: Critical Mass Reached for LC PUFA

- Ability to have a significant impact on individual's health (CVD, infants, cognition)
- Ability to have a significant impact on national health care costs (preventive health)
- Virtually no side effects/risk of use
- Have an easy, cheap blood test for status
- Ability to be in DS, food, pharma deliveries
- Benefit to add health value for food companies
- Growing support globally from Health Pros, NGO's, Gov., academia
- Sustainability, pollution, GMO potential issues



# There is still a major LC Omega-3 deficiency problem in the world today

Average EPA and DHA Intakes Versus International Recommendations



# Key Issues/Success Drivers for Omega-3's

- Government recommendation: **Building**
- Health Claims: **SOME** available US and EFSA
- Health professional support **YES**
- Consumer awareness/confusion (EPA, and ALA, plant oils vs fish oils): **Awareness and use grows**
- Focused messages: **confused consumers**
- Quality/quantity of raw materials: **Yes, but...**
- Taste/stability (RM and food forms): **Solved?**
- Food companies slow to fortify: **Risk averse, costs**





# OMEGA-3 FUNCTIONAL FOOD INDUSTRY

**LEGISLATION/REGULATION**

**CONSUMER AWARENESS**

**FOOD COMPANY IMPETUS**

**MEDIA COVERAGE**

**PROF. INTEREST/SUPPORT**

**SCIENCE DATA-EFFICACY/SAFETY/SUSTAINABILITY**



# Thank you

Ian Newton



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