FOOD FOR HEALTH IRELAND

Disruptive Dairy innovation: Why has it become a necessity for the food industry ?



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Alicante

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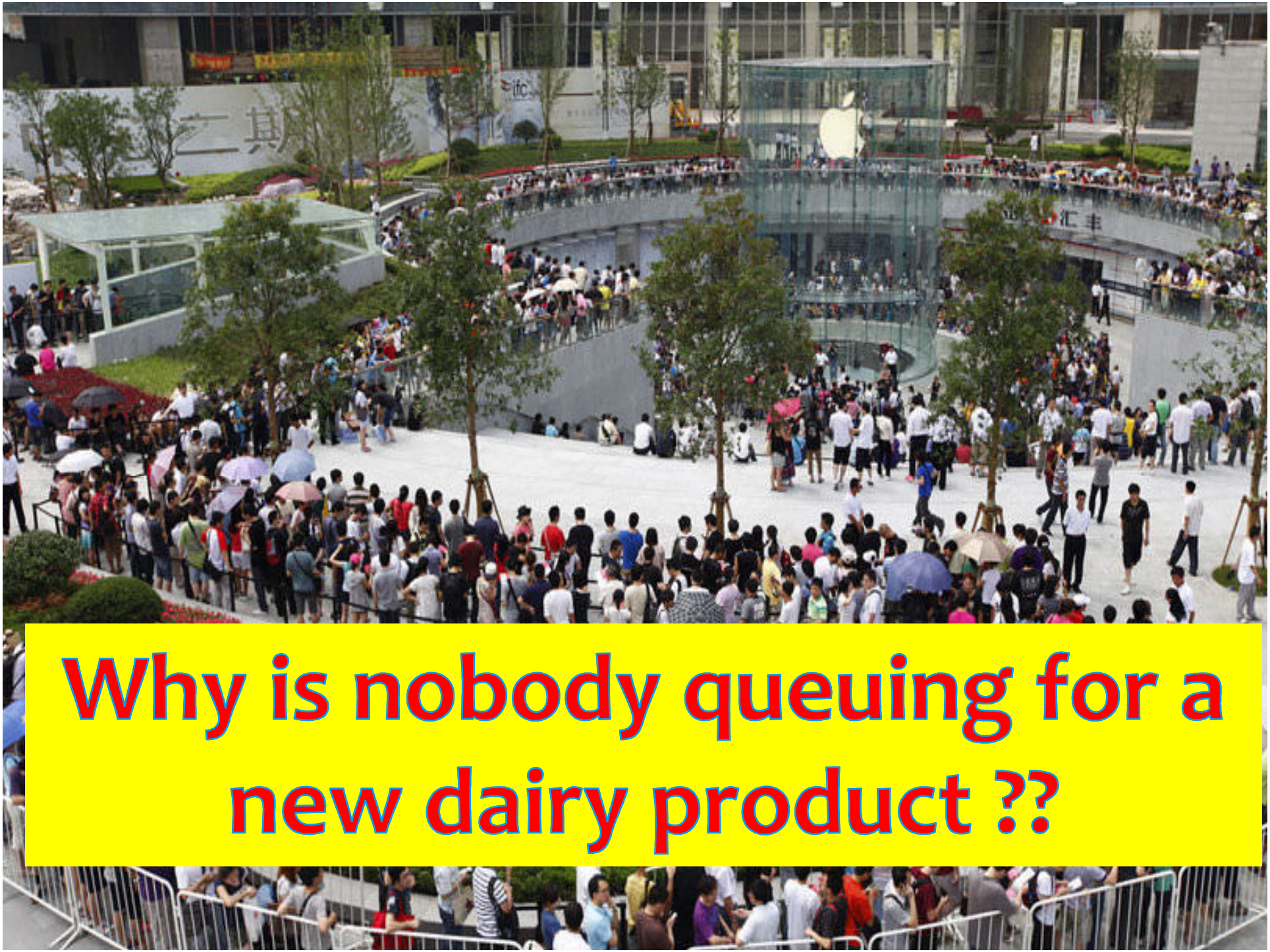
4 topics

1 Dairy innovation : Why is it so difficult ?

2 Formula 1 and the Man on the Moon: Why do we need innovation ?

3 Open innovation: buzz word, reality or necessity ?

4 The partnership model: how could it work ?


Why is nobody queuing for a new dairy product ??



Our reality: food must be cheap.

Dairy innovation is difficult…

- Proving the efficacy of an innovation is more and more difficult, human intervention studies have become standard, EFSA ….
- Cost intensive isolation and enrichment, novel foods, low consumer acceptance
- Taste, convenience, stability, price



Difficult, expensive, uncertain – for the dairy industry

Supported by Enterprise Ireland

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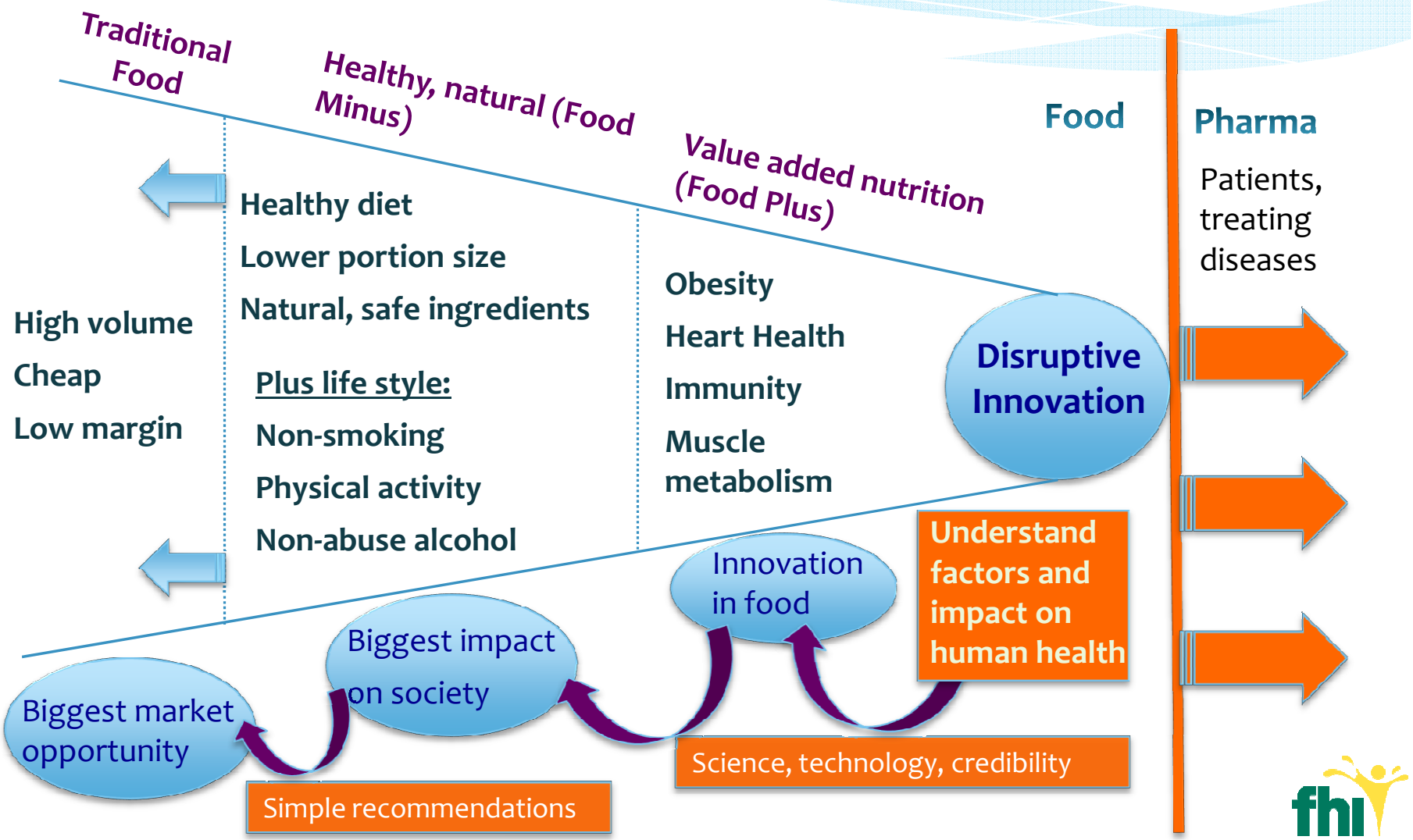
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Man on the moon: Numerous new technologies and life saving capabilities

The role of disruptive innovation

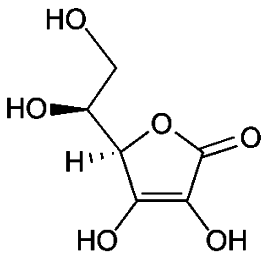


The role of disruptive innovation: examples (1)

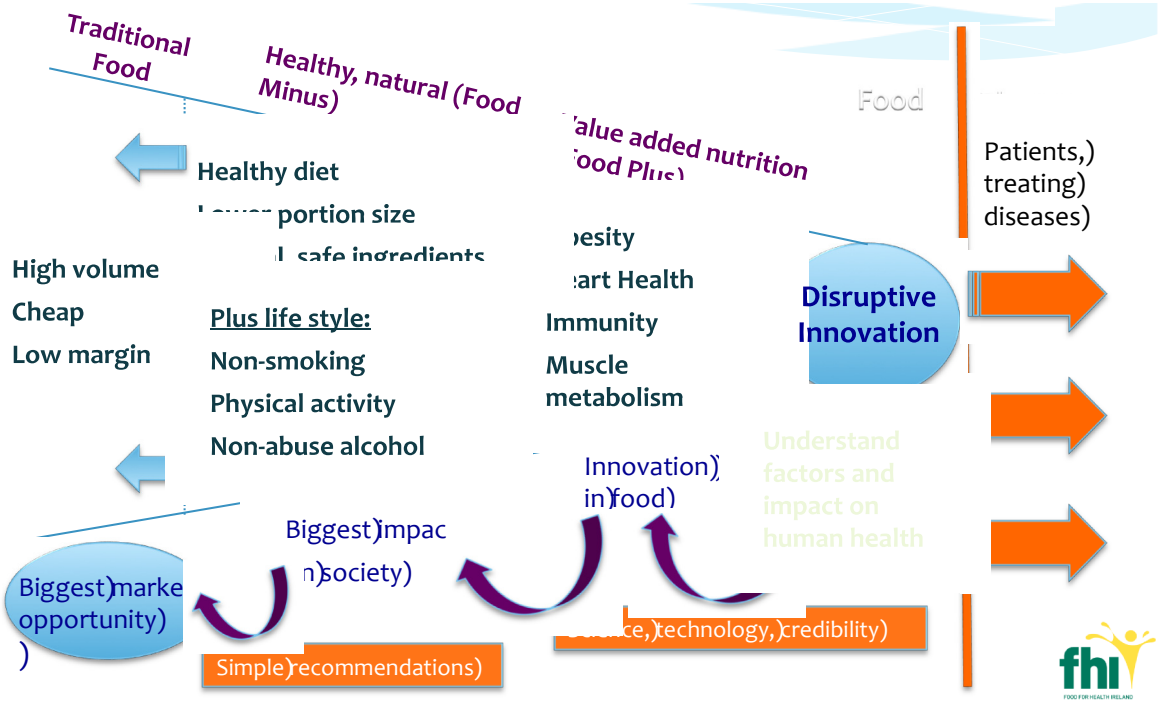


Vitamins:

Isolation and characterization of ascorbic acid in 1928 – EFSA claim today



The role of disruptive innovation: examples (2)



Probiotics

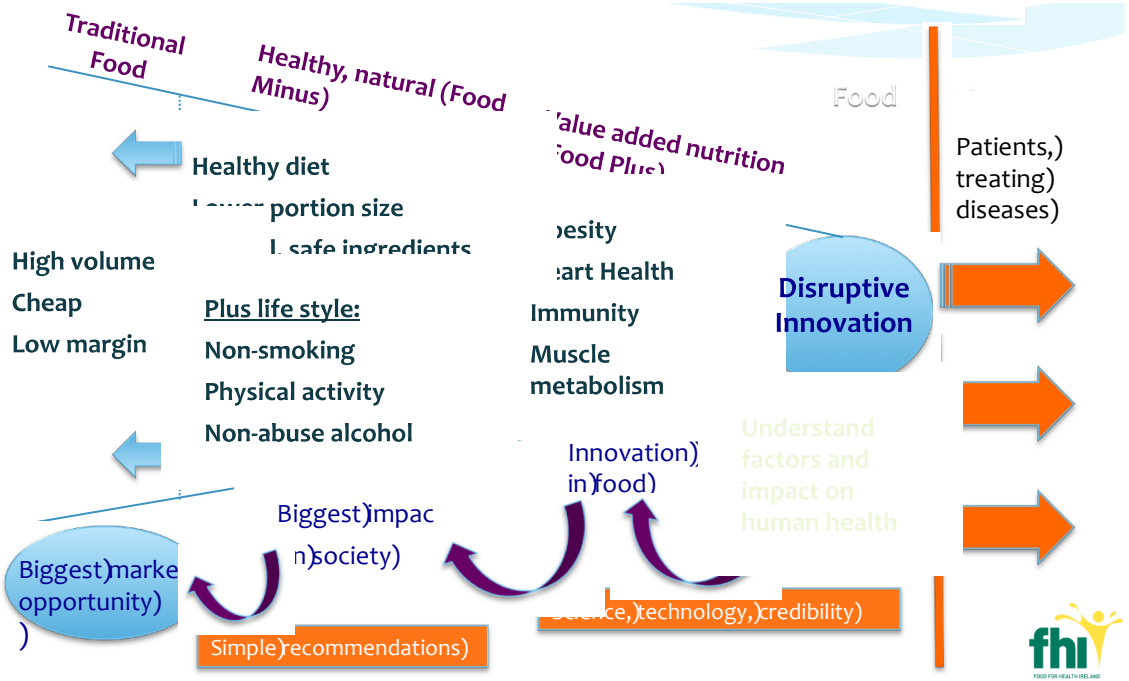
Research on modulation of gut flora beginning 20th century –
private labels with "contains probiotics" claim today





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The role of disruptive innovation: examples (3)



Proteins:

From body builder niche market to mass market understanding





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Vorbild für Effizienz.

Mercedes-Benz
Das Beste oder nichts.

B-Klasse Electric Drive: Stromverbrauch gewichtet: 17,9–16,6 kWh/100 km; CO_2-Emissionen kombiniert: 0 g/km.
S-Klasse 500 PLUG-IN HYBRID: Kraftstoffverbrauch kombiniert: 2,8 l/100 km; CO_2-Emissionen kombiniert: 65 g/km.
Elektr. Energieverbrauch NEFZ nach ECE-R101: 13,5 kWh/100 km.
E-Klasse Limousine: Kraftstoffverbrauch kombiniert: 10,4–3,8 l/100 km; CO_2-Emissionen kombiniert: 242–99 g/km.
C-Klasse T-Modell: Kraftstoffverbrauch kombiniert: 8,6–3,8 l/100 km; CO_2-Emissionen kombiniert: 200–99 g/km.
CLA: Kraftstoffverbrauch kombiniert: 7,1–3,8 l/100 km; CO_2-Emissionen kombiniert: 165–99 g/km.

Anbieter: Daimler AG, Mercedesstraße 137, 70327 Stuttgart



Herzlichen Glückwunsch, Lewis! Du hast den Fahrer-Weltmeistertitel der Formel 1 2014 geholt und mit dem gesamten MERCEDES AMG PETRONAS Formula One Team Geschichte geschrieben. Auf Deinen zweiten WM-Titel, die Konstrukteurs-Weltmeisterschaft und: Wir wollen noch mehr!

Dieter Zetsche

Toto Wolff

And… are consumers willing to spend money for innovative food products ?

Consumers do spend for perceived added value

Energy Standard vs. *Energy innovation*



US$ 2.19 / L



US$ 41.25 / L

Standard multivitamin juice vs. *100 % natural superfruit juice*

€ 0.68 / L





€ 6.82 / L

Apple vs. *healthy convenient snack*



€ 0.20 / apple



€ 0.99 / bag

…. and also for added health benefits

Standard vs.
Strengthens the resistance





€ 0.84 / L

€ 4.48 / L

Standard vs. *helps to minimize blood sugar spikes*

$ 2.19 / L





$ 7.05 / L

Standard vs.
Weight control

$ 9.21 / kilo





€ 28.16 / kilo

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Open innovation: buzz word or reality ?

1. Without innovation, no company can create sustainable value, nor become nr. 1
2. A big R&D department is not a guarantee for successful innovation
3. Innovation is globally connected, very diverse and very fast
4. No single company can be a leader in all R&D / innovation areas that are relevant for market success



The future:

Dedicated experts in a market driven company that connect the leading institutes, universities, companies, professionals and funding agencies

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What is FHI?

- **Partnership between:**
  - Public Research Organizations
  - Irish food industry
- **Funded by**
  - Enterprise Ireland and Industry partners
  - Budget € 19,2 mio plus in-kind contributions
  - Second 5-year term, since September 2013
- **Industry-led research agenda:**
  - Research on functionality of milk components
  - Infant nutrition, glycemic management, appetite modulation, healthy ageing, healthy cheeses, technology
  - Strong market position of industry partner

FHI combines world-class science and industry expertise to improve health, wellness and quality of life through innovation in food

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FHI results so far

Infants



" Hypoallergenic weaning food for infants with cow's milk protein allergy"

Toddlers



" Nutritionally tailored milk for toddlers that tastes just like regular milk"

Seniors

"Nutrient mix that increases lean tissue mass for healthy ageing"



Diabetics / Obese



"Helps regulate blood glucose levels post food consumption"

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Current FHI Research:

Science behind Origin Green marketing campaign:

Why is milk from Irish green grass fed cows better ?



Current FHI Research:
Healthy cheese

Key points

1. The dairy industry must generate disruptive innovations to create future sustainable value

2. Disruptive innovation is difficult, uncertain and expensive – but without alternative

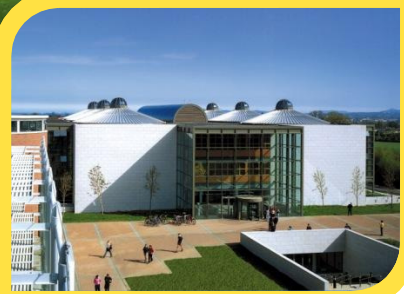
3. Open innovation models may help to access disruptive innovation from very different sources

4. Food for Health Ireland is a gateway to Irish academic institutions, providing disruptive innovation from research on milk















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