



GoodMills
Innovation



Plant-based texturates by GoodMills Innovation: The “meat” of tomorrow and its drivers

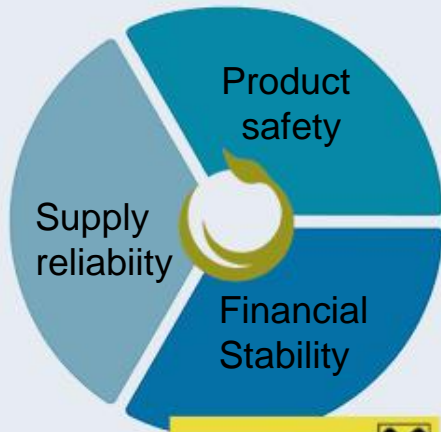
Agenda

No.	Topic
1	Hello and Moin – We are GoodMills Innovation
2	Identify – Market and Consumer Insights: The Scandic Market / Finland
4	VITATEX - Portfolio
5	Appendix

Our Three Pillars of Success

We combine knowledge, experience and regional roots.

Secure



Raiffeisen

GoodMills Group

Experienced



7
CORE COUNTRIES



24
MILLS



1.600
MEMBERS
OF STAFF



2.900.000 t
MILLED
PRODUCTS



850.000.000 €
TURNOVER

Innovative



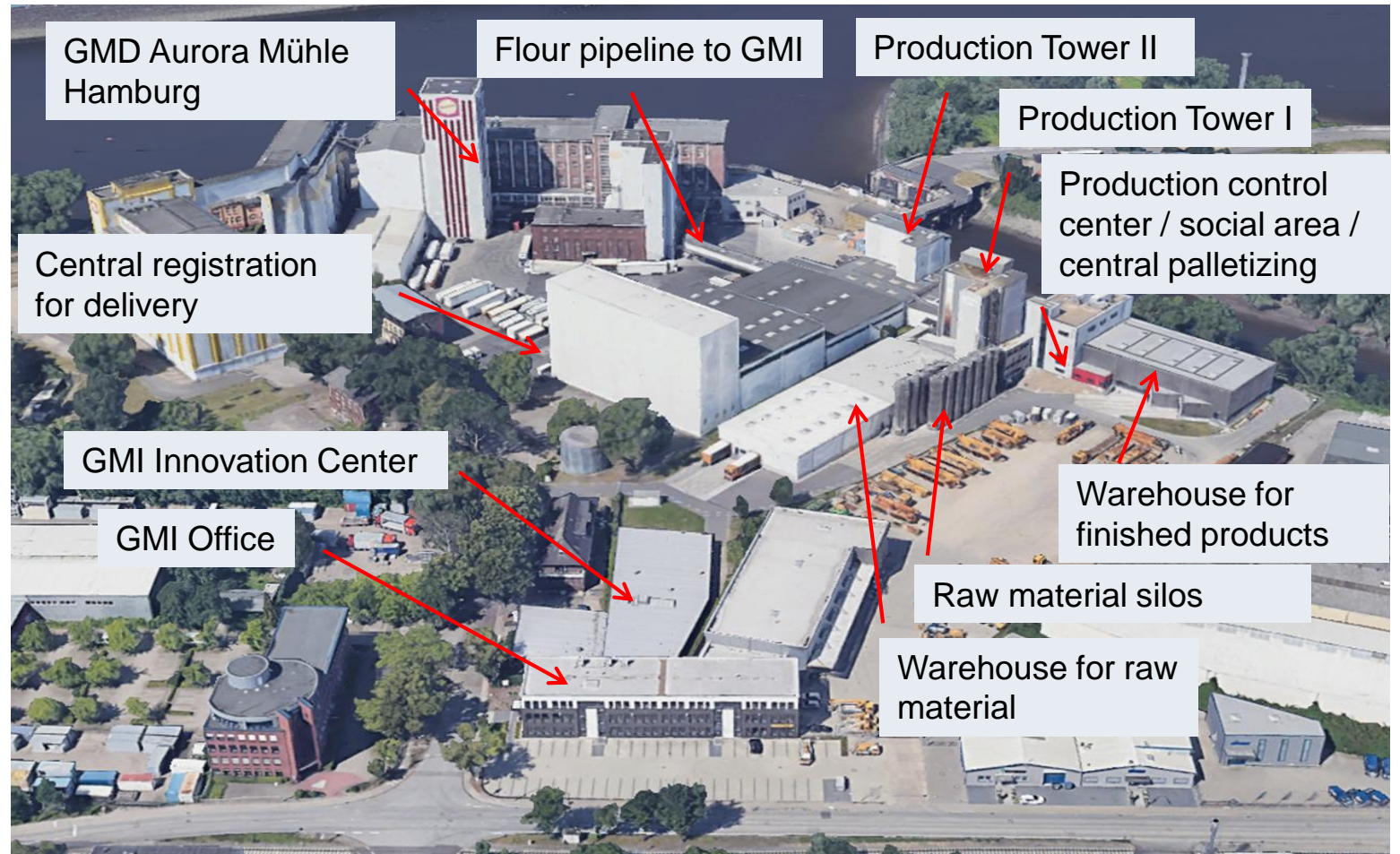
GoodMills
Innovation

GoodMills

Innovation Campus Hamburg

One area, many facilities

The Campus Hamburg offers all modern facilities for great innovation.



Innovation Campus Hamburg

Short Distances- solution development & manufacturing- Investment into the Future

Combining Insights &
Application



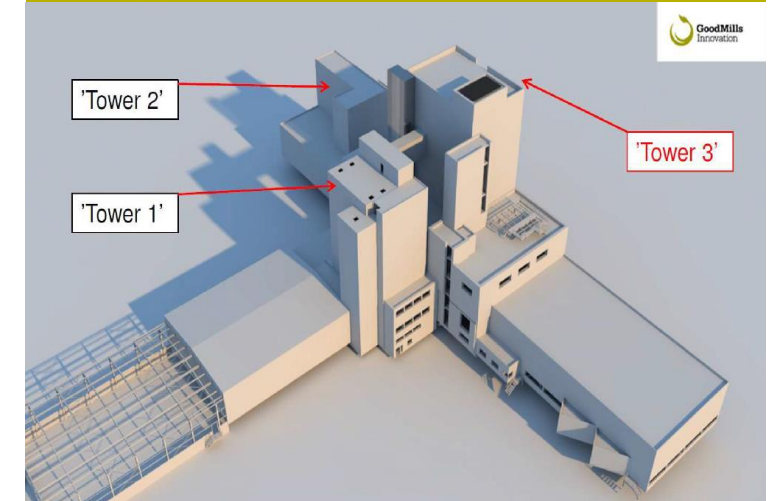
180
Employees

GoodMills
Innovation Center



Ingredient performance thru
multiple refinement processing
options

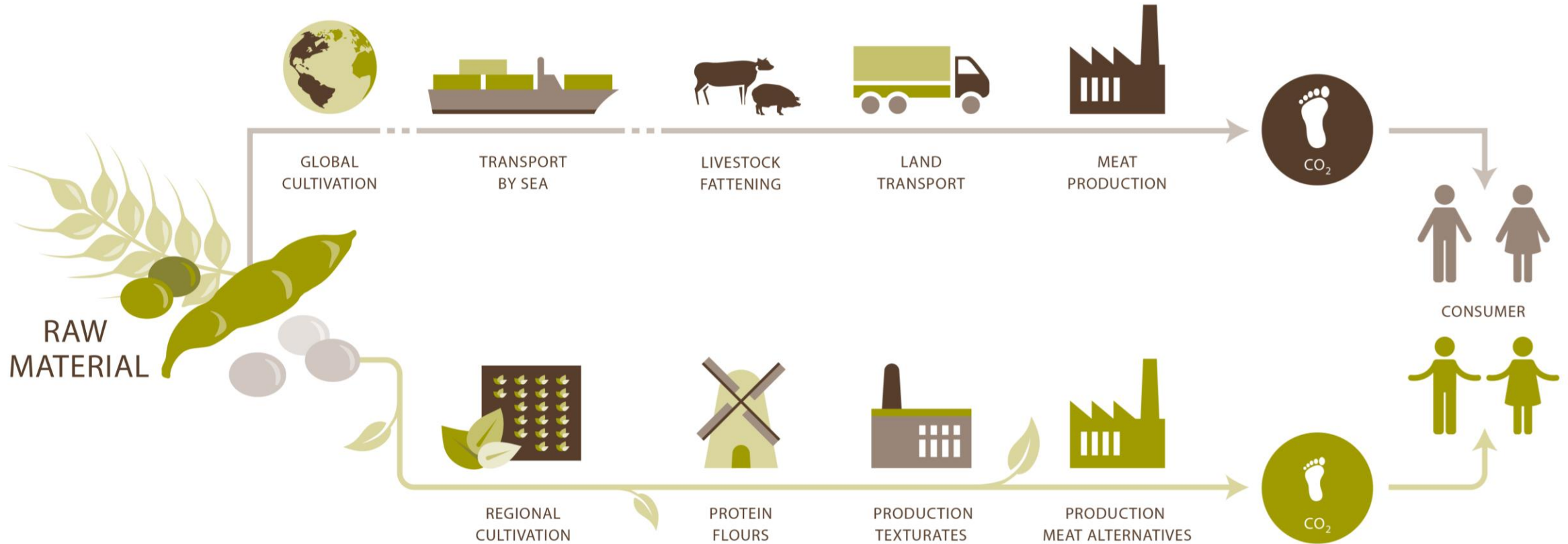
NEW INVESTMENT
Made in Germany for short
chains



Double Digit
Growth Rate

For a Healthy Planet - Think Globally, Act Locally

A resource-efficient & sustainable supply chain for healthier nutrition.



Our Markets

Consumer, Brands & Market-Specific Solutions

Plant-based



Bakery's and
Handcraft Tarde



Snacks



Industrial Bakery



Strong Partners for the Best Results

Our results are driven by science and based on cooperation.

Universities & Institutes



Associations



Health



Innovation





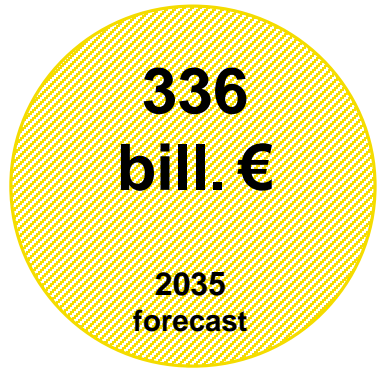
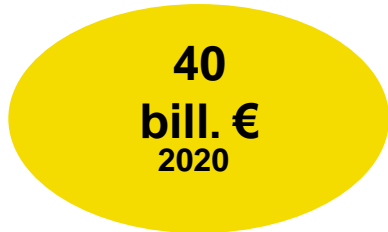
Identify

A global phenomenon & „the new normal“

CAGR in Europe until 2030
Source: BCG, Blue Horizon 2021



Global turnover alternative protein
Source: BCG, Blue Horizon 2021



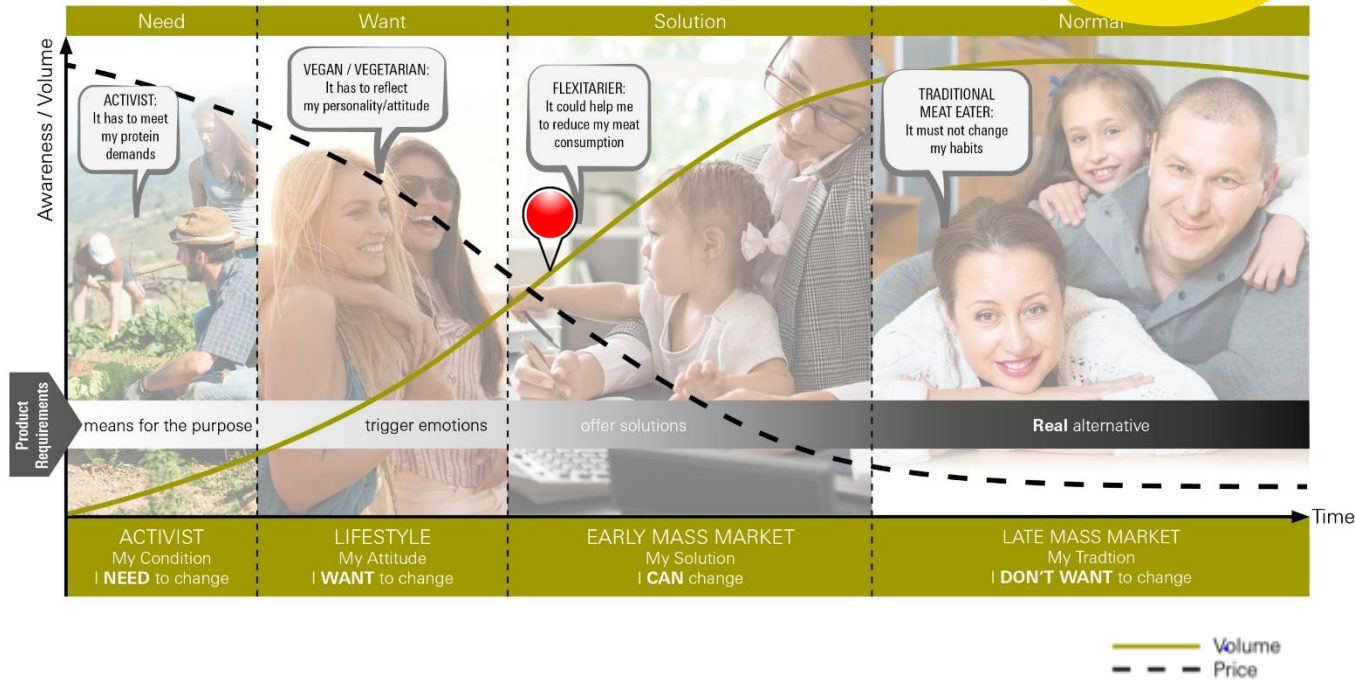
“ *Plant-based eating has continued to evolve, reaching not just mainstream but what might even be described as global phenomenon status.* ”

Source: Innova Market Trends 2021

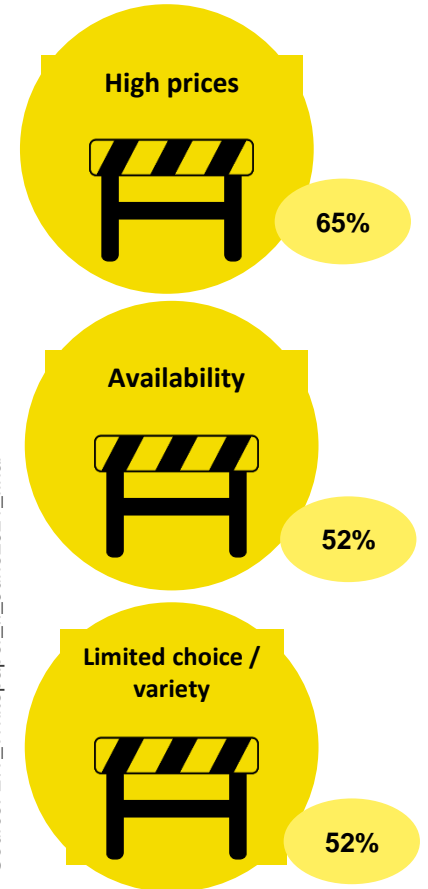
1 out of 4 consumers intends to consume plant-based meat.

Evolution of Plant-based Meat

Source: Wennström, Four Factor of Success



Barriers of growth

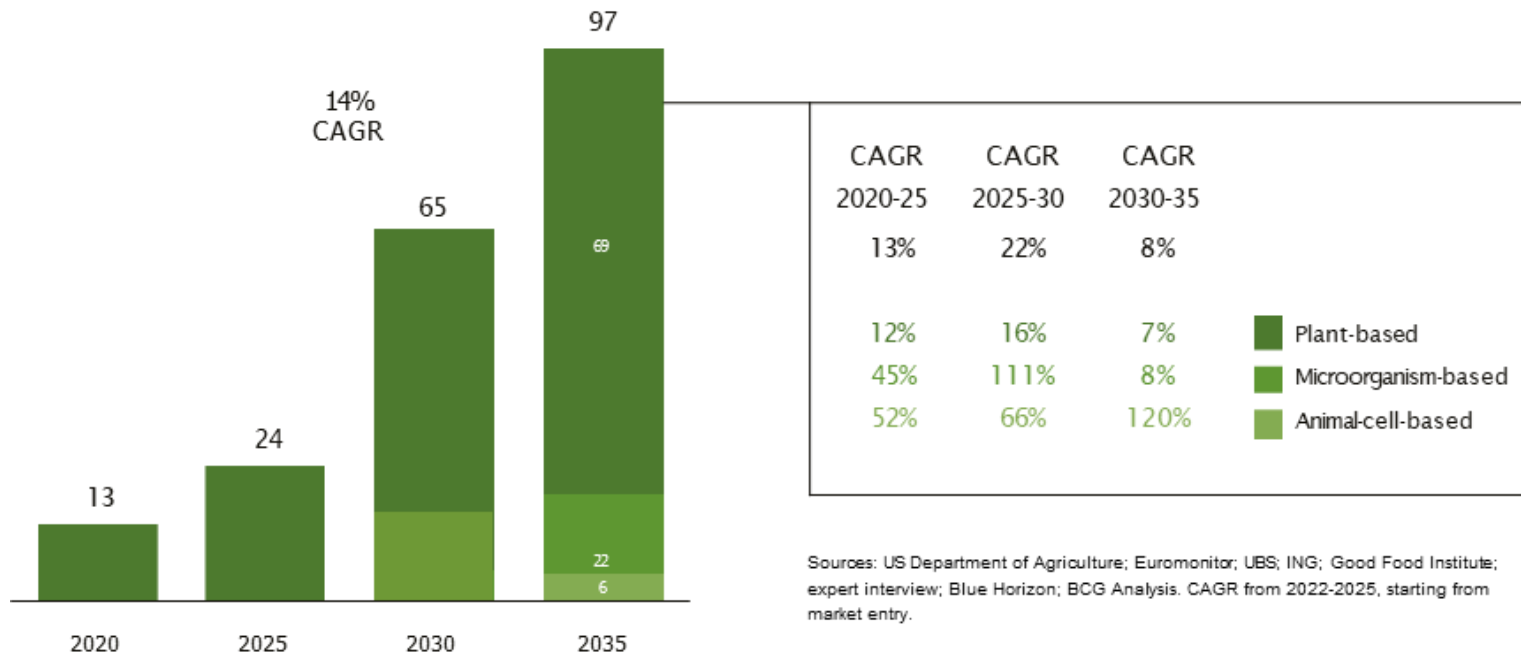


Source: EIT_ Whitepaper_II_June2021_final

Plant-Based: Unlocking a New Narrative

Consumers still want to see improvements in taste and texture, but there is a huge appetite for culinary creativity and worldwide flavor profiles

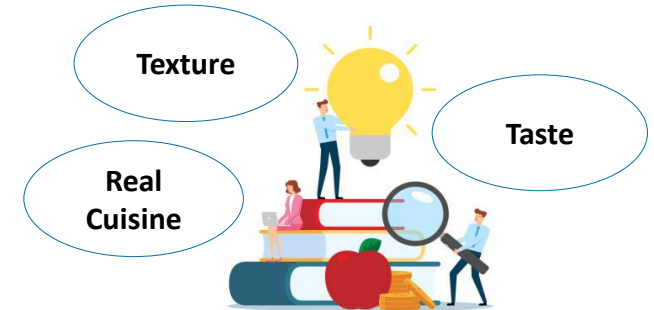
Alternative protein consumption will grow in three waves:



Sources: US Department of Agriculture; Euromonitor; UBS; ING; Good Food Institute; expert interview; Blue Horizon; BCG Analysis. CAGR from 2022-2025, starting from market entry.

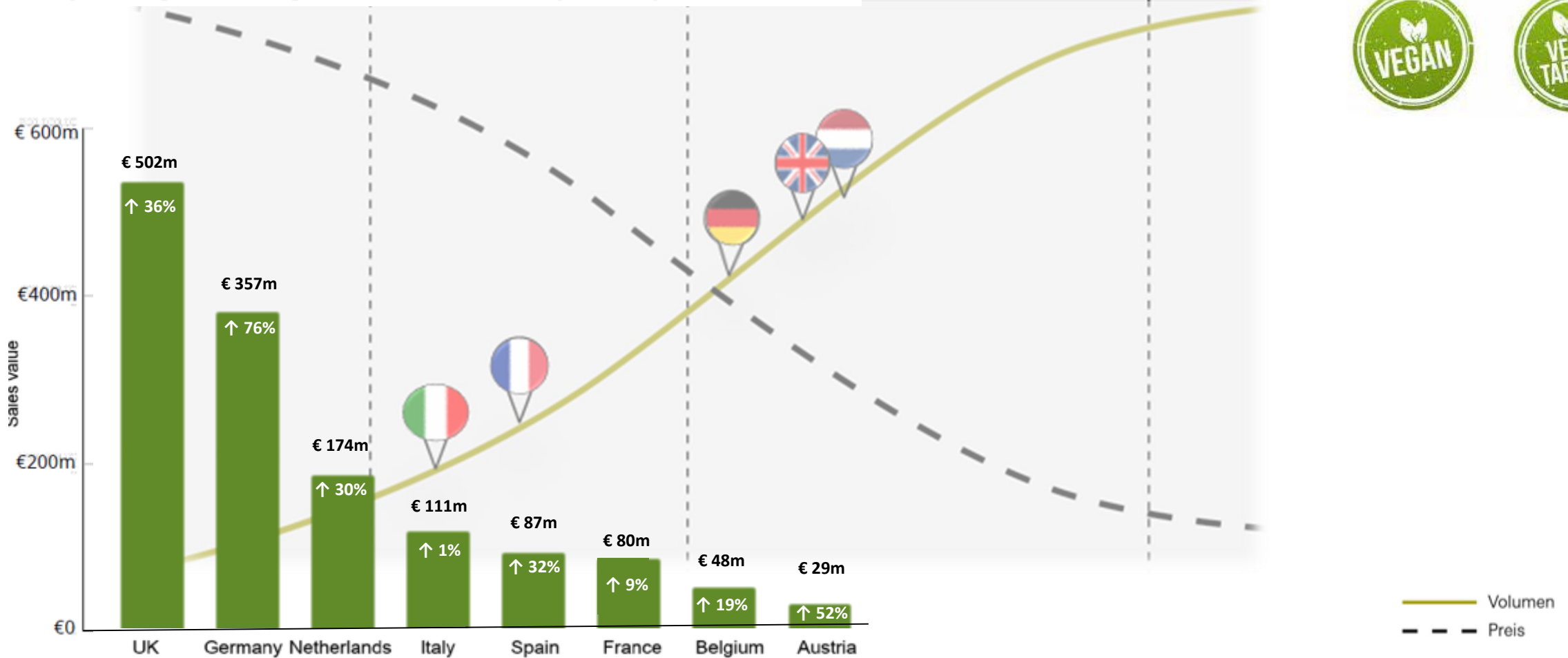
2/3 of the consumers want to try plant-based versions of traditional, local cuisines

Source: Innova's global survey



Comparison of sales of plant-based meat alternatives in European markets

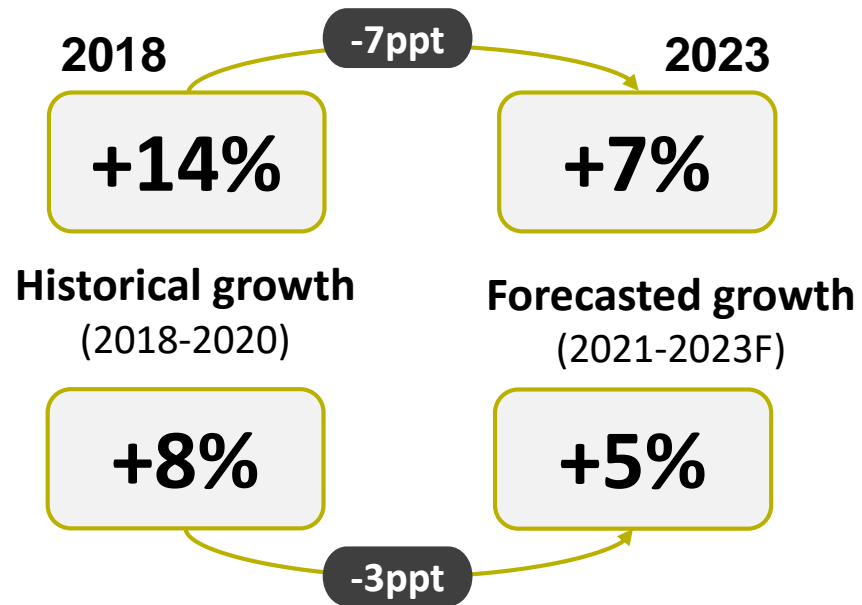
European vegan- and vegetarian-meat sector, by country, for MAT 2020*



*Total market incl. discounters, AU+BE+DK+FR+GER+IT+NL+RO+SP+UK, sales value in € and growth rates, plant-based (vegan and vegetarian) meat by country, MAT Sep/Oct (between CW39 and CW42 depending on country) 2020.

Unlocking a New Narrative

Underused ingredients and technology-enabled new formats open up wider spaces for standalone plant-based innovation



Game changers:

- 1. Improved flavor
 - 2. Improved texture
 - 3. **Standalone products (not mimicking meat/dairy)**
 - 4. More regional specialties
- higher ranking ↑
- 6. Better mimicking of meat/dairy products
- lower ranking ↓

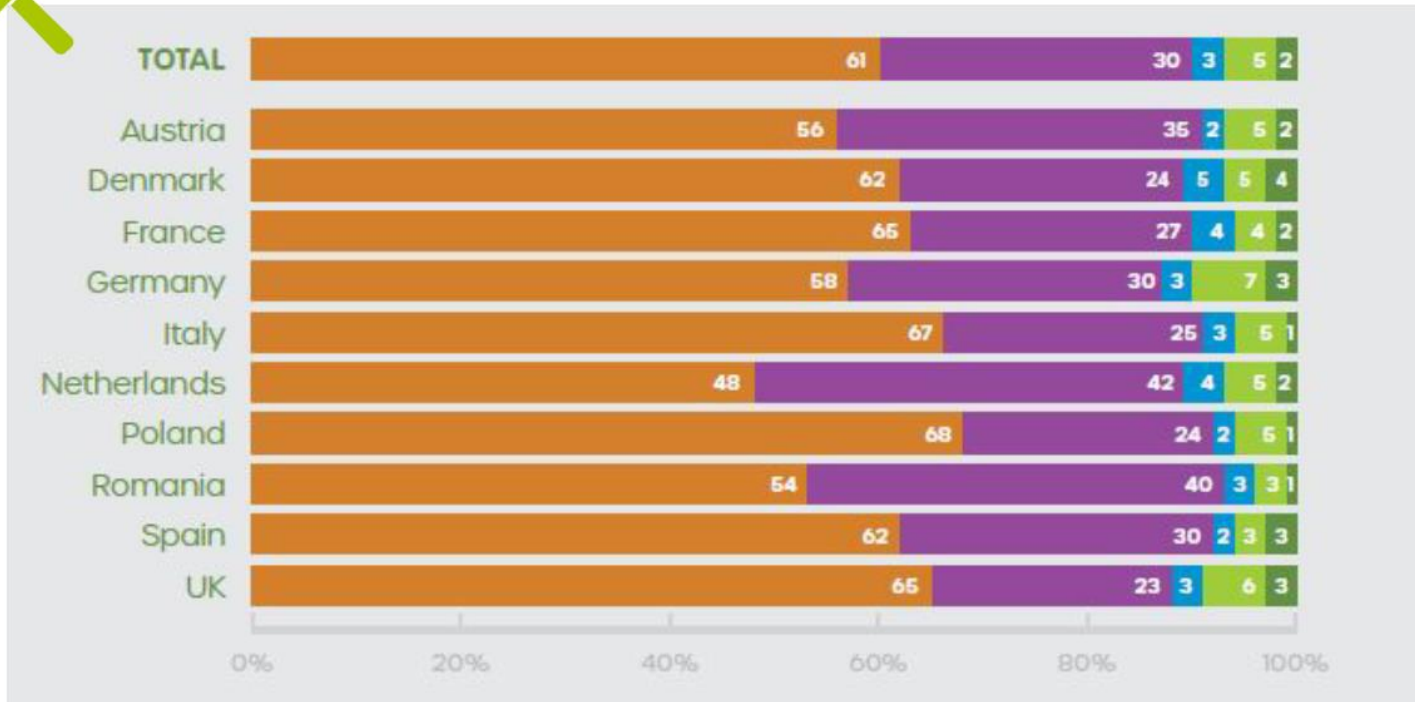
To Sum up:

The new normal...following a plant-based diet

Following a flexitarian or plant-based diet is the new normal



Dietary lifestyle by country



- **Omnivore**
(I frequently eat meat, such as beef, pork, chicken, turkey, fish and/or shellfish)
- **Flexitarian**
(I sometimes eat meat, but I am trying to reduce my meat consumption and often choose plant-based foods instead)
- **Pescetarian**
(I eat fish and/or shellfish, but no other types of meat)
- **Vegetarian**
(I don't eat meat and fish of any kind, but I do eat eggs and/or dairy products)
- **Vegan**
(I don't eat meat, fish, eggs, dairy products, or any other animal-based ingredients)

Questions: Which category best describes your current dietary lifestyle? | Single selection

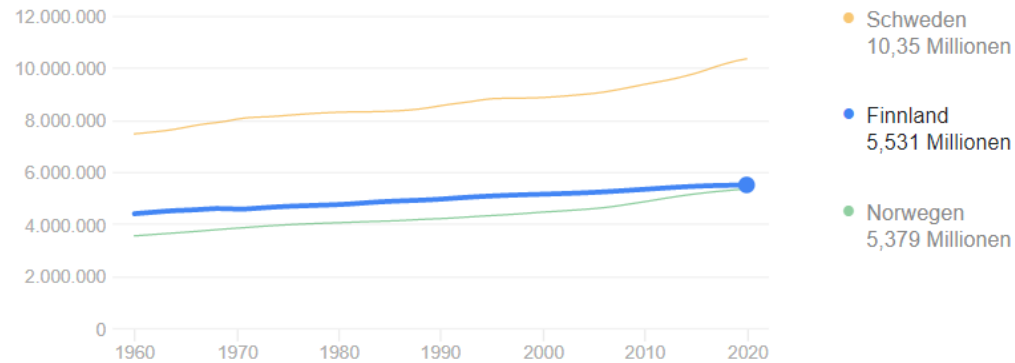


Finland

Consumer Insights: considerative consumption and good-conscience choices

Finnland / Bevölkerung

5,531 Millionen (2020)



Quellen: Weltbank

Feedback geben

PROFILE PEEKS

17% of Finns
describe themselves as
flexitarians

Age	Gender	Family situation
18-29	Female	Single and have no children living at home
22% vs 18% of nation	56% vs 51% of nation	35% vs 31% of nation

Attitudes agreed with

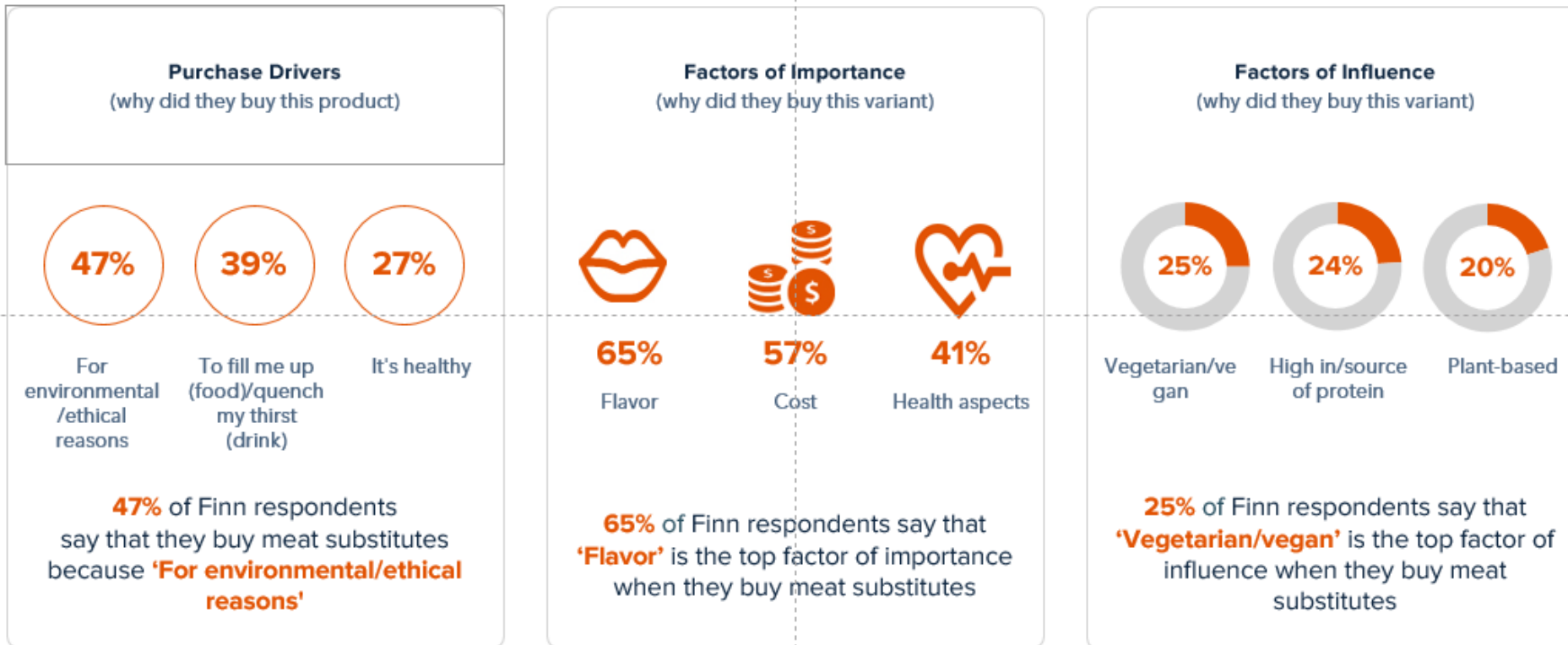


General Interests



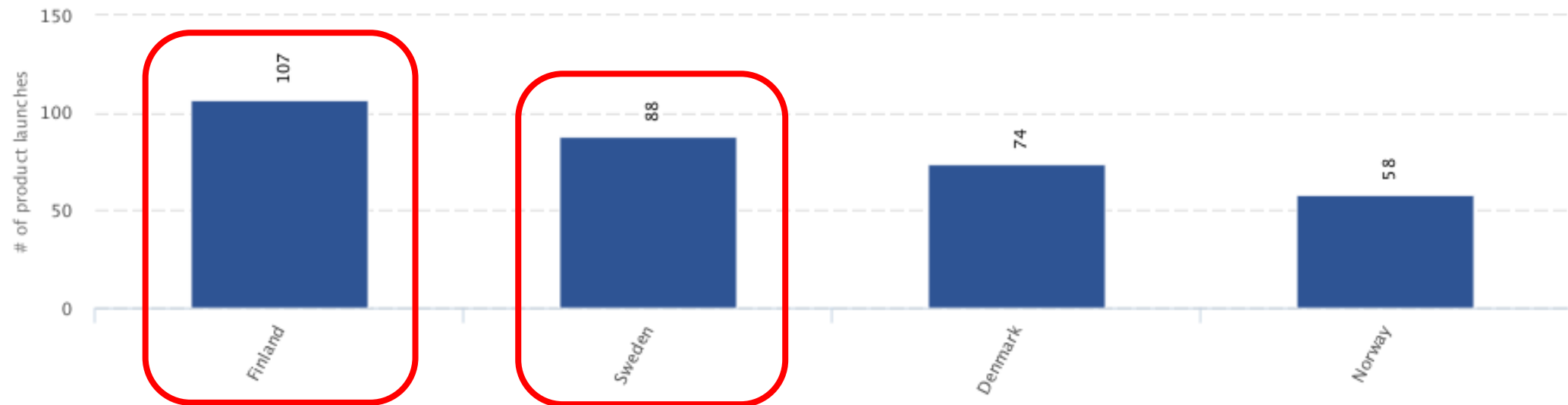
Consumer Insights:

47% buy meat-substitutes for environmental reasons



Category Insights: New product launches

New product launches Plant Based Meat Sep 2019-Sep 2021



Key Findings Finland



Various protein sources are used for plant-based meat: wheat, pea, beans, milk, oats, grains.



Already in 2020, Finland has invested €2.1M to create globally competitive plant protein based foods (Partners for e.g.: Apeit & Avena Nordic Grain, Compass Group Suomi, Fazer.)



National players are dominating the market.



17% of the Finns describe themselves as flexitarians. Considerate consumption affects the everyday choices of 38% of Finns. 47% buy meat-substitutes for environmental reasons.



Challenges: High interest in locally produced food; transport costs might be a barrier; limited market knowledge & contacts



Opportunity: To work with strong partners in a strongly growing market



Product Portfolio

Diverse Product Portfolio

- Vitatex
- Wheatmeat
- Compounds
- Vegan Snack Mix
- Pulses



VITATEX® Sustainable Vegetable Proteins



The right texture for a better world

Good Decision

At a glance

- Easy processing
- Low saturated fat content
- Non-GMO
- Clean Label
- Extensive application expertise

What`s in it

- Different types and sizes:
- Textured **wheat** protein
 - Textured pea protein
 - Textured **soy** protein

About

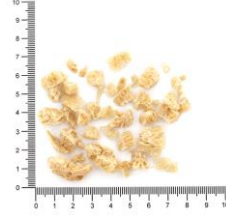
VITATEX® sustainable protein texturates from wheat, peas and soy for plant-based meat and fish alternatives with great taste and authentic texture. Also suitable for hybrid products and fillings.

Benefits

- Rich in Protein
- 100% plant-based
- Cholesterol free
- Low sodium
- Low saturated fat content



VITATEX[®] Attributes



Wheat Flakes SVP
Wheat Flakes

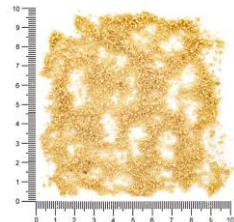
Pea Flakes SVP

Soy Chunks XL

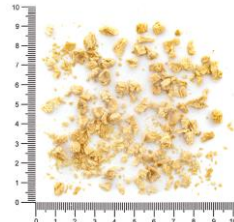
Soy Flakes

Granulation	pending	pending	0-8 mm max. 8 % 8-25 mm max. 14 % >25 mm max. 82 %	< 1 mm max. 7 % 1-3 mm max. 35 % 3-5 mm min. 40 % > 5 mm max. 45 %
Bulk Weight	approx. 0.17 g/ml	approx. 0.1 g/ml	approx. 0.20 g/ml	approx. 0.22 g/ml
Shelf Life	15 months	15 months	18 months	18 months
Water intake	approx. 3 - fold	approx. 3 - fold	approx. 3 - fold	approx. 3 - fold

WHEATMEAT® Attributes



DS65



GDS 65



FLAKES FP 76



FLAKES 4080

Granulation	< 0.18 mm	< 5 mm	< 7 mm	< 10 mm
Applications	Sausages, pasty, kebab, fillings for noodles, snacks, baked goods	Sausages, pasty, kebab, fillings for noodles, snacks, baked goods	Bolognese, burger, kebab, Pizza toppings, fillings for snacks or baked goods	Patties, corned beef (cans), kebab, burger, toppings for Pizza
Packaging	20 kg paper bag on a 720 kg pallet or Big Bag 600 kg	15 kg paper bag on a 450 kg pallet	12,5 kg plastic bag on a 375 kg pallet	10 kg plastic bag on a 300 kg pallet

Meat Alternatives are taste driven

Good Compounds

Meat Ball

Chicken (Nugget)

Beef Burger

Pork Schnitzel

Tuna



Variaty in the Veganen Snack Sektor

Vegan Snack Mix – One Product – endless applications



Vegan Savoury Options

Vegan Sausages Roll



Vegan Mediterranean Twister



Piquancy Skewers



Vegan Yeast Pastries



Vegan Patties



Vegan Mediterranean Patties



Veganer Snack Mix

Compound / 100% Solution

Ingredients:

Texturized wheat protein (wheat protein, wheat flour), thickening agent methylcellulose, pea fiber, salt, vegetable oil (rape seed), starch (corn), yeast extract, roasted malt (**barley**), onion powder, garlic, pepper, colouring food beetroot extract, acidifier (citron acid).

Application:

- Vegan burger or meatballs for snack products

Basic recipe:

VITATEX Vegan-Snack-Mix	330 g
water	570 g
vegetable oil	100 g
<hr/>	
ready-to-use mass	1000 g



VITATEX® Vegan Snack-Mix

Meat-free – and loving it



Good Decision

At a glance

- A juicy bite and authentic meat flavour
- The innovative all-rounder for burgers, balls, small skewers, or pastry and snack fillings
- Efficient handling: can be safely frozen in raw or baked state

What`s in it

Ingredients: Texturized wheat protein (wheat protein, wheat flour), methylcellulose, pea fiber, salt, vegetable oil (rape seed), starch (corn), yeast extract, roasted malt (**barley**), onion powder, garlic, pepper, colouring food beetroot extract, acidifier (citron acid).

About

Plant-based meat alternatives are becoming popular. Gone are the days when they were a niche product, and their attraction will continue to grow rapidly over the next few years.

Benefits

- Rich in Protein
- 100% plant-based
- Simple yet individual preparation, just add oil and water, mix well and „refine“ as desired.
- No artificial colouring
- Soy free



Pulses

Integrating the raw material expertise of



pairing with application skills



PRODUCTS



FavaBean Chickpea RedLentil YellowPea

✓ Protein: 20 – 30 %



FavaBean Chickpea RedLentil YellowPea

✓ Protein: 40 – 65 %



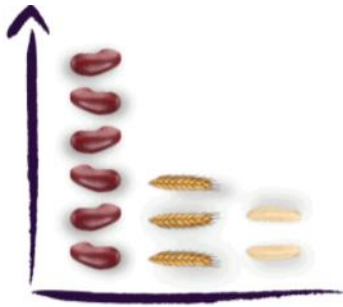
FavaBean Chickpea RedLentil YellowPea

✓ Balanced protein-starch ratio

Müllers Mühle

Drivers of the demand... Are all meat by our Pulses

Vegetable source of protein



doppelt so viel wie Weizen
dreimal so viel wie Reis

Nutritional and Physiological benefits

gut für den Blutzuckerspiegel
dank komplexer Kohlenhydrate



reich an Ballaststoffen



Bohnen **16g** /100g Weizen **10g** /100g

Low water consumption



Rindfleisch: 1 kg / **13.000 L**

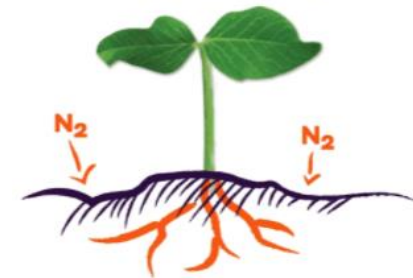


Linsen: 1 kg / **1.250 L**

> Quelle FAO (Angaben von 2016)

Increase soil fertility

benötigen keinen Dünger



binden Stickstoff aus der Luft und
fixieren ihn im Boden

Müllers Mühle

Focus Segmente

Meat Alternatives



Dairy Alternatives



Snacks



Bakery



Pasta



Pet Care



SMART Pulses Pro

Functional, sustainable, healthy, universally applicable



Good Decision

At a glance

- High protein flours
- Air separation
- Rich in minerals and vitamins
- Low glycemic index for a long-lasting satiety
- Sustainable and environmentally friendly production

What`s in it

High protein flour from: Chickpea / Fava Bean / Red Lentil / Yellow Pea

Dosage: Depends om application

About

SMART Pro pulses functional wind-sifted legume flours from chickpea, fava bean, red lentil and yellow pea for plant-based products with good taste and unsurpassed positive image as a high source of vegetable protein.

Benefits

- Clean Label
- Rich in Protein
- 100% plant-based
- Non-GMO
- Allergen-free at source



SMART Pulses

Functional, sustainable, healthy, universally applicable



Good Decision

At a glance

- Native pulses
- Naturally high protein content
- Optimization of the nutritional profile
- Low glycemic index for a long-lasting satiety

What`s in it

Native pulse flour from: Chickpea / Fava Bean / Red Lentil / Yellow Pea

Dosage: Depends om application

About

SMART Pulses functional native legume flours from chickpea, fava bean, red lentil and yellow pea for plant-based products with good taste and unsurpassed positive image as a source of vegetable protein.

Benefits

- Clean Label
- Rich in protein
- Rich in minerals and vitamins
- 100% plant-based
- Non-GMO
- Allergen-free at source



PURAFARIN Pulses

Add value to your products with pulses



Good Decision

At a glance

- Texture improver for baked goods, snacks, pasta
- Vegetable source of protein
- Rich in minerals and vitamins
- Low glycemic index for a long-lasting satiety

What` s in it

Native pulse flour from: Chickpea / Fava Bean / Red Lentil / Yellow Pea

Dosage: Depends on application

About

PURAFARIN pulses functional wind-sifted legume flours from chickpea, fava bean, red lentil and yellow pea for plant-based products with good taste and unsurpassed positive image as a vegetable ingredient.

Benefits

- Neutral taste
- Clean Label
- 100% Plant-Based
- Allergen-free at source
- Non-GMO



Let's Try the Applications!



Thank you for your attention & feel free to reach out at any time



GoodMills Innovation

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